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QUARTERLY BASEWIDE GROUNDWATER REPORT
VERIFICATION SAMPLING AND ANALYSIS – SUMMER 2001
FOURTH QUARTER
NASA CROWS LANDING FLIGHT FACILITY
CROWS LANDING, CALIFORNIA

Environmental Remedial Action
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Acronyms and Abbreviations

APCL	Applied Physics and Chemistry Laboratory
APPL	Agriculture and Priority Pollutant Laboratory
CAM 17	California Assessment Manual 17
EDB	ethylene dibromide
EPA	United States Environmental Protection Agency
Facility	NASA Crows Landing Flight Facility
ft bgs	feet below ground surface
HRC™	Hydrogen Compound Release™
IRP	Installation Restoration Program
IT	IT Corporation
J	estimated concentration
LCS	laboratory control spikes
MS	matrix spike
MSD	matrix spike duplicates
MTBE	methyl-tert butyl ether
NASA	National Aeronautics Space Administration
NFESC	Naval Facilities Engineering Services Center
%D	percent difference
QC	quality control
RPD	relative percent difference
RRF	relative response factor
SAP	Sampling and Analysis Plan
SDG	sample delivery group
TPH	total petroleum hydrocarbons
TtEMI	Tetra Tech EM Inc.
U	not detected
USACE	United States Army Corps of Engineers
UST	underground storage tank
VOCs	volatile organic compounds

1.0 Introduction

IT Corporation (IT) has prepared this report to describe quarterly basewide groundwater verification sampling and analysis that are being performed at the National Aeronautic Space Administration (NASA) Crows Landing Flight Facility (Facility) in Crows Landing, California. These activities supplement field activities performed under the *Work Plan, Soil Vapor Extraction Optimization for the Remediation of UST Cluster 1 and Site Verification Activities at Various Sites, Revision 2* (IT, 2001a). This report describes activities conducted during August 2001.

The groundwater verification sampling and analysis (groundwater monitoring) program at the Facility consists of collecting groundwater samples from the selected wells within the Facility property once every three months for a minimum of one year. Basewide water level monitoring is also being conducted to verify groundwater flow conditions. Water level measurements are recorded manually during sampling events and by electronic water level data loggers in selected wells. Review of analytical results and groundwater flow conditions will be used to verify the concentrations of metals, petroleum hydrocarbons, volatile organic compounds (VOCs), and general groundwater water chemistry.

1.1 Organization of the Report

This report is organized into five sections as follows:

- Section 1.0–Introduction: Presents the general approach, the site background and hydrogeologic setting, and an overview of the groundwater monitoring program.
- Section 2.0–Groundwater Monitoring Activities: Presents a summary of previous and current activities, including descriptions of water level monitoring and groundwater sampling, and supplemental information.
- Section 3.0–Current Quarterly Monitoring Results: Presents a summary of groundwater flow conditions and analytical results, as well as results of related activities and additional recent information.
- Section 4.0–Monitoring Plan and Recommendations: Presents information on the next sampling event and any recommendations for future monitoring or remediation activities at the Facility.
- Section 5.0–References.

1.2 Site Background and Hydrogeologic Setting

The Facility is located in Stanislaus County, California, approximately 80 miles southeast of San Francisco. It covers roughly 1,500 acres of the northwestern San Joaquin Valley between the towns of Patterson and Crows Landing and contains two runways and several support structures (Figure 1). The Facility has been in operation since 1943 and has served as an Army, Navy, Air Force, and Coast Guard training facility as well as a NASA research and development site.

Environmental investigations to determine impacts to soil and groundwater from Facility activities began in 1987. As part of the investigation activities, monitoring wells were installed at selected locations where groundwater was impacted. The impacted sites include Underground Storage Tank (UST) Cluster 1, UST Cluster 2, UST 109, UST 117, and Installation Restoration Program (IRP) Sites 11 and 17. To evaluate background conditions, monitoring wells were also installed at sites where groundwater impact is not suspected. The locations of the impacted sites and the background monitoring wells are shown on Figure 2.

The San Joaquin Valley overlies approximately two-thirds of the Central Valley Aquifer System, a single heterogeneous aquifer that contains water under unconfined conditions in the upper few hundred feet and grades to confined conditions with depth (Planert and Williams, 1995). At most locations, the Central Valley Aquifer System is composed of more than 50 percent fine-grained material. The largest and most continuous fine-grained unit is the Corcoran Clay Member of the Tulare Formation, which underlies much of the western San Joaquin Valley.

The Facility is located along the western edge of the San Joaquin Valley, approximately 1 mile west of the San Joaquin Fault and the adjacent Coast Ranges (Chapman, et al., 1999). Surficial alluvial deposits at the site consist of unconsolidated sand, silt, gravel, and clay that originated in the Coast Ranges and were deposited by Little Salado Creek during the Pleistocene (Higgins and Dupras, 1993). The Corcoran Clay is thought to be approximately 200 to 230 feet below ground surface (ft bgs) and approximately 40 to 110 feet thick at the Facility location (Hotchkiss, 1972; Page, 1986).

The water table surface generally conforms to the topography of the northwestern San Joaquin Valley and slopes from the Coast Ranges toward the San Joaquin River at an approximate gradient of 5 to 25 feet per mile (Phillips, et al., 1991). Depth to groundwater varies seasonally, but is approximately 80 ft bgs in the southwest portion of the Facility and 40 ft bgs in the northwest portion of the Facility. Monitoring wells at the Facility have been installed in four designated depth zones as follows:

- Shallow zone—screened interval at or near the water table
- Mid-shallow zone—screened interval approximately 50 feet below the water table
- Mid-deep zone—screened interval approximately 125 feet below the water table
- Deep zone—screened interval approximately 200 feet below the water table

A recent review of historical reports indicates that some of the deep zone monitoring wells may be screened in the Corcoran Clay (Hotchkiss, 1972; Page, 1986).

1.3 Overview of Quarterly Monitoring Program

From 1994 through 1998, groundwater samples were collected periodically and analyzed for the chemicals of concern based on former uses of specific sites. The results of the previous basewide groundwater sampling can be found in the annual groundwater monitoring reports (Tetra Tech EM Inc. [TtEMI] 1996, 1997, and 1998). Since March 1998, additional wells have been installed at selected sites, and samples have been collected as part of site-specific remediation technology pilot testing and site remediation activities.

The current quarterly basewide groundwater monitoring program consists of collecting groundwater samples every three months and gathering groundwater level data. The quarterly program will continue for a minimum of 1 year (four quarters). Following the fourth quarterly event, the frequency of subsequent monitoring will be evaluated and may be modified based on the available results and discussions with the regulatory agencies. Results will be used to verify the lateral and vertical distribution of selected metals, petroleum hydrocarbons, and VOC concentrations in groundwater at the Facility. This report contains the results of the fourth quarterly sampling event, which was conducted in August 2001.

2.0 Groundwater Monitoring Activities

This section presents a brief summary of field methods and activities associated with groundwater monitoring and a summary of relevant previous and concurrent activities at the Facility.

2.1 Summary of Previous Quarterly Monitoring Activities

Quarterly groundwater monitoring was previously performed from 1994 to 1998 (TtEMI, 1998). The monitoring program included IRP Site 11, IRP Site 17, UST Cluster 1, UST Cluster 2, UST 109, and UST 117. At least nine sets of quarterly groundwater samples were collected from these sites during this period (TtEMI, 1998).

More recent quarterly groundwater monitoring began in the Fall of 2000 to monitor and evaluate current conditions. The previous three sampling event results (Fall 2000, Winter 2001, and Spring 2001) from existing wells have provided adequate information for evaluating the nature and extent of contamination at the project sites. Details of the analysis of trends in historical and current data will be included in the annual report.

2.2 Current Quarterly Monitoring Activities

Current monitoring activities consist of a groundwater level survey, basewide water level monitoring, and collection of groundwater samples for chemical analysis.

2.2.1 Water Level Survey

On August 9, 2001, water level measurements were recorded from 25 wells within a period of a few hours (Table 1; Appendix A).

2.2.2 Basewide Water Level Monitoring

In December 2000, four electronic data loggers were installed to record water levels in shallow wells: CL1-MW-10S, 117-MW-05, CL2-MP-03B, and 11-MW-03. Basewide water level monitoring was expanded in February 2001 to include four additional wells: 109-MW-01, 11-MW-05, BG-MW-01, and CL1-MW-09(MS). Water levels are acquired hourly and the data are downloaded monthly.

2.2.3 Groundwater Sampling

Groundwater samples were collected from the monitoring wells listed on Table 2 between August 13 and August 15, 2001. Groundwater samples could not be collected from monitoring wells CL2-MP-02A and CL2-MP-05A, which were dry during this sampling event.

Sampling was performed by IT personnel according to the approved Sampling and Analysis Plan (SAP) (IT, 2001b). All wells were sampled using 2-inch submersible pumps and micro-purging techniques. The pump intake was set at the well screen midpoint and operated at a low-flow pumping rate of approximately 250 to 500 milliliters per minute. Dedicated, clean tubing was used for purging and sample collection from each well. Samples for metals analysis (U.S. Environmental Protection Agency [EPA] 6010B/7000) were filtered at the time of sample collection using in-line 0.45-micron disposable filters.

Water quality parameters (pH, conductivity, temperature, dissolved oxygen, and turbidity) were measured every five to ten minutes while purging and were recorded on the Groundwater Monitoring Data Forms provided in Appendix A. Samples were collected after pH, conductivity, temperature and dissolved oxygen stabilized within the criteria specified in the SAP. Samples were collected from the discharge of the pump directly into sample containers provided by the laboratory and were analyzed for the following parameters:

- VOCs including methyl-tert-butyl-ether (MTBE) and ethylene dibromide (EDB) by EPA Method 8260B
- Total petroleum hydrocarbons (TPH) as gasoline and jet fuel grade 4 by EPA Method 8015B
- TPH as diesel and motor oil by EPA Method 8015B (Samples were prepared using Silica Gel Cleanup by EPA Method 3630C.)
- California Assessment Manual (CAM-17) metals by EPA Method 6010B/7000
- Hexavalent chromium by EPA Method 7196
- Alkalinity by EPA Method 310.1
- Anions (chloride, nitrate, nitrite, sulfate, and phosphate) by EPA Method 9056
- Total dissolved solids by EPA Method 160.1

Quarterly groundwater samples were forwarded to Applied Physics and Chemistry Laboratory (APCL) in Chino, California, for all analysis except hexavalent chromium. APCL is a California-certified laboratory that has successfully completed a Naval Facilities Engineering Services Center (NFESC) assessment process.

Samples for hexavalent chromium analysis were forwarded to Agriculture and Priority Pollutant Laboratory (APPL) in Fresno, California. This local laboratory was selected for addressing this parameter in order to comply with the maximum 24-hour sample holding time. APPL is a California-certified laboratory that has also received validation by the United States Army Corps of Engineers (USACE), but has not been subject to the NFESC assessment process.

2.2.4 Supplemental Information

Additional field activities and observations are discussed below.

Additional Field Activities

During the Summer 2001 Quarter groundwater samples were collected from additional on-site wells, which are discussed below. These groundwater samples were analyzed for the same parameters as the regular quarterly monitoring samples. Analytical results are included and summarized in Appendix B.

The NASA Supply Well No. 2 was sampled on August 13, 2001. This is an active on-site water supply well that provides water for fire suppression.

Five new groundwater monitoring wells were installed along Bell Road to monitor plume migration near the property boundary: 17-MW-24MS, 17-MW-25S, 17-MW-25MS, 17-MW-26S, and 17-MW-26MS. These wells were sampled between August 21 and 22, 2001. Construction details of the new wells will be presented in the annual report.

Field Observations

Two wells at UST Cluster 2 (CL2-MP-02A and CL2-MP-05A) were dry and could not be sampled. Similar to what occurred during previous sampling activities, one well (CL1-MW-06) went dry during purging. The micro-purge technique could not be effectively implemented at this well with the equipment available. The CL1-MW-06 was allowed to recharge and samples were collected.

The pH levels in groundwater from deep well 17-MW-15 were anomalously high (11.14 to 11.18). These high pH levels were as recorded in this well during the previous sampling events and white particular material resembling bentonite or grout has been observed in purge water. The pH levels in all others wells range from approximately 6.8 to 7.8.

2.3 Wastewater Disposal

All purged groundwater was temporarily stored in mobile tanks mounted on the sampling trucks during field activities. This purge water was combined with other Facility liquid waste streams in a storage tank located at the UST Cluster 1 site for proper disposal.

3.0 Current Quarterly Monitoring Results

The results of groundwater level measurements and chemical analysis of groundwater samples are presented and discussed in this section.

3.1 Groundwater Level Monitoring

Groundwater elevations have been calculated and are presented in Table 1. These data represent water levels recorded from wells throughout the facility within a period of a few hours on August 9, 2001.

3.1.1 Groundwater Flow Direction and Gradient

Groundwater elevations in shallow wells, calculated from the August 9, 2001 survey data (Table 1), were used to create a water table elevation map (Figure 3). The locations of 2 active water supply wells (6/8-20(NALF) and 6/8-16M1) are also shown on Figure 3.

The direction and spacing of groundwater contour lines on Figure 3 suggest that the water table surface generally conforms to surface topography (Figure 1) and has a gradient that is less steep (e.g., more gradual) than surface topography. Shallow groundwater flows to the northeast, toward the San Joaquin River. The pattern of groundwater contour lines shown on Figure 3 is similar to the pattern shown in the Fall 2000, Winter 2001, and Spring 2001 reports. These reports corroborate the regional pattern for the area between Patterson and Crows Landing previously documented by Phillips, et al., (1991) for Spring 1987.

Drawdown due to pumping of water supply wells locally effects the shape of the water table, but does not appear to cause groundwater gradient reversals as has been suggested in previous reports (TtEMI, 1998).

3.1.2 Basewide Water Level Monitoring Results

Groundwater level monitoring results from data loggers were graphed and are presented in Appendix C. All graphs show decreasing water levels over time. In addition to the seasonal water level decrease, the graph for BG-MW-01 also shows a series of peaks and troughs that are associated with periods of groundwater withdraw from the nearby irrigation well (6/8-20(NALF), which is located approximately 900 feet northeast of BG-MW-01. Drawndown on the hydrograph from BG-MW-01 corresponds to pumping times of 6/8-20(NALF) and water level recovers significantly during non-pumping hours (Appendix C).

3.2 Groundwater Analytical Results

Groundwater analytical results are presented in Appendix B and summarized in Table 3. The following sections present a discussion of the analytical data.

3.2.1 Petroleum Hydrocarbons

Groundwater samples were analyzed for petroleum hydrocarbons by EPA Method 8015B. The results are summarized in Table 3. Concentrations of selected petroleum hydrocarbons and related VOCs are shown on Figure 4.

Although the sample extracts were prepared using silica gel cleanup procedures (EPA Method 3630C), several of the samples collected for analysis for extractable petroleum hydrocarbons (diesel and motor oil) still contained detectable concentrations of discrete compounds. The analytical data indicate that the compounds detected were not petroleum hydrocarbons. The results are discussed in Section 3.3.11.

The highest concentration of gasoline range petroleum hydrocarbons were detected in the mid-deep well CL1-MW-12(MD). This well is located in the UST Cluster 1 source area. Trends in the data will be evaluated and included in the annual report. Petroleum hydrocarbon related VOCs were detected in several samples as discussed in the next section.

3.2.2 Volatile Organic Compounds

Groundwater samples were analyzed for VOCs by EPA Method 8260B. The results are summarized on Table 3. Concentrations of selected chlorinated and nonchlorinated solvents are shown on Figure 5.

The results for detected VOCs are relatively consistent with the results from the Spring 2001 sampling event and historical data. The data does, however, indicate that concentrations of selected compounds have decreased from historical concentrations near the plume source areas. The data also indicate that detectable concentrations of selected compounds were found in wells previously assumed to be outside the plume boundary based on historical plume maps (TtEMI, 1998). Additional discrete groundwater sampling and monitoring well installation is being conducted to evaluate current site conditions. Trends in the data will be evaluated and included in the annual report.

3.2.3 Metals

Groundwater samples were analyzed for metals by EPA Methods 6010B/7000 and for hexavalent chromium by EPA Method 7196A. Results of all detected metals are presented in Table 3. Concentrations of chromium and hexavalent chromium are shown on Figure 6.

3.2.4 General Groundwater Chemistry

Groundwater samples were analyzed for alkalinity by EPA Method 310.1, total dissolved solids by EPA Method 160.1, and selected anions by EPA Method 9056. The results for the general chemistry analysis are included in Table 3. Interpretation of the results as they relate to concentrations of other compounds at each site will be evaluated and discussed in the Annual Report.

3.3 Data Quality Assessment

Twenty-three (23) primary and two field duplicate groundwater samples were collected August 13 through August 15, 2001, and were sent to APCL and APPL for analysis.

3.3.1 Data Quality Indicators

Analytical data for this project were assessed in terms of precision, accuracy, representativeness and comparability, based on the requirements of the analytical methods and the *Sampling and Analysis Plan, Soil Vapor Extraction Optimization for the Remediation of UST Cluster 1 and Site Verification Activities at Various Sites, Revision 2* (IT, 2001b).

The analytical data were reported in three sample delivery groups (SDGs) from APCL and three SDGs from APPL (shown below). All SDGs were validated at EPA Level III except SDG number 01-5251, which was validated at EPA Level IV. The findings of the data validation process are summarized in this section.

APCL SDG: 01-5251	APCL SDG: 01-5285	APCL SDG: 01-5316
11-MW-03	117-MW-08	117-MW-04
CL2-MW-05	117-MW-09	17-MW-15
11-MW-04	CL1-MW-06	17-MW-03
109-MW-01	CL1-MW-04	117-MW-07
CL1-MW-05	17-MW-08	17-MW-13
17-MW-24	17-MW-09	CL1-MW-9S
CL-99-14 (Field Duplicate of 17-MW-24)	CL-99-15 (Field Duplicate of 17-MW-09)	CL1-MW-12MD
17-MW-11	17-MW-06	117-MW-02
NASA-SW-3	17-MW-18	Trip Blank No. 3
Trip Blank No. 1	Trip Blank No. 2	

APPL SDG: 36152	APPL SDG: 36159	APPL SDG: 36171
11-MW-03	117-MW-08	117-MW-04
CL2-MW-05	117-MW-09	17-MW-15
11-MW-04	CL1-MW-06	17-MW-03
109-MW-01	CL1-MW-04	117-MW-07
CL1-MW-05	17-MW-08	17-MW-13
17-MW-24	17-MW-09	CL1-MW-9S
CL-99-14 (Field Duplicate of 17-MW-24)	CL-99-15 (Field Duplicate of 17-MW-09)	CL1-MW-12MD
17-MW-11	17-MW-06	117-MW-02
NASA-SW-3	17-MW-18	

3.3.2 Level III Data Validation

The following laboratory quality control (QC) parameters were evaluated during Level III and Level IV validation process:

- Sample receipt, preservation and holding times (representativeness)
- Method blanks
- Surrogate standard recoveries (accuracy)
- Calibrations (initial and continuing)
- Internal standards (EPA Method 8260B only)
- Laboratory control spikes (LCSs)/laboratory control spike duplicates (precision and accuracy)
- Interference check sample and serial dilutions (EPA Methods 6010B/7000 only)
- Matrix spikes (MSs)/matrix spike duplicates (MSDs) (precision and accuracy)
- Recalculation of sample results from raw laboratory data (Level IV only)

3.3.3 Sample Receipt, Temperature, and Holding Times

All sample shipments were received at the laboratory within the EPA-specified temperature range of 2 to 6 degrees Centigrade (°C) with one exception. The sample cooler for APPL on August 13, 2001 (SDG 36152) was received at the laboratory at 11°C, which is above the 6 degree upper limit. The samples for hexavalent chromium analysis were delivered to the laboratory within 2 hours of last sample collection. All project samples were stored in the on-site refrigerator after collection and prior to packing into the cooler for shipment. The temperature blank was not stored in the refrigerator. The short transportation time to the

laboratory did not give the temperature blank enough time to cool down. However, because of the recorded temperature exceedance the data for this SDG have been "J" qualified as estimates. The analytical results for this SDG are consistent with previous sampling events, and data usability was not affected.

Sample preservation was according to the EPA method requirements. All holding times were met for all analyses.

3.3.4 Method Blanks and Trip Blanks

A method blank is a matrix equivalent sample (i.e., water or soil) used to check reagent or process introduced contamination during the method preparation and analysis. Trip blanks are 40 milliliter volatile organic analysis vials of organic-free water, which are kept with the field sample containers from the time they leave the laboratory until the time they are returned to the laboratory. The purpose of trip blanks is to determine whether samples have been contaminated with VOCs during transportation or sample collection. The method blanks and trip blanks did not contain any analytes of interest at or above the method reporting limits for all analyses, with the following exceptions:

VOC (EPA Method 8260B)

Methylene chloride is a common laboratory contaminant that was detected at low concentrations in the laboratory method blanks, trip blanks, and project samples. Bromochloromethane was also detected in the method blank and project samples for SDG 01-5285. If the concentrations of methylene chloride and bromochloromethane, detected in the samples were less than 5 times the highest associated blank concentration, then results were reported as not detected and flagged with a U-qualifier. Results were changed to "not detected" (U) for samples 17-MW-13, 17-MW-15, 117-MW-02, 117-MW-04, 117-MW-07, CL1-MW-12MD, CL1-MW-9S, 17-MW-06, 17-MW-08, 17-MW-09, 117-MW-08, CL1-MW-04, CL1-MW-06, CL-99-15, 17-MW-10S.

TPH as gasoline (EPA Method 8015B)

Gasoline range organic compounds were detected in the method blank of SDG 01-5251, 01-5285, and 01-5316 and the associated project samples. The results were reported as "not detected" (U) for all samples in the SDGs with reported concentration of gasoline range organic compounds less than 5 time the associated blank.

Metals (EPA Method 6010B)

Arsenic, antimony, barium, beryllium, cadmium, chromium, cobalt, copper, lead, molybdenum, nickel, selenium, silver, thallium, zinc, and vanadium were detected at low concentrations in

various method blanks and initial and continuing calibration blanks for SDGs 01-5251, 01-5316, and 01-5285. Some of these elements were detected in project samples at concentrations less than five times the associated blank concentrations. In these instances, the sample results were reported as not detected "U" at the reporting limit.

3.3.5 Surrogate Standards

Surrogate standards are added prior to extraction and analysis for EPA Methods 8260B and 8015B to monitor the efficiency of the extraction and the accuracy of the analysis for each sample. All of the surrogate spike recoveries were within the laboratory-specified control limits for all samples.

3.3.6 Calibrations

The requirements for initial and continuing calibrations were met for all analyses, with the following exceptions for EPA Method 8260B:

- The percent coefficient of determination (r^2) for acetone was 0.989, which did not meet the method specified criteria of 0.990 in the initial calibration for SDG 01-5251. All samples in this SDG were qualified as estimated concentrations (J/UJ) for acetone. Data usability was not affected.
- The relative response factor (RRF) for 2-hexanone and tert-butyl alcohol did not meet the minimum (0.05) Contract Laboratory Program criteria in the initial and continuing calibration standards for SDG 01-5285, 01-5251, and 01-5316. All samples in these SDGs were qualified as estimated concentrations (J/UJ) for these two analytes. Data usability was not affected.
- The percent difference (%D) and/or the RRF for acetone, carbon disulfide, chloroethane, bromomethane, 2-butanone, 2-hexanone, naphthalene, 1,2,3 trichlorobenzene, 1,1,2,2-tetrachloroethane, 4-methyl-2-pentanone and tert-butyl alcohol did not meet the method specified criteria in the continuing calibration standards for SDG 01-5285, 01-5251 and 01-5316. All samples in these SDGs were qualified as estimated concentrations (J/UJ) for some or all of these analytes. Data usability was not affected.

3.3.7 Internal Standards

Internal standards are usually synthetic compounds, which are similar in chemical behavior to the target analytes. They are added to samples at the time of instrument analysis and are used to quantify results through internal standard calibration procedures. Internal standard recoveries are used to correct for injection and detector variability. All internal standard areas and retention times for EPA Method 8260B were within the method specified criteria.

3.3.8 Laboratory Control Samples

Laboratory control samples are blank matrix equivalent spiked samples that are carried through the entire method preparation and analysis. They are used to evaluate the accuracy and precision of the preparation and analysis without matrix interference. LCSs are prepared with each batch of samples for every analysis. All the LCS recoveries were within the specified control limits for all analyses.

3.3.9 Interference Check Sample and Serial Dilutions

The interference check sample is used to measure the interelement interference for inductively coupled plasma analysis (EPA Method 6010B). It measures the positive or negative bias of the instrument based on high concentrations of known interfering elements. All interference check samples met the method required acceptance criteria.

The serial dilution is used to measure matrix interference, which causes instrument signal suppression. All serial dilutions met the method specified acceptance criteria.

3.3.10 Matrix Spikes and Matrix Spike Duplicates

MS and MSD are representative matrix samples spiked with known concentrations of analytes and carried through the entire method preparation and analysis. They are used to evaluate any bias introduced to the method due to matrix interferences, and to measure accuracy (percent recovery) and precision using Relative Percent Difference (RPD) of recoveries for each analytical batch. One site-specific groundwater sample, from well CL1-MW-06, was submitted to the laboratory for MS/MSD use. All percent recoveries and RPDs were within the specified control limits for all analyses.

3.3.11 Analytical Anomalies

Analytical anomalies were noted by APCL during the TPH diesel and motor oil analyses. Miscellaneous peaks in the diesel carbon range of C_{12} to C_{16} were present in most of the sample chromatograms at varying concentrations. Characteristic diesel hydrocarbon patterns were not observed in the samples.

As recommended in the previous Quarterly Basewide Groundwater Monitoring Report (IT, 2001c), silica gel cleanup procedures (EPA Method 3630C) were performed on all TPH diesel analyses. This cleanup procedure was used to remove interfering nonpetroleum-based compounds. The results of analysis indicated that the silica gel did reduce the amount of the interfering compounds. However, it was not successful in removing all of the miscellaneous peaks. This is in part due to the chemical properties of these compounds.

3.3.12 Field Duplicates

Two field duplicates were collected and analyzed during this sampling event. The field duplicate results are summarized in Appendix B and indicate acceptable sampling and analytical precision.

3.4 Chemical Data Quality and Usability

In summary, all of the QC data are indicative of acceptable analytical method performance. The anomalies mentioned above do not invalidate the data for its intended use. All of the data are valid and usable. Copies of analytical data reports are provided in Appendix B.

4.0 Monitoring Plan and Recommendations

The results from the Summer 2001 sampling event provides additional information on the nature and extent of contamination at each of the investigation sites. These results confirm impact to groundwater from releases of petroleum hydrocarbons, chlorinated solvents, and nonchlorinated solvents, and indicate that the extent of contamination may be greater than previously assumed. The results from all four quarters of groundwater monitoring are being reviewed to evaluate the need to install additional wells to verify and monitor the plume extent.

The Summer 2001 quarterly sampling conducted in August 2001 included the same wells as Spring 2001. The Fall 2001 monitoring program was revised to better define the nature and extent of impacted groundwater at the Facility and to incorporate newly installed monitoring wells. Four wells were removed from the program and 4 wells were added. These changes are listed below.

Wells Removed	Wells Added	Rationale
117-MW-02(S)	117-MW-10(S)	Well 117-MW-02(S) is currently sampled monthly as part of groundwater extraction – 117-MW-10(S) is downgradient of extraction and of future HRC™ injection.
117-MW-04(S)	17-MW-25(S)	17-MW-25 is a shallow well downgradient of UST 117 and Site 17.
117-MW-07(MS)	17-MW-25(MS)	17-MW-25(MS) is a mid-shallow well downgradient of UST 117 and Site 17.
17-MW-11(MS)	17-MW-24(MS)	17-MW-24(MS) is a mid-shallow well downgradient of Site 17.

HRC™ denotes Hydrogen Release Compound™

5.0 References

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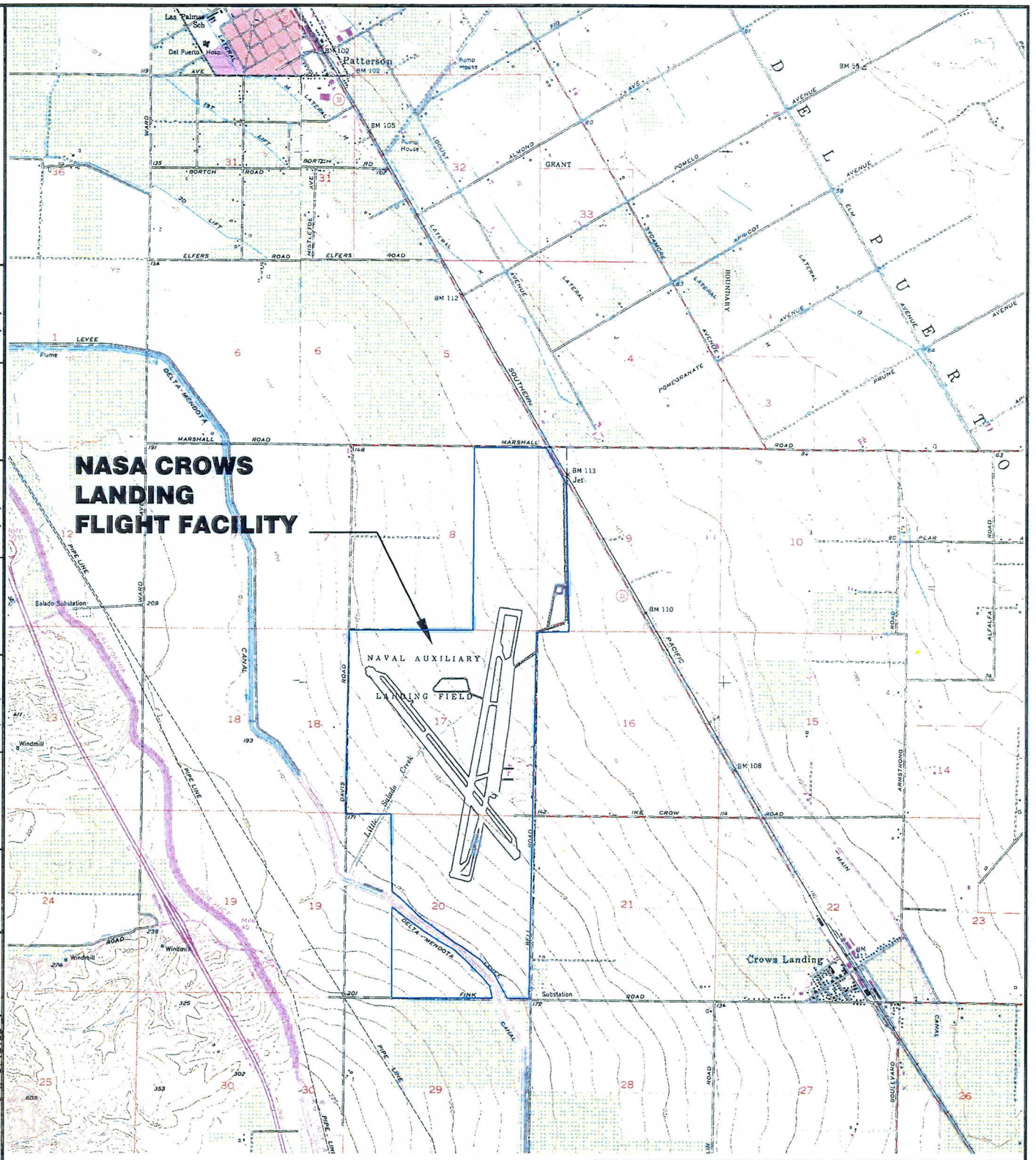
FIGURES

IMAGE	X-REF	OFFICE	DRAWN BY		CHECKED BY		APPROVED BY		DRAWING NUMBER
h-3712ld1 h-3712ld2		Concord	SJZ	3/13/01	DP	8/2/01	BH	8/9/01	800063-A31



SCALE

0 4000 8000 FEET

REFERENCE: 7.5' USGS TOPOGRAPHIC QUADRANGLES OF: PATTERSON, CA. PHOTOREVISED 1971, PHOTOINSPECTED 1978; CROWS LANDING, PHOTOREVISED 1980. ORIGINAL SCALE 1:24,000.

IT CORPORATION

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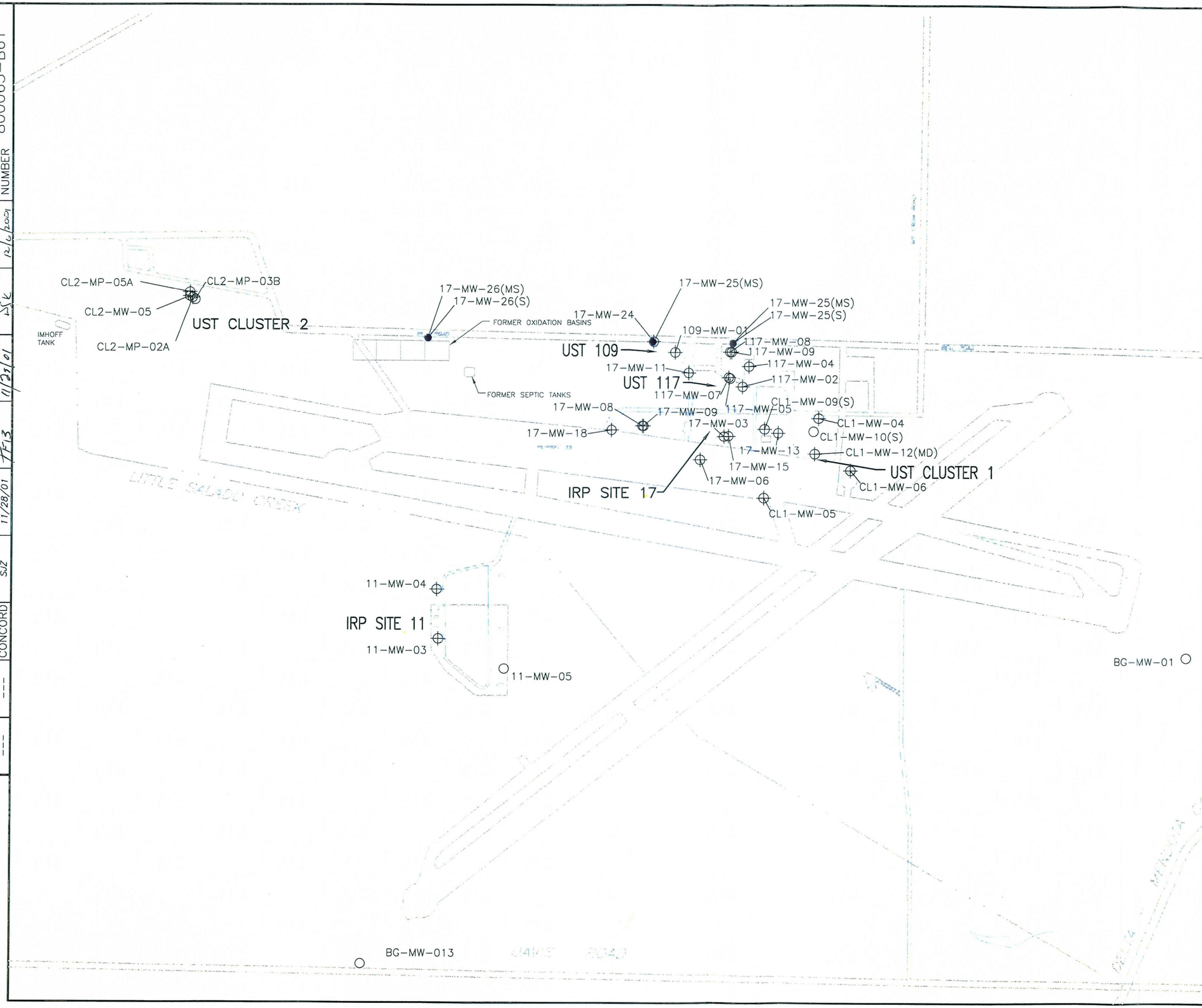
CROWS LANDING FLIGHT FACILITY
CROWS LANDING, CALIFORNIA

FIGURE 1

FACILITY LOCATION MAP

QUARTERLY BASEWIDE GROUNDWATER VERIFICATION SAMPLING AND ANALYSIS



LEGEND

- ⊕ MONITORING WELL LOCATIONS
- ○ MONITORING WELLS INCLUDED IN BASEWIDE WATER LEVEL MONITORING
- ● NEW MONITORING WELLS INSTALLED DURING SUMMER 2001

400 0 400 800

SCALE: 1"=800'

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CROWS LANDING, CALIFORNIA

FIGURE 2
SUMMER 2001 MONITORING WELL LOCATION MAP

QUARTERLY BASEWIDE GROUNDWATER VERIFICATION SAMPLING AND ANALYSIS

DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
SJZ 11/28/01	TF13 11/29/01	RC	800063-B61

IMAGE	X-REF	OFFICE
---	---	CONCORD

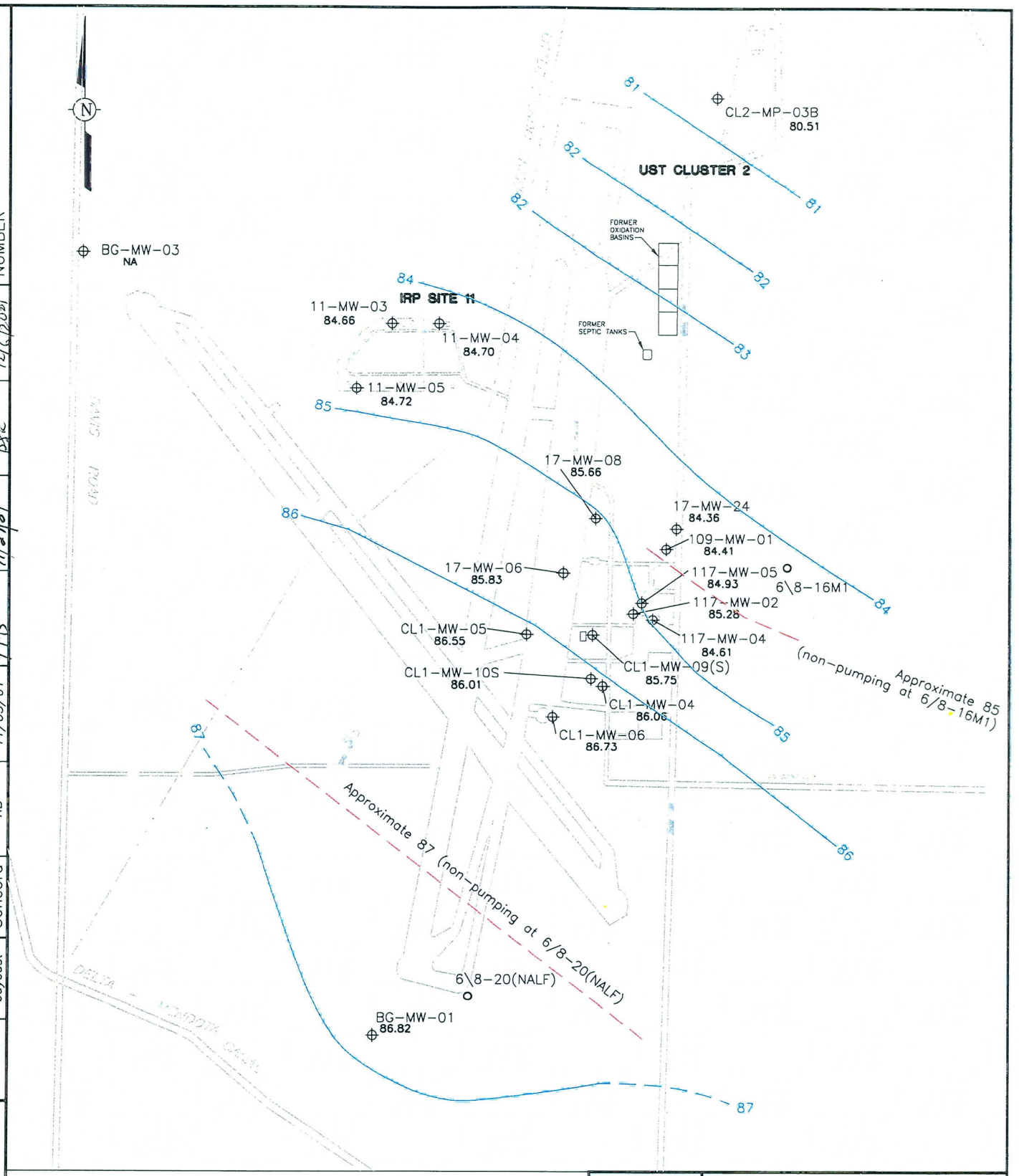

IMAGE	X-REF	OFFICE	DRAWN BY		CHECKED BY		APPROVED BY		DRAWING NUMBER
---	bayeast	Concord	RB	11/05/01	TF13	11/29/01	DSK	12/6/2001	800063-A29

LEGEND

o	PRODUCTION WELL LOCATIONS
⊕	MONITORING WELL LOCATIONS
BG-MW-01	WELL ID
86.82	GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)

SCALE

0 1200 2400 FEET

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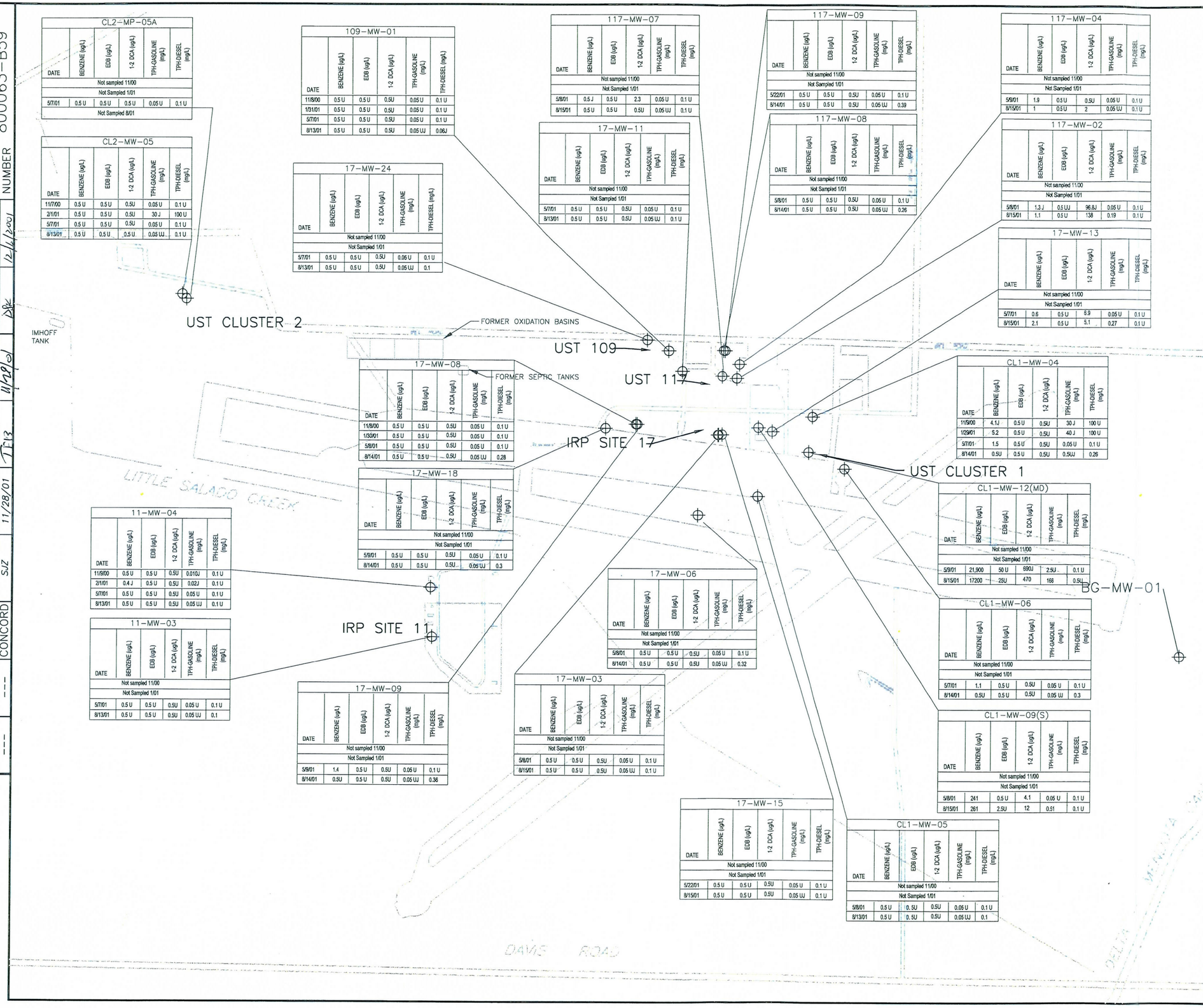
CROWS LANDING, CALIFORNIA

FIGURE 3

WATER TABLE ELEVATION MAP
AUGUST 9, 2001

QUARTERLY BASEWIDE GROUNDWATER VERIFICATION SAMPLING AND ANALYSIS



CL2-MP-05A					
DATE	BENZENE (ug/L)	EDB (ug/L)	1-2 DCA (ug/L)	TPH-GASOLINE (mg/L)	TPH-DIESEL (mg/L)
Not sampled 11/00					
Not Sampled 1/01					
5/7/01	0.5 U	0.5 U	0.5 U	0.05 U	0.1 U
Not Sampled 8/01					

CL2-MW-05					
DATE	BENZENE (ug/L)	EDB (ug/L)	1-2 DCA (ug/L)	TPH-GASOLINE (mg/L)	TPH-DIESEL (mg/L)
11/7/00	0.5 U	0.5 U	0.5U	0.05 U	0.1 U
2/1/01	0.5 U	0.5 U	0.5U	30 J	100 U
5/7/01	0.5 U	0.5 U	0.5U	0.05 U	0.1 U
8/13/01	0.5 U	0.5 U	0.5 U	0.05 UJ	0.1 U

109-MW-01					
DATE	BENZENE (ug/L)	EDB (ug/L)	1-2 DCA (ug/L)	TPH-GASOLINE (mg/L)	TPH-DIESEL (mg/L)
11/8/00	0.5 U	0.5 U	0.5U	0.05 U	0.1 U
1/31/01	0.5 U	0.5 U	0.5U	0.05 U	0.1 U
5/7/01	0.5 U	0.5 U	0.5U	0.05 U	0.1 U
8/13/01	0.5 U	0.5 U	0.5U	0.05 UJ	0.06J

17-MW-24					
DATE	BENZENE (ug/L)	EDB (ug/L)	1-2 DCA (ug/L)	TPH-GASOLINE (mg/L)	TPH-DIESEL (mg/L)
Not sampled 11/00					
Not Sampled 1/01					
5/7/01	0.5 U	0.5 U	0.5U	0.05 U	0.1 U
8/13/01	0.5 U	0.5 U	0.5U	0.05 UJ	0.1

117-MW-07					
DATE	BENZENE (ug/L)	EDB (ug/L)	1-2 DCA (ug/L)	TPH-GASOLINE (mg/L)	TPH-DIESEL (mg/L)
Not sampled 11/00					
Not Sampled 1/01					
5/8/01	0.5 J	0.5 U	2.3	0.05 U	0.1 U
8/15/01	0.5 U	0.5 U	0.5U	0.05 UJ	0.1 U

17-MW-11					
DATE	BENZENE (ug/L)	EDB (ug/L)	1-2 DCA (ug/L)	TPH-GASOLINE (mg/L)	TPH-DIESEL (mg/L)
Not sampled 11/00					
Not Sampled 1/01					
5/7/01	0.5 U	0.5 U	0.5U	0.05 U	0.1 U
8/13/01	0.5 U	0.5 U	0.5U	0.05 UJ	0.1 U

117-MW-09					
DATE	BENZENE (ug/L)	EDB (ug/L)	1-2 DCA (ug/L)	TPH-GASOLINE (mg/L)	TPH-DIESEL (mg/L)
Not sampled 11/00					
Not Sampled 1/01					
5/22/01	0.5 U	0.5 U	0.5U	0.05 U	0.1 U
8/14/01	0.5 U	0.5 U	0.5U	0.05 UJ	0.39

117-MW-08					
DATE	BENZENE (ug/L)	EDB (ug/L)	1-2 DCA (ug/L)	TPH-GASOLINE (mg/L)	TPH-DIESEL (mg/L)
Not sampled 11/00					
Not Sampled 1/01					
5/8/01	0.5 U	0.5 U	0.5U	0.05 U	0.1 U
8/14/01	0.5 U	0.5 U	0.5U	0.05 UJ	0.26

117-MW-04					
DATE	BENZENE (ug/L)	EDB (ug/L)	1-2 DCA (ug/L)	TPH-GASOLINE (mg/L)	TPH-DIESEL (mg/L)
Not sampled 11/00					
Not Sampled 1/01					
5/9/01	1.9	0.5 U	0.5U	0.05 U	0.1 U
8/15/01	1	0.5 U	2	0.05 UJ	0.1 U

117-MW-02					
DATE	BENZENE (ug/L)	EDB (ug/L)	1-2 DCA (ug/L)	TPH-GASOLINE (mg/L)	TPH-DIESEL (mg/L)
Not sampled 11/00					
Not Sampled 1/01					
5/8/01	1.3 J	0.5 UJ	96.8J	0.05 U	0.1 U
8/15/01	1.1	0.5 U	138	0.19	0.1 U

17-MW-13					
DATE	BENZENE (ug/L)	EDB (ug/L)	1-2 DCA (ug/L)	TPH-GASOLINE (mg/L)	TPH-DIESEL (mg/L)
Not sampled 11/00					
Not Sampled 1/01					
5/7/01	0.6	0.5 U	8.9	0.05 U	0.1 U
8/15/01	2.1	0.5 U	5.1	0.27	0.1 U

17-MW-08					
DATE	BENZENE (ug/L)	EDB (ug/L)	1-2 DCA (ug/L)	TPH-GASOLINE (mg/L)	TPH-DIESEL (mg/L)
11/8/00	0.5 U	0.5 U	0.5U	0.05 U	0.1 U
1/30/01	0.5 U	0.5 U	0.5U	0.05 U	0.1 U
5/8/01	0.5 U	0.5 U	0.5U	0.05 U	0.1 U
8/14/01	0.5 U	0.5 U	0.5U	0.05 UJ	0.28

CL1-MW-04					
DATE	BENZENE (ug/L)	EDB (ug/L)	1-2 DCA (ug/L)	TPH-GASOLINE (mg/L)	TPH-DIESEL (mg/L)
11/9/00	4.1J	0.5 U	0.5U	30 J	100 U
1/29/01	5.2	0.5 U	0.5U	40 J	100 U
5/7/01	1.5	0.5 U	0.5U	0.05 U	0.1 U
8/14/01	0.5U	0.5 U	0.5U	0.5UJ	0.26

17-MW-18					
DATE	BENZENE (ug/L)	EDB (ug/L)	1-2 DCA (ug/L)	TPH-GASOLINE (mg/L)	TPH-DIESEL (mg/L)
Not sampled 11/00					
Not Sampled 1/01					
5/9/01	0.5 U	0.5 U	0.5U	0.05 U	0.1 U
8/14/01	0.5 U	0.5 U	0.5U	0.05 UJ	0.3

CL1-MW-12(MD)					
DATE	BENZENE (ug/L)	EDB (ug/L)	1-2 DCA (ug/L)	TPH-GASOLINE (mg/L)	TPH-DIESEL (mg/L)
Not sampled 11/00					
Not Sampled 1/01					
5/9/01	21,900	50 U	690J	2.5U	0.1 U
8/15/01	17200	25U	470	168	0.5U

11-MW-04					
DATE	BENZENE (ug/L)	EDB (ug/L)	1-2 DCA (ug/L)	TPH-GASOLINE (mg/L)	TPH-DIESEL (mg/L)
11/9/00	0.5 U	0.5 U	0.5U	0.010J	0.1 U
2/1/01	0.4 J	0.5 U	0.5U	0.02J	0.1 U
5/7/01	0.5 U	0.5 U	0.5U	0.05 U	0.1 U
8/13/01	0.5 U	0.5 U	0.5U	0.05 UJ	0.1 U

17-MW-06					
DATE	BENZENE (ug/L)	EDB (ug/L)	1-2 DCA (ug/L)	TPH-GASOLINE (mg/L)	TPH-DIESEL (mg/L)
Not sampled 11/00					
Not Sampled 1/01					
5/8/01	0.5 U	0.5 U	0.5U	0.05 U	0.1 U
8/14/01	0.5 U	0.5 U	0.5U	0.05 UJ	0.32

CL1-MW-06					
DATE	BENZENE (ug/L)	EDB (ug/L)	1-2 DCA (ug/L)	TPH-GASOLINE (mg/L)	TPH-DIESEL (mg/L)
Not sampled 11/00					
Not Sampled 1/01					
5/7/01	1.1	0.5 U	0.5U	0.05 U	0.1 U
8/14/01	0.5U	0.5 U	0.5U	0.05 UJ	0.3

11-MW-03					
DATE	BENZENE (ug/L)	EDB (ug/L)	1-2 DCA (ug/L)	TPH-GASOLINE (mg/L)	TPH-DIESEL (mg/L)
Not sampled 11/00					
Not Sampled 1/01					
5/7/01	0.5 U	0.5 U	0.5U	0.05 U	0.1 U
8/13/01	0.5 U	0.5 U	0.5U	0.05 UJ	0.1

17-MW-09					
DATE	BENZENE (ug/L)	EDB (ug/L)	1-2 DCA (ug/L)	TPH-GASOLINE (mg/L)	TPH-DIESEL (mg/L)
Not sampled 11/00					
Not Sampled 1/01					
5/9/01	1.4	0.5 U	0.5U	0.05 U	0.1 U
8/14/01	0.5U	0.5 U	0.5U	0.05 UJ	0.36

17-MW-03					
DATE	BENZENE (ug/L)	EDB (ug/L)	1-2 DCA (ug/L)	TPH-GASOLINE (mg/L)	TPH-DIESEL (mg/L)
Not sampled 11/00					
Not Sampled 1/01					
5/8/01	0.5 U	0.5 U	0.5U	0.05 U	0.1 U
8/15/01	0.5 U	0.5 U	0.5U	0.05 UJ	0.1 U

CL1-MW-09(S)					
DATE	BENZENE (ug/L)	EDB (ug/L)	1-2 DCA (ug/L)	TPH-GASOLINE (mg/L)	TPH-DIESEL (mg/L)
Not sampled 11/00					
Not Sampled 1/01					
5/8/01	241	0.5 U	4.1	0.05 U	0.1 U
8/15/01	261	2.5U	12	0.51	0.1 U

17-MW-15					
DATE	BENZENE (ug/L)	EDB (ug/L)	1-2 DCA (ug/L)	TPH-GASOLINE (mg/L)	TPH-DIESEL (mg/L)
Not sampled 11/00					
Not Sampled 1/01					
5/22/01	0.5 U	0.5 U	0.5U	0.05 U	0.1 U
8/15/01	0.5 U	0.5 U	0.5U	0.05 UJ	0.1 U

CL1-MW-05					
DATE	BENZENE (ug/L)	EDB (ug/L)	1-2 DCA (ug/L)	TPH-GASOLINE (mg/L)	TPH-DIESEL (mg/L)
Not sampled 11/00					
Not Sampled 1/01					
5/8/01	0.5 U	0.5U	0.5U	0.05 U	0.1 U
8/13/01	0.5 U	0.5U	0.5U	0.05 UJ	0.1

LEGEND

⊕ MONITORING WELL LOCATIONS

EDB = 1,2-DIBROMOETHANE

CONCENTRATIONS UNITS ARE IN MICROGRAMS PER LITER.

