



Maricopa County Waste Management Department Cave Creek Landfill Groundwater Characterization Work Plan

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Solid Waste Management Department
Maricopa County, Arizona

August 26, 2005

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MARICOPA COUNTY CAVE CREEK LANDFILL GROUNDWATER CHARACTERIZATION WORK PLAN

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1.0 INTRODUCTION

1.1 SITE INFORMATION

The closed Cave Creek Municipal Solid Waste Landfill (CCL) is located at 3955 East Carefree Highway, in the City of Phoenix, in Maricopa County, Arizona. The property is located within the eastern half of Section 12 of Township 5 North Range 3 East of the Gila and Salt River Base and Meridian, Maricopa County, Arizona. The property is further identified as Parcel 211-27-006 (Parcel 006 in Map 27 of Book 211) according to the plat of record in the Office of the County Recorder of Maricopa County. The CCL is owned by the Maricopa County Solid Waste Management Department (MCSWMD) according to Deed No. 980784628 dated October 26, 1993. The legal description of the property is attached as Appendix A.

1.2 INVOLVED PARTIES

The MCSWMD has retained Bryan A Stirrat & Associates, Inc. (BAS) to characterize the groundwater regime under the CCL in compliance with a consent order between MCSWMD and the Arizona Department of Environmental Quality (ADEQ). BAS's contact information is as follows:

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1.3 LANDFILL HISTORY AND PERMITS

During the period of 1965 through 1984, Maricopa County operated a landfill on a 40-acre parcel owned by the U.S. Bureau of Land Management (BLM) and leased to Maricopa

County. This property is located northeast of the CCL. In 1982 Maricopa County leased a separate 40-acre parcel from the State of Arizona for the development of a new landfill. The parcel leased from the State of Arizona is south and slightly west of the BLM area. Solid waste continued to be disposed of at the old BLM site until 1984 when Maricopa County closed the landfill on the BLM site and returned the property to BLM. Beginning in 1984 Maricopa County operated the landfill on the property leased from the State of Arizona. Due to expanding development of incorporated towns in the late eighties and early nineties, tonnage increased to an average of 500 tons per day. Occasionally, daily tonnage may have reached as much as 750 tons per day.

In the latter part of 1990, Maricopa County expanded the landfill with an additional two hundred-foot buffer. The buffer was added around most of this 40-acre landfill except on the east-side boundary line where the landfill was adjacent to private land. The County purchased the land totaling 74.71 acres in the 1990/1991 Fiscal Year.

The CCL was permitted to accept residential and commercial municipal solid waste (MSW). Other acceptable solid wastes included: appliances, barnyard and stable waste, demolition material, non-infectious medical waste, domestic animals (small pets), occasional horses or cows considered pets, green waste, foods, and inert materials.

The CCL's service area included small cities and towns and rural areas such as New River, Carefree and Cave Creek. The service area also included the northern portions of the City of Phoenix and the City of Scottsdale. The site was annexed into the City of Phoenix in 1992. The surrounding area is primarily Sonoran Desert; however, encroachment from developers within one-half to three quarters of a mile is presently occurring. In addition, directly on the east side of the property, a developer has built single-family housing and a golf course.

The landfill stopped accepting waste in 1998 and a small residential transfer station was constructed on the site. The transfer station has capacity to accommodate four (4) 40-cubic yard roll off containers and is classified as a small volume rural transfer station.

Current solid waste activities at this site include: collection of municipal solid waste and inert materials, battery and tire recycling, and temporary storage of unacceptable wastes removed by the site attendant.

The inactive CCL has a Facility Plan Permit # 07034600 dated January 24, 1995. Maricopa County received a Type III Substantial Change Approval #07034600.01 dated May 17, 2000 for the installation of an alternative final cover system. The CCL also has an air pollution control permit #980398 dated November 8, 2001.

1.4 PROJECT BACKGROUND

In October 1982, a groundwater production well was installed near the southwest corner of the old BLM landfill to supply water for fire and dust control (see Figure 1). This production well continued supplying water during construction and operation of the new landfill after 1984. The County has been collecting groundwater samples from the Production Well (PW) since 1985.

In 1993, the County installed two additional groundwater monitoring wells, MW-1 and MW-2, at the locations shown in Figure 1. These two wells were incorporated into the site's groundwater monitoring program. Table 1 presents a summary of the sampling dates and the trichloroethene (TCE) concentrations detected at each of the three wells present at the site. As Table 1 illustrates, beginning in December 1997, TCE concentrations above the Aquifer Water Quality Standard (AWQS) of 5.0 micrograms per liter (ug/L) were detected in one or more of the groundwater wells present at the site.

Table 1 also illustrates that since at least January 2000, no groundwater samples could be collected from well MW-1 due to the continuing drop in groundwater elevations. Similarly, in June 2002 the water level in well MW-2 dropped below the pump intake, and groundwater samples had to be collected using a bailer.

On August 15, 1999, MCSWMD entered into a Consent Order with ADEQ requiring MCSWMD to characterize the nature and source of groundwater contamination. In 1999, MCSWMD contracted Dames & Moore to perform soil gas and landfill gas sampling at the site. Two landfill gas samples collected from the gas collection system operating at the CCL contained small TCE concentrations of 510 and 440 parts per billion by volume (ppbv), which are consistent with typical concentrations found at municipal solid waste landfills. Dames & Moore also collected seven soil gas samples along the northern perimeter of the Cave Creek Landfill and along the southwestern edge of the old BLM landfill. Only one of these samples, located at the southwestern corner of the BLM landfill, contained TCE at a low concentration of 26 ppbv. Dames & Moore concluded in a report issued to ADEQ that, since TCE had been detected in the Production Well prior to the operation of the new CCL, the most likely source of TCE contamination was located within the old 40-acre landfill owned by the BLM.

In October 1999, ADEQ responded that the soil gas and landfill gas sampling had not adequately demonstrated that the increase in TCE groundwater concentrations was not the result of a source other than the CCL. In January 2000, Dames & Moore prepared and submitted to ADEQ a scope of work proposing to install a deep multi-port soil gas monitoring well just south of the old BLM landfill. However, ADEQ did not approve the scope of work indicating that sampling of the deep soil gas would not eliminate the new CCL as a source of the groundwater contamination. Except for groundwater sampling, no additional investigations were performed at the site from 2000 to mid 2004.

In the Fall of 2004, SCS Engineers, under contract with the County, performed additional soil gas and landfill gas sampling from both the old BLM landfill and the CCL. This work satisfied the Phase Two section of the scope of work by Dames & Moore entitled *Letter Proposal; Cave Creek Landfill VOC Evaluation* submitted to the Arizona Department of Environmental Quality on January 11, 1999. The SCS Engineers investigation included the following:

- Installation and sampling of deep soil vapor probes in the Old Cave Creek Landfill;

- Installation and sampling of deep soil vapor probes in the New Cave Creek Landfill; and
- Soil vapor sampling of existing perimeter monitoring probes at the New Cave Creek Landfill.

SCS Engineers produced a final version of the soil vapor investigation titled "Soil Vapor Assessment Report, Cave Creek Landfill" dated July 8, 2005. This report concluded that:

"Based on this information, it does not appear that landfill leachate is the source of impacts to groundwater beneath the site. However, landfill gas, which typically contains trace amounts of VOCs, could be the source of groundwater impacts. Vapors can migrate away from a landfill by diffusion and pressure gradient flow. These dispersal mechanisms can allow LFG to impact groundwater upgradient and crossgradient from a landfill, as well as downgradient. Contaminants in LFG may be transferred to a liquid phase and then be transported by infiltration across the capillary fringe to groundwater."

During the period of December 1-3, 2004, BAS, under contract with MCSWMD, had Yellow Jacket Drilling (YJD) and Welenco perform geophysical surveys of the three existing wells at the Cave Creek Landfill. Welenco performed a video survey of all three wells, a gyroscope survey of well MW-2 and a cement-bond log of the Production Well.

The video surveys indicated that all three wells consist of welded steel casing sections. In well MW-1, the video camera encountered what appeared to be a 1-inch diameter HDPE sounding tube with metal couplers at a depth of 121 feet below grade surface (bgs). In well MW-2, perforations (mostly plugged) started at a depth of 620 feet bgs, the static water level was encountered at 676 feet bgs, and the well contained sediments at 684 feet bgs. In the Production Well, the static water level was observed at 696 feet bgs, the top of screen began at 762 feet bgs (perforations approximately 40% plugged) and the bottom of the well was 823 feet bgs. The cement-bond log of the Production Well indicated that only the upper 20 feet of the well is grouted with concrete, the remaining annular space contains cuttings and/or gravel. The gyroscope survey of MW-2 indicated a total drift of approximately 3.7 feet (0.54%).

On January 20, 2005, YJD perforated the existing steel casing for the Production Well from 760 feet to 680 feet below top of casing (btoc). The perforations consisted of 1.5-inch long by 0.2-inch wide vertical slots, each separated by 2 inches. The interval 760-740 feet contained one foot of perforations followed by one foot of blank. The perforations consisted of 4 perforations per row, aligned approximately north, east, south and west, and approximately 3 rows per foot. This perforation pattern proved to be very time-consuming and the remaining perforated segment, from 740-680 feet, was modified to contain continuous perforations aligned in 3 columns spaced approximately 120 degrees.

During the period of January 21 through February 1, 2005, YJD deepened existing monitoring well MW-2 to a depth of 805 feet bgs. A new 5-inch diameter low-carbon steel (LCS) screen casing (0.125 inch/slots) was installed, using a reverse-thread coupling, from 685 feet bgs to 805 feet bgs. The bottom of the new screen was capped with a steel plate, and the 20-foot long LCS casing segments joints were welded.

On February 1, 2005, YJD used a Smeal development rig to begin bailing out drilling mud from well MW-2. The drill rig was moved and setup over well MW-1 to attempt to fish-out the 1-inch diameter HDPE sounding tube. However, several large rocks had been dropped inside the well casing for MW-1, effectively blocking the well. During February 2 and 3, 2005, YJD drilled through the rocks and drilled out the HDPE sounding tube.

During the period of February 4 through 8, 2005, YJD deepened monitoring well MW-1 to a total depth of 820 feet btoc. A new 5-inch diameter LCS screen casing (0.125 inch/slots) was installed, using a reverse-thread coupling, from 700 feet btoc to 820 feet btoc. The bottom of the new screen was capped with a steel plate, and the 20-foot long LCS casing segments joints were welded.

On March 1, 2005, after YJD had removed as much mud as practical from wells MW-1 and MW-2, YJD installed a new 4-inch diameter 3 horsepower (Hp) pump and a ¾-inch diameter schedule 40 PVC flush-thread sounding tube in well MW-2. Groundwater was measured at a depth of 677.66 feet btoc. The bottom of the pump was set at a depth of

703.66 feet btoc. The pump was turned on and the well was purged at a rate of approximately 8 gallons per minute (gpm). The pump was run for about 45 minutes, purging approximately 360 gallons of groundwater until the water appeared clear and free of fines.

On March 2, 2005, a new 4-inch diameter 3 HP pump and 3/4-inch diameter PVC sounding tube were installed in well MW-1. Groundwater was measured at a depth of 716.9 feet btoc. The bottom of the pump was set at a depth of 740 feet btoc. The pump was turned on and purged the well at a rate of approximately 5 gpm. The pump was run for about 40 minutes, purging approximately 200 gallons until the water appeared clear and free of fines. Table 2 provides a summary of each well's construction details. Well construction logs for each of the three existing wells are included in Appendix B.

On March 9, 2005, BAS and MCSWMD personnel performed groundwater sampling and monitoring of all three wells at the CCL.

Table 3 summarizes the depth to water measured at each well, the corresponding groundwater elevation, the interpreted direction of groundwater flow and gradient obtained during the groundwater monitoring events conducted in March, April, June, July and August 2005.

1.5 ADJACENT LAND USES

There is undeveloped desert to the north, west and south of the CCL. A golf course is located directly east and adjacent to the CCL. There is residential development further east and southeast of the CCL (See Figure 2). Carefree Highway is located approximately 1/2 mile north. North Black Mountain Parkway is located southeast and adjacent to the CCL (See Figure 1).

2.0 HYDROGEOLOGIC FRAMEWORK

2.1 SUBSURFACE GEOLOGY

The CCL is located in the East Salt River Valley sub-basin of the Phoenix Active Management Area (Reeter and Remick, 1986). The following discussion of the geology in the vicinity of the CCL was derived from available published literature, the USGS, and the U.S. Bureau of Reclamation. Stratigraphic units in the area of the CCL consist of a thick sequence of alluvial and lacustrine valley deposits which have been subdivided by the U.S. Bureau of Reclamation (1976) into the lower conglomerate unit (LCU), the middle fine grained unit (MFU), and the upper alluvial unit (UAU). Although groundwater is produced from all three units in this area, the report principally addresses the upper portion of the UAU, the unit most likely to be impacted by the CCL.

In the vicinity of the CCL, the regional groundwater table occurs at a depth greater than 600 feet. Therefore the unsaturated thickness (vadose zone) of the UAU beneath this site is significant. Water migrating vertically downward through the vadose zone is strongly influenced (physically and chemically) by the unsaturated UAU formation. In general, water will migrate more slowly through unsaturated alluvium than saturated aquifer and will chemically react with the formation matrix.

The water bearing formation of the UAU consists of unconsolidated and semi-consolidated alluvial deposits. Reeter and Remick (1986) suggest that although groundwater in the UAU is usually unconfined, confined and perched conditions can exist locally. No perched aquifers have been identified in the vicinity of the CCL. The thickness of the alluvial formations in the Paradise Valley area are estimated to be 1,100 feet for the UAU, 2,000 feet for the MFU and 2,000 feet for the LCU (Bureau of Reclamation, 1976). The UAU was described by the Bureau of Reclamation (1976) as follows:

"The UAU is comprised of unconsolidated, relatively fresh to slightly weathered detritus of all igneous and metamorphic rock types. It also includes reworked older alluvial materials. Much of the material along the axial portion of many of the basins is primarily fine-grained, with the coarser material occurring as near-surface deposits."

Two groundwater monitoring wells were installed at the CCL in May 1993, CCMW-1 and CCMW-2. CCMW-1 and CCMW-2 were drilled to 740 and 720 feet, respectively. The alluvium drilled during the installation of the wells included coarse gravel with numerous boulders and cobbles. The grain size fraction less than 200 mesh was less than 10 percent in both wells. No significant silt or clay horizons were encountered during the installation of these wells.

2.2 SURFACE WATER

Cave Creek Wash, located approximately 400 feet northwest of the site, is the only surface water of the United States located within a one-mile radius of the CCL.

2.3 GROUNDWATER

According to Dames & Moore, the local groundwater flow direction prior to 1993 was interpreted to be towards the south-southwest, but after 1993 the groundwater flow direction shifted to the southeast. As shown in Table 3, groundwater beneath the landfill is encountered at depths ranging from 691 to 717 feet below grade, and the groundwater flow direction fluctuates from southeast (S52E) to southwest (S32W).

The observed groundwater flow direction fluctuations may be due to seasonal recharge effects from the above-normal precipitation received during the winter of 2004 and/or the effect of nearby groundwater extraction operations. The City of Phoenix has several groundwater extraction wells along Cave Creek Road, located approximately 1-mile east and southeast from the landfill. A list of all the wells registered with the Arizona

Department of Water Resources (ADWR) located within a 2-mile radius from the landfill is provided in Appendix C. Subsequent correspondence with the City of Phoenix revealed that Well 278 was inside the two mile radius but has not been used since the early 1990's. Wells 279, 280 and 281 are inside the two-mile radius. Only wells 280 and 281 are used on a regular basis for the drinking water supply. Appendix D contains correspondence with the City of Phoenix Water Department.

Additional groundwater level monitoring will be required to determine the typical groundwater flow direction beneath the site.

2.4 CONTAMINATION

As previously mentioned, TCE is the main contaminant of concern detected in the groundwater beneath the site. Other VOCs have been detected including 1,1-dichloroethylene, tetrachloroethene and toluene, but at very low concentrations and never above their respective AWQs.

Table 1 presents the historical and the most current TCE concentrations detected at the three existing wells at the site. Historically, the production well has contained TCE concentrations ranging from non-detect to 31 ug/L, well MW-1 TCE concentrations ranging from non-detect to 15 ug/L, and well MW-2 TCE concentrations ranging from non-detect to 34.0 ug/L.

Currently, during 2005, the production well has been found to contain low concentrations of TCE, below the 5.0 ug/L AWQS; well MW-1 also contains low concentrations of TCE ranging from 5.2 to 7.4 ug/L, slightly above the AWQS; and well MW-2 contains no detectable concentrations of TCE. Appendix E contains the most current groundwater monitoring results. Samples collected on July 13, 2005 have TCE levels of 2.6 ug/L in the Production Well and 9.9 ug/L in MW-1.

The irregular and erratic concentration trends of TCE observed in all three wells appear to indicate that groundwater contamination is most likely produced by TCE contained in the landfill gas generated within the CCL and/or the old BLM landfill. BAS believes that the internal positive pressure of the landfill gas generated within the landfill(s) provides the driving force to transport TCE to the groundwater table.

2.5 CONTAMINATE PATHWAYS AND RECEPTORS

Based on the SCS Engineers soil vapor investigation the primary contaminate pathway appears to be vapor phase transport vertically downward from the base of the landfill to the groundwater. Although recent groundwater flow directions have varied from South 32° West to South 78° East, the majority of the groundwater flow direction appears to be southeast or southwest. Receptors to the southeast of the CCL could include City of Phoenix groundwater production wells.

Appendix D contains analytical data for the two active City of Phoenix Wells 280 and 281. TCE has not been detected in either well.

3.0 CHARACTERIZATION PLAN

3.1 DETERMINATION OF GROUNDWATER FLOW DIRECTION

In order to determine the extent of groundwater contamination derived from the CCL, BAS will drill and install one additional groundwater monitoring well located downgradient from the site, if necessary. This new well, MW-3, will be incorporated into the existing groundwater monitoring program being implemented by MCSWMD. However, the true groundwater flow direction beneath the site must be determined prior to selecting the downgradient location of the new well. BAS proposes that weekly groundwater elevation monitoring be conducted at the three existing wells during the months of July, August and September 2005. Those data and levels obtained during the Spring of 2005 will provide a sufficiently large database to determine the average groundwater flow direction beneath the site and to select the location of the new well.

3.2 WELL DRILLING AND INSTALLATION

Once the location of the new well is selected and access to the property is granted, BAS will drill and install a 6-inch diameter LCS well to a depth of 800 feet bgs. The new well will be drilled using a mud-rotary drill rig. It is anticipated that the new well will have a 100-foot long 0.125 inch/slot screen section installed from 800 to 700 feet bgs. The filter pack material will consist of No. 10 Tacna Gravel from 800 to 690 feet bgs. Prior to placement of the transition seal, the filter pack will be surged to promote settlement of the gravel. Additional pack material will be added as needed. A 5-foot thick bentonite transition seal will be placed from 690 to 685 feet bgs, followed by cement-bentonite grout to the surface installed by tremie. The well will be installed within a 14-inch diameter LCS conductor casing installed to a depth of 20 feet bgs. The well will be completed with a flush-mounted steel surface cover. Drill cuttings generated during drilling will be contained in 20-cubic yard roll-off bins.

BAS will direct the driller to develop the new well, after a minimum period of 48 hours to allow proper curing of the transition seal and annular grout, using their well development rig. Initially, the well screen interval will be surged using a surge block at approximately 5-foot intervals beginning at the bottom of the screen. Surging will be conducted for approximately 5 minutes per interval. Following surging, the entire saturated interval of the screened section will be purged using an electrical submersible pump and/or bailer until water appears clear and free of suspended sediments. During purging, the turbidity, temperature, pH and electrical conductivity of the purged groundwater will be measured at regular intervals. Purging will continue until these parameters stabilize and until turbidity readings measure less than 5 nephelometric turbidity units (NTUs).

Following completion of well MW-3, BAS will measure the depth of static groundwater in the well and direct the driller to purge and sample the new well using their pumping rig. A minimum of three well-casing volumes will be purged from the well prior to sampling. Approximately 200 gallons of groundwater will be purged from the new well and stored in a 500-gallon polyethylene tank for disposal. A total of five water samples (2 primary groundwater samples, one field duplicate sample, one trip blank sample, and one equipment blank sample) will be submitted to an Arizona certified laboratory for VOC analyses using EPA Method 8260B.

The groundwater monitoring program will be expanded to include MW-3. Groundwater samples will be collected from all four of the site wells in December, 2005 and January and February, 2006. Groundwater data will be analyzed to develop a model depicting the extent of groundwater contamination. A report detailing groundwater characterization will be completed and submitted to ADEQ within 90 days of completion of field activities.

The most current status report for the Cave Creek Landfill dated August 9, 2005 is attached as Appendix F.

4.0 SCHEDULE (see Note #1)

Task 1 - Weekly groundwater elevation monitoring will be conducted at the three existing wells during the months of July, August and September 2005.

Task 2 - VOC sampling monthly during the months of June, July, August and September 2005.

Task 3 - Determine the location of the additional groundwater monitoring well, if necessary. This determination would be based on the results of Task 1. The need for the additional monitoring well would be based on Task 2. Submit Well Installation Plan to ADEQ in September 2005.

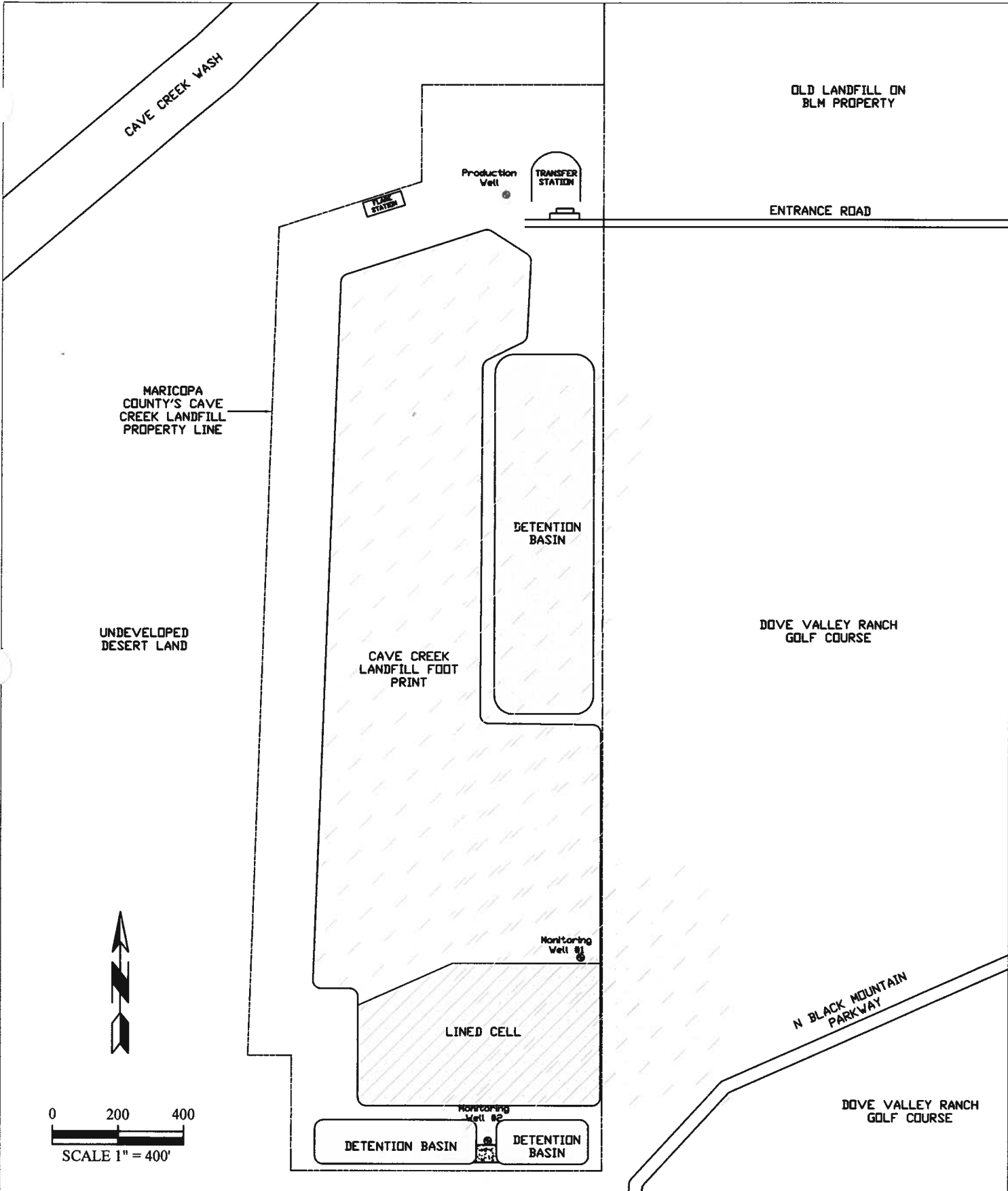
Task 4 - Install the additional groundwater monitoring well during October and November, 2005, if necessary. (see Note #2)

Task 5 - Conduct monitoring to complete the groundwater characterization in December, 2005 and January and February, 2006.

Task 6 - Prepare groundwater characterization report in March 2006.

Notes: #1 - Schedule contingent upon ADEQ's timely approval of the Groundwater Characterization Work Plan
#2 - Schedule contingent upon ADEQ approval of the Well Installation Plan within 30 days.

FIGURE 1



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FIGURE 1
 SITE MAP

JOB NO.	2004.0147
DATE	MARCH 2005
DRAWN BY	RB
FILE NAME:	sitemap.DWG

FIGURE 2

**CAVE CREEK LANDFILL
SURROUNDING LAND USE AND GROUNDWATER FLOW DIRECTION**



FIGURE 2

TABLE 1

TABLE 1
CAVE CREEK LANDFILL
SUMMARY OF TCE ANALYTICAL RESULTS

SAMPLE DATE	PRODUCTION WELL (ug/l) TCE	MW-1 (ug/l) TCE	MW-2 (ug/l) TCE
9/27/1985	9.8		
10/7/1985	9.8		
11/27/1985	<1.9		
12/6/1985	<1.0		
7/16/1986	<1.0		
8/4/1986	<1.0		
6/10/1987	<1.0		
10/23/1987	<0.5		
5/25/1988	<1.0		
3/21/1990	<1.0		
8/14/1991	<1.0		
11/20/1991	<1.0		
7/22/1992	<1.0		
7/31/1992	<1.0		
6/14/1993		<2.0	<2.0
6/22/1993		<0.5	<0.5
12/17/1997	<1.0	15	2.5
5/28/1998	8.9	11	2.5
7/28/1998	8.5		
11/17/1998	12		7
3/26/1999	17	<0.5	6.3
8/12/1999	22	2	34
8/30/1999	17	<0.5	6.3
1/19/2000	4.6		28
2/25/2000	4.3		<0.68
6/19/2000	9.1		
8/18/2000	9.6		11
9/22/2000	10		12
11/22/2000	10		12
12/6/2000	13		<0.47
1/19/2001	31		<0.47
1/22/2001	31		<0.47
3/7/2001	16		2.3
3/27/2001	16		2.3
4/12/2001	22		2.5
5/23/2001	6.7		<0.58
6/1/2001	13		<0.58
7/20/2001	7.9		1.7
10/2/2001	4.4		<0.58
11/27/2001	3.8		<0.58
1/28/2002	4.8		
2/1/2002	4.8		
3/1/2002	7		
3/22/2002	7		<0.18
4/1/2002	4.9		<0.18
4/30/2002	4.9		
6/1/2002	4.4		
6/3/2002	4.4		
8/1/2002	8.3		
8/7/2002	8.3		

**TABLE 1
CAVE CREEK LANDFILL
SUMMARY OF TCE ANALYTICAL RESULTS**

SAMPLE DATE	PRODUCTION WELL (ug/l) TCE	MW-1 (ug/l) TCE	MW-2 (ug/l) TCE
9/1/2002	8		
10/1/2002	8.6		
10/21/2002	9.1		
12/1/2002	16		
12/4/2002	16		
1/1/2003	15		
1/10/2003	15		
3/1/2003	18		<0.18
3/11/2003	18		
4/1/2003	17		
4/18/2003	17		
5/1/2003	21		
5/16/2003	21		
6/1/2003	18		
6/13/2003	18		
7/1/2003	18		
7/17/2003	18		
9/16/2003	16		
10/1/2003	20		
10/24/2003	20		
11/1/2003	21		
12/1/2003	22		
1/1/2004	22		
1/12/2004	22		
2/1/2004	23		
2/9/2004	23		
3/1/2004	25		
3/17/2004	25		
4/1/2004	27		
4/23/2004	27		
5/1/2004	25		
5/27/2004			<0.13
6/1/2004	26		
6/30/2004			<0.13
7/1/2004	26		
7/27/2004	24		<0.14
8/24/2004	30		<2
9/28/2004	23		<2
11/4/2004	24		<2
3/9/2005	3.4	5.2	<2
4/8/2005	1.4	7.1	<2
5/11/2005	3	7.4	<2
7/13/2005	2.6	9.9	<2

8/12/2005 7.8 10.6 <2

TABLE 2

TABLE 2
MARICOPA COUNTY CAVE CREEK LANDFILL
WELL CONSTRUCTION INFORMATION

WELL ID	TOC ELEVATION	DEPTH OF WELL		SCREEN INTERVAL		PUMP DEPTH	
		OLD	NEW	OLD	NEW	OLD	NEW
PW	1879.29	820	820	760-810	680-810	745	745
MW-1	1893.78	720	820	660-720	660-820	NA	740
MW-2	1854	690	805	630-690	630-805	NA	702

TABLE 3

**TABLE 3
MARICOPA COUNTY CAVE CREEK LANDFILL
GROUNDWATER MONITORING DATA**

MONITORING DATE	DEPTH TO GROUNDWATER		GROUNDWATER ELEVATION		FLOW DIRECTION	GRADIENT (feet/foot)		
	PW	MW-1	MW-2	PW			MW-1	MW-2
3/2/2005	695.1	716.9	677.66	1184.19	1176.88	1176.34	S52E	0.0045
3/9/2005	693.2	716.65	679.9	1186.09	1177.13	1174.1	S32W	0.0048
3/21/2005	692.3	713.8	675.3	1186.99	1179.98	1178.7	S22E	0.0031
4/8/2005	691.0	702.8	665.8	1188.29	1190.98	1188.2	S11E	0.01
6/1/2005	692.0	715.8	678.3	1187.29	1177.98	1175.7	S2W	0.004
6/14/2005	696.2	719	681.6	1183.09	1174.78	1172.4	S17W	0.0038
6/30/2005	697.2	719	680.5	1182.09	1174.78	1173.5	S25E	0.0033
7/7/2005	697.4	719.1	680.7	1181.89	1174.68	1173.3	S19E	0.0031
7/14/2005	698.5	719.1	680.77	1180.79	1174.68	1173.23	S11E	0.0026
7/21/2005	695.1	717.7	679.25	1184.18	1176.08	1174.75	S29E	0.0037
7/28/2005	695.7	717.08	678.71	1183.62	1176.7	1175.29	S14E	0.003
8/5/2005	691.0	714.25	675.1	1188.29	1179.53	1178.9	S78E	0.0045
8/12/2005	694.3	714.25	675.25	1185.04	1179.53	1178.75	S36E	0.0027
8/19/2005	693.5	715.91	678.58	1185.75	1177.87	1175.42	S26W	0.0039

APPENDIX A

[Previous](#) | [Next](#) | [New Search](#) | [Search List](#) | [Detail List](#) | [Printable](#)

988778425
988784629

(Issuance of following Patent recommended by Arizona State Land Commissioner to the Governor of Arizona on the
26th day of October 19 93 Commissioner)

State of Arizona



PATENT NO. 54-94260-01 to
LAND SOLD AT PUBLIC AUCTION
WITH FULL MINERAL RESERVATION
(1b)

For 031 Lands
(School, institutional or University)

TO ALL UNTO WHOM THESE PRESENTS SHALL COME, GREETING:

Whereas, in accordance with the provisions of law, payment in full has been received by the State of Arizona through its State Land Department for the real property hereinafter described,

NOW, KNOW YE, That the State of Arizona in consideration of the premises, and in conformity with law hereby does sell, grant and convey unto
Unofficial Document

MARICOPA COUNTY LANDFILL DEPARTMENT

Legal Description

of the County of Maricopa, State of Arizona, the following described real property sits in the County of Maricopa, State of Arizona, to-wit:

THAT PART OF THE EAST HALF OF THE SOUTHEAST QUARTER (E2SE4) AND THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER (SE4NE4) OF SECTION 12, TOWNSHIP 5 NORTH, RANGE 3 EAST, GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA MORE PRECISELY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF SAID SECTION 12; THENCE WEST ALONG THE SOUTH LINE OF SAID SECTION, A DISTANCE OF 950.00 FEET; THENCE, LEAVING SAID SOUTH LINE, NORTH, A DISTANCE OF 155.00 FEET; THENCE WEST, A DISTANCE OF 133.87 FEET; THENCE N1°59'10"E, A DISTANCE OF 2540.53 FEET; THENCE N72°00'00"E, A DISTANCE OF 468.04 FEET; THENCE NORTH, A DISTANCE OF 289.49 FEET; THENCE EAST, A DISTANCE OF 580.00 FEET TO THE EAST LINE OF SAID SECTION; THENCE SOUTH ALONG SAID EAST LINE, A DISTANCE OF 3135.00 FEET TO THE PLACE OF BEGINNING. CONTAINING 70.38 ACRES, MORE OR LESS.

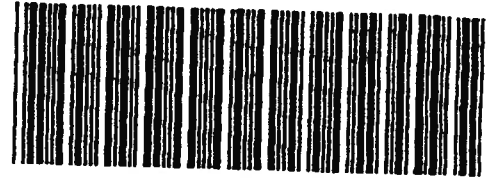
AND

THE NORTH 200.00 FEET OF THE EAST 950.00 FEET TO THE NORTHEAST QUARTER OF SECTION 13, TOWNSHIP 5 NORTH, RANGE 3 EAST, GILA AND SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA CONTAINING 4.36 ACRES, MORE OR LESS.

containing 74.71 acres, more or less, subject to existing reservations, easements, or rights-of-way heretofore legally obtained and now in full force and effect.

RECORDED AT THE REQUEST OF:
Maricopa County Board of Supervisors

WHEN RECORDED RETURN TO:
Maricopa County Solid Waste
Management Department



OFFICIAL RECORDS OF
MARICOPA COUNTY RECORDER
HELEN PURCELL

94-0696821 09/23/94 08:18

FRANK 2 OF 4

RESTRICTIVE COVENANT

Cave Creek Landfill

Maricopa County, the undersigned owner of the real property described on Exhibit "A" attached hereto and by this reference incorporated herein (the "Property"), hereby acknowledges that the Property has been and will be used as a solid waste landfill. Pursuant to A.R.S. 49-771, the County hereby covenants and agrees that its agents, employees, heirs, successors, lessees, executors, administrators or assigns, will not engage in filling, grading, excavating, drilling or mining the property during the operating life of the solid waste landfill, or after its closure, without the approval of the Director of the Arizona Department of Environmental Quality, or any successor official or agency as provided by law, unless provided for in the approved facility closure or post closure plan.