1,2-DCA = DICHLOROETHANE

400 0 400 800

SCALE: 1"=800'

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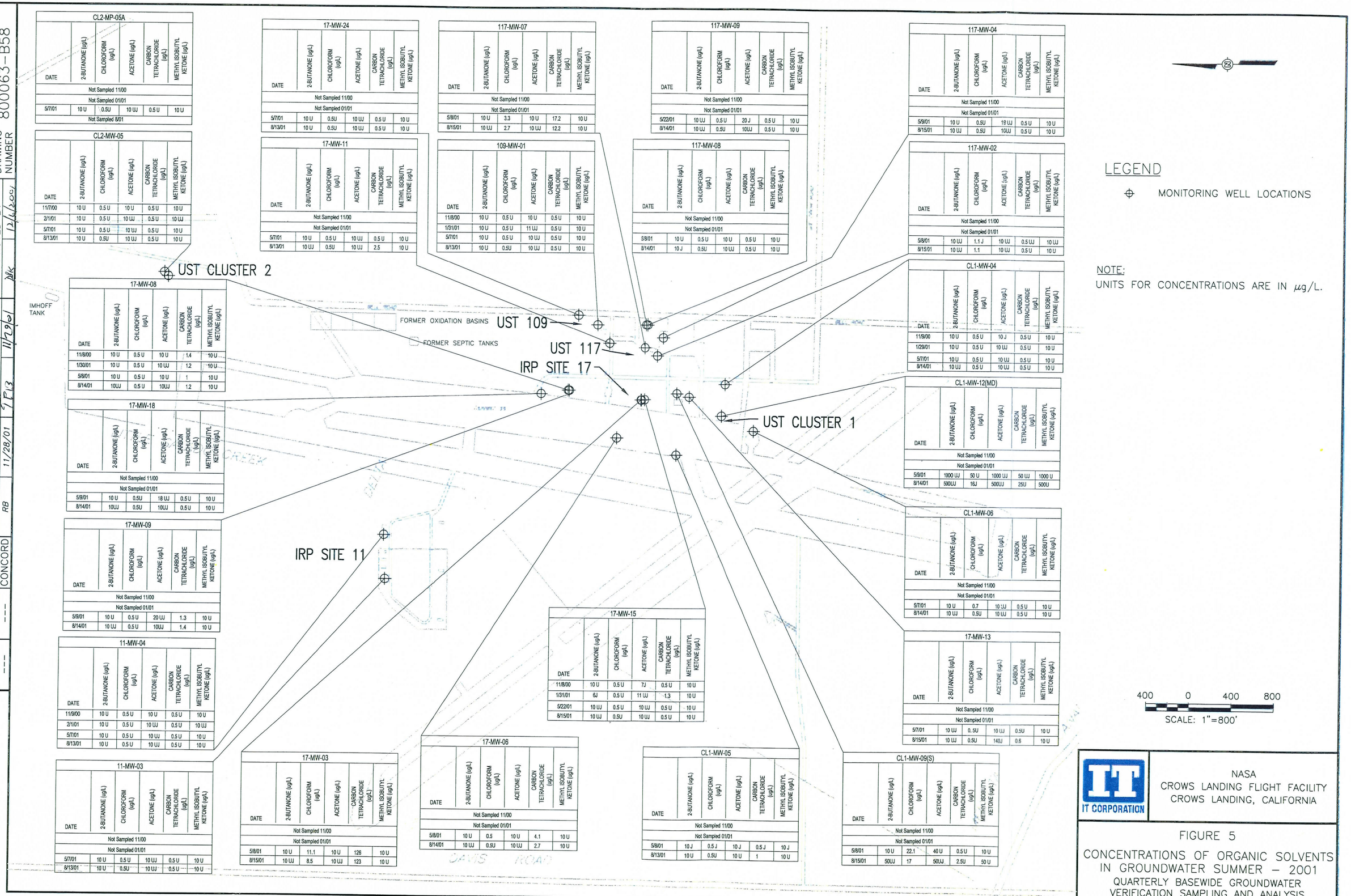
CROWS LANDING, CALIFORNIA

FIGURE 4
CONCENTRATIONS OF PETROLEUM HYDROCARBONS IN GROUNDWATER
SUMMER – 2001
QUARTERLY BASEWIDE GROUNDWATER VERIFICATION SAMPLING AND ANALYSIS

IMAGE	X-REF	OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
---	---	CONCORD	SJZ 11/28/01	TTB 11/29/01	DK 12/6/2001	800063-B59

IMAGE	X-REF	OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
---	---	CONCORD	RB 11/28/01	TB 11/29/01	MK 12/6/2001	800063-B58



CL2-MP-05A

DATE	2-BUTANONE (ug/L)	CHLOROFORM (ug/L)	ACETONE (ug/L)	CARBON TETRACHLORIDE (ug/L)	METHYL ISOBUTYL KETONE (ug/L)
Not Sampled 11/00					
Not Sampled 01/01					
5/7/01	10 U	0.5U	10 UJ	0.5 U	10 U
Not Sampled 8/01					

CL2-MW-05

DATE	2-BUTANONE (ug/L)	CHLOROFORM (ug/L)	ACETONE (ug/L)	CARBON TETRACHLORIDE (ug/L)	METHYL ISOBUTYL KETONE (ug/L)
11/7/00	10 U	0.5 U	10 U	0.5 U	10 U
2/1/01	10 U	0.5 U	10 UJ	0.5 U	10 UJ
5/7/01	10 U	0.5 U	10 UJ	0.5 U	10 U
8/13/01	10 U	0.5U	10 UJ	0.5 U	10 U

17-MW-24

DATE	2-BUTANONE (ug/L)	CHLOROFORM (ug/L)	ACETONE (ug/L)	CARBON TETRACHLORIDE (ug/L)	METHYL ISOBUTYL KETONE (ug/L)
Not Sampled 11/00					
Not Sampled 01/01					
5/7/01	10 U	0.5U	10 UJ	0.5 U	10 U
8/13/01	10 U	0.5U	10 UJ	0.5 U	10 U

17-MW-11

DATE	2-BUTANONE (ug/L)	CHLOROFORM (ug/L)	ACETONE (ug/L)	CARBON TETRACHLORIDE (ug/L)	METHYL ISOBUTYL KETONE (ug/L)
Not Sampled 11/00					
Not Sampled 01/01					
5/7/01	10 U	0.5 U	10 UJ	0.5 U	10 U
8/13/01	10 UJ	0.5U	10 UJ	2.5	10 U

117-MW-07

DATE	2-BUTANONE (ug/L)	CHLOROFORM (ug/L)	ACETONE (ug/L)	CARBON TETRACHLORIDE (ug/L)	METHYL ISOBUTYL KETONE (ug/L)
Not Sampled 11/00					
Not Sampled 01/01					
5/8/01	10 U	3.3	10 U	17.2	10 U
8/15/01	10 UJ	2.7	10 UJ	12.2	10 U

109-MW-01

DATE	2-BUTANONE (ug/L)	CHLOROFORM (ug/L)	ACETONE (ug/L)	CARBON TETRACHLORIDE (ug/L)	METHYL ISOBUTYL KETONE (ug/L)
11/8/00	10 U	0.5 U	10 U	0.5 U	10 U
1/31/01	10 U	0.5 U	11 UJ	0.5 U	10 U
5/7/01	10 U	0.5 U	10 UJ	0.5 U	10 U
8/13/01	10 U	0.5U	10 UJ	0.5 U	10 U

117-MW-09

DATE	2-BUTANONE (ug/L)	CHLOROFORM (ug/L)	ACETONE (ug/L)	CARBON TETRACHLORIDE (ug/L)	METHYL ISOBUTYL KETONE (ug/L)
Not Sampled 11/00					
Not Sampled 01/01					
5/22/01	10 UJ	0.5 U	20 J	0.5 U	10 U
8/14/01	10 UJ	0.5U	10UJ	0.5 U	10 U

117-MW-08

DATE	2-BUTANONE (ug/L)	CHLOROFORM (ug/L)	ACETONE (ug/L)	CARBON TETRACHLORIDE (ug/L)	METHYL ISOBUTYL KETONE (ug/L)
Not Sampled 11/00					
Not Sampled 01/01					
5/8/01	10 U	0.5 U	10 U	0.5 U	10 U
8/14/01	10 J	0.5U	10 UJ	0.5 U	10 U

117-MW-04

DATE	2-BUTANONE (ug/L)	CHLOROFORM (ug/L)	ACETONE (ug/L)	CARBON TETRACHLORIDE (ug/L)	METHYL ISOBUTYL KETONE (ug/L)
Not Sampled 11/00					
Not Sampled 01/01					
5/9/01	10 U	0.5U	19 UJ	0.5 U	10 U
8/15/01	10 UJ	0.5U	10UJ	0.5 U	10 U

117-MW-02

DATE	2-BUTANONE (ug/L)	CHLOROFORM (ug/L)	ACETONE (ug/L)	CARBON TETRACHLORIDE (ug/L)	METHYL ISOBUTYL KETONE (ug/L)
Not Sampled 11/00					
Not Sampled 01/01					
5/8/01	10 UJ	1.1 J	10 UJ	0.5 UJ	10 UJ
8/15/01	10 UJ	1.1	10 UJ	0.5 U	10 U

CL1-MW-04

DATE	2-BUTANONE (ug/L)	CHLOROFORM (ug/L)	ACETONE (ug/L)	CARBON TETRACHLORIDE (ug/L)	METHYL ISOBUTYL KETONE (ug/L)
11/9/00	10 U	0.5 U	10 J	0.5 U	10 U
1/29/01	10 U	0.5 U	10 UJ	0.5 U	10 U
5/7/01	10 U	0.5 U	10 UJ	0.5 U	10 U
8/14/01	10 UJ	0.5 U	10 UJ	0.5 U	10 U

17-MW-08

DATE	2-BUTANONE (ug/L)	CHLOROFORM (ug/L)	ACETONE (ug/L)	CARBON TETRACHLORIDE (ug/L)	METHYL ISOBUTYL KETONE (ug/L)
11/8/00	10 U	0.5 U	10 U	1.4	10 U
1/30/01	10 U	0.5 U	10 UJ	1.2	10 U
5/8/01	10 U	0.5 U	10 U	1	10 U
8/14/01	10UJ	0.5 U	10UJ	1.2	10 U

17-MW-18

DATE	2-BUTANONE (ug/L)	CHLOROFORM (ug/L)	ACETONE (ug/L)	CARBON TETRACHLORIDE (ug/L)	METHYL ISOBUTYL KETONE (ug/L)
Not Sampled 11/00					
Not Sampled 01/01					
5/9/01	10 U	0.5U	18 UJ	0.5 U	10 U
8/14/01	10UJ	0.5U	10UJ	0.5 U	10 U

17-MW-09

DATE	2-BUTANONE (ug/L)	CHLOROFORM (ug/L)	ACETONE (ug/L)	CARBON TETRACHLORIDE (ug/L)	METHYL ISOBUTYL KETONE (ug/L)
Not Sampled 11/00					
Not Sampled 01/01					
5/9/01	10 U	0.5 U	20 UJ	1.3	10 U
8/14/01	10 UJ	0.5 U	10UJ	1.4	10 U

11-MW-04

DATE	2-BUTANONE (ug/L)	CHLOROFORM (ug/L)	ACETONE (ug/L)	CARBON TETRACHLORIDE (ug/L)	METHYL ISOBUTYL KETONE (ug/L)
11/9/00	10 U	0.5 U	10 U	0.5 U	10 U
2/1/01	10 U	0.5 U	10 UJ	0.5 U	10 UJ
5/7/01	10 U	0.5 U	10 UJ	0.5 U	10 U
8/13/01	10 U	0.5 U	10 UJ	0.5 U	10 U

11-MW-03

DATE	2-BUTANONE (ug/L)	CHLOROFORM (ug/L)	ACETONE (ug/L)	CARBON TETRACHLORIDE (ug/L)	METHYL ISOBUTYL KETONE (ug/L)
Not Sampled 11/00					
Not Sampled 01/01					
5/7/01	10 U	0.5 U	10 UJ	0.5 U	10 U
8/13/01	10 U	0.5U	10 UJ	0.5 U	10 U

17-MW-03

DATE	2-BUTANONE (ug/L)	CHLOROFORM (ug/L)	ACETONE (ug/L)	CARBON TETRACHLORIDE (ug/L)	METHYL ISOBUTYL KETONE (ug/L)
Not Sampled 11/00					
Not Sampled 01/01					
5/8/01	10 U	11.1	10 U	126	10 U
8/15/01	10 UJ	8.5	10 UJ	123	10 U

17-MW-06

DATE	2-BUTANONE (ug/L)	CHLOROFORM (ug/L)	ACETONE (ug/L)	CARBON TETRACHLORIDE (ug/L)	METHYL ISOBUTYL KETONE (ug/L)
Not Sampled 11/00					
Not Sampled 01/01					
5/8/01	10 U	0.5	10 U	4.1	10 U
8/14/01	10 UJ	0.5U	10 UJ	2.7	10 U

17-MW-15

DATE	2-BUTANONE (ug/L)	CHLOROFORM (ug/L)	ACETONE (ug/L)	CARBON TETRACHLORIDE (ug/L)	METHYL ISOBUTYL KETONE (ug/L)
11/8/00	10 U	0.5 U	7J	0.5 U	10 U
1/31/01	6J	0.5 U	11 UJ	1.3	10 U
5/22/01	10 UJ	0.5 U	10 UJ	0.5 U	10 U
8/15/01	10 UJ	0.5U	10 UJ	0.5 U	10 U

CL1-MW-05

DATE	2-BUTANONE (ug/L)	CHLOROFORM (ug/L)	ACETONE (ug/L)	CARBON TETRACHLORIDE (ug/L)	METHYL ISOBUTYL KETONE (ug/L)
Not Sampled 11/00					
Not Sampled 01/01					
5/8/01	10 J	0.5 J	10 J	0.5 J	10 J
8/13/01	10 U	0.5U	10 U	1	10 U

CL1-MW-12(MD)

DATE	2-BUTANONE (ug/L)	CHLOROFORM (ug/L)	ACETONE (ug/L)	CARBON TETRACHLORIDE (ug/L)	METHYL ISOBUTYL KETONE (ug/L)
Not Sampled 11/00					
Not Sampled 01/01					
5/9/01	1000 UJ	50 U	1000 UJ	50 UJ	1000 U
8/14/01	500UJ	16J	500UJ	25U	500U

CL1-MW-06

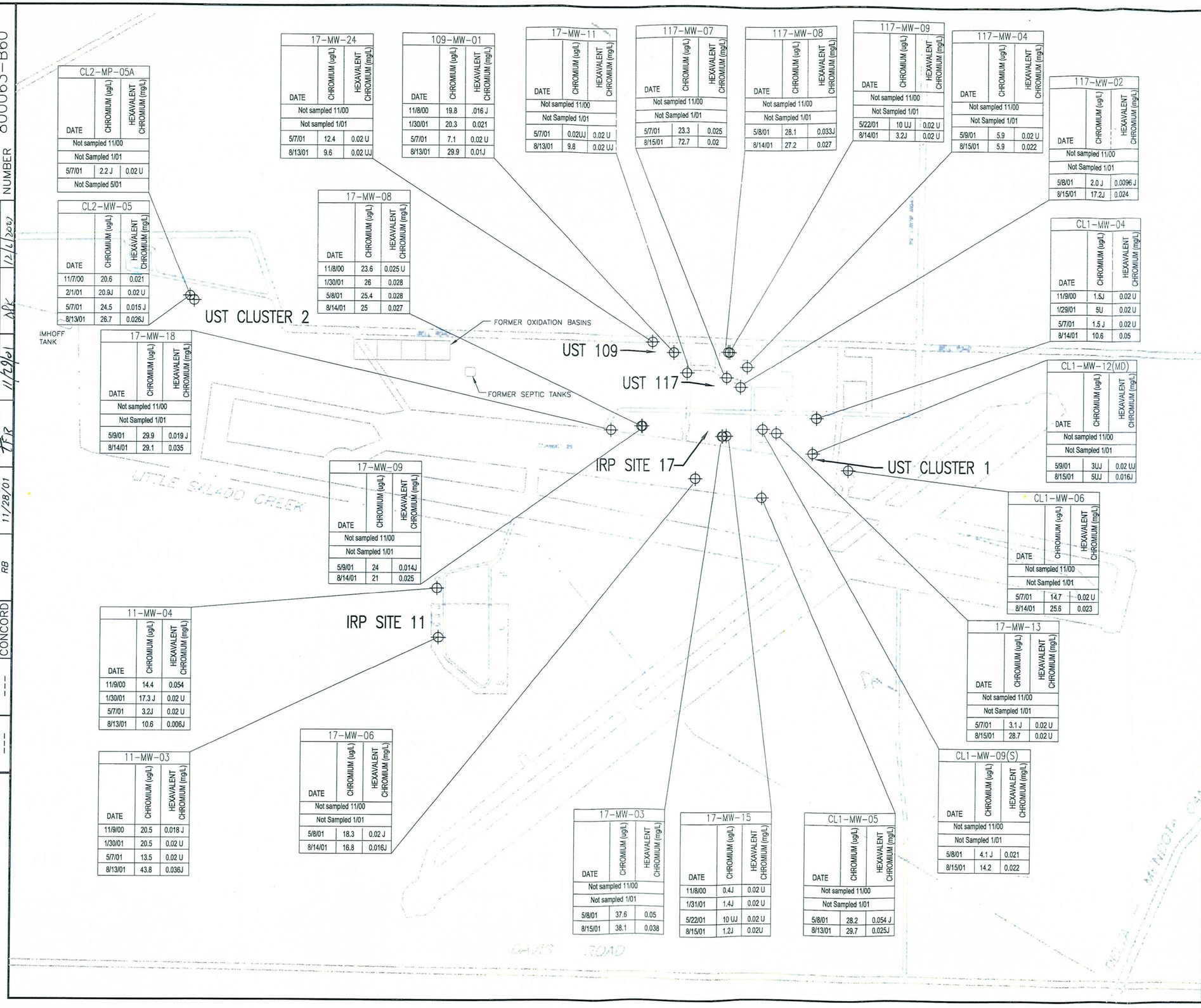
DATE	2-BUTANONE (ug/L)	CHLOROFORM (ug/L)	ACETONE (ug/L)	CARBON TETRACHLORIDE (ug/L)	METHYL ISOBUTYL KETONE (ug/L)
Not Sampled 11/00					
Not Sampled 01/01					
5/7/01	10 U	0.7	10 UJ	0.5 U	10 U
8/14/01	10 UJ	0.5U	10 UJ	0.5 U	10 U

17-MW-13

DATE	2-BUTANONE (ug/L)	CHLOROFORM (ug/L)	ACETONE (ug/L)	CARBON TETRACHLORIDE (ug/L)	METHYL ISOBUTYL KETONE (ug/L)
Not Sampled 11/00					
Not Sampled 01/01					
5/7/01	10 UJ	0. 5U	10 UJ	0.5U	10 U
8/15/01	10 UJ	0.5U	140J	0.6	10 U

CL1-MW-09(S)

DATE	2-BUTANONE (ug/L)	CHLOROFORM (ug/L)	ACETONE (ug/L)	CARBON TETRACHLORIDE (ug/L)	METHYL ISOBUTYL KETONE (ug/L)
Not Sampled 11/00					
Not Sampled 01/01					
5/8/01	10 U	22.1	40 U	0.5 U	10 U
8/15/01	50UJ	17	50UJ	2.5U	50 U



CL2-MP-05A

DATE	CHROMIUM (ug/L)	HEXAVALENT CHROMIUM (mg/L)
Not sampled 11/00		
Not Sampled 1/01		
5/7/01	2.2 J	0.02 U
Not Sampled 5/01		

CL2-MW-05

DATE	CHROMIUM (ug/L)	HEXAVALENT CHROMIUM (mg/L)
11/7/00	20.6	0.021
2/1/01	20.9J	0.02 U
5/7/01	24.5	0.015 J
8/13/01	26.7	0.026J

17-MW-18

DATE	CHROMIUM (ug/L)	HEXAVALENT CHROMIUM (mg/L)
Not sampled 11/00		
Not Sampled 1/01		
5/9/01	29.9	0.019 J
8/14/01	29.1	0.035

17-MW-24

DATE	CHROMIUM (ug/L)	HEXAVALENT CHROMIUM (mg/L)
Not sampled 11/00		
Not sampled 1/01		
5/7/01	12.4	0.02 U
8/13/01	9.6	0.02 UJ

17-MW-08

DATE	CHROMIUM (ug/L)	HEXAVALENT CHROMIUM (mg/L)
11/8/00	23.6	0.025 U
1/30/01	26	0.028
5/8/01	25.4	0.028
8/14/01	25	0.027

109-MW-01

DATE	CHROMIUM (ug/L)	HEXAVALENT CHROMIUM (mg/L)
11/8/00	19.8	.016 J
1/30/01	20.3	0.021
5/7/01	7.1	0.02 U
8/13/01	29.9	0.01J

17-MW-11

DATE	CHROMIUM (ug/L)	HEXAVALENT CHROMIUM (mg/L)
Not sampled 11/00		
Not Sampled 1/01		
5/7/01	0.02UJ	0.02 U
8/13/01	9.8	0.02 UJ

117-MW-07

DATE	CHROMIUM (ug/L)	HEXAVALENT CHROMIUM (mg/L)
Not sampled 11/00		
Not Sampled 1/01		
5/7/01	23.3	0.025
8/15/01	72.7	0.02

117-MW-08

DATE	CHROMIUM (ug/L)	HEXAVALENT CHROMIUM (mg/L)
Not sampled 11/00		
Not Sampled 1/01		
5/8/01	28.1	0.033J
8/14/01	27.2	0.027

117-MW-09

DATE	CHROMIUM (ug/L)	HEXAVALENT CHROMIUM (mg/L)
Not sampled 11/00		
Not Sampled 1/01		
5/22/01	10 UJ	0.02 U
8/14/01	3.2J	0.02 U

117-MW-04

DATE	CHROMIUM (ug/L)	HEXAVALENT CHROMIUM (mg/L)
Not sampled 11/00		
Not Sampled 1/01		
5/9/01	5.9	0.02 U
8/15/01	5.9	0.022

117-MW-02

DATE	CHROMIUM (ug/L)	HEXAVALENT CHROMIUM (mg/L)
Not sampled 11/00		
Not Sampled 1/01		
5/8/01	2.0 J	0.0096 J
8/15/01	17.2J	0.024

CL1-MW-04

DATE	CHROMIUM (ug/L)	HEXAVALENT CHROMIUM (mg/L)
11/9/00	1.5J	0.02 U
1/29/01	5U	0.02 U
5/7/01	1.5 J	0.02 U
8/14/01	10.6	0.05

CL1-MW-12(MD)

DATE	CHROMIUM (ug/L)	HEXAVALENT CHROMIUM (mg/L)
Not sampled 11/00		
Not Sampled 1/01		
5/9/01	3UJ	0.02 UJ
8/15/01	5UJ	0.016J

17-MW-09

DATE	CHROMIUM (ug/L)	HEXAVALENT CHROMIUM (mg/L)
Not sampled 11/00		
Not Sampled 1/01		
5/9/01	24	0.014J
8/14/01	21	0.025

CL1-MW-06

DATE	CHROMIUM (ug/L)	HEXAVALENT CHROMIUM (mg/L)
Not sampled 11/00		
Not Sampled 1/01		
5/7/01	14.7	0.02 U
8/14/01	25.6	0.023

11-MW-04

DATE	CHROMIUM (ug/L)	HEXAVALENT CHROMIUM (mg/L)
11/9/00	14.4	0.054
1/30/01	17.3 J	0.02 U
5/7/01	3.2J	0.02 U
8/13/01	10.6	0.006J

17-MW-13

DATE	CHROMIUM (ug/L)	HEXAVALENT CHROMIUM (mg/L)
Not sampled 11/00		
Not Sampled 1/01		
5/7/01	3.1 J	0.02 U
8/15/01	28.7	0.02 U

11-MW-03

DATE	CHROMIUM (ug/L)	HEXAVALENT CHROMIUM (mg/L)
11/9/00	20.5	0.018 J
1/30/01	20.5	0.02 U
5/7/01	13.5	0.02 U
8/13/01	43.8	0.036J

17-MW-06

DATE	CHROMIUM (ug/L)	HEXAVALENT CHROMIUM (mg/L)
Not sampled 11/00		
Not Sampled 1/01		
5/8/01	18.3	0.02 J
8/14/01	16.8	0.016J

CL1-MW-09(S)

DATE	CHROMIUM (ug/L)	HEXAVALENT CHROMIUM (mg/L)
Not sampled 11/00		
Not Sampled 1/01		
5/8/01	4.1 J	0.021
8/15/01	14.2	0.022

17-MW-03

DATE	CHROMIUM (ug/L)	HEXAVALENT CHROMIUM (mg/L)
Not sampled 11/00		
Not sampled 1/01		
5/8/01	37.6	0.05
8/15/01	38.1	0.038

17-MW-15

DATE	CHROMIUM (ug/L)	HEXAVALENT CHROMIUM (mg/L)
11/8/00	0.4J	0.02 U
1/31/01	1.4J	0.02 U
5/22/01	10 UJ	0.02 U
8/15/01	1.2J	0.02U

CL1-MW-05

DATE	CHROMIUM (ug/L)	HEXAVALENT CHROMIUM (mg/L)
Not sampled 11/00		
Not Sampled 1/01		
5/8/01	28.2	0.054 J
8/13/01	29.7	0.025J

LEGEND

⊕ MONITORING WELL LOCATIONS

400 0 400 800

SCALE: 1"=800'

IT CORPORATION

NASA
CROWS LANDING FLIGHT FACILITY
CROWS LANDING, CALIFORNIA

FIGURE 6

CONCENTRATIONS OF CHROMIUM IN GROUNDWATER SUMMER – 2001
QUARTERLY BASEWIDE GROUNDWATER VERIFICATION SAMPLING AND ANALYSIS

IMAGE	X-REF	OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
---	---	CONCORD	RB 11/28/01	TFR 11/29/01	NBK 12/6/2001	800063-B60

TABLES

Table 1
Well Construction and Water Level Data

	Well Construction Data						Water Level Data				
Well Designation	Approximate Depth of Screened Interval (ft. bgs[1])		Top of Casing Elevation (ft. amsl[2])	Approximate Elevation of Screened Interval , (ft. amsl[2])			Date	Depth to Water (ft. btoc[3])	Water Level Elevation (ft. amsl[2])	Depth of Screen Bottom Below Water Level (feet)	Depth of Screen Midpoint Below Water Table (feet)
	top	bottom		top	midpoint	bottom					
109-MW-01	43.0	68.0	134.22	91.2	78.7	66.2	11/08/00	48.25	85.97	19.8	7.2
							01/29/01	47.64	86.58	20.4	7.8
							05/03/01	47.75	86.47	20.3	7.7
							08/09/01	49.81	84.41	NA	NA
11-MW-03	50.0	75.0	141.35	91.3	78.8	66.4	NA	NA	NA	NA	NA
							NA	NA	NA	NA	NA
							05/03/01	54.08	87.27	20.9	8.4
							08/09/01	56.69	84.66	NA	NA
11-MW-04	49.0	74.0	138.31	89.3	76.8	64.3	11/09/00	51.51	86.80	22.5	10.0
							02/01/01	50.65	87.66	23.4	10.8
							05/03/01	51.14	87.17	22.9	10.4
							08/09/01	53.61	84.70	NA	NA
17-MW-03	97.0	107.0	142.09	45.1	40.1	35.1	NA	NA	NA	NA	NA
							NA	NA	NA	NA	NA
							05/03/01	54.43	87.66	52.6	47.6
							08/09/01	56.63	85.46	NA	NA
17-MW-06	50.0	75.0	140.73	88.4	75.9	63.5	NA	NA	NA	NA	NA
							NA	NA	NA	NA	NA
							05/03/01	52.92	87.81	22.1	9.6
							08/09/01	54.90	85.83	NA	NA
17-MW-08	50.0	75.0	138.45	88.4	75.9	63.5	11/07/00	51.82	86.63	23.2	10.7
							01/29/01	51.25	87.2	23.8	11.2
							05/03/01	50.91	87.54	24.1	11.6
							08/09/01	52.79	85.66	NA	NA
17-MW-09	102.0	112.0	138.16	36.2	31.2	26.2	NA	NA	NA	NA	NA
							NA	NA	NA	NA	NA
							05/03/01	51.11	87.05	60.9	55.9
							08/09/01	53.21	84.95	NA	NA

Table 1
Well Construction and Water Level Data (continued)

Well Designation	Well Construction Data: Approximate Depth of Screened Interval (ft. bgs[1])		Top of Casing Elevation (ft. amsl[2])	Approximate Elevation of Screened Interval (ft. amsl[2])			Water Level Data: Date	Depth to Water (ft. btoc[3])	Water Level Elevation (ft. amsl[2])	Depth of Screen Bottom Below Water Level (feet)	Depth of Screen Midpoint Below Water Table (feet)
	top	bottom		top	midpoint	bottom					
17-MW-11	108.5	118.5	135.90	27.4	22.4	17.4	NA	NA	NA	NA	NA
							NA	NA	NA	NA	NA
							05/03/01	49.50	86.40	69.0	64.0
							08/09/01	52.25	83.65	NA	NA
17-MW-13	95.0	105.0	144.00	49.0	44.0	39.0	NA	NA	NA	NA	NA
							NA	NA	NA	NA	NA
							05/03/01	56.21	87.79	48.8	43.8
							08/09/01	59.02	84.98	NA	NA
17-MW-15	260.0	270.0	141.86	-118.1	-123.1	-128.1	11/07/00	59.72	82.14	210.3	205.3
							01/29/01	57.98	83.88	212.0	207.0
							05/03/01	62.52	79.34	207.5	202.5
							08/09/01	75.96	65.90	NA	NA
17-MW-18	170.0	180.0	137.57	-32.4	-37.4	-42.4	NA	NA	NA	NA	NA
							NA	NA	NA	NA	NA
							05/03/01	52.02	85.55	128.0	123.0
							08/09/01	56.41	81.16	NA	NA
17-MW-24	43.0	63.0	133.33	89.3	79.3	69.3	NA	NA	NA	NA	NA
							NA	NA	NA	NA	NA
							05/03/01	46.95	86.38	17.1	7.1
							08/09/01	48.97	84.36	NA	NA
117-MW-02	50.0	75.0	142.00	92.0	79.5	67.0	NA	NA	NA	NA	NA
							NA	NA	NA	NA	NA
							05/03/01	54.54	87.46	20.5	7.9
							08/09/01	56.72	85.28	NA	NA
117-MW-04	49.0	74.0	139.31	90.3	77.8	65.3	NA	NA	NA	NA	NA
							NA	NA	NA	NA	NA
							05/03/01	52.43	86.88	21.6	9.1
							08/09/01	54.70	84.61	NA	NA

Table 1
Well Construction and Water Level Data (continued)

Well Designation	Well Construction Data: Approximate Depth of Screened Interval (ft. bgs[1])		Top of Casing Elevation (ft. amsl[2])	Approximate Elevation of Screened Interval (ft. amsl[2])			Water Level Data: Date	Depth to Water (ft. btoc[3])	Water Level Elevation (ft. amsl[2])	Depth of Screen Bottom Below Water Level (feet)	Depth of Screen Midpoint Below Water Table (feet)
	top	bottom		top	midpoint	bottom					
117-MW-07	108.0	118.0	137.96	29.9	24.9	19.9	NA	NA	NA	NA	NA
							NA	NA	NA	NA	NA
							05/03/01	51.95	86.01	67.1	62.1
							08/09/01	55.71	82.25	NA	NA
117-MW-08	170.0	179.0	136.46	-33.5	-38.0	-42.5	NA	NA	NA	NA	NA
							NA	NA	NA	NA	NA
							05/03/01	52.60	83.86	126.4	121.9
							08/09/01	59.34	77.12	NA	NA
117-MW-09	260.0	270.0	136.97	-123.0	-128.0	-133.0	NA	NA	NA	NA	NA
							NA	NA	NA	NA	NA
							05/03/01	60.14	76.83	209.9	204.9
							08/09/01	76.03	60.94	NA	NA
CL1-MW-04	50.0	75.0	144.12	94.1	81.6	69.1	11/07/00	56.74	87.38	18.3	5.76
							01/29/01	56.43	87.69	18.6	6.07
							05/03/01	56.10	88.02	18.9	6.4
							08/09/01	58.06	86.06	NA	NA
CL1-MW-05	50.0	75.0	142.92	92.9	80.4	67.9	NA	NA	NA	NA	NA
							NA	NA	NA	NA	NA
							05/03/01	54.38	88.54	20.6	8.1
							08/09/01	56.37	86.55	NA	NA
CL1-MW-06	54.0	79.0	146.55	92.5	80.0	67.5	NA	NA	NA	NA	NA
							NA	NA	NA	NA	NA
							05/03/01	57.63	88.92	21.4	8.9
							08/09/01	59.82	86.73	NA	NA
CL1-MW-09 (S)	45.0	70.0	143.10	98.1	85.6	73.1	NA	NA	NA	NA	NA
							NA	NA	NA	NA	NA
							05/03/01	55.21	87.89	14.8	2.3
							08/09/01	57.35	85.75	NA	NA

Table 1
Well Construction and Water Level Data (continued)

Well Designation	Well Construction Data: Approximate Depth of Screened Interval (ft. bgs[1])		Top of Casing Elevation (ft. amsl[2])	Approximate Elevation of Screened Interval (ft. amsl[2])			Water Level Data: Date	Depth to Water (ft. btoc[3])	Water Level Elevation (ft. amsl[2])	Depth of Screen Bottom Below Water Level (feet)	Depth of Screen Midpoint Below Water Table (feet)
	top	bottom		top	midpoint	bottom					
CL1-MW-12 (MD)	140.0	150.0	145.75	5.7	0.75	-4.3	NA	NA	NA	NA	NA
							NA	NA	NA	NA	NA
							05/03/01	58.79	86.96	91.2	86.2
							08/09/01	65.11	80.64	NA	NA
CL2-MP-02 A	28.0	38.0	122.86	94.8	89.9	84.9	NA	NA	NA	NA	NA
							NA	NA	NA	NA	NA
							05/03/01	40.86	82.00	-2.9	-7.9
							08/09/01	NA	NA	NA	NA
CL2-MP-05 A	38.0	43.0	125.64	84.9	82.4	79.9	NA	NA	NA	NA	NA
							NA	NA	NA	NA	NA
							05/03/01	40.47	85.17	2.5	0.03
							08/09/01	NA	NA	NA	NA
CL2-MW-05	80.0	90.0	122.16	42.2	37.1	32.2	11/07/00	37.21	84.95	52.8	47.79
							01/29/01	36.89	85.27	53.1	48.11
							05/03/01	37.57	84.59	52.4	47.4
							08/09/01	41.84	80.32	NA	NA
BG-MW-01	84.0	104.0	167.68	83.7	73.7	63.7	11/07/00	76.76	90.92	27	17
(Not Included in Sampling Program)							01/29/01	76.32	91.36	27	17
							05/03/01	77.18	90.50	27	17
							08/09/01	80.86	86.82	24	14
BG-MW-03	65.0	85.0	153.32	88.3	78.3	68.3	11/08/00	65.28	88.04	19	9
(Not Included in Sampling Program)							01/29/01	64.57	88.75	20	10
							05/03/01	64.85	88.47	20	10
			155.10				08/09/01	NA	NA	NA	NA

[1] ft. bgs denotes feet below ground surface.
[2] ft. amsl denotes feet above mean sea level.
[3] ft. btoc denotes feet below top of casing.

Table 2
Selected Monitoring Wells for Summer 2001

Well ID	Description	Screened Interval (ft bgs)[1]	Approximate Depth of Screen Midpoint Below Water Table (feet)
Site 11			
11-MW-03	Close to decommissioned wells where petroleum hydrocarbons were previously detected.	50 - 75	9
11-MW-04	Shallow well at boundary of Site 11.	49-74	10
Site 17			
17-MW-03	Well that consistently has the highest carbon tetrachloride concentrations.	97-107	49
17-MW-06	Western-most shallow well at Site 17 plume.	50-75	10
17-MW-08	Shallow aquifer well on the northern plume boundary of Site 17.	50-75	12
17-MW-09	Northern-most mid-shallow well at Site 17 plume. Shows higher concentration than paired shallow.	102-112	56
17-MW-11	Furthest downgradient mid-shallow well at Site 17 plume.	108.5-118.5	64
17-MW-13	Mid-shallow well downgradient of source at UST Cluster 1 and upgradient of Site 17 plume.	95-105	44
17-MW-15	Deep well near source at Site 17.	260-270	202
17-MW-18	Northern-most mid-deep well at Site 17 plume.	170-180	123
17-MW-24	Furthest downgradient shallow well at Administration Area plume.	42-62	5
UST 109			
109-MW-01	Shallow aquifer well inside the UST 109 soil contamination area	43-68	8
UST 117			
117-MW-02	Near source of petroleum hydrocarbons at UST 117. Shows detections of 1,2-dichloropropane.	50-75	8
117-MW-04	Downgradient (leading edge) of UST 117 plume.	49-74	9

Table 2 (continued)
Selected Monitoring Wells for Summer 2001

Well ID	Description	Screened Interval (ft bgs)[1]	Approximate Depth of Screen Midpoint Below Water Table (feet)
117-MW-07	Deep aquifer well within the soil contamination area of UST 117 and the carbon tetrachloride plume of site 17.	108-118	61
117-MW-08	Furthest downgradient mid-deep well at Administration Area plume.	170-179	122
117-MW-09	Furthest downgradient deep well at Administration Area plume.	260-270	205
UST Cluster 1			
CL1-MW-04	Downgradient (leading edge) of UST Cluster 1 plume.	50-75	6
CL1-MW-05	Upgradient of Administration Area plume.	50-75	8
CL1-MW-06	Upgradient of UST Cluster 1 and Administration Area plume.	54-79	9
CL1-MW-09(S)	Shallow well downgradient (leading edge) of UST Cluster 1 and upgradient (leading edge) of Site 17.	45-70	2.3
CL1-MW-12(MD)	Mid-deep well near source at UST Cluster 1.	140-150	86.2
UST Cluster 2			
CL2-MP-02A	Well that consistently has highest petroleum hydrocarbon concentrations at UST Cluster 2.	28-38	76.8
CL2-MP-05A	Downgradient of UST Cluster 2 plume.	38-43	0
CL2-MW-05	Mid-shallow well near source of contamination at UST Cluster 2.	80-90	47

ft bgs – Denotes feet below ground surface

Table 3
Groundwater Analytical Data Summary, August 2001

Sample ID	Method	11-MW-03	11-MW-04	109-MW-01	17-MW-03	17-MW-06	17-MW-08	17-MW-09	17-MW-09 dup	17-MW-11	17-MW-13	17-MW-15	17-MW-18	17-MW-24
Aquifer		shallow	shallow	shallow	mid shallow	shallow	shallow	mid shallow	CL99-15	mid shallow	mid shallow	deep	mid deep	shallow
Screen Interval (ft bgs)		50-75	49-74	43-68	97-107	50-75	50-75	102-112		108.5-118.5	95-105	260-270	170-180	42-62
alkalinity	310.1	220 mg/L	290 mg/L	240 mg/L	170 mg/L	210 mg/L	110 mg/L	130 mg/L	130 mg/L	190 mg/L	240 mg/L	270 mg/L	160 mg/L	350 mg/L
TDS	160.1	938 mg/L	800 mg/L	836 mg/L	762 mg/L	520 mg/L	1280 mg/L	1090 mg/L	1130 mg/L	760 mg/L	1280 mg/L	1240 mg/L	798 mg/L	1080 mg/L
chloride	9056	134 mg/L	90 mg/L	57 mg/L	43 mg/L	12 mg/L	50 mg/L	39 mg/L	40 mg/L	67 mg/L	123 mg/L	42 mg/L	37 mg/L	119 mg/L
nitrate	9056	16.7J mg/L	9.3J mg/L	11 mg/L	25.1 mg/L	12.5 mg/L	32.2 mg/L	24.2 mg/L	24.1 mg/L	8.4 mg/L	5.3 mg/L	<0.8 mg/L	12 mg/L	14 mg/L
nitrite	9056	<1J mg/L	<1J mg/L	<1 mg/L	<0.5 mg/L	<0.25 mg/L	<1 mg/L	<1 mg/L	<1 mg/L	<1 mg/L	<1 mg/L	<1 mg/L	<1 mg/L	<1 mg/L
orthophosphate	9056	<2J mg/L	<2J mg/L	<2 mg/L	<1 mg/L	<0.5 mg/L	<2 mg/L	<2 mg/L	<2 mg/L	<2 mg/L	<2 mg/L	<2 mg/L	<2 mg/L	<2 mg/L
sulfate	9056	255 mg/L	180 mg/L	261 mg/L	272 mg/L	118 mg/L	519 mg/L	485 mg/L	478 mg/L	265 mg/L	529 mg/L	694 mg/L	288 mg/L	233 mg/L
antimony	6010	4.6J µg/L	3.7J µg/L	<10 µg/L	<10J µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10J µg/L	<10J µg/L	<10 µg/L	<10 µg/L
arsenic	6010	5.4 µg/L	<5J µg/L	<5 µg/L	<5 µg/L	<5 µg/L	<5 µg/L	<5 µg/L	<5 µg/L	<5 µg/L	<5 µg/L	<5 µg/L	<5 µg/L	<6 µg/L
barium	6010	46.1 µg/L	78.5 µg/L	21.4 µg/L	27 µg/L	54.1 µg/L	12.7 µg/L	12.7 µg/L	13.5 µg/L	31.4 µg/L	28.5 µg/L	37.7 µg/L	14.8 µg/L	20.2 µg/L
beryllium	6010	<2 µg/L	<2 µg/L	<2 µg/L	<2 µg/L	<2 µg/L	<2 µg/L	<2 µg/L	<2 µg/L	<2 µg/L	<2 µg/L	<2 µg/L	<2 µg/L	<2 µg/L
cadmium	6010	<2J µg/L	<2J µg/L	<2J µg/L	<2 µg/L	<2 µg/L	<2 µg/L	<2 µg/L	<2 µg/L	<2 µg/L	<2 µg/L	<2 µg/L	<2 µg/L	<2 µg/L
chromium	6010	43.8 µg/L	10.6 µg/L	29.9 µg/L	38.1 µg/L	16.8 µg/L	25 µg/L	21 µg/L	22.5 µg/L	9.8 µg/L	28.7 µg/L	1.2J µg/L	29.1 µg/L	9.6 µg/L
cobolt	6010	<5 µg/L	<5J µg/L	<5 µg/L	<5 µg/L	<5 µg/L	<5 µg/L	<5 µg/L	<5 µg/L	<5 µg/L	<5J µg/L	<5 µg/L	<5 µg/L	<5 µg/L
copper	6010	<10J µg/L	7.8J µg/L	2.9J µg/L	<10J µg/L	10J µg/L	<10J µg/L	<10J µg/L	<10J µg/L	2.0J µg/L	<10J µg/L	<10 µg/L	<10J µg/L	13.4 µg/L
lead	6010	<5.5 µg/L	5.0J µg/L	<5J µg/L	1J µg/L	5J µg/L	<5J µg/L	<5J µg/L	<5J µg/L	<5J µg/L	<5 µg/L	1.8J µg/L	<5J µg/L	5 J µg/L
mercury	7470	0.32J µg/L	0.23J µg/L	0.24J µg/L	0.69 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	0.36J µg/L	0.56 µg/L	0.33J µg/L	<0.5 µg/L	0.30J µg/L
molybdenum	6010	<6.7 µg/L	<9.6 µg/L	<5J µg/L	<5J µg/L	<5.3 µg/L	<5J µg/L	<0.5 µg/L	<5J µg/L	<6.4 µg/L	<6.8 µg/L	<5J µg/L	<5J µg/L	5 J µg/L
nickel	6010	8.1 µg/L	11.5 µg/L	<5 µg/L	1.4J µg/L	<5 µg/L	<5 µg/L	<5 µg/L	<5 µg/L	2.4J µg/L	5.5 µg/L	1.2J µg/L	3.3J µg/L	6.6 µg/L
selenium	6010	<10J µg/L	<10J µg/L	<14 µg/L	9.1J µg/L	5.4J µg/L	26.8 µg/L	25.7 µg/L	22.9 µg/L	<12.7 µg/L	<10 µg/L	<10 µg/L	7.8J µg/L	10 J µg/L
silver	6010	1.4J µg/L	1.6J µg/L	1.4J µg/L	<10 µg/L	10J µg/L	<10J µg/L	<10J µg/L	<10J µg/L	1.1J µg/L	<10 µg/L	<10 µg/L	<10J µg/L	<10 µg/L
thallium	6010	<10 µg/L	<10 µg/L	<10 µg/L	<10J µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L
vanadium	6010	2.4J µg/L	3.2J µg/L	1.8J µg/L	2.5J µg/L	<10J µg/L	<10J µg/L	<10J µg/L	<10J µg/L	1.5J µg/L	2.3J µg/L	<10J µg/L	<10J µg/L	3.3J µg/L
zinc	6010	141 µg/L	133 µg/L	64.5 µg/L	77.1 µg/L	65 µg/L	26.5 µg/L	50.8 µg/L	54.3 µg/L	224 µg/L	174 µg/L	19.1 µg/L	141 µg/L	272 µg/L
hexavalent chromium	7196A	0.036J mg/L	0.006J mg/L	0.01J mg/L	0.038 mg/L	0.016J mg/L	0.027 mg/L	0.025 mg/L	0.027 mg/L	<0.02J mg/L	<0.02 mg/L	<0.02 mg/L	0.035 mg/L	<0.02J mg/L
TPH-gasoline	M8015V	<0.05J mg/L	<0.05J mg/L	<0.05J mg/L	<0.05J mg/L	<0.05J mg/L	<0.05J mg/L	<0.05J mg/L	<0.05J mg/L	<0.05J mg/L	0.27 mg/L	<0.05J mg/L	<0.05J mg/L	<0.05J mg/L
TPH-jet fuel	M8015V	<0.05 mg/L	<0.05 mg/L	<0.05 mg/L	<0.05 mg/L	<0.05 mg/L	<0.05 mg/L	<0.05 mg/L	<0.05 mg/L	<0.05 mg/L	<0.05 mg/L	<0.05 mg/L	<0.05 mg/L	<0.05 mg/L
TPH-diesel	M8015E	0.1 mg/L	<0.1[a] mg/L	0.06J mg/L	<0.1[a] mg/L	0.32 mg/L	0.28 mg/L	0.36 mg/L	0.28 mg/L	<0.1[a] mg/L	<0.1[a] mg/L	<0.1[a] mg/L	0.3 mg/L	0.1[a] mg/L
TPH-motor oil	M8015E	0.06J mg/L	0.07J mg/L	0.04J mg/L	<0.1 mg/L	0.1 mg/L	0.2 mg/L	0.1J mg/L	0.2 mg/L	<0.1 mg/L	<0.1 mg/L	<0.1 mg/L	0.1 mg/L	<0.1 mg/L
acetone	8260	<10J µg/L	<10J µg/L	<10J µg/L	<10J µg/L	<10J µg/L	<10J µg/L	<10J µg/L	<10J µg/L	<10J µg/L	140J µg/L	<10J µg/L	<10J µg/L	<10J µg/L
benzene	8260	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	2.1 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L
sec-butylbenzene	8260	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	6.1 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L
tert-butylbenzene	8260	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	9.6 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L
carbon disulfide	8260	<10 µg/L	<10 µg/L	<10 µg/L	<10J µg/L	<10J µg/L	<10J µg/L	<10J µg/L	<10J µg/L	<10J µg/L	<10J µg/L	1J µg/L	<10J µg/L	<10 µg/L
carbon tetrachloride	8260	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	123 µg/L	2.7 µg/L	1.2 µg/L	1.4 µg/L	1.2 µg/L	2.5 µg/L	0.6 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L
chloroform	8260	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	8.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L
1,1-dichloroethane	8260	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	1.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L
1,2-dichloroethane	8260	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	5.1 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L
1,2-dichloropropane	8260	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L
ethylbenzene	8260	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	0.5J µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L
2-hexanone	8260	<10 µg/L	<10 µg/L	<10 µg/L	<10J µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10J µg/L	<10J µg/L	<10 µg/L	<10 µg/L
isopropylbenzene (cumene)	8260	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	64.4 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L
2-butanone (MEK)	8260	<10 µg/L	<10 µg/L	<10 µg/L	<10J µg/L	<10J µg/L	<10J µg/L	<10J µg/L	<10J µg/L	<10J µg/L	<10J µg/L	<10J µg/L	<10J µg/L	<10 µg/L
methylene chloride	8260	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<2 µg/L	<2 µg/L	<2 µg/L	<2 µg/L	<2 µg/L	<0.5 µg/L	<3.5 µg/L	<2 µg/L	<2 µg/L	<0.5 µg/L
methyl isobutyl ketone (MIBK)	8260	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L
MTBE	8260	<1 µg/L	<1 µg/L	<1 µg/L	<1 µg/L	<1 µg/L	<1 µg/L	<1 µg/L	<1 µg/L	<1 µg/L	<1 µg/L	<1 µg/L	<1 µg/L	<1 µg/L
napthalene	8260	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5J µg/L	<0.5J µg/L	<0.5J µg/L	<0.5J µg/L	<0.5J µg/L	<0.5J µg/L	<0.5J µg/L	<0.5J µg/L	<0.5J µg/L	<0.5 µg/L
n-propylbenzene	8260	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	1.8 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L
tert-butyl alcohol	8260	<20J µg/L	<20J µg/L	<20J µg/L	<20J µg/L	<20J µg/L	<20J µg/L	<20J µg/L	<20J µg/L	<20J µg/L	230J µg/L	<20J µg/L	<20J µg/L	<20J µg/L
toluene	8260	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L
TCE	8260	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L
1,3,5-trimethylbenzene	8260	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	0.3J µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L
xylenes	8260	<1 µg/L	<1 µg/L	<1 µg/L	<1 µg/L	<1 µg/L	<1 µg/L	<1 µg/L	<1 µg/L	<1 µg/L	<1 µg/L	<1 µg/L	<1 µg/L	<1 µg/L

Detections are bolded

[a] Sample chromatogram contained an unknown peak at C_{18}.