This agreement constitutes a mutual covenant running with the land and all successors in interest, heirs, lessees, executors, administrators or assigns shall be deemed parties to this agreement to the same effect as the original signers, and all subsequent deeds or other instruments conveying any title to the Property or any portion thereof shall be made expressly subject to this restrictive covenant; provided, however, that this agreement shall automatically terminate if A.R.S. 49-771 is revoked or revised in such a manner as to eliminate the restrictive covenant requirement.

IN WITNESS WHEREOF, each party to this agreement has caused it to be executed on the dates indicated below.

Dated this 10th day of August, 1994

ACCEPTED:
MARICOPA COUNTY BOARD OF SUPERVISORS

By *Betty Boylen*
Chairman of the Board

John E. Stufflebean
John E. Stufflebean, P.E.
Director

Date 8/10/94

ATTEST:
Janet Carroll
Clerk of the Board of Supervisors

(Arizona Department of Environmental Quality Acceptance on reverse side)

940696821

The foregoing restrictive covenant is accepted this 19th day of September, 1993.



Edward Z. Fox, Director
Arizona Department of Environmental Quality

STATE OF ARIZONA)
)ss.
COUNTY OF MARICOPA)

The foregoing instrument was acknowledged before me this 19th day of September, 1994
by Edward Z. Fox, Director, Arizona Department of Environmental Quality.

My Commission Expires April 19, 1996



Michelle Lewis
Notary Public (signature)

910291821

CAVE CREEK LANDFILL
LEGAL DESCRIPTION

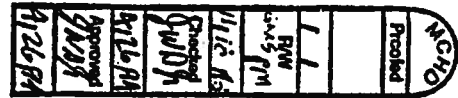
EXHIBIT "A"

A parcel of land lying within the East one-half of the Southeast one-quarter (E1/2 of SE1/4) and within the Southeast one-quarter of the Northeast one-quarter (SE1/4 of NE1/4) of Section Twelve (12), Township Five (5) North, Range Three (3) East of the Gila and Salt River Base and Meridian, Maricopa County, Arizona;

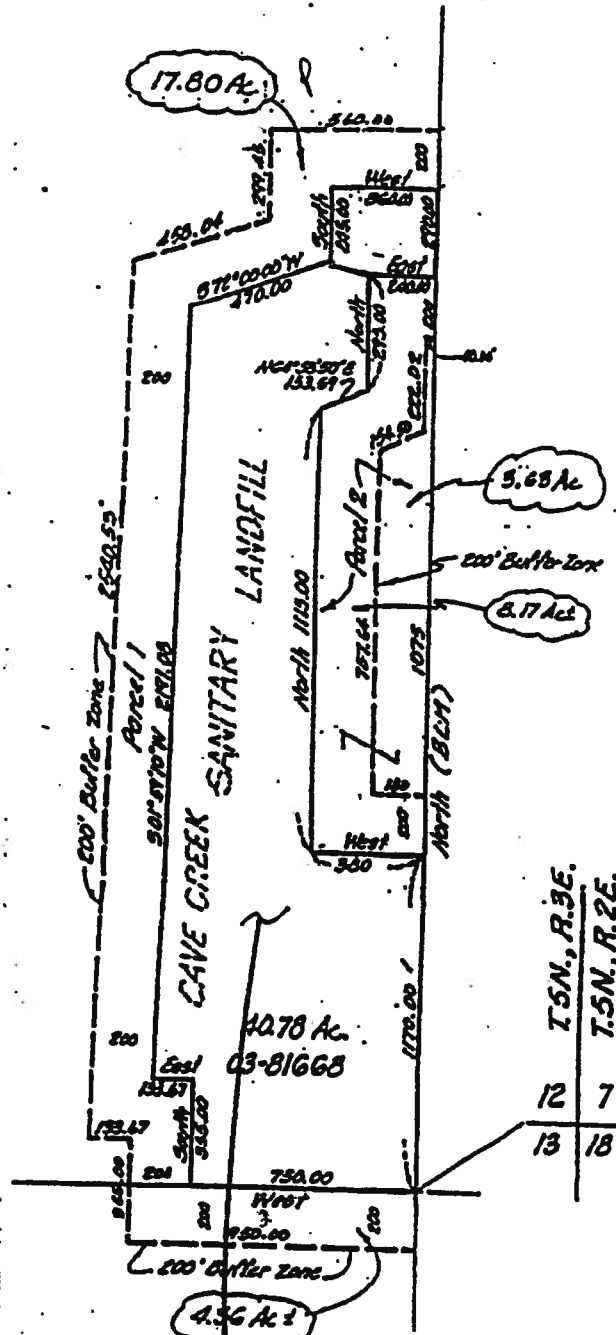
Said parcel is more particularly described as follows:

BEGINNING at the Southeast corner of said Section Twelve (12), THENCE Westerly along the South line of said Section a distance of 950.00 feet; THENCE leaving said South line, North a distance of 155.00 feet; THENCE West a distance of 133.67 feet; THENCE North 01°59'10" East a distance of 2540.00 feet; THENCE North 72°00'00" East a distance of 458.04 feet; THENCE North a distance of 299.45 feet; THENCE East a distance of 560.00 feet; THENCE Southerly along the East line of said Section, a distance of 3135.00 feet to the Southeast corner and the POINT OF BEGINNING.

Together with the North 200.00 feet of the East 950.00 feet of the Northeast one-quarter (NE1/4) of Section Thirteen (13), Township Five (5) North, Range Three (3) East of the Gila and Salt River Base and Meridian, Maricopa County, Arizona.



948696821



	15N., R.3E.	
	12	7
	13	18
	15N., R.2E.	

CAVE CREEK LANDFILL

DETAIL "A"

COUNTY OWNED
DEC. 1990
74.74 AC.

CAVE CREEK
3955 EAST CAREFREE HIGHWAY
PHOENIX, ARIZONA 85382

APPENDIX B

CURRENT TOP OF CASING (TOC)
ELEVATION 1879.29'

GROUND SURFACE

20 FEET BGS

680 FEET BGS

760 FEET BGS

810 FEET BGS

820 FEET BGS

EXISTING 10-INCH DIAMETER
STEEL CONDUCTOR

EXISTING CEMENT GROUT

EXISTING 6-INCH DIAMETER
STEEL CASING

NATIVE SOIL

EXISTING FILTER PACK

EXISTING BORING

NEW PERFORATIONS
(0.125" SLOTS)

DEPTH OF PUMP (745')

EXISTING 6-INCH DIAMETER
STEEL SCREEN (0.125" SLOTS)



(602) 267-0336

CAVE CREEK LANDFILL
3955 EAST CAREFREE HIGHWAY, PHOENIX, AZ

PRODUCTION WELL CONSTRUCTION LOG

BRYAN A. STIRRAT & ASSOCIATES
CIVIL AND ENVIRONMENTAL ENGINEERS
1422 NORTH 44TH STREET, SUITE 108, PHOENIX, AZ 85008

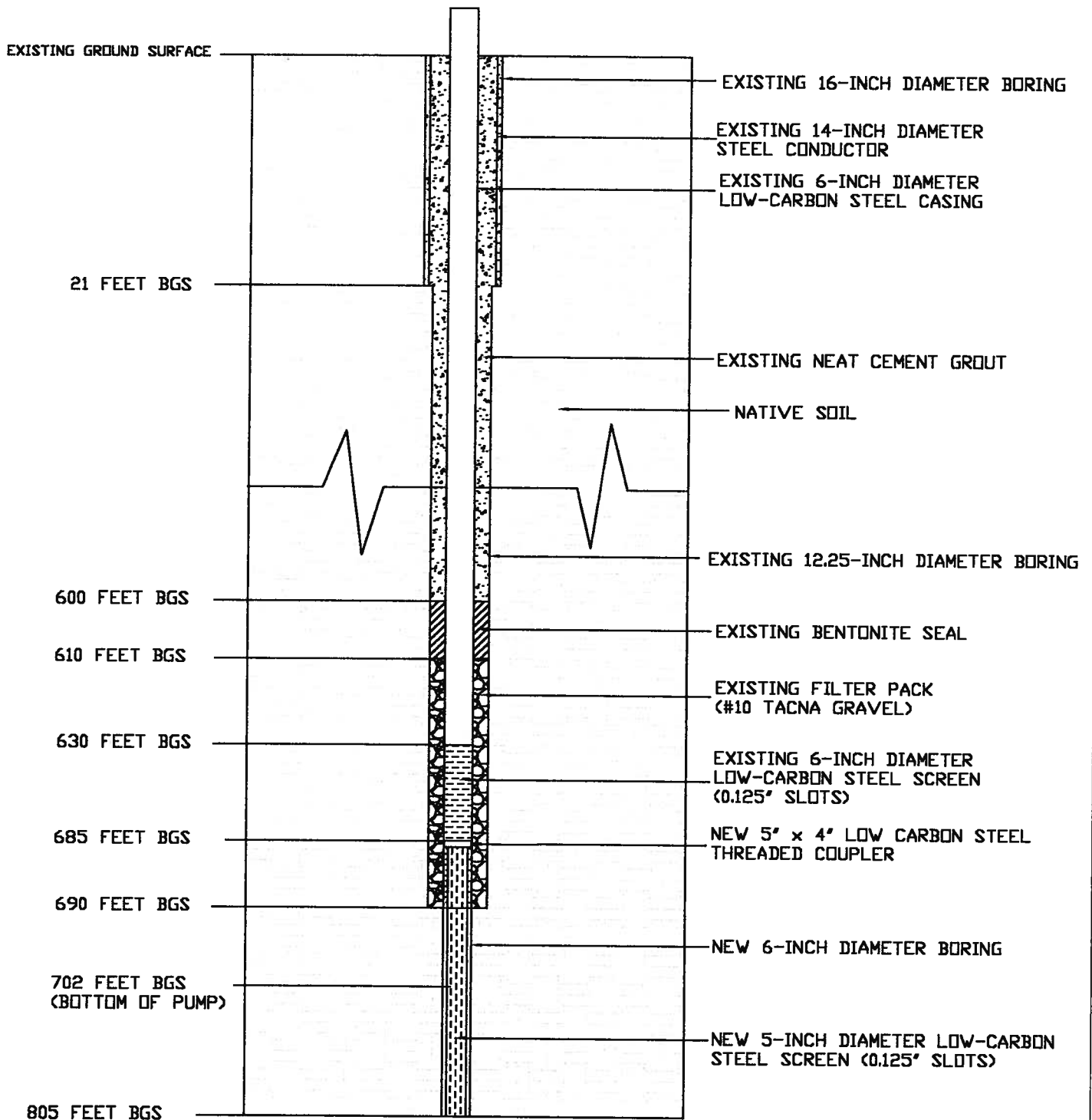
JOB NO.
2005.0004

DATE
JANUARY 2005

DRAWN BY
RB

FILE NAME:
PRODUCTIONWELLDDETAIL.DWG

CURRENT TOP OF CASING (TOC)
ELEVATION 1854.00'



(602) 267-0336

BRYAN A. STIRRAT & ASSOCIATES
CIVIL AND ENVIRONMENTAL ENGINEERS
1422 NORTH 44TH STREET, SUITE 108, PHOENIX, AZ 85008

CAVE CREEK LANDFILL
3955 EAST CAREFREE HIGHWAY, PHOENIX, AZ

WELL CONSTRUCTION LOG FOR THE DEEPENING OF
EXISTING MONITORING WELL CCMW-2

JOB NO.
2004.0155

DATE
FEBRUARY 2005

DRAWN BY
RB

FILE NAME:
ASBUILTCCMW-2DETAIL.DWG

CURRENT TOP OF CASING (TOC)
ELEVATION 1893.78'

CURRENT GROUND SURFACE

GRADE AFTER CLOSURE

ORIGINAL GROUND SURFACE

55 FEET BTDC

635 FEET BTDC

645 FEET BTDC

660 FEET BTDC

700 FEET BTDC

720 FEET BTDC

740 FEET BTDC
(BOTTOM OF PUMP)

820 FEET BTDC

FILL

COMPACTED FILL

EXISTING 16-INCH DIAMETER BORING

EXISTING 14-INCH DIAMETER
STEEL CONDUCTOR

EXISTING 6-INCH DIAMETER
LOW-CARBON STEEL CASING

EXISTING NEAT CEMENT GROUT

NATIVE SOIL

EXISTING 12.25-INCH DIAMETER BORING

EXISTING BENTONITE SEAL

EXISTING FILTER PACK
(#10 TACNA GRAVEL)

EXISTING 6-INCH DIAMETER
LOW-CARBON STEEL SCREEN
(0.125" SLOTS)

NEW 5' x 4' LOW CARBON STEEL
THREADED COUPLER

NEW 6-INCH DIAMETER BORING

NEW 5-INCH DIAMETER LOW-CARBON
STEEL SCREEN (0.125" SLOTS)



(602) 267-0336

BRYAN A. STIRRAT & ASSOCIATES
CIVIL AND ENVIRONMENTAL ENGINEERS
1422 NORTH 44TH STREET, SUITE 109, PHOENIX, AZ 85008

CAVE CREEK LANDFILL
3955 EAST CAREFREE HIGHWAY, PHOENIX, AZ

WELL CONSTRUCTION LOG FOR THE DEEPENING OF
EXISTING MONITORING WELL CCMW-1

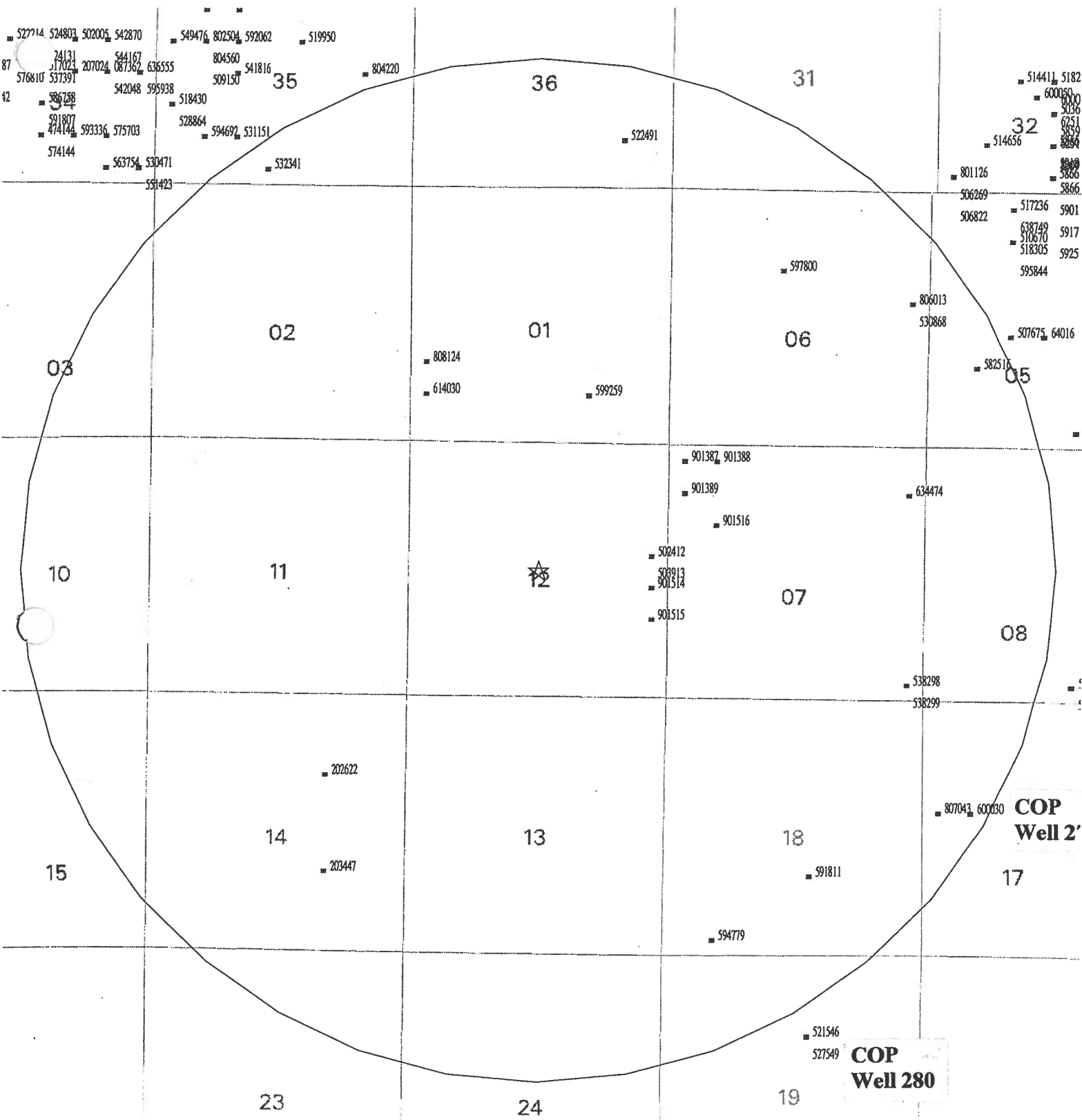
JOB NO.
2004.0155

DATE
FEBRUARY 2005

DRAWN BY
RB

FILE NAME:
ASBUILTCCMW-1DETAIL.DWG

APPENDIX C



Registered Wells within 10560 Feet of
Cadastral Location A05003012000

04/29/05

Scale 1:auto



**ARIZONA
DEPARTMENT
OF WATER
RESOURCES**

WellFinder

LEGAL	REG. NO	COMPLETION DATE	OWNER	WELL TYPE	WDEP	CAS DP	DIAM	WTR LVL	GPM	CRT	LOG	CXL
1 A(5-4)5 ADA	55-504093		KIEFER,E	EXEMPT	0	0	0	0	0			Y
2 A(5-4)5 BAB	55-517236		JOHNSON JOHNSON,	DOMESTIC STOCK EXEMPT	700	40	8	340	15	X	X	Y
3 A(5-4)5 BAB	55-518305	10.NOV.2004	NICK & LYNN SCHULZ	DOMESTIC STOCK EXEMPT	535	535	8	380	10	X	X	
4 A(5-4)5 BAB	55-518305	10.NOV.2004	CHILLEEN, EDOUARD,	DOMESTIC STOCK EXEMPT	535	535	8	380	10	X	X	
5 A(5-4)5 BAB	55-595844	04.JAN.2003	SCOTT & CHERYL HOWIE	DOMESTIC STOCK EXEMPT	280	280	4	87				X
6 A(5-4)5 BAB	55-638749		FLOWERS,J L	EXEMPT	462	462	8	400	12			
7 A(5-4)5 BAC	55-510670	08.JUL.2002	MERLE & DEBORAH KINGHAM	DOMESTIC STOCK EXEMPT	520	520	7	350	10	X	X	
8 A(5-4)5 BAC	55-510670	08.JUL.2002	KEHR, DONALD,R	DOMESTIC STOCK EXEMPT	520	520	7	350	10	X	X	
9 A(5-4)5 CAA	55-640160		HATCHER,N	NON-EXEMPT	875	0	10	0	0			
10 A(5-4)5 CAB	55-507675		JOHNSON JR,J	DOMESTIC STOCK EXEMPT	600	600	6	400	0	C	X	
11 A(5-4)5 CBD	55-582516	17.OCT.2000	WILLIAM GRIFFIN	EXEMPT	600	20	8					X
12 A(5-4)5 DCC	55-800785		FORMON,E M	EXEMPT	997	997	8	697	30			
13 A(5-4)6 ADD	55-530868		JOY RIDGE INC,	EXEMPT	800	800	6	700	15	X	X	
14 A(5-4)6 ADD	55-806013		JOY RIDGE INC,	EXEMPT	240	240	6	0	0			
15 A(5-4)6 BDA	55-597800	29.MAR.2004	RAY A & DEBBY BORZINI	EXEMPT							X	Y
16 A(5-4)7 AAD	55-634474	05.AUG.2000	LENN PRITCHARD FOR LIFE OF BOSTON INSURANCE	EXEMPT	980	0	6	627	0	A		Y
17 A(5-4)7 AAD	55-634474	05.AUG.2000	VERES,M	EXEMPT	980	0	6	627	0	A		Y
18 A(5-4)7 BBA	55-901388	09.DEC.2004	MARICOPA COUNTY	SOIL VAPOR EXTRACTION								
19 A(5-4)7 BBB	55-901387	09.DEC.2004	MARICOPA COUNTY	SOIL VAPOR EXTRACTION								
20 A(5-4)7 BBC	55-901389	09.DEC.2004	MARICOPA COUNTY	SOIL VAPOR EXTRACTION								
21 A(5-4)7 BCA	55-901516	11.JAN.2005	MARICOPA COUNTY	SOIL VAPOR EXTRACTION								
22 A(5-4)7 DDD	55-538298	13.DEC.2004	MARICOPA COUNTY SOLID WASTE MANAGEMENT DIV	MONITOR	705	705	14	630	0	N	X	
23 A(5-4)7 DDD	55-538299	13.DEC.2004	MARICOPA COUNTY SOLID WASTE MANAGEMENT DIV	MONITOR	690	690	12	627	0	N	X	

LEGAL	REG. NO	COMPLETION DATE	OWNER	WELL TYPE	W DEP	CAS DP	DIAM	WTR LVL	GPM	CRT	LOG	CXL
24 A(5-4)8 DBD	55-600029	29.MAR.2001	CITY OF PHOENIX WATER SERVICES DEPARTMENT	NON-EXEMPT	1100	1100	10	753	250	N	N	
25 A(5-4)8 DBD	55-600029	29.MAR.2001	PHOENIX, CITY OF,	NON-EXEMPT	1100	1100	10	753	250	N	N	
26 A(5-4)8 DCC	55-520631		CITY OF PHOENIX	SERVICE	0	0	0	0	0			Y
27 A(5-4)8 DCC	55-524559		CITY OF PHOENIX-BLANE WORK	SERVICE	1400	1400	13	776	0	X	X	
28 A(5-4)17 AAD	55-568548	04.SEP.1998	CITY OF PHOENIX	SERVICE								
29 A(5-4)17 AAD	55-589826	03.MAR.2003	CITY OF PHOENIX WATER SERVICES DEPARTMENT	SERVICE								Y
30 A(5-4)17 AAD	55-590505	10.MAR.2002	CITY OF PHOENIX	MINERAL EXPLORATION	1600			800			X	
31 A(5-4)17 BCC	55-807043		PHOENIX, CITY OF,	EXEMPT	592	0	8	0	0			Y
32 A(5-4)17 BCD	55-600030	29.MAR.2001	CITY OF PHOENIX WATER SERVICES	NON-EXEMPT	864	864	14	703	650	X	N	
33 A(5-4)17 BCD	55-600030	29.MAR.2001	PHOENIX, CITY OF,	NON-EXEMPT	864	864	14	703	650	X	N	
34 A(5-4)18 CCD	55-594779	21.OCT.2002	P K DEVELOPMENT	EXEMPT								Y
35 A(5-4)18 DBC	55-591811	05.SEP.2002	SANDRA WABS	EXEMPT								X
36 Count:	35											

LEGAL	REG. NO	COMPLETION DATE	OWNER	WELL TYPE	W DEP	CAS DP	DIAM	WTR LVL	GPM	CRT	LOG	CXL
1 A(5-3)1 CBC	55-808124	04.APR.2001	ARIZONA STATE LAND DEPARTMENT	EXEMPT						X		
2 A(5-3)1 CCB	55-614030	04.APR.2001	AZ STATE LAND DEPT.	EXEMPT	79	79	9	0	0	X		
3 A(5-3)1 DCA	55-599259	01.JUL.2003	WESTEND LAND INVESTORS	EXEMPT								Y
4 A(5-3)12 ADD	55-502412		MARICOPA COUNTY,	EXEMPT	820	820	10	760	15	X	X	Y
5 A(5-3)12 ADD	55-503913		AZ STATE LAND DEPT	EXEMPT	820	820	10	615	15	X	X	
6 A(5-3)12 DAA	55-901514	11.JAN.2005	MARICOPA COUNTY	SOIL VAPOR EXTRACTION								
7 A(5-3)12 DAD	55-901515	11.JAN.2005	MARICOPA COUNTY	SOIL VAPOR EXTRACTION								
8 A(5-3)14 ACA	55-202622	27.APR.2004	GEORGE HEILAND	EXEMPT		20	9				X	
9 A(5-3)14 DBD	55-203447	11.MAY.2004	MMK CAPITAL PARTNERS LLC	EXEMPT								
10 Count:	9											

APPENDIX D



From: "Keith Johnson" <KJohnson@bas.com>

To: RNeill@mail.maricopa.gov

Date: 07/20/2005 10:11 AM

Subject: Fwd: Request for Information

I will be on vacation until August 1st, but I thought you would want to review this information before I got back. Best Regards, Keith.

Bryan A. Stirrat & Associates
 Keith A. Johnson | Branch Manager
 1422 N. 44th Street, Suite 109 | Phoenix, AZ 85008
 t 602.267.0336 | m 602.402.6958 | f 602.267.0446

-----Original Message-----

From: paul.zelenka@phoenix.gov
 To: KJohnson@bas.com
 Cc: robert.hollander@phoenix.gov, susan.kinkade@phoenix.gov
 Date: Wed, 20 Jul 2005 09:21:00 -0700
 Subject: Request for Information

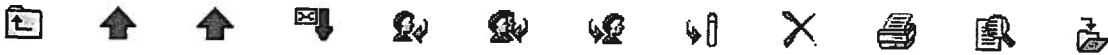
Keith attached is a spreadsheet containing the information you requested regarding the City Of Phoenix drinking water wells near the Cave Creek Landfill.

Well 278 is inside the two mile radius and well 279 is just outside the radius but both of these wells have not been used since the early 1990's. Wells 280 and 281 are just outside the radius and are used on a regular basis.

Would it be possible to obtain the results of your study?

Paul Zelenka
 Environmental Quality Specialist
 Compliance and Regulatory Affairs Office
 (602)534-7588

[2.0] File: [Cave Creek Landfill.xls](#) Size: 129k Content Type: application/X-MS-Excel



WELL	LOCATION	R55 #	POE	OE STATUS	AVAILABILITY	QUALITY	Operational status
278	4902E ASHLER HILLS	600030	278	DISCONNECTED	CAP	RADON IDENTIFIED	CAPPED 12/99
279	5401E TAPEKIM	600029	279	DISCONNECTED	DISC	RADON IDENTIFIED	DO NOT USE
280	4390E RANCHO TIERRA DR.	527549	280	ACTIVE	PDS		OPERATE AS NEEDED
281	33005N 52ND ST.	524559	281	ACTIVE	PDS		OPERATE AS NEEDED

EPA Analysis Method		1,1-Dichloroethylene				1,1,1-Trichloroethane				1,1,2-Trichloroethane						
MCL Value (mg/L)		0.007				0.2				0.005						
Trigger Value (mg/L)		0.0005				0.0005				0.0005						
Source	POE	Year	Quarter				Yearly				Yearly					
Well No.			1	2	3	4	Max	Min	Avg	1	2	3	4	Max	Min	Avg
280		2005	<0.0005							<0.0005						
281		2006	<0.0005							<0.0005						

<u>DATE</u>	<u>TIME</u>	<u>WELL START/STOP ACRONYM</u>	<u>STATUS</u>
1-JAN-2005	Start value	W281-WELL-CNTL	STOPPED
19-JAN-2005	15:02:12.862	W281-WELL-CNTL	STOPPED
19-JAN-2005	15:08:22.964	W281-WELL-CNTL	STOPPED
20-JAN-2005	15:04:48.857	W281-WELL-CNTL	STOPPED
20-JAN-2005	15:11:27.838	W281-WELL-CNTL	STOPPED
20-JAN-2005	17:23:57.700	W281-WELL-CNTL	STOPPED
21-JAN-2005	12:47:32.521	W281-WELL-CNTL	STOPPED
3-FEB-2005	14:29:52.000	W281-WELL-CNTL	RUNNING
3-FEB-2005	14:40:47.000	W281-WELL-CNTL	STOPPED
3-FEB-2005	14:57:43.000	W281-WELL-CNTL	RUNNING
3-FEB-2005	14:57:51.000	W281-WELL-CNTL	STOPPED
3-FEB-2005	15:17:47.000	W281-WELL-CNTL	RUNNING
3-FEB-2005	15:28:38.000	W281-WELL-CNTL	STOPPED
4-FEB-2005	9:18:11.919	W281-WELL-CNTL	STOPPED
4-FEB-2005	9:20:17.000	W281-WELL-CNTL	RUNNING
4-FEB-2005	12:04:59.000	W281-WELL-CNTL	STOPPED
4-FEB-2005	12:14:32.926	W281-WELL-CNTL	STOPPED
4-FEB-2005	12:14:33.000	W281-WELL-CNTL	RUNNING
4-FEB-2005	13:05:58.000	W281-WELL-CNTL	STOPPED
6-FEB-2005	21:15:26.000	W281-WELL-CNTL	RUNNING
6-FEB-2005	21:15:27.172	W281-WELL-CNTL	STOPPED
6-FEB-2005	23:42:37.000	W281-WELL-CNTL	STOPPED
7-FEB-2005	6:40:40.840	W281-WELL-CNTL	STOPPED
7-FEB-2005	6:40:47.000	W281-WELL-CNTL	RUNNING
7-FEB-2005	9:44:13.000	W281-WELL-CNTL	STOPPED
7-FEB-2005	10:16:33.000	W281-WELL-CNTL	RUNNING
7-FEB-2005	10:16:33.537	W281-WELL-CNTL	STOPPED
9-FEB-2005	9:37:11.000	W281-WELL-CNTL	STOPPED
9-FEB-2005	10:34:19.703	W281-WELL-CNTL	STOPPED
9-FEB-2005	10:34:25.307	W281-WELL-CNTL	STOPPED
9-FEB-2005	10:34:27.000	W281-WELL-CNTL	RUNNING
10-FEB-2005	10:49:56.000	W281-WELL-CNTL	STOPPED
10-FEB-2005	12:04:21.452	W281-WELL-CNTL	STOPPED
10-FEB-2005	12:04:27.000	W281-WELL-CNTL	RUNNING
11-FEB-2005	9:10:18.195	W281-WELL-CNTL	RUNNING
11-FEB-2005	9:13:05.123	W281-WELL-CNTL	RUNNING
11-FEB-2005	9:41:03.000	W281-WELL-CNTL	STOPPED
11-FEB-2005	10:36:35.000	W281-WELL-CNTL	RUNNING
11-FEB-2005	10:36:36.913	W281-WELL-CNTL	STOPPED
11-FEB-2005	10:42:32.000	W281-WELL-CNTL	STOPPED
11-FEB-2005	11:05:12.000	W281-WELL-CNTL	RUNNING
11-FEB-2005	11:05:13.050	W281-WELL-CNTL	STOPPED
11-FEB-2005	11:05:21.631	W281-WELL-CNTL	STOPPED
13-FEB-2005	10:09:48.000	W281-WELL-CNTL	STOPPED
14-FEB-2005	5:56:30.133	W281-WELL-CNTL	STOPPED
14-FEB-2005	5:56:41.250	W281-WELL-CNTL	STOPPED
14-FEB-2005	6:25:43.930	W281-WELL-CNTL	STOPPED
14-FEB-2005	6:26:37.487	W281-WELL-CNTL	STOPPED
14-FEB-2005	6:30:43.910	W281-WELL-CNTL	STOPPED
14-FEB-2005	6:30:51.176	W281-WELL-CNTL	STOPPED
14-FEB-2005	9:37:33.000	W281-WELL-CNTL	RUNNING
16-FEB-2005	13:46:45.000	W281-WELL-CNTL	STOPPED
16-FEB-2005	15:26:26.890	W281-WELL-CNTL	STOPPED
16-FEB-2005	15:26:35.000	W281-WELL-CNTL	RUNNING
16-FEB-2005	18:31:36.000	W281-WELL-CNTL	STOPPED
16-FEB-2005	21:15:29.000	W281-WELL-CNTL	RUNNING
16-FEB-2005	21:15:29.953	W281-WELL-CNTL	STOPPED
16-FEB-2005	23:56:47.000	W281-WELL-CNTL	STOPPED
17-FEB-2005	1:07:09.050	W281-WELL-CNTL	STOPPED
17-FEB-2005	1:07:16.000	W281-WELL-CNTL	RUNNING
17-FEB-2005	6:00:08.000	W281-WELL-CNTL	STOPPED
17-FEB-2005	6:33:25.000	W281-WELL-CNTL	RUNNING
17-FEB-2005	6:33:27.526	W281-WELL-CNTL	STOPPED
17-FEB-2005	6:33:34.349	W281-WELL-CNTL	STOPPED
17-FEB-2005	8:37:08.000	W281-WELL-CNTL	STOPPED
17-FEB-2005	9:02:34.000	W281-WELL-CNTL	RUNNING
17-FEB-2005	9:02:34.849	W281-WELL-CNTL	STOPPED