[b] Sample chromatogram contained some unknown peak in motor oil range

Table 3
Groundwater Analytical Data Summary, August 2001

Sample ID	Method	17-MW-24 dup	117-MW-02	117-MW-04	117-MW-07	117-MW-08	117-MW-09	CL1-MW-04	CL1-MW-05	CL1-MW-06	CL1-MW-09(S)	CL1-MW-12(MD)	CL2-MW-05	NASA-SW-3
Aquifer		CL99-14	shallow	shallow	mid shallow	mid deep	deep	shallow	shallow	shallow	shallow	mid deep	mid shallow	
Screen Interval (ft bgs)			50-75	49-74	108-118	170-179	260-270	50-75	50-75	54-79	45-70	140-150	80-90	
alkalinity	310.1	350 mg/L	370 mg/L	270 mg/L	160 mg/L	150 mg/L	200 mg/L	290 mg/L	200 mg/L	230 mg/L	300 mg/L	330 mg/L	340 mg/L	130 mg/L
TDS	160.1	1080 mg/L	680 mg/L	612 mg/L	660 mg/L	840 mg/L	1510 mg/L	782 mg/L	738 mg/L	1610 mg/L	1410 mg/L	886 mg/L	882 mg/L	1360 mg/L
chloride	9056	119 mg/L	130 mg/L	109 mg/L	85 mg/L	55 mg/L	45 mg/L	66 mg/L	16 mg/L	100 mg/L	93 mg/L	81 mg/L	112 mg/L	91 mg/L
nitrate	9056	14 mg/L	<0.8 mg/L	18.4 mg/L	13.9 mg/L	11 mg/L	<1.6 mg/L	3.5 mg/L	20.5 mg/L	25 mg/L	15 mg/L	<0.4 mg/L	8.8 mg/L	13J mg/L
nitrite	9056	<1 mg/L	<1 mg/L	<0.75 mg/L	<0.75 mg/L	<1 mg/L	<2 mg/L	<0.5 mg/L	<0.5 mg/L	<2.5 mg/L	2.3 mg/L	<0.5 mg/L	<1 mg/L	<1J mg/L
orthophosphate	9056	<2 mg/L	<2 mg/L	<1.5 mg/L	<1.5 mg/L	<2 mg/L	<4 mg/L	<1 mg/L	<1 mg/L	<5 mg/L	<2 mg/L	<1 mg/L	<2 mg/L	<2J mg/L
sulfate	9056	236 mg/L	47 mg/L	55 mg/L	175 mg/L	269 mg/L	727 mg/L	205 mg/L	236 mg/L	675 mg/L	600 mg/L	288 mg/L	150 mg/L	686 mg/L
antimony	6010	<10 µg/L	<10J µg/L	<10J µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	4.9J µg/L	<10 µg/L
arsenic	6010	<5.5 µg/L	<5 µg/L	<5 µg/L	<5 µg/L	<5 µg/L	<5 µg/L	<5 µg/L	<5J µg/L	2.4J µg/L	<5 µg/L	<5J µg/L	<5J µg/L	<5J µg/L
barium	6010	21 µg/L	227J µg/L	87.1 µg/L	22.4 µg/L	17.8 µg/L	18 µg/L	26.1 µg/L	22 µg/L	17.9 µg/L	16.1 µg/L	62.4 µg/L	37.8 µg/L	33.9 µg/L
beryllium	6010	<2J µg/L	<2 µg/L	<2 µg/L	<2 µg/L	<2 µg/L	<2 µg/L	<2 µg/L	<2 µg/L	<2J µg/L	<2 µg/L	<2 µg/L	<2 µg/L	<2 µg/L
cadmium	6010	<2J µg/L	<2 µg/L	<2 µg/L	<2 µg/L	<2 µg/L	<2 µg/L	<2 µg/L	<2J µg/L	<2 µg/L	<2 µg/L	<2 µg/L	<2J µg/L	<2 µg/L
chromium	6010	16.9 µg/L	17.2J µg/L	5.9 µg/L	72.7 µg/L	27.2 µg/L	3.2J µg/L	10.6 µg/L	29.7 µg/L	25.6 µg/L	14.2 µg/L	<5J µg/L	26.7 µg/L	17.5 µg/L
cobolt	6010	<5 µg/L	<5J µg/L	<5 µg/L	<5J µg/L	<5 µg/L	<5 µg/L	<5 µg/L	<5 µg/L	<5J µg/L	<5J µg/L	<5 µg/L	<5 µg/L	<5 µg/L
copper	6010	12 µg/L	<10 µg/L	<10 µg/L	<10J µg/L	11.6 µg/L	<10J µg/L	<10 µg/L	2.2J µg/L	<10J µg/L	<10J µg/L	<10 µg/L	22.7 µg/L	5.4J µg/L
lead	6010	<6.9 µg/L	1.3J µg/L	1.1J µg/L	<5 µg/L	<5J µg/L	<5J µg/L	<5J µg/L	<5J µg/L	<5J µg/L	0.96J µg/L	<5 µg/L	<5J µg/L	<5J µg/L
mercury	7470	0.64 µg/L	0.71 µg/L	0.73 µg/L	0.47J µg/L	0.85 µg/L	<0.5 µg/L	<0.5 µg/L	0.23 µg/L	<0.5 µg/L	0.58 µg/L	0.35J µg/L	0.27J µg/L	0.24J µg/L
molybdenum	6010	<5J µg/L	<8.5 µg/L	<5J µg/L	<5J µg/L	<5.6 µg/L	<8 µg/L	<5J µg/L	<5J µg/L	<9.5 µg/L	<5J µg/L	<5 µg/L	<5J µg/L	<5J µg/L
nickel	6010	7.3 µg/L	16.6 µg/L	1.0J µg/L	26.4 µg/L	9 µg/L	3.5J µg/L	2.5J µg/L	<5 µg/L	5.2 µg/L	10.3 µg/L	0.62J µg/L	9.9 µg/L	3.5J µg/L
selenium	6010	10 J µg/L	<10 µg/L	9.9J µg/L	<10J µg/L	12.4 µg/L	<10 µg/L	3.6J µg/L	<10J µg/L	58.7 µg/L	12.8 µg/L	<10 µg/L	<10J µg/L	42.1 µg/L
silver	6010	1.1J µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10J µg/L	<10J µg/L	<10J µg/L	<10 µg/L	<10J µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L
thallium	6010	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L
vanadium	6010	3.3J µg/L	<10J µg/L	2.9J µg/L	2.5J µg/L	8.5J µg/L	<10J µg/L	<10J µg/L	1.1J µg/L	<10J µg/L	2.1J µg/L	<10 µg/L	1.5J µg/L	3.9J µg/L
zinc	6010	406 µg/L	231 µg/L	64.1 µg/L	142 µg/L	244 µg/L	228 µg/L	37.8 µg/L	75 µg/L	565 µg/L	97.1 µg/L	10.1 µg/L	454 µg/L	105 µg/L
hexavalent chromium	7196A	<0.02J mg/L	0.024 mg/L	0.022 mg/L	0.02 mg/L	0.027 mg/L	<0.02 mg/L	0.05 mg/L	0.025J mg/L	0.023 mg/L	0.022 mg/L	0.016J mg/L	0.026J mg/L	0.02J mg/L
TPH-gasoline	M8015V	<0.05J mg/L	0.19 mg/L	<0.05J mg/L	<0.05J mg/L	<0.05J mg/L	<0.05J mg/L	<0.05J mg/L	<0.05J mg/L	<0.05J mg/L	0.51 mg/L	166 mg/L	<0.05J mg/L	<0.05J mg/L
TPH-jet fuel	M8015V	<0.05 mg/L	<0.05 mg/L	<0.05 mg/L	<0.05 mg/L	<0.05 mg/L	<0.05 mg/L	<0.05 mg/L	<0.05 mg/L	<0.05 mg/L	<0.05 mg/L	<5 mg/L	<0.05 mg/L	<0.05 mg/L
TPH-diesel	M8015E	0.1J mg/L	<0.1[a] mg/L	<0.1[a] mg/L	<0.1[a] mg/L	0.26 mg/L	0.39 mg/L	0.26 mg/L	0.1 mg/L	0.3 mg/L	<0.1[a] mg/L	<0.5 mg/L	<0.1[a] mg/L	0.1 mg/L
TPH-motor oil	M8015E	0.04J mg/L	<0.1 mg/L	<0.1 mg/L	0.2 mg/L	0.22 mg/L	0.1 mg/L	0.2 mg/L	<0.1 mg/L	0.1J mg/L	<0.1 mg/L	<0.5 mg/L	<0.1 mg/L	0.04J mg/L
acetone	8260	<10J µg/L	<10J µg/L	<10J µg/L	<10J µg/L	<10J µg/L	<10J µg/L	<10J µg/L	<10 µg/L	<10J µg/L	<50J µg/L	<500J µg/L	<10J µg/L	<10J µg/L
benzene	8260	<0.5 µg/L	1.1 µg/L	1 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	261 µg/L	17,200 µg/L	<0.5 µg/L	<0.5 µg/L
sec-butylbenzene	8260	<0.5 µg/L	5.8 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<2.5 µg/L	<25 µg/L	<0.5 µg/L	<0.5 µg/L
tert-butylbenzene	8260	<0.5 µg/L	5.8 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<2.5 µg/L	290 µg/L	<0.5 µg/L	<0.5 µg/L
carbon disulfide	8260	<10 µg/L	21J µg/L	0.5J µg/L	<10J µg/L	<10J µg/L	<10J µg/L	<10J µg/L	<10 µg/L	<10J µg/L	<50 µg/L	<500J µg/L	<10 µg/L	<10 µg/L
carbon tetrachloride	8260	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	12.2 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	1 µg/L	<0.5 µg/L	<2.5 µg/L	<25 µg/L	<0.5 µg/L	<0.5 µg/L
chloroform	8260	<0.5 µg/L	1.1 µg/L	<0.5 µg/L	2.7 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	17 µg/L	16J µg/L	<0.5 µg/L	<0.5 µg/L
1,1-dichloroethane	8260	<0.5 µg/L	0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<2.5 µg/L	<25 µg/L	<0.5 µg/L	<0.5 µg/L
1,2-dichloroethane	8260	<0.5 µg/L	138 µg/L	2 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	12 µg/L	470 µg/L	<0.5 µg/L	<0.5 µg/L
1,2-dichloropropane	8260	<0.5 µg/L	3.1 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<2.5 µg/L	<25 µg/L	<0.5 µg/L	<0.5 µg/L
ethylbenzene	8260	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<2.5 µg/L	<25 µg/L	<0.5 µg/L	<0.5 µg/L
2-hexanone	8260	<10 µg/L	<10J µg/L	<10J µg/L	<10J µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<50 µg/L	<500J µg/L	<10 µg/L	<10 µg/L
isopropylbenzene (cumene)	8260	<0.5 µg/L	5.3 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<2.5 µg/L	1770 µg/L	<0.5 µg/L	<0.5 µg/L
2-butanone (MEK)	8260	<10 µg/L	<10J µg/L	<10J µg/L	<10J µg/L	<10J µg/L	<10J µg/L	<10J µg/L	<10 µg/L	<10J µg/L	<50J µg/L	<500J µg/L	<10 µg/L	<10 µg/L
methylene chloride	8260	<0.5 µg/L	<2.7J µg/L	<2.2J µg/L	<3J µg/L	<2 µg/L	<2 µg/L	<2.4 µg/L	<0.5 µg/L	<2 µg/L	<12 µg/L	<260 µg/L	<0.5 µg/L	<2 µg/L
methyl isobutyl ketone (MIBK)	8260	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<10 µg/L	<50 µg/L	<500 µg/L	<10 µg/L	<10 µg/L
MTBE	8260	<1 µg/L	<1 µg/L	<1 µg/L	<1 µg/L	<1 µg/L	<1 µg/L	<1 µg/L	<1 µg/L	<1 µg/L	<5 µg/L	<50 µg/L	<1 µg/L	<1 µg/L
napthalene	8260	<0.5 µg/L	<0.5J µg/L	<0.5J µg/L	<0.5J µg/L	<0.5J µg/L	<0.5J µg/L	<0.5J µg/L	<0.5 µg/L	<0.5J µg/L	<2.5 µg/L	<25J µg/L	<0.5 µg/L	<0.5 µg/L
n-propylbenzene	8260	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<2.5 µg/L	<25 µg/L	<0.5 µg/L	<0.5 µg/L
tert-butyl alcohol	8260	<20J µg/L	150J µg/L	<20J µg/L	<20J µg/L	<20J µg/L	<20J µg/L	<20J µg/L	<20J µg/L	<20 µg/L	28J µg/L	<1000 µg/L	<20J µg/L	<20J µg/L
toluene	8260	<0.5 µg/L	0.7 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<2.5 µg/L	15J µg/L	<0.5 µg/L	<0.5 µg/L
TCE	8260	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<2.5 µg/L	<25 µg/L	<0.5 µg/L	<0.5 µg/L
1,3,5-trimethylbenzene	8260	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<0.5 µg/L	<2.5 µg/L	<25 µg/L	<0.5 µg/L	<0.5 µg/L
xylenes	8260	<1 µg/L	<1 µg/L	<1 µg/L	<1 µg/L	<1 µg/L	<1 µg/L	<1 µg/L	<1 µg/L	<1 µg/L	<5 µg/L	25J µg/L	<1 µg/L	<1 µg/L

Detections are bolded

[a] Sample chromatogram contained an unknow

[b] Sample chromatogram contained some unkn

APPENDIX A
GROUNDWATER MONITORING DATA FORMS AND SAMPLE COLLECTION LOGS

Water Level measurements

Quarterly Monitoring – Crow Landing (August 9, 2001)

Well ID	Screen Interval (ft bgs)	Diameter (inches)	Depth to Water (feet)	Depth to Bottom (feet)
11-MW-03	50 – 75	2	56.69	74.77
T 11-MW-04	49 – 74	2	53.61	73.85
T 109-MW-01	43 – 68	2	49.81	—
17-MW-03	97 – 107	2	56.63	—
T 17-MW-06	50 – 75	2	54.90	—
17-MW-08	50 – 75	2	52.79	—
T 17-MW-09	102 – 112	2	53.21	—
T 17-MW-11	108.5 – 118.5	2	52.25	117
T 17-MW-13	95 – 105	2	59.02	—
17-MW-15	260 – 270	5	75.96	—
17-MW-18	170 - 180	5	56.41	—
T 17-MW-24	42 – 62	4	48.97	—
T 117-MW-02	50 – 75	2	56.72	—
T 117-MW-04	49 – 74	2	54.70	—
117-MW-07	108 – 118	5	55.71	117
117-MW-08	170 – 179	5	59.34	180
117-MW-09	260 - 270	5	76.03	—
T CL1-MW-04	50 – 75	2	58.06	73.46
CL1-MW-05	50 – 75	2	56.37	73.15
T CL1-MW-06	54 – 79	2	59.82	76.90
CL1-MW-09(S)	45 - 70	2	57.35 57.35	—
CL1-MW12(MD)	140 - 150	2	65.11	—
T CL2-MP-02A	28 – 38	2	NA	—
CL2-MP-05A	38 - 43	2	NA	—
T CL2-MW-05	80 - 90	5	41.84 41.84	—
BG-MW-01	Not	2	80.86	104.70
BG-MW-073	Sampled	2	NA	—

Depth to Bottom not collected per Site Geologist, Mike Magee

B Condit 8/16/01

GROUNDWATER MONITORING DATA FORM

PROJECT INFORMATION

Project Name: **Crows Landing**
Project Number: **800063**
Project Location: **Crows Landing, CA**

Well ID: NASA Supply Well #3
Date: 8/13/01

WELL MEASURMENTS

Depth to Water : Not Purged ft.
Screen Depth: _____ ft.
Purging Method= Low Flow Pumps (Micro-Purge)
Flow Rate: ml/min

PURGE DATA

Time	Volume Purged	pH	Cond. (us/ms)	Temp. (C)	D. O. (ppm)	Turbidity (NTU)	Notes
Stabilization criteria		*±0.1*	*±3 %*	*±1 °C*	*± 10 %*	*None*	
	Pumping - Not Purged						

SAMPLING INFORMATION

Sample Number:	NASA-SW-3
Sample Date/Time:	8/13/01 1055
Sampler ID:	RC
Weather Conditions:	(sun) rain overcast Temp: ~80 °F
Sample Collection Method:	PUMP ~~Low Flow~~ Re ~~[illegible]~~ Sample valve
Volume Collected and Analyses	**EPA 8260** (3 VOA vials), **TPH-Gasoline & Jet Fuel** (2 VOA vials), **TPH-Diesel & Motor Oil** (2- 1 Liter Amber) Hex Chrome 250ml HDPE **CAM 17 metals** (dissolved) 1-500 ml plastic **Anions/Alkalinity/TDS** – ~~1 Liter~~ 1-500 ml Plastic

Comments: Metals filtered through 0.45*um* filter prior to collecting into acidified sample container.

GROUNDWATER MONITORING DATA FORM

PROJECT INFORMATION

Project Name: **Crows Landing** Well ID: 11MW03

Project Number: **800063** Date: 8-13-01

Project Location: **Crows Landing, CA**

WELL MEASURMENTS

Depth to Water : 56.69 ft. Screen Depth: 50-75 ft.

Purging Method= Low Flow Pumps (Micro-Purge)

Flow Rate: 300 ml/min

PURGE DATA

Time	Volume Purged	pH	Cond. (us/ms)	Temp. (C)	D. O. (ppm)	Turbidity (NTU)	Notes
Stabilization criteria		*±0.1*	*±3 %*	*±1°C*	*± 10 %*	*None*	
10:34	~~[illegible]~~ 1Gal	7.56	1.20	20.5	6.09	999	
10:37	2Gal	7.51	1.23	21.0	4.90	999	
10:39	3Gal	7.49	1.26	21.9	5.05	833	
10:42	4	7.50	1.29	22.3	5.45	602	
10:44	5	7.52	1.30	22.4	5.71	4.66	
10:47	7	7.47	1.29	22.3	5.43	10	
10:50	8	7.46	1.27	22.2	5.50	9	

WATER IS SILTY

SAMPLING INFORMATION

Sample Number:	11-MW-03 (8/01)
Sample Date/Time:	8-13-01 10:55
Sampler ID:	H Merino
Weather Conditions:	(sun) rain overcast Temp: 85° °F
Sample Collection Method:	PUMP –Low Flow
Volume Collected and Analyses	**EPA 8260** (3 VOA vials), **TPH-Gasoline & Jet Fuel** (2 VOA vials), **TPH-Diesel & Motor Oil** (2- 1 Liter Amber) Hex Cr - 250 ml HDPE **CAM 17 metals** (dissolved) 1-500 ml plastic **Anions/Alkalinity/TDS** – ~~1 Liter~~ 1-500 ml Plastic

Comments: Metals filtered through 0.45*um* filter prior to collecting into acidified sample container.

GROUNDWATER MONITORING DATA FORM

PROJECT INFORMATION

Project Name: **Crows Landing** Well ID: 11-MW-04

Project Number: **800063** Date: 8-13-01

Project Location: **Crows Landing, CA**

WELL MEASURMENTS

Depth to Water : 53.61 ft. Screen Depth: 49-74 ft.

Purging Method= Low Flow Pumps (Micro-Purge)

Flow Rate: 300 ml/min

PURGE DATA

Time	Volume Purged	pH	Cond. (us/ms)	Temp. (C)	D. O. (ppm)	Turbidity (NTU)	Notes
Stabilization criteria	~~1 Gal~~	*±0.1*	*±3 %*	*±1 °C*	*± 10 %*	*None*	
9:13	1 Gal	7.36	1.09	19.5	1.19	10	
9:15	2 Gal	7.32	1.10	19.9	0.86	10	
9:17	3 Gal	7.31	1.14	20.6	0.71	10	
9:19	4 Gal	7.30	1.19	20.7	0.90	10	
9:21	5 Gal	7.28	1.19	20.4	2.32	10	
9:24	7 Gal	7.27	1.15	20.4	2.32	10	
9:29	10	7.27	1.15	20.4	2.33	10	

SAMPLING INFORMATION

Sample Number:	11-MW-05 8/01
Sample Date/Time:	8/13/01 0935
Sampler ID:	HM
Weather Conditions:	(sun) rain overcast Temp: ~80 °F
Sample Collection Method:	PUMP –Low Flow
Volume Collected and Analyses	**EPA 8260** (3 VOA vials), **TPH-Gasoline & Jet Fuel** (2 VOA vials), **TPH-Diesel & Motor Oil** (2- 1 Liter Amber) Hex Cr - 250 ml HDPE **CAM 17 metals** (dissolved) 1-500 ml plastic **Anions/Alkalinity/TDS** – ~~1 Liter~~ 500 ml Plastic

Comments: Metals filtered through 0.45*u*m filter prior to collecting into acidified sample container.

GROUNDWATER MONITORING DATA FORM

PROJECT INFORMATION

Project Name: **Crows Landing**
Project Number: **800063**
Project Location: **Crows Landing, CA**

Well ID: 109-MW-01
Date: 8-13-01

WELL MEASURMENTS

Depth to Water : 49.81 ft.
Screen Depth: 43-68 ft.
Purging Method= Low Flow Pumps (Micro-Purge)
Flow Rate: 250-500 ml/min

PURGE DATA

Time	Volume Purged	pH	Cond. (us/ms)	Temp. (C)	D. O. (ppm)	Turbidity (NTU)	Notes
Stabilization criteria		*±0.1*	*±3 %*	*±1 °C*	*± 10 %*	*None*	
1300	1GAL	7.07	1.21	23.1	8.40	9.42	
1310	2GAL	7.07	1.19	23.2	8.30	7.76	
1320	3GAL	7.07	1.18	23.3	8.24	6.54	
1325	4GAL	7.07	1.18	23.4	8.19	5.98	

SAMPLING INFORMATION

Sample Number:	109-MW-01 (8/01)
Sample Date/Time:	8-13-01 ~~1335~~ 1335 PC 8/13/01
Sampler ID:	J. Merino
Weather Conditions:	(sun) rain overcast Temp: 85 °F
Sample Collection Method:	PUMP –Low Flow
Volume Collected and Analyses	**EPA 8260** (3 VOA vials), **TPH-Gasoline & Jet Fuel** (2 VOA vials), **TPH-Diesel & Motor Oil** (2- 1 Liter Amber) Hex Cr -250 ml HDPE **CAM 17 metals** (dissolved) 1-500 ml plastic **Anions/Alkalinity/TDS** – ~~1 Liter~~ 500 ml Plastic

Comments: Metals filtered through 0.45*um* filter prior to collecting into acidified sample container.

GROUNDWATER MONITORING DATA FORM

PROJECT INFORMATION

Project Name: **Crows Landing** Well ID: 17-MW-03

Project Number: **800063** Date: 8-15-01

Project Location: **Crows Landing, CA**

WELL MEASURMENTS

Depth to Water : 52.63 ft. Screen Depth: 97-107 ft.

Purging Method= Low Flow Pumps (Micro-Purge)

Flow Rate: 300 ml/min

PURGE DATA

Time	Volume Purged	pH	Cond. (us/ms)	Temp. (C)	D. O. (ppm)	Turbidity (NTU)	Notes
Stabilization criteria		*±0.1*	*±3 %*	*±1°C*	*± 10 %*	*None*	
8:20	1 GALLON	7.37	1.11	21.9	5.79	25	
8:23	2 Gallons	7.35	1.10	21.7	5.58	39	
8:25	3 GALLONS	7.35	1.10	22.0	5.35	59	
8:28	4 GALLONS	7.34	1.12	22.6	5.60	62	
8:31	5 GALLONS	7.33	1.13	23.2	8.39	55	
8:33	6 Gallons	7.33	1.13	22.8	8.32	50	
8:36	7 Gallons	7.32	1.13	23.0	8.44	59	
8:40	8 Gallons	7.33	1.13	23.1	8.50		

SAMPLING INFORMATION

Sample Number:	17MW03(8/01)
Sample Date/Time:	8-15-01 8:40
Sampler ID:	[illegible]
Weather Conditions:	(sun) rain overcast Temp: 85° °F
Sample Collection Method:	PUMP –Low Flow
Volume Collected and Analyses	**EPA 8260** (3 VOA vials), **TPH-Gasoline & Jet Fuel** (2 VOA vials), **TPH-Diesel & Motor Oil** (2- 1 Liter Amber) Hex Cr - 250ml HDPE **CAM 17 metals** (dissolved) 1-500 ml plastic **Anions/Alkalinity/TDS** – ~~1 Liter~~ 1-500 Plastic

Comments: Metals filtered through 0.45*um* filter prior to collecting into acidified sample container.

GROUNDWATER MONITORING DATA FORM

PROJECT INFORMATION

Project Name: **Crows Landing**
Project Number: **800063**
Project Location: **Crows Landing, CA**

Well ID: 17-MW-06
Date: 8/14/01

WELL MEASURMENTS

Depth to Water : 54.90 ft.
Screen Depth: 80-75 ft.
Purging Method= Low Flow Pumps (Micro-Purge)
Flow Rate: ~400 ml/min

PURGE DATA

Time	Volume Purged ml	pH	Cond ~~(us/mb)~~ mS/cm	Temp. (C)	D. O. (ppm)	Turbidity (NTU)	Notes
Stabilization criteria		*±0.1*	*±3 %*	*±1°C*	*± 10 %*	*None*	
1301	start	—	—	—	—	—	
1306	500	7.42	0.940	28.1	4.19	98	
1311	1000	7.42	0.751	26.7	4.86	93	
1316	1500	7.40	0.718	27.0	3.98	83	
1321	2000	7.40	0.719	28.6	4.10	91	
1326	2500	7.43	0.715	28.0	3.90	93	

SAMPLING INFORMATION

Sample Number:	17-MW-06
Sample Date/Time:	8/14/01 1335
Sampler ID:	RCM
Weather Conditions:	(sun) rain overcast Temp: 85 °F
Sample Collection Method:	PUMP –Low Flow
Volume Collected and Analyses	**EPA 8260** (3 VOA vials), **TPH-Gasoline & Jet Fuel** (2 VOA vials), **TPH-Diesel & Motor Oil** (2- 1 Liter Amber) Hex Cr -250 ml HDPE **CAM 17 metals** (dissolved) 1-500 ml plastic **Anions/Alkalinity/TDS** – ~~1 Liter~~ 500 Plastic

Comments: Metals filtered through 0.45*um* filter prior to collecting into acidified sample container.

GROUNDWATER MONITORING DATA FORM

PROJECT INFORMATION

Project Name: **Crows Landing** Well ID: 17-MW-08

Project Number: **800063** Date: 8-14-01

Project Location: **Crows Landing, CA**

WELL MEASURMENTS

Depth to Water : 52.79 ft. Screen Depth: 50-75 ft.

Purging Method= Low Flow Pumps (Micro-Purge)

Flow Rate: 300ml ml/min

PURGE DATA

Time	Volume Purged	pH	Cond. (us/ms)	Temp. (C)	D. O. (ppm)	Turbidity (NTU)	Notes
Stabilization criteria		*±0.1*	*±3 %*	*±1°C*	*± 10 %*	*None*	
12:00	2	7.32	1.51	22.5	7.85	469	
12:03	4	7.32	1.50	22.3	7.11	513	
12:05	6	7.33	1.48	21.9	7.09	385	
12:07	8	7.31	1.51	21.7	7.03	626	

SAMPLING INFORMATION

Sample Number:	17 MW '08
Sample Date/Time:	8-14-01 12:26
Sampler ID:	Monro
Weather Conditions:	(sun) rain overcast Temp: 85 °F
Sample Collection Method:	PUMP –Low Flow
Volume Collected and Analyses	**EPA 8260** (3 VOA vials), **TPH-Gasoline & Jet Fuel** (2 VOA vials), **TPH-Diesel & Motor Oil** (2- 1 Liter Amber) Hex Cr -250ml HDPE **CAM 17 metals** (dissolved) 1-500 ml plastic **Anions/Alkalinity/TDS** – ~~1 Liter~~ 1-500 Plastic

Comments: Metals filtered through 0.45*um* filter prior to collecting into acidified sample container.

GROUNDWATER MONITORING DATA FORM

PROJECT INFORMATION

Project Name: **Crows Landing** Well ID: 17 MW-09

Project Number: **800063** Date: 8-14-01

Project Location: **Crows Landing, CA**

WELL MEASURMENTS

Depth to Water : 53.21 ft. Screen Depth: 102-112 ft.

Purging Method= Low Flow Pumps (Micro-Purge)

Flow Rate: 300ML ml/min

PURGE DATA

Time	Volume Purged	pH	Cond. (us/ms)	Temp. (C)	D. O. (ppm)	Turbidity (NTU)	Notes
Stabilization criteria		*±0.1*	*±3 %*	*±1°C*	*± 10 %*	*None*	
12:44	1 Gallon	7.33	1.50	22.2	7.21	721	
12:46	2	7.20	1.45	21.6	6.80	703	
12:49	3	7.18	1.45	21.6	7.69	683	
12:52	4	7.20	1.44	21.5	9.77	6.82	
12:58	7	7.18	1.44	21.5	7.45	19	
13:03	12	7.22	1.45	21.6	7.02	6.00	
13:08	19	7.22	1.45	21.7	7.12	6.41	

SAMPLING INFORMATION

Sample Number:	17 MW-09 CL99-15 (Dup)
Sample Date/Time:	8-14-01 1310
Sampler ID:	D Merino
Weather Conditions:	sun rain overcast Temp: 85 °F
Sample Collection Method:	PUMP –Low Flow
Volume Collected and Analyses	**EPA 8260** (3 VOA vials), **TPH-Gasoline & Jet Fuel** (2 VOA vials), **TPH-Diesel & Motor Oil** (2- 1 Liter Amber) Hex Cr - 250 ml HDPE **CAM 17 metals** (dissolved) 1-500 ml plastic **Anions/Alkalinity/TDS** – ~~1 Liter~~ 1-500ml Plastic

Comments: Metals filtered through 0.45*um* filter prior to collecting into acidified sample container.

GROUNDWATER MONITORING DATA FORM

PROJECT INFORMATION

Project Name: **Crows Landing**
Project Number: **800063**
Project Location: **Crows Landing, CA**

Well ID: 17-MW-10S
Date: 8/13/01

WELL MEASURMENTS

Depth to Water : 56.02 ft. Screen Depth: _____ ft.
Purging Method= Low Flow Pumps (Micro-Purge) 70.2 DTB
Flow Rate: ~100 ml/min

PURGE DATA

Time	Volume Purged ml	pH	Cond. (us/ms)	Temp. (C)	D. O. (ppm)	Turbidity (NTU)	Notes
Stabilization criteria		*±0.1*	*±3 %*	*±1 °C*	*± 10 %*	*None*	
1030	Start	—	—	—	—	—	
1035	500	7.15	1256	22.0	0.65	>999	tubing in way of light source
1040	1000	7.15	1238	22.2	0.55	>999	
1044	1500	7.15	1241	22.5	0.54	>999	
1048	2000	7.14	1250	23.1	0.58	>999	

SAMPLING INFORMATION

Sample Number:	17-MW-10S
Sample Date/Time:	8/13/01 1100
Sampler ID:	PCM
Weather Conditions:	(sun) rain overcast Temp: 80 °F
Sample Collection Method:	PUMP –Low Flow
Volume Collected and Analyses	**EPA 8260** (3 VOA vials), **TPH-Gasoline & Jet Fuel** (2 VOA vials), **TPH-Diesel & Motor Oil** (2- 1 Liter Amber) ~~**CAM 17 metals** (dissolved) 1-500 ml plastic~~ ~~**Anions/Alkalinity/TDS** – 1 Liter Plastic~~ } not collected for Pump test

Comments: Metals filtered through 0.45*um* filter prior to collecting into acidified sample container.

GROUNDWATER MONITORING DATA FORM

PROJECT INFORMATION

Project Name: **Crows Landing**
Project Number: **800063**
Project Location: **Crows Landing, CA**

Well ID: 17 MW-11
Date: 8·13·01

WELL MEASURMENTS

Depth to Water : 52.25 ft.
Screen Depth: 108.5 118.5 ft.
Purging Method= Low Flow Pumps (Micro-Purge)
Flow Rate: ~300 ml/min

PURGE DATA

Time	Volume Purged	pH	Cond. (us/ms)	Temp. (C)	D. O. (ppm)	Turbidity (NTU)	Notes
Stabilization criteria		*±0.1*	*±3%*	*±1°C*	*± 10%*	*None*	
14:22	1 GAL	7.28	1.16	23.1	2.18	3.35	
14:24	2 GAL	7.25	1.17	22.6	0.94	4.10	
14:26	3 GAL	7.19	1.14	22.5	1.01	3.83	
14:29	4 GAL	7.18	1.14	23.3	1.00	3.17	
14:34	5 GAL	7.17	1.15	23.3	0.98	194	

SAMPLING INFORMATION

Sample Number:	17-MW-11 (8/01)
Sample Date/Time:	8/13/01 1436
Sampler ID:	H.M.
Weather Conditions:	(sun) rain overcast Temp: ~85 °F
Sample Collection Method:	PUMP –Low Flow
Volume Collected and Analyses	**EPA 8260** (3 VOA vials), **TPH-Gasoline & Jet Fuel** (2 VOA vials), **TPH-Diesel & Motor Oil** (2- 1 Liter Amber) Hex Cr - 250 ml HDPE **CAM 17 metals** (dissolved) 1-500 ml plastic **Anions/Alkalinity/TDS** – ~~1 Liter~~ 500 Plastic

Comments: Metals filtered through 0.45um filter prior to collecting into acidified sample container.

GROUNDWATER MONITORING DATA FORM

PROJECT INFORMATION

Project Name: **Crows Landing** Well ID: 17 MW-13

Project Number: **800063** Date: 8-15-01

Project Location: **Crows Landing, CA**

WELL MEASURMENTS

Depth to Water : 59.02 ft. Screen Depth: 95-105 ft.

Purging Method= Low Flow Pumps (Micro-Purge)

Flow Rate: 300 ml/min

PURGE DATA

Time	Volume Purged	pH	Cond. (us/ms)	Temp. (C)	D. O. (ppm)	Turbidity (NTU)	Notes
Stabilization criteria		*±0.1*	*±3 %*	*±1 °C*	*± 10 %*	*None*	
9:51	1	7.06	1.74	22.6	0.32	999	
9:53	2	7.07	1.73	23.0	0.59	999	
9:56	3	7.05	1.72	22.9	0.02	566	
9:58	4	7.05	1.72	23.8	0.08	1.72	
10:00	6	7.07	1.73	23.7	0.13	163	
10:05	8	7.08	1.73	24.1	0.07	169	
10:07	10	7.08	1.73	24.2	0.02	178	

SAMPLING INFORMATION

Sample Number:	17 MW-13 (8/01)
Sample Date/Time:	8-15-01 10:12
Sampler ID:	H Munoz
Weather Conditions:	(sun) rain overcast Temp: 85 °F
Sample Collection Method:	PUMP –Low Flow
Volume Collected and Analyses	**EPA 8260** (3 VOA vials), **TPH-Gasoline & Jet Fuel** (2 VOA vials), **TPH-Diesel & Motor Oil** (2- 1 Liter Amber) Hex Cr - 250ml HDPE **CAM 17 metals** (dissolved) 1-500 ml plastic **Anions/Alkalinity/TDS** – ~~1 Liter~~ 1-500 Plastic

Comments: Metals filtered through 0.45*um* filter prior to collecting into acidified sample container.

GROUNDWATER MONITORING DATA FORM

PROJECT INFORMATION

Project Name: **Crows Landing**
Project Number: **800063**
Project Location: **Crows Landing, CA**

Well ID: 17-MW-15
Date: 8/15/01

WELL MEASURMENTS

Depth to Water : 75.96 ft.
Screen Depth: 260-270 ft.
Purging Method= Low Flow Pumps (Micro-Purge)
Flow Rate: 300-500 ml/min

PURGE DATA

Time	Volume Purged ml	pH	Cond. (us/ms)	Temp. (C)	D. O. (ppm)	Turbidity (NTU)	Notes
Stabilization criteria		*±0.1*	*±3 %*	*±1 °C*	*± 10 %*	*None*	
0811	Start	—	—	—	—		
0815	1000	11.14	2203	22.2	0.32	15	
0817	2000	11.15	2238	22.4	0.39	3	
0820	3500	11.17	2258	22.0	0.56	6	
0822	4500	11.17	2253	21.8	0.60	10	
0825	5500	11.18	2263	21.8	0.52	10	
0827	6500	11.18	2266	21.8	0.55	10	
0830	8000	11.18	2267	21.7	0.53	10	

SAMPLING INFORMATION

Sample Number:	17-MW-15
Sample Date/Time:	8/15/01
Sampler ID:	RCM 0835
Weather Conditions:	(sun) rain overcast Temp: 70 °F
Sample Collection Method:	PUMP –Low Flow
Volume Collected and Analyses	**EPA 8260** (3 VOA vials), **TPH-Gasoline & Jet Fuel** (2 VOA vials), **TPH-Diesel & Motor Oil** (2- 1 Liter Amber) Hex Cr - 250 ml HDPE **CAM 17 metals** (dissolved) 1-500 ml plastic **Anions/Alkalinity/TDS** – ~~1 Liter~~ 1-500 Plastic

Comments: Metals filtered through 0.45*um* filter prior to collecting into acidified sample container.

GROUNDWATER MONITORING DATA FORM

PROJECT INFORMATION

Project Name: **Crows Landing**
Project Number: **800063**
Project Location: **Crows Landing, CA**

Well ID: 17-MW-18
Date: 8/14/01

WELL MEASURMENTS

Depth to Water : 56.41 ft.
Screen Depth: 170-180 ft.
Purging Method= Low Flow Pumps (Micro-Purge)
Flow Rate: 300-500 ml/min

PURGE DATA

Time	Volume Purged ml	pH	Cond (~~us/ms~~ mS/cm)	Temp. (C)	D. O. (ppm)	Turbidity (NTU)	Notes
Stabilization criteria		*±0.1*	*±3 %*	*±1 °C*	*± 10 %*	*None*	
1413	Start	—	—	—	—	—	
1418	500	7.34	0.960	28.1	5.07	14	
1420	700	7.38	0.976	26.2	4.28	13	
1422	900	7.37	1.08	24.6	5.95	12	
1424	1100	7.34	1.08	23.7	6.23	13	
1426	1300	7.30	1.10	23.1	~~6.21~~ 6.21	7	

SAMPLING INFORMATION

Sample Number:	17-MW-18
Sample Date/Time:	8/14/01 1430
Sampler ID:	RCM
Weather Conditions:	(sun) rain overcast Temp: 90 °F
Sample Collection Method:	PUMP –Low Flow
Volume Collected and Analyses	**EPA 8260** (3 VOA vials), **TPH-Gasoline & Jet Fuel** (2 VOA vials), **TPH-Diesel & Motor Oil** (2- 1 Liter Amber) Hex Cr - 250 ml HDPE **CAM 17 metals** (dissolved) 1-500 ml plastic **Anions/Alkalinity/TDS** – ~~1 Liter~~ 1-500 Plastic

Comments: Metals filtered through 0.45*um* filter prior to collecting into acidified sample container.

GROUNDWATER MONITORING DATA FORM

PROJECT INFORMATION

Project Name: **Crows Landing**
Project Number: **800063**
Project Location: **Crows Landing, CA**

Well ID: 17-MW-24
Date: 8/13/01

WELL MEASURMENTS

Depth to Water : 48.97 ft.
Screen Depth: 42-62 ft.
Purging Method= Low Flow Pumps (Micro-Purge)
Flow Rate: ~ 100 ml/min

PURGE DATA

Time	Volume Purged	pH	Cond. (us/ms)	Temp. (C)	D. O. (ppm)	Turbidity (NTU)	Notes
Stabilization criteria		*±0.1*	*±3 %*	*±1 °C*	*± 10 %*	*None*	
1430	start	—	—	—	—	—	
1435	500	7.31	1513	24.0	1.53	>999 *	
1440	1000	7.24	1520	23.8	1.60	>999	
1445	1500	7.20	1525	24.1	1.73	>999	
1450	2000	7.19	1519	24.3	1.99	868	
1455	2500	7.18	1522	24.3	2.20	>999	
1500	3000	7.19	1525	24.4	2.22	6	

* incorrect readi

SAMPLING INFORMATION

Sample Number:	17-MW-24 & CL-99-14
Sample Date/Time:	8/13/01 1505 1510
Sampler ID:	RCM
Weather Conditions:	sun rain overcast Temp: 85 °F
Sample Collection Method:	PUMP –Low Flow
Volume Collected and Analyses	**EPA 8260** (3 VOA vials), **TPH-Gasoline & Jet Fuel** (2 VOA vials), **TPH-Diesel & Motor Oil** (2- 1 Liter Amber) Hex Cr – 250 ml HDPE **CAM 17 metals** (dissolved) 1-500 ml plastic **Anions/Alkalinity/TDS** – 1 Liter Plastic

Comments: Metals filtered through 0.45*um* filter prior to collecting into acidified sample container.

GROUNDWATER MONITORING DATA FORM

PROJECT INFORMATION

Project Name: **Crows Landing** Well ID: 117-MW-02

Project Number: **800063** Date: 8/15/01

Project Location: **Crows Landing, CA**

WELL MEASURMENTS

Depth to Water : 56.72 ft. Screen Depth: 50-75 ft.

Purging Method= Low Flow Pumps (Micro-Purge)

Flow Rate: 300-500 ml/min Start 1157

PURGE DATA

Time	Volume Purged	pH	Cond. (µs/ms)	Temp. (C)	D. O. (ppm)	Turbidity (NTU)	Notes
Stabilization criteria		*±0.1*	*±3%*	*±1°C*	*± 10%*	*None*	
1200		6.86	1.13	24.9	1.21	11	
1205	~1 gal	6.79	1.11	25.5	1.24	5	
1208		6.85	1.13	25.9	0.93	9	
1210	~2.5 gal	6.88	1.14	26.8	0.94	3	
1215		6.90	1.14	27.5	0.96	9	
1220		6.93	1.15	27.9	0.92	10	

SAMPLING INFORMATION

Sample Number:	117-MW-02 (8pi)
Sample Date/Time:	8/15/01 1225
Sampler ID:	RC
Weather Conditions:	sun rain overcast Temp: ~90 °F
Sample Collection Method:	PUMP –Low Flow
Volume Collected and Analyses	**EPA 8260** (3 VOA vials), **TPH-Gasoline & Jet Fuel** (2 VOA vials), **TPH-Diesel & Motor Oil** (2- 1 Liter Amber) Hex Cr - 250ml HDPE **CAM 17 metals** (dissolved) 1-500 ml plastic **Anions/Alkalinity/TDS** – ~~1 Liter~~ 1-500 Plastic

Comments: Metals filtered through 0.45µm filter prior to collecting into acidified sample container. pH / cond / turb / DO / temp

GROUNDWATER MONITORING DATA FORM

PROJECT INFORMATION

Project Name: **Crows Landing** Well ID: 117-MW-04

Project Number: **800063** Date: 8-15-01

Project Location: **Crows Landing, CA**

WELL MEASURMENTS

Depth to Water : 54.70 ft. Screen Depth: 49-74 ft.

Purging Method= Low Flow Pumps (Micro-Purge)

Flow Rate: 300 ml/min

PURGE DATA

Time	Volume Purged	pH	Cond. (us/ms)	Temp. (C)	D. O. (ppm)	Turbidity (NTU)	Notes
Stabilization criteria		*±0.1*	*±3 %*	*±1°C*	*± 10 %*	*None*	
7:15	1 Gallon	6.74	1.12	21.4	1.12	45	
7:17	2 Gallons	6.81	1.11	21.9	.69	38	
7:19	3 Gallons	6.87	1.11	22.7	.62	16	
7:21	4	6.98	1.11	23.0	.46	7	
7:23	6	7.01	1.11	23.2	.61	22	
7:25	7	7.07	1.09	23.3	.58	32	
7:27	8	7.07	1.08	23.4	.53	21	

SAMPLING INFORMATION

Sample Number:	117-MW-04 (8/01)
Sample Date/Time:	8-15-01 7:30
Sampler ID:	H Merino
Weather Conditions:	(sun) rain overcast Temp: 80° °F
Sample Collection Method:	PUMP –Low Flow
Volume Collected and Analyses	**EPA 8260** (3 VOA vials), **TPH-Gasoline & Jet Fuel** (2 VOA vials), **TPH-Diesel & Motor Oil** (2- 1 Liter Amber) **CAM 17 metals** (dissolved) 1-500 ml plastic **Anions/Alkalinity/TDS** – 1 Liter Plastic

Comments: Metals filtered through 0.45*um* filter prior to collecting into acidified sample container.

GROUNDWATER MONITORING DATA FORM

PROJECT INFORMATION

Project Name: **Crows Landing**
Project Number: **800063**
Project Location: **Crows Landing, CA**

Well ID: 117-MW-07
Date: 8/15/01

WELL MEASURMENTS

Depth to Water : 55.71 ft.
Screen Depth: 108-118 ft.
Purging Method= Low Flow Pumps (Micro-Purge)
Flow Rate: 300-500 ml/min

PURGE DATA

Time	Volume Purged ml	pH	Cond. (us/ms)	Temp. (C)	D. O. (ppm)	Turbidity (NTU)	Notes
Stabilization criteria		*±0.1*	*±3 %*	*±1 °C*	*± 10 %*	*None*	
1018	start	—	—	—	—	—	
1023	1000	7.83	1746	24.8	7.22	22	
1026	2000	7.63	1057	24.2	6.81	118	
1029	3000	7.52	1040	23.8	6.24	212	
1032	4000	7.49	1035	23.7	6.46	223	
1035	5000	7.47	1034	23.7	6.69	245	

SAMPLING INFORMATION

Sample Number:	117-MW-07
Sample Date/Time:	8/15/01 1045
Sampler ID:	RCM
Weather Conditions:	(sun) rain overcast Temp: 80 °F
Sample Collection Method:	PUMP –Low Flow
Volume Collected and Analyses	**EPA 8260** (3 VOA vials), **TPH-Gasoline & Jet Fuel** (2 VOA vials), **TPH-Diesel & Motor Oil** (2- 1 Liter Amber) Hex Cr - 250ml HDPE **CAM 17 metals** (dissolved) 1-500 ml plastic **Anions/Alkalinity/TDS** – ~~1 Liter~~ 1-500 Plastic

Comments: Metals filtered through 0.45um filter prior to collecting into acidified sample container.

GROUNDWATER MONITORING DATA FORM

PROJECT INFORMATION

Project Name: **Crows Landing**
Project Number: **800063**
Project Location: **Crows Landing, CA**

Well ID: 117-MW-08
Date: 8/14/01

WELL MEASURMENTS

Depth to Water : 59.34 ft.
Screen Depth: 170-179 ft.
Purging Method= Low Flow Pumps (Micro-Purge)
Flow Rate: ~100 ml/min

PURGE DATA

Time	Volume Purged ml	pH	Cond mS/cm ~~(us/ms)~~	Temp. (C)	D. O. mg/L ~~(ppm)~~	Turbidity (NTU)	Notes
Stabilization criteria		*±0.1*	*±3 %*	*±1 °C*	*± 10 %*	*None*	
0804	start	—	—	—	—	—	
0809	500	7.24	1.05	19.4	7.34	7	
0814	1000	7.33	1.09	19.8	6.64	7	
0819	1500	7.35	1.10	19.8	5.73	15	
0824	2000	7.38	1.09	19.9	5.35	11	
0829	2500	7.38	1.09	20.4	5.62	5	

SAMPLING INFORMATION

Sample Number:	117-MW-08
Sample Date/Time:	8/14/01 0840
Sampler ID:	RCM
Weather Conditions:	(sun) rain overcast Temp: 70 °F
Sample Collection Method:	~~PUMP~~ –Low Flow
Volume Collected and Analyses	**EPA 8260** (3 VOA vials), **TPH-Gasoline & Jet Fuel** (2 VOA vials), **TPH-Diesel & Motor Oil** (2- 1 Liter Amber) Hex Cr - 250 ml HDPE **CAM 17 metals** (dissolved) 1-500 ml plastic **Anions/Alkalinity/TDS** – ~~1 Liter~~ 1-500 Plastic

Comments: Metals filtered through 0.45*um* filter prior to collecting into acidified sample container.