<u>DATE</u>	<u>TIME</u>	<u>WELL START/STOP ACRONYM</u>	<u>STATUS</u>
1-JAN-2005	Start value	W280-WELL-CNTL	STOPPED
6-JAN-2005	6:42:39.000	W280-WELL-CNTL	RUNNING
6-JAN-2005	12:49:58.000	W280-WELL-CNTL	STOPPED
6-JAN-2005	19:30:35.000	W280-WELL-CNTL	RUNNING
6-JAN-2005	23:52:56.000	W280-WELL-CNTL	STOPPED
7-JAN-2005	6:23:40.000	W280-WELL-CNTL	RUNNING
7-JAN-2005	13:29:41.000	W280-WELL-CNTL	STOPPED
7-JAN-2005	18:05:56.000	W280-WELL-CNTL	RUNNING
7-JAN-2005	21:55:59.000	W280-WELL-CNTL	STOPPED
9-JAN-2005	3:20:55.000	W280-WELL-CNTL	RUNNING
9-JAN-2005	11:03:16.000	W280-WELL-CNTL	STOPPED
9-JAN-2005	15:35:39.000	W280-WELL-CNTL	RUNNING
9-JAN-2005	21:01:07.000	W280-WELL-CNTL	STOPPED
10-JAN-2005	5:36:45.000	W280-WELL-CNTL	RUNNING
10-JAN-2005	9:30:59.000	W280-WELL-CNTL	STOPPED
14-JAN-2005	6:18:48.000	W280-WELL-CNTL	RUNNING
14-JAN-2005	11:33:56.000	W280-WELL-CNTL	STOPPED
19-JAN-2005	15:02:12.853	W280-WELL-CNTL	STOPPED
19-JAN-2005	15:08:22.944	W280-WELL-CNTL	STOPPED
20-JAN-2005	7:33:38.000	W280-WELL-CNTL	RUNNING
20-JAN-2005	15:04:48.848	W280-WELL-CNTL	RUNNING
20-JAN-2005	15:12:14.749	W280-WELL-CNTL	STOPPED
20-JAN-2005	17:23:57.691	W280-WELL-CNTL	STOPPED
21-JAN-2005	12:47:32.512	W280-WELL-CNTL	STOPPED
28-JAN-2005	7:58:50.000	W280-WELL-CNTL	RUNNING
28-JAN-2005	12:00:15.000	W280-WELL-CNTL	STOPPED
28-JAN-2005	17:23:31.000	W280-WELL-CNTL	RUNNING
28-JAN-2005	21:30:37.000	W280-WELL-CNTL	STOPPED
4-FEB-2005	8:48:57.000	W280-WELL-CNTL	RUNNING
4-FEB-2005	8:49:09.829	W280-WELL-CNTL	STOPPED
4-FEB-2005	13:42:11.000	W280-WELL-CNTL	STOPPED
8-FEB-2005	10:00:10.000	W280-WELL-CNTL	RUNNING
8-FEB-2005	11:05:16.000	W280-WELL-CNTL	STOPPED
8-FEB-2005	11:10:58.000	W280-WELL-CNTL	RUNNING
8-FEB-2005	13:23:22.000	W280-WELL-CNTL	STOPPED
10-FEB-2005	8:42:13.000	W280-WELL-CNTL	RUNNING
10-FEB-2005	11:55:10.000	W280-WELL-CNTL	STOPPED
10-FEB-2005	16:41:26.000	W280-WELL-CNTL	RUNNING
10-FEB-2005	19:19:35.000	W280-WELL-CNTL	STOPPED
10-FEB-2005	22:41:51.000	W280-WELL-CNTL	RUNNING
11-FEB-2005	2:17:58.000	W280-WELL-CNTL	STOPPED
11-FEB-2005	6:03:30.000	W280-WELL-CNTL	RUNNING
11-FEB-2005	7:39:48.000	W280-WELL-CNTL	STOPPED
11-FEB-2005	9:12:13.000	W280-WELL-CNTL	RUNNING
11-FEB-2005	12:38:00.000	W280-WELL-CNTL	STOPPED
11-FEB-2005	22:19:29.000	W280-WELL-CNTL	RUNNING
11-FEB-2005	23:21:54.000	W280-WELL-CNTL	STOPPED
11-FEB-2005	23:27:32.000	W280-WELL-CNTL	RUNNING
11-FEB-2005	23:31:29.000	W280-WELL-CNTL	STOPPED
12-FEB-2005	2:10:03.000	W280-WELL-CNTL	RUNNING
12-FEB-2005	6:52:36.000	W280-WELL-CNTL	STOPPED
12-FEB-2005	9:25:31.000	W280-WELL-CNTL	RUNNING
12-FEB-2005	13:00:06.000	W280-WELL-CNTL	STOPPED
12-FEB-2005	15:36:25.000	W280-WELL-CNTL	RUNNING
12-FEB-2005	18:42:13.000	W280-WELL-CNTL	STOPPED
12-FEB-2005	23:43:03.000	W280-WELL-CNTL	RUNNING
13-FEB-2005	1:55:41.000	W280-WELL-CNTL	STOPPED
13-FEB-2005	6:25:33.000	W280-WELL-CNTL	RUNNING
13-FEB-2005	9:07:56.000	W280-WELL-CNTL	STOPPED
16-FEB-2005	11:02:24.000	W280-WELL-CNTL	RUNNING
16-FEB-2005	12:28:34.000	W280-WELL-CNTL	STOPPED
16-FEB-2005	12:34:13.000	W280-WELL-CNTL	RUNNING
16-FEB-2005	12:50:37.000	W280-WELL-CNTL	STOPPED
18-FEB-2005	7:47:19.000	W280-WELL-CNTL	RUNNING
18-FEB-2005	11:19:51.000	W280-WELL-CNTL	STOPPED
18-FEB-2005	11:20:10.131	W280-WELL-CNTL	RUNNING
25-FEB-2005	7:04:49.000	W280-WELL-CNTL	RUNNING

17-FEB-2005	10:51:57.000	W281-WELL-CNTL	STOPPED	25-FEB-2005	10:12:09.000	W280-WELL-CNTL	STOPPED
17-FEB-2005	12:05:10.000	W281-WELL-CNTL	RUNNING	28-FEB-2005	2:18:50.000	W280-WELL-CNTL	RUNNING
17-FEB-2005	12:05:12.193	W281-WELL-CNTL	STOPPED	28-FEB-2005	4:16:15.000	W280-WELL-CNTL	STOPPED
17-FEB-2005	12:20:38.000	W281-WELL-CNTL	STOPPED	2-MAR-2005	1:47:38.000	W280-WELL-CNTL	RUNNING
17-FEB-2005	12:50:47.000	W281-WELL-CNTL	RUNNING	2-MAR-2005	2:51:36.000	W280-WELL-CNTL	STOPPED
18-FEB-2005	3:40:16.000	W281-WELL-CNTL	STOPPED	4-MAR-2005	5:42:25.000	W280-WELL-CNTL	RUNNING
18-FEB-2005	5:09:21.000	W281-WELL-CNTL	RUNNING	4-MAR-2005	14:26:51.000	W280-WELL-CNTL	STOPPED
18-FEB-2005	5:09:22.849	W281-WELL-CNTL	STOPPED	4-MAR-2005	22:18:45.000	W280-WELL-CNTL	RUNNING
18-FEB-2005	6:10:40.000	W281-WELL-CNTL	STOPPED	5-MAR-2005	1:45:11.000	W280-WELL-CNTL	STOPPED
18-FEB-2005	11:49:02.646	W281-WELL-CNTL	STOPPED	5-MAR-2005	8:35:12.000	W280-WELL-CNTL	RUNNING
18-FEB-2005	11:49:09.000	W281-WELL-CNTL	RUNNING	5-MAR-2005	13:24:18.000	W280-WELL-CNTL	STOPPED
18-FEB-2005	12:00:31.000	W281-WELL-CNTL	STOPPED	5-MAR-2005	19:49:34.000	W280-WELL-CNTL	RUNNING
18-FEB-2005	12:22:46.000	W281-WELL-CNTL	RUNNING	6-MAR-2005	0:04:59.000	W280-WELL-CNTL	STOPPED
18-FEB-2005	12:22:47.735	W281-WELL-CNTL	STOPPED	6-MAR-2005	7:49:13.000	W280-WELL-CNTL	RUNNING
18-FEB-2005	12:52:07.000	W281-WELL-CNTL	STOPPED	6-MAR-2005	12:57:35.000	W280-WELL-CNTL	STOPPED
18-FEB-2005	13:16:18.596	W281-WELL-CNTL	STOPPED	8-MAR-2005	8:16:00.000	W280-WELL-CNTL	RUNNING
18-FEB-2005	13:16:26.000	W281-WELL-CNTL	RUNNING	8-MAR-2005	10:21:32.000	W280-WELL-CNTL	STOPPED
18-FEB-2005	13:52:15.000	W281-WELL-CNTL	STOPPED	10-MAR-2005	1:20:54.000	W280-WELL-CNTL	RUNNING
21-FEB-2005	6:54:11.401	W281-WELL-CNTL	STOPPED	10-MAR-2005	1:45:56.000	W280-WELL-CNTL	STOPPED
21-FEB-2005	6:54:17.000	W281-WELL-CNTL	RUNNING	10-MAR-2005	2:20:23.000	W280-WELL-CNTL	RUNNING
21-FEB-2005	6:54:17.208	W281-WELL-CNTL	STOPPED	10-MAR-2005	3:39:31.000	W280-WELL-CNTL	STOPPED
21-FEB-2005	8:28:39.000	W281-WELL-CNTL	STOPPED	11-MAR-2005	8:41:54.000	W280-WELL-CNTL	RUNNING
21-FEB-2005	12:48:58.000	W281-WELL-CNTL	RUNNING	11-MAR-2005	10:12:57.000	W280-WELL-CNTL	STOPPED
21-FEB-2005	12:49:00.339	W281-WELL-CNTL	STOPPED	11-MAR-2005	14:09:19.000	W280-WELL-CNTL	RUNNING
21-FEB-2005	13:24:38.000	W281-WELL-CNTL	STOPPED	11-MAR-2005	22:07:41.000	W280-WELL-CNTL	STOPPED
22-FEB-2005	12:42:57.393	W281-WELL-CNTL	STOPPED	12-MAR-2005	7:59:45.000	W280-WELL-CNTL	RUNNING
22-FEB-2005	12:43:05.000	W281-WELL-CNTL	RUNNING	12-MAR-2005	16:48:23.000	W280-WELL-CNTL	STOPPED
22-FEB-2005	12:43:07.430	W281-WELL-CNTL	STOPPED	13-MAR-2005	3:13:02.000	W280-WELL-CNTL	RUNNING
22-FEB-2005	20:11:55.000	W281-WELL-CNTL	STOPPED	13-MAR-2005	13:40:09.000	W280-WELL-CNTL	STOPPED
23-FEB-2005	8:16:13.000	W281-WELL-CNTL	RUNNING	13-MAR-2005	21:25:24.000	W280-WELL-CNTL	RUNNING
23-FEB-2005	15:29:23.000	W281-WELL-CNTL	STOPPED	13-MAR-2005	22:22:42.000	W280-WELL-CNTL	STOPPED
24-FEB-2005	9:24:11.000	W281-WELL-CNTL	RUNNING	13-MAR-2005	22:28:20.000	W280-WELL-CNTL	RUNNING
24-FEB-2005	14:39:43.000	W281-WELL-CNTL	STOPPED	13-MAR-2005	22:41:25.000	W280-WELL-CNTL	STOPPED
28-FEB-2005	0:33:51.000	W281-WELL-CNTL	RUNNING	17-MAR-2005	6:41:54.000	W280-WELL-CNTL	RUNNING
28-FEB-2005	6:34:18.000	W281-WELL-CNTL	STOPPED	17-MAR-2005	10:00:49.000	W280-WELL-CNTL	STOPPED
1-MAR-2005	22:41:03.000	W281-WELL-CNTL	RUNNING	17-MAR-2005	20:30:47.000	W280-WELL-CNTL	RUNNING
2-MAR-2005	4:19:02.000	W281-WELL-CNTL	STOPPED	17-MAR-2005	22:40:25.000	W280-WELL-CNTL	STOPPED
2-MAR-2005	21:12:59.000	W281-WELL-CNTL	RUNNING	18-MAR-2005	4:04:16.000	W280-WELL-CNTL	RUNNING
3-MAR-2005	1:39:47.000	W281-WELL-CNTL	STOPPED	18-MAR-2005	13:48:28.000	W280-WELL-CNTL	STOPPED
3-MAR-2005	22:48:38.000	W281-WELL-CNTL	RUNNING	18-MAR-2005	22:10:34.000	W280-WELL-CNTL	RUNNING
4-MAR-2005	3:31:04.000	W281-WELL-CNTL	STOPPED	19-MAR-2005	4:29:53.000	W280-WELL-CNTL	STOPPED
5-MAR-2005	6:50:51.000	W281-WELL-CNTL	RUNNING	19-MAR-2005	12:50:10.000	W280-WELL-CNTL	RUNNING
5-MAR-2005	10:48:23.000	W281-WELL-CNTL	STOPPED	19-MAR-2005	21:15:28.000	W280-WELL-CNTL	STOPPED
6-MAR-2005	6:36:11.000	W281-WELL-CNTL	RUNNING	20-MAR-2005	8:37:41.000	W280-WELL-CNTL	RUNNING
6-MAR-2005	10:29:46.000	W281-WELL-CNTL	STOPPED	20-MAR-2005	15:50:00.000	W280-WELL-CNTL	STOPPED
8-MAR-2005	20:09:23.000	W281-WELL-CNTL	RUNNING	21-MAR-2005	0:51:16.000	W280-WELL-CNTL	RUNNING
8-MAR-2005	23:06:19.000	W281-WELL-CNTL	STOPPED	21-MAR-2005	7:52:34.000	W280-WELL-CNTL	STOPPED
9-MAR-2005	0:11:58.000	W281-WELL-CNTL	RUNNING	21-MAR-2005	18:44:18.000	W280-WELL-CNTL	RUNNING
9-MAR-2005	0:50:49.000	W281-WELL-CNTL	STOPPED	21-MAR-2005	22:13:46.000	W280-WELL-CNTL	STOPPED
10-MAR-2005	7:52:22.000	W281-WELL-CNTL	RUNNING	25-MAR-2005	9:11:32.000	W280-WELL-CNTL	RUNNING
10-MAR-2005	13:57:12.000	W281-WELL-CNTL	STOPPED	25-MAR-2005	12:39:25.000	W280-WELL-CNTL	STOPPED
10-MAR-2005	20:52:58.000	W281-WELL-CNTL	RUNNING	25-MAR-2005	21:13:49.000	W280-WELL-CNTL	RUNNING
11-MAR-2005	1:42:16.000	W281-WELL-CNTL	STOPPED	26-MAR-2005	2:04:56.000	W280-WELL-CNTL	STOPPED
12-MAR-2005	7:18:56.000	W281-WELL-CNTL	RUNNING	27-MAR-2005	7:01:27.000	W280-WELL-CNTL	RUNNING
12-MAR-2005	16:12:17.000	W281-WELL-CNTL	STOPPED	27-MAR-2005	13:36:41.000	W280-WELL-CNTL	STOPPED
13-MAR-2005	13:04:23.000	W281-WELL-CNTL	RUNNING	27-MAR-2005	20:00:49.000	W280-WELL-CNTL	RUNNING
13-MAR-2005	17:19:43.000	W281-WELL-CNTL	STOPPED	28-MAR-2005	2:40:58.000	W280-WELL-CNTL	STOPPED
14-MAR-2005	0:04:22.000	W281-WELL-CNTL	RUNNING	28-MAR-2005	8:02:44.000	W280-WELL-CNTL	RUNNING
14-MAR-2005	5:08:59.000	W281-WELL-CNTL	STOPPED	28-MAR-2005	15:17:05.000	W280-WELL-CNTL	STOPPED
14-MAR-2005	16:02:29.000	W281-WELL-CNTL	RUNNING	28-MAR-2005	20:23:49.000	W280-WELL-CNTL	RUNNING
14-MAR-2005	22:41:40.000	W281-WELL-CNTL	STOPPED	29-MAR-2005	1:48:13.000	W280-WELL-CNTL	STOPPED
15-MAR-2005	16:30:07.000	W281-WELL-CNTL	RUNNING	29-MAR-2005	7:33:38.000	W280-WELL-CNTL	RUNNING
16-MAR-2005	4:23:55.000	W281-WELL-CNTL	STOPPED	29-MAR-2005	14:55:27.000	W280-WELL-CNTL	STOPPED
16-MAR-2005	7:19:16.000	W281-WELL-CNTL	RUNNING	29-MAR-2005	22:09:43.000	W280-WELL-CNTL	RUNNING
16-MAR-2005	12:53:53.000	W281-WELL-CNTL	STOPPED	30-MAR-2005	4:51:57.000	W280-WELL-CNTL	STOPPED
17-MAR-2005	1:07:41.000	W281-WELL-CNTL	RUNNING	30-MAR-2005	8:30:12.000	W280-WELL-CNTL	RUNNING
17-MAR-2005	4:55:26.000	W281-WELL-CNTL	STOPPED	30-MAR-2005	15:07:56.000	W280-WELL-CNTL	STOPPED
17-MAR-2005	9:43:36.000	W281-WELL-CNTL	RUNNING	1-APR-2005	8:03:52.000	W280-WELL-CNTL	RUNNING
17-MAR-2005	16:53:12.000	W281-WELL-CNTL	STOPPED	1-APR-2005	14:10:33.000	W280-WELL-CNTL	STOPPED
17-MAR-2005	23:50:22.000	W281-WELL-CNTL	RUNNING	1-APR-2005	14:10:50.733	W280-WELL-CNTL	STOPPED

18-MAR-2005	5:32:20.000	W281-WELL-CNTL	STOPPED	1-APR-2005	14:11:05.576	W280-WELL-CNTL	STOPPED
18-MAR-2005	23:14:10.000	W281-WELL-CNTL	RUNNING	2-APR-2005	2:21:47.000	W280-WELL-CNTL	RUNNING
19-MAR-2005	3:36:35.000	W281-WELL-CNTL	STOPPED	2-APR-2005	3:21:05.000	W280-WELL-CNTL	STOPPED
20-MAR-2005	6:49:09.000	W281-WELL-CNTL	RUNNING	2-APR-2005	9:31:19.000	W280-WELL-CNTL	RUNNING
20-MAR-2005	16:41:12.000	W281-WELL-CNTL	STOPPED	2-APR-2005	16:18:01.000	W280-WELL-CNTL	STOPPED
20-MAR-2005	21:14:50.000	W281-WELL-CNTL	RUNNING	2-APR-2005	23:26:34.000	W280-WELL-CNTL	RUNNING
21-MAR-2005	1:58:36.000	W281-WELL-CNTL	STOPPED	3-APR-2005	0:31:32.000	W280-WELL-CNTL	STOPPED
21-MAR-2005	7:49:11.000	W281-WELL-CNTL	RUNNING	3-APR-2005	4:14:54.000	W280-WELL-CNTL	RUNNING
21-MAR-2005	21:32:12.000	W281-WELL-CNTL	STOPPED	3-APR-2005	4:27:19.000	W280-WELL-CNTL	STOPPED
22-MAR-2005	19:50:59.000	W281-WELL-CNTL	RUNNING	3-APR-2005	9:03:50.000	W280-WELL-CNTL	RUNNING
23-MAR-2005	5:56:07.000	W281-WELL-CNTL	STOPPED	3-APR-2005	14:23:53.000	W280-WELL-CNTL	STOPPED
23-MAR-2005	13:47:25.000	W281-WELL-CNTL	RUNNING	4-APR-2005	6:23:18.000	W280-WELL-CNTL	RUNNING
23-MAR-2005	18:44:06.000	W281-WELL-CNTL	STOPPED	4-APR-2005	10:04:47.000	W280-WELL-CNTL	STOPPED
24-MAR-2005	7:10:03.000	W281-WELL-CNTL	RUNNING	4-APR-2005	17:03:50.000	W280-WELL-CNTL	RUNNING
25-MAR-2005	1:47:12.000	W281-WELL-CNTL	STOPPED	4-APR-2005	21:10:28.000	W280-WELL-CNTL	STOPPED
25-MAR-2005	7:02:12.000	W281-WELL-CNTL	RUNNING	5-APR-2005	5:10:11.000	W280-WELL-CNTL	RUNNING
25-MAR-2005	16:36:48.000	W281-WELL-CNTL	STOPPED	5-APR-2005	14:56:06.000	W280-WELL-CNTL	STOPPED
26-MAR-2005	8:02:31.000	W281-WELL-CNTL	RUNNING	5-APR-2005	20:34:09.000	W280-WELL-CNTL	RUNNING
26-MAR-2005	14:48:34.000	W281-WELL-CNTL	STOPPED	6-APR-2005	2:42:54.000	W280-WELL-CNTL	STOPPED
27-MAR-2005	7:35:41.000	W281-WELL-CNTL	RUNNING	6-APR-2005	4:36:24.000	W280-WELL-CNTL	RUNNING
27-MAR-2005	16:37:05.000	W281-WELL-CNTL	STOPPED	6-APR-2005	8:46:21.000	W280-WELL-CNTL	STOPPED
30-MAR-2005	20:58:56.000	W281-WELL-CNTL	RUNNING	7-APR-2005	6:41:39.000	W280-WELL-CNTL	RUNNING
31-MAR-2005	6:55:10.000	W281-WELL-CNTL	STOPPED	7-APR-2005	16:14:49.000	W280-WELL-CNTL	STOPPED
31-MAR-2005	10:23:18.000	W281-WELL-CNTL	RUNNING	8-APR-2005	8:42:17.000	W280-WELL-CNTL	RUNNING
31-MAR-2005	15:03:35.000	W281-WELL-CNTL	STOPPED	8-APR-2005	15:32:10.000	W280-WELL-CNTL	STOPPED
31-MAR-2005	19:45:11.000	W281-WELL-CNTL	RUNNING	8-APR-2005	18:55:20.000	W280-WELL-CNTL	RUNNING
1-APR-2005	0:35:19.000	W281-WELL-CNTL	STOPPED	9-APR-2005	0:09:53.000	W280-WELL-CNTL	STOPPED
1-APR-2005	19:25:25.000	W281-WELL-CNTL	RUNNING	9-APR-2005	7:37:34.000	W280-WELL-CNTL	RUNNING
1-APR-2005	23:42:50.000	W281-WELL-CNTL	STOPPED	9-APR-2005	16:14:46.000	W280-WELL-CNTL	STOPPED
2-APR-2005	6:47:07.000	W281-WELL-CNTL	RUNNING	10-APR-2005	1:13:08.000	W280-WELL-CNTL	RUNNING
2-APR-2005	22:28:44.000	W281-WELL-CNTL	STOPPED	10-APR-2005	9:56:25.000	W280-WELL-CNTL	STOPPED
3-APR-2005	11:07:23.000	W281-WELL-CNTL	RUNNING	11-APR-2005	17:57:08.000	W280-WELL-CNTL	RUNNING
3-APR-2005	22:19:01.000	W281-WELL-CNTL	STOPPED	12-APR-2005	0:42:48.000	W280-WELL-CNTL	STOPPED
5-APR-2005	7:19:50.000	W281-WELL-CNTL	RUNNING	12-APR-2005	7:13:16.000	W280-WELL-CNTL	RUNNING
5-APR-2005	8:57:41.000	W281-WELL-CNTL	STOPPED	12-APR-2005	14:55:24.000	W280-WELL-CNTL	STOPPED
5-APR-2005	9:15:48.000	W281-WELL-CNTL	RUNNING	12-APR-2005	20:25:35.000	W280-WELL-CNTL	RUNNING
5-APR-2005	9:15:49.963	W281-WELL-CNTL	STOPPED	13-APR-2005	1:08:10.000	W280-WELL-CNTL	STOPPED
5-APR-2005	10:27:28.000	W281-WELL-CNTL	STOPPED	13-APR-2005	7:43:14.000	W280-WELL-CNTL	RUNNING
6-APR-2005	9:17:06.000	W281-WELL-CNTL	RUNNING	13-APR-2005	13:27:23.000	W280-WELL-CNTL	STOPPED
6-APR-2005	21:58:11.000	W281-WELL-CNTL	STOPPED	14-APR-2005	12:36:41.625	W280-WELL-CNTL	STOPPED
8-APR-2005	16:25:23.000	W281-WELL-CNTL	RUNNING	14-APR-2005	12:56:52.421	W280-WELL-CNTL	STOPPED
8-APR-2005	20:32:34.000	W281-WELL-CNTL	STOPPED	14-APR-2005	22:39:27.000	W280-WELL-CNTL	RUNNING
9-APR-2005	3:04:18.000	W281-WELL-CNTL	RUNNING	15-APR-2005	4:58:14.000	W280-WELL-CNTL	STOPPED
9-APR-2005	21:30:02.000	W281-WELL-CNTL	STOPPED	15-APR-2005	8:09:07.000	W280-WELL-CNTL	RUNNING
10-APR-2005	9:12:19.000	W281-WELL-CNTL	RUNNING	15-APR-2005	16:07:57.000	W280-WELL-CNTL	STOPPED
10-APR-2005	19:31:22.000	W281-WELL-CNTL	STOPPED	15-APR-2005	22:52:43.000	W280-WELL-CNTL	RUNNING
12-APR-2005	7:13:09.000	W281-WELL-CNTL	RUNNING	16-APR-2005	5:55:38.000	W280-WELL-CNTL	STOPPED
12-APR-2005	18:41:42.000	W281-WELL-CNTL	STOPPED	16-APR-2005	10:33:05.000	W280-WELL-CNTL	RUNNING
13-APR-2005	6:24:32.000	W281-WELL-CNTL	RUNNING	16-APR-2005	16:27:07.000	W280-WELL-CNTL	STOPPED
13-APR-2005	16:18:25.000	W281-WELL-CNTL	STOPPED	16-APR-2005	21:21:05.000	W280-WELL-CNTL	RUNNING
13-APR-2005	20:03:40.000	W281-WELL-CNTL	RUNNING	17-APR-2005	3:04:03.000	W280-WELL-CNTL	STOPPED
14-APR-2005	2:24:43.000	W281-WELL-CNTL	STOPPED	17-APR-2005	7:40:26.000	W280-WELL-CNTL	RUNNING
14-APR-2005	7:33:25.000	W281-WELL-CNTL	RUNNING	17-APR-2005	16:06:16.000	W280-WELL-CNTL	STOPPED
14-APR-2005	12:36:41.634	W281-WELL-CNTL	RUNNING	18-APR-2005	20:37:28.000	W280-WELL-CNTL	RUNNING
14-APR-2005	12:56:54.385	W281-WELL-CNTL	RUNNING	19-APR-2005	0:27:17.000	W280-WELL-CNTL	STOPPED
14-APR-2005	14:13:41.000	W281-WELL-CNTL	STOPPED	19-APR-2005	0:33:00.000	W280-WELL-CNTL	RUNNING
15-APR-2005	8:54:33.000	W281-WELL-CNTL	RUNNING	19-APR-2005	0:43:05.000	W280-WELL-CNTL	STOPPED
15-APR-2005	15:21:02.000	W281-WELL-CNTL	STOPPED	19-APR-2005	5:46:24.000	W280-WELL-CNTL	RUNNING
16-APR-2005	7:45:15.000	W281-WELL-CNTL	RUNNING	19-APR-2005	19:48:23.000	W280-WELL-CNTL	STOPPED
17-APR-2005	3:50:11.000	W281-WELL-CNTL	STOPPED	20-APR-2005	3:49:27.000	W280-WELL-CNTL	RUNNING
17-APR-2005	13:59:34.000	W281-WELL-CNTL	RUNNING	20-APR-2005	14:05:03.000	W280-WELL-CNTL	STOPPED
17-APR-2005	19:12:10.000	W281-WELL-CNTL	STOPPED	20-APR-2005	18:16:22.321	W280-WELL-CNTL	STOPPED
18-APR-2005	6:54:35.000	W281-WELL-CNTL	RUNNING	20-APR-2005	18:28:15.919	W280-WELL-CNTL	STOPPED
18-APR-2005	15:39:49.000	W281-WELL-CNTL	STOPPED	22-APR-2005	8:04:13.000	W280-WELL-CNTL	RUNNING
19-APR-2005	5:46:06.000	W281-WELL-CNTL	RUNNING	22-APR-2005	11:18:06.000	W280-WELL-CNTL	STOPPED
19-APR-2005	16:50:35.000	W281-WELL-CNTL	STOPPED	26-APR-2005	13:55:48.000	W280-WELL-CNTL	RUNNING
20-APR-2005	6:54:36.000	W281-WELL-CNTL	RUNNING	26-APR-2005	19:50:09.000	W280-WELL-CNTL	STOPPED
20-APR-2005	14:53:09.000	W281-WELL-CNTL	STOPPED	27-APR-2005	2:42:38.000	W280-WELL-CNTL	RUNNING
20-APR-2005	17:29:10.000	W281-WELL-CNTL	RUNNING	27-APR-2005	10:00:13.000	W280-WELL-CNTL	STOPPED
21-APR-2005	2:33:57.000	W281-WELL-CNTL	STOPPED	27-APR-2005	10:19:51.000	W280-WELL-CNTL	RUNNING

21-APR-2005	6:44:00.000	W281-WELL-CNTL	RUNNING	27-APR-2005	14:54:02.000	W280-WELL-CNTL	STOPPED
21-APR-2005	15:48:12.000	W281-WELL-CNTL	STOPPED	27-APR-2005	20:26:04.000	W280-WELL-CNTL	RUNNING
21-APR-2005	18:02:16.000	W281-WELL-CNTL	RUNNING	28-APR-2005	1:53:45.000	W280-WELL-CNTL	STOPPED
22-APR-2005	2:11:14.000	W281-WELL-CNTL	STOPPED	28-APR-2005	6:53:56.000	W280-WELL-CNTL	RUNNING
22-APR-2005	18:03:28.000	W281-WELL-CNTL	RUNNING	28-APR-2005	9:14:41.000	W280-WELL-CNTL	STOPPED
23-APR-2005	1:21:04.000	W281-WELL-CNTL	STOPPED	28-APR-2005	11:00:51.414	W280-WELL-CNTL	STOPPED
23-APR-2005	10:01:09.000	W281-WELL-CNTL	RUNNING	28-APR-2005	11:01:00.710	W280-WELL-CNTL	STOPPED
23-APR-2005	12:25:54.000	W281-WELL-CNTL	STOPPED	28-APR-2005	11:01:31.000	W280-WELL-CNTL	RUNNING
23-APR-2005	17:18:49.000	W281-WELL-CNTL	RUNNING	28-APR-2005	18:45:40.000	W280-WELL-CNTL	STOPPED
23-APR-2005	23:30:23.000	W281-WELL-CNTL	STOPPED	29-APR-2005	3:22:53.000	W280-WELL-CNTL	RUNNING
25-APR-2005	6:21:01.000	W281-WELL-CNTL	RUNNING	29-APR-2005	14:28:03.000	W280-WELL-CNTL	STOPPED
25-APR-2005	12:43:27.000	W281-WELL-CNTL	STOPPED	29-APR-2005	22:05:11.000	W280-WELL-CNTL	RUNNING
25-APR-2005	19:23:53.000	W281-WELL-CNTL	RUNNING	30-APR-2005	3:28:34.000	W280-WELL-CNTL	STOPPED
25-APR-2005	23:50:10.000	W281-WELL-CNTL	STOPPED	30-APR-2005	7:49:28.000	W280-WELL-CNTL	RUNNING
26-APR-2005	21:44:11.000	W281-WELL-CNTL	RUNNING	30-APR-2005	21:06:35.000	W280-WELL-CNTL	STOPPED
26-APR-2005	23:43:25.000	W281-WELL-CNTL	STOPPED	1-MAY-2005	4:28:25.000	W280-WELL-CNTL	RUNNING
27-APR-2005	8:58:04.000	W281-WELL-CNTL	RUNNING	1-MAY-2005	20:29:27.000	W280-WELL-CNTL	STOPPED
27-APR-2005	12:29:41.000	W281-WELL-CNTL	STOPPED	2-MAY-2005	4:31:53.000	W280-WELL-CNTL	RUNNING
28-APR-2005	7:31:59.000	W281-WELL-CNTL	RUNNING	2-MAY-2005	15:00:51.000	W280-WELL-CNTL	STOPPED
28-APR-2005	10:56:21.017	W281-WELL-CNTL	RUNNING	6-MAY-2005	7:40:14.854	W280-WELL-CNTL	STOPPED
28-APR-2005	11:07:50.703	W281-WELL-CNTL	STOPPED	6-MAY-2005	7:40:29.830	W280-WELL-CNTL	STOPPED
28-APR-2005	11:16:27.000	W281-WELL-CNTL	RUNNING	6-MAY-2005	8:20:08.000	W280-WELL-CNTL	RUNNING
28-APR-2005	13:33:24.000	W281-WELL-CNTL	STOPPED	6-MAY-2005	12:48:36.000	W280-WELL-CNTL	STOPPED
28-APR-2005	19:24:02.000	W281-WELL-CNTL	RUNNING	9-MAY-2005	20:04:54.000	W280-WELL-CNTL	RUNNING
28-APR-2005	19:27:34.000	W281-WELL-CNTL	STOPPED	10-MAY-2005	4:33:24.000	W280-WELL-CNTL	STOPPED
28-APR-2005	20:52:55.000	W281-WELL-CNTL	RUNNING	10-MAY-2005	9:00:59.000	W280-WELL-CNTL	RUNNING
29-APR-2005	2:45:02.000	W281-WELL-CNTL	STOPPED	10-MAY-2005	15:11:59.000	W280-WELL-CNTL	STOPPED
29-APR-2005	6:33:14.000	W281-WELL-CNTL	RUNNING	13-MAY-2005	7:52:56.000	W280-WELL-CNTL	RUNNING
29-APR-2005	14:01:43.000	W281-WELL-CNTL	STOPPED	13-MAY-2005	10:57:02.000	W280-WELL-CNTL	STOPPED
29-APR-2005	20:50:31.000	W281-WELL-CNTL	RUNNING	13-MAY-2005	23:12:35.947	W280-WELL-CNTL	STOPPED
29-APR-2005	23:35:08.000	W281-WELL-CNTL	STOPPED	14-MAY-2005	0:54:28.735	W280-WELL-CNTL	STOPPED
1-MAY-2005	5:35:06.000	W281-WELL-CNTL	RUNNING	20-MAY-2005	7:08:20.000	W280-WELL-CNTL	RUNNING
1-MAY-2005	8:36:48.000	W281-WELL-CNTL	STOPPED	20-MAY-2005	10:58:17.000	W280-WELL-CNTL	STOPPED
2-MAY-2005	8:20:27.000	W281-WELL-CNTL	RUNNING	22-MAY-2005	8:48:24.962	W280-WELL-CNTL	STOPPED
2-MAY-2005	21:26:55.000	W281-WELL-CNTL	STOPPED	22-MAY-2005	8:51:20.486	W280-WELL-CNTL	STOPPED
3-MAY-2005	7:09:36.000	W281-WELL-CNTL	RUNNING	22-MAY-2005	11:41:41.064	W280-WELL-CNTL	STOPPED
3-MAY-2005	9:35:48.000	W281-WELL-CNTL	STOPPED	22-MAY-2005	11:44:37.670	W280-WELL-CNTL	STOPPED
3-MAY-2005	18:49:12.000	W281-WELL-CNTL	RUNNING	25-MAY-2005	8:55:18.000	W280-WELL-CNTL	RUNNING
4-MAY-2005	1:24:56.000	W281-WELL-CNTL	STOPPED	25-MAY-2005	17:51:30.000	W280-WELL-CNTL	STOPPED
4-MAY-2005	6:56:23.000	W281-WELL-CNTL	RUNNING	25-MAY-2005	22:48:19.000	W280-WELL-CNTL	RUNNING
4-MAY-2005	10:25:50.000	W281-WELL-CNTL	STOPPED	26-MAY-2005	0:14:06.000	W280-WELL-CNTL	STOPPED
5-MAY-2005	4:52:33.000	W281-WELL-CNTL	RUNNING	27-MAY-2005	7:04:07.000	W280-WELL-CNTL	RUNNING
5-MAY-2005	11:33:57.000	W281-WELL-CNTL	STOPPED	27-MAY-2005	17:04:46.000	W280-WELL-CNTL	STOPPED
6-MAY-2005	5:03:03.000	W281-WELL-CNTL	RUNNING	27-MAY-2005	22:00:10.000	W280-WELL-CNTL	RUNNING
6-MAY-2005	13:40:42.000	W281-WELL-CNTL	STOPPED	27-MAY-2005	22:30:37.000	W280-WELL-CNTL	STOPPED
7-MAY-2005	5:26:02.000	W281-WELL-CNTL	RUNNING	27-MAY-2005	22:36:22.000	W280-WELL-CNTL	RUNNING
7-MAY-2005	14:46:42.000	W281-WELL-CNTL	STOPPED	28-MAY-2005	1:18:32.000	W280-WELL-CNTL	STOPPED
8-MAY-2005	7:17:55.000	W281-WELL-CNTL	RUNNING	3-JUN-2005	7:49:19.000	W280-WELL-CNTL	RUNNING
8-MAY-2005	13:07:08.000	W281-WELL-CNTL	STOPPED	3-JUN-2005	10:57:58.000	W280-WELL-CNTL	STOPPED
9-MAY-2005	7:26:22.000	W281-WELL-CNTL	RUNNING	8-JUN-2005	11:37:31.721	W280-WELL-CNTL	STOPPED
9-MAY-2005	10:34:14.000	W281-WELL-CNTL	STOPPED	8-JUN-2005	11:43:21.712	W280-WELL-CNTL	STOPPED
9-MAY-2005	20:33:28.000	W281-WELL-CNTL	RUNNING	9-JUN-2005	19:51:12.000	W280-WELL-CNTL	RUNNING
10-MAY-2005	0:54:11.000	W281-WELL-CNTL	STOPPED	9-JUN-2005	23:31:11.000	W280-WELL-CNTL	STOPPED
10-MAY-2005	5:30:04.000	W281-WELL-CNTL	RUNNING	10-JUN-2005	7:16:11.277	W280-WELL-CNTL	STOPPED
10-MAY-2005	15:50:27.000	W281-WELL-CNTL	STOPPED	10-JUN-2005	7:16:20.382	W280-WELL-CNTL	STOPPED
11-MAY-2005	7:49:22.000	W281-WELL-CNTL	RUNNING	10-JUN-2005	8:38:50.255	W280-WELL-CNTL	STOPPED
11-MAY-2005	10:18:56.000	W281-WELL-CNTL	STOPPED	10-JUN-2005	8:38:57.746	W280-WELL-CNTL	STOPPED
11-MAY-2005	16:18:48.000	W281-WELL-CNTL	RUNNING	10-JUN-2005	8:40:08.000	W280-WELL-CNTL	RUNNING
11-MAY-2005	18:43:12.000	W281-WELL-CNTL	STOPPED	10-JUN-2005	13:13:40.000	W280-WELL-CNTL	STOPPED
12-MAY-2005	5:51:23.000	W281-WELL-CNTL	RUNNING	14-JUN-2005	6:44:20.000	W280-WELL-CNTL	RUNNING
12-MAY-2005	15:05:59.000	W281-WELL-CNTL	STOPPED	14-JUN-2005	9:32:37.000	W280-WELL-CNTL	STOPPED
13-MAY-2005	5:54:15.000	W281-WELL-CNTL	RUNNING	15-JUN-2005	7:11:14.000	W280-WELL-CNTL	RUNNING
13-MAY-2005	12:36:29.000	W281-WELL-CNTL	STOPPED	15-JUN-2005	15:31:40.000	W280-WELL-CNTL	STOPPED
13-MAY-2005	23:12:35.973	W281-WELL-CNTL	STOPPED	15-JUN-2005	20:57:51.000	W280-WELL-CNTL	RUNNING
14-MAY-2005	0:54:28.789	W281-WELL-CNTL	STOPPED	16-JUN-2005	4:39:05.000	W280-WELL-CNTL	STOPPED
14-MAY-2005	6:29:10.000	W281-WELL-CNTL	RUNNING	16-JUN-2005	7:16:07.000	W280-WELL-CNTL	RUNNING
14-MAY-2005	10:49:14.000	W281-WELL-CNTL	STOPPED	16-JUN-2005	18:31:17.000	W280-WELL-CNTL	STOPPED
15-MAY-2005	6:32:50.000	W281-WELL-CNTL	RUNNING	17-JUN-2005	7:05:03.000	W280-WELL-CNTL	RUNNING
15-MAY-2005	13:13:49.000	W281-WELL-CNTL	STOPPED	17-JUN-2005	18:30:20.000	W280-WELL-CNTL	STOPPED
16-MAY-2005	6:49:52.000	W281-WELL-CNTL	RUNNING	21-JUN-2005	3:30:00.000	W280-WELL-CNTL	RUNNING