GROUNDWATER MONITORING DATA FORM

PROJECT INFORMATION

Project Name: **Crows Landing**
Project Number: **800063**
Project Location: **Crows Landing, CA**

Well ID: 117-MW-09
Date: 8/14/01

WELL MEASURMENTS

Depth to Water : 76.03 ft.
Screen Depth: 260-270 ft.
Purging Method= Low Flow Pumps (Micro-Purge)
Flow Rate: ~400 ml/min

PURGE DATA

Time	Volume Purged ml	pH	Cond ~~(us/ms)~~ ms/cm	Temp. (C)	D. O. ~~(ppm)~~ mg/L	Turbidity (NTU)	Notes
Stabilization criteria		*±0.1*	*±3 %*	*±1 °C*	*± 10 %*	*None*	
1036	start	—	—	—	—	—	
1041	500	7.47	1.83	23.5	4.52	0	
1046	1000	7.46	1.85	23.1	4.41	0	
1051	1500	7.44	1.85	22.7	4.06	0	
1056	2000	7.43	1.86	22.7	3.75	0	
1101	2500	7.41	1.86	22.7	3.67	0	

SAMPLING INFORMATION

Sample Number:	117-MW-09
Sample Date/Time:	8/14/01 1110
Sampler ID:	KeM
Weather Conditions:	(sun) rain overcast Temp: 80 °F
Sample Collection Method:	PUMP –Low Flow
Volume Collected and Analyses	**EPA 8260** (3 VOA vials), **TPH-Gasoline & Jet Fuel** (2 VOA vials), **TPH-Diesel & Motor Oil** (2- 1 Liter Amber) Hex Cr - 250ml HDPE **CAM 17 metals** (dissolved) 1-500 ml plastic **Anions/Alkalinity/TDS** – ~~1 Liter~~ 1-500ml Plastic

Comments: Metals filtered through 0.45*um* filter prior to collecting into acidified sample container.

GROUNDWATER MONITORING DATA FORM

PROJECT INFORMATION

Project Name: **Crows Landing**
Project Number: **800063**
Project Location: **Crows Landing, CA**

Well ID: CLL-MW-04
Date: 8-14-01

WELL MEASURMENTS

Depth to Water : 58.06 ft.
Screen Depth: 50-75 ft.
Purging Method= Low Flow Pumps (Micro-Purge)
Flow Rate: 300 ml/min

PURGE DATA

Time	Volume Purged	pH	Cond. (us/ms)	Temp. (C)	D. O. (ppm)	Turbidity (NTU)	Notes
Stabilization criteria		*±0.1*	*±3%*	*±1°C*	*± 10%*	*None*	
9:54	1	6.97	1.09	22.1	2.84	3.99	
9:56	2	6.94	1.11	22.1	2.32	4.10	
9:59	3	6.91	1.12	2.22	2.06	2.29	
10:02	4	6.89	1.12	2.22	1.84	145	
10:04	5	6.92	1.14	22.1	1.60	55	
10:07	6	6.90	1.14	22.1	1.44	32	
10:09	7	6.89	1.14	22.0	1.31	19	

SAMPLING INFORMATION

Sample Number:	CLL-MW-04 (8/01)
Sample Date/Time:	8-14-01 10:13
Sampler ID:	[illegible]
Weather Conditions:	sun rain overcast Temp: _____ °F
Sample Collection Method:	PUMP –Low Flow
Volume Collected and Analyses	**EPA 8260** (3 VOA vials), **TPH-Gasoline & Jet Fuel** (2 VOA vials), **TPH-Diesel & Motor Oil** (2- 1 Liter Amber) Hex Cr -250ml HDPE **CAM 17 metals** (dissolved) 1-500 ml plastic **Anions/Alkalinity/TDS** – ~~1 Liter~~ 1-500 Plastic

Comments: Metals filtered through 0.45*um* filter prior to collecting into acidified sample container.

GROUNDWATER MONITORING DATA FORM

PROJECT INFORMATION

Project Name: **Crows Landing** Well ID: CLI-MW05

Project Number: **800063** Date: 8-13-01

Project Location: **Crows Landing, CA**

WELL MEASURMENTS

Depth to Water : 56.37 ft. Screen Depth: 50-75 ft.

Purging Method= Low Flow Pumps (Micro-Purge)

Flow Rate: 300 ml/min

PURGE DATA

Time	Volume Purged	pH	Cond. (us/ms)	Temp. (C)	D. O. (ppm)	Turbidity (NTU)	Notes
Stabilization criteria		*±0.1*	*±3 %*	*±1 °C*	*± 10 %*	*None*	
11:48	1 GAL	7.62	0.99	22.6	6.81	-10	
11:51	2 GAL	7.61	1.00	22.9	6.68	-10	turb meter
11:54	3 GAL	7.62	1.00	23.2	6.46	-10	problems
11:57	5 GAL	7.63	1.06	23.3	6.87	-10	cleaned cell + recalib after
12:00	7 GAL	7.63	1.00	23.3	6.52	-10	this well
12:04	8 GAL	7.63	1.00	23.3	6.47	-10	

SAMPLING INFORMATION

Sample Number:	CLI-MW05 (8/01)
Sample Date/Time:	8-13-01 12:12
Sampler ID:	[illegible]
Weather Conditions:	sun rain overcast Temp: 85 °F
Sample Collection Method:	PUMP –Low Flow
Volume Collected and Analyses	**EPA 8260** (3 VOA vials), **TPH-Gasoline & Jet Fuel** (2 VOA vials), **TPH-Diesel & Motor Oil** (2- 1 Liter Amber) Hex Cr - 250ml HDPE **CAM 17 metals** (dissolved) 1-500 ml plastic **Anions/Alkalinity/TDS** – ~~1 Liter~~ 1-500ml Plastic

Comments: Metals filtered through 0.45*um* filter prior to collecting into acidified sample container.

GROUNDWATER MONITORING DATA FORM

PROJECT INFORMATION

Project Name: **Crows Landing** Well ID: CLI-MW-06

Project Number: **800063** Date: 8-14-01

Project Location: **Crows Landing, CA**

WELL MEASURMENTS

Depth to Water : 59.82 ft. Screen Depth: 51-79 ft.

Purging Method= Low Flow Pumps (Micro-Purge)

Flow Rate: 300 ml/min

PURGE DATA

Time	Volume Purged	pH	Cond. (us/ms)	Temp. (C)	D. O. (ppm)	Turbidity (NTU)	Notes
Stabilization criteria		*±0.1*	*±3 %*	*±1°C*	*± 10 %*	*None*	
7:38	1GAL	6.93	2.27	20.9	286	999	
7:41	2GAL	6.97	1.93	21.4	272	999	
7:43	3GAL	6.97	1.60	22.2	23.5	999	
7:46	4GAL	7.00	1.47	22.8	2.08	733	
7:49	5GAL	7.00	1.72	23.1	8.76	704	TMP @ 5 GALLONS

SAMPLING INFORMATION

Sample Number:	CLI-MW-06 (8/01)
Sample Date/Time:	8-14-01 8:20
Sampler ID:	H. Merino
Weather Conditions:	(sun) rain overcast Temp: 75° °F
Sample Collection Method:	PUMP –Low Flow
Volume Collected and Analyses	**EPA 8260** (3 VOA vials), **TPH-Gasoline & Jet Fuel** (2 VOA vials), **TPH-Diesel & Motor Oil** (2- 1 Liter Amber) Hex Cr -250 ml HDPE **CAM 17 metals** (dissolved) 1-500 ml plastic **Anions/Alkalinity/TDS** – ~~1 Liter~~ 1-500 Plastic

Comments: Metals filtered through 0.45*um* filter prior to collecting into acidified sample container.

GROUNDWATER MONITORING DATA FORM

PROJECT INFORMATION

Project Name: **Crows Landing** Well ID: CL1-MW-09(5)

Project Number: **800063** Date: 8/15/01

Project Location: **Crows Landing, CA**

WELL MEASURMENTS

Depth to Water : 57.35 ft. Screen Depth: 45-70 ft.

Purging Method= Low Flow Pumps (Micro-Purge)

Flow Rate: 200-500 ml/min

PURGE DATA

Time	Volume Purged	pH	Cond. (us/ms)	Temp. (C)	D. O. (ppm)	Turbidity (NTU)	Notes
Stabilization criteria		*±0.1*	*±3 %*	*±1°C*	*± 10 %*	*None*	
1209	Start	—	—	—	—	—	
~~1209~~ 1214	1000	7.16	2600	25.0	0.72	85	
~~1215~~ 1217	2000	7.10	2230	24.9	0.63	246	
1220	3000	7.09	2159	25.4	0.56	271	
1223	4500	7.09	2084	26.4	0.52	249	
1226	5500	7.09	2031	27.2	0.50	206	
1229	6500	7.10	2025	27.0	0.43	239	
1232	7500	7.10	1967	26.9	0.34	223	
1235	8500	7.10	1945	25.0	0.38	184	
1238	9500	7.08	1953	24.5	0.12	151	
1241	10500	7.06	1960	24.3	0.00	120	
1244	12000	7.05	1960	24.3	0.04	123	
1248	13000	7.12	1964	24.1	0.09	8	

SAMPLING INFORMATION

Sample Number:	CL1-MW-09S
Sample Date/Time:	8/15/01 1300
Sampler ID:	REM
Weather Conditions:	(sun) rain overcast Temp: 90 °F
Sample Collection Method:	PUMP –Low Flow
Volume Collected and Analyses	**EPA 8260** (3 VOA vials), **TPH-Gasoline & Jet Fuel** (2 VOA vials), **TPH-Diesel & Motor Oil** (2- 1 Liter Amber) Hex Cr - 250ml HDPE **CAM 17 metals** (dissolved) 1-500 ml plastic **Anions/Alkalinity/TDS** – ~~1 Liter~~ 1-500 Plastic

Comments: Metals filtered through 0.45*um* filter prior to collecting into acidified sample container.

GROUNDWATER MONITORING DATA FORM

PROJECT INFORMATION

Project Name: **Crows Landing**
Project Number: **800063**
Project Location: **Crows Landing, CA**

Well ID: ~~CLI-MW2 (MD)~~ CLI-MW-12(MD) DSL
Date: 8/15/01

WELL MEASURMENTS

Depth to Water : 65.11 ft.
Screen Depth: 140-150 ft.
Purging Method= Low Flow Pumps (Micro-Purge)
Flow Rate 300 ml/min

PURGE DATA

Time	Volume Purged	pH	Cond. (us/ms)	Temp. (C)	D. O. (ppm)	Turbidity (NTU)	Notes
Stabilization criteria		*±0.1*	*±3 %*	*±1 °C*	*± 10 %*	*None*	
13:07	~~Pre~~ 1	7.06	1.29	23.2	0.74	19	
13:09	2	6.95	1.29	23.0	~~0.25~~	7	0.31 (D.O)
13:12	3	6.92	1.31	23.0	0.22	9	
13:14	4	6.90	1.31	23.2	0.20	10	
13:17	5	6.90	1.30	23.3	0.23	15	

SAMPLING INFORMATION

Sample Number:	CLI-MW2-(MD)
Sample Date/Time:	8/15/01 13:25
Sampler ID:	HMen
Weather Conditions:	(sun) rain overcast Temp: 90° °F
Sample Collection Method:	~~PUMP~~ –Low Flow
Volume Collected and Analyses	**EPA 8260** (3 VOA vials), **TPH-Gasoline & Jet Fuel** (2 VOA vials), **TPH-Diesel & Motor Oil** (2- 1 Liter Amber) Hex Cr - 250ml HDPE **CAM 17 metals** (dissolved) 1-500 ml plastic **Anions/Alkalinity/TDS** – ~~1 Liter~~ 1-500 Plastic

Comments: Metals filtered through 0.45*um* filter prior to collecting into acidified sample container.

GROUNDWATER MONITORING DATA FORM

PROJECT INFORMATION

Project Name: **Crows Landing**
Project Number: **800063**
Project Location: **Crows Landing, CA**

Well ID: CL2-MW-05
Date: 8/13/01

WELL MEASURMENTS

Depth to Water : 41.84 ft.
Screen Depth: 70 ft.
Purging Method= Low Flow Pumps (Micro-Purge)
Flow Rate: ~100 ml/min

PURGE DATA

Time	Volume Purged ml	pH	Cond. (us/ms)	Temp. (C)	D. O. (ppm)	Turbidity (NTU)	Notes
Stabilization criteria		*±0.1*	*±3 %*	*±1°C*	*± 10 %*	*None*	
1230	—	—	—	—	—	—	
1235	500	7.35	1275	22.3	2.85	>999	
1240	1000	7.28	1356	22.6	2.68	>999	tubing out in way of light source
1245	1500	7.27	1369	22.7	2.75	>999	
1250	2000	7.27	1365	23.0	2.85	>999	

SAMPLING INFORMATION

Sample Number:	CL2-MW-05
Sample Date/Time:	8/13/01 1300
Sampler ID:	DCM
Weather Conditions:	sun rain overcast Temp: 85 °F
Sample Collection Method:	PUMP –Low Flow
Volume Collected and Analyses	**EPA 8260** (3 VOA vials), **TPH-Gasoline & Jet Fuel** (2 VOA vials), **TPH-Diesel & Motor Oil** (2- 1 Liter Amber) **CAM 17 metals** (dissolved) 1-500 ml plastic **Anions/Alkalinity/TDS** – 1 Liter Plastic

Comments: Metals filtered through 0.45*um* filter prior to collecting into acidified sample container.

APPENDIX B
LABORATORY ANALYTICAL RESULTS, CERTIFICATES OF ANALYSIS, AND CHAIN-OF-CUSTODY RECORDS

Table B-1: Bell Road Wells, NASA Crows Landing, August 2001

Sample ID		17-MW24MS		17-MW25MS		17-MW25S		17-MW26MS		17-MW26S	
Sample Date		08/21/2001		08/22/2001		08/21/2001		08/27/2001		08/22/2001	
Analyte	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
General Chemistry											
ALKALINITY	mg/L	180		220		290		180		390	
CHLORIDE	mg/L	122		97		155		139		59	
NITRATE AS N	mg/L	15		11		8.2		13		7.3	
NITRATE/NITRITE	mg/L	1	U	1	U	1	U	1	U	0.5	U
PHOSPHATE	mg/L	2	U	2	U	2	U	2	U	1	U
TOTAL DISSOLVED SOLIDS	mg/L	832		828		1200		1100		850	
SULFATE	mg/L	250		217		434		459		205	
Metals (EPA 6010B/7000)											
ANTIMONY	µg/L	10	U	13.9	U	10	U	10	UJ	10	U
ARSENIC	µg/L	5	U	2	U	1.7	J	5	U	5	U
BARIUM	µg/L	18.6		20.1		24.6		20.5		16.5	
BERYLLIUM	µg/L	0.075	J	2	UJ	2	U	2	U	2	U
CADMIUM	µg/L	2	U	2	UJ	2	U	2	U	2	U
CHROMIUM	µg/L	18.1		16		10.4		17.2		23.6	
COBALT	µg/L	5	U	5	U	5	U	5	U	5	U
COPPER	µg/L	4.5	J	2.9	J	8.6	J	10	U	10	U
LEAD	µg/L	1.6	J	5	U	10.9	U	2.5	J	5	U
MERCURY	µg/L	0.5	U	0.3	J	0.5	U	0.5	U	0.32	J
MOLYBDENUM	µg/L	5	UJ	5.9	U	5	UJ	5	UJ	5	U
NICKEL	µg/L	5	U	5	U	5	U	5	UJ	5	U
SELENIUM	µg/L	6.8	J	11.1		10.3		8	J	10.1	
SILVER	µg/L	10	U	25.7		10	U	10	U	10	U
THALLIUM	µg/L	10	U	10	U	10	U	10	UJ	10	U
VANADIUM	µg/L	2.8	J	2.1	J	3.5	J	10	UJ	2.3	J
ZINC	µg/L	34.8		28.4		92.9		59.1		32.6	
Petroleum Hydrocarbons (EPA 8015B)											
GASOLINE	mg/L	0.05	UJ	0.07	UJ	0.05	UJ	0.05	UJ	0.05	UJ
JP-4	mg/L	0.05		0.05	UJ	0.05	U	0.05	U	0.05	U
DIESEL	mg/L	0.07	J	0.1	U	0.08	J	0.2		0.1	U
MOTOR OIL	mg/L	0.06	J	0.1	U	0.09	J	0.2		0.06	J
VOCs (EPA 8260B)											
1,1,1,2-TETRACHLOROETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-TRICHLOROETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U

Table B-1: Bell Road Wells, NASA Crows Landing, August 2001

Sample ID		17-MW24MS		17-MW25MS		17-MW25S		17-MW26MS		17-MW26S	
Sample Date		08/21/2001		08/22/2001		08/21/2001		08/27/2001		08/22/2001	
Analyte	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,1,2,2-TETRACHLOROETHANE	µg/L	0.5	U	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ
1,1,2-TRICHLOROETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-DICHLOROETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-DICHLOROETHENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-DICHLOROPROPENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-TRICHLOROBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-TRICHLOROPROPANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-TRICHLOROBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-TRIMETHYLBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-DIBROMO-3-CHLOROPROPANE	µg/L	0.5	U	0.5	UJ	0.5	U	0.5	U	0.5	UJ
1,2-DIBROMOETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-DICHLOROBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-DICHLOROETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-DICHLOROPROPANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3,5-TRIMETHYLBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-DICHLOROBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-DICHLOROPROPANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,4-DICHLOROBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2-BUTANONE	µg/L	10	U	10	UJ	10	UJ	10	UJ	10	UJ
2-HEXANONE	µg/L	10	U	13	J	10	UJ	10	UJ	10	UJ
ACETONE	µg/L	10	U	95	J	10	UJ	10	UJ	10	UJ
BENZENE	µg/L	0.5	U	10.9		0.5	U	0.5	U	0.5	U
BROMOBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
BROMOCHLOROMETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
BROMODICHLOROMETHANE	µg/L	0.5	U	0.5	U	0.3	J	1.8		0.5	U
BROMOFORM	µg/L	0.5	U	0.6		0.5	U	4.9		0.5	U
BROMOMETHANE	µg/L	0.63	U	0.63	UJ	0.63	UJ	0.63	UJ	0.63	UJ
CARBON DISULFIDE	µg/L	10	U	10	UJ	10	UJ	10	U	10	UJ
CARBON TETRACHLORIDE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
CHLOROBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
CHLOROETHANE	µg/L	0.5	U	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ
CHLOROFORM	µg/L	0.5	U	0.6		0.5	U	1		0.5	U
CHLOROMETHANE	µg/L	0.5	U	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ
CIS-1,2-DICHLOROETHENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U

Table B-1: Bell Road Wells, NASA Crows Landing, August 2001

Sample ID		17-MW24MS		17-MW25MS		17-MW25S		17-MW26MS		17-MW26S	
Sample Date		08/21/2001		08/22/2001		08/21/2001		08/27/2001		08/22/2001	
Analyte	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
CIS-1,3-DICHLOROPROPENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
CUMENE	µg/L	0.5	U	6.7		0.5	U	0.5	U	0.5	U
DIBROMOCHLOROMETHANE	µg/L	0.5	U	0.5	U	0.5	U	4		0.5	U
DIBROMOMETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DICHLORODIFLUOROMETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	UJ	0.5	U
ETHYLBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
HEXACHLOROBUTADIENE	µg/L	0.56	U	0.56	U	0.56	U	0.56	U	0.56	U
METHYL ISOBUTYL KETONE	µg/L	10	U	10	U	10	UJ	10	UJ	10	U
METHYLENE CHLORIDE	µg/L	2	U	2	U	2	U	2	U	2	U
MTBE	µg/L	1	U	1	U	1	U	1	U	1	U
N-BUTYLBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
N-PROPYLBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
NAPHTHALENE	µg/L	0.5	U	0.5	U	0.5	UJ	0.5	UJ	0.5	U
O-CHLOROTOLUENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
P-CHLOROTOLUENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
P-CYMENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
SEC-BUTYLBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
SEC-DICHLOROPROPANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
STYRENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
TERT-BUTYL ALCOHOL	µg/L	20	U	20	UJ	20	UJ	20	UJ	20	UJ
TERT-BUTYLBENZENE	µg/L	0.5	U	6		0.5	U	0.5	U	0.5	U
TETRACHLOROETHENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
TOLUENE	µg/L	1.9	U	0.7	U	1.9	U	0.5	U	0.7	U
TRANS-1,2-DICHLOROETHENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
TRANS-1,3-DICHLOROPROPENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
TRICHLOROETHENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
TRICHLOROFLUOROMETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
VINYL CHLORIDE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
XYLENES(TOTAL)	µg/L	1	U	1	U	1	U	1	U	1	U

U qualifier indicates that the analyte was not detected at the specified detection limit

J qualifier indicates that the associated numerical value is an estimate.

UJ qualifier indicates that the analyte was not detected. However, the reported quantitation limit is an estimate.

Testing Plan and Log

Contract No. N62474-98-D-2076 Contract Task Order 0077	Site Investigation of Former UST Sites at Building 916B and Building 1316B Naval Computer and Telecommunications Station San Diego Detachment Stockton, California	Contractor IT Corporation

SPECIFICATION SECTION AND PARAGRAPH NUMBER	TEST PROCEDURE	TEST NAME	ACCREDITED/ APPROVED LAB		SAMPLED BY[1]	LOCATION OF TEST		FREQUENCY OF TEST	DATE COMPLETE	DATE FORWARDED TO CONTR. OFF	REMARKS
			Yes	No		On Site	Off Site				
Work Plan 2.6	ASTM D 1557	Compaction Characteristics	X		IT		X	One per source			
Work Plan 2.6	ASTM D 2922	Density Nuclear Method	X		TBD	X		Per Work Plan			
Work Plan 2.6	ASTM D 3017	Moisture Nuclear Method	X		TBD	X		Per Work Plan			

DEFINABLE FEATURES OF WORK MATRIX
Site Investigation of Former UST Sites at Building 916B and Building 1316B
Naval Computer and Telecommunications Station San Diego Detachment
Stockton, California
Contract Task Order 0077

Specification Section	Paragraph No.	Feature of Work	Prep		Initial		Follow up	Remarks
			Req	Date	Req	Date	Req	
Work Plan	2.3	Asbestos Abatement	X		X		X	
Work Plan	2.5	LBP Abatement	X		X		X	
Work Plan	2.5	Building Demolition	X		X		X	
Work Plan	2.6	Excavation	X		X		X	
SAP	all	Sampling	X		X		X	
Work Plan	2.6	Backfilling, Compacting, and Grading	X		X		X	

APCL

Applied Physics & Chemistry Laboratory

13760 Magnolia Ave. Chino CA 91710
Tel. (909) 590-1828 Fax (909) 590-1498

September 10, 2001

The IT Group
Attention: Rose Condit
4005 Port Chicago Highway
Concord, CA 94520-1120

Dear Rose,

This package contains samples in our Service ID 01-5397 and your project Crows Landing. Enclosed please find:

(1) Original report.
(2) Oringinal Chain of Custody.
(3) One original and one copy of Level C Data Package Deliverable.
(4) One Diskette containing EDD Deliverable.

If anything is missing or you have any questions, please feel free to contact me.

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
The IT Group
Attention: Rose Condit
4005 Port Chicago Highway
Concord CA 94520-1120
Tel: (925)288-9898 Fax: (925)288-0888

Service ID #: 801-015397
Collected by: M. Magee
Collected on: 08/21/01

Received: 08/22/01
Extracted: 08/24/01
Tested: 08/22-28/01
Reported: 09/05/01

Sample Description: Ground Water
Project Description: 800063 Crows Landing

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result 17-MW24MS 01-05397-1	17-MW25S 01-05397-2
ALKALINITY	310.1	mg-$CaCO_3$/L	20	180	290
SOLIDS, TOTAL DISSOLVED (TDS)	160.1	mg/L	10	832	1,200
Dilution Factor				20	20
CHLORIDE	300.0	mg/L	0.2	122	155
NITRATE (NO_3^-) AS N	300.0	mg/L	0.04	15	8.2
NITRITE (NO_2^-) AS N	300.0	mg/L	0.05	<1	<1
PHOSPHORUS, ORTHOPHOSPHATE	300.0	mg/L	0.1	<2	<2
SULFATE	300.0	mg/L	0.5	250	434
TTLC 17 METALS					
Dilution Factor				1	1
ANTIMONY	6010B	μg/L	10	<10	<10
ARSENIC	6010B	μg/L	5	<5	1.7J
BARIUM	6010B	μg/L	10	18.6	24.6
BERYLLIUM	6010B	μg/L	2	0.075J	<2
CADMIUM	6010B	μg/L	2	<2	<2
CHROMIUM	6010B	μg/L	5	18.1	10.4
COBALT	6010B	μg/L	5	<5	<5
COPPER	6010B	μg/L	10	4.5J	8.6J
LEAD	6010B	μg/L	5	1.6J	10.9
MERCURY	7470A	μg/L	0.5	<0.5	<0.5
MOLYBDENUM	6010B	μg/L	5	3.8J	1.7J
NICKEL	6010B	μg/L	5	<5	<5
SELENIUM	6010B	μg/L	10	6.8J	10.3
SILVER	6010B	μg/L	10	<10	<10
THALLIUM	6010B	μg/L	10	<10	<10
VANADIUM	6010B	μg/L	10	2.8J	3.5J
ZINC	6010B	μg/L	10	34.8	92.9
Dilution Factor				1	1
DIESEL RANGE ORGANICS	M8015E	mg/L	0.1	0.07J	0.08J
Dilution Factor				1	1
MOTOR OIL RANGE ORGANICS	M8015E	mg/L	0.1	0.06J	0.09J

Component Analyzed	Method	Unit	PQL	Analysis Result 17-MW24MS 01-05397-1	17-MW25S 01-05397-2	Trip Blank 01-05397-3
Dilution Factor				1	1	1
GASOLINE RANGE ORGANICS	M8015V	mg/L	0.05	0.01J	0.02J	0.01J
Dilution Factor				1	1	1
JP-4	M8015V	mg/L	0.05	<0.05	<0.05	<0.05

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result 17-MW24MS 01-05397-1	17-MW25S 01-05397-2	Trip Blank 01-05397-3
VOLATILE ORGANICS						
Dilution Factor				1	1	1
ACETONE	8260B	µg/L	10	<10	<10	<10
BENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMOBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMOCHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMODICHLOROMETHANE	8260B	µg/L	0.5	<0.5	0.3J	<0.5
BROMOFORM	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMOMETHANE	8260B	µg/L	0.63 [a]	<0.63	<0.63	<0.63
2-BUTANONE (MEK)	8260B	µg/L	10	<10	<10	<10
N-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
SEC-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TERT-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CARBON DISULFIDE	8260B	µg/L	10	<10	<10	<10
CARBON TETRACHLORIDE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
DIBROMOCHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROFORM	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
2-CHLOROTOLUENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
4-CHLOROTOLUENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DIBROMO-3-CHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DIBROMOETHANE (EDB)	8260B	µg/L	0.5	<0.5	<0.5	<0.5
DIBROMOMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,3-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,4-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
DICHLORODIFLUOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CIS-1,2-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TRANS-1,2-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,3-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
2,2-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
ETHYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL [a]	Analysis Result 17-MW24MS 01-05397-1	17-MW25S 01-05397-2	Trip Blank 01-05397-3
HEXACHLOROBUTADIENE	8260B	µg/L	0.56 [a]	<0.56	<0.56	<0.56
2-HEXANONE	8260B	µg/L	10	<10	<10	<10
ISOPROPYLBENZENE (CUMENE)	8260B	µg/L	0.5	<0.5	<0.5	<0.5
P-ISOPROPYLTOLUENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
METHYLENE CHLORIDE	8260B	µg/L	2 [a]	<2	<2	2
4-METHYL-2-PENTANONE (MIBK)	8260B	µg/L	10	<10	<10	<10
METHYL-T-BYTYL ETHER (MTBE)	8260B	µg/L	1	<1	<1	<1
NAPHTHALENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
N-PROPYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
STYRENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1,2-TETRACHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2-TETRACHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TETRACHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TOLUENE	8260B	µg/L	0.5	0.6	1.9	0.5J
1,2,3-TRICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-TRICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1-TRICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2-TRICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TRICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TRICHLOROFLUOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-TRIMETHYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,3,5-TRIMETHYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
VINYL CHLORIDE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
XYLENE (TOTAL)	8260B	µg/L	1	<1	<1	<1
T-BUTYL ALCOHOL	8260B	µg/L	20	<20	<20	<20

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit

N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.

J: Reported between PQL and MDL.

Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

[a] MDL reported.

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

Level C Data Package Deliverables

General Information

Project : 800063 Crows Landing

APCL Service ID: 01-5397

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino, CA 91710
Telephone (909)590-1828
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13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Case Narrative

Project: Crows Landing/800063

For The IT Group

APCL Service No: 01-5397

1. Sample Identification

The sample identifications are listed in the following table:

The IT Group Sample ID	APCL Sample ID
17-MW25S	01-05397-2
17-MW24MS	01-05397-1
Trip Blank	01-05397-3

2. Analytical Methodology

Samples are analyzed by EPA methods

8260B (Volatile organics),
M8015V (Gasoline),
M8015E (TPH: Diesel),
M8015E (TPH: Motor Oil),
6010B (TTLC 17 Metals),
300.0 (Chloride Cl^- by IC),
300.0 (Nitrate (NO_3^-) as N by IC),
300.0 (Nitrite (NO_2^-) as N by IC),
300.0 (Phosphorus,Orthophosphate by IC),
300.0 (Sulfate by IC),
310.1 (Alkalinity),
160.1 (Solids, Total Dissolved (TDS)),
M8015V (JP-4),

3. Holding Time

All samples were extracted, digested and analyzed within the holding times defined by the appropriate EPA methods of the analyses.

4. Preservation

All samples were preserved and stored according to the appropriate EPA methods.

5. Tele-log

None

6. Anomaly

None

"I certify that these data are technically accurate, complete, and in compliance with the terms and conditions of the contract, for other than the conditions detailed above. Release of the data contained in the hardcopy data package and its electronic data deliverable submitted on diskette had been authorized by the Laboratory Manager or her/his designee, as verified by the following signature."

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

the group

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 562887
Page 1 of 2

Project Name/No.[1] Crows Landing 800063
Sample Team Members[2] M. Magee
Profit Center No.[3]
Project Manager[4] Bob Hulet
Purchase Order No.[6]
Required Report Date[11] 10 Day TAT

Samples Shipment Date[7] 8/21/01
Lab Destination[8] APCL
Lab Contact[9]
Project Contact/Phone[12] Rose Condit 925 288 2151
Carrier/Waybill No.[13]

Bill to:[5] IT Corporation
4005 Port Chicago Hwy
Concord CA
Attn: Rich Iannccn

Report to:[10] (same)
Rose Condit

White: To accompany samples
Yellow: Field copy

ONE CONTAINER PER LINE

Sample Number[14]	Sample Description/Type[15]	Date/Time Collected[16]	Container Type[17]	Sample Volume[18]	Pre-servative[19]	Requested Testing Program[20]	Condition on Receipt[21]	Disposal Record No.[22]
17-MW24S	Groundwater	8/21/01 1310	40 mil VOA	5X	HCL	VOC'S (8260B) TPH GASOLINE (8015B)		
			Lt Amber	2X	ICE	TPH DIESEL/MO. (8015B)	SAMPLES RECEIVED IN GOOD CONDITION TEMP = 4.2°C	
			500 mil Poly	1X	HNO3	CAM17 (6010B/7000A)		
			500 mil Poly	1X	ICE	TDS (EPA 160.1) ANIONS (EPA 9056) ALKALINITY (EPA 310.1)		
17-MW24MS		8/21/01 1455	40 mil VOA	5X	HCL	VOC'S (8260B) TPH GASOLINE (8015B)		
			Lt Amber	2X	ICE	TPH DIESEL/MO (8015B)		
			500 mil Poly	1X	HNO3	CAM17 (6010B/7000A)		
			500 mil Poly	1X	ICE	TDS (EPA 160.1) ANIONS (EPA 9056) ALKALINITY (EPA 310.1)		

FOR LAB USE ONLY 5397

Special Instructions:[23] Silica Gel Cleanup TPH-D/MO

Possible Hazard Identification:[24]
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☑

Sample Disposal:[25]
Return to Client ☐ Disposal by Lab ☐ Archive _____ (mos.)

Turnaround Time Required:[26]
Normal ☑ Rush ☐

QC Level:[27]
I. ☐ II. ☐ III. ☑ Project Specific (specify):

1. Relinquished by[28] (Signature/Affiliation)	Date: 8/21/01 Time: 1500	1. Received by[28] (Signature/Affiliation)	Date: 8/22/01 Time: 0940
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments:[29]

*See back of form for special instructions.

MCA 3/15/91

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No. 562887
Page 2 of 2

Project Name Crows Landing

Project No. 800063

Samples Shipment Date 8/21/01

ONE CONTAINER PER LINE

Sample Number 14	Sample Description/Type 15	Date/Time Collected 16	Container Type 17	Sample Volume 18	Preservative 19	Requested Testing Program 20	Condition on Receipt 21	Disposal Record No. 22
Trip	water	8/21/01 1500	40 mil VOA	2x	HCL	VOC's (8260B) TPH Gasoline (8015B)		
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	

Last Item

5397

White: To accompany samples   Yellow: Field copy   *See back of form for special instructions.

MCA 3/15/91

APCL

Applied Physics & Chemistry Laboratory

13760 Magnolia Ave. Chino CA 91710
Tel. (909) 590-1828 Fax (909) 590-1498

September 06, 2001

The IT Group
Attention: Rose Condit
4005 Port Chicago Highway
Concord, CA 94520-1120

Dear Rose,

This package contains samples in our Service ID 01-5422 and your project 800063 Crows Landing. Enclosed please find:

(1) Original report.
(2) Oringinal Chain of Custody.
(3) One original and one copy of Level C Data Package Deliverable.
(4) One Diskette containing EDD Deliverable.

If anything is missing or you have any questions, please feel free to contact me.

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
The IT Group
Attention: Rose Condit
4005 Port Chicago Highway
Concord CA 94520-1120
Tel: (925)288-9898 Fax: (925)288-0888

Service ID #: 801-015422
Collected by: M. Magee
Collected on: 08/22/01

Received: 08/23/01
Extracted: 08/24/01
Tested: 08/23-28/01
Reported: 09/05/01

Sample Description: Ground Water
Project Description: 800063 Crows Landing

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result 17-MW25MS 01-05422-1	17-MW26S 01-05422-2
ALKALINITY	310.1	mg-$CaCO_3$/L	20	220	390
SOLIDS, TOTAL DISSOLVED (TDS)	160.1	mg/L	10	828	850
Dilution Factor				20	10
CHLORIDE	300.0	mg/L	0.2	97	59
NITRATE (NO_3^-) AS N	300.0	mg/L	0.04	11	7.3
NITRITE (NO_2^-) AS N	300.0	mg/L	0.05	<1	<0.5
PHOSPHORUS, ORTHOPHOSPHATE	300.0	mg/L	0.1	<2	<1
SULFATE	300.0	mg/L	0.5	217	205
TTLC 17 METALS					
Dilution Factor				1	1
ANTIMONY	6010B	μg/L	10	13.9	6.1J
ARSENIC	6010B	μg/L	5	2.0J	<5
BARIUM	6010B	μg/L	10	20.1	16.5
BERYLLIUM	6010B	μg/L	2	0.066J	<2
CADMIUM	6010B	μg/L	2	0.38J	<2
CHROMIUM	6010B	μg/L	5	16.0	23.6
COBALT	6010B	μg/L	5	<5	<5
COPPER	6010B	μg/L	10	2.9J	<10
LEAD	6010B	μg/L	5	<5	3.2J
MERCURY	7470A	μg/L	0.5	0.30J	0.32J
MOLYBDENUM	6010B	μg/L	5	5.9	2.7J
NICKEL	6010B	μg/L	5	<5	<5
SELENIUM	6010B	μg/L	10	11.1	10.1
SILVER	6010B	μg/L	10	25.7	<10
THALLIUM	6010B	μg/L	10	<10	<10
VANADIUM	6010B	μg/L	10	2.1J	2.3J
ZINC	6010B	μg/L	10	28.4	32.6
Dilution Factor				1	1
DIESEL RANGE ORGANICS	M8015E	mg/L	0.1	<0.1 [a]	<0.1 [a]
Dilution Factor				1	1
MOTOR OIL RANGE ORGANICS	M8015E	mg/L	0.1	<0.1	0.06J

Component Analyzed	Method	Unit	PQL	Analysis Result 17-MW25MS 01-05422-1	17-MW26S 01-05422-2	Trip Blank 01-05422-3
Dilution Factor				1	1	1
GASOLINE RANGE ORGANICS	M8015V	mg/L	0.05	0.07 [b]	0.02J	0.02J
Dilution Factor				1	1	1
JP-4	M8015V	mg/L	0.05	<0.05	<0.05	<0.05

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result 17-MW25MS 01-05422-1	17-MW26S 01-05422-2	Trip Blank 01-05422-3
VOLATILE ORGANICS						
Dilution Factor				1	1	1
ACETONE	8260B	µg/L	10	95	<10	<10
BENZENE	8260B	µg/L	0.5	10.9	<0.5	<0.5
BROMOBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMOCHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMODICHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMOFORM	8260B	µg/L	0.5	0.6	<0.5	<0.5
BROMOMETHANE	8260B	µg/L	0.63 (c)	<0.63	<0.63	<0.63
2-BUTANONE (MEK)	8260B	µg/L	10	<10	<10	<10
N-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
SEC-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TERT-BUTYLBENZENE	8260B	µg/L	0.5	6.0	<0.5	<0.5
CARBON DISULFIDE	8260B	µg/L	10	<10	<10	<10
CARBON TETRACHLORIDE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
DIBROMOCHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROFORM	8260B	µg/L	0.5	0.6	<0.5	<0.5
CHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
2-CHLOROTOLUENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
4-CHLOROTOLUENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DIBROMO-3-CHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DIBROMOETHANE (EDB)	8260B	µg/L	0.5	<0.5	<0.5	<0.5
DIBROMOMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,3-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,4-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
DICHLORODIFLUOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CIS-1,2-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TRANS-1,2-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,3-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
2,2-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
ETHYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5

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13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Component Analyzed	Method	Unit	PQL [c]	Analysis Result 17-MW25MS 01-05422-1	17-MW26S 01-05422-2	Trip Blank 01-05422-3
HEXACHLOROBUTADIENE	8260B	μg/L	0.56 [c]	<0.56	<0.56	<0.56
2-HEXANONE	8260B	μg/L	10	13	<10	<10
ISOPROPYLBENZENE (CUMENE)	8260B	μg/L	0.5	6.7	<0.5	<0.5
P-ISOPROPYLTOLUENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
METHYLENE CHLORIDE	8260B	μg/L	2 [c]	<2	<2	<2
4-METHYL-2-PENTANONE (MIBK)	8260B	μg/L	10	<10	<10	<10
METHYL-T-BYTYL ETHER (MTBE)	8260B	μg/L	1	<1	<1	<1
NAPHTHALENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
N-PROPYLBENZENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
STYRENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,1,1,2-TETRACHLOROETHANE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2-TETRACHLOROETHANE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
TETRACHLOROETHENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
TOLUENE	8260B	μg/L	0.5	0.7	0.7	0.6
1,2,3-TRICHLOROBENZENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,2,4-TRICHLOROBENZENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,1,1-TRICHLOROETHANE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,1,2-TRICHLOROETHANE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
TRICHLOROETHENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
TRICHLOROFLUOROMETHANE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROPROPANE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,2,4-TRIMETHYLBENZENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,3,5-TRIMETHYLBENZENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
VINYL CHLORIDE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
XYLENE (TOTAL)	8260B	μg/L	1	<1	<1	<1
T-BUTYL ALCOHOL	8260B	μg/L	20	<20	<20	<20

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit

N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.

J: Reported between PQL and MDL.

Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

[a] Sample chromatogram contained unknown peak at about C_{15} range.

[b] Not a typical Gasoline or JP-4 pattern.

[c] MDL reported.

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

Level C Data Package Deliverables

General Information

Project : Crows Landing

APCL Service ID: 01-5422

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino, CA 91710
Telephone (909)590-1828
Fax (909)590-1498

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Case Narrative

Project: Crows Landing/800063

For The IT Group

APCL Service No: 01-5422

1. Sample Identification

The sample identifications are listed in the following table:

The IT Group Sample ID	APCL Sample ID
17-MW25MS	01-05422-1
17-MW26S	01-05422-2
Trip Blank	01-05422-3

2. Analytical Methodology

Samples are analyzed by EPA methods

8260 (Volatile organics),
M8015V/M8015G (Gasoline),
M8015E/M8015D (TPH: Diesel),
M8015E/M8015M (TPH: Motor Oil),
6010/various (TTLC 17 Metals),
300.0 (Chloride Cl^- by IC),
300.0/SM4500NO3C (Nitrate (NO_3^-) as N by IC),
310.1 (Alkalinity),
160.1 (Solids, Total Dissolved (TDS)),
M8015V/M8015V (JP-4),
ASTM-D2216 (Moisture, percent in soil),
9040B/150.1 (pH),
8270C (Semi-VOC, 64 Compounds),

3. Holding Time

All samples were extracted, digested and analyzed within the holding times defined by the appropriate EPA methods of the analyses.

4. Preservation

All samples were preserved and stored according to the appropriate EPA methods.

5. Tele-log

None.

6. Anomaly

None.

"I certify that these data are technically accurate, complete, and in compliance with the terms and conditions of the contract, for other than the conditions detailed above. Release of the data contained in the hardcopy data package and its electronic data deliverable submitted on diskette had been authorized by the Laboratory Manager or her/his designee, as verified by the following signature."

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

the igroup

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 562889
Page 1 of 2

Project Name/No. [1] 800063 Crows Landing
Sample Team Members [2] M. Magee
Profit Center No. [3]
Project Manager [4] Bob Hulet
Purchase Order No. [6]
Required Report Date [11] 10 Day TAT

Samples Shipment Date [7] 8/22/01
Lab Destination [8] APCL
Lab Contact [9]
Project Contact/Phone [12] Rose Condit 925 288 2151
Carrier/Waybill No. [13] Fed Ex

Bill to: [5] IT Corp
4005 Port Chicago Hwy
Concord CA 94520
Rich Iannacca

Report to: [10] (Same)
Rose Condit

White: To accompany samples
Yellow: Field copy

ONE CONTAINER PER LINE

Sample Number [14]	Sample Description/Type [15]	Date/Time Collected [16]	Container Type [17]	Sample Volume [18]	Pre-servative [19]	Requested Testing Program [20]	Condition on Receipt [21]	Disposal Record No. [22]
17-MW25MS	Groundwater	8/22/01 1025	40 mil VOA	5 x	HCL	VOC's (8260B) TPH-Gasoline (8015B)	SAMPLES RECEIVED	
			Lt Amber	2 x	ice	TPH-Diesel/mo (8015B)	IN GOOD CONDITION	
			500 mil Poly	1 x	HNO3	cam 17 (6010B/7000A)	TEMP = 2.9°C	
			500 mil Poly	1 x	ice	TDS (EPA 160.1) Anions (EPA 9056) Alkalinity (EPA 310.1)		38
17-MW26S		8/22/01 1440	40 mil VOA	5 x	HCL	VOC's (8260B) TPH-Gasoline (8015B)		
			Lt Amber	2 x	ice	TPH-Diesel/mo (8015B)		
			500 mil Poly	1 x	HNO3	cam 17 (6010B/7000A)		
			500 mil Poly	1 x	ICE	TDS (EPA 160.1) Anions (EPA 9056) Alkalinity (EPA 310.1)		

FOR LAB USE ONLY

5422

FOR LAB USE ONLY

Special Instructions: [23] Silica Gel Cleanup TPH-D/mo

Possible Hazard Identification: [24]
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☑

Sample Disposal: [25]
Return to Client ☐ Disposal by Lab ☐ Archive _____ (mos.)

Turnaround Time Required: [26]
Normal ☐ Rush ☐

QC Level: [27]
I. ☐ II. ☐ III. ☑ Project Specific (specify): _____

1. Relinquished by [28] (Signature/Affiliation) D. Peet	Date: 8/22/01 Time: 1530	1. Received by [28] (Signature/Affiliation) FEDEX	Date: Time:
2. Relinquished by (Signature/Affiliation) FEDEX	Date: Time:	2. Received by (Signature/Affiliation) Marla Fed	Date: 8/23/01 Time:
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments: [29]

*See back of form for special instructions.

MCA 3/15/91

INTERNATIONAL TECHNOLOGY CORPORATION

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No. 562887
Page 2 of 2

Project Name Crows Landing Project No. 800063 Samples Shipment Date 8/22/01

ONE CONTAINER PER LINE

Sample 14 Number	Sample 15 Description/Type	Date/Time 16 Collected	Container 17 Type	Sample 18 Volume	Pre-19 servative	Requested Testing 20 Program	Condition on 21 Receipt	Disposal 22 Record No.
Trip	water	8/22/01	40 ml VOA	2x	HCL	VOCs 8260B TPH-G 8015B		
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							5422	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	

White: To accompany samples Yellow: Field copy

*See back of form for special instructions.

MCA 3/15/91

APCL

Applied Physics & Chemistry Laboratory

13760 Magnolia Ave. Chino CA 91710
Tel. (909) 590-1828 Fax (909) 590-1498

September 10, 2001

The IT Group
Attention: Rose Condit
4005 Port Chicage Highway
Concord CA 94520-1120

Dear Rose,

This package contains samples in our Service ID 01-5524 and your project 800063 Crows Landing. Enclosed please find:

(1) Original report.
(2) Oringinal Chain of Custody.
(3) One diskette containing EDD deliverable.
(4) One original and one copy of Standard Data Package Deliverable.

If anything is missing or you have any questions, please feel free to contact me.

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
The IT Group
Attention: Rose Condit
4005 Port Chicago Highway
Concord CA 94520-1120
Tel: (925)288-9898 Fax: (925)288-0888

Service ID #: 801-015524
Collected by: M.Magee
Collected on: 08/27/01

Received: 08/28/01
Extracted: 08/29/01
Tested: 08/28-09/05/01
Reported: 09/07/01

Sample Description: Water from Crows Landing
Project Description: 800063

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result 17-MW26MS 01-05524-1
ALKALINITY	310.1	mg-$CaCO_3$/L	20	180
SOLIDS, TOTAL DISSOLVED (TDS)	160.1	mg/L	10	1,100
Dilution Factor				20
CHLORIDE	9056	mg/L	0.2	139
NITRATE (NO_3^-) AS N	9056	mg/L	0.04	13
NITRITE (NO_2^-) AS N	9056	mg/L	0.05	<1
PHOSPHORUS, ORTHOPHOSPHATE	9056	mg/L	0.1	<2
SULFATE	9056	mg/L	0.5	459
TTLC 17 METALS				
Dilution Factor				1
ANTIMONY	6010B	µg/L	10	1.9J
ARSENIC	6010B	µg/L	5	<5
BARIUM	6010B	µg/L	10	20.5
BERYLLIUM	6010B	µg/L	2	<2
CADMIUM	6010B	µg/L	2	<2
CHROMIUM	6010B	µg/L	5	17.2
COBALT	6010B	µg/L	5	<5
COPPER	6010B	µg/L	10	<10
LEAD	6010B	µg/L	5	2.5J
MERCURY	7470A	µg/L	0.5	<0.5
MOLYBDENUM	6010B	µg/L	5	3.7J
NICKEL	6010B	µg/L	5	2.2J
SELENIUM	6010B	µg/L	10	8.0J
SILVER	6010B	µg/L	10	<10
THALLIUM	6010B	µg/L	10	4.8J
VANADIUM	6010B	µg/L	10	3.9J
ZINC	6010B	µg/L	10	59.1
Dilution Factor				1
DIESEL RANGE ORGANICS	M8015E	mg/L	0.1	0.2
Dilution Factor				1
MOTOR OIL RANGE ORGANICS	M8015E	mg/L	0.1	0.2

Component Analyzed	Method	Unit	PQL	Analysis Result 17-MW26MS 01-05524-1	Trip Blank 01-05524-2
Dilution Factor				1	1
GASOLINE RANGE ORGANICS	M8015V	mg/L	0.05	0.01J	0.03J
Dilution Factor				1	1
JP-4	M8015V	mg/L	0.05	<0.05	<0.05

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result 17-MW26MS 01-05524-1	Analysis Result Trip Blank 01-05524-2
VOLATILE ORGANICS					
Dilution Factor				1	1
ACETONE	8260B	µg/L	10	<10	<10
BENZENE	8260B	µg/L	0.5	<0.5	<0.5
BROMOBENZENE	8260B	µg/L	0.5	<0.5	<0.5
BROMOCHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5
BROMODICHLOROMETHANE	8260B	µg/L	0.5	1.8	<0.5
BROMOFORM	8260B	µg/L	0.5	4.9	<0.5
BROMOMETHANE	8260B	µg/L	0.63 [a]	<0.63	<0.63
2-BUTANONE (MEK)	8260B	µg/L	10	<10	<10
N-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5
SEC-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5
TERT-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5
CARBON DISULFIDE	8260B	µg/L	10	<10	<10
CARBON TETRACHLORIDE	8260B	µg/L	0.5	<0.5	<0.5
CHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5
DIBROMOCHLOROMETHANE	8260B	µg/L	0.5	4.0	<0.5
CHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5
CHLOROFORM	8260B	µg/L	0.5	1.0	<0.5
CHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5
2-CHLOROTOLUENE	8260B	µg/L	0.5	<0.5	<0.5
4-CHLOROTOLUENE	8260B	µg/L	0.5	<0.5	<0.5
1,2-DIBROMO-3-CHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5
1,2-DIBROMOETHANE (EDB)	8260B	µg/L	0.5	<0.5	<0.5
DIBROMOMETHANE	8260B	µg/L	0.5	<0.5	<0.5
1,2-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5
1,3-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5
1,4-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5
DICHLORODIFLUOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5
1,1-DICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5
1,2-DICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5
1,1-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5
CIS-1,2-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5
TRANS-1,2-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5
1,2-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5
1,3-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5
2,2-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5
1,1-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5
ETHYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result 17-MW26MS 01-05524-1	Analysis Result Trip Blank 01-05524-2
HEXACHLOROBUTADIENE	8260B	μg/L	0.56 [a]	<0.56	<0.56
2-HEXANONE	8260B	μg/L	10	<10	<10
ISOPROPYLBENZENE (CUMENE)	8260B	μg/L	0.5	<0.5	<0.5
P-ISOPROPYLTOLUENE	8260B	μg/L	0.5	<0.5	<0.5
METHYLENE CHLORIDE	8260B	μg/L	2 [a]	<2	4.3
4-METHYL-2-PENTANONE (MIBK)	8260B	μg/L	10	<10	<10
METHYL-T-BYTYL ETHER (MTBE)	8260B	μg/L	1	<1	<1
NAPHTHALENE	8260B	μg/L	0.5	<0.5	<0.5
N-PROPYLBENZENE	8260B	μg/L	0.5	<0.5	<0.5
STYRENE	8260B	μg/L	0.5	<0.5	<0.5
1,1,1,2-TETRACHLOROETHANE	8260B	μg/L	0.5	<0.5	<0.5
1,1,2,2-TETRACHLOROETHANE	8260B	μg/L	0.5	<0.5	<0.5
TETRACHLOROETHENE	8260B	μg/L	0.5	<0.5	<0.5
TOLUENE	8260B	μg/L	0.5	<0.5	<0.5
1,2,3-TRICHLOROBENZENE	8260B	μg/L	0.5	<0.5	<0.5
1,2,4-TRICHLOROBENZENE	8260B	μg/L	0.5	<0.5	<0.5
1,1,1-TRICHLOROETHANE	8260B	μg/L	0.5	<0.5	<0.5
1,1,2-TRICHLOROETHANE	8260B	μg/L	0.5	<0.5	<0.5
TRICHLOROETHENE	8260B	μg/L	0.5	<0.5	<0.5
TRICHLOROFLUOROMETHANE	8260B	μg/L	0.5	<0.5	<0.5
1,2,3-TRICHLOROPROPANE	8260B	μg/L	0.5	<0.5	<0.5
1,2,4-TRIMETHYLBENZENE	8260B	μg/L	0.5	<0.5	<0.5
1,3,5-TRIMETHYLBENZENE	8260B	μg/L	0.5	<0.5	<0.5
VINYL CHLORIDE	8260B	μg/L	0.5	<0.5	<0.5
XYLENE (TOTAL)	8260B	μg/L	1	<1	<1
T-BUTYL ALCOHOL	8260B	μg/L	20	<20	<20

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit

N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.