16-MAY-2005 10:06:44.000 W281-WELL-CNTL STOPPED
16-MAY-2005 21:27:58.000 W281-WELL-CNTL RUNNING
16-MAY-2005 23:50:53.000 W281-WELL-CNTL STOPPED
17-MAY-2005 6:09:12.000 W281-WELL-CNTL RUNNING
17-MAY-2005 9:57:46.000 W281-WELL-CNTL STOPPED
17-MAY-2005 19:01:53.000 W281-WELL-CNTL RUNNING
18-MAY-2005 0:53:02.000 W281-WELL-CNTL STOPPED
18-MAY-2005 6:58:16.000 W281-WELL-CNTL RUNNING
18-MAY-2005 10:44:08.000 W281-WELL-CNTL STOPPED
18-MAY-2005 19:18:06.000 W281-WELL-CNTL RUNNING
18-MAY-2005 22:17:46.000 W281-WELL-CNTL STOPPED
19-MAY-2005 6:07:37.000 W281-WELL-CNTL RUNNING
19-MAY-2005 16:47:01.000 W281-WELL-CNTL STOPPED
20-MAY-2005 6:47:49.000 W281-WELL-CNTL RUNNING
20-MAY-2005 15:43:29.000 W281-WELL-CNTL STOPPED
21-MAY-2005 6:50:35.000 W281-WELL-CNTL RUNNING
21-MAY-2005 14:53:03.000 W281-WELL-CNTL STOPPED
22-MAY-2005 6:26:48.000 W281-WELL-CNTL RUNNING
22-MAY-2005 22:03:17.000 W281-WELL-CNTL STOPPED
23-MAY-2005 5:22:06.000 W281-WELL-CNTL RUNNING
23-MAY-2005 14:35:56.000 W281-WELL-CNTL STOPPED
24-MAY-2005 6:45:12.000 W281-WELL-CNTL RUNNING
24-MAY-2005 15:13:08.000 W281-WELL-CNTL STOPPED
25-MAY-2005 5:49:16.000 W281-WELL-CNTL RUNNING
25-MAY-2005 11:26:24.000 W281-WELL-CNTL STOPPED
26-MAY-2005 3:01:15.000 W281-WELL-CNTL RUNNING
26-MAY-2005 12:22:21.000 W281-WELL-CNTL STOPPED
27-MAY-2005 5:39:22.000 W281-WELL-CNTL RUNNING
27-MAY-2005 11:27:24.000 W281-WELL-CNTL STOPPED
27-MAY-2005 19:19:14.000 W281-WELL-CNTL RUNNING
27-MAY-2005 23:28:51.000 W281-WELL-CNTL STOPPED
28-MAY-2005 6:08:58.000 W281-WELL-CNTL RUNNING
28-MAY-2005 11:26:28.000 W281-WELL-CNTL STOPPED
29-MAY-2005 5:24:34.000 W281-WELL-CNTL RUNNING
29-MAY-2005 16:43:37.000 W281-WELL-CNTL STOPPED
29-MAY-2005 19:19:38.000 W281-WELL-CNTL RUNNING
29-MAY-2005 22:25:10.000 W281-WELL-CNTL STOPPED
30-MAY-2005 4:55:01.000 W281-WELL-CNTL RUNNING
30-MAY-2005 15:34:22.000 W281-WELL-CNTL STOPPED
31-MAY-2005 5:42:27.000 W281-WELL-CNTL RUNNING
31-MAY-2005 15:43:59.000 W281-WELL-CNTL STOPPED
1-JUN-2005 6:11:13.000 W281-WELL-CNTL RUNNING
1-JUN-2005 14:39:44.000 W281-WELL-CNTL STOPPED
2-JUN-2005 5:48:48.000 W281-WELL-CNTL RUNNING
2-JUN-2005 13:44:06.000 W281-WELL-CNTL STOPPED
2-JUN-2005 19:25:29.000 W281-WELL-CNTL RUNNING
2-JUN-2005 21:49:31.000 W281-WELL-CNTL STOPPED
3-JUN-2005 5:22:17.000 W281-WELL-CNTL RUNNING
3-JUN-2005 10:43:23.000 W281-WELL-CNTL STOPPED
3-JUN-2005 19:08:47.000 W281-WELL-CNTL RUNNING
3-JUN-2005 21:56:57.000 W281-WELL-CNTL STOPPED
6-JUN-2005 5:24:07.000 W281-WELL-CNTL RUNNING
6-JUN-2005 9:47:49.000 W281-WELL-CNTL STOPPED
8-JUN-2005 11:37:31.730 W281-WELL-CNTL STOPPED
8-JUN-2005 11:43:22.997 W281-WELL-CNTL STOPPED
10-JUN-2005 13:56:25.000 W281-WELL-CNTL RUNNING
10-JUN-2005 13:56:26.306 W281-WELL-CNTL STOPPED
10-JUN-2005 14:17:00.000 W281-WELL-CNTL STOPPED
13-JUN-2005 8:34:36.000 W281-WELL-CNTL RUNNING
13-JUN-2005 15:19:33.000 W281-WELL-CNTL STOPPED
14-JUN-2005 6:31:47.000 W281-WELL-CNTL RUNNING
14-JUN-2005 12:28:54.000 W281-WELL-CNTL STOPPED
15-JUN-2005 2:56:55.000 W281-WELL-CNTL RUNNING
15-JUN-2005 13:55:00.000 W281-WELL-CNTL STOPPED
15-JUN-2005 18:51:50.000 W281-WELL-CNTL RUNNING
16-JUN-2005 1:45:22.000 W281-WELL-CNTL STOPPED
16-JUN-2005 5:23:14.000 W281-WELL-CNTL RUNNING
16-JUN-2005 12:39:11.000 W281-WELL-CNTL STOPPED
16-JUN-2005 18:31:18.000 W281-WELL-CNTL RUNNING
17-JUN-2005 0:19:26.000 W281-WELL-CNTL STOPPED

21-JUN-2005 15:20:13.605 W280-WELL-CNTL RUNNING
21-JUN-2005 15:30:20.209 W280-WELL-CNTL RUNNING
21-JUN-2005 16:45:19.000 W280-WELL-CNTL STOPPED
21-JUN-2005 21:30:52.000 W280-WELL-CNTL RUNNING
22-JUN-2005 15:46:46.000 W280-WELL-CNTL STOPPED
22-JUN-2005 20:00:13.000 W280-WELL-CNTL RUNNING
23-JUN-2005 0:18:01.000 W280-WELL-CNTL STOPPED
24-JUN-2005 7:54:08.000 W280-WELL-CNTL RUNNING
24-JUN-2005 9:39:26.000 W280-WELL-CNTL STOPPED
28-JUN-2005 4:14:58.000 W280-WELL-CNTL RUNNING
28-JUN-2005 4:42:58.000 W280-WELL-CNTL STOPPED
1-JUL-2005 6:56:46.000 W280-WELL-CNTL RUNNING
1-JUL-2005 9:41:53.000 W280-WELL-CNTL STOPPED
5-JUL-2005 11:22:51.781 W280-WELL-CNTL STOPPED
5-JUL-2005 11:26:42.702 W280-WELL-CNTL STOPPED
5-JUL-2005 11:34:09.508 W280-WELL-CNTL STOPPED
5-JUL-2005 11:41:20.861 W280-WELL-CNTL STOPPED
7-JUL-2005 7:16:35.000 W280-WELL-CNTL RUNNING
7-JUL-2005 11:57:45.000 W280-WELL-CNTL STOPPED
8-JUL-2005 8:15:36.000 W280-WELL-CNTL RUNNING
8-JUL-2005 10:36:20.000 W280-WELL-CNTL STOPPED

17-JUN-2005	5:32:40.000	W281-WELL-CNTL	RUNNING
17-JUN-2005	5:32:43.426	W281-WELL-CNTL	STOPPED
17-JUN-2005	12:24:25.000	W281-WELL-CNTL	STOPPED
17-JUN-2005	18:31:59.000	W281-WELL-CNTL	RUNNING
17-JUN-2005	23:22:03.000	W281-WELL-CNTL	STOPPED
18-JUN-2005	6:42:31.000	W281-WELL-CNTL	RUNNING
18-JUN-2005	12:09:14.000	W281-WELL-CNTL	STOPPED
18-JUN-2005	16:00:39.000	W281-WELL-CNTL	RUNNING
18-JUN-2005	17:58:15.000	W281-WELL-CNTL	STOPPED
19-JUN-2005	5:38:09.000	W281-WELL-CNTL	RUNNING
19-JUN-2005	22:08:33.000	W281-WELL-CNTL	STOPPED
20-JUN-2005	3:19:50.000	W281-WELL-CNTL	RUNNING
20-JUN-2005	18:45:57.000	W281-WELL-CNTL	STOPPED
21-JUN-2005	4:47:53.000	W281-WELL-CNTL	RUNNING
21-JUN-2005	15:20:13.614	W281-WELL-CNTL	RUNNING
21-JUN-2005	15:32:18.650	W281-WELL-CNTL	RUNNING
21-JUN-2005	16:35:34.000	W281-WELL-CNTL	STOPPED
21-JUN-2005	22:01:21.000	W281-WELL-CNTL	RUNNING
22-JUN-2005	0:16:11.000	W281-WELL-CNTL	STOPPED
22-JUN-2005	4:09:24.000	W281-WELL-CNTL	RUNNING
22-JUN-2005	16:25:15.000	W281-WELL-CNTL	STOPPED
22-JUN-2005	19:37:25.000	W281-WELL-CNTL	RUNNING
23-JUN-2005	1:52:16.000	W281-WELL-CNTL	STOPPED
23-JUN-2005	5:02:03.000	W281-WELL-CNTL	RUNNING
23-JUN-2005	16:18:26.000	W281-WELL-CNTL	STOPPED
23-JUN-2005	18:11:46.000	W281-WELL-CNTL	RUNNING
24-JUN-2005	0:33:02.000	W281-WELL-CNTL	STOPPED
24-JUN-2005	4:30:20.000	W281-WELL-CNTL	RUNNING
24-JUN-2005	17:51:34.000	W281-WELL-CNTL	STOPPED
24-JUN-2005	20:54:17.000	W281-WELL-CNTL	RUNNING
24-JUN-2005	22:41:47.000	W281-WELL-CNTL	STOPPED
25-JUN-2005	5:17:37.000	W281-WELL-CNTL	RUNNING
25-JUN-2005	13:17:44.000	W281-WELL-CNTL	STOPPED
26-JUN-2005	3:16:17.000	W281-WELL-CNTL	RUNNING
26-JUN-2005	14:54:43.000	W281-WELL-CNTL	STOPPED
26-JUN-2005	16:58:03.000	W281-WELL-CNTL	RUNNING
27-JUN-2005	16:15:34.000	W281-WELL-CNTL	STOPPED
27-JUN-2005	20:41:28.000	W281-WELL-CNTL	RUNNING
27-JUN-2005	23:37:40.000	W281-WELL-CNTL	STOPPED
28-JUN-2005	5:43:03.000	W281-WELL-CNTL	RUNNING
28-JUN-2005	16:03:19.000	W281-WELL-CNTL	STOPPED
28-JUN-2005	20:34:46.000	W281-WELL-CNTL	RUNNING
28-JUN-2005	23:13:06.000	W281-WELL-CNTL	STOPPED
29-JUN-2005	4:54:12.000	W281-WELL-CNTL	RUNNING
29-JUN-2005	14:09:56.000	W281-WELL-CNTL	STOPPED
29-JUN-2005	20:26:10.000	W281-WELL-CNTL	RUNNING
29-JUN-2005	22:53:02.000	W281-WELL-CNTL	STOPPED
30-JUN-2005	4:10:03.000	W281-WELL-CNTL	RUNNING
30-JUN-2005	15:26:27.000	W281-WELL-CNTL	STOPPED
30-JUN-2005	20:40:35.000	W281-WELL-CNTL	RUNNING
30-JUN-2005	23:02:48.000	W281-WELL-CNTL	STOPPED
1-JUL-2005	5:41:00.000	W281-WELL-CNTL	RUNNING
1-JUL-2005	17:22:25.000	W281-WELL-CNTL	STOPPED
1-JUL-2005	21:33:27.000	W281-WELL-CNTL	RUNNING
1-JUL-2005	23:48:39.000	W281-WELL-CNTL	STOPPED
2-JUL-2005	5:47:43.000	W281-WELL-CNTL	RUNNING
2-JUL-2005	8:21:27.000	W281-WELL-CNTL	STOPPED
2-JUL-2005	9:37:16.000	W281-WELL-CNTL	RUNNING
2-JUL-2005	10:01:19.000	W281-WELL-CNTL	STOPPED
3-JUL-2005	6:56:51.000	W281-WELL-CNTL	RUNNING
3-JUL-2005	14:23:58.000	W281-WELL-CNTL	STOPPED
4-JUL-2005	4:45:35.000	W281-WELL-CNTL	RUNNING
4-JUL-2005	16:21:46.000	W281-WELL-CNTL	STOPPED
4-JUL-2005	19:53:14.000	W281-WELL-CNTL	RUNNING
4-JUL-2005	22:21:32.000	W281-WELL-CNTL	STOPPED
5-JUL-2005	1:33:53.000	W281-WELL-CNTL	RUNNING
5-JUL-2005	3:46:12.000	W281-WELL-CNTL	STOPPED
5-JUL-2005	5:50:17.000	W281-WELL-CNTL	RUNNING
5-JUL-2005	11:22:53.737	W281-WELL-CNTL	RUNNING
5-JUL-2005	11:26:44.663	W281-WELL-CNTL	RUNNING

5-JUL-2005	11:34:09.516	W281-WELL-CNTL	RUNNING
5-JUL-2005	11:41:23.235	W281-WELL-CNTL	RUNNING
5-JUL-2005	14:19:33.000	W281-WELL-CNTL	STOPPED
6-JUL-2005	3:38:25.000	W281-WELL-CNTL	RUNNING
6-JUL-2005	14:24:53.000	W281-WELL-CNTL	STOPPED
6-JUL-2005	20:28:27.000	W281-WELL-CNTL	RUNNING
6-JUL-2005	23:34:17.000	W281-WELL-CNTL	STOPPED
7-JUL-2005	5:08:32.000	W281-WELL-CNTL	RUNNING
7-JUL-2005	14:25:10.000	W281-WELL-CNTL	STOPPED
7-JUL-2005	19:58:28.000	W281-WELL-CNTL	RUNNING
8-JUL-2005	0:01:56.000	W281-WELL-CNTL	STOPPED
8-JUL-2005	4:25:47.000	W281-WELL-CNTL	RUNNING
8-JUL-2005	16:49:22.000	W281-WELL-CNTL	STOPPED
8-JUL-2005	19:04:21.000	W281-WELL-CNTL	RUNNING
9-JUL-2005	0:43:39.000	W281-WELL-CNTL	STOPPED
9-JUL-2005	5:21:22.000	W281-WELL-CNTL	RUNNING
9-JUL-2005	15:53:12.000	W281-WELL-CNTL	STOPPED
9-JUL-2005	18:06:40.000	W281-WELL-CNTL	RUNNING
10-JUL-2005	1:14:14.000	W281-WELL-CNTL	STOPPED
10-JUL-2005	4:40:08.000	W281-WELL-CNTL	RUNNING
10-JUL-2005	14:35:17.000	W281-WELL-CNTL	STOPPED
10-JUL-2005	17:49:47.000	W281-WELL-CNTL	RUNNING
11-JUL-2005	1:25:10.000	W281-WELL-CNTL	STOPPED
11-JUL-2005	5:21:44.000	W281-WELL-CNTL	RUNNING
11-JUL-2005	15:38:11.000	W281-WELL-CNTL	STOPPED
12-JUL-2005	6:08:50.000	W281-WELL-CNTL	RUNNING
12-JUL-2005	14:35:41.000	W281-WELL-CNTL	STOPPED
13-JUL-2005	5:14:07.000	W281-WELL-CNTL	RUNNING
13-JUL-2005	14:13:55.000	W281-WELL-CNTL	STOPPED
13-JUL-2005	18:34:18.000	W281-WELL-CNTL	RUNNING
14-JUL-2005	0:22:08.000	W281-WELL-CNTL	STOPPED
14-JUL-2005	3:51:24.000	W281-WELL-CNTL	RUNNING

EquipNumber	TestDate	TestTime	Status	HP	MotorType	RPM	AirLineLength	AirLinePSI	PumpSetting	PumpStaticLevel	PumpingLevel	DischargePSI	DischargePipeDiameter	PipeWallThickness
W0280	5/27/1999	11:30:00 AM	A	500	1	1775.0	0	0	0	0	788	9	0	0
W0280	7/8/1999	11:15:00 AM	A	500	1	1775.0	0	0	0	0	787	3	0	0
W0280	11/5/1999	10:30:00 AM	A	500	1	1775.0	0	0	0	0	798	4	0	0
W0280	11/2/2000	1:00:00 PM	A	500	1	1775.0	0	0	0	0	796	5	12.89	0.5
W0280	4/19/2000	10:30:00 AM	A	500	1	1775.0	0	0	0	716	797	6	12.85	0.348
W0280	8/1/2000	11:00:00 AM	A	500	1	1775.0	0	0	0	724	0	0	0	0
W0280	10/10/2000	12:00:00 PM	A	500	1	1775.0	0	0	0	714	0	0	0	0
W0280	1/3/2001	9:00:00 AM	A	500	1	1775.0	0	0	0	715	0	0	0	0
W0280	1/4/2001	9:00:00 AM	A	500	1	1775.0	0	0	0	715	0	0	0	0
W0280	1/6/2001	11:00:00 AM	A	500	1	1775.0	0	0	0	0	791	5	12.85	0.348
W0280	9/24/2001	11:00:00 AM	A	500	1	1775.0	0	0	0	0	784	4	12.85	0.266
W0280	11/29/2001	9:40:00 AM	A	500	1	1775.0	0	0	0	707	806	3	12.85	0.348
W0280	3/25/2002	9:50:00 AM	A	500	1	1775.0	0	0	0	0	782	4	12.85	0.307
W0280	7/18/2002	8:30:00 AM	A	500	1	1775.0	0	0	0	720	799	0	0	0
W0280	12/19/2002	9:00:00 AM	A	500	1	1775.0	0	0	0	0	796	4	12.86	0.259
W0280	3/13/2003	10:30:00 AM	A	500	1	1775.0	0	0	0	719	0	0	0	0
W0280	9/18/2003	10:45:00 AM	A	500	1	1775.0	0	0	0	716	794	0	12.85	0.254
W0280	11/25/2003	8:10:00 AM	A	500	1	1775.0	0	0	0	726	801	33	12.86	0.255
W0280	4/15/2004	9:00:00 AM	A	500	1	1775.0	0	0	0	0	780	0	0	0
W0280	8/16/2004	12:30:00 PM	A	500	1	1775.0	0	0	0	727	787	0	0	0
W0280	11/9/2004	9:45:00 AM	A	500	1	1775.0	0	0	0	0	798	30	12.85	0.254
W0281	5/26/1999	3:15:00 PM	A	250	1	1774.0	970	110	0	815	0	0	0	0
W0281	8/24/1999	11:15:00 AM	A	250	1	1774.0	970	1	0	816	890	7	0	0
W0281	11/4/1999	10:00:00 AM	A	250	1	1774.0	970	0	0	0	896	5	0	0
W0281	1/12/2000	8:00:00 AM	A	250	1	1774.0	970	0	0	811	0	0	0	0
W0281	2/24/2000	8:00:00 AM	A	250	1	1774.0	970	0	0	820	896	5	0	0
W0281	4/5/2000	10:30:00 AM	A	250	1	1774.0	970	0	0	828	878	7	8.62	0
W0281	8/1/2000	10:30:00 AM	A	250	1	1774.0	970	0	0	825	860	5	0	0.347
W0281	10/3/2000	8:30:00 AM	A	250	1	1774.0	970	0	0	805	830	4	0	0
W0281	10/10/2000	1:00:00 PM	A	250	1	1774.0	970	0	0	818	0	0	0	0
W0281	1/22/2001	12:40:00 PM	I	250	1	1774.0	970	0	0	815	0	0	0	0
W0281	8/24/2001	12:40:00 PM	I	250	1	1774.0	970	0	0	830	0	0	0	0
W0281	11/20/2001	12:10:00 PM	I	250	1	1774.0	970	0	0	818	0	0	0	0
W0281	3/25/2002	1:30:00 PM	I	250	1	1774.0	970	0	0	817	0	0	0	0
W0281	9/9/2002	12:45:00 PM	I	250	1	1774.0	970	0	0	828	0	0	0	0
W0281	1/22/2003	8:30:00 AM	A	125	2	3600.0	1002	0	0	824	863	0	8.64	0.343
W0281	5/12/2003	10:30:00 AM	A	125	2	3600.0	1002	0	0	821	882	5	8.64	0.325
W0281	5/21/2003	10:30:00 AM	A	125	2	3600.0	1002	0	0	821	0	0	0	0
W0281	7/31/2003	10:30:00 AM	A	125	2	3600.0	1002	0	0	818	0	0	0	0
W0281	2/10/2004	9:00:00 AM	A	125	2	3600.0	1002	0	0	0	0	5	8.64	0.27
W0281	4/14/2004	9:00:00 AM	A	125	2	3600.0	1002	0	0	0	874	5	8.65	0.339
W0281	8/16/2004	11:40:00 AM	A	125	2	3600.0	1002	0	0	839	0	0	0	0

FlowmeterSelect	FlowmeterDoppler	FlowmeterExist	FlowmeterSonic GPM	FlowmeterPitot	FlowmeterOther	FlowmeterExistDesc	Volts	MeterMult	KMultiplier	PowerMeterSeconds
N	0	0	0	0	0	W	480	0	0	0
S	0	2050	2070	0	0	W	480	0	0	0
E	0	2050	0	0	0	W	480	0	0	0
E	2270	2050	0	0	0	W	480	0	0	0
E	0	1950	1922	0	0	W	480	0	0	0
N	0	0	0	0	0	W	480	0	0	0
N	0	0	0	0	0	W	480	0	0	0
N	0	0	0	0	0	W	480	0	0	0
E	0	1850	1605	0	0	W	480	0	0	0
E	0	1850	1772	0	0	W	480	0	0	0
E	0	1775	1680	0	0	W	480	0	0	0
S	0	1850	1678	0	0	W	480	0	0	0
N	0	0	0	0	0	W	480	0	0	0
S	0	2050	1730	0	0	W	480	0	0	0
N	0	0	0	0	0	W	480	0	0	0
N	0	1940	0	0	0	W	480	0	0	0
E	0	1725	1630	0	0	W	480	0	0	0
E	0	0	0	0	0	W	480	0	0	0
N	0	0	0	0	0	W	480	0	0	0
E	0	1750	0	0	0	W	480	0	0	0
N	0	0	0	0	0	W	480	0	0	0
N	0	1870	1610	0	0	W	480	0	0	0
S	0	0	0	0	0	W	480	40	3.6	0
N	0	600	0	0	0	W	480	40	3.6	0
E	0	600	0	0	0	W	480	40	3.6	0
E	0	0	0	0	0	W	480	40	3.6	0
N	0	680	0	0	0	W	480	40	3.6	0
E	0	600	0	0	0	W	480	40	3.6	0
E	0	320	0	0	0	W	460	40	3.6	0
E	0	60	0	0	0	W	460	40	3.6	0
N	0	0	0	0	0	W	460	40	3.6	0
N	0	0	0	0	0	W	460	40	3.6	0
N	0	0	0	0	0	W	460	40	3.6	0
N	0	0	0	0	0	W	460	40	3.6	0
N	0	0	0	0	0	W	460	40	3.6	0
N	0	0	0	0	0	W	460	40	3.6	0
N	0	0	0	0	0	W	460	40	3.6	0
N	0	0	0	0	0	W	460	40	3.6	0
N	0	0	0	0	0	W	460	40	3.6	0
E	0	450	360	0	0	W	480	0	0	0
E	0	360	292	0	0	W	480	0	0	0
N	0	0	0	0	0	W	480	0	0	0
N	0	0	0	0	0	W	480	0	0	0
E	0	310	270	0	0	W	480	0	0	0
E	0	325	282	0	0	W	480	0	0	0
N	0	0	0	0	0	W	480	0	0	0

IoLoad	Volt	IoLoad	Volt	IoLoad	Volt	Comments
0	0	0	0	0	0	STRAIGHTEN GATE
0	0	0	0	0	0	APS LOCKED OUT,EXIST-WATER SPECIALTIES FLOWMETER
0	0	0	0	0	0	WELL AREA OILY NEEDS CLEANING
0	0	0	0	0	0	FUJI INOP ON THIS MANIFOLD
0	0	0	0	0	0	
0	0	0	0	0	0	REQUEST FROM CHIP LAVOIE, FRANK BLONCO TO SOUND WELL
0	0	0	0	0	0	WELL UNABLE TO TEST, WQ TEST POSPONED
0	0	0	0	0	0	EXISTING METER INACCURATE DUE TO MANIFOLD DESIGN - CHECK VALVE ATTACHED TO METER UPSTREAM PRESSURE OCCILATING 3 TO 4 PSI, SONIC FLG1S SET 9.98 <->
0	0	0	0	0	0	METER FLOW INDICATOR IS ERRATIC. METER NEEDS RELOCATION(CHECK VALVE ATTACHED TO UPSTREAM SIDE OF FLOW METER)
0	0	0	0	0	0	
0	0	0	0	0	0	PUMPING LEVEL ONLY
0	0	0	0	0	0	
0	0	0	0	0	0	sounding only
0	0	0	0	0	0	oil drum still on site / arsenic building being built tamping machine in use no noise level
0	0	0	0	0	0	Static from 6/24/03
0	0	0	0	0	0	atf in mode 8 flow to con.b only
0	0	0	0	0	0	Arsenic site mode - 1 /const.wall project/P.O.E
0	0	0	0	0	0	static only / 727"
0	0	0	0	0	0	EXIST METER WS 991083-12"
0	0	0	0	0	0	AIR NOT RELIABLE
0	0	0	0	0	0	NO ACCESS TO POWER METER
0	0	0	0	0	0	WELL BREAKING SUCTION, FLOW VARIED 600-750GPM
0	0	0	0	0	0	
490	489	489	489	489	489	AIR IN DISCHARGE SONIC N/G
492	492	492	492	492	492	SAND COLLECTION CONSISTED .1 PPM BRASS
489	487	487	487	487	487	WELL WATER SAMPLE CONTAINS BRASS
0	0	0	0	0	0	REQUEST FROM FRANK BLONCO TO SOUND WELL
0	0	0	0	0	0	
0	0	0	0	0	0	WELL DOWN, STATIC LEVEL ONLY
0	0	0	0	0	0	WELL DISCONNECTED AND PULLED FOR REPAIRS
0	0	0	0	0	0	WELL PULLED FOR REPAIRS, STATIC ONLY
0	0	0	0	0	0	SOUNDING ONLY
0	0	0	0	0	0	METER BAD REPLACED AFTER THIS PROFILE/ Z METHOD USED FOR FUJI
0	0	0	0	0	0	no noise sub.
0	0	0	0	0	0	sounding only
0	0	0	0	0	0	sounding only
0	0	0	0	0	0	no static
0	0	0	0	0	0	Ntu,s .31/ free res. 1.00ppm
0	0	0	0	0	0	static only 839'

APPENDIX E



LABORATORY REPORT

Prepared For: Bryan A. Stirrat & Associates
 1422 North 44th Street, Suite 109
 Phoenix, AZ 85012
 Attention: Keith Johnson

Project: Cave Creek

Sampled: 07/13/05-07/14/05
 Received: 07/14/05
 Issued: 07/29/05 16:32

NELAP #01109CA Arizona DHS#AZ0426

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of Del Mar Analytical and its client. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical. The Chain of Custody, 1 page, is included and is an integral part of this report. This entire report was reviewed and approved for release.

CASE NARRATIVE

LABORATORY ID	CLIENT ID	MATRIX
POG0334-01	T.B.	Water
POG0334-02	T.B.	Water
POG0334-03	MW1	Water
POG0334-04	MW1	Water
POG0334-05	MW2	Water
POG0334-06	MW2	Water
POG0334-07	Production	Water
POG0334-08	Production	Water



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Bryan A. Stirrat & Associates
122 North 44th Street, Suite 109
Phoenix, AZ 85012
Attention: Keith Johnson

Project ID: Cave Creek

Report Number: POG0334

Sampled: 07/13/05-07/14/05
Received: 07/14/05

- SAMPLE RECEIPT: Samples were received intact, at 2°C, on ice and with chain of custody documentation.
- HOLDING TIMES: Not all holding times were met. Results were qualified where the sample analysis did not occur within method specified holding time requirements.
- PRESERVATION: Samples requiring preservation were verified prior to sample analysis.
- QA/QC CRITERIA: All analyses met method criteria, except as noted in the report with data qualifiers.
- COMMENTS: Results that fall between the MDL and RL are 'J' flagged.
- SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.
- ADDITIONAL INFORMATION:
 - H1 - Sample analysis performed past method-specified holding time.
 - L3 - Laboratory Control Sample recovery was above the method control limits. Analyte not detected, data not impacted.
 - N1 - The holding time for this test is immediate. The laboratory measurement, therefore, cannot be used for compliance purposes.
 - N1a - The MS and/or MSD were below the acceptance limits. See Blank Spike (LCS).
 - N1b - The MS and MSD were above the method acceptance limits. Analyte recovery was above method acceptance limits in the Blank Spike and in the Calibration Verification. Postive results may be biased high.
 - R1 - The RPD exceeded the method control limit.

Reviewed By:

Karen Maxwell

Del Mar Analytical - Phoenix
Karen Maxwell
Project Manager



Del Mar Analytical

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Ryan A. Stirrat & Associates
 22 North 44th Street, Suite 109
 Phoenix, AZ 85012
 Attention: Keith Johnson

Project ID: Cave Creek

Report Number: POG0334

Sampled: 07/13/05-07/14/05
 Received: 07/14/05

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: POG0334-01 (T.B. - Water)									
Reporting Units: ug/l									
Sampled: 07/14/05									
Acetone	EPA 8260B	P5G1915	6.4	10	ND	1	07/19/05	07/19/05	V1
Benzene	EPA 8260B	P5G1915	0.15	2.0	ND	1	07/19/05	07/19/05	
Bromobenzene	EPA 8260B	P5G1915	0.11	5.0	ND	1	07/19/05	07/19/05	
Bromochloromethane	EPA 8260B	P5G1915	0.13	5.0	ND	1	07/19/05	07/19/05	
Bromodichloromethane	EPA 8260B	P5G1915	0.16	2.0	ND	1	07/19/05	07/19/05	
Bromoform	EPA 8260B	P5G1915	1.4	5.0	ND	1	07/19/05	07/19/05	
Bromomethane	EPA 8260B	P5G1915	0.56	5.0	ND	1	07/19/05	07/19/05	
2-Butanone (MEK)	EPA 8260B	P5G1915	4.5	10	ND	1	07/19/05	07/19/05	
n-Butylbenzene	EPA 8260B	P5G1915	0.18	5.0	ND	1	07/19/05	07/19/05	
sec-Butylbenzene	EPA 8260B	P5G1915	0.12	5.0	ND	1	07/19/05	07/19/05	
tert-Butylbenzene	EPA 8260B	P5G1915	0.15	5.0	ND	1	07/19/05	07/19/05	
Carbon Disulfide	EPA 8260B	P5G1915	0.81	5.0	ND	1	07/19/05	07/19/05	
Carbon tetrachloride	EPA 8260B	P5G1915	0.19	5.0	ND	1	07/19/05	07/19/05	
Chlorobenzene	EPA 8260B	P5G1915	0.073	2.0	ND	1	07/19/05	07/19/05	
Chloroethane	EPA 8260B	P5G1915	2.0	5.0	ND	1	07/19/05	07/19/05	
Chloroform	EPA 8260B	P5G1915	0.16	2.0	ND	1	07/19/05	07/19/05	
Bromomethane	EPA 8260B	P5G1915	0.26	5.0	ND	1	07/19/05	07/19/05	
2-Chlorotoluene	EPA 8260B	P5G1915	0.092	5.0	ND	1	07/19/05	07/19/05	
4-Chlorotoluene	EPA 8260B	P5G1915	0.12	5.0	ND	1	07/19/05	07/19/05	
Dibromochloromethane	EPA 8260B	P5G1915	0.18	2.0	ND	1	07/19/05	07/19/05	
1,2-Dibromo-3-chloropropane	EPA 8260B	P5G1915	0.42	5.0	ND	1	07/19/05	07/19/05	
1,2-Dibromoethane (EDB)	EPA 8260B	P5G1915	0.16	2.0	ND	1	07/19/05	07/19/05	
Dibromomethane	EPA 8260B	P5G1915	0.15	2.0	ND	1	07/19/05	07/19/05	
1,2-Dichlorobenzene	EPA 8260B	P5G1915	0.12	2.0	ND	1	07/19/05	07/19/05	
1,3-Dichlorobenzene	EPA 8260B	P5G1915	0.078	2.0	ND	1	07/19/05	07/19/05	
1,4-Dichlorobenzene	EPA 8260B	P5G1915	0.13	2.0	ND	1	07/19/05	07/19/05	
Dichlorodifluoromethane	EPA 8260B	P5G1915	1.1	5.0	ND	1	07/19/05	07/19/05	
1,1-Dichloroethane	EPA 8260B	P5G1915	0.13	2.0	ND	1	07/19/05	07/19/05	
1,2-Dichloroethane	EPA 8260B	P5G1915	0.15	2.0	ND	1	07/19/05	07/19/05	
1,1-Dichloroethene	EPA 8260B	P5G1915	0.28	5.0	ND	1	07/19/05	07/19/05	
cis-1,2-Dichloroethene	EPA 8260B	P5G1915	0.23	2.0	ND	1	07/19/05	07/19/05	
trans-1,2-Dichloroethene	EPA 8260B	P5G1915	0.33	2.0	ND	1	07/19/05	07/19/05	
1,2-Dichloropropane	EPA 8260B	P5G1915	0.15	2.0	ND	1	07/19/05	07/19/05	
1,3-Dichloropropane	EPA 8260B	P5G1915	0.16	2.0	ND	1	07/19/05	07/19/05	
2,2-Dichloropropane	EPA 8260B	P5G1915	0.33	2.0	ND	1	07/19/05	07/19/05	
1,1-Dichloropropene	EPA 8260B	P5G1915	0.12	2.0	ND	1	07/19/05	07/19/05	
cis-1,3-Dichloropropene	EPA 8260B	P5G1915	0.15	2.0	ND	1	07/19/05	07/19/05	
trans-1,3-Dichloropropene	EPA 8260B	P5G1915	0.19	2.0	ND	1	07/19/05	07/19/05	
Ethylbenzene	EPA 8260B	P5G1915	0.12	2.0	ND	1	07/19/05	07/19/05	
2-Hexanone	EPA 8260B	P5G1915	5.7	10	ND	1	07/19/05	07/19/05	
Hexachlorobutadiene	EPA 8260B	P5G1915	0.24	5.0	ND	1	07/19/05	07/19/05	V1

Del Mar Analytical - Phoenix
 Karen Maxwell
 Project Manager

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Bryan A. Stirrat & Associates
 422 North 44th Street, Suite 109
 Phoenix, AZ 85012
 Attention: Keith Johnson

Project ID: Cave Creek

Report Number: POG0334

Sampled: 07/13/05-07/14/05
 Received: 07/14/05

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: POG0334-01 (T.B. - Water) - cont.									
Reporting Units: ug/l									
Sampled: 07/14/05									
Iodomethane	EPA 8260B	P5G1915	0.15	5.0	ND	1	07/19/05	07/19/05	
Isopropylbenzene	EPA 8260B	P5G1915	0.12	2.0	ND	1	07/19/05	07/19/05	
p-Isopropyltoluene	EPA 8260B	P5G1915	0.11	2.0	ND	1	07/19/05	07/19/05	
Methylene chloride	EPA 8260B	P5G1915	0.80	10	ND	1	07/19/05	07/19/05	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	P5G1915	2.8	10	ND	1	07/19/05	07/19/05	
Naphthalene	EPA 8260B	P5G1915	0.22	5.0	ND	1	07/19/05	07/19/05	
n-Propylbenzene	EPA 8260B	P5G1915	0.14	2.0	ND	1	07/19/05	07/19/05	
Styrene	EPA 8260B	P5G1915	0.12	2.0	ND	1	07/19/05	07/19/05	
1,1,1,2-Tetrachloroethane	EPA 8260B	P5G1915	0.14	5.0	ND	1	07/19/05	07/19/05	
1,1,2,2-Tetrachloroethane	EPA 8260B	P5G1915	0.22	2.0	ND	1	07/19/05	07/19/05	
Tetrachloroethene	EPA 8260B	P5G1915	0.12	2.0	ND	1	07/19/05	07/19/05	
Toluene	EPA 8260B	P5G1915	0.24	2.0	ND	1	07/19/05	07/19/05	
1,2,3-Trichlorobenzene	EPA 8260B	P5G1915	0.16	5.0	ND	1	07/19/05	07/19/05	
1,2,4-Trichlorobenzene	EPA 8260B	P5G1915	0.13	5.0	ND	1	07/19/05	07/19/05	
1,1,1-Trichloroethane	EPA 8260B	P5G1915	0.22	2.0	ND	1	07/19/05	07/19/05	
1,1,2-Trichloroethane	EPA 8260B	P5G1915	0.14	2.0	ND	1	07/19/05	07/19/05	
1,1,2,2-Tetrachloroethene	EPA 8260B	P5G1915	0.14	2.0	ND	1	07/19/05	07/19/05	
Trichlorofluoromethane	EPA 8260B	P5G1915	0.13	5.0	ND	1	07/19/05	07/19/05	
1,2,3-Trichloropropane	EPA 8260B	P5G1915	0.26	10	ND	1	07/19/05	07/19/05	
1,2,4-Trimethylbenzene	EPA 8260B	P5G1915	0.17	2.0	ND	1	07/19/05	07/19/05	
1,3,5-Trimethylbenzene	EPA 8260B	P5G1915	0.15	2.0	ND	1	07/19/05	07/19/05	
Vinyl acetate	EPA 8260B	P5G1915	1.6	25	ND	1	07/19/05	07/19/05	
Vinyl chloride	EPA 8260B	P5G1915	0.18	5.0	ND	1	07/19/05	07/19/05	
o-Xylene	EPA 8260B	P5G1915	0.14	2.0	ND	1	07/19/05	07/19/05	
m,p-Xylenes	EPA 8260B	P5G1915	0.24	2.0	ND	1	07/19/05	07/19/05	
Freon 113	EPA 8260B	P5G1915	0.46	5.0	ND	1	07/19/05	07/19/05	
Surrogate: Dibromofluoromethane (80-125%)									99 %
Surrogate: Toluene-d8 (80-120%)									102 %
Surrogate: 4-Bromofluorobenzene (80-120%)									102 %

Del Mar Analytical - Phoenix
 Karen Maxwell
 Project Manager



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 Attention: Keith Johnson

Project ID: Cave Creek

Report Number: POG0334

Sampled: 07/13/05-07/14/05
 Received: 07/14/05

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: POG0334-03 (MW1 - Water)									
Reporting Units: ug/l									
Sampled: 07/14/05									
Acetone	EPA 8260B	P5G1915	6.4	10	ND	1	07/19/05	07/19/05	V1
Benzene	EPA 8260B	P5G1915	0.15	2.0	ND	1	07/19/05	07/19/05	
Bromobenzene	EPA 8260B	P5G1915	0.11	5.0	ND	1	07/19/05	07/19/05	
Bromochloromethane	EPA 8260B	P5G1915	0.13	5.0	ND	1	07/19/05	07/19/05	
Bromodichloromethane	EPA 8260B	P5G1915	0.16	2.0	ND	1	07/19/05	07/19/05	
Bromoform	EPA 8260B	P5G1915	1.4	5.0	ND	1	07/19/05	07/19/05	
Bromomethane	EPA 8260B	P5G1915	0.56	5.0	ND	1	07/19/05	07/19/05	
2-Butanone (MEK)	EPA 8260B	P5G1915	4.5	10	ND	1	07/19/05	07/19/05	
n-Butylbenzene	EPA 8260B	P5G1915	0.18	5.0	ND	1	07/19/05	07/19/05	
sec-Butylbenzene	EPA 8260B	P5G1915	0.12	5.0	ND	1	07/19/05	07/19/05	
tert-Butylbenzene	EPA 8260B	P5G1915	0.15	5.0	ND	1	07/19/05	07/19/05	
Carbon Disulfide	EPA 8260B	P5G1915	0.81	5.0	ND	1	07/19/05	07/19/05	
Carbon tetrachloride	EPA 8260B	P5G1915	0.19	5.0	ND	1	07/19/05	07/19/05	
Chlorobenzene	EPA 8260B	P5G1915	0.073	2.0	ND	1	07/19/05	07/19/05	
Chloroethane	EPA 8260B	P5G1915	2.0	5.0	ND	1	07/19/05	07/19/05	
Chloroform	EPA 8260B	P5G1915	0.16	2.0	ND	1	07/19/05	07/19/05	
Bromomethane	EPA 8260B	P5G1915	0.26	5.0	ND	1	07/19/05	07/19/05	
2-Chlorotoluene	EPA 8260B	P5G1915	0.092	5.0	ND	1	07/19/05	07/19/05	
4-Chlorotoluene	EPA 8260B	P5G1915	0.12	5.0	ND	1	07/19/05	07/19/05	
Dibromochloromethane	EPA 8260B	P5G1915	0.18	2.0	ND	1	07/19/05	07/19/05	
1,2-Dibromo-3-chloropropane	EPA 8260B	P5G1915	0.42	5.0	ND	1	07/19/05	07/19/05	
1,2-Dibromoethane (EDB)	EPA 8260B	P5G1915	0.16	2.0	ND	1	07/19/05	07/19/05	
Dibromomethane	EPA 8260B	P5G1915	0.15	2.0	ND	1	07/19/05	07/19/05	
1,2-Dichlorobenzene	EPA 8260B	P5G1915	0.12	2.0	ND	1	07/19/05	07/19/05	
1,3-Dichlorobenzene	EPA 8260B	P5G1915	0.078	2.0	ND	1	07/19/05	07/19/05	
1,4-Dichlorobenzene	EPA 8260B	P5G1915	0.13	2.0	ND	1	07/19/05	07/19/05	
Dichlorodifluoromethane	EPA 8260B	P5G1915	1.1	5.0	ND	1	07/19/05	07/19/05	
1,1-Dichloroethane	EPA 8260B	P5G1915	0.13	2.0	ND	1	07/19/05	07/19/05	
1,2-Dichloroethane	EPA 8260B	P5G1915	0.15	2.0	ND	1	07/19/05	07/19/05	
1,1-Dichloroethene	EPA 8260B	P5G1915	0.28	5.0	ND	1	07/19/05	07/19/05	
cis-1,2-Dichloroethene	EPA 8260B	P5G1915	0.23	2.0	ND	1	07/19/05	07/19/05	
trans-1,2-Dichloroethene	EPA 8260B	P5G1915	0.33	2.0	ND	1	07/19/05	07/19/05	
1,2-Dichloropropane	EPA 8260B	P5G1915	0.15	2.0	ND	1	07/19/05	07/19/05	
1,3-Dichloropropane	EPA 8260B	P5G1915	0.16	2.0	ND	1	07/19/05	07/19/05	
2,2-Dichloropropane	EPA 8260B	P5G1915	0.33	2.0	ND	1	07/19/05	07/19/05	
1,1-Dichloropropene	EPA 8260B	P5G1915	0.12	2.0	ND	1	07/19/05	07/19/05	
cis-1,3-Dichloropropene	EPA 8260B	P5G1915	0.15	2.0	ND	1	07/19/05	07/19/05	
trans-1,3-Dichloropropene	EPA 8260B	P5G1915	0.19	2.0	ND	1	07/19/05	07/19/05	
Ethylbenzene	EPA 8260B	P5G1915	0.12	2.0	ND	1	07/19/05	07/19/05	
2-Hexanone	EPA 8260B	P5G1915	5.7	10	ND	1	07/19/05	07/19/05	
Hexachlorobutadiene	EPA 8260B	P5G1915	0.24	5.0	ND	1	07/19/05	07/19/05	V1

Del Mar Analytical - Phoenix
 Karen Maxwell
 Project Manager

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 Phoenix, AZ 85012
 Attention: Keith Johnson

Project ID: Cave Creek

Report Number: POG0334

Sampled: 07/13/05-07/14/05
 Received: 07/14/05

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: POG0334-03 (MW1 - Water) - cont.					Sampled: 07/14/05				
Reporting Units: ug/l									
Iodomethane	EPA 8260B	P5G1915	0.15	5.0	ND	1	07/19/05	07/19/05	
Isopropylbenzene	EPA 8260B	P5G1915	0.12	2.0	ND	1	07/19/05	07/19/05	
p-Isopropyltoluene	EPA 8260B	P5G1915	0.11	2.0	ND	1	07/19/05	07/19/05	
Methylene chloride	EPA 8260B	P5G1915	0.80	10	ND	1	07/19/05	07/19/05	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	P5G1915	2.8	10	ND	1	07/19/05	07/19/05	
Naphthalene	EPA 8260B	P5G1915	0.22	5.0	ND	1	07/19/05	07/19/05	
n-Propylbenzene	EPA 8260B	P5G1915	0.14	2.0	ND	1	07/19/05	07/19/05	
Styrene	EPA 8260B	P5G1915	0.12	2.0	ND	1	07/19/05	07/19/05	
1,1,1,2-Tetrachloroethane	EPA 8260B	P5G1915	0.14	5.0	ND	1	07/19/05	07/19/05	N1a
1,1,2,2-Tetrachloroethane	EPA 8260B	P5G1915	0.22	2.0	ND	1	07/19/05	07/19/05	
Tetrachloroethene	EPA 8260B	P5G1915	0.12	2.0	0.19	1	07/19/05	07/19/05	E4
Toluene	EPA 8260B	P5G1915	0.24	2.0	ND	1	07/19/05	07/19/05	
1,2,3-Trichlorobenzene	EPA 8260B	P5G1915	0.16	5.0	ND	1	07/19/05	07/19/05	
1,2,4-Trichlorobenzene	EPA 8260B	P5G1915	0.13	5.0	ND	1	07/19/05	07/19/05	
1,1,1-Trichloroethane	EPA 8260B	P5G1915	0.22	2.0	ND	1	07/19/05	07/19/05	
1,1,2-Trichloroethane	EPA 8260B	P5G1915	0.14	2.0	ND	1	07/19/05	07/19/05	
1,1,2,2-Tetrachloroethane	EPA 8260B	P5G1915	0.14	2.0	9.9	1	07/19/05	07/19/05	
Trichlorofluoromethane	EPA 8260B	P5G1915	0.13	5.0	ND	1	07/19/05	07/19/05	
1,2,3-Trichloropropane	EPA 8260B	P5G1915	0.26	10	ND	1	07/19/05	07/19/05	
1,2,4-Trimethylbenzene	EPA 8260B	P5G1915	0.17	2.0	ND	1	07/19/05	07/19/05	
1,3,5-Trimethylbenzene	EPA 8260B	P5G1915	0.15	2.0	ND	1	07/19/05	07/19/05	N1a
Vinyl acetate	EPA 8260B	P5G1915	1.6	25	ND	1	07/19/05	07/19/05	
Vinyl chloride	EPA 8260B	P5G1915	0.18	5.0	ND	1	07/19/05	07/19/05	
o-Xylene	EPA 8260B	P5G1915	0.14	2.0	ND	1	07/19/05	07/19/05	
m,p-Xylenes	EPA 8260B	P5G1915	0.24	2.0	ND	1	07/19/05	07/19/05	
Freon 113	EPA 8260B	P5G1915	0.46	5.0	1.4	1	07/19/05	07/19/05	E4
Surrogate: Dibromofluoromethane (80-125%)					101 %				
Surrogate: Toluene-d8 (80-120%)					102 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					102 %				

Del Mar Analytical - Phoenix
 Karen Maxwell
 Project Manager



Del Mar Analytical

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Bryan A. Stirrat & Associates
 22 North 44th Street, Suite 109
 Phoenix, AZ 85012
 Attention: Keith Johnson

Project ID: Cave Creek

Report Number: POG0334

Sampled: 07/13/05-07/14/05
 Received: 07/14/05

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: POG0334-05 (MW2 - Water)					Sampled: 07/14/05				
Reporting Units: ug/l									
Acetone	EPA 8260B	P5G1915	6.4	10	ND	1	07/19/05	07/19/05	V1
Benzene	EPA 8260B	P5G1915	0.15	2.0	ND	1	07/19/05	07/19/05	
Bromobenzene	EPA 8260B	P5G1915	0.11	5.0	ND	1	07/19/05	07/19/05	
Bromochloromethane	EPA 8260B	P5G1915	0.13	5.0	ND	1	07/19/05	07/19/05	
Bromodichloromethane	EPA 8260B	P5G1915	0.16	2.0	ND	1	07/19/05	07/19/05	
Bromoform	EPA 8260B	P5G1915	1.4	5.0	ND	1	07/19/05	07/19/05	
Bromomethane	EPA 8260B	P5G1915	0.56	5.0	ND	1	07/19/05	07/19/05	
2-Butanone (MEK)	EPA 8260B	P5G1915	4.5	10	ND	1	07/19/05	07/19/05	
n-Butylbenzene	EPA 8260B	P5G1915	0.18	5.0	ND	1	07/19/05	07/19/05	
sec-Butylbenzene	EPA 8260B	P5G1915	0.12	5.0	ND	1	07/19/05	07/19/05	
tert-Butylbenzene	EPA 8260B	P5G1915	0.15	5.0	ND	1	07/19/05	07/19/05	
Carbon Disulfide	EPA 8260B	P5G1915	0.81	5.0	ND	1	07/19/05	07/19/05	
Carbon tetrachloride	EPA 8260B	P5G1915	0.19	5.0	ND	1	07/19/05	07/19/05	
Chlorobenzene	EPA 8260B	P5G1915	0.073	2.0	ND	1	07/19/05	07/19/05	
Chloroethane	EPA 8260B	P5G1915	2.0	5.0	ND	1	07/19/05	07/19/05	
Chloroform	EPA 8260B	P5G1915	0.16	2.0	ND	1	07/19/05	07/19/05	
Bromomethane	EPA 8260B	P5G1915	0.26	5.0	ND	1	07/19/05	07/19/05	
2-Chlorotoluene	EPA 8260B	P5G1915	0.092	5.0	ND	1	07/19/05	07/19/05	
4-Chlorotoluene	EPA 8260B	P5G1915	0.12	5.0	ND	1	07/19/05	07/19/05	
Dibromochloromethane	EPA 8260B	P5G1915	0.18	2.0	ND	1	07/19/05	07/19/05	
1,2-Dibromo-3-chloropropane	EPA 8260B	P5G1915	0.42	5.0	ND	1	07/19/05	07/19/05	
1,2-Dibromoethane (EDB)	EPA 8260B	P5G1915	0.16	2.0	ND	1	07/19/05	07/19/05	
Dibromomethane	EPA 8260B	P5G1915	0.15	2.0	ND	1	07/19/05	07/19/05	
1,2-Dichlorobenzene	EPA 8260B	P5G1915	0.12	2.0	ND	1	07/19/05	07/19/05	
1,3-Dichlorobenzene	EPA 8260B	P5G1915	0.078	2.0	ND	1	07/19/05	07/19/05	
1,4-Dichlorobenzene	EPA 8260B	P5G1915	0.13	2.0	ND	1	07/19/05	07/19/05	
Dichlorodifluoromethane	EPA 8260B	P5G1915	1.1	5.0	ND	1	07/19/05	07/19/05	
1,1-Dichloroethane	EPA 8260B	P5G1915	0.13	2.0	ND	1	07/19/05	07/19/05	
1,2-Dichloroethane	EPA 8260B	P5G1915	0.15	2.0	ND	1	07/19/05	07/19/05	
1,1-Dichloroethene	EPA 8260B	P5G1915	0.28	5.0	ND	1	07/19/05	07/19/05	
cis-1,2-Dichloroethene	EPA 8260B	P5G1915	0.23	2.0	ND	1	07/19/05	07/19/05	
trans-1,2-Dichloroethene	EPA 8260B	P5G1915	0.33	2.0	ND	1	07/19/05	07/19/05	
1,2-Dichloropropane	EPA 8260B	P5G1915	0.15	2.0	ND	1	07/19/05	07/19/05	
1,3-Dichloropropane	EPA 8260B	P5G1915	0.16	2.0	ND	1	07/19/05	07/19/05	
2,2-Dichloropropane	EPA 8260B	P5G1915	0.33	2.0	ND	1	07/19/05	07/19/05	
1,1-Dichloropropene	EPA 8260B	P5G1915	0.12	2.0	ND	1	07/19/05	07/19/05	
cis-1,3-Dichloropropene	EPA 8260B	P5G1915	0.15	2.0	ND	1	07/19/05	07/19/05	
trans-1,3-Dichloropropene	EPA 8260B	P5G1915	0.19	2.0	ND	1	07/19/05	07/19/05	
Ethylbenzene	EPA 8260B	P5G1915	0.12	2.0	ND	1	07/19/05	07/19/05	
2-Hexanone	EPA 8260B	P5G1915	5.7	10	ND	1	07/19/05	07/19/05	
Hexachlorobutadiene	EPA 8260B	P5G1915	0.24	5.0	ND	1	07/19/05	07/19/05	V1

Del Mar Analytical - Phoenix
 Karen Maxwell
 Project Manager

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Bryan A. Stirrat & Associates
 422 North 44th Street, Suite 109
 Phoenix, AZ 85012
 Attention: Keith Johnson

Project ID: Cave Creek

Report Number: POG0334

Sampled: 07/13/05-07/14/05
 Received: 07/14/05

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: POG0334-05 (MW2 - Water) - cont.					Sampled: 07/14/05				
Reporting Units: ug/l									
Iodomethane	EPA 8260B	P5G1915	0.15	5.0	ND	1	07/19/05	07/19/05	
Isopropylbenzene	EPA 8260B	P5G1915	0.12	2.0	ND	1	07/19/05	07/19/05	
p-Isopropyltoluene	EPA 8260B	P5G1915	0.11	2.0	ND	1	07/19/05	07/19/05	
Methylene chloride	EPA 8260B	P5G1915	0.80	10	ND	1	07/19/05	07/19/05	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	P5G1915	2.8	10	ND	1	07/19/05	07/19/05	
Naphthalene	EPA 8260B	P5G1915	0.22	5.0	ND	1	07/19/05	07/19/05	
n-Propylbenzene	EPA 8260B	P5G1915	0.14	2.0	ND	1	07/19/05	07/19/05	
Styrene	EPA 8260B	P5G1915	0.12	2.0	ND	1	07/19/05	07/19/05	
1,1,1,2-Tetrachloroethane	EPA 8260B	P5G1915	0.14	5.0	ND	1	07/19/05	07/19/05	
1,1,2,2-Tetrachloroethane	EPA 8260B	P5G1915	0.22	2.0	ND	1	07/19/05	07/19/05	
Tetrachloroethene	EPA 8260B	P5G1915	0.12	2.0	ND	1	07/19/05	07/19/05	
Toluene	EPA 8260B	P5G1915	0.24	2.0	ND	1	07/19/05	07/19/05	
1,2,3-Trichlorobenzene	EPA 8260B	P5G1915	0.16	5.0	ND	1	07/19/05	07/19/05	
1,2,4-Trichlorobenzene	EPA 8260B	P5G1915	0.13	5.0	ND	1	07/19/05	07/19/05	
1,1,1-Trichloroethane	EPA 8260B	P5G1915	0.22	2.0	ND	1	07/19/05	07/19/05	
1,1,2-Trichloroethane	EPA 8260B	P5G1915	0.14	2.0	ND	1	07/19/05	07/19/05	
1,1,2,2-Tetrachloroethane	EPA 8260B	P5G1915	0.14	2.0	ND	1	07/19/05	07/19/05	
Trichlorofluoromethane	EPA 8260B	P5G1915	0.13	5.0	ND	1	07/19/05	07/19/05	
1,2,3-Trichloropropane	EPA 8260B	P5G1915	0.26	10	ND	1	07/19/05	07/19/05	
1,2,4-Trimethylbenzene	EPA 8260B	P5G1915	0.17	2.0	ND	1	07/19/05	07/19/05	
1,3,5-Trimethylbenzene	EPA 8260B	P5G1915	0.15	2.0	ND	1	07/19/05	07/19/05	
Vinyl acetate	EPA 8260B	P5G1915	1.6	25	ND	1	07/19/05	07/19/05	
Vinyl chloride	EPA 8260B	P5G1915	0.18	5.0	ND	1	07/19/05	07/19/05	
o-Xylene	EPA 8260B	P5G1915	0.14	2.0	ND	1	07/19/05	07/19/05	
m,p-Xylenes	EPA 8260B	P5G1915	0.24	2.0	ND	1	07/19/05	07/19/05	
Freon 113	EPA 8260B	P5G1915	0.46	5.0	ND	1	07/19/05	07/19/05	
Surrogate: Dibromofluoromethane (80-125%)									106 %
Surrogate: Toluene-d8 (80-120%)									102 %
Surrogate: 4-Bromofluorobenzene (80-120%)									107 %

Del Mar Analytical - Phoenix
 Karen Maxwell
 Project Manager



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Ryan A. Stirrat & Associates
 22 North 44th Street, Suite 109
 Phoenix, AZ 85012
 Attention: Keith Johnson

Project ID: Cave Creek

Report Number: POG0334

Sampled: 07/13/05-07/14/05
 Received: 07/14/05

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: POG0334-07 (Production - Water)					Sampled: 07/14/05				
Reporting Units: ug/l									
Acetone	EPA 8260B	P5G1915	6.4	10	ND	1	07/19/05	07/19/05	V1
Benzene	EPA 8260B	P5G1915	0.15	2.0	ND	1	07/19/05	07/19/05	
Bromobenzene	EPA 8260B	P5G1915	0.11	5.0	ND	1	07/19/05	07/19/05	
Bromochloromethane	EPA 8260B	P5G1915	0.13	5.0	ND	1	07/19/05	07/19/05	
Bromodichloromethane	EPA 8260B	P5G1915	0.16	2.0	ND	1	07/19/05	07/19/05	
Bromoform	EPA 8260B	P5G1915	1.4	5.0	ND	1	07/19/05	07/19/05	
Bromomethane	EPA 8260B	P5G1915	0.56	5.0	ND	1	07/19/05	07/19/05	
2-Butanone (MEK)	EPA 8260B	P5G1915	4.5	10	ND	1	07/19/05	07/19/05	
n-Butylbenzene	EPA 8260B	P5G1915	0.18	5.0	ND	1	07/19/05	07/19/05	
sec-Butylbenzene	EPA 8260B	P5G1915	0.12	5.0	ND	1	07/19/05	07/19/05	
tert-Butylbenzene	EPA 8260B	P5G1915	0.15	5.0	ND	1	07/19/05	07/19/05	
Carbon Disulfide	EPA 8260B	P5G1915	0.81	5.0	ND	1	07/19/05	07/19/05	
Carbon tetrachloride	EPA 8260B	P5G1915	0.19	5.0	ND	1	07/19/05	07/19/05	
Chlorobenzene	EPA 8260B	P5G1915	0.073	2.0	ND	1	07/19/05	07/19/05	
Chloroethane	EPA 8260B	P5G1915	2.0	5.0	ND	1	07/19/05	07/19/05	
Chloroform	EPA 8260B	P5G1915	0.16	2.0	ND	1	07/19/05	07/19/05	
Chloromethane	EPA 8260B	P5G1915	0.26	5.0	ND	1	07/19/05	07/19/05	
2-Chlorotoluene	EPA 8260B	P5G1915	0.092	5.0	ND	1	07/19/05	07/19/05	
4-Chlorotoluene	EPA 8260B	P5G1915	0.12	5.0	ND	1	07/19/05	07/19/05	
Dibromochloromethane	EPA 8260B	P5G1915	0.18	2.0	ND	1	07/19/05	07/19/05	
1,2-Dibromo-3-chloropropane	EPA 8260B	P5G1915	0.42	5.0	ND	1	07/19/05	07/19/05	
1,2-Dibromoethane (EDB)	EPA 8260B	P5G1915	0.16	2.0	ND	1	07/19/05	07/19/05	
Dibromomethane	EPA 8260B	P5G1915	0.15	2.0	ND	1	07/19/05	07/19/05	
1,2-Dichlorobenzene	EPA 8260B	P5G1915	0.12	2.0	ND	1	07/19/05	07/19/05	
1,3-Dichlorobenzene	EPA 8260B	P5G1915	0.078	2.0	ND	1	07/19/05	07/19/05	
1,4-Dichlorobenzene	EPA 8260B	P5G1915	0.13	2.0	ND	1	07/19/05	07/19/05	
Dichlorodifluoromethane	EPA 8260B	P5G1915	1.1	5.0	ND	1	07/19/05	07/19/05	
1,1-Dichloroethane	EPA 8260B	P5G1915	0.13	2.0	ND	1	07/19/05	07/19/05	
1,2-Dichloroethane	EPA 8260B	P5G1915	0.15	2.0	ND	1	07/19/05	07/19/05	
1,1-Dichloroethene	EPA 8260B	P5G1915	0.28	5.0	ND	1	07/19/05	07/19/05	
cis-1,2-Dichloroethene	EPA 8260B	P5G1915	0.23	2.0	ND	1	07/19/05	07/19/05	
trans-1,2-Dichloroethene	EPA 8260B	P5G1915	0.33	2.0	ND	1	07/19/05	07/19/05	
1,2-Dichloropropane	EPA 8260B	P5G1915	0.15	2.0	ND	1	07/19/05	07/19/05	
1,3-Dichloropropane	EPA 8260B	P5G1915	0.16	2.0	ND	1	07/19/05	07/19/05	
2,2-Dichloropropane	EPA 8260B	P5G1915	0.33	2.0	ND	1	07/19/05	07/19/05	
1,1-Dichloropropene	EPA 8260B	P5G1915	0.12	2.0	ND	1	07/19/05	07/19/05	
cis-1,3-Dichloropropene	EPA 8260B	P5G1915	0.15	2.0	ND	1	07/19/05	07/19/05	
trans-1,3-Dichloropropene	EPA 8260B	P5G1915	0.19	2.0	ND	1	07/19/05	07/19/05	
Ethylbenzene	EPA 8260B	P5G1915	0.12	2.0	ND	1	07/19/05	07/19/05	
2-Hexanone	EPA 8260B	P5G1915	5.7	10	ND	1	07/19/05	07/19/05	
Hexachlorobutadiene	EPA 8260B	P5G1915	0.24	5.0	ND	1	07/19/05	07/19/05	V1

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 Karen Maxwell
 Project Manager

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Alan A. Stirrat & Associates
 22 North 44th Street, Suite 109
 Phoenix, AZ 85012
 Attention: Keith Johnson

Project ID: Cave Creek

Report Number: POG0334

Sampled: 07/13/05-07/14/05
 Received: 07/14/05

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
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Sample ID: POG0334-07 (Production - Water) - cont.
 Reporting Units: ug/l

Sampled: 07/14/05

Iodomethane	EPA 8260B	P5G1915	0.15	5.0	ND	1	07/19/05	07/19/05	
Isopropylbenzene	EPA 8260B	P5G1915	0.12	2.0	ND	1	07/19/05	07/19/05	
p-Isopropyltoluene	EPA 8260B	P5G1915	0.11	2.0	ND	1	07/19/05	07/19/05	
Methylene chloride	EPA 8260B	P5G1915	0.80	10	ND	1	07/19/05	07/19/05	
4-Methyl-2-pentanone (MIBK)	EPA 8260B	P5G1915	2.8	10	ND	1	07/19/05	07/19/05	
Naphthalene	EPA 8260B	P5G1915	0.22	5.0	ND	1	07/19/05	07/19/05	
n-Propylbenzene	EPA 8260B	P5G1915	0.14	2.0	ND	1	07/19/05	07/19/05	
Styrene	EPA 8260B	P5G1915	0.12	2.0	ND	1	07/19/05	07/19/05	
1,1,1,2-Tetrachloroethane	EPA 8260B	P5G1915	0.14	5.0	ND	1	07/19/05	07/19/05	
1,1,2,2-Tetrachloroethane	EPA 8260B	P5G1915	0.22	2.0	ND	1	07/19/05	07/19/05	
Tetrachloroethene	EPA 8260B	P5G1915	0.12	2.0	ND	1	07/19/05	07/19/05	
Toluene	EPA 8260B	P5G1915	0.24	2.0	ND	1	07/19/05	07/19/05	
1,2,3-Trichlorobenzene	EPA 8260B	P5G1915	0.16	5.0	ND	1	07/19/05	07/19/05	
1,2,4-Trichlorobenzene	EPA 8260B	P5G1915	0.13	5.0	ND	1	07/19/05	07/19/05	
1,1,1-Trichloroethane	EPA 8260B	P5G1915	0.22	2.0	ND	1	07/19/05	07/19/05	
1,1,2-Trichloroethane	EPA 8260B	P5G1915	0.14	2.0	ND	1	07/19/05	07/19/05	
1,1,2,2-Tetrachloroethene	EPA 8260B	P5G1915	0.14	2.0	2.6	1	07/19/05	07/19/05	
Trichlorofluoromethane	EPA 8260B	P5G1915	0.13	5.0	ND	1	07/19/05	07/19/05	
1,2,3-Trichloropropane	EPA 8260B	P5G1915	0.26	10	ND	1	07/19/05	07/19/05	
1,2,4-Trimethylbenzene	EPA 8260B	P5G1915	0.17	2.0	ND	1	07/19/05	07/19/05	
1,3,5-Trimethylbenzene	EPA 8260B	P5G1915	0.15	2.0	ND	1	07/19/05	07/19/05	
Vinyl acetate	EPA 8260B	P5G1915	1.6	25	ND	1	07/19/05	07/19/05	
Vinyl chloride	EPA 8260B	P5G1915	0.18	5.0	ND	1	07/19/05	07/19/05	
o-Xylene	EPA 8260B	P5G1915	0.14	2.0	ND	1	07/19/05	07/19/05	
m,p-Xylenes	EPA 8260B	P5G1915	0.24	2.0	ND	1	07/19/05	07/19/05	
Freon 113	EPA 8260B	P5G1915	0.46	5.0	ND	1	07/19/05	07/19/05	