J: Reported between PQL and MDL.

Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

[a] MDL reported.

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

Standard Data Package Deliverables

General Information

Project: 800063 Crows Landing

APCL Service ID: 01-5524

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino, CA 91710
Telephone (909)590-1828
Fax (909)590-1498

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Case Narrative

Project: Crows Landing/800063

For The IT Group

APCL Service No: 01-5524

1. Sample Identification

The sample identifications are listed in the following table:

The IT Group Sample ID	APCL Sample ID
17-MW26MS	01-05524-1
Trip Blank	01-05524-2

2. Analytical Methodology

Samples are analyzed by EPA methods

8260B (Volatile organics),
M8015V (Gasoline),
M8015V (JP-4),
M8015E (TPH: Diesel),
M8015E (TPH: Motor Oil),
6010B/7470A (TTLC 17 Metals),
9056 (Anions by IC),
310.1 (Alkalinity),
160.1 (Solids, Total Dissolved (TDS)),

3. Holding Time

All samples were extracted, digested and analyzed within the holding times defined by the appropriate EPA methods of the analyses.

4. Preservation

All samples were preserved and stored according to the appropriate EPA methods.

5. Tele-log

None.

6. Anomaly

(1) M8015V:
Surrogate recovery in the Matrix Spike was 61%, lower than 75-125% control limit.

"I certify that these data are technically accurate, complete, and in compliance with the terms and conditions of the contract, for other than the conditions detailed above. Release of the data contained in the hardcopy data package and its electronic data deliverable submitted on diskette had been authorized by the Laboratory Manager or her/his designee, as verified by the following signature."

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

the igroup

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 562891
Page 1 of 1

Project Name/No. [1] 800063 Crows Landing
Sample Team Members [2] M. Magee
Profit Center No. [3]
Project Manager [4] B. Hulet
Purchase Order No. [6]
Required Report Date [11] 10 Day TAT

Samples Shipment Date [7] 8/27/01
Lab Destination [8] APCL
Lab Contact [9]
Project Contact/Phone [12] Rose Condit 925 288 2151
Carrier/Waybill No. [13]

Bill to: [5] IT Corporation
4005 Port Chicago Hwy
Concord CA
Attn: Rich Iannucci

Report to: [10] (same)
Rose Condit

White: To accompany samples
Yellow: Field copy

ONE CONTAINER PER LINE

Sample Number [14]	Sample Description/Type [15]	Date/Time Collected [16]	Container Type [17]	Sample Volume [18]	Pre-servative [19]	Requested Testing Program [20]	Condition on Receipt [21]	Disposal Record No. [22]
17-MW26MS	Groundwater	8/27/01 1405	40 mil VOA	5X	HCL	VOC's (8260B) TPH Gasoline (8015B)		
↓	↓	↓	Lt Amber	2X	ICE	TPH Diesel/MO 8015B		
			500 mil Poly	1X	HNO3	Cam 17 (6010B 7000A)	Sample Received In Good Condition	
↓	↓	↓	500 mil Poly	1X	ICE	TDS (EPA 160.1) Anions (EPA 9056) Alkalinity (310.1)	Temp = 2.6°C	
Trip	Water	8/27/01	40 mil VOA	2X	HCL	VOC's 8260B TPH-Gasoline 8015B		
	Last Item							

FOR LAB USE ONLY

FOR LAB USE ONLY

5524

Special Instructions: [23]

Possible Hazard Identification: [24]
Non-hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☒

Sample Disposal: [25]
Return to Client ☐ Disposal by Lab ☐ Archive _____ (mos.)

Turnaround Time Required: [26]
Normal ☐ Rush ☐ 10 Day TAT

QC Level: [27]
I. ☐ II. ☐ III. ☒ Project Specific (specify):

1. Relinquished by [28] (Signature/Affiliation) David Peet PGCM Date: 8/27/01 Time: 1400	1. Received by [28] (Signature/Affiliation) Paul C Date: 8/28/01 Time: 1000
2. Relinquished by (Signature/Affiliation) Date: Time:	2. Received by (Signature/Affiliation) Date: Time:
3. Relinquished by (Signature/Affiliation) Date: Time:	3. Received by (Signature/Affiliation) Date: Time:

Comments: [29]

*See back of form for special instructions.

MCA 3/15/91

Tab[illegible]: NASA Crows Landing Groundwater Sample Results, Q3 2001, A[illegible]t

Sample ID		109-MW-01		11-MW-03		11-MW-04		117-MW-02		117-MW-04		117-MW-07		117-MW-08		117-MW-09	
Sample Date		08/13/2001		08/13/2001		08/13/2001		08/15/2001		08/15/2001		08/15/2001		08/14/2001		08/14/2001	
Analyte	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
General Chemistry																	
ALKALINITY	mg/L	240		220		290		370		270		160		150		200	
CHLORIDE	mg/L	57		134		90		130		109		85		55		45	
NITRATE AS N	mg/L	11		16.7	J	9.3	J	0.8	U	18.4		13.9		11		1.6	U
NITRATE/NITRITE	mg/L	1	U	1	UJ	1	UJ	1	U	0.75	U	0.75	U	1	U	2	U
PHOSPHATE	mg/L	2	U	2	UJ	2	UJ	2	U	1.5	U	1.5	U	2	U	4	U
TOTAL DISSOLVED SOLIDS	mg/L	836		938		800		680		612		660		840		1510	
SULFATE	mg/L	261		255		180		47		55		175		269		727	
Hexavalent Chromium (EPA 7196A)																	
HEXAVALENT CHROMIUM	mg/L	0.01	J	0.036	J	0.006	J	0.024		0.022		0.02		0.027		0.02	U
Metals (EPA 6010B/7000)																	
ANTIMONY	µg/L	10	U	4.6	J	3.7	J	10	UJ	10	UJ	10	U	10	U	10	U
ARSENIC	µg/L	5	U	5.4	U	5	UJ	5	U	5	U	5	U	5	U	5	U
BARIUM	µg/L	21.4		46.1		78.5		227	J	87.1		22.4		17.8		18	
BERYLLIUM	µg/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
CADMIUM	µg/L	2	UJ	2	UJ	2	UJ	2	U	2	U	2	U	2	U	2	U
CHROMIUM	µg/L	29.9		43.8		10.6		17.2	J	5.9		72.7		27.2		3.2	J
COBALT	µg/L	5	U	5	U	5	UJ	5	UJ	5	U	5	UJ	5	U	5	U
COPPER	µg/L	2.9	J	4.3	J	7.8	J	10	U	10	U	10	UJ	11.6		10	UJ
LEAD	µg/L	5	UJ	5.5	U	5	UJ	1.3	J	1.1	J	5	U	5	UJ	5	UJ
MERCURY	µg/L	0.24	JB	0.32	J	0.23	J	0.71		0.73		0.47	J	0.85		0.5	U
MOLYBDENUM	µg/L	5	UJ	6.7	U	9.6	U	8.5	U	5	UJ	5	UJ	5.6	U	8	U
NICKEL	µg/L	5	U	8.1		11.5		16.6		1	J	26.4		9		3.5	J
SELENIUM	µg/L	14	U	10	UJ	10	UJ	10	U	9.9	J	10	UJ	12.4		10	U
SILVER	µg/L	1.4	J	1.4	J	1.6	J	10	U	10	U	10	U	10	UJ	10	UJ
THALLIUM	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
VANADIUM	µg/L	1.8	J	2.4	J	3.2	J	10	UJ	2.9	J	2.5	J	8.5	J	10	UJ
ZINC	µg/L	64.5		141		133		231		64.1		142		244		228	
Petroleum Hydrocarbons (EPA 8015B)																	
GASOLINE	mg/L	0.05	UJ	0.05	UJ	0.05	UJ	0.19		0.05	UJ	0.05	UJ	0.05	UJ	0.05	UJ
JP-4	mg/L	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U
DIESEL	mg/L	0.06	J	0.1		0.1	U	0.1	U	0.1	U	0.1	U	0.26		0.39	
MOTOR OIL	mg/L	0.04	J	0.06	J	0.07	J	0.1	U	0.1	U	0.2		0.22		0.1	
VOCs (EPA 8260B)																	
1,1,1,2-TETRACHLOROETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-TRICHLOROETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-TETRACHLOROETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	UJ	0.5	UJ	0.5	UJ	0.5	U	0.5	U
1,1,2-TRICHLOROETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-DICHLOROETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5		0.5	U	0.5	U	0.5	U	0.5	U
1,1-DICHLOROETHENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-DICHLOROPROPENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-TRICHLOROBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	UJ	0.5	UJ
1,2,3-TRICHLOROPROPANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-TRICHLOROBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-TRIMETHYLBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U

Tab[illegible]: NASA Crows Landing Groundwater Sample Results, Q3 2001, A[illegible]t

Sample ID		109-MW-01		11-MW-03		11-MW-04		117-MW-02		117-MW-04		117-MW-07		117-MW-08		117-MW-09	
Sample Date		08/13/2001		08/13/2001		08/13/2001		08/15/2001		08/15/2001		08/15/2001		08/14/2001		08/14/2001	
Analyte	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,2-DIBROMO-3-CHLOROPROPANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-DIBROMOETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-DICHLOROBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-DICHLOROETHANE	µg/L	0.5	U	0.5	U	0.5	U	138		2		0.5	U	0.5	U	0.5	U
1,2-DICHLOROPROPANE	µg/L	0.5	U	0.5	U	0.5	U	3.1		0.5	U	0.5	U	0.5	U	0.5	U
1,3,5-TRIMETHYLBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-DICHLOROBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-DICHLOROPROPANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,4-DICHLOROBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2-BUTANONE	µg/L	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
2-HEXANONE	µg/L	10	U	10	U	10	U	10	UJ	10	UJ	10	UJ	10	U	10	U
ACETONE	µg/L	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ
BENZENE	µg/L	0.5	U	0.5	U	0.5	U	1.1		1		0.5	U	0.5	U	0.5	U
BROMOBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
BROMOCHLOROMETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.9	U	0.7	U
BROMODICHLOROMETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
BROMOFORM	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
BROMOMETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.63	U	0.63	U	0.63	U	0.63	UJ	0.63	UJ
CARBON DISULFIDE	µg/L	10	U	10	U	10	U	21	J	0.5	J	10	UJ	10	UJ	10	UJ
CARBON TETRACHLORIDE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	12.2		0.5	U	0.5	U
CHLOROBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
CHLOROETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ
CHLOROFORM	µg/L	0.5	U	0.5	U	0.5	U	1.1		0.5	U	2.7		0.5	U	0.5	U
CHLOROMETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
CIS-1,2-DICHLOROETHENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
CIS-1,3-DICHLOROPROPENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
CUMENE	µg/L	0.5	U	0.5	U	0.5	U	5.3		0.5	U	0.5	U	0.5	U	0.5	U
DIBROMOCHLOROMETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DIBROMOMETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DICHLORODIFLUOROMETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
ETHYLBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
HEXACHLOROBUTADIENE	µg/L	0.5	U	0.5	U	0.5	U	0.56	U	0.56	U	0.56	U	0.56	U	0.56	U
METHYL ISOBUTYL KETONE	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
METHYLENE CHLORIDE	µg/L	0.5	U	0.5	U	0.5	U	2.7	U	2.2	UJ	3	UJ	2	U	2	U
MTBE	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
N-BUTYLBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
N-PROPYLBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
NAPHTHALENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ
O-CHLOROTOLUENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
P-CHLOROTOLUENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
P-CYMENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
SEC-BUTYLBENZENE	µg/L	0.5	U	0.5	U	0.5	U	5.8		0.5	U	0.5	U	0.5	U	0.5	U
SEC-DICHLOROPROPANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
STYRENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
TERT-BUTYL ALCOHOL	µg/L	20	UJ	20	UJ	20	UJ	150	J	20	UJ	20	UJ	20	UJ	20	UJ

Tab[illegible]: NASA Crows Landing Groundwater Sample Results, Q3 2001, A[illegible]

Sample ID		109-MW-01		11-MW-03		11-MW-04		117-MW-02		117-MW-04		117-MW-07		117-MW-08		117-MW-09	
Sample Date		08/13/2001		08/13/2001		08/13/2001		08/15/2001		08/15/2001		08/15/2001		08/14/2001		08/14/2001	
Analyte	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
TERT-BUTYLBENZENE	µg/L	0.5	U	0.5	U	0.5	U	5.8		0.5	U	0.5	U	0.5	U	0.5	U
TETRACHLOROETHENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
TOLUENE	µg/L	0.5	U	0.5	U	0.5	U	0.7		0.5	U	0.5	U	0.5	U	0.5	U
TRANS-1,2-DICHLOROETHENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
TRANS-1,3-DICHLOROPROPENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
TRICHLOROETHENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
TRICHLOROFLUOROMETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
VINYL CHLORIDE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
XYLENES(TOTAL)	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U

U qualifier indicates that the analyte was not detected at the specified detection limit

J qualifier indicates that the associated numerical value is an estimate.

UJ qualifier indicates that the analyte was not detected. However, the reported quantitation limit is approximate.

Tabl : NASA Crows Landing Groundwater Sample Results, Q3 2001, A

Sample ID		17-MW-03		17-MW-06		17-MW-08		17-MW-09		17-MW-11		17-MW-13		17-MW-15		17-MW-18	
Sample Date		08/15/2001		08/14/2001		08/14/2001		08/14/2001		08/13/2001		08/15/2001		08/15/2001		08/14/2001	
Analyte	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
General Chemistry																	
ALKALINITY	mg/L	170		210		110		130		190		240		270		160	
CHLORIDE	mg/L	43		12		50		39		67		123		42		37	
NITRATE AS N	mg/L	25.1		12.5		32.2		24.2		8.4		5.3		0.8	U	12	
NITRATE/NITRITE	mg/L	0.5	U	0.25	U	1	U	1	U	1	U	1	U	1	U	1	U
PHOSPHATE	mg/L	1	U	0.5	U	2	U	2	U	2	U	2	U	2	U	2	U
TOTAL DISSOLVED SOLIDS	mg/L	762		520		1280		1090		760		1280		1240		798	
SULFATE	mg/L	272		118		519		485		265		529		694		288	
Hexavalent Chromium (EPA 7196A)																	
HEXAVALENT CHROMIUM	mg/L	0.038		0.016	J	0.027		0.025		0.02	UJ	0.02	U	0.02	U	0.035	
Metals (EPA 6010B/7000)																	
ANTIMONY	µg/L	10	UJ	10	U	10	U	10	U	10	U	10	UJ	10	UJ	10	U
ARSENIC	µg/L	5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
BARIUM	µg/L	27		54.1		12.7		12.7		31.4		28.5		37.7		14.8	
BERYLLIUM	µg/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
CADMIUM	µg/L	2	U	2	U	2	U	2	U	2	U	2	U	2	U	2	U
CHROMIUM	µg/L	38.1		16.8		25		21		9.8		28.7		1.2	J	29.1	
COBALT	µg/L	5	U	5	U	5	U	5	U	5	U	5	UJ	5	U	5	U
COPPER	µg/L	10	UJ	10	J	10	UJ	10	UJ	2	J	10	UJ	10	U	10	UJ
LEAD	µg/L	1	J	5	J	5	UJ	5	UJ	5	UJ	5	U	1.8	J	5	UJ
MERCURY	µg/L	0.69		0.5	U	0.5	U	0.5	U	0.36	J	0.56		0.33	J	0.5	U
MOLYBDENUM	µg/L	5	UJ	5.3	U	5	UJ	5	U	6.4	U	6.8	U	5	UJ	5	UJ
NICKEL	µg/L	1.4	J	5	U	5	U	5	U	2.4	J	5.5		1.2	J	3.3	J
SELENIUM	µg/L	9.1	J	5.4	J	26.8		25.7		12.7	U	10	U	10	U	7.8	J
SILVER	µg/L	10	U	10	J	10	UJ	10	UJ	1.1	J	10	U	10	U	10	UJ
THALLIUM	µg/L	10	UJ	10	U	10	U	10	U	10	U	10	U	10	U	10	U
VANADIUM	µg/L	2.5	J	10	UJ	10	UJ	10	UJ	1.5	J	2.3	J	10	UJ	10	UJ
ZINC	µg/L	77.1		65		26.5		50.8		224		174		19.1		141	
Petroleum Hydrocarbons (EPA 8015B)																	
GASOLINE	mg/L	0.05	UJ	0.05	UJ	0.05	UJ	0.05	UJ	0.05	UJ	0.27		0.05	UJ	0.05	UJ
JP-4	mg/L	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U	0.05	U
DIESEL	mg/L	0.1	U	0.32		0.28		0.36		0.1	U	0.1	U	0.1	U	0.3	
MOTOR OIL	mg/L	0.1	U	0.1		0.2		0.1	J	0.1	U	0.1	U	0.1	U	0.1	
VOCs (EPA 8260B)																	
1,1,1,2-TETRACHLOROETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,1-TRICHLOROETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1,2,2-TETRACHLOROETHANE	µg/L	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	U	0.5	UJ	0.5	UJ	0.5	U
1,1,2-TRICHLOROETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-DICHLOROETHANE	µg/L	0.5	U	1.5		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-DICHLOROETHENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,1-DICHLOROPROPENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,3-TRICHLOROBENZENE	µg/L	0.5	U	0.5	UJ	0.5	UJ	0.5	UJ	0.5	U	0.5	U	0.5	U	0.5	UJ
1,2,3-TRICHLOROPROPANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-TRICHLOROBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2,4-TRIMETHYLBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U

Tabl : NASA Crows Landing Groundwater Sample Results, Q3 2001, A

Sample ID		17-MW-03		17-MW-06		17-MW-08		17-MW-09		17-MW-11		17-MW-13		17-MW-15		17-MW-18	
Sample Date		08/15/2001		08/14/2001		08/14/2001		08/14/2001		08/13/2001		08/15/2001		08/15/2001		08/14/2001	
Analyte	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,2-DIBROMO-3-CHLOROPROPANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-DIBROMOETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-DICHLOROBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,2-DICHLOROETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	5.1		0.5	U	0.5	U
1,2-DICHLOROPROPANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3,5-TRIMETHYLBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.3	J	0.5	U	0.5	U
1,3-DICHLOROBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,3-DICHLOROPROPANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
1,4-DICHLOROBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
2-BUTANONE	µg/L	10	UJ	10	UJ	10	UJ	10	UJ	10	U	10	UJ	10	UJ	10	UJ
2-HEXANONE	µg/L	10	UJ	10	U	10	U	10	U	10	U	10	UJ	10	UJ	10	U
ACETONE	µg/L	10	UJ	10	UJ	10	UJ	10	UJ	10	UJ	140	J	10	UJ	10	UJ
BENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	2.1		0.5	U	0.5	U
BROMOBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
BROMOCHLOROMETHANE	µg/L	0.5	U	0.9	U	0.9	U	0.7	U	0.5	U	0.5	U	0.5	U	0.5	U
BROMODICHLOROMETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
BROMOFORM	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
BROMOMETHANE	µg/L	0.63	U	0.63	UJ	0.63	UJ	0.63	UJ	0.5	U	0.63	U	0.63	U	0.63	UJ
CARBON DISULFIDE	µg/L	10	UJ	10	UJ	10	UJ	10	UJ	10	U	10	UJ	1	J	10	UJ
CARBON TETRACHLORIDE	µg/L	123		2.7		1.2		1.4		2.5		0.6		0.5	U	0.5	U
CHLOROBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
CHLOROETHANE	µg/L	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	UJ
CHLOROFORM	µg/L	8.5		0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
CHLOROMETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
CIS-1,2-DICHLOROETHENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
CIS-1,3-DICHLOROPROPENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
CUMENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	64.4		0.5	U	0.5	U
DIBROMOCHLOROMETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DIBROMOMETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
DICHLORODIFLUOROMETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
ETHYLBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	J	0.5	U	0.5	U
HEXACHLOROBUTADIENE	µg/L	0.56	U	0.56	U	0.56	U	0.56	U	0.5	U	0.56	U	0.56	U	0.56	U
METHYL ISOBUTYL KETONE	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U	10	U
METHYLENE CHLORIDE	µg/L	2	U	2	U	2	U	2	U	0.5	U	3.5	U	2	U	2	U
MTBE	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
N-BUTYLBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
N-PROPYLBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	1.8		0.5	U	0.5	U
NAPHTHALENE	µg/L	0.5	UJ	0.5	UJ	0.5	UJ	0.5	UJ	0.5	U	0.5	UJ	0.5	UJ	0.5	UJ
O-CHLOROTOLUENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
P-CHLOROTOLUENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
P-CYMENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
SEC-BUTYLBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	6.1		0.5	U	0.5	U
SEC-DICHLOROPROPANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
STYRENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
TERT-BUTYL ALCOHOL	µg/L	20	UJ	20	UJ	20	UJ	20	UJ	20	UJ	230	J	20	UJ	20	UJ

Tab' ?: NASA Crows Landing Groundwater Sample Results, Q3 2001, A t

Sample ID		17-MW-03		17-MW-06		17-MW-08		17-MW-09		17-MW-11		17-MW-13		17-MW-15		17-MW-18	
Sample Date		08/15/2001		08/14/2001		08/14/2001		08/14/2001		08/13/2001		08/15/2001		08/15/2001		08/14/2001	
Analyte	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
TERT-BUTYLBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	9.6		0.5	U	0.5	U
TETRACHLOROETHENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
TOLUENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
TRANS-1,2-DICHLOROETHENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
TRANS-1,3-DICHLOROPROPENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
TRICHLOROETHENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
TRICHLOROFLUOROMETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
VINYL CHLORIDE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
XYLENES(TOTAL)	µg/L	1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U

U qualifier indicates that the analyte was not detected at the specified detection limit

J qualifier indicates that the associated numerical value is an estimate.

UJ qualifier indicates that the analyte was not detected. However, the reported quantitation limit is approximate.

Tab[illegible]2: NASA Crows Landing Groundwater Sample Results, Q3 2001, A[illegible]t

Sample ID		17-MW-24		CL1-MW-04		CL1-MW-05		CL1-MW-06		CL1-MW-12MD		CL1-MW-9S		CL2-MW-05	
Sample Date		08/13/2001		08/14/2001		08/13/2001		08/14/2001		08/15/2001		08/15/2001		08/13/2001	
Analyte	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
General Chemistry															
ALKALINITY	mg/L	350		290		200		230		330		300		340	
CHLORIDE	mg/L	119		66		16		100		81		93		112	
NITRATE AS N	mg/L	14		3.5		20.5		25		0.4	U	15		8.8	
NITRATE/NITRITE	mg/L	1	U	0.5	U	0.5	U	2.5	U	0.5	U	2.3		1	U
PHOSPHATE	mg/L	2	U	1	U	1	U	5	U	1	U	2	U	2	U
TOTAL DISSOLVED SOLIDS	mg/L	1080		782		738		1610		886		1410		882	
SULFATE	mg/L	233		205		236		675		288		600		150	
Hexavalent Chromium (EPA 7196A)															
HEXAVALENT CHROMIUM	mg/L	0.02	UJ	0.05		0.025	J	0.023		0.016	J	0.022		0.026	J
Metals (EPA 6010B/7000)															
ANTIMONY	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	4.9	J
ARSENIC	µg/L	6	U	5	U	5	UJ	2.4	J	5	UJ	5	U	5	UJ
BARIUM	µg/L	20.2		26.1		22		17.9		62.4		16.1		37.8	
BERYLLIUM	µg/L	2	U	2	U	2	U	2	UJ	2	U	2	U	2	U
CADMIUM	µg/L	2	U	2	U	2	UJ	2	U	2	U	2	U	2	UJ
CHROMIUM	µg/L	9.6		10.6		29.7		25.6		5	UJ	14.2		26.7	
COBALT	µg/L	5	U	5	U	5	U	5	UJ	5	U	5	UJ	5	U
COPPER	µg/L	13.4		10	U	2.2	J	10	UJ	10	U	10	UJ	22.7	
LEAD	µg/L	5	J	5	UJ	5	UJ	5	UJ	5	U	0.96	J	5	UJ
MERCURY	µg/L	0.3	JB	0.5	U	0.23	B	0.5	U	0.35	J	0.58		0.27	J
MOLYBDENUM	µg/L	5	J	5	UJ	5	UJ	9.5	U	5	U	5	UJ	5	UJ
NICKEL	µg/L	6.6		2.5	J	5	U	5.2		0.62	J	10.3		9.9	
SELENIUM	µg/L	10	J	3.6	J	10	UJ	58.7		10	U	12.8		10	UJ
SILVER	µg/L	10	U	10	UJ	10	U	10	UJ	10	U	10	U	10	U
THALLIUM	µg/L	10	U	10	U	10	U	10	U	10	U	10	U	10	U
VANADIUM	µg/L	3.3	J	10	UJ	1.1	J	10	UJ	10	U	2.1	J	1.5	J
ZINC	µg/L	272		37.8		75		565		10.1		97.1		454	
Petroleum Hydrocarbons (EPA 8015B)															
GASOLINE	mg/L	0.05	UJ	0.05	UJ	0.05	UJ	0.05	UJ	166		0.51		0.05	UJ
JP-4	mg/L	0.05	U	0.05	U	0.05	U	0.05	U	5	U	0.05	U	0.05	U
DIESEL	mg/L	0.1		0.26		0.1		0.3		0.5	U	0.1	U	0.1	U
MOTOR OIL	mg/L	0.1	U	0.2		0.1	U	0.1	J	0.5	U	0.1	U	0.1	U
VOCs (EPA 8260B)															
1,1,1,2-TETRACHLOROETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
1,1,1-TRICHLOROETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
1,1,2,2-TETRACHLOROETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	UJ	2.5	UJ	0.5	U
1,1,2-TRICHLOROETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
1,1-DICHLOROETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
1,1-DICHLOROETHENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
1,1-DICHLOROPROPENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
1,2,3-TRICHLOROBENZENE	µg/L	0.5	U	0.5	UJ	0.5	U	0.5	UJ	25	U	2.5	U	0.5	U
1,2,3-TRICHLOROPROPANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
1,2,4-TRICHLOROBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
1,2,4-TRIMETHYLBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U

Tab[illegible]: NASA Crows Landing Groundwater Sample Results, Q3 2001, A[illegible]

Sample ID		17-MW-24		CL1-MW-04		CL1-MW-05		CL1-MW-06		CL1-MW-12MD		CL1-MW-9S		CL2-MW-05	
Sample Date		08/13/2001		08/14/2001		08/13/2001		08/14/2001		08/15/2001		08/15/2001		08/13/2001	
Analyte	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
1,2-DIBROMO-3-CHLOROPROPANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
1,2-DIBROMOETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
1,2-DICHLOROBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
1,2-DICHLOROETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	470		12		0.5	U
1,2-DICHLOROPROPANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
1,3,5-TRIMETHYLBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
1,3-DICHLOROBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
1,3-DICHLOROPROPANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
1,4-DICHLOROBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
2-BUTANONE	µg/L	10	U	10	UJ	10	U	10	UJ	500	UJ	50	UJ	10	U
2-HEXANONE	µg/L	10	U	10	U	10	U	10	U	500	UJ	50	U	10	U
ACETONE	µg/L	10	UJ	10	UJ	10	U	10	UJ	500	UJ	50	UJ	10	UJ
BENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	17200		261		0.5	U
BROMOBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
BROMOCHLOROMETHANE	µg/L	0.5	U	0.6	U	0.5	U	0.7	U	25	U	2.5	U	0.5	U
BROMODICHLOROMETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
BROMOFORM	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
BROMOMETHANE	µg/L	0.5	U	0.63	UJ	0.5	U	0.63	UJ	32	U	3.2	U	0.5	U
CARBON DISULFIDE	µg/L	10	U	10	UJ	10	U	10	UJ	500	UJ	50	U	10	U
CARBON TETRACHLORIDE	µg/L	0.5	U	0.5	U	1		0.5	U	25	U	2.5	U	0.5	U
CHLOROBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
CHLOROETHANE	µg/L	0.5	U	0.5	UJ	0.5	U	0.5	UJ	25	UJ	2.5	U	0.5	U
CHLOROFORM	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	16	J	17		0.5	U
CHLOROMETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
CIS-1,2-DICHLOROETHENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
CIS-1,3-DICHLOROPROPENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
CUMENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	1770		2.5	U	0.5	U
DIBROMOCHLOROMETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
DIBROMOMETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
DICHLORODIFLUOROMETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
ETHYLBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
HEXACHLOROBUTADIENE	µg/L	0.5	U	0.56	U	0.5	U	0.56	U	28	U	2.8	U	0.5	U
METHYL ISOBUTYL KETONE	µg/L	10	U	10	U	10	U	10	U	500	U	50	U	10	U
METHYLENE CHLORIDE	µg/L	0.5	U	2.4	U	0.5	U	2	U	260	U	12	U	0.5	U
MTBE	µg/L	1	U	1	U	1	U	1	U	50	U	5	U	1	U
N-BUTYLBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
N-PROPYLBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
NAPHTHALENE	µg/L	0.5	U	0.5	UJ	0.5	U	0.5	UJ	25	UJ	2.5	U	0.5	U
O-CHLOROTOLUENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
P-CHLOROTOLUENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
P-CYMENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
SEC-BUTYLBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
SEC-DICHLOROPROPANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
STYRENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
TERT-BUTYL ALCOHOL	µg/L	20	UJ	20	UJ	20	UJ	20	UJ	1000	UJ	28	J	20	UJ

Tabl : NASA Crows Landing Groundwater Sample Results, Q3 2001, A

Sample ID		17-MW-24		CL1-MW-04		CL1-MW-05		CL1-MW-06		CL1-MW-12MD		CL1-MW-9S		CL2-MW-05	
Sample Date		08/13/2001		08/14/2001		08/13/2001		08/14/2001		08/15/2001		08/15/2001		08/13/2001	
Analyte	Units	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual	Result	Qual
TERT-BUTYLBENZENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	290		2.5	U	0.5	U
TETRACHLOROETHENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
TOLUENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	15	J	2.5	U	0.5	U
TRANS-1,2-DICHLOROETHENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
TRANS-1,3-DICHLOROPROPENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
TRICHLOROETHENE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
TRICHLOROFLUOROMETHANE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
VINYL CHLORIDE	µg/L	0.5	U	0.5	U	0.5	U	0.5	U	25	U	2.5	U	0.5	U
XYLENES(TOTAL)	µg/L	1	U	1	U	1	U	1	U	25	J	5	U	1	U

U qualifier indicates that the analyte was not detected at the specified detection limit

J qualifier indicates that the associated numerical value is an estimate.

UJ qualifier indicates that the analyte was not detected. However, the reported quantitation limit is approximate.

Table B-3: Field Duplicate Precision, NASA Crows Landing, August 2001

Sample ID	Duplicate ID	Analyte	Sample Result	Qual	Duplicate Result	Qual	Units	RPD	Control Limits
17-MW-09	CL-99-15	Alkalinity	130000		130000		µg/L	0	30
17-MW-09	CL-99-15	Chloride	39000		40000		µg/L	3	30
17-MW-09	CL-99-15	Nitrate (No3-) As N	24200		24100		µg/L	0	30
17-MW-09	CL-99-15	Nitrite (No2-) As N	1000	U	1000	U	µg/L	NC	30
17-MW-09	CL-99-15	Orthophosphate	2000	U	2000	U	µg/L	NC	30
17-MW-09	CL-99-15	TDS	1090000		1130000		µg/L	4	30
17-MW-09	CL-99-15	Sulfate	485000		478000		µg/L	1	30
17-MW-09	CL-99-15	Antimony	10	U	10	U	µg/L	NC	30
17-MW-09	CL-99-15	Arsenic	5	U	5	U	µg/L	NC	30
17-MW-09	CL-99-15	Barium	12.7		13.5		µg/L	6	30
17-MW-09	CL-99-15	Beryllium	2	U	2	U	µg/L	NC	30
17-MW-09	CL-99-15	Cadmium	2	U	2	U	µg/L	NC	30
17-MW-09	CL-99-15	Chromium	21		22.5		µg/L	7	30
17-MW-09	CL-99-15	Cobalt	5	U	5	U	µg/L	NC	30
17-MW-09	CL-99-15	Copper	10	UJ	10	UJ	µg/L	NC	30
17-MW-09	CL-99-15	Lead	5	UJ	5	UJ	µg/L	NC	30
17-MW-09	CL-99-15	Mercury	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	Molybdenum	5	U	5	UJ	µg/L	NC	30
17-MW-09	CL-99-15	Nickel	5	U	5	U	µg/L	NC	30
17-MW-09	CL-99-15	Selenium	25.7		22.9		µg/L	12	30
17-MW-09	CL-99-15	Silver	10	UJ	10	UJ	µg/L	NC	30
17-MW-09	CL-99-15	Thallium	10	U	10	U	µg/L	NC	30
17-MW-09	CL-99-15	Vanadium	10	UJ	10	UJ	µg/L	NC	30
17-MW-09	CL-99-15	Zinc	50.8		54.3		µg/L	7	30
17-MW-09	CL-99-15	TPH- diesel	360		280		µg/L	25	30
17-MW-09	CL-99-15	TPH- gasoline	50	UJ	50	UJ	µg/L	NC	30
17-MW-09	CL-99-15	TPH - Jp-4	50	U	50	U	µg/L	NC	30
17-MW-09	CL-99-15	TPH - motor Oil	100	J	200		µg/L	* 67	30
17-MW-09	CL-99-15	1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	1,1,1-Trichloroethane	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	1,1,2-Trichloroethane	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	1,1-Dichloroethane	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	1,1-Dichloroethene	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	1,1-Dichloropropene	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	1,2,3-Trichlorobenzene	0.5	UJ	0.5	UJ	µg/L	NC	30
17-MW-09	CL-99-15	1,2,3-Trichloropropane	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	1,2,4-Trichlorobenzene	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	1,2,4-Trimethylbenzene	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	1,2-Dibromo-3-Chloropropane	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	1,2-Dibromoethane (Edb)	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	1,2-Dichlorobenzene	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	1,2-Dichloroethane	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	1,2-Dichloropropane	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	1,3,5-Trimethylbenzene	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	1,3-Dichlorobenzene	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	1,3-Dichloropropane	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	1,4-Dichlorobenzene	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	2,2-Dichloropropane	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	2-Butanone (Mek)	10	UJ	10	UJ	µg/L	NC	30
17-MW-09	CL-99-15	2-Chlorotoluene	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	2-Hexanone	10	U	10	U	µg/L	NC	30
17-MW-09	CL-99-15	4-Chlorotoluene	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	4-Methyl-2-Pentanone (Mibk)	10	U	10	U	µg/L	NC	30

Table B-3: Field Duplicate Precision, NASA Crows Landing, August 2001

Sample ID	Duplicate ID	Analyte	Sample Result	Qual	Duplicate Result	Qual	Units	RPD	Control Limits
17-MW-09	CL-99-15	Acetone	10	UJ	10	UJ	µg/L	NC	30
17-MW-09	CL-99-15	Benzene	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	Bromobenzene	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	Bromochloromethane	0.7	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	Bromodichloromethane	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	Bromoform	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	Bromomethane	0.63	UJ	0.63	UJ	µg/L	NC	30
17-MW-09	CL-99-15	Carbon Disulfide	10	UJ	10	UJ	µg/L	NC	30
17-MW-09	CL-99-15	Carbon Tetrachloride	1.4		1.2		µg/L	15	30
17-MW-09	CL-99-15	Chlorobenzene	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	Chloroethane	0.5	UJ	0.5	UJ	µg/L	NC	30
17-MW-09	CL-99-15	Chloroform	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	Chloromethane	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	Cis-1,2-Dichloroethene	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	Cis-1,3-Dichloropropene	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	Dibromochloromethane	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	Dibromomethane	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	Dichlorodifluoromethane	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	Ethylbenzene	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	Hexachlorobutadiene	0.56	U	0.56	U	µg/L	NC	30
17-MW-09	CL-99-15	Isopropylbenzene (Cumene)	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	Methyl-T-Bytyl Ether (Mtbe)	1	U	1	U	µg/L	NC	30
17-MW-09	CL-99-15	Methylene Chloride	2	U	2	U	µg/L	NC	30
17-MW-09	CL-99-15	N-Butylbenzene	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	N-Propylbenzene	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	Naphthalene	0.5	UJ	0.5	UJ	µg/L	NC	30
17-MW-09	CL-99-15	P-Isopropyltoluene	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	Sec-Butylbenzene	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	Styrene	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	T-Butyl Alcohol	20	UJ	20	UJ	µg/L	NC	30
17-MW-09	CL-99-15	Tert-Butylbenzene	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	Tetrachloroethene	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	Toluene	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	Trans-1,2-Dichloroethene	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	Trans-1,3-Dichloropropene	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	Trichloroethene	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	Trichlorofluoromethane	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	Vinyl Chloride	0.5	U	0.5	U	µg/L	NC	30
17-MW-09	CL-99-15	Xylene (Total)	1	U	1	U	µg/L	NC	30
17-MW-24	CL-99-14	Alkalinity	350000		350000		µg/L	0	30
17-MW-24	CL-99-14	Chloride	119000		119000		µg/L	0	30
17-MW-24	CL-99-14	Nitrate (No3-) As N	14000		14000		µg/L	0	30
17-MW-24	CL-99-14	Nitrite (No2-) As N	1000	U	1000	U	µg/L	NC	30
17-MW-24	CL-99-14	Orthophosphate	2000	U	2000	U	µg/L	NC	30
17-MW-24	CL-99-14	TDS	1080000		1080000		µg/L	0	30
17-MW-24	CL-99-14	Sulfate	233000		236000		µg/L	1	30
17-MW-24	CL-99-14	Antimony	10	U	10	U	µg/L	NC	30
17-MW-24	CL-99-14	Arsenic	6	U	5.5	U	µg/L	NC	30
17-MW-24	CL-99-14	Barium	20.2		21		µg/L	4	30
17-MW-24	CL-99-14	Beryllium	2	U	2	UJ	µg/L	NC	30
17-MW-24	CL-99-14	Cadmium	2	U	2	UJ	µg/L	NC	30
17-MW-24	CL-99-14	Chromium	9.6		16.9		µg/L	* 55	30
17-MW-24	CL-99-14	Cobalt	5	U	5	U	µg/L	NC	30
17-MW-24	CL-99-14	Copper	13.4		12		µg/L	11	30

Table B-3: Field Duplicate Precision, NASA Crows Landing, August 2001

Sample ID	Duplicate ID	Analyte	Sample Result	Qual	Duplicate Result	Qual	Units	RPD	Control Limits
17-MW-24	CL-99-14	Hexavalent Chromium	20	UJ	20	UJ	µg/L	NC	30
17-MW-24	CL-99-14	Lead	5	J	6.9	U	µg/L	NC	30
17-MW-24	CL-99-14	Mercury	0.3	JB	0.64		µg/L	* 72	30
17-MW-24	CL-99-14	Molybdenum	5	J	5	UJ	µg/L	NC	30
17-MW-24	CL-99-14	Nickel	6.6		7.3		µg/L	10	30
17-MW-24	CL-99-14	Selenium	10	J	10	J	µg/L	0	30
17-MW-24	CL-99-14	Silver	10	U	1.1	J	µg/L	NC	30
17-MW-24	CL-99-14	Thallium	10	U	10	U	µg/L	NC	30
17-MW-24	CL-99-14	Vanadium	3.3	J	3.3	J	µg/L	0	30
17-MW-24	CL-99-14	Zinc	272		406		µg/L	* 40	30
17-MW-24	CL-99-14	TPH- diesel	100		100	J	µg/L	0	30
17-MW-24	CL-99-14	TPH- gasoline	50	UJ	50	UJ	µg/L	NC	30
17-MW-24	CL-99-14	TPH - Jp-4	50	U	50	U	µg/L	NC	30
17-MW-24	CL-99-14	TPH- Motor Oil	100	U	40	J	µg/L	NC	30
17-MW-24	CL-99-14	1,1,1,2-Tetrachloroethane	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	1,1,1-Trichloroethane	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	1,1,2,2-Tetrachloroethane	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	1,1,2-Trichloroethane	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	1,1-Dichloroethane	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	1,1-Dichloroethene	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	1,1-Dichloropropene	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	1,2,3-Trichlorobenzene	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	1,2,3-Trichloropropane	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	1,2,4-Trichlorobenzene	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	1,2,4-Trimethylbenzene	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	1,2-Dibromo-3-Chloropropane	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	1,2-Dibromoethane (Edb)	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	1,2-Dichlorobenzene	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	1,2-Dichloroethane	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	1,2-Dichloropropane	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	1,3,5-Trimethylbenzene	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	1,3-Dichlorobenzene	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	1,3-Dichloropropane	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	1,4-Dichlorobenzene	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	2,2-Dichloropropane	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	2-Butanone (Mek)	10	U	10	U	µg/L	NC	30
17-MW-24	CL-99-14	2-Chlorotoluene	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	2-Hexanone	10	U	10	U	µg/L	NC	30
17-MW-24	CL-99-14	4-Chlorotoluene	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	4-Methyl-2-Pentanone	10	U	10	U	µg/L	NC	30
17-MW-24	CL-99-14	Acetone	10	UJ	10	UJ	µg/L	NC	30
17-MW-24	CL-99-14	Benzene	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	Bromobenzene	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	Bromochloromethane	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	Bromodichloromethane	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	Bromoform	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	Bromomethane	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	Carbon Disulfide	10	U	10	U	µg/L	NC	30
17-MW-24	CL-99-14	Carbon Tetrachloride	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	Chlorobenzene	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	Chloroethane	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	Chloroform	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	Chloromethane	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	Cis-1,2-Dichloroethene	0.5	U	0.5	U	µg/L	NC	30

Table B-3: Field Duplicate Precision, NASA Crows Landing, August 2001

Sample ID	Duplicate ID	Analyte	Sample Result	Qual	Duplicate Result	Qual	Units	RPD	Control Limits
17-MW-24	CL-99-14	Cis-1,3-Dichloropropene	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	Dibromochloromethane	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	Dibromomethane	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	Dichlorodifluoromethane	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	Ethylbenzene	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	Hexachlorobutadiene	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	Isopropylbenzene (Cumene)	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	Methyl-T-Bytyl Ether	1	U	1	U	µg/L	NC	30
17-MW-24	CL-99-14	Methylene Chloride	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	N-Butylbenzene	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	N-Propylbenzene	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	Naphthalene	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	P-Isopropyltoluene	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	Sec-Butylbenzene	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	Styrene	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	T-Butyl Alcohol	20	UJ	20	UJ	µg/L	NC	30
17-MW-24	CL-99-14	Tert-Butylbenzene	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	Tetrachloroethene	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	Toluene	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	Trans-1,2-Dichloroethene	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	Trans-1,3-Dichloropropene	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	Trichloroethene	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	Trichlorofluoromethane	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	Vinyl Chloride	0.5	U	0.5	U	µg/L	NC	30
17-MW-24	CL-99-14	Xylene (Total)	1	U	1	U	µg/L	NC	30

RPD denotes Relative Percent Difference

Shaded cells indicate RPD values over the specified control limit

U qualifier indicates that the analyte was not detected at the specified detection limit

J qualifier indicates that the associated numerical value is an estimate.

UJ qualifier indicates that the analyte was not detected. However, the reported quantitation limit is approximate.

Table B-4: NASA Crows Landing Supply Well, August 2001

Sample ID		NASA-SW-3	
Sample Date		08/13/2001	
Analyte	Units	Result	Qual
General Chemistry			
ALKALINITY	mg/L	130	
CHLORIDE	mg/L	91	
NITRATE AS N	mg/L	13	J
NITRATE/NITRITE	mg/L	1	UJ
PHOSPHATE	mg/L	2	UJ
TOTAL DISSOLVED SOLIDS	mg/L	1360	
SULFATE	mg/L	686	
Hexavalent Chromium (EPA 7196A)			
HEXAVALENT CHROMIUM	mg/L	0.02	UJ
Metals (EPA 6010B/7000)			
ANTIMONY	µg/L	10	U
ARSENIC	µg/L	5	UJ
BARIUM	µg/L	33.9	
BERYLLIUM	µg/L	2	U
CADMIUM	µg/L	2	U
CHROMIUM	µg/L	17.5	
COBALT	µg/L	5	U
COPPER	µg/L	5.4	J
LEAD	µg/L	5	UJ
MERCURY	µg/L	0.24	J
MOLYBDENUM	µg/L	5	UJ
NICKEL	µg/L	3.5	J
SELENIUM	µg/L	42.1	
SILVER	µg/L	10	U
THALLIUM	µg/L	10	U
VANADIUM	µg/L	3.9	J
ZINC	µg/L	105	
Petroleum Hydrocarbons (EPA 8015B)			
GASOLINE	mg/L	0.05	UJ
JP-4	mg/L	0.05	U
DIESEL	mg/L	0.1	
MOTOR OIL	mg/L	0.04	J
VOCs (EPA 8260B)			
1,1,1,2-TETRACHLOROETHANE	µg/L	0.5	U
1,1,1-TRICHLOROETHANE	µg/L	0.5	U
1,1,2,2-TETRACHLOROETHANE	µg/L	0.5	U
1,1,2-TRICHLOROETHANE	µg/L	0.5	U
1,1-DICHLOROETHANE	µg/L	0.5	U
1,1-DICHLOROETHENE	µg/L	0.5	U
1,1-DICHLOROPROPENE	µg/L	0.5	U
1,2,3-TRICHLOROBENZENE	µg/L	0.5	U
1,2,3-TRICHLOROPROPANE	µg/L	0.5	U
1,2,4-TRICHLOROBENZENE	µg/L	0.5	U
1,2,4-TRIMETHYLBENZENE	µg/L	0.5	U
1,2-DIBROMO-3-CHLOROPROPANE	µg/L	0.5	U
1,2-DIBROMOETHANE	µg/L	0.5	U
1,2-DICHLOROBENZENE	µg/L	0.5	U
1,2-DICHLOROETHANE	µg/L	0.5	U
1,2-DICHLOROPROPANE	µg/L	0.5	U
1,3,5-TRIMETHYLBENZENE	µg/L	0.5	U
1,3-DICHLOROBENZENE	µg/L	0.5	U
1,3-DICHLOROPROPANE	µg/L	0.5	U
1,4-DICHLOROBENZENE	µg/L	0.5	U

Table B-4: NASA Crows Landing Supply Well, August 2001

Sample ID		NASA-SW-3	
Sample Date		08/13/2001	
Analyte	Units	Result	Qual
2-BUTANONE	µg/L	10	U
2-HEXANONE	µg/L	10	U
ACETONE	µg/L	10	UJ
BENZENE	µg/L	0.5	U
BROMOBENZENE	µg/L	0.5	U
BROMOCHLOROMETHANE	µg/L	0.5	U
BROMODICHLOROMETHANE	µg/L	0.5	U
BROMOFORM	µg/L	0.5	U
BROMOMETHANE	µg/L	0.5	U
CARBON DISULFIDE	µg/L	10	U
CARBON TETRACHLORIDE	µg/L	0.5	U
CHLOROBENZENE	µg/L	0.5	U
CHLOROETHANE	µg/L	0.5	U
CHLOROFORM	µg/L	0.5	U
CHLOROMETHANE	µg/L	0.5	U
CIS-1,2-DICHLOROETHENE	µg/L	0.5	U
CIS-1,3-DICHLOROPROPENE	µg/L	0.5	U
CUMENE	µg/L	0.5	U
DIBROMOCHLOROMETHANE	µg/L	0.5	U
DIBROMOMETHANE	µg/L	0.5	U
DICHLORODIFLUOROMETHANE	µg/L	0.5	U
ETHYLBENZENE	µg/L	0.5	U
HEXACHLOROBUTADIENE	µg/L	0.5	U
METHYL ISOBUTYL KETONE	µg/L	10	U
METHYLENE CHLORIDE	µg/L	2	U
MTBE	µg/L	1	U
N-BUTYLBENZENE	µg/L	0.5	U
N-PROPYLBENZENE	µg/L	0.5	U
NAPHTHALENE	µg/L	0.5	U
O-CHLOROTOLUENE	µg/L	0.5	U
P-CHLOROTOLUENE	µg/L	0.5	U
P-CYMENE	µg/L	0.5	U
SEC-BUTYLBENZENE	µg/L	0.5	U
SEC-DICHLOROPROPANE	µg/L	0.5	U
STYRENE	µg/L	0.5	U
TERT-BUTYL ALCOHOL	µg/L	20	UJ
TERT-BUTYLBENZENE	µg/L	0.5	U
TETRACHLOROETHENE	µg/L	0.5	U
TOLUENE	µg/L	0.5	U
TRANS-1,2-DICHLOROETHENE	µg/L	0.5	U
TRANS-1,3-DICHLOROPROPENE	µg/L	0.5	U
TRICHLOROETHENE	µg/L	0.5	U
TRICHLOROFLUOROMETHANE	µg/L	0.5	U
VINYL CHLORIDE	µg/L	0.5	U
XYLENES(TOTAL)	µg/L	1	U

U qualifier indicates that the analyte was not detected at the specified detection limit

J qualifier indicates that the associated numerical value is an estimate.

UJ qualifier indicates that the analyte was not detected. However, the reported quantitation limit is approximate.

APCL

Applied Physics & Chemistry Laboratory

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August 28,2001

The IT Group
Attention: Rose Condit
4005 Port Chicago Highway,
Concord CA 94520-1120

Dear Rose,

This package contains samples in our Service ID 01-5251 and your project 800063 Corws Landing. Enclosed please find:

(1) Original Final Report.
(2) Original Chain of Custody.
(3) One Original and one Copy of Level D Data Package Deliverable.
(4) One Diskette containing EDD Deliverable.

If anything is missing or you have any questions, please feel free to contact me.