Surrogate: Dibromofluoromethane (80-125%)

103 %

Surrogate: Toluene-d8 (80-120%)

101 %

Surrogate: 4-Bromofluorobenzene (80-120%)

106 %

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 Karen Maxwell
 Project Manager

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Ryan A. Stirrat & Associates 22 North 44th Street, Suite 109 Phoenix, AZ 85012 Attention: Keith Johnson	Project ID: Cave Creek Report Number: POG0334	Sampled: 07/13/05-07/14/05 Received: 07/14/05
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2-CHLOROETHYL VINYL ETHER BY GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: POG0334-02 (T.B. - Water)					Sampled: 07/14/05				
Reporting Units: ug/l									
2-Chloroethyl vinyl ether	EPA 8260B	P5G1818	0.62	2.0	ND	1	07/18/05	07/18/05	V1, L3
Surrogate: Dibromofluoromethane (80-125%)					100 %				
Surrogate: Toluene-d8 (80-120%)					106 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					99 %				
Sample ID: POG0334-04 (MW1 - Water)					Sampled: 07/13/05				
Reporting Units: ug/l									
2-Chloroethyl vinyl ether	EPA 8260B	P5G1818	0.62	2.0	ND	1	07/18/05	07/18/05	V1, L3
Surrogate: Dibromofluoromethane (80-125%)					102 %				
Surrogate: Toluene-d8 (80-120%)					109 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					98 %				
Sample ID: POG0334-06 (MW2 - Water)					Sampled: 07/13/05				
Reporting Units: ug/l									
2-Chloroethyl vinyl ether	EPA 8260B	P5G1818	0.62	2.0	ND	1	07/18/05	07/18/05	V1, L3
Surrogate: Dibromofluoromethane (80-125%)					103 %				
Surrogate: Toluene-d8 (80-120%)					106 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					100 %				
Sample ID: POG0334-08 (Production - Water)					Sampled: 07/13/05				
Reporting Units: ug/l									
2-Chloroethyl vinyl ether	EPA 8260B	P5G1818	0.62	2.0	ND	1	07/18/05	07/18/05	V1, L3
Surrogate: Dibromofluoromethane (80-125%)					104 %				
Surrogate: Toluene-d8 (80-120%)					106 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					99 %				

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ACROLEIN AND ACRYLONITRILE BY GC/MS (EPA 5030B/8260B)

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: POG0334-02 (T.B. - Water)					Sampled: 07/14/05				
Reporting Units: ug/l									
Acrolein	EPA 8260B	P5G1815	2.7	10	ND	1	07/15/05	07/15/05	
Acrylonitrile	EPA 8260B	P5G1815	2.8	10	ND	1	07/15/05	07/15/05	
Surrogate: Dibromofluoromethane (80-125%)					100 %				
Surrogate: Toluene-d8 (80-120%)					107 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					93 %				
Sample ID: POG0334-04 (MW1 - Water)					Sampled: 07/13/05				
Reporting Units: ug/l									
Acrolein	EPA 8260B	P5G1815	2.7	10	ND	1	07/15/05	07/15/05	
Acrylonitrile	EPA 8260B	P5G1815	2.8	10	ND	1	07/15/05	07/15/05	
Surrogate: Dibromofluoromethane (80-125%)					101 %				
Surrogate: Toluene-d8 (80-120%)					106 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					95 %				
Sample ID: POG0334-06 (MW2 - Water)					Sampled: 07/13/05				
Reporting Units: ug/l									
Acrolein	EPA 8260B	P5G1815	2.7	10	ND	1	07/15/05	07/15/05	
Acrylonitrile	EPA 8260B	P5G1815	2.8	10	ND	1	07/15/05	07/15/05	
Surrogate: Dibromofluoromethane (80-125%)					106 %				
Surrogate: Toluene-d8 (80-120%)					107 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					94 %				
Sample ID: POG0334-08 (Production - Water)					Sampled: 07/13/05				
Reporting Units: ug/l									
Acrolein	EPA 8260B	P5G1815	2.7	10	ND	1	07/15/05	07/15/05	
Acrylonitrile	EPA 8260B	P5G1815	2.8	10	ND	1	07/15/05	07/15/05	
Surrogate: Dibromofluoromethane (80-125%)					102 %				
Surrogate: Toluene-d8 (80-120%)					104 %				
Surrogate: 4-Bromofluorobenzene (80-120%)					93 %				

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Ryan A. Stirrat & Associates 22 North 44th Street, Suite 109 Phoenix, AZ 85012 Attention: Keith Johnson	Project ID: Cave Creek Report Number: POG0334	Sampled: 07/13/05-07/14/05 Received: 07/14/05
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TOTAL RECOVERABLE METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: POG0334-03 (MW1 - Water)					Sampled: 07/14/05				
Reporting Units: mg/l									
Aluminum	EPA 200.7	P5G1907	N/A	0.50	ND	1	07/19/05	07/27/05	
Antimony	EPA 200.7	P5G1907	N/A	0.050	ND	1	07/19/05	07/27/05	
Barium	EPA 200.7	P5G1907	N/A	0.010	0.015	1	07/19/05	07/27/05	
Beryllium	EPA 200.7	P5G1907	N/A	0.0040	ND	1	07/19/05	07/27/05	
Boron	EPA 200.7	P5G1907	N/A	0.50	ND	1	07/19/05	07/27/05	
Cadmium	EPA 200.7	P5G1907	N/A	0.0050	ND	1	07/19/05	07/27/05	
Calcium	EPA 200.7	P5G1907	N/A	2.0	39	1	07/19/05	07/27/05	
Cobalt	EPA 200.7	P5G1907	N/A	0.050	ND	1	07/19/05	07/27/05	
Copper	EPA 200.7	P5G1907	N/A	0.020	ND	1	07/19/05	07/27/05	
Iron	EPA 200.7	P5G1907	N/A	0.20	0.48	1	07/19/05	07/27/05	
Lead	EPA 200.7	P5G1907	N/A	0.050	ND	1	07/19/05	07/27/05	
Magnesium	EPA 200.7	P5G1907	N/A	0.50	23	1	07/19/05	07/27/05	
Manganese	EPA 200.7	P5G1907	N/A	0.020	0.041	1	07/19/05	07/27/05	
Mercury	EPA 245.1	P5G1902	N/A	0.00020	ND	1	07/18/05	07/21/05	
Nickel	EPA 200.7	P5G1907	N/A	0.050	ND	1	07/19/05	07/27/05	
Cesium	EPA 258.1	P5G1810	N/A	1.0	3.3	1	07/19/05	07/25/05	
Ca	EPA 200.7	P5G1907	N/A	2.5	41	1	07/19/05	07/27/05	
Sodium	EPA 273.1	P5G1810	N/A	25	45	5	07/19/05	07/25/05	
Thallium	EPA 200.7	P5G1907	N/A	0.050	ND	1	07/19/05	07/27/05	
Vanadium	EPA 200.7	P5G1907	N/A	0.050	ND	1	07/19/05	07/27/05	
Zinc	EPA 200.7	P5G1907	N/A	0.050	1.5	1	07/19/05	07/27/05	

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TOTAL RECOVERABLE METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: POG0334-05 (MW2 - Water)					Sampled: 07/14/05				
Reporting Units: mg/l									
Aluminum	EPA 200.7	P5G1907	N/A	0.50	1.4	1	07/19/05	07/27/05	
Antimony	EPA 200.7	P5G1907	N/A	0.050	ND	1	07/19/05	07/27/05	
Barium	EPA 200.7	P5G1907	N/A	0.010	0.032	1	07/19/05	07/27/05	
Beryllium	EPA 200.7	P5G1907	N/A	0.0040	ND	1	07/19/05	07/27/05	
Boron	EPA 200.7	P5G1907	N/A	0.50	ND	1	07/19/05	07/27/05	
Cadmium	EPA 200.7	P5G1907	N/A	0.0050	ND	1	07/19/05	07/27/05	
Calcium	EPA 200.7	P5G1907	N/A	2.0	40	1	07/19/05	07/27/05	
Cobalt	EPA 200.7	P5G1907	N/A	0.050	ND	1	07/19/05	07/27/05	
Copper	EPA 200.7	P5G1907	N/A	0.020	ND	1	07/19/05	07/27/05	
Iron	EPA 200.7	P5G1907	N/A	0.20	6.1	1	07/19/05	07/27/05	
Lead	EPA 200.7	P5G1907	N/A	0.050	ND	1	07/19/05	07/27/05	
Magnesium	EPA 200.7	P5G1907	N/A	0.50	26	1	07/19/05	07/27/05	
Manganese	EPA 200.7	P5G1907	N/A	0.020	0.12	1	07/19/05	07/27/05	
Mercury	EPA 245.1	P5G1902	N/A	0.00020	ND	1	07/18/05	07/21/05	
Nickel	EPA 200.7	P5G1907	N/A	0.050	ND	1	07/19/05	07/27/05	
Potassium	EPA 258.1	P5G1810	N/A	1.0	3.3	1	07/19/05	07/25/05	
Silica	EPA 200.7	P5G1907	N/A	2.5	46	1	07/19/05	07/27/05	
Sodium	EPA 273.1	P5G1810	N/A	25	38	5	07/19/05	07/25/05	
Thallium	EPA 200.7	P5G1907	N/A	0.050	ND	1	07/19/05	07/27/05	
Vanadium	EPA 200.7	P5G1907	N/A	0.050	ND	1	07/19/05	07/27/05	
Zinc	EPA 200.7	P5G1907	N/A	0.050	0.34	1	07/19/05	07/27/05	

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yan A. Stirrat & Associates
 22 North 44th Street, Suite 109
 Phoenix, AZ 85012
 Attention: Keith Johnson

Project ID: Cave Creek

Report Number: POG0334

Sampled: 07/13/05-07/14/05
 Received: 07/14/05

TOTAL RECOVERABLE METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: POG0334-07 (Production - Water)					Sampled: 07/14/05				
Reporting Units: mg/l									
Aluminum	EPA 200.7	P5G1907	N/A	0.50	ND	1	07/19/05	07/27/05	
Antimony	EPA 200.7	P5G1907	N/A	0.050	ND	1	07/19/05	07/27/05	
Barium	EPA 200.7	P5G1907	N/A	0.010	ND	1	07/19/05	07/27/05	
Beryllium	EPA 200.7	P5G1907	N/A	0.0040	ND	1	07/19/05	07/27/05	
Boron	EPA 200.7	P5G1907	N/A	0.50	ND	1	07/19/05	07/27/05	
Cadmium	EPA 200.7	P5G1907	N/A	0.0050	ND	1	07/19/05	07/27/05	
Calcium	EPA 200.7	P5G1907	N/A	2.0	42	1	07/19/05	07/27/05	
Cobalt	EPA 200.7	P5G1907	N/A	0.050	ND	1	07/19/05	07/27/05	
Copper	EPA 200.7	P5G1907	N/A	0.020	ND	1	07/19/05	07/27/05	
Iron	EPA 200.7	P5G1907	N/A	0.20	1.1	1	07/19/05	07/27/05	
Lead	EPA 200.7	P5G1907	N/A	0.050	ND	1	07/19/05	07/27/05	
Magnesium	EPA 200.7	P5G1907	N/A	0.50	28	1	07/19/05	07/27/05	
Manganese	EPA 200.7	P5G1907	N/A	0.020	0.022	1	07/19/05	07/27/05	
Mercury	EPA 245.1	P5G1902	N/A	0.00020	ND	1	07/18/05	07/21/05	
Nickel	EPA 200.7	P5G1907	N/A	0.050	ND	1	07/19/05	07/27/05	
Cesium	EPA 258.1	P5G1810	N/A	1.0	2.5	1	07/19/05	07/25/05	
Strontium	EPA 200.7	P5G1907	N/A	2.5	42	1	07/19/05	07/27/05	
Sodium	EPA 273.1	P5G1810	N/A	25	31	5	07/19/05	07/25/05	
Thallium	EPA 200.7	P5G1907	N/A	0.050	ND	1	07/19/05	07/27/05	
Vanadium	EPA 200.7	P5G1907	N/A	0.050	ND	1	07/19/05	07/27/05	
Zinc	EPA 200.7	P5G1907	N/A	0.050	0.36	1	07/19/05	07/27/05	

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Ryan A. Stirrat & Associates 22 North 44th Street, Suite 109 Phoenix, AZ 85012 Attention: Keith Johnson	Project ID: Cave Creek Report Number: POG0334	Sampled: 07/13/05-07/14/05 Received: 07/14/05
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INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: POG0334-03 (MW1 - Water)					Sampled: 07/14/05				
Reporting Units: %									
Cation/Anion Balance	Calculation	P5G2916	N/A	NA	-0.700	1	07/29/05	07/29/05	-
Sample ID: POG0334-05 (MW2 - Water)					Sampled: 07/14/05				
Reporting Units: %									
Cation/Anion Balance	Calculation	P5G2916	N/A	NA	-0.500	1	07/29/05	07/29/05	-
Sample ID: POG0334-07 (Production - Water)					Sampled: 07/14/05				
Reporting Units: %									
Cation/Anion Balance	Calculation	P5G2916	N/A	NA	-0.300	1	07/29/05	07/29/05	-
Sample ID: POG0334-03 (MW1 - Water)					Sampled: 07/14/05				
Reporting Units: mg/l									
Alkalinity as CaCO3	SM2320B	P5G1605	N/A	5.0	240	1	07/16/05	07/16/05	
Bicarbonate Alkalinity as CaCO3	SM2320B	P5G1605	N/A	5.0	240	1	07/16/05	07/16/05	
Carbonate Alkalinity as CaCO3	SM2320B	P5G1605	N/A	5.0	ND	1	07/16/05	07/16/05	
Chloride	EPA 300.0	P5G1402	N/A	0.50	18	1	07/14/05	07/14/05	
Fluoride	EPA 300.0	P5G1402	N/A	0.10	0.34	1	07/14/05	07/14/05	
Nitrate-N	EPA 300.0	P5G1402	N/A	0.10	3.3	1	07/14/05	07/14/05	
Nitrite-N	EPA 300.0	P5G1402	N/A	0.10	ND	1	07/14/05	07/14/05	
Sulfate	EPA 300.0	P5G1402	N/A	0.50	23	1	07/14/05	07/14/05	
Total Dissolved Solids	SM2540C	P5G2121	N/A	20	360	1	07/21/05	07/21/05	
Sample ID: POG0334-05 (MW2 - Water)					Sampled: 07/14/05				
Reporting Units: mg/l									
Alkalinity as CaCO3	SM2320B	P5G1605	N/A	5.0	240	1	07/16/05	07/16/05	
Bicarbonate Alkalinity as CaCO3	SM2320B	P5G1605	N/A	5.0	240	1	07/16/05	07/16/05	
Carbonate Alkalinity as CaCO3	SM2320B	P5G1605	N/A	5.0	ND	1	07/16/05	07/16/05	
Chloride	EPA 300.0	P5G1402	N/A	5.0	19	10	07/14/05	07/14/05	
Fluoride	EPA 300.0	P5G1402	N/A	0.10	0.34	1	07/14/05	07/14/05	
Nitrate-N	EPA 300.0	P5G1402	N/A	0.10	1.1	1	07/14/05	07/14/05	
Nitrite-N	EPA 300.0	P5G1402	N/A	0.10	ND	1	07/14/05	07/14/05	
Sulfate	EPA 300.0	P5G1402	N/A	0.50	18	1	07/14/05	07/14/05	
Total Dissolved Solids	SM2540C	P5G2121	N/A	20	350	1	07/21/05	07/21/05	

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 Attention: Keith Johnson

Project ID: Cave Creek

Report Number: POG0334

Sampled: 07/13/05-07/14/05
 Received: 07/14/05

INORGANICS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: POG0334-07 (Production - Water)					Sampled: 07/14/05				
Reporting Units: mg/l									
Alkalinity as CaCO3	SM2320B	P5G1605	N/A	5.0	240	1	07/16/05	07/16/05	
Bicarbonate Alkalinity as CaCO3	SM2320B	P5G1605	N/A	5.0	240	1	07/16/05	07/16/05	
Carbonate Alkalinity as CaCO3	SM2320B	P5G1605	N/A	5.0	ND	1	07/16/05	07/16/05	
Chloride	EPA 300.0	P5G1402	N/A	5.0	20	10	07/14/05	07/14/05	
Fluoride	EPA 300.0	P5G1402	N/A	0.10	0.35	1	07/14/05	07/14/05	
Nitrate-N	EPA 300.0	P5G1402	N/A	0.10	1.3	1	07/14/05	07/14/05	
Nitrite-N	EPA 300.0	P5G1402	N/A	0.10	ND	1	07/14/05	07/14/05	
Sulfate	EPA 300.0	P5G1402	N/A	0.50	17	1	07/14/05	07/14/05	
Total Dissolved Solids	SM2540C	P5G2306	N/A	20	340	1	07/23/05	07/16/05	H1
Sample ID: POG0334-03 (MW1 - Water)					Sampled: 07/14/05				
Reporting Units: pH Units									
pH	EPA 150.1	P5G1426	N/A	NA	7.79	1	07/14/05	07/14/05	N1
Temp. at time of pH Analysis (°C)	EPA 150.1	P5G1426	N/A	NA	19.5	1	07/14/05	07/14/05	N1
Sample ID: POG0334-05 (MW2 - Water)					Sampled: 07/14/05				
Reporting Units: pH Units									
pH	EPA 150.1	P5G1426	N/A	NA	7.79	1	07/14/05	07/14/05	N1
Temp. at time of pH Analysis (°C)	EPA 150.1	P5G1426	N/A	NA	19.3	1	07/14/05	07/14/05	N1
Sample ID: POG0334-07 (Production - Water)					Sampled: 07/14/05				
Reporting Units: pH Units									
pH	EPA 150.1	P5G1426	N/A	NA	7.76	1	07/14/05	07/14/05	N1
Temp. at time of pH Analysis (°C)	EPA 150.1	P5G1426	N/A	NA	19.4	1	07/14/05	07/14/05	N1
Sample ID: POG0334-03 (MW1 - Water)					Sampled: 07/14/05				
Reporting Units: umhos/cm									
Specific Conductance	SM2510B	P5G1523	N/A	1.0	570	1	07/15/05	07/15/05	
Sample ID: POG0334-05 (MW2 - Water)					Sampled: 07/14/05				
Reporting Units: umhos/cm									
Specific Conductance	SM2510B	P5G1523	N/A	1.0	550	1	07/15/05	07/15/05	
Sample ID: POG0334-07 (Production - Water)					Sampled: 07/14/05				
Reporting Units: umhos/cm									
Specific Conductance	SM2510B	P5G1523	N/A	1.0	550	1	07/15/05	07/15/05	

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METALS

Analyte	Method	Batch	MDL Limit	Reporting Limit	Sample Result	Dilution Factor	Date Extracted	Date Analyzed	Data Qualifiers
Sample ID: POG0334-03 (MW1 - Water)					Sampled: 07/14/05				
Reporting Units: ug/l									
Arsenic	EPA 200.8	5G20089	N/A	1.0	5.5	1	07/20/05	07/21/05	
Chromium	EPA 200.8	5G20089	N/A	2.0	ND	1	07/20/05	07/21/05	
Selenium	EPA 200.8	5G20089	N/A	2.0	ND	1	07/20/05	07/21/05	
Silver	EPA 200.8	5G20089	N/A	1.0	ND	1	07/20/05	07/21/05	
Sample ID: POG0334-05 (MW2 - Water)					Sampled: 07/14/05				
Reporting Units: ug/l									
Arsenic	EPA 200.8	5G20089	N/A	1.0	6.1	1	07/20/05	07/21/05	
Chromium	EPA 200.8	5G20089	N/A	2.0	2.8	1	07/20/05	07/21/05	
Selenium	EPA 200.8	5G20089	N/A	2.0	ND	1	07/20/05	07/21/05	
Silver	EPA 200.8	5G20089	N/A	1.0	ND	1	07/20/05	07/21/05	
Sample ID: POG0334-07 (Production - Water)					Sampled: 07/14/05				
Reporting Units: ug/l									
Arsenic	EPA 200.8	5G20089	N/A	1.0	6.5	1	07/20/05	07/21/05	
Chromium	EPA 200.8	5G20089	N/A	2.0	ND	1	07/20/05	07/21/05	
Selenium	EPA 200.8	5G20089	N/A	2.0	ND	1	07/20/05	07/21/05	
Silver	EPA 200.8	5G20089	N/A	1.0	ND	1	07/20/05	07/21/05	

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 Karen Maxwell
 Project Manager

yan A. Stirrat & Associates
 22 North 44th Street, Suite 109
 Phoenix, AZ 85012
 Attention: Keith Johnson

Project ID: Cave Creek

Report Number: POG0334

Sampled: 07/13/05-07/14/05
 Received: 07/14/05

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: MW1 (POG0334-03) - Water					
EPA 150.1	1	07/14/2005 09:50	07/14/2005 15:04	07/14/2005 15:37	07/14/2005 17:21
EPA 300.0	2	07/14/2005 09:50	07/14/2005 15:04	07/14/2005 15:55	07/14/2005 19:34
Sample ID: MW2 (POG0334-05) - Water					
EPA 150.1	1	07/14/2005 11:20	07/14/2005 15:04	07/14/2005 15:37	07/14/2005 17:23
EPA 300.0	2	07/14/2005 11:20	07/14/2005 15:04	07/14/2005 15:55	07/14/2005 20:53
Sample ID: Production (POG0334-07) - Water					
EPA 150.1	1	07/14/2005 12:25	07/14/2005 15:04	07/14/2005 15:37	07/14/2005 17:24
EPA 300.0	2	07/14/2005 12:25	07/14/2005 15:04	07/14/2005 15:55	07/14/2005 21:40

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 Attention: Keith Johnson

Project ID: Cave Creek
 Report Number: POG0334

Sampled: 07/13/05-07/14/05
 Received: 07/14/05

METHOD BLANK/OC DATA


VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Data Qualifiers
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Batch: P5G1915 Extracted: 07/19/05

Blank Analyzed: 07/19/2005 (P5G1915-BLK1)

Acetone	ND	10	6.4	ug/l						
Benzene	ND	2.0	0.15	ug/l						VI
Bromobenzene	ND	5.0	0.11	ug/l						
Bromochloromethane	ND	5.0	0.13	ug/l						
Bromodichloromethane	ND	2.0	0.16	ug/l						
Bromoform	ND	5.0	1.4	ug/l						
Bromomethane	ND	5.0	0.56	ug/l						
2-Butanone (MEK)	ND	10	4.5	ug/l						
n-Butylbenzene	ND	5.0	0.18	ug/l						
sec-Butylbenzene	ND	5.0	0.12	ug/l						
tert-Butylbenzene	ND	5.0	0.15	ug/l						
Carbon Disulfide	ND	5.0	0.81	ug/l						
Carbon tetrachloride	ND	5.0	0.19	ug/l						
Chlorobenzene	ND	2.0	0.073	ug/l						
Chloroethane	ND	5.0	2.0	ug/l						
Chloroform	ND	2.0	0.16	ug/l						
Chloromethane	ND	5.0	0.26	ug/l						
2-Chlorotoluene	ND	5.0	0.092	ug/l						
4-Chlorotoluene	ND	5.0	0.12	ug/l						
Dibromochloromethane	ND	2.0	0.18	ug/l						
1,2-Dibromo-3-chloropropane	ND	5.0	0.42	ug/l						
1,2-Dibromoethane (EDB)	ND	2.0	0.16	ug/l						
Dibromomethane	ND	2.0	0.15	ug/l						
1,2-Dichlorobenzene	ND	2.0	0.12	ug/l						
1,3-Dichlorobenzene	ND	2.0	0.078	ug/l						
1,4-Dichlorobenzene	ND	2.0	0.13	ug/l						
Dichlorodifluoromethane	ND	5.0	1.1	ug/l						
1,1-Dichloroethane	ND	2.0	0.13	ug/l						
1,2-Dichloroethane	ND	2.0	0.15	ug/l						
1,1-Dichloroethene	ND	5.0	0.28	ug/l						
cis-1,2-Dichloroethene	ND	2.0	0.23	ug/l						
trans-1,2-Dichloroethene	ND	2.0	0.33	ug/l						
1,2-Dichloropropane	ND	2.0	0.15	ug/l						
1,3-Dichloropropane	ND	2.0	0.16	ug/l						
2,2-Dichloropropane	ND	2.0	0.33	ug/l						


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Ryan A. Stirrat & Associates 22 North 44th Street, Suite 109 Phoenix, AZ 85012 Attention: Keith Johnson	Project ID: Cave Creek Report Number: POG0334	Sampled: 07/13/05-07/14/05 Received: 07/14/05
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METHOD BLANK/OC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD	RPD Limit	Data Qualifiers
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Batch: P5G1915 Extracted: 07/19/05

Blank Analyzed: 07/19/2005 (P5G1915-BLK1)

1,1-Dichloropropene	ND	2.0	0.12	ug/l						
cis-1,3-Dichloropropene	ND	2.0	0.15	ug/l						
trans-1,3-Dichloropropene	ND	2.0	0.19	ug/l						
Ethylbenzene	ND	2.0	0.12	ug/l						
2-Hexanone	ND	10	5.7	ug/l						
Hexachlorobutadiene	ND	5.0	0.24	ug/l						
Iodomethane	ND	5.0	0.15	ug/l						V1
Isopropylbenzene	ND	2.0	0.12	ug/l						
p-Isopropyltoluene	ND	2.0	0.11	ug/l						
Methylene chloride	ND	10	0.80	ug/l						
Methyl-2-pentanone (MIBK)	ND	10	2.8	ug/l						
Naphthalene	ND	5.0	0.22	ug/l						
n-Propylbenzene	ND	2.0	0.14	ug/l						
Styrene	ND	2.0	0.12	ug/l						
1,1,1,2-Tetrachloroethane	ND	5.0	0.14	ug/l						
1,1,2,2-Tetrachloroethane	ND	2.0	0.22	ug/l						
Tetrachloroethene	ND	2.0	0.12	ug/l						
Toluene	ND	2.0	0.24	ug/l						
1,2,3-Trichlorobenzene	ND	5.0	0.16	ug/l						
1,2,4-Trichlorobenzene	ND	5.0	0.13	ug/l						
1,1,1-Trichloroethane	ND	2.0	0.22	ug/l						
1,1,2-Trichloroethane	ND	2.0	0.14	ug/l						
Trichloroethene	ND	2.0	0.14	ug/l						
Trichlorofluoromethane	ND	5.0	0.13	ug/l						
1,2,3-Trichloropropane	ND	10	0.26	ug/l						
1,2,4-Trimethylbenzene	ND	2.0	0.17	ug/l						
1,3,5-Trimethylbenzene	ND	2.0	0.15	ug/l						
Vinyl acetate	ND	25	1.6	ug/l						
Vinyl chloride	ND	5.0	0.18	ug/l						
o-Xylene	ND	2.0	0.14	ug/l						
m,p-Xylenes	ND	2.0	0.24	ug/l						
Freon 113	ND	5.0	0.46	ug/l						
Surrogate: Dibromofluoromethane	26.1			ug/l	25.0		104	80-125		
Surrogate: Toluene-d8	25.3			ug/l	25.0		101	80-120		
Surrogate: 4-Bromofluorobenzene	26.5			ug/l	25.0		106	80-120		

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Ryan A. Stirrat & Associates 22 North 44th Street, Suite 109 Phoenix, AZ 85012 Attention: Keith Johnson	Project ID: Cave Creek Report Number: POG0334	Sampled: 07/13/05-07/14/05 Received: 07/14/05
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METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P5G1915 Extracted: 07/19/05										
LCS Analyzed: 07/19/2005 (P5G1915-BS1)										
Acetone	24.4	10	6.4	ug/l	25.0		98 50-150			V1
Benzene	23.2	2.0	0.15	ug/l	25.0		93 80-120			
Bromobenzene	23.6	5.0	0.11	ug/l	25.0		94 80-125			
Bromochloromethane	23.0	5.0	0.13	ug/l	25.0		92 80-125			
Bromodichloromethane	26.8	2.0	0.16	ug/l	25.0		107 80-120			
Bromoform	23.1	5.0	1.4	ug/l	25.0		92 70-120			
Bromomethane	23.6	5.0	0.56	ug/l	25.0		94 80-135			
2-Butanone (MEK)	24.4	10	4.5	ug/l	25.0		98 65-150			
n-Butylbenzene	24.6	5.0	0.18	ug/l	25.0		98 80-130			
sec-Butylbenzene	24.8	5.0	0.12	ug/l	25.0		99 80-130			
tert-Butylbenzene	24.3	5.0	0.15	ug/l	25.0		97 80-130			
Carbon Disulfide	25.4	5.0	0.81	ug/l	25.0		102 70-145			
Carbon tetrachloride	26.3	5.0	0.19	ug/l	25.0		105 80-120			
Chlorobenzene	23.4	2.0	0.073	ug/l	25.0		94 80-120			
Chloroethane	22.8	5.0	2.0	ug/l	25.0		91 80-135			
Chloroform	24.7	2.0	0.16	ug/l	25.0		99 80-120			
Chloromethane	22.9	5.0	0.26	ug/l	25.0		92 70-140			
2-Chlorotoluene	24.3	5.0	0.092	ug/l	25.0		97 80-130			
4-Chlorotoluene	24.4	5.0	0.12	ug/l	25.0		98 80-130			
Dibromochloromethane	26.6	2.0	0.18	ug/l	25.0		106 80-125			
1,2-Dibromo-3-chloropropane	24.2	5.0	0.42	ug/l	25.0		97 55-120			
1,2-Dibromoethane (EDB)	23.8	2.0	0.16	ug/l	25.0		95 75-125			
Dibromomethane	24.9	2.0	0.15	ug/l	25.0		100 80-125			
1,2-Dichlorobenzene	24.2	2.0	0.12	ug/l	25.0		97 80-120			
1,3-Dichlorobenzene	24.4	2.0	0.078	ug/l	25.0		98 80-125			
1,4-Dichlorobenzene	24.6	2.0	0.13	ug/l	25.0		98 80-120			
Dichlorodifluoromethane	21.9	5.0	1.1	ug/l	25.0		88 60-130			
1,1-Dichloroethane	23.8	2.0	0.13	ug/l	25.0		95 80-125			
1,2-Dichloroethane	25.7	2.0	0.15	ug/l	25.0		103 75-125			
1,1-Dichloroethene	21.3	5.0	0.28	ug/l	25.0		85 75-120			
cis-1,2-Dichloroethene	23.2	2.0	0.23	ug/l	25.0		93 80-125			
trans-1,2-Dichloroethene	22.9	2.0	0.33	ug/l	25.0		92 80-120			
1,2-Dichloropropane	24.1	2.0	0.15	ug/l	25.0		96 80-120			
1,3-Dichloropropane	24.6	2.0	0.16	ug/l	25.0		98 80-120			
2,2-Dichloropropane	27.5	2.0	0.33	ug/l	25.0		110 80-130			

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METHOD BLANK/OC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD	Data Qualifiers
Batch: P5G1915 Extracted: 07/19/05									
LCS Analyzed: 07/19/2005 (P5G1915-BS1)									
1,1-Dichloropropene	25.2	2.0	0.12	ug/l	25.0		101 80-120		
cis-1,3-Dichloropropene	23.9	2.0	0.15	ug/l	25.0		96 75-120		
trans-1,3-Dichloropropene	25.0	2.0	0.19	ug/l	25.0		100 70-120		
Ethylbenzene	25.1	2.0	0.12	ug/l	25.0		100 80-125		
2-Hexanone	23.4	10	5.7	ug/l	25.0		94 65-150		
Hexachlorobutadiene	26.0	5.0	0.24	ug/l	25.0		104 65-130		
Iodomethane	25.6	5.0	0.15	ug/l	25.0		102 80-140		V1
Isopropylbenzene	26.4	2.0	0.12	ug/l	25.0		106 80-140		
p-Isopropyltoluene	24.6	2.0	0.11	ug/l	25.0		98 80-130		
Methylene chloride	21.3	10	0.80	ug/l	25.0		85 70-130		
ethyl-2-pentanone (MIBK)	24.6	10	2.8	ug/l	25.0		98 60-150		
Naphthalene	22.0	5.0	0.22	ug/l	25.0		88 70-130		
n-Propylbenzene	25.0	2.0	0.14	ug/l	25.0		100 80-135		
Styrene	25.2	2.0	0.12	ug/l	25.0		101 80-120		
1,1,1,2-Tetrachloroethane	25.6	5.0	0.14	ug/l	25.0		102 80-120		
1,1,2,2-Tetrachloroethane	23.4	2.0	0.22	ug/l	25.0		94 80-130		
Tetrachloroethene	24.8	2.0	0.12	ug/l	25.0		99 80-125		
Toluene	23.7	2.0	0.24	ug/l	25.0		95 80-125		
1,2,3-Trichlorobenzene	25.5	5.0	0.16	ug/l	25.0		102 75-125		
1,2,4-Trichlorobenzene	24.8	5.0	0.13	ug/l	25.0		99 80-125		
1,1,1-Trichloroethane	25.9	2.0	0.22	ug/l	25.0		104 80-125		
1,1,2-Trichloroethane	23.7	2.0	0.14	ug/l	25.0		95 80-125		
Trichloroethene	24.4	2.0	0.14	ug/l	25.0		98 80-120		
Trichlorofluoromethane	25.3	5.0	0.13	ug/l	25.0		101 75-130		
1,2,3-Trichloropropane	23.5	10	0.26	ug/l	25.0		94 75-125		
1,2,4-Trimethylbenzene	24.1	2.0	0.17	ug/l	25.0		96 80-125		
1,3,5-Trimethylbenzene	24.4	2.0	0.15	ug/l	25.0		98 80-130		
Vinyl acetate	19.8	25	1.6	ug/l	25.0		79 60-130		E4
Vinyl chloride	21.4	5.0	0.18	ug/l	25.0		86 70-145		
o-Xylene	25.2	2.0	0.14	ug/l	25.0		101 80-125		
m,p-Xylenes	25.1	2.0	0.24	ug/l	25.0		100 80-130		
Freon 113	24.8	5.0	0.46	ug/l	25.0		99 80-130		
Surrogate: Dibromofluoromethane	26.6			ug/l	25.0		106 80-125		
Surrogate: Toluene-d8	25.0			ug/l	25.0		100 80-120		
Surrogate: 4-Bromofluorobenzene	26.7			ug/l	25.0		107 80-120		

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Ryan A. Stirrat & Associates 422 North 44th Street, Suite 109 Phoenix, AZ 85012 Attention: Keith Johnson	Project ID: Cave Creek Report Number: POG0334	Sampled: 07/13/05-07/14/05 Received: 07/14/05
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METHOD BLANK/OC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P5G1915 Extracted: 07/19/05										
LCS Dup Analyzed: 07/19/2005 (P5G1915-BSD1)										
Acetone	22.7	10	6.4	ug/l	25.0	91	50-150	7	35	V1
Benzene	22.9	2.0	0.15	ug/l	25.0	92	80-120	1	10	
Bromobenzene	23.6	5.0	0.11	ug/l	25.0	94	80-125	0	10	
Bromochloromethane	23.1	5.0	0.13	ug/l	25.0	92	80-125	0	15	
Bromodichloromethane	25.2	2.0	0.16	ug/l	25.0	101	80-120	6	15	
Bromoform	22.8	5.0	1.4	ug/l	25.0	91	70-120	1	20	
Bromomethane	22.6	5.0	0.56	ug/l	25.0	90	80-135	4	15	
2-Butanone (MEK)	21.3	10	4.5	ug/l	25.0	85	65-150	14	35	
n-Butylbenzene	24.2	5.0	0.18	ug/l	25.0	97	80-130	2	10	
sec-Butylbenzene	24.7	5.0	0.12	ug/l	25.0	99	80-130	0	10	
tert-Butylbenzene	24.6	5.0	0.15	ug/l	25.0	98	80-130	1	10	
Carbon Disulfide	24.2	5.0	0.81	ug/l	25.0	97	70-145	5	15	
Carbon tetrachloride	25.5	5.0	0.19	ug/l	25.0	102	80-120	3	15	
Chlorobenzene	23.5	2.0	0.073	ug/l	25.0	94	80-120	0	10	
Chloroethane	21.6	5.0	2.0	ug/l	25.0	86	80-135	5	15	
Chloroform	23.9	2.0	0.16	ug/l	25.0	96	80-120	3	10	
Chloromethane	21.8	5.0	0.26	ug/l	25.0	87	70-140	5	15	
2-Chlorotoluene	24.2	5.0	0.092	ug/l	25.0	97	80-130	0	10	
4-Chlorotoluene	24.6	5.0	0.12	ug/l	25.0	98	80-130	1	10	
Dibromochloromethane	25.9	2.0	0.18	ug/l	25.0	104	80-125	3	15	
1,2-Dibromo-3-chloropropane	23.1	5.0	0.42	ug/l	25.0	92	55-120	5	30	
1,2-Dibromoethane (EDB)	24.0	2.0	0.16	ug/l	25.0	96	75-125	1	20	
Dibromomethane	24.1	2.0	0.15	ug/l	25.0	96	80-125	3	20	
1,2-Dichlorobenzene	23.5	2.0	0.12	ug/l	25.0	94	80-120	3	10	
1,3-Dichlorobenzene	24.0	2.0	0.078	ug/l	25.0	96	80-125	2	10	
1,4-Dichlorobenzene	24.0	2.0	0.13	ug/l	25.0	96	80-120	2	10	
Dichlorodifluoromethane	20.5	5.0	1.1	ug/l	25.0	82	60-130	7	15	
1,1-Dichloroethane	23.3	2.0	0.13	ug/l	25.0	93	80-125	2	10	
1,2-Dichloroethane	24.8	2.0	0.15	ug/l	25.0	99	75-125	4	10	
1,1-Dichloroethene	20.6	5.0	0.28	ug/l	25.0	82	75-120	3	10	
cis-1,2-Dichloroethene	22.9	2.0	0.23	ug/l	25.0	92	80-125	1	10	
trans-1,2-Dichloroethene	22.7	2.0	0.33	ug/l	25.0	91	80-120	1	10	
1,2-Dichloropropane	23.4	2.0	0.15	ug/l	25.0	94	80-120	3	15	
1,3-Dichloropropane	24.2	2.0	0.16	ug/l	25.0	97	80-120	2	15	
2,2-Dichloropropane	26.2	2.0	0.33	ug/l	25.0	105	80-130	5	10	

Del Mar Analytical - Phoenix
 Karen Maxwell
 Project Manager

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Project ID: Cave Creek

Report Number: POG0334

Sampled: 07/13/05-07/14/05
 Received: 07/14/05

METHOD BLANK/OC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P5G1915 Extracted: 07/19/05										
LCS Dup Analyzed: 07/19/2005 (P5G1915-BSD1)										
1,1-Dichloropropene	24.6	2.0	0.12	ug/l	25.0		98 80-120	2	10	
cis-1,3-Dichloropropene	23.5	2.0	0.15	ug/l	25.0		94 75-120	2	15	
trans-1,3-Dichloropropene	24.8	2.0	0.19	ug/l	25.0		99 70-120	1	20	
Ethylbenzene	24.9	2.0	0.12	ug/l	25.0		100 80-125	1	15	
2-Hexanone	22.0	10	5.7	ug/l	25.0		88 65-150	6	35	
Hexachlorobutadiene	26.2	5.0	0.24	ug/l	25.0		105 65-130	1	15	V1
Iodomethane	24.5	5.0	0.15	ug/l	25.0		98 80-140	4	10	
Isopropylbenzene	26.4	2.0	0.12	ug/l	25.0		106 80-140	0	10	
p-Isopropyltoluene	24.3	2.0	0.11	ug/l	25.0		97 80-130	1	15	
Methylene chloride	20.9	10	0.80	ug/l	25.0		84 70-130	2	10	
ethyl-2-pentanone (MIBK)	22.8	10	2.8	ug/l	25.0		91 60-150	8	35	
Naphthalene	21.4	5.0	0.22	ug/l	25.0		86 70-130	3	20	
n-Propylbenzene	25.3	2.0	0.14	ug/l	25.0		101 80-135	1	10	
Styrene	25.1	2.0	0.12	ug/l	25.0		100 80-120	0	15	
1,1,1,2-Tetrachloroethane	25.3	5.0	0.14	ug/l	25.0		101 80-120	1	15	
1,1,2,2-Tetrachloroethane	23.2	2.0	0.22	ug/l	25.0		93 80-130	1	25	
Tetrachloroethene	24.4	2.0	0.12	ug/l	25.0		98 80-125	2	15	
Toluene	23.3	2.0	0.24	ug/l	25.0		93 80-125	2	10	
1,2,3-Trichlorobenzene	25.4	5.0	0.16	ug/l	25.0		102 75-125	0	15	
1,2,4-Trichlorobenzene	24.5	5.0	0.13	ug/l	25.0		98 80-125	1	15	
1,1,1-Trichloroethane	25.3	2.0	0.22	ug/l	25.0		101 80-125	2	10	
1,1,2-Trichloroethane	23.7	2.0	0.14	ug/l	25.0		95 80-125	0	20	
Trichloroethene	23.9	2.0	0.14	ug/l	25.0		96 80-120	2	10	
Trichlorofluoromethane	24.2	5.0	0.13	ug/l	25.0		97 75-130	4	10	
1,2,3-Trichloropropane	23.1	10	0.26	ug/l	25.0		92 75-125	2	25	
1,2,4-Trimethylbenzene	24.0	2.0	0.17	ug/l	25.0		96 80-125	0	10	
1,3,5-Trimethylbenzene	24.3	2.0	0.15	ug/l	25.0		97 80-130	0	10	
Vinyl acetate	18.0	25	1.6	ug/l	25.0		72 60-130	10	25	E4
Vinyl chloride	21.3	5.0	0.18	ug/l	25.0		85 70-145	1	15	
o-Xylene	25.3	2.0	0.14	ug/l	25.0		101 80-125	0	10	
m,p-Xylenes	24.8	2.0	0.24	ug/l	25.0		99 80-130	1	10	
Freon 113	24.2	5.0	0.46	ug/l	25.0		97 80-130	2	10	
Surrogate: Dibromofluoromethane	26.6			ug/l	25.0		106 80-125			
Surrogate: Toluene-d8	25.2			ug/l	25.0		101 80-120			
Surrogate: 4-Bromofluorobenzene	27.6			ug/l	25.0		110 80-120			

Del Mar Analytical - Phoenix
 Karen Maxwell
 Project Manager

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 Attention: Keith Johnson

Project ID: Cave Creek
 Report Number: POG0334

Sampled: 07/13/05-07/14/05
 Received: 07/14/05

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD	Data Qualifiers
Batch: P5G1915 Extracted: 07/19/05									
Matrix Spike Analyzed: 07/19/2005 (P5G1915-MS1)					Source: POG0334-03				
Acetone	23.2	10	6.4	ug/l	25.0	ND	93 10-150		VI
Benzene	24.5	2.0	0.15	ug/l	25.0	ND	98 80-125		
Bromobenzene	25.2	5.0	0.11	ug/l	25.0	ND	101 80-125		
Bromochloromethane	25.0	5.0	0.13	ug/l	25.0	ND	100 80-140		
Bromodichloromethane	28.8	2.0	0.16	ug/l	25.0	ND	115 80-130		
Bromoform	24.6	5.0	1.4	ug/l	25.0	ND	98 70-120		
Bromomethane	22.1	5.0	0.56	ug/l	25.0	ND	88 80-135		
2-Butanone (MEK)	23.8	10	4.5	ug/l	25.0	ND	95 20-150		
n-Butylbenzene	25.2	5.0	0.18	ug/l	25.0	ND	101 80-135		
sec-Butylbenzene	26.1	5.0	0.12	ug/l	25.0	ND	104 80-130		
tert-Butylbenzene	26.0	5.0	0.15	ug/l	25.0	ND	104 80-130		
Carbon Disulfide	23.8	5.0	0.81	ug/l	25.0	ND	95 65-150		
Carbon tetrachloride	28.1	5.0	0.19	ug/l	25.0	ND	112 75-125		
Chlorobenzene	24.9	2.0	0.073	ug/l	25.0	ND	100 80-125		
Chloroethane	21.3	5.0	2.0	ug/l	25.0	ND	85 80-140		
Chloroform	26.1	2.0	0.16	ug/l	25.0	ND	104 75-130		
Chloromethane	19.7	5.0	0.26	ug/l	25.0	ND	79 70-140		
2-Chlorotoluene	25.5	5.0	0.092	ug/l	25.0	ND	102 80-130		
4-Chlorotoluene	26.0	5.0	0.12	ug/l	25.0	ND	104 80-135		
Dibromochloromethane	27.7	2.0	0.18	ug/l	25.0	ND	111 75-130		
1,2-Dibromo-3-chloropropane	27.2	5.0	0.42	ug/l	25.0	ND	109 45-140		
1,2-Dibromoethane (EDB)	25.8	2.0	0.16	ug/l	25.0	ND	103 70-130		
Dibromomethane	27.4	2.0	0.15	ug/l	25.0	ND	110 75-140		
1,2-Dichlorobenzene	25.6	2.0	0.12	ug/l	25.0	ND	102 80-130		
1,3-Dichlorobenzene	26.0	2.0	0.078	ug/l	25.0	ND	104 80-130		
1,4-Dichlorobenzene	25.8	2.0	0.13	ug/l	25.0	ND	103 80-125		
Dichlorodifluoromethane	20.3	5.0	1.1	ug/l	25.0	ND	81 60-130		
1,1-Dichloroethane	25.0	2.0	0.13	ug/l	25.0	ND	100 80-135		
1,2-Dichloroethane	28.0	2.0	0.15	ug/l	25.0	ND	112 70-145		
1,1-Dichloroethene	21.7	5.0	0.28	ug/l	25.0	ND	87 75-130		
cis-1,2-Dichloroethene	24.8	2.0	0.23	ug/l	25.0	ND	99 75-140		
trans-1,2-Dichloroethene	24.0	2.0	0.33	ug/l	25.0	ND	96 80-130		
1,2-Dichloropropane	25.6	2.0	0.15	ug/l	25.0	ND	102 80-125		
1,3-Dichloropropane	26.4	2.0	0.16	ug/l	25.0	ND	106 75-130		
2,2-Dichloropropane	28.8	2.0	0.33	ug/l	25.0	ND	115 75-135		

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 Attention: Keith Johnson

Project ID: Cave Creek

Report Number: POG0334

Sampled: 07/13/05-07/14/05
 Received: 07/14/05

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte Result Reporting Limit MDL Units Spike Level Source Result %REC Limits RPD RPD Limit Data Qualifiers

Batch: P5G1915 Extracted: 07/19/05

Matrix Spike Analyzed: 07/19/2005 (P5G1915-MS1)

Source: POG0334-03

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	RPD Limits	RPD	RPD Limit	Data Qualifiers
1,1-Dichloropropene	26.7	2.0	0.12	ug/l	25.0	ND	107	80-125			
cis-1,3-Dichloropropene	25.4	2.0	0.15	ug/l	25.0	ND	102	75-120			
trans-1,3-Dichloropropene	26.9	2.0	0.19	ug/l	25.0	ND	108	75-120			
Ethylbenzene	26.3	2.0	0.12	ug/l	25.0	ND	105	80-130			
2-Hexanone	25.0	10	5.7	ug/l	25.0	ND	100	20-150			
Hexachlorobutadiene	26.8	5.0	0.24	ug/l	25.0	ND	107	65-130			
Iodomethane	24.4	5.0	0.15	ug/l	25.0	ND	98	80-150			V1
Isopropylbenzene	27.5	2.0	0.12	ug/l	25.0	ND	110	80-150			
p-Isopropyltoluene	25.1	2.0	0.11	ug/l	25.0	ND	100	80-135			
Methylene chloride	22.2	10	0.80	ug/l	25.0	ND	89	65-135			
ethyl-2-pentanone (MIBK)	26.5	10	2.8	ug/l	25.0	ND	106	40-150			
Naphthalene	23.8	5.0	0.22	ug/l	25.0	ND	95	50-150			
n-Propylbenzene	26.2	2.0	0.14	ug/l	25.0	ND	105	80-140			
Styrene	21.7	2.0	0.12	ug/l	25.0	ND	87	65-140			
1,1,1,2-Tetrachloroethane	27.2	5.0	0.14	ug/l	25.0	ND	109	80-125			
1,1,2,2-Tetrachloroethane	27.2	2.0	0.22	ug/l	25.0	ND	109	70-140			
Tetrachloroethene	25.3	2.0	0.12	ug/l	25.0	0.19	100	80-130			
Toluene	24.8	2.0	0.24	ug/l	25.0	ND	99	80-130			
1,2,3-Trichlorobenzene	27.9	5.0	0.16	ug/l	25.0	ND	112	65-140			
1,2,4-Trichlorobenzene	26.4	5.0	0.13	ug/l	25.0	ND	106	70-135			
1,1,1-Trichloroethane	27.1	2.0	0.22	ug/l	25.0	ND	108	80-130			
1,1,2-Trichloroethane	26.5	2.0	0.14	ug/l	25.0	ND	106	70-135			
Trichloroethene	35.8	2.0	0.14	ug/l	25.0	9.9	104	80-125			
Trichlorofluoromethane	25.8	5.0	0.13	ug/l	25.0	ND	103	80-130			
1,2,3-Trichloropropane	27.1	10	0.26	ug/l	25.0	ND	108	70-130			
1,2,4-Trimethylbenzene	23.3	2.0	0.17	ug/l	25.0	ND	93	75-130			
1,3,5-Trimethylbenzene	24.9	2.0	0.15	ug/l	25.0	ND	100	80-135			
Vinyl acetate	19.6	25	1.6	ug/l	25.0	ND	78	40-145			
Vinyl chloride	20.4	5.0	0.18	ug/l	25.0	ND	82	70-140			E4
o-Xylene	26.6	2.0	0.14	ug/l	25.0	ND	106	80-130			
m,p-Xylenes	26.1	2.0	0.24	ug/l	25.0	ND	104	80-135			
Freon 113	27.8	5.0	0.46	ug/l	25.0	1.4	106	80-130			
Surrogate: Dibromofluoromethane	26.9			ug/l	25.0		108	80-125			
Surrogate: Toluene-d8	25.7			ug/l	25.0		103	80-120			
Surrogate: 4-Bromofluorobenzene	28.0			ug/l	25.0		112	80-120			

Del Mar Analytical - Phoenix
 Karen Maxwell
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.

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Project ID: Cave Creek

Report Number: POG0334

Sampled: 07/13/05-07/14/05
 Received: 07/14/05

METHOD BLANK/QC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC Limits	RPD	RPD Limit	Data Qualifiers
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Batch: P5G1915 Extracted: 07/19/05

Matrix Spike Dup Analyzed: 07/19/2005 (P5G1915-MSD1)

Source: POG0334-03

Acetone	23.7	10	6.4	ug/l	25.0	ND	95	10-150	2	35	VJ
Benzene	23.5	2.0	0.15	ug/l	25.0	ND	94	80-125	4	15	
Bromobenzene	24.3	5.0	0.11	ug/l	25.0	ND	97	80-125	4	15	
Bromochloromethane	24.1	5.0	0.13	ug/l	25.0	ND	96	80-140	4	20	
Bromodichloromethane	27.0	2.0	0.16	ug/l	25.0	ND	108	80-130	6	15	
Bromoform	23.9	5.0	1.4	ug/l	25.0	ND	96	70-120	3	25	
Bromomethane	22.4	5.0	0.56	ug/l	25.0	ND	90	80-135	1	15	
2-Butanone (MEK)	24.7	10	4.5	ug/l	25.0	ND	99	20-150	4	35	
n-Butylbenzene	23.0	5.0	0.18	ug/l	25.0	ND	92	80-135	9	20	
sec-Butylbenzene	24.0	5.0	0.12	ug/l	25.0	ND	96	80-130	8	20	
t-Butylbenzene	24.2	5.0	0.15	ug/l	25.0	ND	97	80-130	7	20	
Carbon Disulfide	23.4	5.0	0.81	ug/l	25.0	ND	94	65-150	2	20	
Carbon tetrachloride	26.2	5.0	0.19	ug/l	25.0	ND	105	75-125	7	15	
Chlorobenzene	23.7	2.0	0.073	ug/l	25.0	ND	95	80-125	5	15	
Chloroethane	21.5	5.0	2.0	ug/l	25.0	ND	86	80-140	1	15	
Chloroform	25.4	2.0	0.16	ug/l	25.0	ND	102	75-130	3	15	
Chloromethane	22.0	5.0	0.26	ug/l	25.0	ND	88	70-140	11	20	
2-Chlorotoluene	23.7	5.0	0.092	ug/l	25.0	ND	95	80-130	7	15	
4-Chlorotoluene	24.7	5.0	0.12	ug/l	25.0	ND	99	80-135	5	15	
Dibromochloromethane	27.2	2.0	0.18	ug/l	25.0	ND	109	75-130	2	20	
1,2-Dibromo-3-chloropropane	28.4	5.0	0.42	ug/l	25.0	ND	114	45-140	4	30	
1,2-Dibromoethane (EDB)	25.7	2.0	0.16	ug/l	25.0	ND	103	70-130	0	20	
Dibromomethane	26.5	2.0	0.15	ug/l	25.0	ND	106	75-140	3	20	
1,2-Dichlorobenzene	24.8	2.0	0.12	ug/l	25.0	ND	99	80-130	3	15	
1,3-Dichlorobenzene	24.5	2.0	0.078	ug/l	25.0	ND	98	80-130	6	15	
1,4-Dichlorobenzene	24.8	2.0	0.13	ug/l	25.0	ND	99	80-125	4	10	
Dichlorodifluoromethane	21.0	5.0	1.1	ug/l	25.0	ND	84	60-130	3	20	
1,1-Dichloroethane	24.4	2.0	0.13	ug/l	25.0	ND	98	80-135	2	15	
1,2-Dichloroethane	27.3	2.0	0.15	ug/l	25.0	ND	109	70-145	3	15	
1,1-Dichloroethene	19.6	5.0	0.28	ug/l	25.0	ND	78	75-130	10	15	
cis-1,2-Dichloroethene	24.6	2.0	0.23	ug/l	25.0	ND	98	75-140	1	15	
trans-1,2-Dichloroethene	22.4	2.0	0.33	ug/l	25.0	ND	90	80-130	7	15	
1,2-Dichloropropane	24.2	2.0	0.15	ug/l	25.0	ND	97	80-125	6	15	
1,3-Dichloropropane	26.2	2.0	0.16	ug/l	25.0	ND	105	75-130	1	20	
2,2-Dichloropropane	27.0	2.0	0.33	ug/l	25.0	ND	108	75-135	6	15	

Del Mar Analytical - Phoenix
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Sampled: 07/13/05-07/14/05
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METHOD BLANK/OC DATA

VOLATILE ORGANICS BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC Limits	RPD	RPD Limit	Data Qualifiers
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Batch: P5G1915 Extracted: 07/19/05

Matrix Spike Dup Analyzed: 07/19/2005 (P5G1915-MSD1)

Source: POG0334-03

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC Limits	RPD	RPD Limit	Data Qualifiers
1,1-Dichloropropene	24.5	2.0	0.12	ug/l	25.0	ND	98 80-125	9	15	
cis-1,3-Dichloropropene	24.5	2.0	0.15	ug/l	25.0	ND	98 75-120	4	15	
trans-1,3-Dichloropropene	25.8	2.0	0.19	ug/l	25.0	ND	103 75-120	4	20	
Ethylbenzene	24.5	2.0	0.12	ug/l	25.0	ND	98 80-130	7	15	
2-Hexanone	25.1	10	5.7	ug/l	25.0	ND	100 20-150	0	35	
Hexachlorobutadiene	25.0	5.0	0.24	ug/l	25.0	ND	100 65-130	7	15	VI
Iodomethane	23.4	5.0	0.15	ug/l	25.0	ND	94 80-150	4	15	
Isopropylbenzene	25.7	2.0	0.12	ug/l	25.0	ND	103 80-150	7	20	
p-Isopropyltoluene	22.2	2.0	0.11	ug/l	25.0	ND	89 80-135	12	20	
Methylene chloride	21.4	10	0.80	ug/l	25.0	ND	86 65-135	4	20	
Methyl-2-pentanone (MIBK)	25.7	10	2.8	ug/l	25.0	ND	103 40-150	3	35	
Naphthalene	20.9	5.0	0.22	ug/l	25.0	ND	84 50-150	13	25	
n-Propylbenzene	24.7	2.0	0.14	ug/l	25.0	ND	99 80-140	6	20	
Styrene	13.4	2.0	0.12	ug/l	25.0	ND	54 65-140	47	20	NIa, RI
1,1,1,2-Tetrachloroethane	26.4	5.0	0.14	ug/l	25.0	ND	106 80-125	3	15	
1,1,2,2-Tetrachloroethane	25.8	2.0	0.22	ug/l	25.0	ND	103 70-140	5	25	
Tetrachloroethene	24.6	2.0	0.12	ug/l	25.0	0.19	98 80-130	3	15	
Toluene	23.3	2.0	0.24	ug/l	25.0	ND	93 80-130	6	15	
1,2,3-Trichlorobenzene	26.8	5.0	0.16	ug/l	25.0	ND	107 65-140	4	20	
1,2,4-Trichlorobenzene	25.2	5.0	0.13	ug/l	25.0	ND	101 70-135	5	15	
1,1,1-Trichloroethane	26.4	2.0	0.22	ug/l	25.0	ND	106 80-130	3	15	
1,1,2-Trichloroethane	25.0	2.0	0.14	ug/l	25.0	ND	100 70-135	6	20	
Trichloroethene	33.7	2.0	0.14	ug/l	25.0	9.9	95 80-125	6	15	
Trichlorofluoromethane	25.5	5.0	0.13	ug/l	25.0	ND	102 80-130	1	15	
1,2,3-Trichloropropane	26.6	10	0.26	ug/l	25.0	ND	106 70-130	2	25	
1,2,4-Trimethylbenzene	16.1	2.0	0.17	ug/l	25.0	ND	64 75-130	37	15	RI, NIa
1,3,5-Trimethylbenzene	20.4	2.0	0.15	ug/l	25.0	ND	82 80-135	20	15	R4
Vinyl acetate	18.6	25	1.6	ug/l	25.0	ND	74 40-145	5	30	E4
Vinyl chloride	19.2	5.0	0.18	ug/l	25.0	ND	77 70-140	6	35	
o-Xylene	25.0	2.0	0.14	ug/l	25.0	ND	100 80-130	6	15	
m,p-Xylenes	23.3	2.0	0.24	ug/l	25.0	ND	93 80-135	11	10	R4
Freon 113	26.4	5.0	0.46	ug/l	25.0	1.4	100 80-130	5	10	
Surrogate: Dibromofluoromethane	27.5			ug/l	25.0		110 80-125			
Surrogate: Toluene-d8	25.4			ug/l	25.0		102 80-120			
Surrogate: 4-Bromofluorobenzene	28.2			ug/l	25.0		113 80-120			

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 Karen Maxwell
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Ryan A. Stirrat & Associates
 122 North 44th Street, Suite 109
 Phoenix, AZ 85012
 Attention: Keith Johnson

Project ID: Cave Creek

Report Number: POG0334

Sampled: 07/13/05-07/14/05
 Received: 07/14/05

METHOD BLANK/QC DATA

2-CHLOROETHYL VINYL ETHER BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD	RPD Limit	Data Qualifiers
Batch: P5G1818 Extracted: 07/18/05										
Blank Analyzed: 07/18/2005 (P5G1818-BLK1)										
2-Chloroethyl vinyl ether	ND	2.0	0.62	ug/l						VI
Surrogate: Dibromofluoromethane	25.3			ug/l	25.0		101 80-125			
Surrogate: Toluene-d8	26.5			ug/l	25.0		106 80-120			
Surrogate: 4-Bromofluorobenzene	24.5			ug/l	25.0		98 80-120			
LCS Analyzed: 07/18/2005 (P5G1818-BS1)										
2-Chloroethyl vinyl ether	43.1	2.0	0.62	ug/l	25.0		172 60-120			VI, L3
Surrogate: Dibromofluoromethane	25.0			ug/l	25.0		100 80-125			
Surrogate: Toluene-d8	26.6			ug/l	25.0		106 80-120			
Surrogate: 4-Bromofluorobenzene	27.3			ug/l	25.0		109 80-120			
3 Dup Analyzed: 07/18/2005 (P5G1818-BSD1)										
2-Chloroethyl vinyl ether	45.7	2.0	0.62	ug/l	25.0		183 60-120	6	35	VI, L3
Surrogate: Dibromofluoromethane	25.6			ug/l	25.0		102 80-125			
Surrogate: Toluene-d8	26.8			ug/l	25.0		107 80-120			
Surrogate: 4-Bromofluorobenzene	27.0			ug/l	25.0		108 80-120			
Matrix Spike Analyzed: 07/18/2005 (P5G1818-MS1)										
2-Chloroethyl vinyl ether	39.1	2.0	0.62	ug/l	25.0	ND	156 40-150			VI, N1b
Surrogate: Dibromofluoromethane	26.5			ug/l	25.0		106 80-125			
Surrogate: Toluene-d8	26.5			ug/l	25.0		106 80-120			
Surrogate: 4-Bromofluorobenzene	27.7			ug/l	25.0		111 80-120			
Matrix Spike Dup Analyzed: 07/18/2005 (P5G1818-MSD1)										
2-Chloroethyl vinyl ether	39.0	2.0	0.62	ug/l	25.0	ND	156 40-150	0	35	VI, N1b
Surrogate: Dibromofluoromethane	26.7			ug/l	25.0		107 80-125			
Surrogate: Toluene-d8	25.3			ug/l	25.0		101 80-120			
Surrogate: 4-Bromofluorobenzene	26.6			ug/l	25.0		106 80-120			

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METHOD BLANK/OC DATA

ACROLEIN AND ACRYLONITRILE BY GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD	RPD Limit	Data Qualifiers
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Batch: P5G1815 Extracted: 07/15/05

Blank Analyzed: 07/15/2005 (P5G1815-BLK1)

Acrolein	ND	10	2.7	ug/l						
Acrylonitrile	ND	10	2.8	ug/l						
Surrogate: Dibromofluoromethane	25.2			ug/l	25.0		101 80-125			
Surrogate: Toluene-d8	26.5			ug/l	25.0		106 80-120			
Surrogate: 4-Bromofluorobenzene	23.3			ug/l	25.0		93 80-120			

LCS Analyzed: 07/15/2005 (P5G1815-BS1)

Acrolein	38.2	10	2.7	ug/l	50.0		76 70-130			R6
Acrylonitrile	40.3	10	2.8	ug/l	50.0		81 65-140			R6
Surrogate: Dibromofluoromethane	24.6			ug/l	25.0		98 80-125			
Surrogate: Toluene-d8	26.1			ug/l	25.0		104 80-120			
Surrogate: 4-Bromofluorobenzene	23.7			ug/l	25.0		95 80-120			

LCS Dup Analyzed: 07/15/2005 (P5G1815-BSD1)

Acrolein	57.3	10	2.7	ug/l	50.0		115 70-130	40	20	R6
Acrylonitrile	58.6	10	2.8	ug/l	50.0		117 65-140	37	25	R6
Surrogate: Dibromofluoromethane	25.6			ug/l	25.0		102 80-125			
Surrogate: Toluene-d8	26.8			ug/l	25.0		107 80-120			
Surrogate: 4-Bromofluorobenzene	24.2			ug/l	25.0		97 80-120			

Matrix Spike Analyzed: 07/15/2005 (P5G1815-MS1)

Source: POG0334-04

Acrolein	58.2	10	2.7	ug/l	50.0	ND	116 70-130			
Acrylonitrile	61.7	10	2.8	ug/l	50.0	ND	123 50-150			
Surrogate: Dibromofluoromethane	24.8			ug/l	25.0		99 80-125			
Surrogate: Toluene-d8	26.5			ug/l	25.0		106 80-120			
Surrogate: 4-Bromofluorobenzene	24.1			ug/l	25.0		96 80-120			

Matrix Spike Dup Analyzed: 07/15/2005 (P5G1815-MSD1)

Source: POG0334-04

Acrolein	61.0	10	2.7	ug/l	50.0	ND	122 70-130	5	20	
Acrylonitrile	63.9	10	2.8	ug/l	50.0	ND	128 50-150	4	35	
Surrogate: Dibromofluoromethane	25.4			ug/l	25.0		102 80-125			
Surrogate: Toluene-d8	26.3			ug/l	25.0		105 80-120			
Surrogate: 4-Bromofluorobenzene	23.2			ug/l	25.0		93 80-120			

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Ryan A. Stirrat & Associates 422 North 44th Street, Suite 109 Phoenix, AZ 85012 Attention: Keith Johnson	Project ID: Cave Creek Report Number: POG0334	Sampled: 07/13/05-07/14/05 Received: 07/14/05
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METHOD: BLANK/OC DATA

TOTAL RECOVERABLE METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD	RPD Limit	Data Qualifiers
Batch: P5G1810 Extracted: 07/18/05										
Blank Analyzed: 07/25/2005 (P5G1810-BLK1)										
Potassium	ND	1.0	N/A	mg/l						
Sodium	ND	5.0	N/A	mg/l						
LCS Analyzed: 07/25/2005 (P5G1810-BS1)										
Potassium	10.1	1.0	N/A	mg/l	10.0		101 85-115			
Sodium	10.7	5.0	N/A	mg/l	10.0		107 85-115			
LCS Dup Analyzed: 07/25/2005 (P5G1810-BSD1)										
Potassium	10.3	1.0	N/A	mg/l	10.0		103 85-115	2	15	
Sodium	10.5	5.0	N/A	mg/l	10.0		105 85-115	2	15	
Matrix Spike Analyzed: 07/25/2005 (P5G1810-MS1)										
Potassium	17.0	2.0	N/A	mg/l	10.0	6.0	110 85-115			
Sodium	306	100	N/A	mg/l	10.0	250	560 85-115			MI
Matrix Spike Dup Analyzed: 07/25/2005 (P5G1810-MSD1)										
Potassium	16.8	2.0	N/A	mg/l	10.0	6.0	108 85-115	1	15	
Sodium	274	100	N/A	mg/l	10.0	250	240 85-115	11	15	MI
Batch: P5G1902 Extracted: 07/18/05										
Blank Analyzed: 07/21/2005 (P5G1902-BLK1)										
Mercury	ND	0.00020	N/A	mg/l						
LCS Analyzed: 07/21/2005 (P5G1902-BS1)										
Mercury	0.00842	0.00020	N/A	mg/l	0.00800		105 85-115			

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Project ID: Cave Creek

Report Number: POG0334

Sampled: 07/13/05-07/14/05
 Received: 07/14/05

METHOD BLANK/OC DATA

TOTAL RECOVERABLE METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P5G1902 Extracted: 07/18/05										
LCS Dup Analyzed: 07/21/2005 (P5G1902-BSD1)										
Mercury	0.00878	0.00020	N/A	mg/l	0.00800		110 85-115	4	15	
Matrix Spike Analyzed: 07/21/2005 (P5G1902-MS1)										
Mercury	0.00728	0.00020	N/A	mg/l	0.00800	ND	91 85-115			Source: POG0349-01
Matrix Spike Dup Analyzed: 07/21/2005 (P5G1902-MSD1)										
Mercury	0.00734	0.00020	N/A	mg/l	0.00800	ND	92 85-115	1	15	Source: POG0349-01
Batch: P5G1907 Extracted: 07/19/05										
Blank Analyzed: 07/26/2005-07/27/2005 (P5G1907-BLK1)										
Aluminum	ND	0.050	N/A	mg/l						
Barium	ND	0.010	N/A	mg/l						
Beryllium	ND	0.0040	N/A	mg/l						
Boron	ND	0.50	N/A	mg/l						
Cadmium	ND	0.0050	N/A	mg/l						
Calcium	ND	2.0	N/A	mg/l						
Cobalt	ND	0.050	N/A	mg/l						
Copper	ND	0.020	N/A	mg/l						
Iron	ND	0.20	N/A	mg/l						
Lead	ND	0.050	N/A	mg/l						
Magnesium	ND	0.50	N/A	mg/l						
Manganese	ND	0.020	N/A	mg/l						
Nickel	ND	0.050	N/A	mg/l						
Silica	ND	2.5	N/A	mg/l						
Thallium	ND	0.050	N/A	mg/l						
Vanadium	ND	0.050	N/A	mg/l						
Zinc	ND	0.050	N/A	mg/l						

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Project ID: Cave Creek

Report Number: POG0334

Sampled: 07/13/05-07/14/05
 Received: 07/14/05

METHOD BLANK/QC DATA

TOTAL RECOVERABLE METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P5G1907 Extracted: 07/19/05										
LCS Analyzed: 07/26/2005-07/27/2005 (P5G1907-BS1)										
Aluminum	1.07	0.50	N/A	mg/l	0.999		107 85-115			
Antimony	1.04	0.050	N/A	mg/l	0.999		104 85-115			
Barium	1.01	0.010	N/A	mg/l	0.999		101 85-115			
Beryllium	1.02	0.0040	N/A	mg/l	0.999		102 85-115			
Boron	1.03	0.50	N/A	mg/l	0.999		103 85-115			
Cadmium	1.03	0.0050	N/A	mg/l	0.999		103 85-115			
Calcium	10.5	2.0	N/A	mg/l	9.99		105 85-115			
Cobalt	0.990	0.050	N/A	mg/l	0.999		99 85-115			
Copper	1.00	0.020	N/A	mg/l	0.999		100 85-115			
Iron	10.3	0.20	N/A	mg/l	9.99		103 85-115			
Magnesium	10.4	0.50	N/A	mg/l	9.99		104 85-115			
Manganese	1.01	0.020	N/A	mg/l	0.999		101 85-115			
Nickel	0.988	0.050	N/A	mg/l	0.999		99 85-115			
Silica	22.7	2.5	N/A	mg/l	21.4		106 85-115			
Thallium	0.934	0.050	N/A	mg/l	0.999		93 85-115			
Vanadium	1.03	0.050	N/A	mg/l	0.999		103 85-115			
Zinc	1.04	0.050	N/A	mg/l	0.999		104 85-115			