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory
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APCL Analytical Report

Submitted to:
The IT Group
Attention: Rose Condit
4005 Port Chicago Highway
Concord CA 94520-1120
Tel: (925)288-9898 Fax: (925)288-0888

Service ID #: 801-015251
Collected by:
Collected on: 08/13/01

Received: 08/15/01
Extracted: 08/15/01
Tested: 08/15-21/01
Reported: 08/23/01

Sample Description: Water from Crows Landing
Project Description: 800063

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result 11-MW-03 (8/01) 01-05251-1	11-MW-04 (8/01) 01-05251-2	17-MW-105 01-05251-3
ALKALINITY	310.1	mg-$CaCO_3$/L	20	220	290	-
SOLIDS, TOTAL DISSOLVED (TDS)	160.1	mg/L	10	938	800	-
Dilution Factor				20	20	1
CHLORIDE	300.0	mg/L	0.2	134	90	-
NITRATE (NO_3^-) AS N	300.0	mg/L	0.04	16.7	9.3	-
NITRITE (NO_2^-) AS N	300.0	mg/L	0.05	<1	<1	-
PHOSPHORUS, ORTHOPHOSPHATE	300.0	mg/L	0.1	<2	<2	-
SULFATE	300.0	mg/L	0.5	255	180	-
TTLC 17 METALS						
Dilution Factor				1	1	1
ANTIMONY	6010B	μg/L	10	4.6J	3.7J	-
ARSENIC	6010B	μg/L	5	5.4	4.7J	-
BARIUM	6010B	μg/L	10	46.1	78.5	-
BERYLLIUM	6010B	μg/L	2	<2	<2	-
CADMIUM	6010B	μg/L	2	0.38J	0.34J	-
CHROMIUM	6010B	μg/L	5	43.8	10.6	-
COBALT	6010B	μg/L	5	<5	1.1J	-
COPPER	6010B	μg/L	10	4.3J	7.8J	-
LEAD	6010B	μg/L	5	5.5	5.0J	-
MERCURY	7470A	μg/L	0.5	0.32J	0.23J	-
MOLYBDENUM	6010B	μg/L	5	6.7	9.6	-
NICKEL	6010B	μg/L	5	8.1	11.5	-
SELENIUM	6010B	μg/L	10	5.6J	3.3J	-
SILVER	6010B	μg/L	10	1.4J	1.6J	-
THALLIUM	6010B	μg/L	10	<10	<10	-
VANADIUM	6010B	μg/L	10	2.4J	3.2J	-
ZINC	6010B	μg/L	10	141	133	-
Dilution Factor				1	1	1
GASOLINE RANGE ORGANICS	M8015V	mg/L	0.05	0.02J	0.02J	0.11 [a]
Dilution Factor				1	1	1
JP-4	M8015V	mg/L	0.05	<0.05	<0.05	<0.05
Dilution Factor				1	1	1
DIESEL RANGE ORGANICS	M8015E	mg/L	0.1	0.1 [b]	<0.1 [c]	<0.1
Dilution Factor				1	1	1
MOTOR OIL RANGE ORGANICS	M8015E	mg/L	0.1	0.06J	0.07J	0.05J

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result 11-MW-03 (8/01) 01-05251-1	11-MW-04 (8/01) 01-05251-2	17-MW-105 01-05251-3
VOLATILE ORGANICS						
Dilution Factor				1	1	1
ACETONE	8260B	µg/L	10	<10	<10	<10
BENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMOBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMOCHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMODICHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMOFORM	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMOMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
2-BUTANONE (MEK)	8260B	µg/L	10	<10	<10	<10
N-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
SEC-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TERT-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CARBON DISULFIDE	8260B	µg/L	10	<10	<10	<10
CARBON TETRACHLORIDE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
DIBROMOCHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROFORM	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
2-CHLOROTOLUENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
4-CHLOROTOLUENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DIBROMO-3-CHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DIBROMOETHANE (EDB)	8260B	µg/L	0.5	<0.5	<0.5	<0.5
DIBROMOMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,3-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,4-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
DICHLORODIFLUOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	157 (d)
1,1-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CIS-1,2-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TRANS-1,2-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	0.9
1,3-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
2,2-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
ETHYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5

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Component Analyzed	Method	Unit	PQL	Analysis Result 11-MW-03 (8/01) 01-05251-1	11-MW-04 (8/01) 01-05251-2	17-MW-105 01-05251-3
HEXACHLOROBUTADIENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
2-HEXANONE	8260B	μg/L	10	<10	<10	<10
ISOPROPYLBENZENE (CUMENE)	8260B	μg/L	0.5	<0.5	<0.5	<0.5
P-ISOPROPYLTOLUENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
METHYLENE CHLORIDE	8260B	μg/L	0.5	<0.5	<0.5	0.4J
4-METHYL-2-PENTANONE (MIBK)	8260B	μg/L	10	<10	<10	<10
METHYL-T-BYTYL ETHER (MTBE)	8260B	μg/L	1	<1	<1	<1
NAPHTHALENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
N-PROPYLBENZENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
STYRENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,1,1,2-TETRACHLOROETHANE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2-TETRACHLOROETHANE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
TETRACHLOROETHENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
TOLUENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROBENZENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,2,4-TRICHLOROBENZENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,1,1-TRICHLOROETHANE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,1,2-TRICHLOROETHANE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
TRICHLOROETHENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
TRICHLOROFLUOROMETHANE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROPROPANE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,2,4-TRIMETHYLBENZENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,3,5-TRIMETHYLBENZENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
VINYL CHLORIDE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
XYLENE (TOTAL)	8260B	μg/L	1	<1	<1	<1
T-BUTYL ALCOHOL	8260B	μg/L	20	<20	<20	<20

Component Analyzed	Method	Unit	PQL	Analysis Result 17-MW-11 (8/01) 01-05251-4	17-MW-24 (8/01) 01-05251-5	109-MW-01 (8/01) 01-05251-6
ALKALINITY	310.1	mg-$CaCO_3$/L	20	190	350	240
SOLIDS, TOTAL DISSOLVED (TDS)	160.1	mg/L	10	760	1,080	836
Dilution Factor				20	20	20
CHLORIDE	300.0	mg/L	0.2	67	119	57
NITRATE (NO_3^-) AS N	300.0	mg/L	0.04	8.4	14	11
NITRITE (NO_2^-) AS N	300.0	mg/L	0.05	<1	<1	<1
PHOSPHORUS, ORTHOPHOSPHATE	300.0	mg/L	0.1	<2	<2	<2
SULFATE	300.0	mg/L	0.5	265	233	261

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Component Analyzed	Method	Unit	PQL	Analysis Result 17-MW-11 (8/01) 01-05251-4	17-MW-24 (8/01) 01-05251-5	109-MW-01 (8/01) 01-05251-6
TTLC 17 METALS						
Dilution Factor				1	1	1
ANTIMONY	6010B	µg/L	10	<10	<10	<10
ARSENIC	6010B	µg/L	5	<5	6.0	<5
BARIUM	6010B	µg/L	10	31.4	20.2	21.4
BERYLLIUM	6010B	µg/L	2	<2	<2	<2
CADMIUM	6010B	µg/L	2	<2	<2	0.36J
CHROMIUM	6010B	µg/L	5	9.8	9.6	29.9
COBALT	6010B	µg/L	5	<5	<5	<5
COPPER	6010B	µg/L	10	2.0J	13.4	2.9J
LEAD	6010B	µg/L	5	3.6J	3.4J	3.0J
MERCURY	7470A	µg/L	0.5	0.36J	0.30J	0.24J
MOLYBDENUM	6010B	µg/L	5	6.4	3.7J	3.9J
NICKEL	6010B	µg/L	5	2.4J	6.6	<5
SELENIUM	6010B	µg/L	10	12.7	9.7J	14.0
SILVER	6010B	µg/L	10	1.1J	<10	1.4J
THALLIUM	6010B	µg/L	10	<10	<10	<10
VANADIUM	6010B	µg/L	10	1.5J	3.3J	1.8J
ZINC	6010B	µg/L	10	224	272	64.5
Dilution Factor				1	1	1
GASOLINE RANGE ORGANICS	M8015V	mg/L	0.05	0.02J	0.02J	0.02J
Dilution Factor				1	1	1
JP-4	M8015V	mg/L	0.05	<0.05	<0.05	<0.05
Dilution Factor				1	1	1
DIESEL RANGE ORGANICS	M8015E	mg/L	0.1	<0.1 (c)	0.1 (b)	0.06J (b)
Dilution Factor				1	1	1
MOTOR OIL RANGE ORGANICS	M8015E	mg/L	0.1	<0.1	<0.1	0.04J
VOLATILE ORGANICS						
Dilution Factor				1	1	1
ACETONE	8260B	µg/L	10	<10	<10	<10
BENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMOBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMOCHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMODICHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMOFORM	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMOMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
2-BUTANONE (MEK)	8260B	µg/L	10	<10	<10	<10
N-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
SEC-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TERT-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CARBON DISULFIDE	8260B	µg/L	10	<10	<10	<10
CARBON TETRACHLORIDE	8260B	µg/L	0.5	2.5	<0.5	<0.5
CHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
DIBROMOCHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROFORM	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5

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Component Analyzed	Method	Unit	PQL	Analysis Result 17-MW-11 (8/01) 01-05251-4	17-MW-24 (8/01) 01-05251-5	109-MW-01 (8/01) 01-05251-6
2-CHLOROTOLUENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
4-CHLOROTOLUENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DIBROMO-3-CHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DIBROMOETHANE (EDB)	8260B	µg/L	0.5	<0.5	<0.5	<0.5
DIBROMOMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,3-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,4-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
DICHLORODIFLUOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CIS-1,2-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TRANS-1,2-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,3-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
2,2-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
ETHYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
HEXACHLOROBUTADIENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
2-HEXANONE	8260B	µg/L	10	<10	<10	<10
ISOPROPYLBENZENE (CUMENE)	8260B	µg/L	0.5	<0.5	<0.5	<0.5
P-ISOPROPYLTOLUENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
METHYLENE CHLORIDE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
4-METHYL-2-PENTANONE (MIBK)	8260B	µg/L	10	<10	<10	<10
METHYL-T-BYTYL ETHER (MTBE)	8260B	µg/L	1	<1	<1	<1
NAPHTHALENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
N-PROPYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
STYRENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1,2-TETRACHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2-TETRACHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TETRACHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TOLUENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-TRICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1-TRICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2-TRICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TRICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TRICHLOROFLUOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-TRIMETHYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,3,5-TRIMETHYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
VINYL CHLORIDE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
XYLENE (TOTAL)	8260B	µg/L	1	<1	<1	<1
T-BUTYL ALCOHOL	8260B	µg/L	20	<20	<20	<20

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Component Analyzed	Method	Unit	PQL	Analysis Result CL1-MW-05 (8/01) 01-05251-7	CL2-MW-05 (8/01) 01-05251-8	CL-99-14 (8/01) 01-05251-9
ALKALINITY	310.1	mg-$CaCO_3$/L	20	200	340	350
SOLIDS, TOTAL DISSOLVED (TDS)	160.1	mg/L	10	738	882	1,080
Dilution Factor				10	20	20
CHLORIDE	300.0	mg/L	0.2	16	112	119
NITRATE (NO_3^-) AS N	300.0	mg/L	0.04	20.5	8.8	14
NITRITE (NO_2^-) AS N	300.0	mg/L	0.05	<0.5	<1	<1
PHOSPHORUS, ORTHOPHOSPHATE	300.0	mg/L	0.1	<1	<2	<2
SULFATE	300.0	mg/L	0.5	236	150	236
TTLC 17 METALS						
Dilution Factor				1	1	1
ANTIMONY	6010B	µg/L	10	<10	4.9J	<10
ARSENIC	6010B	µg/L	5	3.0J	2.1J	5.5
BARIUM	6010B	µg/L	10	22.0	37.8	21.0
BERYLLIUM	6010B	µg/L	2	<2	<2	0.045J
CADMIUM	6010B	µg/L	2	0.36J	0.31J	0.66J
CHROMIUM	6010B	µg/L	5	29.7	26.7	16.9
COBALT	6010B	µg/L	5	<5	<5	<5
COPPER	6010B	µg/L	10	2.2J	22.7	12.0
LEAD	6010B	µg/L	5	3.4J	3.0J	6.9
MERCURY	7470A	µg/L	0.5	0.23J	0.27J	0.64
MOLYBDENUM	6010B	µg/L	5	4.1J	4.1J	3.8J
NICKEL	6010B	µg/L	5	<5	9.9	7.3
SELENIUM	6010B	µg/L	10	9.4J	6.7J	5.9J
SILVER	6010B	µg/L	10	<10	<10	1.1J
THALLIUM	6010B	µg/L	10	<10	<10	<10
VANADIUM	6010B	µg/L	10	1.1J	1.5J	3.3J
ZINC	6010B	µg/L	10	75.0	454	406
Dilution Factor				1	1	1
GASOLINE RANGE ORGANICS	M8015V	mg/L	0.05	0.03J	0.03J	0.03J
Dilution Factor				1	1	1
JP-4	M8015V	mg/L	0.05	<0.05	<0.05	<0.05
Dilution Factor				1	1	1
DIESEL RANGE ORGANICS	M8015E	mg/L	0.1	0.1 [b]	<0.1 [c]	0.1J [b]
Dilution Factor				1	1	1
MOTOR OIL RANGE ORGANICS	M8015E	mg/L	0.1	<0.1	<0.1	0.04J

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Component Analyzed	Method	Unit	PQL	Analysis Result CL1-MW-05 (8/01) 01-05251-7	CL2-MW-05 (8/01) 01-05251-8	CL-99-14 (8/01) 01-05251-9
VOLATILE ORGANICS						
Dilution Factor				1	1	1
ACETONE	8260B	µg/L	10	<10	<10	<10
BENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMOBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMOCHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMODICHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMOFORM	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMOMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
2-BUTANONE (MEK)	8260B	µg/L	10	<10	<10	<10
N-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
SEC-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TERT-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CARBON DISULFIDE	8260B	µg/L	10	<10	<10	<10
CARBON TETRACHLORIDE	8260B	µg/L	0.5	1.0	<0.5	<0.5
CHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
DIBROMOCHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROFORM	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
2-CHLOROTOLUENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
4-CHLOROTOLUENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DIBROMO-3-CHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DIBROMOETHANE (EDB)	8260B	µg/L	0.5	<0.5	<0.5	<0.5
DIBROMOMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,3-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,4-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
DICHLORODIFLUOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CIS-1,2-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TRANS-1,2-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,3-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
2,2-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
ETHYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5

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Component Analyzed	Method	Unit	PQL	Analysis Result CL1-MW-05 (8/01) 01-05251-7	CL2-MW-05 (8/01) 01-05251-8	CL-99-14 (8/01) 01-05251-9
HEXACHLOROBUTADIENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
2-HEXANONE	8260B	μg/L	10	<10	<10	<10
ISOPROPYLBENZENE (CUMENE)	8260B	μg/L	0.5	<0.5	<0.5	<0.5
P-ISOPROPYLTOLUENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
METHYLENE CHLORIDE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
4-METHYL-2-PENTANONE (MIBK)	8260B	μg/L	10	<10	<10	<10
METHYL-T-BYTYL ETHER (MTBE)	8260B	μg/L	1	<1	<1	<1
NAPHTHALENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
N-PROPYLBENZENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
STYRENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,1,1,2-TETRACHLOROETHANE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2-TETRACHLOROETHANE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
TETRACHLOROETHENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
TOLUENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROBENZENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,2,4-TRICHLOROBENZENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,1,1-TRICHLOROETHANE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,1,2-TRICHLOROETHANE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
TRICHLOROETHENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
TRICHLOROFLUOROMETHANE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROPROPANE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,2,4-TRIMETHYLBENZENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,3,5-TRIMETHYLBENZENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
VINYL CHLORIDE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
XYLENE (TOTAL)	8260B	μg/L	1	<1	<1	<1
T-BUTYL ALCOHOL	8260B	μg/L	20	<20	<20	<20

Component Analyzed	Method	Unit	PQL	Analysis Result NASA-SW-3 01-05251-10	Trip Blank #1 01-05251-11
ALKALINITY	310.1	mg-$CaCO_3$/L	20	130	-
SOLIDS, TOTAL DISSOLVED (TDS)	160.1	mg/L	10	1,360	-
Dilution Factor				20	1
CHLORIDE	300.0	mg/L	0.2	91	-
NITRATE (NO_3^-) AS N	300.0	mg/L	0.04	13	-
NITRITE (NO_2^-) AS N	300.0	mg/L	0.05	<1	-
PHOSPHORUS, ORTHOPHOSPHATE	300.0	mg/L	0.1	<2	-
SULFATE	300.0	mg/L	0.5	686	-

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Component Analyzed	Method	Unit	PQL	Analysis Result NASA-SW-3 01-05251-10	Analysis Result Trip Blank #1 01-05251-11
TTLC 17 METALS					
Dilution Factor				1	1
ANTIMONY	6010B	µg/L	10	<10	-
ARSENIC	6010B	µg/L	5	4.0J	-
BARIUM	6010B	µg/L	10	33.9	-
BERYLLIUM	6010B	µg/L	2	<2	-
CADMIUM	6010B	µg/L	2	<2	-
CHROMIUM	6010B	µg/L	5	17.5	-
COBALT	6010B	µg/L	5	<5	-
COPPER	6010B	µg/L	10	5.4J	-
LEAD	6010B	µg/L	5	2.7J	-
MERCURY	7470A	µg/L	0.5	0.24J	-
MOLYBDENUM	6010B	µg/L	5	3.0J	-
NICKEL	6010B	µg/L	5	3.5J	-
SELENIUM	6010B	µg/L	10	42.1	-
SILVER	6010B	µg/L	10	<10	-
THALLIUM	6010B	µg/L	10	<10	-
VANADIUM	6010B	µg/L	10	3.9J	-
ZINC	6010B	µg/L	10	105	-
Dilution Factor				1	1
GASOLINE RANGE ORGANICS	M8015V	mg/L	0.05	0.03J	0.02J
Dilution Factor				1	1
JP-4	M8015V	mg/L	0.05	<0.05	<0.05
Dilution Factor				1	1
DIESEL RANGE ORGANICS	M8015E	mg/L	0.1	0.1 (b)	-
Dilution Factor				1	1
MOTOR OIL RANGE ORGANICS	M8015E	mg/L	0.1	0.04J	-
VOLATILE ORGANICS					
Dilution Factor				1	1
ACETONE	8260B	µg/L	10	<10	<10
BENZENE	8260B	µg/L	0.5	<0.5	<0.5
BROMOBENZENE	8260B	µg/L	0.5	<0.5	<0.5
BROMOCHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5
BROMODICHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5
BROMOFORM	8260B	µg/L	0.5	<0.5	<0.5
BROMOMETHANE	8260B	µg/L	0.5	<0.5	<0.5
2-BUTANONE (MEK)	8260B	µg/L	10	<10	<10
N-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5
SEC-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5
TERT-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5
CARBON DISULFIDE	8260B	µg/L	10	<10	<10
CARBON TETRACHLORIDE	8260B	µg/L	0.5	<0.5	<0.5
CHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5
DIBROMOCHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5
CHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5
CHLOROFORM	8260B	µg/L	0.5	<0.5	<0.5
CHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5
2-CHLOROTOLUENE	8260B	µg/L	0.5	<0.5	<0.5
4-CHLOROTOLUENE	8260B	µg/L	0.5	<0.5	<0.5
1,2-DIBROMO-3-CHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5
1,2-DIBROMOETHANE (EDB)	8260B	µg/L	0.5	<0.5	<0.5
DIBROMOMETHANE	8260B	µg/L	0.5	<0.5	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result NASA-SW-3 01-05251-10	Analysis Result Trip Blank #1 01-05251-11
1,2-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5
1,3-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5
1,4-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5
DICHLORODIFLUOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5
1,1-DICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5
1,2-DICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5
1,1-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5
CIS-1,2-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5
TRANS-1,2-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5
1,2-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5
1,3-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5
2,2-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5
1,1-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5
ETHYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5
HEXACHLOROBUTADIENE	8260B	µg/L	0.5	<0.5	<0.5
2-HEXANONE	8260B	µg/L	10	<10	<10
ISOPROPYLBENZENE (CUMENE)	8260B	µg/L	0.5	<0.5	<0.5
P-ISOPROPYLTOLUENE	8260B	µg/L	0.5	<0.5	<0.5
METHYLENE CHLORIDE	8260B	µg/L	2 (e)	<2	<2
4-METHYL-2-PENTANONE (MIBK)	8260B	µg/L	10	<10	<10
METHYL-T-BYTYL ETHER (MTBE)	8260B	µg/L	1	<1	<1
NAPHTHALENE	8260B	µg/L	0.5	<0.5	<0.5
N-PROPYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5
STYRENE	8260B	µg/L	0.5	<0.5	<0.5
1,1,1,2-TETRACHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5
1,1,2,2-TETRACHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5
TETRACHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5
TOLUENE	8260B	µg/L	0.5	<0.5	<0.5
1,2,3-TRICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5
1,2,4-TRICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5
1,1,1-TRICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5
1,1,2-TRICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5
TRICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5
TRICHLOROFLUOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result NASA-SW-3 01-05251-10	Trip Blank #1 01-05251-11
1,2,3-TRICHLOROPROPANE	8260B	μg/L	0.5	<0.5	<0.5
1,2,4-TRIMETHYLBENZENE	8260B	μg/L	0.5	<0.5	<0.5
1,3,5-TRIMETHYLBENZENE	8260B	μg/L	0.5	<0.5	<0.5
VINYL CHLORIDE	8260B	μg/L	0.5	<0.5	<0.5
XYLENE (TOTAL)	8260B	μg/L	1	<1	<1
T-BUTYL ALCOHOL	8260B	μg/L	20	<20	<20

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit

N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.

J: Reported between PQL and MDL.

Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

(a) Not a typical Gasoline pattern.

(b) Sample also contained an unknown peak at about C_{18} range.

(c) Sample chromatogram contained an unknown peak at about C_{18} range.

(d) Analyzed with a dilution factor of 5.

(e) MDL reported.

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

Level C Data Package Deliverables

General Information

Project : Corws Landing

APCL Service ID: 01-5251

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Case Narrative

Project: Crows Landing/800063

For The IT Group

APCL Service No: 01-5251

1. Sample Identification

The sample identifications are listed in the following table:

The IT Group Sample ID	APCL Sample ID
CL2-MW-05 (8/01)	01-05251-8
11-MW-03 (8/01)	01-05251-1
11-MW-04 (8/01)	01-05251-2
109-MW-01 (8/01)	01-05251-6
CL1-MW-05 (8/01)	01-05251-7
17-MW-24 (8/01)	01-05251-5
CL-99-14 (8/01)	01-05251-9
17-MW-11 (8/01)	01-05251-4
Trip Blank #1	01-05251-11
NASA-SW-3	01-05251-10
17-MW-10S	01-05251-3

2. Analytical Methodology

Samples are analyzed by EPA methods

8260B (Volatile organics),
M8015V/M8015G (Gasoline),
M8015E/M8015D (TPH: Diesel),
M8015E/M8015M (TPH: Motor Oil),
6010/various (TTLC 17 Metals),
300.0 (Chloride Cl^- by IC),
300.0 (Nitrate (NO_3^-) as N by IC),
310.1 (Alkalinity),
160.1 (Solids, Total Dissolved (TDS)),
M8015V/M8015V (JP-4),
ASTM-D2216 (Moisture, percent in soil),
9040B/150.1 (pH),
8270C (Semi-VOC, 64 Compounds),

3. Holding Time

All samples were extracted, digested and analyzed within the holding times defined by the appropriate EPA methods of the analyses.

4. Preservation

All samples were preserved and stored according to the appropriate EPA methods.

5. Tele-log

None

6. Anomaly

None

"I certify that these data are technically accurate, complete, and in compliance with the terms and conditions of the contract, for other than the conditions detailed above. Release of the data contained in the hardcopy data package and its electronic data deliverable submitted on diskette had been authorized by the Laboratory Manager or her/his designee, as verified by the following signature."

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

AMENDED

01-5251

09/10/2001

Applied P & Ch Laboratory
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APCL Analytical Report

Submitted to:
The IT Group
Attention: Rose Condit
4005 Port Chicago Highway
Concord CA 94520-1120
Tel: (925)288-9898 Fax: (925)288-0888

Service ID #: 801-015251
Collected by:
Collected on: 08/13/01

Received: 08/15/01
Extracted: 08/15/01
Tested: 08/15-21/01
Reported: 08/23/01

Sample Description: Water from Crows Landing
Project Description: 800063

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result 11-MW-03 (8/01) 01-05251-1	11-MW-04 (8/01) 01-05251-2	117-MW-10S 01-05251-3
ALKALINITY	310.1	mg-$CaCO_3$/L	20	220	290	-
SOLIDS, TOTAL DISSOLVED (TDS)	160.1	mg/L	10	938	800	-
Dilution Factor				20	20	1
CHLORIDE	300.0	mg/L	0.2	134	90	-
NITRATE (NO_3^-) AS N	300.0	mg/L	0.04	16.7	9.3	-
NITRITE (NO_2^-) AS N	300.0	mg/L	0.05	<1	<1	-
PHOSPHORUS, ORTHOPHOSPHATE	300.0	mg/L	0.1	<2	<2	-
SULFATE	300.0	mg/L	0.5	255	180	-
TTLC 17 METALS						
Dilution Factor				1	1	1
ANTIMONY	6010B	µg/L	10	4.6J	3.7J	-
ARSENIC	6010B	µg/L	5	5.4	4.7J	-
BARIUM	6010B	µg/L	10	46.1	78.5	-
BERYLLIUM	6010B	µg/L	2	<2	<2	-
CADMIUM	6010B	µg/L	2	0.38J	0.34J	-
CHROMIUM	6010B	µg/L	5	43.8	10.6	-
COBALT	6010B	µg/L	5	<5	1.1J	-
COPPER	6010B	µg/L	10	4.3J	7.8J	-
LEAD	6010B	µg/L	5	5.5	5.0J	-
MERCURY	7470A	µg/L	0.5	0.32J	0.23J	-
MOLYBDENUM	6010B	µg/L	5	6.7	9.6	-
NICKEL	6010B	µg/L	5	8.1	11.5	-
SELENIUM	6010B	µg/L	10	5.6J	3.3J	-
SILVER	6010B	µg/L	10	1.4J	1.6J	-
THALLIUM	6010B	µg/L	10	<10	<10	-
VANADIUM	6010B	µg/L	10	2.4J	3.2J	-
ZINC	6010B	µg/L	10	141	133	-
Dilution Factor				1	1	1
GASOLINE RANGE ORGANICS	M8015V	mg/L	0.05	0.02J	0.02J	0.11 [a]
Dilution Factor				1	1	1
JP-4	M8015V	mg/L	0.05	<0.05	<0.05	<0.05
Dilution Factor				1	1	1
DIESEL RANGE ORGANICS	M8015E	mg/L	0.1	0.1 [b]	<0.1 [c]	<0.1
Dilution Factor				1	1	1
MOTOR OIL RANGE ORGANICS	M8015E	mg/L	0.1	0.06J	0.07J	0.05J

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result 11-MW-03 (8/01) 01-05251-1	11-MW-04 (8/01) 01-05251-2	117-MW-10S 01-05251-3
VOLATILE ORGANICS						
Dilution Factor				1	1	1
ACETONE	8260B	µg/L	10	<10	<10	<10
BENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMOBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMOCHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMODICHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMOFORM	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMOMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
2-BUTANONE (MEK)	8260B	µg/L	10	<10	<10	<10
N-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
SEC-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TERT-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CARBON DISULFIDE	8260B	µg/L	10	<10	<10	<10
CARBON TETRACHLORIDE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
DIBROMOCHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROFORM	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
2-CHLOROTOLUENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
4-CHLOROTOLUENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DIBROMO-3-CHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DIBROMOETHANE (EDB)	8260B	µg/L	0.5	<0.5	<0.5	<0.5
DIBROMOMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,3-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,4-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
DICHLORODIFLUOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	157 (d)
1,1-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CIS-1,2-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TRANS-1,2-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	0.9
1,3-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
2,2-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
ETHYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result 11-MW-03 (8/01) 01-05251-1	11-MW-04 (8/01) 01-05251-2	117-MW-10S 01-05251-3
HEXACHLOROBUTADIENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
2-HEXANONE	8260B	µg/L	10	<10	<10	<10
ISOPROPYLBENZENE (CUMENE)	8260B	µg/L	0.5	<0.5	<0.5	<0.5
P-ISOPROPYLTOLUENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
METHYLENE CHLORIDE	8260B	µg/L	0.5	<0.5	<0.5	0.4J
4-METHYL-2-PENTANONE (MIBK)	8260B	µg/L	10	<10	<10	<10
METHYL-T-BYTYL ETHER (MTBE)	8260B	µg/L	1	<1	<1	<1
NAPHTHALENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
N-PROPYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
STYRENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1,2-TETRACHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2-TETRACHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TETRACHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TOLUENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-TRICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1-TRICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2-TRICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TRICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TRICHLOROFLUOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-TRIMETHYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,3,5-TRIMETHYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
VINYL CHLORIDE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
XYLENE (TOTAL)	8260B	µg/L	1	<1	<1	<1
T-BUTYL ALCOHOL	8260B	µg/L	20	<20	<20	<20

Component Analyzed	Method	Unit	PQL	Analysis Result 17-MW-11 (8/01) 01-05251-4	17-MW-24 (8/01) 01-05251-5	109-MW-01 (8/01) 01-05251-6
ALKALINITY	310.1	mg/$CaCO_3$/L	20	190	350	240
SOLIDS, TOTAL DISSOLVED (TDS)	160.1	mg/L	10	760	1,080	836
Dilution Factor				20	20	20
CHLORIDE	300.0	mg/L	0.2	67	119	57
NITRATE (NO_3^-) AS N	300.0	mg/L	0.04	8.4	14	11
NITRITE (NO_2^-) AS N	300.0	mg/L	0.05	<1	<1	<1
PHOSPHORUS, ORTHOPHOSPHATE	300.0	mg/L	0.1	<2	<2	<2
SULFATE	300.0	mg/L	0.5	265	233	261

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Organic Analysis Results for Method M8015V

Client Name:	The IT Group	Project No:	800063	Collection Date:	08/13/2001
Project ID:		Service ID:	15251	Collected by:	
		Lab Sample ID:	01-5251-3	Received Date:	08/15/2001
Sample ID:	**117-MW-10S**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC: U
Anal. Method:	M8015V	Prep. Date:	08/15/01	Anal. Date:	08/15/01
Batch No:	01G3935	Prep. No:	–	Anal. Time:	17:58
Data File Name:	5251.003	Sample Amount:	5.0 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	5 mL	Heated Purge: (Y/N)	N

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	GASOLINE RANGE ORGANICS	8006-61-9	mg/L	0.05	0.11 [a]	
2	JP-4		mg/L	0.05	<0.05	U

Surrogates			Control Limit, %	Surro. Rec.%
1	4-BROMO-FLUOROBENZENE (FID)	460-00-4	75-125	91
# of out-of-control				0

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

[a]Not a typical Gasoline pattern.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

SEP 10 2001

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Applied P & Ch Laboratory

Organic Analysis Results for Method M8015E

Client Name:	The IT Group	Project No:	800063	Collection Date:	08/13/2001
Project ID:		Service ID:	15251	Collected by:	
		Lab Sample ID:	01-5251-3	Received Date:	08/15/2001
Sample ID:	**117-MW-10S**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	3510	Instrument ID:	GC: W
Anal. Method:	M8015E	Prep. Date:	08/15/01	Anal. Date:	08/17/01
Batch No:	01G3938	Prep. No:	1 of 1	Anal. Time:	14:47
Data File Name:	5251.103	Sample Amount:	1000 mL	Dilution Factor:	1
Extract Vol.	1.0 mL				

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	DIESEL RANGE ORGANICS	68334-30-5	mg/L	0.1	<0.1	U
2	MOTOR OIL RANGE ORGANICS	IT15-49-4	mg/L	0.1	0.05	J

Surrogates			Control Limit, %	Surro. Rec.%
1	N-OCTACOSANE	630-02-4	60-140	56
# of out-of-control				1

Not Detected is shown as PQL, with dilution and moisture corrected if applicable.

Qualifier: U - Not Detected or less than MDL
J - Less than RL (PQL, EQL or CRDL), but greater than MDL, or an estimated result (e.g. for TIC)
E - Exceed calibration range
B - A positive value was found in the method blank
D - Diluted

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Organic Analysis Results for Method 8260B

Client Name:	The IT Group	Project No:	800063	Collection Date:	08/13/2001
Project ID:		Service ID:	15251	Collected by:	
		Lab Sample ID:	01-5251-3	Received Date:	08/15/2001
Sample ID:	**117-MW-10S**	Sample Matrix	Water	Moisture %:	–
Sample Type:	Field Sample	Prep. Method:	5030	Instrument ID:	GC/MS: A
Anal. Method:	8260B	Prep. Date:	08/17/01	Anal. Date:	08/17/01
Batch No:	01G3965	Prep. No:	–	Anal. Time:	16:42
Data File Name:	5251-03A	Sample Amount:	25 mL	Dilution Factor:	1
Methanol Vol.	–				
Test Level:	Low	Sparge Size:	25 mL	Heated Purge: (Y/N) N	

#	Component Name	CAS No	Unit	RL	Result	Qualifier
1	ACETONE	67-64-1	µg/L	10	<10	U
2	BENZENE	71-43-2	µg/L	0.5	<0.5	U
3	BROMOBENZENE	108-86-1	µg/L	0.5	<0.5	U
4	BROMOCHLOROMETHANE	74-97-5	µg/L	0.5	<0.5	U
5	BROMODICHLOROMETHANE	75-27-4	µg/L	0.5	<0.5	U
6	BROMOFORM	75-25-2	µg/L	0.5	<0.5	U
7	BROMOMETHANE	74-83-9	µg/L	0.5	<0.5	U
8	2-BUTANONE (MEK)	78-93-3	µg/L	10	<10	U
9	N-BUTYLBENZENE	104-51-8	µg/L	0.5	<0.5	U
10	SEC-BUTYLBENZENE	135-98-8	µg/L	0.5	<0.5	U
11	TERT-BUTYLBENZENE	98-06-6	µg/L	0.5	<0.5	U
12	CARBON DISULFIDE	75-15-0	µg/L	10	<10	U
13	CARBON TETRACHLORIDE	56-23-5	µg/L	0.5	<0.5	U
14	CHLOROBENZENE	108-90-7	µg/L	0.5	<0.5	U
15	DIBROMOCHLOROMETHANE	124-48-1	µg/L	0.5	<0.5	U
16	CHLOROETHANE	75-00-3	µg/L	0.5	<0.5	U
17	CHLOROFORM	67-66-3	µg/L	0.5	<0.5	U
18	CHLOROMETHANE	74-87-3	µg/L	0.5	<0.5	U
19	2-CHLOROTOLUENE	95-49-8	µg/L	0.5	<0.5	U
20	4-CHLOROTOLUENE	106-43-4	µg/L	0.5	<0.5	U
21	1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	µg/L	0.5	<0.5	U
22	1,2-DIBROMOETHANE (EDB)	106-93-4	µg/L	0.5	<0.5	U
23	DIBROMOMETHANE	74-95-3	µg/L	0.5	<0.5	U
24	1,2-DICHLOROBENZENE	95-50-1	µg/L	0.5	<0.5	U
25	1,3-DICHLOROBENZENE	541-73-1	µg/L	0.5	<0.5	U
26	1,4-DICHLOROBENZENE	106-46-7	µg/L	0.5	<0.5	U
27	DICHLORODIFLUOROMETHANE	75-71-8	µg/L	0.5	<0.5	U
28	1,1-DICHLOROETHANE	75-34-3	µg/L	0.5	<0.5	U
29	1,2-DICHLOROETHANE	107-06-2	µg/L	0.5	157 (d)	D
30	1,1-DICHLOROETHENE	75-35-4	µg/L	0.5	<0.5	U
31	CIS-1,2-DICHLOROETHENE	156-59-2	µg/L	0.5	<0.5	U
32	TRANS-1,2-DICHLOROETHENE	156-60-5	µg/L	0.5	<0.5	U
33	1,2-DICHLOROPROPANE	78-87-5	µg/L	0.5	0.9	
34	1,3-DICHLOROPROPANE	142-28-9	µg/L	0.5	<0.5	U
35	2,2-DICHLOROPROPANE	594-20-7	µg/L	0.5	<0.5	U
36	1,1-DICHLOROPROPENE	563-58-6	µg/L	0.5	<0.5	U
37	CIS-1,3-DICHLOROPROPENE	10061-01-5	µg/L	0.5	<0.5	U
38	TRANS-1,3-DICHLOROPROPENE	10061-02-6	µg/L	0.5	<0.5	U
39	ETHYLBENZENE	100-41-4	µg/L	0.5	<0.5	U

SEP 10 2001

AMENDED

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 73603
Page 1 of 2

Project Name/No.[1] Crows Landing 800063
Sample Team Members[2]
Profit Center No.[3]
Project Manager[4] B. Holet
Purchase Order No.[6]
Required Report Date[11]

Samples Shipment Date[7] 8/14/01
Lab Destination[8] APCL
Lab Contact[9] M Heckman
Project Contact/Phone[12] R Condit 288-2151
Carrier/Waybill No.[13]

Bill to:[5] IT-Concord

Report to:[10] IT-Concord
Rose Condit

ONE CONTAINER PER LINE

Sample Number[14]	Sample Description/Type[15]	Date/Time Collected[16]	Container Type[17]	Sample Volume[18]	Pre-servative[19]	Requested Testing Program[20]	Condition on Receipt[21]	Disposal Record No.[22]
CL2-MW-05 (8/01)	Q3-Groundwater	8/13/01 1300				ALL Samples	SAMPLES	
11-MW-03 (8/01)	Sampling	1055	VOA	3	HCL	EPA 8260/MTBE EDB, TBA	RECEIVED	
11-MW-04 (8/01)		935	VOA	2	HCL	TPH-gas/J.F.	GOOD CONDITION	
109-MW-01 (8/01)		1335	Liter	2	None	TPH-Diesel/M.O.	TEMP=	4.1°C
CL1-MW-05 (8/01)		1212	HDPE	1	HNO3	CAM 17		4.5°C
17-MW-24 (8/01)		1505	HDPE	1	None	Alkalinity, NO2 NO3, SO4, Cl, TDS		3.2°C
CL-99-14 (8/01)		1510						
17-MW-11 (8/01)		1436						

LAB USE ONLY 5251

Special Instructions:[23] Silica Gel cleanup on TPH-D/M.O.

Possible Hazard Identification:[24] Non-hazard ☒ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐

Sample Disposal:[25] Return to Client ☐ Disposal by Lab ☒ Archive _____ (mos.)

Turnaround Time Required:[26] Normal ☒ Rush ☐

QC Level:[27] I. ☐ II. ☐ III. ☐ Project Specific (specify): Level IV

1. Relinquished by[28] (Signature/Affiliation) Premier Condit Date: 8/14/01 Time:	1. Received by[28] (Signature/Affiliation) Golden State Date: 8/14/01 Time:
2. Relinquished by (Signature/Affiliation) G.S. Date: Time:	2. Received by (Signature/Affiliation) Mark Heck Date: 8/15/01 Time: 1010
3. Relinquished by (Signature/Affiliation) Date: Time:	3. Received by (Signature/Affiliation) Date: Time:

Comments:[29]

White: To accompany samples
Yellow: Field copy
*See back of form for special instructions.

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.[30] 573603
Page 2 of 2

Project Name Crows Landing

Project No. 800063

Samples Shipment Date 8/14/01

ONE CONTAINER PER LINE

Sample[14] Number	Sample[15] Description/Type	Date/Time[16] Collected	Container[17] Type	Sample[18] Volume	Pre-[19] servative	Requested Testing[20] Program	Condition on[21] Receipt	Disposal[22] Record No.
* ~~CL1-MW-06 (8/01)~~	~~Q3-2001~~		←	~~VOA 9~~	HCL	~~TPH G/JF EPA 8260 + extras~~	~~*Use for MS/MSD Extra Volume~~	
			Liter	4	None	~~TPH D/M.O.~~	FOR LAB USE ONLY	
	~~Not collected 8/13/01 KC~~		HDPE	2	HNO3	~~CAM17~~		
			~~HDPE~~	~~2~~	None	~~Alkalinity, Anions TDS~~		
trip blank #1			VOA	2	HCL	TPH-gas/JF EPA-8260	FOR LAB USE ONLY	
NASA-SW-3	Water Supply	8/13/01 1055	VOA	5	HCL	TPH G/JF EPA 8260 + extras		
	Well		Liter	2	None	TPH D/MO	FOR LAB USE ONLY	
			HDPE	1	HNO3	~~HDPE~~ Metals-CAM17		
			HDPE	1	None	Anions, Alkalinity TDS		
17-MW-105	pump test	8/13/01 1100	VOA	5	HCL	TPH-GAS/JF EPA 8260	FOR LAB USE ONLY	
	Last sample		Liter	2	None	TPH-DSL/M.O.		
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	

5251

White: To accompany samples
Yellow: Field copy
*See back of form for special instructions.

MCA 3/15/01

APCL

Applied Physics & Chemistry Laboratory

13760 Magnolia Ave. Chino CA 91710
Tel. (909) 590-1828 Fax (909) 590-1498

September 5, 2001

The IT Group
Attention: Rose Condit
4005 Port Chicago Highway
Concord, CA 94520-1120

Dear Rose,

This package contains samples in our Service ID 01-5285 and your project Crows Landing . Enclosed please find:

(1) Original report.
(2) Oringinal Chain of Custody.
(3) One original and one copy of Level C Data Package Deliverable.
(4) One Diskette containing EDD Deliverable.

If anything is missing or you have any questions, please feel free to contact me.

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
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APCL Analytical Report

Submitted to:
The IT Group
Attention: Rose Condit
4005 Port Chicago Highway
Concord CA 94520-1120
Tel: (925)288-9898 Fax: (925)288-0888

Service ID #: 801-015285
Collected by: RC/BM/HM
Collected on: 08/14/01

Received: 08/16/01
Extracted: 08/20/01
Tested: 08/16-22/01
Reported: 08/29/01

Sample Description: Ground Water
Project Description: 800063 Crows Landing

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result 17-MW-06 (8/01) 01-05285-1	17-MW-08 (8/01) 01-05285-2	17-MW-09 (8/01) 01-05285-3
ALKALINITY	310.1	mg-$CaCO_3$/L	20	210	110	130
SOLIDS, TOTAL DISSOLVED (TDS)	160.1	mg/L	10	520	1,280	1,090
Dilution Factor				5	20	20
CHLORIDE	300.0	mg/L	0.2	12	50	39
NITRATE (NO_3^-) AS N	300.0	mg/L	0.04	12.5	32.2	24.2
NITRITE (NO_2^-) AS N	300.0	mg/L	0.05	<0.25	<1	<1
PHOSPHORUS, ORTHOPHOSPHATE	300.0	mg/L	0.1	<0.5	<2	<2
SULFATE	300.0	mg/L	0.5	118	519	485
TTLC 17 METALS						
Dilution Factor				1	1	1
ANTIMONY	6010B	µg/L	10	<10	<10	<10
ARSENIC	6010B	µg/L	5	<5	<5	<5
BARIUM	6010B	µg/L	10	54.1	12.7	12.7
BERYLLIUM	6010B	µg/L	2	<2	<2	<2
CADMIUM	6010B	µg/L	2	<2	<2	<2
CHROMIUM	6010B	µg/L	5	16.8	25.0	21.0
COBALT	6010B	µg/L	5	<5	<5	<5
COPPER	6010B	µg/L	10	3.8J	3.8J	3.9J
LEAD	6010B	µg/L	5	3.0J	2.6J	2.7J
MERCURY	7470A	µg/L	0.5	<0.5	<0.5	<0.5
MOLYBDENUM	6010B	µg/L	5	5.3	4.4J	3.1J
NICKEL	6010B	µg/L	5	<5	<5	<5
SELENIUM	6010B	µg/L	10	5.4J	26.8	25.7
SILVER	6010B	µg/L	10	1.1J	1.4J	1.3J
THALLIUM	6010B	µg/L	10	<10	<10	<10
VANADIUM	6010B	µg/L	10	3.5J	2.6J	2.4J
ZINC	6010B	µg/L	10	65.0	26.5	50.8
Dilution Factor				1	1	1
GASOLINE RANGE ORGANICS	M8015V	mg/L	0.05	0.01J	0.01J	0.009J
Dilution Factor				1	1	1
JP-4	M8015V	mg/L	0.05	<0.05	<0.05	<0.05
Dilution Factor				1	1	1
DIESEL RANGE ORGANICS	M8015E	mg/L	0.1	0.32 [a]	0.28 [a]	0.36 [a]
Dilution Factor				1	1	1
MOTOR OIL RANGE ORGANICS	M8015E	mg/L	0.1	0.1	0.2	0.1J

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result 17-MW-06 (8/01) 01-05285-1	17-MW-08 (8/01) 01-05285-2	17-MW-09 (8/01) 01-05285-3
VOLATILE ORGANICS						
Dilution Factor				1	1	1
ACETONE	8260B	µg/L	10	<10	<10	<10
BENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMOBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMOCHLOROMETHANE	8260B	µg/L	0.5	0.9 (b)	0.9 (b)	0.7 (b)
BROMODICHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMOFORM	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMOMETHANE	8260B	µg/L	0.63 (c)	<0.63	<0.63	<0.63
2-BUTANONE (MEK)	8260B	µg/L	10	<10	<10	<10
N-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
SEC-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TERT-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CARBON DISULFIDE	8260B	µg/L	10	<10	<10	<10
CARBON TETRACHLORIDE	8260B	µg/L	0.5	2.7	1.2	1.4
CHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
DIBROMOCHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROFORM	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
2-CHLOROTOLUENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
4-CHLOROTOLUENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DIBROMO-3-CHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DIBROMOETHANE (EDB)	8260B	µg/L	0.5	<0.5	<0.5	<0.5
DIBROMOMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,3-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,4-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
DICHLORODIFLUOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHANE	8260B	µg/L	0.5	1.5	<0.5	<0.5
1,2-DICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CIS-1,2-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TRANS-1,2-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,3-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
2,2-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
ETHYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL [c]	Analysis Result 17-MW-06 (8/01) 01-05285-1	17-MW-08 (8/01) 01-05285-2	17-MW-09 (8/01) 01-05285-3
HEXACHLOROBUTADIENE	8260B	μg/L	0.56 [c]	<0.56	<0.56	<0.56
2-HEXANONE	8260B	μg/L	10	<10	<10	<10
ISOPROPYLBENZENE (CUMENE)	8260B	μg/L	0.5	<0.5	<0.5	<0.5
P-ISOPROPYLTOLUENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
METHYLENE CHLORIDE	8260B	μg/L	2 [c]	<2	<2	<2
4-METHYL-2-PENTANONE (MIBK)	8260B	μg/L	10	<10	<10	<10
METHYL-T-BYTYL ETHER (MTBE)	8260B	μg/L	1	<1	<1	<1
NAPHTHALENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
N-PROPYLBENZENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
STYRENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,1,1,2-TETRACHLOROETHANE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2-TETRACHLOROETHANE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
TETRACHLOROETHENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
TOLUENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROBENZENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,2,4-TRICHLOROBENZENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,1,1-TRICHLOROETHANE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,1,2-TRICHLOROETHANE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
TRICHLOROETHENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
TRICHLOROFLUOROMETHANE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROPROPANE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,2,4-TRIMETHYLBENZENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
1,3,5-TRIMETHYLBENZENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
VINYL CHLORIDE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
XYLENE (TOTAL)	8260B	μg/L	1	<1	<1	<1
T-BUTYL ALCOHOL	8260B	μg/L	20	<20	<20	<20

Component Analyzed	Method	Unit	PQL	Analysis Result 17-MW-18 (8/01) 01-05285-4	117-MW-08 (8/01) 01-05285-5	117-MW-09 (8/01) 01-05285-6
ALKALINITY	310.1	mg-$CaCO_3$/L	20	160	150	200
SOLIDS, TOTAL DISSOLVED (TDS)	160.1	mg/L	10	798	840	1,510
Dilution Factor				20	20	40
CHLORIDE	300.0	mg/L	0.2	37	55	45
NITRATE (NO_3^-) AS N	300.0	mg/L	0.04	12	11	<1.6
NITRITE (NO_2^-) AS N	300.0	mg/L	0.05	<1	<1	<2
PHOSPHORUS, ORTHOPHOSPHATE	300.0	mg/L	0.1	<2	<2	<4
SULFATE	300.0	mg/L	0.5	288	269	727

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result 17-MW-18 (8/01) 01-05285-4	117-MW-08 (8/01) 01-05285-5	117-MW-09 (8/01) 01-05285-6
TTLC 17 METALS						
Dilution Factor				1	1	1
ANTIMONY	6010B	μg/L	10	<10	<10	<10
ARSENIC	6010B	μg/L	5	<5	<5	<5
BARIUM	6010B	μg/L	10	14.8	17.8	18.0
BERYLLIUM	6010B	μg/L	2	<2	<2	<2
CADMIUM	6010B	μg/L	2	<2	<2	<2
CHROMIUM	6010B	μg/L	5	29.1	27.2	3.2J
COBALT	6010B	μg/L	5	<5	<5	<5
COPPER	6010B	μg/L	10	5.4J	11.6	9.3J
LEAD	6010B	μg/L	5	4.1J	3.8J	3.0J
MERCURY	7470A	μg/L	0.5	<0.5	0.85	<0.5
MOLYBDENUM	6010B	μg/L	5	4.1J	5.6	8.0
NICKEL	6010B	μg/L	5	3.3J	9.0	3.5J
SELENIUM	6010B	μg/L	10	7.8J	12.4	<10
SILVER	6010B	μg/L	10	1.0J	0.92J	1.3J
THALLIUM	6010B	μg/L	10	<10	<10	<10
VANADIUM	6010B	μg/L	10	6.9J	8.5J	0.71J
ZINC	6010B	μg/L	10	141	244	228
Dilution Factor				1	1	1
GASOLINE RANGE ORGANICS	M8015V	mg/L	0.05	0.01J	0.009J	0.02J
Dilution Factor				1	1	1
JP-4	M8015V	mg/L	0.05	<0.05	<0.05	<0.05
Dilution Factor				1	1	1
DIESEL RANGE ORGANICS	M8015E	mg/L	0.1	0.30 [a]	0.26 [a]	0.39 [a]
Dilution Factor				1	1	1
MOTOR OIL RANGE ORGANICS	M8015E	mg/L	0.1	0.1	0.22	0.1
VOLATILE ORGANICS						
Dilution Factor				1	1	1
ACETONE	8260B	μg/L	10	<10	<10	<10
BENZENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
BROMOBENZENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
BROMOCHLOROMETHANE	8260B	μg/L	0.5	<0.5	0.9 [b]	0.7 [b]
BROMODICHLOROMETHANE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
BROMOFORM	8260B	μg/L	0.5	<0.5	<0.5	<0.5
BROMOMETHANE	8260B	μg/L	0.63 [c]	<0.63	<0.63	<0.63
2-BUTANONE (MEK)	8260B	μg/L	10	<10	<10	<10
N-BUTYLBENZENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
SEC-BUTYLBENZENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
TERT-BUTYLBENZENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
CARBON DISULFIDE	8260B	μg/L	10	<10	<10	<10
CARBON TETRACHLORIDE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
CHLOROBENZENE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
DIBROMOCHLOROMETHANE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
CHLOROETHANE	8260B	μg/L	0.5	<0.5	<0.5	<0.5
CHLOROFORM	8260B	μg/L	0.5	<0.5	<0.5	<0.5
CHLOROMETHANE	8260B	μg/L	0.5	<0.5	<0.5	<0.5

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Component Analyzed	Method	Unit	PQL	Analysis Result 17-MW-18 (8/01) 01-05285-4	117-MW-08 (8/01) 01-05285-5	117-MW-09 (8/01) 01-05285-6
2-CHLOROTOLUENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
4-CHLOROTOLUENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DIBROMO-3-CHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DIBROMOETHANE (EDB)	8260B	µg/L	0.5	<0.5	<0.5	<0.5
DIBROMOMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,3-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,4-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
DICHLORODIFLUOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CIS-1,2-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TRANS-1,2-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,3-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
2,2-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
ETHYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
HEXACHLOROBUTADIENE	8260B	µg/L	0.56 (c)	<0.56	<0.56	<0.56
2-HEXANONE	8260B	µg/L	10	<10	<10	<10
ISOPROPYLBENZENE (CUMENE)	8260B	µg/L	0.5	<0.5	<0.5	<0.5
P-ISOPROPYLTOLUENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
METHYLENE CHLORIDE	8260B	µg/L	2 (c)	2	<2	<2
4-METHYL-2-PENTANONE (MIBK)	8260B	µg/L	10	<10	<10	<10
METHYL-T-BYTYL ETHER (MTBE)	8260B	µg/L	1	<1	<1	<1
NAPHTHALENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
N-PROPYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
STYRENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1,2-TETRACHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2-TETRACHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TETRACHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TOLUENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-TRICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1-TRICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2-TRICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TRICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TRICHLOROFLUOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-TRIMETHYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,3,5-TRIMETHYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
VINYL CHLORIDE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
XYLENE (TOTAL)	8260B	µg/L	1	<1	<1	<1
T-BUTYL ALCOHOL	8260B	µg/L	20	<20	<20	<20

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Component Analyzed	Method	Unit	PQL	Analysis Result CL1-MW-04 (8/01) 01-05285-7	CL1-MW-06 (8/01) 01-05285-8
ALKALINITY	310.1	mg-$CaCO_3$/L	20	290	230
SOLIDS, TOTAL DISSOLVED (TDS)	160.1	mg/L	10	782	1,610
Dilution Factor				10	50
CHLORIDE	300.0	mg/L	0.2	66	100
NITRATE (NO_3^-) AS N	300.0	mg/L	0.04	3.5	25
NITRITE (NO_2^-) AS N	300.0	mg/L	0.05	<0.5	<2.5
PHOSPHORUS, ORTHOPHOSPHATE	300.0	mg/L	0.1	<1	<5
SULFATE	300.0	mg/L	0.5	205	675
TTLC 17 METALS					
Dilution Factor				1	1
ANTIMONY	6010B	μg/L	10	<10	<10
ARSENIC	6010B	μg/L	5	<5	2.4J
BARIUM	6010B	μg/L	10	26.1	17.9
BERYLLIUM	6010B	μg/L	2	<2	0.066J
CADMIUM	6010B	μg/L	2	<2	<2
CHROMIUM	6010B	μg/L	5	10.6	25.6
COBALT	6010B	μg/L	5	<5	0.41J
COPPER	6010B	μg/L	10	<10	7.1J
LEAD	6010B	μg/L	5	3.7J	3.2J
MERCURY	7470A	μg/L	0.5	<0.5	<0.5
MOLYBDENUM	6010B	μg/L	5	1.6J	9.5
NICKEL	6010B	μg/L	5	2.5J	5.2
SELENIUM	6010B	μg/L	10	3.6J	58.7
SILVER	6010B	μg/L	10	1.2J	3.4J
THALLIUM	6010B	μg/L	10	<10	<10
VANADIUM	6010B	μg/L	10	2.1J	3.1J
ZINC	6010B	μg/L	10	37.8	565
Dilution Factor				1	1
GASOLINE RANGE ORGANICS	M8015V	mg/L	0.05	0.01J	0.01J
Dilution Factor				1	1
JP-4	M8015V	mg/L	0.05	<0.05	<0.05
Dilution Factor				1	1
DIESEL RANGE ORGANICS	M8015E	mg/L	0.1	0.26 [a]	0.30 [a]
Dilution Factor				1	1
MOTOR OIL RANGE ORGANICS	M8015E	mg/L	0.1	0.2	0.1J

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Component Analyzed	Method	Unit	PQL	Analysis Result CL1-MW-04 (8/01) 01-05285-7	Analysis Result CL1-MW-06 (8/01) 01-05285-8
VOLATILE ORGANICS					
Dilution Factor				1	1
ACETONE	8260B	µg/L	10	<10	<10
BENZENE	8260B	µg/L	0.5	<0.5	<0.5
BROMOBENZENE	8260B	µg/L	0.5	<0.5	<0.5
BROMOCHLOROMETHANE	8260B	µg/L	0.5	0.6 (b)	0.7 (b)
BROMODICHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5
BROMOFORM	8260B	µg/L	0.5	<0.5	<0.5
BROMOMETHANE	8260B	µg/L	0.63 (c)	<0.63	<0.63
2-BUTANONE (MEK)	8260B	µg/L	10	<10	<10
N-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5
SEC-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5
TERT-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5
CARBON DISULFIDE	8260B	µg/L	10	<10	<10
CARBON TETRACHLORIDE	8260B	µg/L	0.5	<0.5	<0.5
CHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5
DIBROMOCHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5
CHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5
CHLOROFORM	8260B	µg/L	0.5	<0.5	<0.5
CHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5
2-CHLOROTOLUENE	8260B	µg/L	0.5	<0.5	<0.5
4-CHLOROTOLUENE	8260B	µg/L	0.5	<0.5	<0.5
1,2-DIBROMO-3-CHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5
1,2-DIBROMOETHANE (EDB)	8260B	µg/L	0.5	<0.5	<0.5
DIBROMOMETHANE	8260B	µg/L	0.5	<0.5	<0.5
1,2-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5
1,3-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5
1,4-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5
DICHLORODIFLUOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5
1,1-DICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5
1,2-DICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5
1,1-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5
CIS-1,2-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5
TRANS-1,2-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5
1,2-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5
1,3-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5
2,2-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5
1,1-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5
ETHYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5

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Component Analyzed	Method	Unit	PQL [c]	Analysis Result CL1-MW-04 (8/01) 01-05285-7	Analysis Result CL1-MW-06 (8/01) 01-05285-8
HEXACHLOROBUTADIENE	8260B	μg/L	0.56 [c]	<0.56	<0.56
2-HEXANONE	8260B	μg/L	10	<10	<10
ISOPROPYLBENZENE (CUMENE)	8260B	μg/L	0.5	<0.5	<0.5
P-ISOPROPYLTOLUENE	8260B	μg/L	0.5	<0.5	<0.5
METHYLENE CHLORIDE	8260B	μg/L	2 [c]	2	<2
4-METHYL-2-PENTANONE (MIBK)	8260B	μg/L	10	<10	<10
METHYL-T-BYTYL ETHER (MTBE)	8260B	μg/L	1	<1	<1
NAPHTHALENE	8260B	μg/L	0.5	<0.5	<0.5
N-PROPYLBENZENE	8260B	μg/L	0.5	<0.5	<0.5
STYRENE	8260B	μg/L	0.5	<0.5	<0.5
1,1,1,2-TETRACHLOROETHANE	8260B	μg/L	0.5	<0.5	<0.5
1,1,2,2-TETRACHLOROETHANE	8260B	μg/L	0.5	<0.5	<0.5
TETRACHLOROETHENE	8260B	μg/L	0.5	<0.5	<0.5
TOLUENE	8260B	μg/L	0.5	<0.5	<0.5
1,2,3-TRICHLOROBENZENE	8260B	μg/L	0.5	<0.5	<0.5
1,2,4-TRICHLOROBENZENE	8260B	μg/L	0.5	<0.5	<0.5
1,1,1-TRICHLOROETHANE	8260B	μg/L	0.5	<0.5	<0.5
1,1,2-TRICHLOROETHANE	8260B	μg/L	0.5	<0.5	<0.5
TRICHLOROETHENE	8260B	μg/L	0.5	<0.5	<0.5
TRICHLOROFLUOROMETHANE	8260B	μg/L	0.5	<0.5	<0.5
1,2,3-TRICHLOROPROPANE	8260B	μg/L	0.5	<0.5	<0.5
1,2,4-TRIMETHYLBENZENE	8260B	μg/L	0.5	<0.5	<0.5
1,3,5-TRIMETHYLBENZENE	8260B	μg/L	0.5	<0.5	<0.5
VINYL CHLORIDE	8260B	μg/L	0.5	<0.5	<0.5
XYLENE (TOTAL)	8260B	μg/L	1	<1	<1
T-BUTYL ALCOHOL	8260B	μg/L	20	<20	<20

Component Analyzed	Method	Unit	PQL	Analysis Result CL-99-15 01-05285-9	Analysis Result Trip Blank 01-05285-10
ALKALINITY	310.1	mg-$CaCO_3$/L	20	130	-
SOLIDS, TOTAL DISSOLVED (TDS)	160.1	mg/L	10	1,130	-
Dilution Factor				20	1
CHLORIDE	300.0	mg/L	0.2	40	-
NITRATE (NO_3^-) AS N	300.0	mg/L	0.04	24.1	-
NITRITE (NO_2^-) AS N	300.0	mg/L	0.05	<1	-
PHOSPHORUS, ORTHOPHOSPHATE	300.0	mg/L	0.1	<2	-
SULFATE	300.0	mg/L	0.5	478	-

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Component Analyzed	Method	Unit	PQL	Analysis Result CL-99-15 01-05285-9	Analysis Result Trip Blank 01-05285-10
TTLC 17 METALS					
Dilution Factor				1	1
ANTIMONY	6010B	µg/L	10	<10	-
ARSENIC	6010B	µg/L	5	<5	-
BARIUM	6010B	µg/L	10	13.5	-
BERYLLIUM	6010B	µg/L	2	<2	-
CADMIUM	6010B	µg/L	2	<2	-
CHROMIUM	6010B	µg/L	5	22.5	-
COBALT	6010B	µg/L	5	<5	-
COPPER	6010B	µg/L	10	2.7J	-
LEAD	6010B	µg/L	5	3.5J	-
MERCURY	7470A	µg/L	0.5	<0.5	-
MOLYBDENUM	6010B	µg/L	5	3.1J	-
NICKEL	6010B	µg/L	5	<5	-
SELENIUM	6010B	µg/L	10	22.9	-
SILVER	6010B	µg/L	10	0.88J	-
THALLIUM	6010B	µg/L	10	<10	-
VANADIUM	6010B	µg/L	10	2.3J	-
ZINC	6010B	µg/L	10	54.3	-
Dilution Factor				1	1
GASOLINE RANGE ORGANICS	M8015V	mg/L	0.05	0.02J	0.02J
Dilution Factor				1	1
JP-4	M8015V	mg/L	0.05	<0.05	<0.05
Dilution Factor				1	1
DIESEL RANGE ORGANICS	M8015E	mg/L	0.1	0.28 [a]	-
Dilution Factor				1	1
MOTOR OIL RANGE ORGANICS	M8015E	mg/L	0.1	0.2	-
VOLATILE ORGANICS					
Dilution Factor				1	1
ACETONE	8260B	µg/L	10	<10	<10
BENZENE	8260B	µg/L	0.5	<0.5	<0.5
BROMOBENZENE	8260B	µg/L	0.5	<0.5	<0.5
BROMOCHLOROMETHANE	8260B	µg/L	0.5	0.5J [b]	1.3 [b]
BROMODICHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5
BROMOFORM	8260B	µg/L	0.5	<0.5	<0.5
BROMOMETHANE	8260B	µg/L	0.63 [c]	<0.63	<0.63
2-BUTANONE (MEK)	8260B	µg/L	10	<10	<10
N-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5
SEC-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5
TERT-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5
CARBON DISULFIDE	8260B	µg/L	10	<10	<10
CARBON TETRACHLORIDE	8260B	µg/L	0.5	1.2	<0.5
CHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5
DIBROMOCHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5
CHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5
CHLOROFORM	8260B	µg/L	0.5	<0.5	<0.5
CHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5
2-CHLOROTOLUENE	8260B	µg/L	0.5	<0.5	<0.5
4-CHLOROTOLUENE	8260B	µg/L	0.5	<0.5	<0.5
1,2-DIBROMO-3-CHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5
1,2-DIBROMOETHANE (EDB)	8260B	µg/L	0.5	<0.5	<0.5

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Component Analyzed	Method	Unit	PQL	Analysis Result CL-99-15 01-05285-9	Analysis Result Trip Blank 01-05285-10
DIBROMOMETHANE	8260B	µg/L	0.5	<0.5	<0.5
1,2-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5
1,3-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5
1,4-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5
DICHLORODIFLUOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5
1,1-DICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5
1,2-DICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5
1,1-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5
CIS-1,2-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5
TRANS-1,2-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5
1,2-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5
1,3-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5
2,2-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5
1,1-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5
ETHYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5
HEXACHLOROBUTADIENE	8260B	µg/L	0.56 (c)	<0.56	<0.56
2-HEXANONE	8260B	µg/L	10	<10	<10
ISOPROPYLBENZENE (CUMENE)	8260B	µg/L	0.5	<0.5	<0.5
P-ISOPROPYLTOLUENE	8260B	µg/L	0.5	<0.5	<0.5
METHYLENE CHLORIDE	8260B	µg/L	2 (c)	<2	3
4-METHYL-2-PENTANONE (MIBK)	8260B	µg/L	10	<10	<10
METHYL-T-BYTYL ETHER (MTBE)	8260B	µg/L	1	<1	<1
NAPHTHALENE	8260B	µg/L	0.5	<0.5	<0.5
N-PROPYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5
STYRENE	8260B	µg/L	0.5	<0.5	<0.5
1,1,1,2-TETRACHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5
1,1,2,2-TETRACHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5
TETRACHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5
TOLUENE	8260B	µg/L	0.5	<0.5	<0.5
1,2,3-TRICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5
1,2,4-TRICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5
1,1,1-TRICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5
1,1,2-TRICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5
TRICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5
TRICHLOROFLUOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5

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Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result CL-99-15 01-05285-9	Analysis Result Trip Blank 01-05285-10
1,2,3-TRICHLOROPROPANE	8260B	μg/L	0.5	<0.5	<0.5
1,2,4-TRIMETHYLBENZENE	8260B	μg/L	0.5	<0.5	<0.5
1,3,5-TRIMETHYLBENZENE	8260B	μg/L	0.5	<0.5	<0.5
VINYL CHLORIDE	8260B	μg/L	0.5	<0.5	<0.5
XYLENE (TOTAL)	8260B	μg/L	1	<1	<1
T-BUTYL ALCOHOL	8260B	μg/L	20	<20	<20

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit
N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.
J: Reported between PQL and MDL.
Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0
(a) Sample also contained an unknown peak at about C_15 range.
(b) Might be from the GC system.
(c) MDL reported.

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

Level C Data Package Deliverables

General Information

Project : Crows Landing

APCL Service ID: 01-5285

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino, CA 91710
Telephone (909)590-1828
Fax (909)590-1498

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

Case Narrative

Project: Crows Landing/800063

For The IT Group

APCL Service No: 01-5285

1. Sample Identification

The sample identifications are listed in the following table:

The IT Group Sample ID	APCL Sample ID
117-MW-08 (8/01)	01-05285-5
117-MW-09 (8/01)	01-05285-6
CL1-MW-06 (8/01)	01-05285-8
CL1-MW-04 (8/01)	01-05285-7
17-MW-08 (8/01)	01-05285-2
17-MW-09 (8/01)	01-05285-3
CL-99-15	01-05285-9
17-MW-06 (8/01)	01-05285-1
17-MW-18 (8/01)	01-05285-4
Trip Blank	01-05285-10

2. Analytical Methodology

Samples are analyzed by EPA methods

8260B (Volatile organics),
M8015V/M8015G (Gasoline),
M8015E/M8015D (TPH: Diesel),
M8015E/M8015M (TPH: Motor Oil),
6010B/7470A (TTLC 17 Metals),
300.0 (Chloride Cl^- by IC),
300.0 (Nitrate (NO_3^-) as N by IC),
310.1 (Alkalinity),
160.1 (Solids, Total Dissolved (TDS)),
M8015V/M8015V (JP-4),

3. Holding Time

All samples were extracted, digested and analyzed within the holding times defined by the appropriate EPA methods of the analyses.

4. Preservation

All samples were preserved and stored according to the appropriate EPA methods.

5. Tele-log

None

6. Anomaly

None

"I certify that these data are technically accurate, complete, and in compliance with the terms and conditions of the contract, for other than the conditions detailed above. Release of the data contained in the hardcopy data package and its electronic data deliverable submitted on diskette had been authorized by the Laboratory Manager or her/his designee, as verified by the following signature."

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 063112
Page 1 of 2

Project Name/No. [1] Crows Landing 800063
Sample Team Members [2] RC/BM/HM
Profit Center No. [3]
Project Manager [4] D Hulet
Purchase Order No. [6]
Required Report Date [11]

Samples Shipment Date [7] APCL
Lab Destination [8] 8/15/01
Lab Contact [9] M Heckman
Project Contact/Phone [12] R Condit 288-2151
Carrier/Waybill No. [13] Golden State

Bill to: [5] IT-Concord, Rich Iannizza
Report to: [10] IT-Concord, Rose Condit

White: To accompany samples
Yellow: Field copy

ONE CONTAINER PER LINE

Sample Number [14]	Sample Description/Type [15]	Date/Time Collected [16]	Container Type [17]	Sample Volume [18]	Pre-servative [19]	Requested Testing Program [20]	Condition on Receipt [21]	Disposal Record No. [22]
117-MW-08 (8/01)	Q3 2001	8/14/01 840				All Samples		
117-MW-09 (8/01)	Groundwater	1110	VOA	5	HCL	EPA 8260 + MTBE + TBA + EDB, TPH-Gas/TF	FOR LAB USE ONLY	
CL1-MW-06 (8/01)	Monitoring	820	Liter	2	None	TPH-Dsl/m.o.	* use for MS/MSD extra volume provided	
CL1-MW-04 (8/01)		1013	HDPE	1-250	HNO3	Filtered CAM-17 metals	Samples received	
17-MW-08 (8/01)		1226	HDPE	1-250	None	Anions, Alkalinity, TDS	In Good Condition	
17-MW-09 (8/01)		1310					FOR LAB USE ONLY	
CL-99-15		1310				5285	Temp 2.7, 3.6, 4.0°C	
17-MW-06 (8/01)		1335						

Special Instructions: [23] * Silica gel cleanup of TPH-D/m.o.

Possible Hazard Identification: [24]
Non-hazard ☒ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐

Sample Disposal: [25]
Return to Client ☐ Disposal by Lab ☒ Archive _____ (mos.)

Turnaround Time Required: [26]
Normal ☒ Rush ☐

QC Level: [27]
I. ☐ II. ☐ III. ☒ Project Specific (specify): _____

1. Relinquished by [28] (Signature/Affiliation) Bruce Condit	Date: 8/15/01 Time: 0830	1. Received by [28] (Signature/Affiliation) Golden State	Date: 8/15/01 Time:
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation) Paul K	Date: 8/16/01 Time: 1015
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments: [29]

*See back of form for special instructions.

MCA 3/15/91

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No. 30-0631112
Page 2 of 2

Project Name Crows Landing Project No. 800063 Samples Shipment Date 8/15/01

ONE CONTAINER PER LINE

Sample 14 Number	Sample 15 Description/Type	Date/Time 16 Collected	Container 17 Type	Sample 18 Volume	Pre-19 servative	Requested Testing 20 Program	Condition on 21 Receipt	Disposal 22 Record No.
17-MW-18 (8/01)	Q3 2001	8/14/01 1430	VOA	5	HCl	~~EPA 8260C TPH-D TBA + EDB~~ TPH-Gas/JF		
	Groundwater		Liter	2	None	TPH-D/M.O	Sample Received In Good Condition	FOR LAB USE ONLY
	Sampling		HDPE	500ml	HNO3	CAM 17 - Dissolved		
			HDPE	500ml	None	Anions, Alkalinity TDS	Temp 4°C	FOR LAB USE ONLY
Trip blank			VOA	2	HCL	EPA 8260 TPH-Gas/JF		FOR LAB USE ONLY
								FOR LAB USE ONLY
								FOR LAB USE ONLY
						5285		FOR LAB USE ONLY
								FOR LAB USE ONLY
								FOR LAB USE ONLY
								FOR LAB USE ONLY
								FOR LAB USE ONLY

R Carlo

White: To accompany samples
Yellow: Field copy
*See back of form for special instructions.

MCA 3/15/91

APCL

Applied Physics & Chemistry Laboratory

13760 Magnolia Ave. Chino CA 91710
Tel. (909) 590-1828 Fax (909) 590-1498

September 07, 2001

The IT Group
Attention: Rose Condit
4005 Port Chicago Highway
Concord, CA 94520-1120

Dear Rose,

This package contains samples in our Service ID 01-5316 and your project 800063 Crows Landing. Enclosed please find:

(1) Original report.
(2) Oringinal Chain of Custody.
(3) One original and one copy of Level C Data Package Deliverable.
(4) One Diskette containing EDD Deliverable.

If anything is missing or you have any questions, please feel free to contact me.

Respectfully submitted,

Kevin Xie, Ph.D.,
QA/QC Director
Applied P & Ch Laboratory

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino CA 91710
Tel: (909) 590-1828 Fax: (909) 590-1498

APCL Analytical Report

Submitted to:
The IT Group
Attention: Rose Condit
4005 Port Chicago Highway
Concord CA 94520-1120
Tel: (925)288-9898 Fax: (925)288-0888

Service ID #: 801-015316
Collected by: RC/HM/BM
Collected on: 08/15/01

Received: 08/17/01
Extracted: 08/20/01
Tested: 08/17-23/01
Reported: 09/04/01

Sample Description: Water
Project Description: 800063 Crows Landing

Analysis of Water Samples

Component Analyzed	Method	Unit	PQL	Analysis Result 17-MW-03 (8/01) 01-05316-1	17-MW-13 (8/01) 01-05316-2	17-MW-15 (8/01) 01-05316-3
ALKALINITY	310.1	mg-$CaCO_3$/L	20	170	240	270
SOLIDS, TOTAL DISSOLVED (TDS)	160.1	mg/L	10	762	1,280	1,240
Dilution Factor				10	20	20
CHLORIDE	300.0	mg/L	0.2	43	123	42
NITRATE (NO_3^-) AS N	300.0	mg/L	0.04	25.1	5.3	<0.8
NITRITE (NO_2^-) AS N	300.0	mg/L	0.05	<0.5	<1	<1
PHOSPHORUS, ORTHOPHOSPHATE	300.0	mg/L	0.1	<1	<2	<2
SULFATE	300.0	mg/L	0.5	272	529	694
TTLC 17 METALS						
Dilution Factor				1	1	1
ANTIMONY	6010B	μg/L	10	1.6J	1.7J	1.6J
ARSENIC	6010B	μg/L	5	<5	<5	<5
BARIUM	6010B	μg/L	10	27.0	28.5	37.7
BERYLLIUM	6010B	μg/L	2	<2	<2	<2
CADMIUM	6010B	μg/L	2	<2	<2	<2
CHROMIUM	6010B	μg/L	5	38.1	28.7	1.2J
COBALT	6010B	μg/L	5	<5	1.6J	<5
COPPER	6010B	μg/L	10	2.5J	2.2J	<10
LEAD	6010B	μg/L	5	1.0J	<5	1.8J
MERCURY	7470A	μg/L	0.5	0.69	0.56	0.33J
MOLYBDENUM	6010B	μg/L	5	3.2J	6.8	3.8J
NICKEL	6010B	μg/L	5	1.4J	5.5	1.2J
SELENIUM	6010B	μg/L	10	9.1J	<10	<10
SILVER	6010B	μg/L	10	<10	<10	<10
THALLIUM	6010B	μg/L	10	1.5J	<10	<10
VANADIUM	6010B	μg/L	10	2.5J	2.3J	0.52J
ZINC	6010B	μg/L	10	77.1	174	19.1
Dilution Factor				1	1	1
GASOLINE RANGE ORGANICS	M8015V	mg/L	0.05	0.02J	0.27 [a]	0.02J
Dilution Factor				1	1	1
JP-4	M8015V	mg/L	0.05	<0.05	<0.05	<0.05
Dilution Factor				1	1	1
DIESEL RANGE ORGANICS	M8015E	mg/L	0.1	<0.1 [b]	<0.1 [b]	<0.1 [b]
Dilution Factor				1	1	1
MOTOR OIL RANGE ORGANICS	M8015E	mg/L	0.1	<0.1 [b]	<0.1 [b]	<0.1 [b]

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result 17-MW-03 (8/01) 01-05316-1	17-MW-13 (8/01) 01-05316-2	17-MW-15 (8/01) 01-05316-3
VOLATILE ORGANICS						
Dilution Factor				1	1	1
ACETONE	8260B	µg/L	10	<10	140	<10
BENZENE	8260B	µg/L	0.5	<0.5	2.1	<0.5
BROMOBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMOCHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMODICHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMOFORM	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMOMETHANE	8260B	µg/L	0.63 (c)	<0.63	<0.63	<0.63
2-BUTANONE (MEK)	8260B	µg/L	10	<10	<10	<10
N-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
SEC-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	6.1	<0.5
TERT-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	9.6	<0.5
CARBON DISULFIDE	8260B	µg/L	10	<10	<10	1J
CARBON TETRACHLORIDE	8260B	µg/L	0.5	123	0.6	<0.5
CHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
DIBROMOCHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROFORM	8260B	µg/L	0.5	8.5	<0.5	<0.5
CHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
2-CHLOROTOLUENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
4-CHLOROTOLUENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DIBROMO-3-CHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DIBROMOETHANE (EDB)	8260B	µg/L	0.5	<0.5	<0.5	<0.5
DIBROMOMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,3-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,4-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
DICHLORODIFLUOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROETHANE	8260B	µg/L	0.5	<0.5	5.1	<0.5
1,1-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CIS-1,2-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TRANS-1,2-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,3-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
2,2-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
ETHYLBENZENE	8260B	µg/L	0.5	<0.5	0.5J	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL [c]	Analysis Result 17-MW-03 (8/01) 01-05316-1	17-MW-13 (8/01) 01-05316-2	17-MW-15 (8/01) 01-05316-3
HEXACHLOROBUTADIENE	8260B	µg/L	0.56 [c]	<0.56	<0.56	<0.56
2-HEXANONE	8260B	µg/L	10	<10	<10	<10
ISOPROPYLBENZENE (CUMENE)	8260B	µg/L	0.5	<0.5	64.4	<0.5
P-ISOPROPYLTOLUENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
METHYLENE CHLORIDE	8260B	µg/L	2 [c]	<2	3	2
4-METHYL-2-PENTANONE (MIBK)	8260B	µg/L	10	<10	<10	<10
METHYL-T-BYTYL ETHER (MTBE)	8260B	µg/L	1	<1	<1	<1
NAPHTHALENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
N-PROPYLBENZENE	8260B	µg/L	0.5	<0.5	1.8	<0.5
STYRENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1,2-TETRACHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2-TETRACHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TETRACHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TOLUENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-TRICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1-TRICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2-TRICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TRICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TRICHLOROFLUOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-TRIMETHYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,3,5-TRIMETHYLBENZENE	8260B	µg/L	0.5	<0.5	0.3J	<0.5
VINYL CHLORIDE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
XYLENE (TOTAL)	8260B	µg/L	1	<1	<1	<1
T-BUTYL ALCOHOL	8260B	µg/L	20	<20	230	<20

Component Analyzed	Method	Unit	PQL	Analysis Result 117-MW-02 (8/01) 01-05316-4	117-MW-04 (8/01) 01-05316-5	117-MW-07 (8/01) 01-05316-6
ALKALINITY	310.1	mg-$CaCO_3$/L	20	370	270	160
SOLIDS, TOTAL DISSOLVED (TDS)	160.1	mg/L	10	680	612	660
Dilution Factor				20	15	15
CHLORIDE	300.0	mg/L	0.2	130	109	85
NITRATE (NO_3^-) AS N	300.0	mg/L	0.04	<0.8	18.4	13.9
NITRITE (NO_2^-) AS N	300.0	mg/L	0.05	<1	<0.75	<0.75
PHOSPHORUS, ORTHOPHOSPHATE	300.0	mg/L	0.1	<2	<1.5	<1.5
SULFATE	300.0	mg/L	0.5	47	55	175

Applied P & Ch Laboratory
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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result 117-MW-02 (8/01) 01-05316-4	117-MW-04 (8/01) 01-05316-5	117-MW-07 (8/01) 01-05316-6
TTLC 17 METALS						
Dilution Factor				1	1	1
ANTIMONY	6010B	µg/L	10	1.9J	2.9J	<10
ARSENIC	6010B	µg/L	5	<5	<5	<5
BARIUM	6010B	µg/L	10	227	87.1	22.4
BERYLLIUM	6010B	µg/L	2	<2	<2	<2
CADMIUM	6010B	µg/L	2	<2	<2	<2
CHROMIUM	6010B	µg/L	5	17.2	5.9	72.7
COBALT	6010B	µg/L	5	0.87J	<5	0.44J
COPPER	6010B	µg/L	10	<10	<10	4.4J
LEAD	6010B	µg/L	5	1.3J	1.1J	<5
MERCURY	7470A	µg/L	0.5	0.71	0.73	0.47J
MOLYBDENUM	6010B	µg/L	5	8.5	0.76J	4.6J
NICKEL	6010B	µg/L	5	16.6	1.0J	26.4
SELENIUM	6010B	µg/L	10	<10	9.9J	7.4J
SILVER	6010B	µg/L	10	<10	<10	<10
THALLIUM	6010B	µg/L	10	<10	<10	<10
VANADIUM	6010B	µg/L	10	0.75J	2.9J	2.5J
ZINC	6010B	µg/L	10	231	64.1	142
Dilution Factor				1	1	1
GASOLINE RANGE ORGANICS	M8015V	mg/L	0.05	0.19 [a]	0.01J	0.02J
Dilution Factor				1	1	1
JP-4	M8015V	mg/L	0.05	<0.05	<0.05	<0.05
Dilution Factor				1	1	1
DIESEL RANGE ORGANICS	M8015E	mg/L	0.1	<0.1 [b]	<0.1	<0.1 [b]
Dilution Factor				1	1	1
MOTOR OIL RANGE ORGANICS	M8015E	mg/L	0.1	<0.1	<0.1	0.2
VOLATILE ORGANICS						
Dilution Factor				1	1	1
ACETONE	8260B	µg/L	10	<10	<10	<10
BENZENE	8260B	µg/L	0.5	1.1	1	<0.5
BROMOBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMOCHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMODICHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMOFORM	8260B	µg/L	0.5	<0.5	<0.5	<0.5
BROMOMETHANE	8260B	µg/L	0.63 [c]	<0.63	<0.63	<0.63
2-BUTANONE (MEK)	8260B	µg/L	10	<10	<10	<10
N-BUTYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
SEC-BUTYLBENZENE	8260B	µg/L	0.5	5.8	<0.5	<0.5
TERT-BUTYLBENZENE	8260B	µg/L	0.5	5.8	<0.5	<0.5
CARBON DISULFIDE	8260B	µg/L	10	21	0.5J	<10
CARBON TETRACHLORIDE	8260B	µg/L	0.5	<0.5	<0.5	12.2
CHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
DIBROMOCHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CHLOROFORM	8260B	µg/L	0.5	1.1	<0.5	2.7
CHLOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result 117-MW-02 (8/01) 01-05316-4	117-MW-04 (8/01) 01-05316-5	117-MW-07 (8/01) 01-05316-6
2-CHLOROTOLUENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
4-CHLOROTOLUENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DIBROMO-3-CHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DIBROMOETHANE (EDB)	8260B	µg/L	0.5	<0.5	<0.5	<0.5
DIBROMOMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,3-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,4-DICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
DICHLORODIFLUOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROETHANE	8260B	µg/L	0.5	0.5	<0.5	<0.5
1,2-DICHLOROETHANE	8260B	µg/L	0.5	138	2.0	<0.5
1,1-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CIS-1,2-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TRANS-1,2-DICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2-DICHLOROPROPANE	8260B	µg/L	0.5	3.1	<0.5	<0.5
1,3-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
2,2-DICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
CIS-1,3-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TRANS-1,3-DICHLOROPROPENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
ETHYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
HEXACHLOROBUTADIENE	8260B	µg/L	0.56 (c)	<0.56	<0.56	<0.56
2-HEXANONE	8260B	µg/L	10	<10	<10	<10
ISOPROPYLBENZENE (CUMENE)	8260B	µg/L	0.5	5.3	<0.5	<0.5
P-ISOPROPYLTOLUENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
METHYLENE CHLORIDE	8260B	µg/L	2 (c)	3	2	3
4-METHYL-2-PENTANONE (MIBK)	8260B	µg/L	10	<10	<10	<10
METHYL-T-BYTYL ETHER (MTBE)	8260B	µg/L	1	<1	<1	<1
NAPHTHALENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
N-PROPYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
STYRENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1,2-TETRACHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2,2-TETRACHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TETRACHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TOLUENE	8260B	µg/L	0.5	0.7	<0.5	<0.5
1,2,3-TRICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-TRICHLOROBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1,1-TRICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,1,2-TRICHLOROETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TRICHLOROETHENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
TRICHLOROFLUOROMETHANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2,3-TRICHLOROPROPANE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,2,4-TRIMETHYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
1,3,5-TRIMETHYLBENZENE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
VINYL CHLORIDE	8260B	µg/L	0.5	<0.5	<0.5	<0.5
XYLENE (TOTAL)	8260B	µg/L	1	<1	<1	<1
T-BUTYL ALCOHOL	8260B	µg/L	20	150	<20	<20

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result CL1-MW-9S (8/01) 01-05316-7	CL1-MW-12MD (8/01) 01-05316-8	Trip Blank 01-05316-9
ALKALINITY	310.1	mg-$CaCO_3$/L	20	300	330	-
SOLIDS, TOTAL DISSOLVED (TDS)	160.1	mg/L	10	1,410	886	-
Dilution Factor				20	10	1
CHLORIDE	300.0	mg/L	0.2	93	81	-
NITRATE (NO_3^-) AS N	300.0	mg/L	0.04	15	<0.4	-
NITRITE (NO_2^-) AS N	300.0	mg/L	0.05	2.3	<0.5	-
PHOSPHORUS, ORTHOPHOSPHATE	300.0	mg/L	0.1	<2	<1	-
SULFATE	300.0	mg/L	0.5	600	288	-
TTLC 17 METALS						
Dilution Factor				1	1	1
ANTIMONY	6010B	μg/L	10	<10	<10	-
ARSENIC	6010B	μg/L	5	<5	3.7J	-
BARIUM	6010B	μg/L	10	16.1	62.4	-
BERYLLIUM	6010B	μg/L	2	<2	<2	-
CADMIUM	6010B	μg/L	2	<2	<2	-
CHROMIUM	6010B	μg/L	5	14.2	0.17J	-
COBALT	6010B	μg/L	5	0.51J	<5	-
COPPER	6010B	μg/L	10	4.4J	<10	-
LEAD	6010B	μg/L	5	0.96J	<5	-
MERCURY	7470A	μg/L	0.5	0.58	0.35J	-
MOLYBDENUM	6010B	μg/L	5	1.6J	<5	-
NICKEL	6010B	μg/L	5	10.3	0.62J	-
SELENIUM	6010B	μg/L	10	12.8	<10	-
SILVER	6010B	μg/L	10	<10	<10	-
THALLIUM	6010B	μg/L	10	<10	<10	-
VANADIUM	6010B	μg/L	10	2.1J	<10	-
ZINC	6010B	μg/L	10	97.1	10.1	-
Dilution Factor				1	100	1
GASOLINE RANGE ORGANICS	M8015V	mg/L	0.05	0.51 [a]	166 [a]	<0.05
Dilution Factor				1	100	1
JP-4	M8015V	mg/L	0.05	<0.05	<5	<0.05
Dilution Factor				1	5	1
DIESEL RANGE ORGANICS	M8015E	mg/L	0.1	<0.1 [b]	<0.5 [b]	-
Dilution Factor				1	5	1
MOTOR OIL RANGE ORGANICS	M8015E	mg/L	0.1	<0.1	<0.5	-

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL	Analysis Result CL1-MW-9S (8/01) 01-05316-7	CL1-MW-12MD (8/01) 01-05316-8	Trip Blank 01-05316-9
VOLATILE ORGANICS						
Dilution Factor				5	50	1
ACETONE	8260B	μg/L	10	<50	<500	<10
BENZENE	8260B	μg/L	0.5	261	17,200 (d)	<0.5
BROMOBENZENE	8260B	μg/L	0.5	<2.5	<25	<0.5
BROMOCHLOROMETHANE	8260B	μg/L	0.5	<2.5	<25	<0.5
BROMODICHLOROMETHANE	8260B	μg/L	0.5	<2.5	<25	<0.5
BROMOFORM	8260B	μg/L	0.5	<2.5	<25	<0.5
BROMOMETHANE	8260B	μg/L	0.63 (c)	<3.2	<32	<0.63
2-BUTANONE (MEK)	8260B	μg/L	10	<50	<500	<10
N-BUTYLBENZENE	8260B	μg/L	0.5	<2.5	<25	<0.5
SEC-BUTYLBENZENE	8260B	μg/L	0.5	<2.5	<25	<0.5
TERT-BUTYLBENZENE	8260B	μg/L	0.5	<2.5	290	<0.5
CARBON DISULFIDE	8260B	μg/L	10	<50	<500	<10
CARBON TETRACHLORIDE	8260B	μg/L	0.5	<2.5	<25	<0.5
CHLOROBENZENE	8260B	μg/L	0.5	<2.5	<25	<0.5
DIBROMOCHLOROMETHANE	8260B	μg/L	0.5	<2.5	<25	<0.5
CHLOROETHANE	8260B	μg/L	0.5	<2.5	<25	<0.5
CHLOROFORM	8260B	μg/L	0.5	17	16J	<0.5
CHLOROMETHANE	8260B	μg/L	0.5	<2.5	<25	<0.5
2-CHLOROTOLUENE	8260B	μg/L	0.5	<2.5	<25	<0.5
4-CHLOROTOLUENE	8260B	μg/L	0.5	<2.5	<25	<0.5
1,2-DIBROMO-3-CHLOROPROPANE	8260B	μg/L	0.5	<2.5	<25	<0.5
1,2-DIBROMOETHANE (EDB)	8260B	μg/L	0.5	<2.5	<25	<0.5
DIBROMOMETHANE	8260B	μg/L	0.5	<2.5	<25	<0.5
1,2-DICHLOROBENZENE	8260B	μg/L	0.5	<2.5	<25	<0.5
1,3-DICHLOROBENZENE	8260B	μg/L	0.5	<2.5	<25	<0.5
1,4-DICHLOROBENZENE	8260B	μg/L	0.5	<2.5	<25	<0.5
DICHLORODIFLUOROMETHANE	8260B	μg/L	0.5	<2.5	<25	<0.5
1,1-DICHLOROETHANE	8260B	μg/L	0.5	<2.5	<25	<0.5
1,2-DICHLOROETHANE	8260B	μg/L	0.5	12	470	<0.5
1,1-DICHLOROETHENE	8260B	μg/L	0.5	<2.5	<25	<0.5
CIS-1,2-DICHLOROETHENE	8260B	μg/L	0.5	<2.5	<25	<0.5
TRANS-1,2-DICHLOROETHENE	8260B	μg/L	0.5	<2.5	<25	<0.5
1,2-DICHLOROPROPANE	8260B	μg/L	0.5	<2.5	<25	<0.5
1,3-DICHLOROPROPANE	8260B	μg/L	0.5	<2.5	<25	<0.5
2,2-DICHLOROPROPANE	8260B	μg/L	0.5	<2.5	<25	<0.5
1,1-DICHLOROPROPENE	8260B	μg/L	0.5	<2.5	<25	<0.5
CIS-1,3-DICHLOROPROPENE	8260B	μg/L	0.5	<2.5	<25	<0.5
TRANS-1,3-DICHLOROPROPENE	8260B	μg/L	0.5	<2.5	<25	<0.5
ETHYLBENZENE	8260B	μg/L	0.5	<2.5	<25	<0.5

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APCL Analytical Report

Component Analyzed	Method	Unit	PQL [c]	Analysis Result CL1-MW-9S (8/01) 01-05316-7	CL1-MW-12MD (8/01) 01-05316-8	Trip Blank 01-05316-9
HEXACHLOROBUTADIENE	8260B	µg/L	0.56 [c]	<2.8	<28	<0.56
2-HEXANONE	8260B	µg/L	10	<50	<500	<10
ISOPROPYLBENZENE (CUMENE)	8260B	µg/L	0.5	<2.5	1,770	<0.5
P-ISOPROPYLTOLUENE	8260B	µg/L	0.5	<2.5	<25	<0.5
METHYLENE CHLORIDE	8260B	µg/L	2 [c]	10	260	4
4-METHYL-2-PENTANONE (MIBK)	8260B	µg/L	10	<50	<500	<10
METHYL-T-BYTYL ETHER (MTBE)	8260B	µg/L	1	<5	<50	<1
NAPHTHALENE	8260B	µg/L	0.5	<2.5	<25	<0.5
N-PROPYLBENZENE	8260B	µg/L	0.5	<2.5	<25	<0.5
STYRENE	8260B	µg/L	0.5	<2.5	<25	<0.5
1,1,1,2-TETRACHLOROETHANE	8260B	µg/L	0.5	<2.5	<25	<0.5
1,1,2,2-TETRACHLOROETHANE	8260B	µg/L	0.5	<2.5	<25	<0.5
TETRACHLOROETHENE	8260B	µg/L	0.5	<2.5	<25	<0.5
TOLUENE	8260B	µg/L	0.5	<2.5	15J	<0.5
1,2,3-TRICHLOROBENZENE	8260B	µg/L	0.5	<2.5	<25	<0.5
1,2,4-TRICHLOROBENZENE	8260B	µg/L	0.5	<2.5	<25	<0.5
1,1,1-TRICHLOROETHANE	8260B	µg/L	0.5	<2.5	<25	<0.5
1,1,2-TRICHLOROETHANE	8260B	µg/L	0.5	<2.5	<25	<0.5
TRICHLOROETHENE	8260B	µg/L	0.5	<2.5	<25	<0.5
TRICHLOROFLUOROMETHANE	8260B	µg/L	0.5	<2.5	<25	<0.5
1,2,3-TRICHLOROPROPANE	8260B	µg/L	0.5	<2.5	<25	<0.5
1,2,4-TRIMETHYLBENZENE	8260B	µg/L	0.5	<2.5	<25	<0.5
1,3,5-TRIMETHYLBENZENE	8260B	µg/L	0.5	<2.5	<25	<0.5
VINYL CHLORIDE	8260B	µg/L	0.5	<2.5	<25	<0.5
XYLENE (TOTAL)	8260B	µg/L	1	<5	25J	<1
T-BUTYL ALCOHOL	8260B	µg/L	20	28J	<1000	<20

PQL: Practical Quantitation Limit. MDL: Method Detection Limit. CRDL: Contract Required Detection Limit

N.D.: Not Detected or less than the practical quantitation limit. "-": Analysis is not required.

J: Reported between PQL and MDL.

Listed Dilution Factors (DF) are relative to the method default DF. All unlisted DFs are 1.0

[a] Not a Gasoline or Jp-4 pattern.

[b] Sample chromatogram contained some unknown isolated peaks in Diesel / Motor Oil range.

[c] MDL reported.

[d] Analyzed with a dilution factor of 100.

Respectfully submitted,

Dominic Lau
Laboratory Director
Applied P & Ch Laboratory

Level C Data Package Deliverables

General Information

Project: 800063 Crows Landing

APCL Service ID: 01-5316

Applied P & Ch Laboratory
13760 Magnolia Ave. Chino, CA 91710
Telephone (909)590-1828
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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 563114
Page 1 of 2

Project Name/No. [1] Crows Landing 800063
Sample Team Members [2] RC/HM/BM
Profit Center No. [3]
Project Manager [4] B Holet
Purchase Order No. [6]
Required Report Date [11]

Samples Shipment Date [7] 8/16/01
Lab Destination [8] APCL
Lab Contact [9] M. Heckman
Project Contact/Phone [12] R Condit 288-2157
Carrier/Waybill No. [13] Golden State

Bill to: [5] IT-Concord
Rich Janica
Report to: [10] IT-Concord
Rose Condit

ONE CONTAINER PER LINE

Sample Number [14]	Sample Description/Type [15]	Date/Time Collected [16]	Container Type [17]	Sample Volume [18]	Pre-servative [19]	Requested Testing Program [20]	Condition on Receipt [21]	Disposal Record No. [22]
117-MW-04(8/01)	Q3 2001	8/15/01 730				All Samples		
17-MW-15(8/01)	Groundwater	835	VOA	5	HCL	8260 +MTBE +TBA+ EDB TPH-gas/JF	FOR LAB USE ONLY SAMPLES	
17-MW-03(8/01)	Sampling	840	Liter	2	None	TPH-Dsl/M.O.	RECEIVED	ID
117-MW-07(8/01)		1045	HDPE	500 ml	HNO3	CAM 17 Dissolved	GOOD CONDITION	
17-MW-13(8/01)		1012	HDPE	500 ml	None	Alkalinity, Anions TDS	TEMP=4.1°C	
CL1-MW-9S(8/01)		1300					FOR LAB USE ONLY 3.6°C	
CL1-MW-12MD(8/01)		1335				5316	4.5°C	
117-MW-02(8/01)		1225						

Special Instructions: [23] Silica Gel Cleanup -TPH-D/MO

Possible Hazard Identification: [24]
Non-hazard ☒ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐

Sample Disposal: [25]
Return to Client ☐ Disposal by Lab ☐ Archive _____ (mos.)

Turnaround Time Required: [26]
Normal ☒ Rush ☐

QC Level: [27]
I. ☐ II. ☐ III. ☒ Project Specific (specify): _____

1. Relinquished by [28] (Signature/Affiliation) [signature]	Date: 8/16/01 Time:	1. Received by [28] (Signature/Affiliation) Golden State	Date: 8/16/01 Time:
2. Relinquished by (Signature/Affiliation) G.S.	Date: Time:	2. Received by (Signature/Affiliation) [signature]	Date: 8/17/01 Time: 10:50
3. Relinquished by (Signature/Affiliation)	Date: Time:	3. Received by (Signature/Affiliation)	Date: Time:

Comments: [29]

White: To accompany samples
Yellow: Field copy
*See back of form for special instructions.

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.[3] 63114
Page 2 of 2

Project Name Crows Landing

Project No. 800063

Samples Shipment Date 8/16/01

ONE CONTAINER PER LINE

Sample[14] Number	Sample[15] Description/Type	Date/Time[16] Collected	Container[17] Type	Sample[18] Volume	Pre-[19] servative	Requested Testing[20] Program	Condition on[21] Receipt	Disposal[22] Record No.
trip blank		—	VOA	2	HCL	EPA8260 TPH-gas/BF		
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	

5316

White: To accompany samples
Yellow: Field copy
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MCA 3/15/91

INORGANIC ANALYSIS

APPL, INC.

Data Validation Package
for

INORGANIC ANALYSIS

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APPL, INC.

INORGANIC ANALYSIS
Case Narrative

APPL, INC.

Case Narrative
EPA METHOD 7196A
Hexavalent Chromium
APPL, Inc. State Certification No. CA1312

ARF: 36159

Project: 800063 CROWS LANDING

Sample Receipt Information:

The sample group was assigned Analytical Request Form (ARF) number 36159 and the sample numbers and requested analysis were compared to the chain of custody. The shuttle was received at 4°C. No exceptions were encountered.

Sample Table

CLIENT ID	APPL ID	Matrix	Date Sampled	Date Received	Date Analyzed
117-MW-08 (8/01)	AP20925	Water	08/14/01	08/14/01	08/14/01
117-MW-09 (8/01)	AP20926	Water	08/14/01	08/14/01	08/14/01
CL1-MW-06 (8/01)	AP20927	Water	08/14/01	08/14/01	08/14/01
CL1-MW-04 (8/01)	AP20928	Water	08/14/01	08/14/01	08/14/01
17-MW-08 (8/01)	AP20929	Water	08/14/01	08/14/01	08/14/01
17-MW-09 (8/01)	AP20930	Water	08/14/01	08/14/01	08/14/01
CL-99-15	AP20931	Water	08/14/01	08/14/01	08/14/01
17-MW-06 (8/01)	AP20932	Water	08/14/01	08/14/01	08/14/01
17-MW-18 (8/01)	AP20933	Water	08/14/01	08/14/01	08/14/01

Sample Preparation:

The samples were prepared according to the method.

Analysis Information:

Samples:

The samples were analyzed according to EPA method 7196A. All sample data were investigated for trace levels ranging between the PQL and current MDL of 0.0062 mg/L. All such findings would have been flagged with a "J" indicator.

Calibrations:

Calibrations were performed according to the method. No problems were encountered.

Blanks:

No target compound was detected at or above the reporting level.

Spikes:

The laboratory control spike and spike duplicate met all acceptance criteria. The matrix spike and matrix spike duplicate was performed on sample CL1-MW-06 (8/01) (AP20927). All spike recoveries met acceptance criteria.

Summary:

All data were acceptable.

CERTIFICATION

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the hard copy has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Paula Young 9/4/01

Paula Young, Laboratory Manager/ Date

INORGANIC ANALYSIS
Sample Data

PPL, INC.

Wet Lab Analysis

IT Corporation
)5 Port Chicago Highway
Concord, CA 94520-1120

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Rose Condit

Project: 800063/CROWS LANDING

Sample ID: 117-MW-08 (8/01)

Sample Collection Date: 8/14/01

APPL ID: AP20925

ARF: 36159

Method	Analyte	Result	PQL	Units	Prep Date	Analysis Date
SW846 7196A	Hexavalent Chromium	0.027	0.02	mg/L	8/14/01	8/14/01

Printed: 8/15/01 7:36:55 AM

Wet Lab Analysis

IT Corporation
5 Port Chicago Highway
Concord, CA 94520-1120

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Rose Condit

Project: 800063/CROWS LANDING

Sample ID: 117-MW-09 (8/01)

Sample Collection Date: 8/14/01

APPL ID: AP20926

ARF: 36159

Method	Analyte	Result	PQL	Units	Prep Date	Analysis Date
SW846 7196A	Hexavalent Chromium	Not detected	0.02	mg/L	8/14/01	8/14/01

Printed: 8/15/01 7:36:56 AM

Wet Lab Analysis

IT Corporation
05 Port Chicago Highway
Concord, CA 94520-1120

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Rose Condit

Project: 800063/CROWS LANDING

Sample ID: CL1-MW-06 (8/01)

Sample Collection Date: 8/14/01

APPL ID: AP20927

ARF: 36159

Method	Analyte	Result	PQL	Units	Prep Date	Analysis Date
SW846 7196A	Hexavalent Chromium	0.023	0.02	mg/L	8/14/01	8/14/01

Printed: 8/15/01 7:36:56 AM

Wet Lab Analysis

IT Corporation
)5 Port Chicago Highway
Concord, CA 94520-1120

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Rose Condit

Project: 800063/CROWS LANDING

Sample ID: CL1-MW-04 (8/01)

Sample Collection Date: 8/14/01

APPL ID: AP20928

ARF: 36159

Method	Analyte	Result	PQL	Units	Prep Date	Analysis Date
SW846 7196A	Hexavalent Chromium	0.050	0.02	mg/L	8/14/01	8/14/01

Printed: 8/15/01 7:36:56 AM

Wet Lab Analysis

IT Corporation
5 Port Chicago Highway
Concord, CA 94520-1120

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Rose Condit

Project: 800063/CROWS LANDING

Sample ID: 17-MW-08 (8/01)

Sample Collection Date: 8/14/01

APPL ID: AP20929

ARF: 36159

Method	Analyte	Result	PQL	Units	Prep Date	Analysis Date
SW846 7196A	Hexavalent Chromium	0.027	0.02	mg/L	8/14/01	8/14/01

Printed: 8/15/01 7:36:56 AM

Wet Lab Analysis

IT Corporation
)5 Port Chicago Highway
Concord, CA 94520-1120

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Rose Condit

Project: 800063/CROWS LANDING

Sample ID: 17-MW-09 (8/01)

Sample Collection Date: 8/14/01

APPL ID: AP20930

ARF: 36159

Method	Analyte	Result	PQL	Units	Prep Date	Analysis Date
SW846 7196A	Hexavalent Chromium	0.025	0.02	mg/L	8/14/01	8/14/01

Printed: 8/15/01 7:36:56 AM

Wet Lab Analysis

IT Corporation
5 Port Chicago Highway
Concord, CA 94520-1120

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Rose Condit

Project: 800063/CROWS LANDING

Sample ID: CL-99-15

Sample Collection Date: 8/14/01

APPL ID: AP20931

ARF: 36159

Method	Analyte	Result	PQL	Units	Prep Date	Analysis Date
SW846 7196A	Hexavalent Chromium	0.027	0.02	mg/L	8/14/01	8/14/01

Printed: 8/15/01 7:36:56 AM

Wet Lab Analysis

IT Corporation
)5 Port Chicago Highway
Concord, CA 94520-1120

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Rose Condit

Project: 800063/CROWS LANDING

Sample ID: 17-MW-06 (8/01)

Sample Collection Date: 8/14/01

APPL ID: AP20932

ARF: 36159

Method	Analyte	Result	PQL	Units	Prep Date	Analysis Date
SW846 7196A	Hexavalent Chromium	0.016 J	0.02	mg/L	8/14/01	8/14/01

J = Estimated value, below quantitation limit.

Printed: 8/15/01 7:36:56 AM

Wet Lab Analysis

IT Corporation
)5 Port Chicago Highway
Concord, CA 94520-1120

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Rose Condit

Project: 800063/CROWS LANDING

Sample ID: 17-MW-18 (8/01)

Sample Collection Date: 8/14/01

APPL ID: AP20933

ARF: 36159

Method	Analyte	Result	PQL	Units	Prep Date	Analysis Date
SW846 7196A	Hexavalent Chromium	0.035	0.02	mg/L	8/14/01	8/14/01

Printed: 8/15/01 7:36:56 AM

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 563111
Page 1 of 2

Project Name/No. [1] Crows Landing 800063
Sample Team Members [2] RC/HM/BM
Profit Center No. [3]
Project Manager [4] Bob Hulet
Purchase Order No. [6]
Required Report Date [11]

Samples Shipment Date [7] 8/14/01
Lab Destination [8] APPL
Lab Contact [9] G. Brown
Project Contact/Phone [12] RCandia 288-2151
Carrier/Waybill No. [13] Same Day Courier

Bill to: [5] IT-Concord
Rich Janicek
Report to: [10] IT-Concord
Rose Candia

ONE CONTAINER PER LINE

Sample Number [14]	Sample Description/Type [15]	Date/Time Collected [16]	Container Type [17]	Sample Volume [18]	Pre-servative [19]	Requested Testing Program [20]	Condition on Receipt [21]	Disposal Record No. [22]
117-MW-08(8/01)	Q3 2001	8/14/01 840	HDPE	250ml	None	Hex Cr 7196A		
117-MW-09(8/01)	Groundwater Monitoring	1110						
CL1-MW-06(8/01)		820				* use for MS/MSD		
CL1-MW-04 (8/01)		1013						
17-MW-08 (8/01)		1226						
17-MW-09 (8/01)		1310						
CL-99-15		1310						
17-MW-06(8/01)		1335						

Special Instructions: [23]

Possible Hazard Identification: [24]
Non-hazard ☒ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐

Sample Disposal: [25]
Return to Client ☐ Disposal by Lab ☒ Archive _____ (mos.)

Turnaround Time Required: [26]
Normal ☒ Rush ☐

QC Level: [27]
I. ☐ II. ☐ III. ☒ Project Specific (specify):

1. Relinquished by [28] (Signature/Affiliation) Bonnie Candia	Date: 8/14/01 Time: 300 PM	1. Received by [28] (Signature/Affiliation) Same Day Courier	Date: 8/14/01 Time: 300 PM
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation) SAME DAY	Date: Time:	3. Received by (Signature/Affiliation)	Date: 8-14-01 Time: 1635

Comments: [29]

White: To accompany samples
Yellow: Field copy
*See back of form for special instructions.

10

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.[30] 563111
Page 2 of 2

Project Name Crows Landing

Project No. 800063

Samples Shipment Date 8/14/01

ONE CONTAINER PER LINE

Sample[14] Number	Sample[15] Description/Type	Date/Time[16] Collected	Container[17] Type	Sample[18] Volume	Pre-[19] servative	Requested Testing[20] Program	Condition on[21] Receipt	Disposal[22] Record No.
17-MW-18(8/01)		8/14/01 1430	HDPE	250ml	None	7196A Hexo Cr		
							FOR LAB USE ONLY	FOR LAB USE ONLY
							FOR LAB USE ONLY	FOR LAB USE ONLY
							FOR LAB USE ONLY	FOR LAB USE ONLY
							FOR LAB USE ONLY	FOR LAB USE ONLY
							FOR LAB USE ONLY	FOR LAB USE ONLY
							FOR LAB USE ONLY	FOR LAB USE ONLY
							FOR LAB USE ONLY	FOR LAB USE ONLY
							FOR LAB USE ONLY	FOR LAB USE ONLY
							FOR LAB USE ONLY	FOR LAB USE ONLY
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							FOR LAB USE ONLY	FOR LAB USE ONLY
							FOR LAB USE ONLY	FOR LAB USE ONLY
							FOR LAB USE ONLY	FOR LAB USE ONLY
							FOR LAB USE ONLY	FOR LAB USE ONLY
							FOR LAB USE ONLY	FOR LAB USE ONLY

R Cindy 8/14/01

White: To accompany samples
Yellow: Field copy

*See back of form for special instructions.

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INORGANIC ANALYSIS

APPL, INC.

Data Validation Package
for

INORGANIC ANALYSIS

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LABORATORY NAME: *APPL, Inc.*

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APPL, INC.

INORGANIC ANALYSIS
Case Narrative

PPL, INC.

Case Narrative
EPA METHOD 7196A
Hexavalent Chromium
APPL, Inc. State Certification No. CA1312

ARF: 36171

Project: 800063 CROWS LANDING

Sample Receipt Information:

The sample group was assigned Analytical Request Form (ARF) number 36171 and the sample numbers and requested analysis were compared to the chain of custody. The shuttles were received at 3° and 4°C. No exceptions were encountered.

Sample Table

CLIENT ID	APPL ID	Matrix	Date Sampled	Date Received	Date Analyzed
117-MW-04 (8/01)	AP20973	Water	08/15/01	08/15/01	08/15/01
17-MW-15 (8/01)	AP20974	Water	08/15/01	08/15/01	08/15/01
17-MW-03 (8/01)	AP20975	Water	08/15/01	08/15/01	08/15/01
117-MW-07 (8/01)	AP20976	Water	08/15/01	08/15/01	08/15/01
17-MW-13 (8/01)	AP20977	Water	08/15/01	08/15/01	08/15/01
CL1-MW-9S (8/01)	AP20978	Water	08/15/01	08/15/01	08/15/01
CL1-MW-12MD (8/01)	AP20979	Water	08/15/01	08/15/01	08/15/01
117-MW-02 (8/01)	AP20980	Water	08/15/01	08/15/01	08/15/01

Sample Preparation:

The samples were prepared according to the method.

Analysis Information:

Samples:

The samples were analyzed according to EPA method 7196A. All sample data were investigated for trace levels ranging between the PQL and current MDL of 0.0062 mg/L. All such findings would have been flagged with a "J" indicator.

Calibrations:

Calibrations were performed according to the method. No problems were encountered.

Blanks:

No target compound was detected at or above the reporting level.

Spikes:

The laboratory control spike and spike duplicate met all acceptance criteria. The matrix spike and matrix spike duplicate was performed on sample 117-MW-04 (8/01) (AP20973). All spike recoveries met acceptance criteria.

Summary:

All data were acceptable.

CERTIFICATION

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the hard copy has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Paula Young 9/4/01

Paula Young, Laboratory Manager/ Date

INORGANIC ANALYSIS
Sample Data

PPL, INC.

Wet Lab Analysis

T Corporation
05 Port Chicago Highway
Concord, CA 94520-1120

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Rose Condit

Project: 800063 CROWS LANDING

Sample ID: 117-MW-04 (8/01)

Sample Collection Date: 8/15/01

APPL ID: AP20973

ARF: 36171

Method	Analyte	Result	PQL	Units	Prep Date	Analysis Date
SW846 7196A	Hexavalent Chromium	0.022	0.02	mg/L	8/15/01	8/15/01

Printed: 8/16/01 7:47:56 AM

Wet Lab Analysis

IT Corporation
5 Port Chicago Highway
Concord, CA 94520-1120

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Rose Condit

Project: 800063 CROWS LANDING

Sample ID: 17-MW-15 (8/01)

Sample Collection Date: 8/15/01

APPL ID: AP20974

ARF: 36171

Method	Analyte	Result	PQL	Units	Prep Date	Analysis Date
SW846 7196A	Hexavalent Chromium	Not detected	0.02	mg/L	8/15/01	8/15/01

Printed: 8/16/01 7:47:56 AM

Wet Lab Analysis

IT Corporation
5 Port Chicago Highway
Concord, CA 94520-1120

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Rose Condit

Project: 800063 CROWS LANDING

Sample ID: 17-MW-03 (8/01)

Sample Collection Date: 8/15/01

APPL ID: AP20975

ARF: 36171

Method	Analyte	Result	PQL	Units	Prep Date	Analysis Date
SW846 7196A	Hexavalent Chromium	0.038	0.02	mg/L	8/15/01	8/15/01

Printed: 8/16/01 7:47:56 AM

Wet Lab Analysis

IT Corporation
05 Port Chicago Highway
Concord, CA 94520-1120

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Rose Condit

Project: 800063 CROWS LANDING

Sample ID: 117-MW-07 (8/01)

Sample Collection Date: 8/15/01

APPL ID: AP20976

ARF: 36171

Method	Analyte	Result	PQL	Units	Prep Date	Analysis Date
SW846 7196A	Hexavalent Chromium	0.020	0.02	mg/L	8/15/01	8/15/01

Printed: 8/16/01 7:47:56 AM

Wet Lab Analysis

IT Corporation
5 Port Chicago Highway
Concord, CA 94520-1120

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Rose Condit

Project: 800063 CROWS LANDING

Sample ID: 17-MW-13 (8/01)

Sample Collection Date: 8/15/01

APPL ID: AP20977

ARF: 36171

Method	Analyte	Result	PQL	Units	Prep Date	Analysis Date
SW846 7196A	Hexavalent Chromium	Not detected	0.02	mg/L	8/15/01	8/15/01

Printed: 8/16/01 7:47:57 AM

Wet Lab Analysis

IT Corporation
05 Port Chicago Highway
Concord, CA 94520-1120

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Rose Condit

Project: 800063 CROWS LANDING

Sample ID: CL1-MW-9S (8/01)

Sample Collection Date: 8/15/01

APPL ID: AP20978

ARF: 36171

Method	Analyte	Result	PQL	Units	Prep Date	Analysis Date
SW846 7196A	Hexavalent Chromium	0.022	0.02	mg/L	8/15/01	8/15/01

Printed: 8/16/01 7:47:57 AM

Wet Lab Analysis

IT Corporation
05 Port Chicago Highway
Concord, CA 94520-1120

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Rose Condit

Project: 800063 CROWS LANDING

Sample ID: CL1-MW-12MD (8/01)

Sample Collection Date: 8/15/01

APPL ID: AP20979

ARF: 36171

Method	Analyte	Result	PQL	Units	Prep Date	Analysis Date
SW846 7196A	Hexavalent Chromium	0.016 J	0.02	mg/L	8/15/01	8/15/01

J - Estimated value, below quantitation limit.

Printed: 8/16/01 7:47:57 AM

Wet Lab Analysis

T Corporation
05 Port Chicago Highway
Concord, CA 94520-1120

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Rose Condit

Project: 800063 CROWS LANDING

Sample ID: 117-MW-02 (8/01)

Sample Collection Date: 8/15/01

APPL ID: AP20980

ARF: 36171

Method	Analyte	Result	PQL	Units	Prep Date	Analysis Date
SW846 7196A	Hexavalent Chromium	0.024	0.02	mg/L	8/15/01	8/15/01

Printed: 8/16/01 7:47:57 AM

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 563113
Page 1 of 1

Project Name/No. [1] Crows Landing 800063
Sample Team Members [2] BM/HM/RC
Profit Center No. [3]
Project Manager [4] B Hulet
Purchase Order No. [6]
Required Report Date [11]

Samples Shipment Date [7] 8/15/01
Lab Destination [8] APPL
Lab Contact [9] G. Brown
Project Contact/Phone [12] R Condit 288-2157
Carrier/Waybill No. [13] Same Day Express

Bill to: [5] IT-Concord
Rich Janica
Report to: [10] IT-Concord
Rose Condit

White: To accompany samples
Yellow: Field copy

ONE CONTAINER PER LINE

Sample Number [14]	Sample Description/Type [15]	Date/Time Collected [16]	Container Type [17]	Sample Volume [18]	Pre-servative [19]	Requested Testing Program [20]	Condition on Receipt [21]	Disposal Record No. [22]
117-MW-04 (8/01)	Q3 2001	8/15/01 730	HDPE	250ml	None	Hex Cr 7196A		
17-MW-15 (8/01)	Groundwater	835						
17-MW-03 (8/01)	Sampling	840						
117-MW-07 (8/01)		1045						
17-MW-13 (8/01)		1012						
CL1-MW-9S (8/01)		1300						
CL1-MW-12MD (8/01)		1325						
117-MW-02 (8/01)		1225						

Special Instructions: [23]

Possible Hazard Identification: [24]
Non-hazard [X] Flammable [ ] Skin Irritant [ ] Poison B [ ] Unknown [ ]

Sample Disposal: [25]
Return to Client [ ] Disposal by Lab [X] Archive _____ (mos.)

Turnaround Time Required: [26]
Normal [X] Rush [ ]

QC Level: [27]
I. [ ] II. [ ] III. [X] Project Specific (specify):

1. Relinquished by [28] (Signature/Affiliation) Rose Condit Date: 8/15/01 Time:
2. Relinquished by (Signature/Affiliation) Date: Time:
3. Relinquished by (Signature/Affiliation) SAME DAY Date: Time:

1. Received by [28] (Signature/Affiliation) SAME DAY Date: Time:
2. ~~Received~~ by (Signature/Affiliation) Date: Time:
3. Received by (Signature/Affiliation) Date: 8/15/01 Time: 1645

Comments: [29]

*See back of form for special instructions.

INORGANIC ANALYSIS

APPL, INC.

Data Validation Package
for

INORGANIC ANALYSIS

TABLE OF CONTENTS

LABORATORY NAME: *APPL, Inc.*

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APPL, INC.

INORGANIC ANALYSIS
Case Narrative

PPL, INC.

Case Narrative
EPA METHOD 7196A
Hexavalent Chromium
APPL, Inc. State Certification No. CA1312

ARF: 36152

Project: 800063 CROWS LANDING

Sample Receipt Information:

The sample group was assigned Analytical Request Form (ARF) number 36152 and the sample numbers and requested analysis were compared to the chain of custody. The shuttle was received at 11°C. No other exceptions were encountered.

Sample Table

CLIENT ID	APPL ID	Matrix	Date Sampled	Date Received	Date Analyzed
CL2-MW-05 (8/01)	AP20857	Water	08/13/01	08/13/01	08/14/01
11-MW-03 (8/01)	AP20858	Water	08/13/01	08/13/01	08/14/01
11-MW-04 (8/01)	AP20859	Water	08/13/01	08/13/01	08/14/01
109-MW-01 (8/01)	AP20860	Water	08/13/01	08/13/01	08/14/01
CL1-MW-05 (8/01)	AP20861	Water	08/13/01	08/13/01	08/14/01
17-MW-24M (8/01)	AP20862	Water	08/13/01	08/13/01	08/14/01
CL-99-14	AP20863	Water	08/13/01	08/13/01	08/14/01
17-MW-11 (8/01)	AP20864	Water	08/13/01	08/13/01	08/14/01
NASA-SW-3 (8/01)	AP20865	Water	08/13/01	08/13/01	08/14/01

Sample Preparation:

The samples were prepared according to the method.

Analysis Information:

Samples:

The samples were analyzed according to EPA method 7196A. All sample data were investigated for trace levels ranging between the PQL and current MDL of 0.0062 mg/L. All such findings would have been flagged with a "J" indicator.

Calibrations:

Calibrations were performed according to the method. No problems were encountered.

Blanks:

No target compound was detected at or above the reporting level.

Spikes:

The laboratory control spike and spike duplicate met all acceptance criteria. The matrix spike and matrix spike duplicate were performed on sample CL2-MW-05 (8/01) (AP20857). All spike recoveries met acceptance criteria.

Summary:

All data were acceptable.

CERTIFICATION

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the hard copy has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Paula Young 9/14/01

Paula Young, Laboratory Manager/ Date

INORGANIC ANALYSIS
Sample Data

PPL, INC.

Wet Lab Analysis

IT Corporation
5 Port Chicago Highway
Concord, CA 94520-1120

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Rose Condit

Project: CROWS LANDING 800063

Sample ID: CL2-MW-05 (8/01)

Sample Collection Date: 8/13/01

APPL ID: AP20857

ARF: 36152

Method	Analyte	Result	PQL	Units	Prep Date	Analysis Date
SW846 7196A	Hexavalent Chromium	0.026	0.02	mg/L	8/14/01	8/14/01

Printed: 8/15/01 7:40:29 AM

Wet Lab Analysis

IT Corporation
5 Port Chicago Highway
Concord, CA 94520-1120

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Rose Condit

Project: CROWS LANDING 800063

Sample ID: 11-MW-03 (8/01)

Sample Collection Date: 8/13/01

APPL ID: AP20858

ARF: 36152

Method	Analyte	Result	PQL	Units	Prep Date	Analysis Date
SW846 7196A	Hexavalent Chromium	0.036	0.02	mg/L	8/14/01	8/14/01

Printed: 8/15/01 7:40:29 AM

Wet Lab Analysis

Corporation
05 Port Chicago Highway
Concord, CA 94520-1120

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Rose Condit

Project: CROWS LANDING 800063

Sample ID: 11-MW-04 (8/01)

Sample Collection Date: 8/13/01

APPL ID: AP20859

ARF: 36152

Method	Analyte	Result	PQL	Units	Prep Date	Analysis Date
SW846 7196A	Hexavalent Chromium	0.006 J	0.02	mg/L	8/14/01	8/14/01

J timated value, below quantitation limit.

Printed: 8/15/01 7:40:29 AM

Wet Lab Analysis

IT Corporation
5 Port Chicago Highway
Concord, CA 94520-1120

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Rose Condit

Project: CROWS LANDING 800063

Sample ID: 109-MW-01(8/01)

Sample Collection Date: 8/13/01

APPL ID: AP20860

ARF: 36152

Method	Analyte	Result	PQL	Units	Prep Date	Analysis Date
SW846 7196A	Hexavalent Chromium	0.010 J	0.02	mg/L	8/14/01	8/14/01

J = Estimated value, below quantitation limit.

Printed: 8/15/01 7:45:48 AM

Wet Lab Analysis

Corporation
5 Port Chicago Highway
Concord, CA 94520-1120

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Rose Condit

Project: CROWS LANDING 800063

Sample ID: CL1-MW-05 (8/01)

Sample Collection Date: 8/13/01

APPL ID: AP20861

ARF: 36152

Method	Analyte	Result	PQL	Units	Prep Date	Analysis Date
SW846 7196A	Hexavalent Chromium	0.025	0.02	mg/L	8/14/01	8/14/01

Printed: 8/15/01 7:40:29 AM

Wet Lab Analysis

IT Corporation
5 Port Chicago Highway
Concord, CA 94520-1120

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Rose Condit

Project: CROWS LANDING 800063

Sample ID: 17-MW-24M (8/01)

Sample Collection Date: 8/13/01

APPL ID: AP20862

ARF: 36152

Method	Analyte	Result	PQL	Units	Prep Date	Analysis Date
SW846 7196A	Hexavalent Chromium	Not detected	0.02	mg/L	8/14/01	8/14/01

Printed: 8/15/01 7:40:29 AM

Wet Lab Analysis

IT Corporation
5 Port Chicago Highway
Concord, CA 94520-1120

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Rose Condit

Project: CROWS LANDING 800063

Sample ID: CL-99-14 (8/01)

Sample Collection Date: 8/13/01

APPL ID: AP20863

ARF: 36152

Method	Analyte	Result	PQL	Units	Prep Date	Analysis Date
SW846 7196A	Hexavalent Chromium	Not detected	0.02	mg/L	8/14/01	8/14/01

Printed: 8/15/01 7:40:29 AM

Wet Lab Analysis

IT Corporation
5 Port Chicago Highway
Concord, CA 94520-1120

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Rose Condit

Project: CROWS LANDING 800063

Sample ID: 17-MW-11 (8/01)

Sample Collection Date: 8/13/01

APPL ID: AP20864

ARF: 36152

Method	Analyte	Result	PQL	Units	Prep Date	Analysis Date
SW846 7196A	Hexavalent Chromium	Not detected	0.02	mg/L	8/14/01	8/14/01

Printed: 8/15/01 7:40:29 AM

Wet Lab Analysis

Corporation
5 Port Chicago Highway
Concord, CA 94520-1120

APPL Inc.
4203 West Swift Avenue
Fresno, CA 93722

Attn: Rose Condit

Project: CROWS LANDING 800063

Sample ID: NASA-SW-3 (8/01)

Sample Collection Date: 8/13/01

APPL ID: AP20865

ARF: 36152

Method	Analyte	Result	PQL	Units	Prep Date	Analysis Date
SW846 7196A	Hexavalent Chromium	Not detected	0.02	mg/L	8/14/01	8/14/01

Printed: 8/15/01 7:40:30 AM

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD*

Reference Document No. 563752
Page 1 of 2

Project Name/No. [1] Crows Landing 800063
Sample Team Members [2]
Profit Center No. [3]
Project Manager [4] B. Hulet
Purchase Order No. [6]
Required Report Date [11]

Samples Shipment Date [7] 8/13/01
Lab Destination [8] APPL
Lab Contact [9] Glen Brown
Project Contact/Phone [12] R. Condit 288-2157
Carrier/Waybill No. [13] Same Day Courier

Bill to: [5] IT-Concord
Report to: [10] IT-Concord
Rose Condit

ONE CONTAINER PER LINE

Sample Number [14]	Sample Description/Type [15]	Date/Time Collected [16]	Container Type [17]	Sample Volume [18]	Pre-servative [19]	Requested Testing Program [20]	Condition on Receipt [21]	Disposal Record No. [22]
CL2-MW-05 (8/01)	Q3-2001	8/13/01 1300	HDPE	250 ml	None	Hex Chrom. EPA-7196A		
11-MW-03 (8/01)	Groundwater	1055						
11-MW-04 (8/01)	Sampling	935						
109-MW-01 (8/01)		1335						
CL1-MW-05 (8/01)		1212						
17-MW-24 (8/01)		1505						
CL-99-14 (8/01)		1510						
17-MW-11 (8/01)		1436						

Special Instructions: [23]

Possible Hazard Identification: [24]
Non-hazard ☒ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐

Sample Disposal: [25]
Return to Client ☐ Disposal by Lab ☒ Archive _____ (mos.)

Turnaround Time Required: [26]
Normal ☒ Rush ☐

QC Level: [27]
I. ☐ II. ☐ III. ☐ Project Specific (specify): Level IV

1. Relinquished by [28] (Signature/Affiliation) Rose Condit	Date: 8/13/01 Time: 1505	1. Received by [28] (Signature/Affiliation) Same Day Courier	Date: 8/13/01 Time: ~310 PM
2. Relinquished by (Signature/Affiliation)	Date: Time:	2. Received by (Signature/Affiliation)	Date: Time:
3. Relinquished by (Signature/Affiliation) SAME DAY COURIER	Date: Time:	3. Received by (Signature/Affiliation)	Date: 8-13-01 Time: 1630

Comments: [29]

White: To accompany samples
Yellow: Field copy
*See back of form for special instructions.

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ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD (cont.)*

Reference Document No.[30] 563752
Page 2 of 2

Project Name Crows Landing

Project No. 800063

Samples Shipment Date 8/13/01

ONE CONTAINER PER LINE

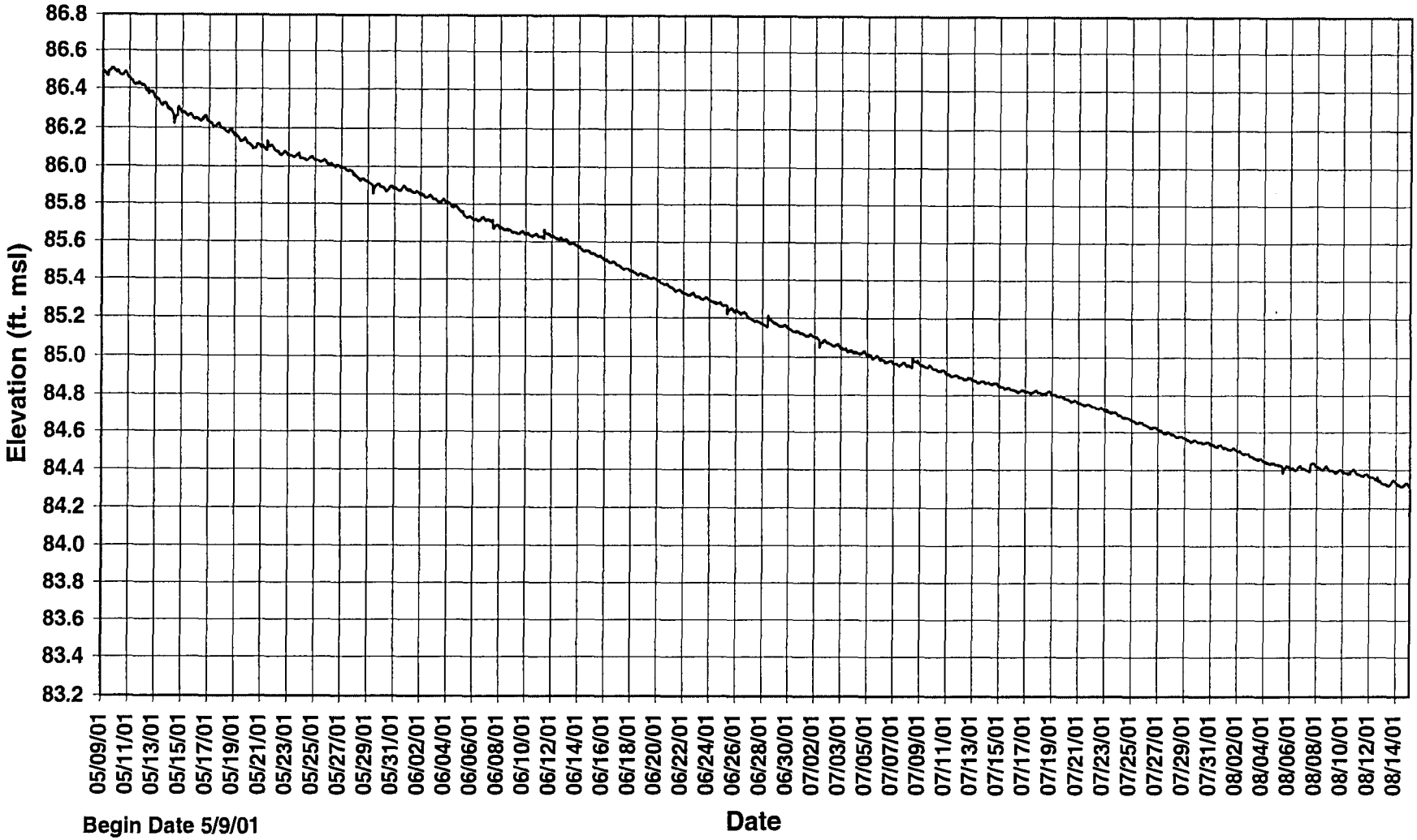
Sample[14] Number	Sample[15] Description/Type	Date/Time[16] Collected	Container[17] Type	Sample[18] Volume	Pre-[19] servative	Requested Testing[20] Program	Condition on[21] Receipt	Disposal[22] Record No.
~~CL1-MW06(8/01)~~	Not collected 8/13/01 RC		~~HDPE~~	~~2~~	~~None~~	~~EPA 7196A~~ RC	~~*USE for PO6/MSD~~	
NASA-SW-3		8/13/01, 1035	1L	1	None	EPA 7196A	FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	
							FOR LAB USE ONLY	

White: To accompany samples
Yellow: Field copy

*See back of form for special instructions.

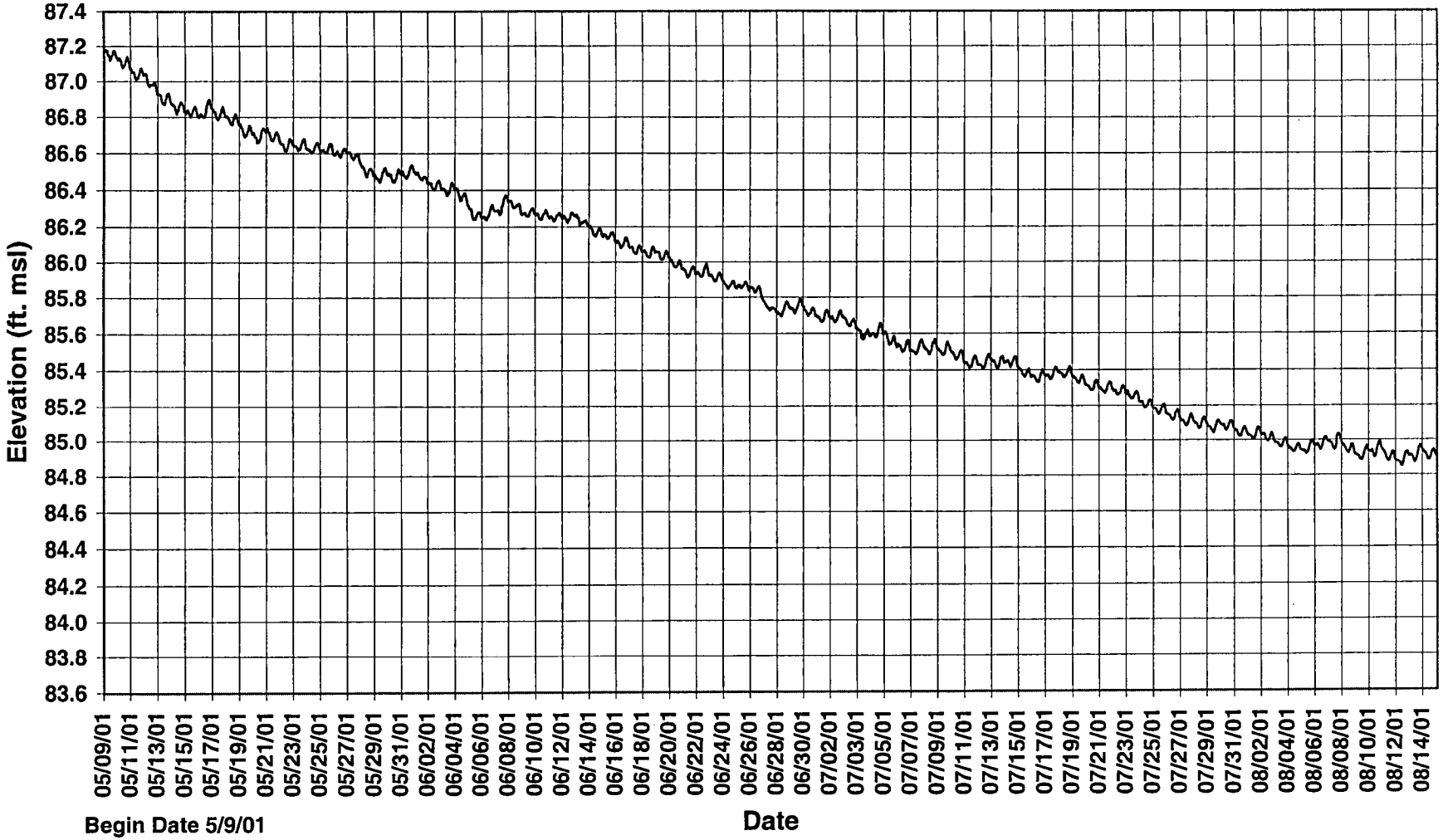
APPENDIX C
BASEWIDE WATER LEVEL MONITORING RESULTS

Fluctuation in Water Elevation at 109-MW-01 S



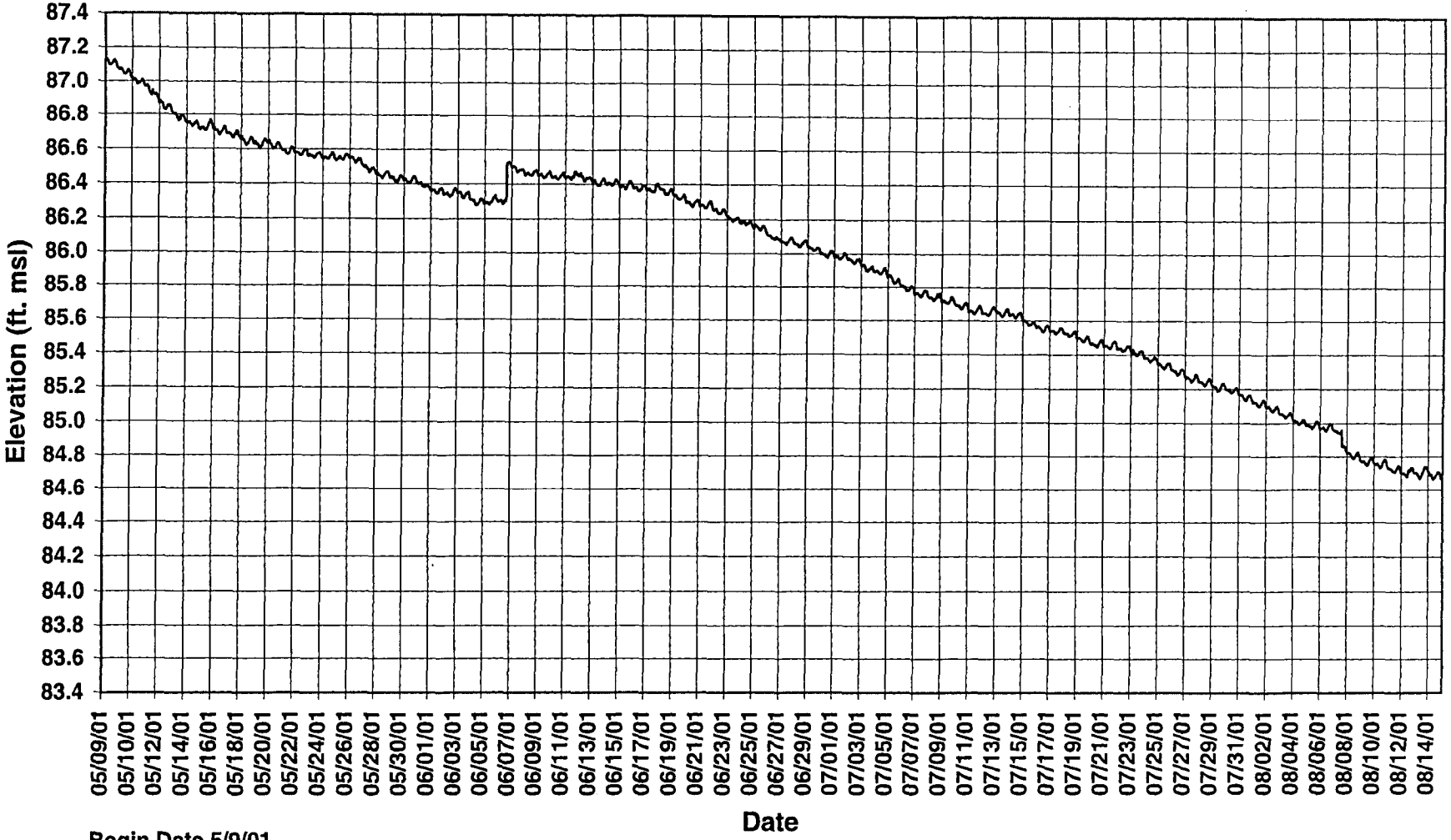
Begin Date 5/9/01
End Date 8/15/01

Fluctuation in Water Elevation at 117-MW-05 S



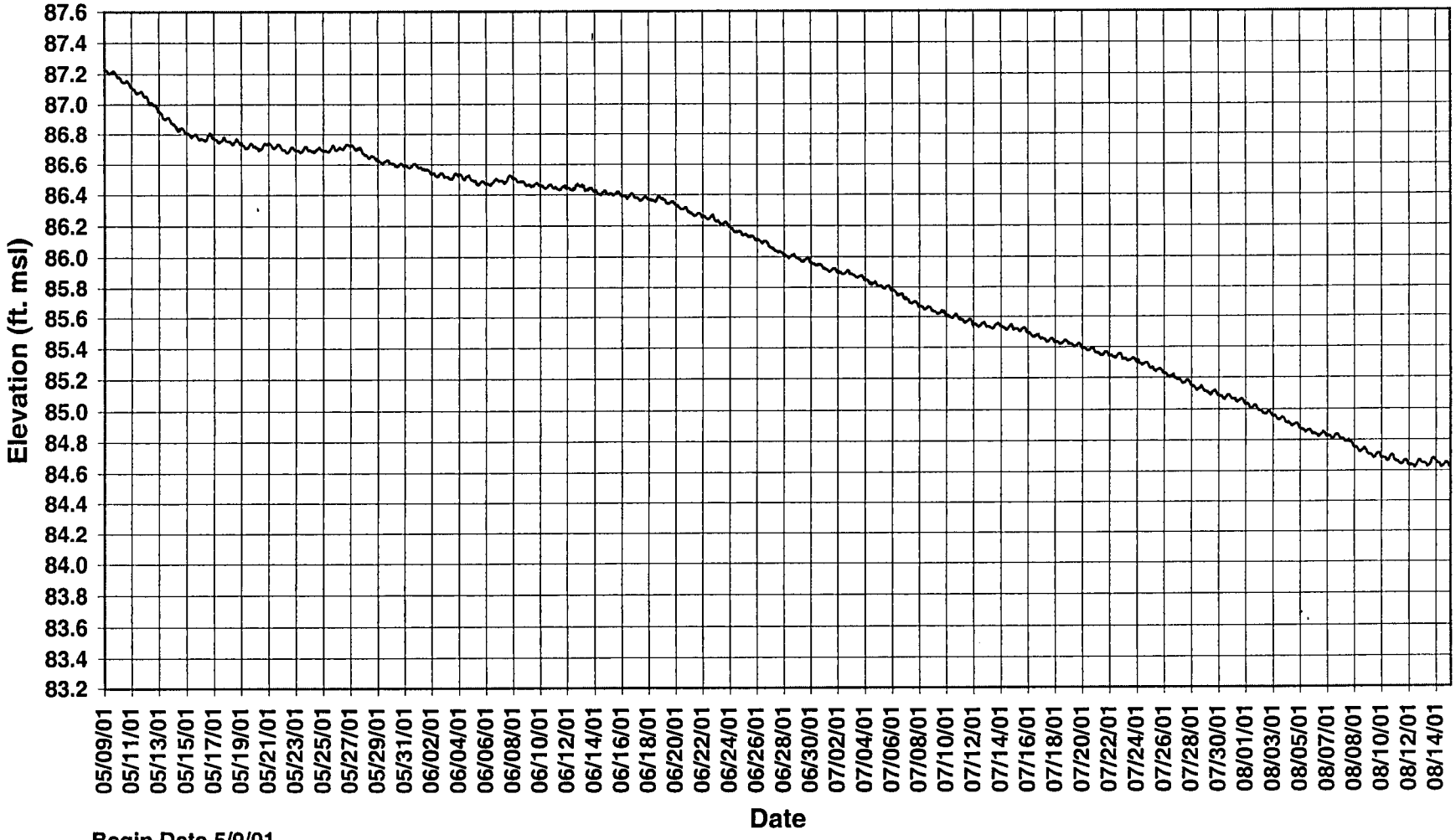
Begin Date 5/9/01
End Date 8/15/01

Fluctuation in Water Elevation at 11-MW-03 S



Begin Date 5/9/01
End Date 8/15/01

Fluctuation in Water Elevation at 11-MW-05 S

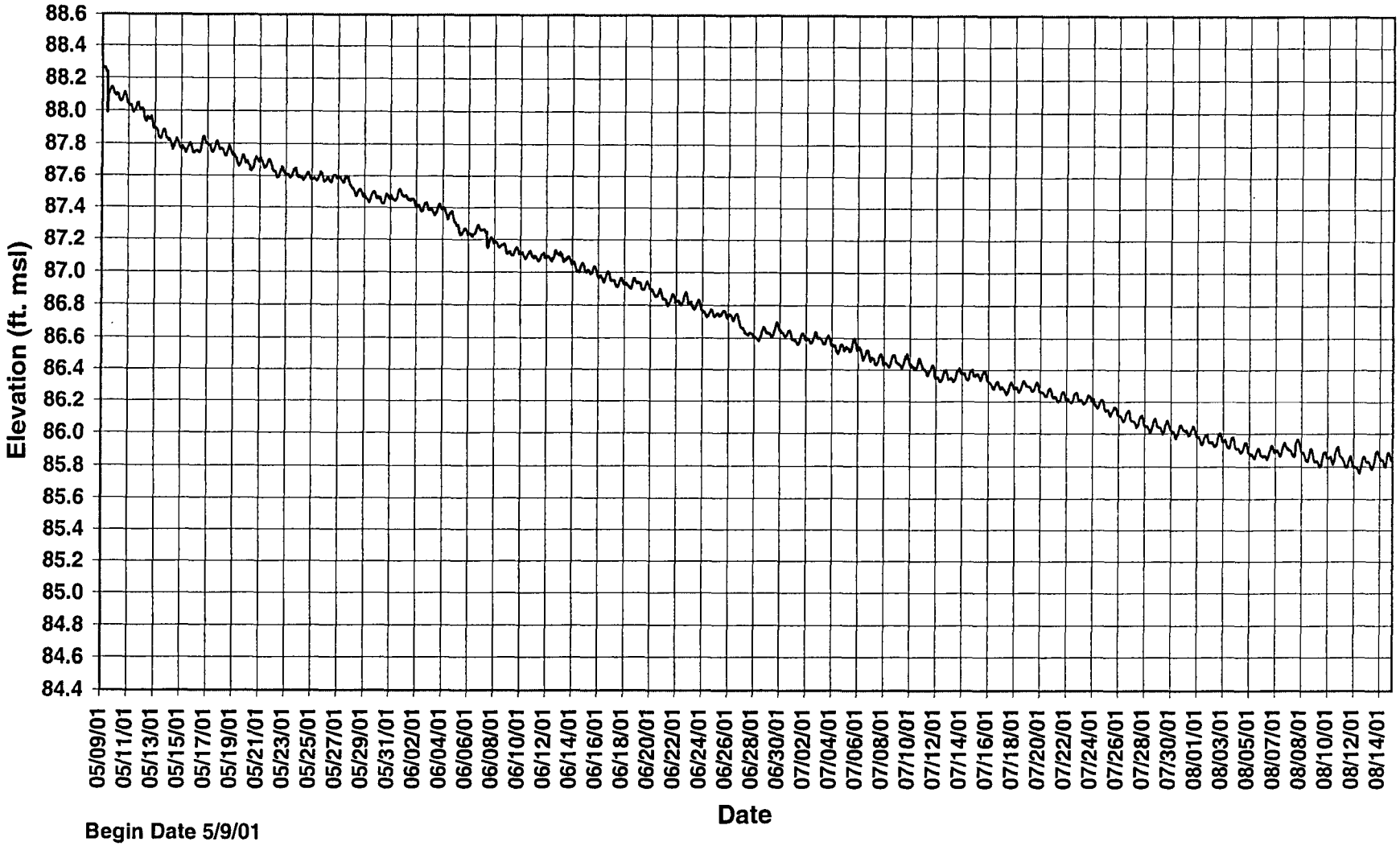


Begin Date 5/9/01
End Date 8/15/01

Fluctuation in Water Elevation at BG-MW-01 S

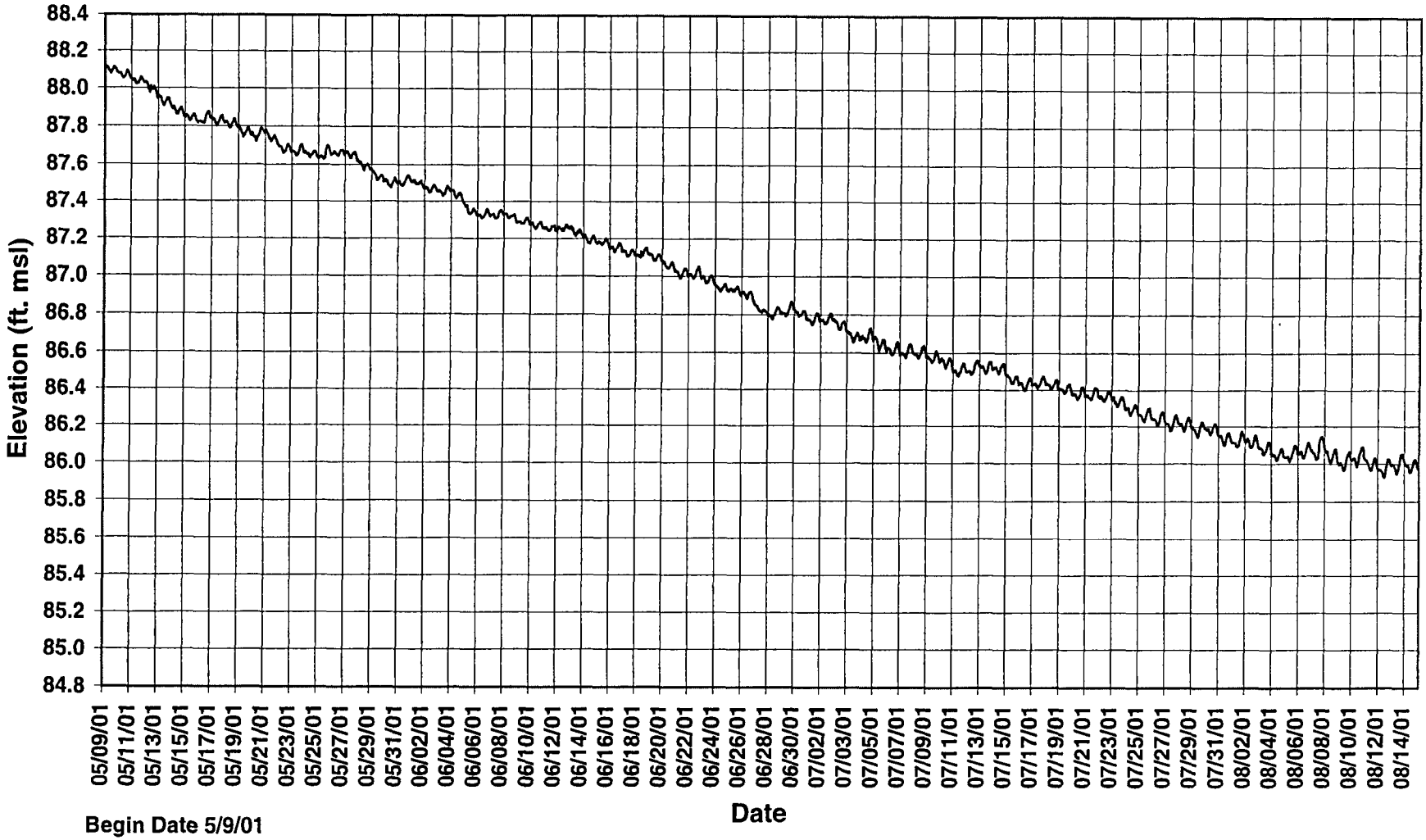
Begin Date 5/9/01
End Date 8/15/01

Fluctuation in Water Elevation at CL1-MW-09 S



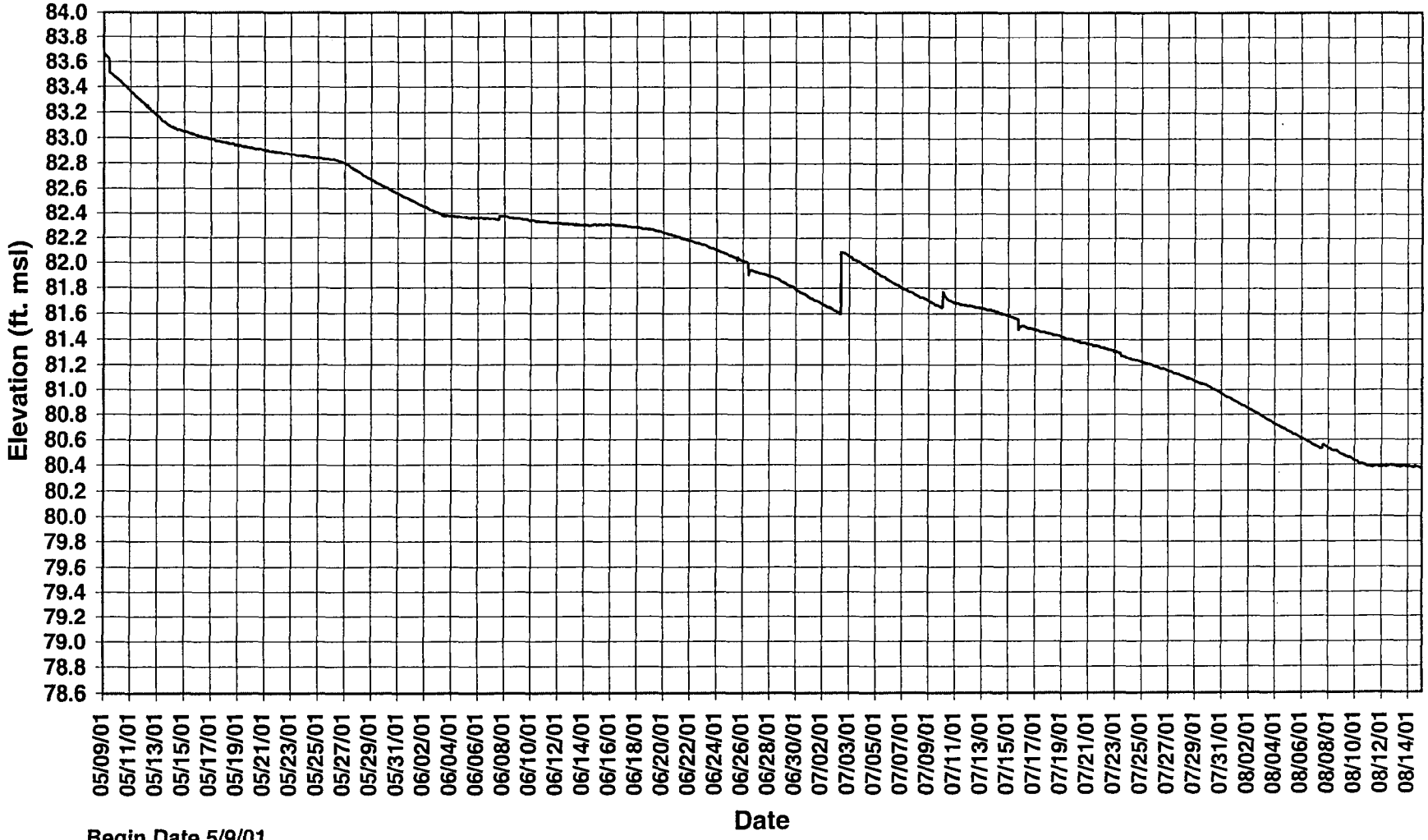
Begin Date 5/9/01
End Date 8/15/01

Fluctuation in Water Elevation at CL1-MW-10 S



Begin Date 5/9/01
End Date 8/15/01

Fluctuation in Water Elevation at CL2-MP-03 B



Begin Date 5/9/01
End Date 8/15/01