LCS Dup Analyzed: 07/26/2005-07/27/2005 (P5G1907-BS1)

Antimony	1.06	0.050	N/A	mg/l	0.999		106 85-115	2	20	
Aluminum	1.08	0.50	N/A	mg/l	0.999		108 85-115	1	20	
Barium	1.03	0.010	N/A	mg/l	0.999		103 85-115	2	20	
Beryllium	1.04	0.0040	N/A	mg/l	0.999		104 85-115	2	20	
Boron	1.06	0.50	N/A	mg/l	0.999		106 85-115	3	20	
Cadmium	1.05	0.0050	N/A	mg/l	0.999		105 85-115	2	20	
Calcium	10.7	2.0	N/A	mg/l	9.99		107 85-115	2	20	
Cobalt	1.00	0.050	N/A	mg/l	0.999		100 85-115	1	20	
Copper	1.02	0.020	N/A	mg/l	0.999		102 85-115	2	20	
Iron	10.4	0.20	N/A	mg/l	9.99		104 85-115	1	20	
Lead	1.02	0.050	N/A	mg/l	0.999		102 85-115	2	20	
Magnesium	10.6	0.50	N/A	mg/l	9.99		106 85-115	2	20	
Manganese	1.03	0.020	N/A	mg/l	0.999		103 85-115	2	20	
Nickel	1.00	0.050	N/A	mg/l	0.999		100 85-115	1	20	
Silica	23.3	2.5	N/A	mg/l	21.4		109 85-115	3	20	
Thallium	0.923	0.050	N/A	mg/l	0.999		92 85-115	1	20	

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 Karen Maxwell
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 Attention: Keith Johnson

Project ID: Cave Creek

Report Number: POG0334

Sampled: 07/13/05-07/14/05
 Received: 07/14/05

METHOD BLANK/QC DATA

TOTAL RECOVERABLE METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC Limits	RPD	RPD Limit	Data Qualifiers
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Batch: P5G1907 Extracted: 07/19/05

LCS Dup Analyzed: 07/26/2005-07/27/2005 (P5G1907-BSD1)

Vanadium	1.04	0.050	N/A	mg/l	0.999		104 85-115	1	20	
Zinc	1.06	0.050	N/A	mg/l	0.999		106 85-115	2	20	

Matrix Spike Analyzed: 07/26/2005-07/27/2005 (P5G1907-MS1)

Source: POG0365-01

Aluminum	1.41	0.50	N/A	mg/l	0.999	0.26	115 70-130			
Antimony	1.09	0.050	N/A	mg/l	0.999	ND	109 70-130			
Barium	1.13	0.010	N/A	mg/l	0.999	0.12	101 70-130			
Beryllium	1.05	0.0040	N/A	mg/l	0.999	ND	105 70-130			
Boron	1.43	0.50	N/A	mg/l	0.999	0.36	107 70-130			
Cadmium	1.01	0.0050	N/A	mg/l	0.999	ND	101 70-130			
Calcium	82.3	2.0	N/A	mg/l	9.99	71	113 70-130			
Cobalt	0.980	0.050	N/A	mg/l	0.999	0.0034	98 70-130			
Copper	1.17	0.020	N/A	mg/l	0.999	0.13	104 70-130			
Iron	10.7	0.20	N/A	mg/l	9.99	0.34	104 70-130			
Lead	1.00	0.050	N/A	mg/l	0.999	0.025	98 70-130			
Magnesium	81.4	0.50	N/A	mg/l	9.99	71	104 70-130			
Manganese	1.02	0.020	N/A	mg/l	0.999	ND	102 70-130			
Nickel	0.961	0.050	N/A	mg/l	0.999	ND	96 70-130			
Silica	73.8	2.5	N/A	mg/l	21.4	51	107 70-130			
Thallium	0.902	0.050	N/A	mg/l	0.999	ND	90 70-130			
Vanadium	1.09	0.050	N/A	mg/l	0.999	0.036	106 70-130			
Zinc	1.12	0.050	N/A	mg/l	0.999	0.066	106 70-130			

Matrix Spike Dup Analyzed: 07/26/2005-07/27/2005 (P5G1907-MSD1)

Source: POG0365-01

Antimony	1.08	0.050	N/A	mg/l	0.999	ND	108 70-130	1	20	
Aluminum	1.42	0.50	N/A	mg/l	0.999	0.26	116 70-130	1	20	
Barium	1.13	0.010	N/A	mg/l	0.999	0.12	101 70-130	0	20	
Beryllium	1.04	0.0040	N/A	mg/l	0.999	ND	104 70-130	1	20	
Boron	1.45	0.50	N/A	mg/l	0.999	0.36	109 70-130	1	20	
Cadmium	1.02	0.0050	N/A	mg/l	0.999	ND	102 70-130	1	20	
Calcium	82.0	2.0	N/A	mg/l	9.99	71	110 70-130	0	20	
Cobalt	0.986	0.050	N/A	mg/l	0.999	0.0034	98 70-130	1	20	
Copper	1.18	0.020	N/A	mg/l	0.999	0.13	105 70-130	1	20	
Iron	10.6	0.20	N/A	mg/l	9.99	0.34	103 70-130	1	20	
Lead	1.08	0.050	N/A	mg/l	0.999	0.025	106 70-130	8	20	
Magnesium	81.5	0.50	N/A	mg/l	9.99	71	105 70-130	0	20	

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Project ID: Cave Creek

Report Number: POG0334

Sampled: 07/13/05-07/14/05
 Received: 07/14/05

METHOD BLANK/QC DATA

TOTAL RECOVERABLE METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P5G1907 Extracted: 07/19/05											
Matrix Spike Dup Analyzed: 07/26/2005-07/27/2005 (P5G1907-MSD1)						Source: POG0365-01					
Manganese	1.01	0.020	N/A	mg/l	0.999	ND	101	70-130	1	20	
Nickel	0.968	0.050	N/A	mg/l	0.999	ND	97	70-130	1	20	
Silica	74.2	2.5	N/A	mg/l	21.4	51	108	70-130	1	20	
Thallium	0.971	0.050	N/A	mg/l	0.999	ND	97	70-130	7	20	
Vanadium	1.10	0.050	N/A	mg/l	0.999	0.036	107	70-130	1	20	
Zinc	1.13	0.050	N/A	mg/l	0.999	0.066	107	70-130	1	20	

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METHOD BLANK/OC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC Limits	RPD	RPD Limit	Data Qualifiers	
Batch: P5G1402 Extracted: 07/14/05											
Blank Analyzed: 07/14/2005 (P5G1402-BLK1)											
Fluoride	ND	0.10	N/A	mg/l							
Chloride	ND	0.50	N/A	mg/l							
Nitrate-N	ND	0.10	N/A	mg/l							
Nitrite-N	ND	0.10	N/A	mg/l							
Sulfate	ND	0.50	N/A	mg/l							
LCS Analyzed: 07/14/2005 (P5G1402-BS1)											
Nitrite-N	2.44	0.10	N/A	mg/l	2.50		98 90-110				
Sulfate	4.85	0.50	N/A	mg/l	5.00		97 90-110				
Fluoride	2.41	0.10	N/A	mg/l	2.50		96 90-110				
Nitrate-N	2.36	0.10	N/A	mg/l	2.50		94 90-110				
Chloride	4.67	0.50	N/A	mg/l	5.00		93 90-110				
LCS Dup Analyzed: 07/14/2005 (P5G1402-BSD1)											
Sulfate	4.77	0.50	N/A	mg/l	5.00		95 90-110	2	15		
Nitrate-N	2.33	0.10	N/A	mg/l	2.50		93 90-110	1	15		
Fluoride	2.35	0.10	N/A	mg/l	2.50		94 90-110	3	20		
Nitrite-N	2.43	0.10	N/A	mg/l	2.50		97 90-110	0	15		
Chloride	4.55	0.50	N/A	mg/l	5.00		91 90-110	3	15		
Matrix Spike Analyzed: 07/14/2005 (P5G1402-MS1)											
					Source: POG0282-10RE1						
Chloride	202	5.0	N/A	mg/l	50.0	170	64 80-120			M2	
Nitrate-N	26.2	1.0	N/A	mg/l	25.0	0.87	101 80-120				
Nitrite-N	25.5	1.0	N/A	mg/l	25.0	ND	102 80-120				
Sulfate	117	5.0	N/A	mg/l	50.0	72	90 80-120				
Fluoride	26.7	1.0	N/A	mg/l	25.0	1.5	101 80-120				
Matrix Spike Dup Analyzed: 07/14/2005 (P5G1402-MSD1)											
					Source: POG0282-10RE1						
Chloride	198	5.0	N/A	mg/l	50.0	170	56 80-120	2	15	M2	
Fluoride	26.6	1.0	N/A	mg/l	25.0	1.5	100 80-120	0	20		
Nitrate-N	26.3	1.0	N/A	mg/l	25.0	0.87	102 80-120	0	15		
Nitrite-N	27.0	1.0	N/A	mg/l	25.0	ND	108 80-120	6	15		
Sulfate	115	5.0	N/A	mg/l	50.0	72	86 80-120	2	15		

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 Project Manager



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yan A. Stirrat & Associates
 22 North 44th Street, Suite 109
 Phoenix, AZ 85012
 Attention: Keith Johnson

Project ID: Cave Creek
 Report Number: POG0334

Sampled: 07/13/05-07/14/05
 Received: 07/14/05

METHOD-BLANK/OC-DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD	RPD Limit	Data Qualifiers
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Batch: P5G1426 Extracted: 07/14/05

Duplicate Analyzed: 07/14/2005 (P5G1426-DUP1) Source: POG0305-01

pH	7.72	NA	N/A	pH Units		7.71		0	10	
----	------	----	-----	----------	--	------	--	---	----	--

Reference Analyzed: 07/14/2005 (P5G1426-SRM1)

pH	7.01	NA	N/A	pH Units	7.00		100 99-101			
----	------	----	-----	----------	------	--	------------	--	--	--

Reference Analyzed: 07/14/2005 (P5G1426-SRM2)

pH	7.03	NA	N/A	pH Units	7.00		100 99-101			
----	------	----	-----	----------	------	--	------------	--	--	--

Batch: P5G1523 Extracted: 07/15/05

Duplicate Analyzed: 07/15/2005 (P5G1523-DUP1) Source: POG0305-01

Specific Conductance	4430	1.0	N/A	umhos/cm		4400		1	10	
----------------------	------	-----	-----	----------	--	------	--	---	----	--

Reference Analyzed: 07/15/2005 (P5G1523-SRM1)

Specific Conductance	1410	1.0	N/A	umhos/cm	1410		100 90-110			
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Reference Analyzed: 07/15/2005 (P5G1523-SRM2)

Specific Conductance	1420	1.0	N/A	umhos/cm	1410		101 90-110			
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Batch: P5G1605 Extracted: 07/16/05

Duplicate Analyzed: 07/16/2005 (P5G1605-DUP1) Source: POG0315-02

Alkalinity as CaCO3	288	5.0	N/A	mg/l		290		1	20	
Bicarbonate Alkalinity as CaCO3	288	5.0	N/A	mg/l		290		1	20	
Carbonate Alkalinity as CaCO3	ND	5.0	N/A	mg/l		ND			20	

Del Mar Analytical - Phoenix
 Karen Maxwell
 Project Manager

yan A. Stirrat & Associates
 22 North 44th Street, Suite 109
 Phoenix, AZ 85012
 Attention: Keith Johnson

Project ID: Cave Creek
 Report Number: POG0334

Sampled: 07/13/05-07/14/05
 Received: 07/14/05

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD	RPD Limit	Data Qualifiers
Batch: P5G1605 Extracted: 07/16/05										
Reference Analyzed: 07/16/2005 (P5G1605-SRM1)										
Alkalinity as CaCO3	86.0	5.0	N/A	mg/l	89.0		97 90-105.7			
Batch: P5G2121 Extracted: 07/21/05										
Blank Analyzed: 07/21/2005 (P5G2121-BLK1)										
Total Dissolved Solids	ND	20	N/A	mg/l						
LCS Analyzed: 07/21/2005 (P5G2121-BS1)										
Total Dissolved Solids	410	20	N/A	mg/l	400		102 80-115			
LCS Dup Analyzed: 07/21/2005 (P5G2121-BSD1)										
Total Dissolved Solids	390	20	N/A	mg/l	400		98 80-115	5	10	
Duplicate Analyzed: 07/21/2005 (P5G2121-DUP1)										
Total Dissolved Solids	286	20	N/A	mg/l		Source: POG0416-01		1	10	
Duplicate Analyzed: 07/21/2005 (P5G2121-DUP2)										
Total Dissolved Solids	274	20	N/A	mg/l		Source: POG0416-02		6	10	
Batch: P5G2306 Extracted: 07/23/05										
Blank Analyzed: 07/23/2005 (P5G2306-BLK1)										
Total Dissolved Solids	ND	20	N/A	mg/l						
LCS Analyzed: 07/23/2005 (P5G2306-BS1)										
Total Dissolved Solids	402	20	N/A	mg/l	400		100 80-115			

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 Project Manager



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Ryan A. Stirrat & Associates 422 North 44th Street, Suite 109 Phoenix, AZ 85012 Attention: Keith Johnson	Project ID: Cave Creek Report Number: POG0334	Sampled: 07/13/05-07/14/05 Received: 07/14/05
---	--	--

METHOD BLANK/OC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: P5G2306 Extracted: 07/23/05											
LCS Dup Analyzed: 07/23/2005 (P5G2306-BSD1)											
Total Dissolved Solids	416	20	N/A	mg/l	400		104	80-115	3	10	
Duplicate Analyzed: 07/23/2005 (P5G2306-DUP1)											
Total Dissolved Solids	738	20	N/A	mg/l		740			0	10	
Duplicate Analyzed: 07/23/2005 (P5G2306-DUP2)											
Total Dissolved Solids	2540	100	N/A	mg/l		2500			2	10	

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Ryan A. Stirrat & Associates 22 North 44th Street, Suite 109 Phoenix, AZ 85012 Attention: Keith Johnson	Project ID: Cave Creek Report Number: POG0334	Sampled: 07/13/05-07/14/05 Received: 07/14/05
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METHOD BLANK/OC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD	RPD Limit	Data Qualifiers
Batch: 5G20089 Extracted: 07/20/05										
Blank Analyzed: 07/21/2005 (5G20089-BLK1)										
Arsenic	ND	1.0	N/A	ug/l						
Chromium	ND	2.0	N/A	ug/l						
Selenium	ND	2.0	N/A	ug/l						
Silver	ND	1.0	N/A	ug/l						
LCS Analyzed: 07/21/2005 (5G20089-BS1)										
Arsenic	81.2	1.0	N/A	ug/l	80.0		102 85-115			
Chromium	79.5	2.0	N/A	ug/l	80.0		99 85-115			
Selenium	80.7	2.0	N/A	ug/l	80.0		101 85-115			
Silver	80.7	1.0	N/A	ug/l	80.0		101 85-115			
Matrix Spike Analyzed: 07/21/2005 (5G20089-MS1) Source: IOG0827-06										
Arsenic	80.8	1.0	N/A	ug/l	80.0	ND	101 70-130			
Chromium	83.3	2.0	N/A	ug/l	80.0	2.7	101 70-130			
Selenium	79.9	2.0	N/A	ug/l	80.0	3.0	96 70-130			
Silver	77.3	1.0	N/A	ug/l	80.0	0.099	97 70-130			
Matrix Spike Analyzed: 07/21/2005 (5G20089-MS2) Source: IOG1077-01										
Arsenic	79.9	1.0	N/A	ug/l	80.0	ND	100 70-130			
Chromium	80.6	2.0	N/A	ug/l	80.0	1.8	98 70-130			
Selenium	89.3	2.0	N/A	ug/l	80.0	14	94 70-130			
Silver	77.4	1.0	N/A	ug/l	80.0	0.11	97 70-130			
Matrix Spike Dup Analyzed: 07/21/2005 (5G20089-MSD1) Source: IOG0827-06										
Arsenic	79.4	1.0	N/A	ug/l	80.0	ND	99 70-130	2		20
Chromium	81.5	2.0	N/A	ug/l	80.0	2.7	98 70-130	2		20
Selenium	78.9	2.0	N/A	ug/l	80.0	3.0	95 70-130	1		20
Silver	75.9	1.0	N/A	ug/l	80.0	0.099	95 70-130	2		20

Del Mar Analytical - Phoenix
 Karen Maxwell
 Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from Del Mar Analytical.



Ryan A. Stirrat & Associates
422 North 44th Street, Suite 109
Phoenix, AZ 85012
Attention: Keith Johnson

Project ID: Cave Creek

Report Number: POG0334

Sampled: 07/13/05-07/14/05
Received: 07/14/05

DATA QUALIFIERS AND DEFINITIONS

- Negative Ion Balance
- E4 Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL).
- H1 Sample analysis performed past holding time.
- L3 The associated blank spike recovery was above method acceptance limits.
- M1 Matrix spike recovery was high, the method control sample recovery was acceptable.
- M2 Matrix spike recovery was low, the method control sample recovery was acceptable.
- N1 See case narrative.
- R1 RPD exceeded the method control limit. See case narrative.
- R4 MS/MSD RPD exceeded the method control limit. Recovery met acceptance criteria.
- R6 LFB/LFBD RPD exceeded the method control limit. Recovery met acceptance criteria.
- V1 CCV recovery was above method acceptance limits. This target analyte was not detected in the sample.
- ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
- RPD Relative Percent Difference

Del Mar Analytical - Phoenix
Karen Maxwell
Project Manager



Del Mar Analytical

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Ryan A. Stirrat & Associates
 22 North 44th Street, Suite 109
 Phoenix, AZ 85012
 Attention: Keith Johnson

Project ID: Cave Creek

Report Number: POG0334

Sampled: 07/13/05-07/14/05
 Received: 07/14/05

Certification Summary

Del Mar Analytical - Phoenix

Method	Matrix	Nelac	Arizona
Calculation	Water		N/A
EPA 150.1	Water		X
EPA 200.7	Water		X
EPA 245.1	Water		X
EPA 258.1	Water		X
EPA 273.1	Water		X
EPA 300.0	Water		X
EPA 8260B	Water	X	X
SM2320B	Water		X
SM2510B	Water		X
SM2540C	Water		X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for Del Mar Analytical may be obtained by contacting the laboratory or visiting our website at www.dmalabs.com.

Contracted Laboratories

Del Mar Analytical NELAC Cert #01108CA, California Cert #1197, Arizona Cert #AZ0671, Nevada Cert #CA72-2002-63

17461 Derian Ave. Suite 100 - Irvine, CA 92614

Method Performed: EPA 200.8

Samples: POG0334-03, POG0334-05, POG0334-07

Del Mar Analytical - Phoenix
 Karen Maxwell
 Project Manager



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SUBCONTRACT ORDER - PROJECT # POG0334

SENDING LABORATORY:

Del Mar Analytical - Phoenix
 9830 South 51st Street, Suite B-120
 Phoenix, AZ 85044
 Phone: (480) 785-0043
 Fax: (480) 785-0851
 Project Manager: Karen Maxwell

RECEIVING LABORATORY:

Del Mar Analytical - Irvine
 17461 Derian Ave. Suite 100
 Irvine, CA 92614
 Phone: (949) 261-1022
 Fax: (949) 261-1228

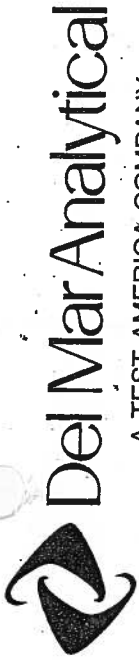
JOG 1000

Analysis	Expiration	Due	Comments
Sample ID: POG0334-03 Water Sampled: 07/14/05 09:50			
ICPMS-200.8-Ag-I	01/10/06 09:50	07/25/05 15:00	
ICPMS-200.8-As-I	01/10/06 09:50	07/25/05 15:00	
ICPMS-200.8-Cr-I	01/10/06 09:50	07/25/05 15:00	
ICPMS-200.8-Se-I	01/10/06 09:50	07/25/05 15:00	
Containers Supplied: 250 ml Poly w/HN03 (POG0334-03F)			
<hr/>			
Sample ID: POG0334-05 Water Sampled: 07/14/05 11:20			
ICPMS-200.8-Ag-I	01/10/06 11:20	07/25/05 15:00	
ICPMS-200.8-As-I	01/10/06 11:20	07/25/05 15:00	
ICPMS-200.8-Cr-I	01/10/06 11:20	07/25/05 15:00	
ICPMS-200.8-Se-I	01/10/06 11:20	07/25/05 15:00	
Containers Supplied: 250 ml Poly w/HN03 (POG0334-05F)			
<hr/>			
Sample ID: POG0334-07 Water Sampled: 07/14/05 12:25			
ICPMS-200.8-Ag-I	01/10/06 12:25	07/25/05 15:00	
ICPMS-200.8-As-I	01/10/06 12:25	07/25/05 15:00	
ICPMS-200.8-Cr-I	01/10/06 12:25	07/25/05 15:00	
ICPMS-200.8-Se-I	01/10/06 12:25	07/25/05 15:00	
Containers Supplied: 250 ml Poly w/HN03 (POG0334-07F)			

SAMPLE INTEGRITY:

All containers intact: Yes No Sample labels/COC agree: Yes No Samples Received On Ice: Yes No
 Custody Seals Present: Yes No Samples Preserved Properly: Yes No Samples Received at (temp):

Released By: [Signature] Date: 7/14/05 Time: 17:00 Received By: DHL Date: 7/14/05 Time: 17:00
 Released By: _____ Date: _____ Time: _____ Received By: G. [Signature] Date: 7/15/05 Time: 9:10



A TEST AMERICA COMPANY

CHAIN OF CUSTODY FORM

17461 Derian Ave., #100, Irvine, CA 92614 (949) 261-1021
 1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4687 FAX (909) 370-1046
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 2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 796-3620 FAX (702) 798-3628

Client Name/Address:	Project/PO Number:	Phone Number:	Fax Number:	Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	Analysis Required	Special Instructions
BAS & ASSOCIATES 1422 N. WIRTH ST. #109 PHOENIX AZ 85008	CAUSE CRACK			F.B.	H2O	U04	1	7/14/05		HCL		POG0334-01
				F.B.	"	U04	1	"		HCL		-02
				MW1	"	U04	3	"	9:50	HCL		-03
				MW2	"	U04	2	"	"	HCL		-04
				MW1	"	500	1	"	"	HNO3		-03
				MW7	"	1/17	1	"	"	HCL		-03
				MW3	"	U04	3	"	11:20	HCL		-05
				MW2	"	U04	2	"	"	HCL		-06
				MW2	"	505	1	"	"	HNO3		-05
				MW3	"	1/17	1	"	"	HCL		-05
				PRODUCTION	"	U04	3	"	12:25	HCL		-07
				PRODUCTION	"	U04	2	"	"	HCL		-08
				PRODUCTION	"	500	1	"	"	HNO3		-07
				PRODUCTION	"	1/17	1	"	"	HNO3		-07
Relinquished By: [Signature]	Date/Time: 7-14-05 12:30	Received By: [Signature]	Date/Time: 7-14-05 12:30	Turnaround Time: (Check) same day	72 hours							
Relinquished By: [Signature]	Date/Time: 7-14-05 5:04	Received By: [Signature]	Date/Time: 7-14-05 5:04	Turnaround Time: (Check) 24 hours	5 days							
Relinquished By: [Signature]	Date/Time: 7-14-05 5:04	Received In Lab By: [Signature]	Date/Time: 7/14/05 1504	Turnaround Time: (Check) 48 hours	normal							

Note: By relinquishing samples to Del. Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

APPENDIX F



Maricopa County

Department of Transportation

2901 W. Durango Street
Phoenix, Arizona 85009
Phone: (602) 506-8600
Fax: (602) 506-4858

August 9, 2005

Ms. Jennifer Edwards
Arizona Department of
Environmental Quality
1110 W. Washington Street
Phoenix, AZ 85007

RE: CAVE CREEK LANDFILL CONSENT ORDER – STATUS REPORT

Dear Ms. Edwards:

The following is the initial status report for the Maricopa County Cave Creek Landfill in compliance with Section IV Status Report of the June 29, 2005 Cave Creek Landfill Consent Order (ADEQ Identification Number 30604).

Geophysical Surveys

During the period of December 1-3, 2005, Bryan A Stirrat & Associates, Inc. (BAS) had Yellow Jacket Drilling (YJD) and Welenco performed geophysical surveys of the three existing wells at the Cave Creek Landfill (CCL). Welenco performed a video survey of all three wells, a gyroscope survey of well MW-2 and a cement-bond log of the Production Well.

The video surveys indicated that all three wells consist of welded steel casing sections. In well MW-1, the video camera encountered what appears to be 1-inch diameter HDPE sounding tube with metal couplers at a depth of 121 feet bgs. In well MW-2, perforations (mostly plugged) started at a depth of 620 feet bgs, the static water level was encountered at 676 bgs, and the well contained sediments at 684 feet bgs. In the Production Well, static water level was observed at 696 feet bgs, the top of screen began at 762 feet (perforations approximately 40% plugged) and the bottom of the well was 823 feet bgs.

The cement-bond log at the Production well indicated that only the upper 20 feet of the well is grouted with concrete, the remaining annular space contains cuttings and/or gravel. The gyroscope survey of MW-2 indicated a total drift of approximately 3.7 feet (0.54%).

Production Well Perforation

Following receipt of the Drilling Cards from ADWR, on 1/19/05 Yellow Jacket Drilling (YJD) mobilized its equipment to the site and on 1/20/05 YJD perforated the existing steel casing for the Production Well from 760' to 680' below top of casing (btoc). The perforations consisted of 1.5-inch long by 0.2-inch wide vertical slots, each separated by 2 inches. The interval 760'-740' contained one foot of perforations followed by one foot of blank. The perforations consisted of 4 perforations per row, aligned approximately north, east, south and west, and approximately 3 rows per foot. This perforation pattern proved to be very time-consuming and the remaining perforated segment, from 740'-680', was modified to contain continuous perforations aligned in 3 columns spaced approximately 120 degrees.

Wells Deepening

On 1/21/05, YJD setup the drill rig over monitoring well MW-2 and rod-down to the bottom of the well with a steel-milling bit to attempt to mill-out the bottom plate. However, no steel cap was encountered at the bottom of the well and instead pea-gravel was encountered from 700' to 720' bgs. YJD tripped-out of the hole to change to a drilling bit and rod-down the hole again. On the same day, YJD re-installed the submersible pump in the Production Well; however, due to safety concerns, the pump was not connected to the electrical panel.

During the period of January 21 through February 1, 2005, YJD deepened existing monitoring well MW-2 to a depth of 805 feet bgs. A new 5-inch diameter low-carbon steel (LCS) screen casing (0.125"/slots) was installed, using a reverse-thread coupling, from 685 feet bgs to 805 feet bgs. The bottom of the new screen was capped with a steel plate, and the 20-foot long LCS casing segments joints were welded.

On February 1, 2005, YJD used a Smeal development rig to begin bailing out drilling mud from well MW-2. The drill rig was moved and setup over well MW-1 to attempt to fish-out the 1-inch diameter HDPE sounding tube. However, several large rocks had been dropped inside the well casing for MW-1, effectively blocking the well. During February 2 and 3, 2005, YJD drilled through the rocks and drilled out the HDPE sounding tube.

During the period of February 4 through 8, 2005, YJD deepened monitoring well MW-1 to a total depth of 820 feet btoc. A new 5-inch diameter low-carbon steel (LCS) screen casing (0.125"/slots) was installed, using a reverse-thread coupling, from 700 feet btoc to 820 feet btoc. The bottom of the new screen was capped with a steel plate, and the 20-foot long LCS casing segments joints were welded.

New Pumps Installation and Well Development

On March 1, 2005, after YJD had removed as much mud as practical from wells MW-1 and MW-2, YJD installed a new 4-inch diameter pump and a ¾-inch diameter SCH 40 PVC flush-thread sounding tube in well MW-2. Groundwater was measured at a depth of 677.66' below TOC. The bottom of the pump was set at a depth of 703.66' below TOC. The pump was turned on and it purged the well at a rate of approximately 8 gallons per minute (gpm). The pump was run for about 45 minutes, purging approximately 360 gallons of groundwater until the water appeared clear and free of fines.

On March 2, 2005 a new 4-inch diameter 3HP pump and ¾-inch diameter PVC sounding tube were installed in well MW-1. Groundwater was measured at a depth of 716.9' below TOC. The bottom of the pump was set at a depth of 740' below TOC. The pump was turned on and it purged the well at a rate of approximately 5 gpm. The pump was run for about 40 minutes, purging approximately 200 gallons until the water appeared clear and free of fines.

On March 2, the depth to groundwater from the Production Well was also measured. At first, YJD tried using the existing galvanized steel sounding tube, but the sounder was blocked at a depth of approximately 690'. BAS then removed the vent pipe and used the opening on the well head to lower the sounder. Groundwater was measured at a depth of 695.1' below TOC.

Groundwater Sampling and Flow

On March 9, 2005, BAS and MCSWMD personnel performed groundwater sampling and monitoring of all three wells at the CCL. The following table summarizes the depth to water measured at each well, the corresponding groundwater elevation, and the interpreted direction of groundwater flow. The following table contains the groundwater data collected since March 2nd.

MONITORING DATE	DEPTH TO GROUNDWATER			GROUNDWATER ELEVATION			FLOW DIRECTION	GRADIENT (feet/foot)
	PW	MW-1	MW-2	PW	MW-1	MW-2		
3/2/2005	695.1	716.9	677.66	1184.19	1176.88	1176.34	S52E	0.0045
3/9/2005	693.2	716.65	679.9	1186.09	1177.13	1174.1	S32W	0.0048
3/21/2005	692.3	713.8	675.3	1186.99	1179.98	1178.7	S22E	0.0031
4/8/2005	691.0	702.8	665.8	1188.29	1190.98	1188.2	S11E	0.01
6/1/2005	692.0	715.8	678.3	1187.29	1177.98	1175.7	S2W	0.004
6/14/2005	696.2	719	681.6	1183.09	1174.78	1172.4	S17W	0.0038
6/30/2005	697.2	719	680.5	1182.09	1174.78	1173.5	S25E	0.0033
7/7/2005	697.4	719.1	680.7	1181.89	1174.68	1173.3	S19E	0.0031
7/14/2005	698.5	719.1	680.77	1180.79	1174.68	1173.23	S11E	0.0026
7/21/2005	695.1	717.7	679.25	1184.18	1176.08	1174.75	S29E	0.0037
7/28/2005	695.7	717.08	678.71	1183.62	1176.70	1175.29	S14E	0.0030

The pump in the Production Well purged groundwater at a rate of approximately 15 gpm. A total of approximately 515 gallons of groundwater were purged from the well prior to collection of groundwater samples. The pump in well MW-1 pumped at a rate of 5 gpm, and approximately 300 gallons of groundwater were purged prior to sampling. The pump in well MW-2 pumped at a rate of approximately 8 gpm, and approximately 400 gallons of groundwater were purged prior to sampling.

BAS collected groundwater samples from each well at the same time as MCSWMD personnel collected their monthly samples. BAS sent the groundwater samples to Transwest Geochem laboratory for VOCs analyses by EPA Method 8260B. MCSWMD personnel submitted their samples to Del Mar Analytical Laboratory for VOCs, inorganics, metals, 2-chloroethy vinyl ether and acrolein/acrylonitrile.

BAS submitted to ADEQ a request that inorganics, metals, Acrolein and Acrylonitrile be deleted from the list of constituents to be analyzed monthly. Inorganics, metals, Acrolein and Acrylonitrile would continue to be analyzed on a semi-annual basis (in January and July). ADEQ has granted this request and since completion of the monitoring well deepening, monthly groundwater sampling and VOC analysis of all three wells has been performed.

During 2005, the production well was found to contain low concentrations of TCE, below the 5.0 ug/L AWQS; well MW-1 also contains low concentrations of TCE ranging from 5.2 to 7.4 ug/L, slightly above the AWQS; and well MW-2 contains no detectable concentrations of TCE. Monthly analytical results and periodic (approximately weekly) groundwater flow data is provided to ADEQ on a monthly basis.

Groundwater flow data collected since March 2005 indicated that the flow direction fluctuates from South 32 degrees West to South 52 degrees East. Historically, groundwater flow was predominantly to the southwest, however, four City of Phoenix production wells installed approximately one and one-quarter miles to the east and southeast of the site appear to have influenced local groundwater flow. Well data obtained from the City of Phoenix indicates that two of the four wells have not been operating due to elevated Radon levels. One well located to the east and one well located to the southeast of the Cave Creek Landfill have been operating periodically since the March groundwater flow measurements were collected. Water quality data obtained from the City of Phoenix indicate that no detectable concentrations of TCE have been found in the production wells. We have attached the production well data obtained from the City of Phoenix for your review.

Groundwater Characterization Work Plan

Per the June 29, 2005 Cave Creek Landfill Consent Order, III Compliance Schedule (A), BAS has prepared a draft groundwater characterization work plan. The draft work plan is currently under review by Maricopa County staff. The final work plan will be submitted to ADEQ within 60 days of June 29, 2005 (August 28, 2005).

Soil Vapor Assessment

SCS Engineers was requested to perform a soil vapor assessment of the Cave Creek Landfill to determine whether VOCs were migrating out of the landfills into the vadose zone. A copy of the report is attached for your review. SCS Engineers installed and sampled two permanent vapor probes in the New Cave Creek Landfill and four permanent vapor probes in the Old Cave Creek Landfill (BLM property). Each probe contained sampling ports at approximately 90 feet bgs and 140 feet bgs. Soil vapor sampling of existing shallower perimeter monitoring probes at the New Cave Creek Landfill was also conducted. Three rounds of sampling were conducted on the two vapor probes in the New Cave Creek Landfill (November and December 2004, and June 2005) and two rounds of sampling were conducted on the Old Cave Creek Landfill and the existing shallower perimeter monitoring probes at the New Cave Creek Landfill (November and December 2004).

Results of the first two vapor sampling events indicated relatively low levels of VOCs were present in the southeastern corner and in and around the perimeter of the northern portion of the New Landfill, and in the southwest, southeast and northeast portion of the Old Landfill. The June 2005 sampling event indicated slightly higher VOC concentrations were found in the northern portion of the New Landfill. VOC concentrations were detected in the 20 to 50 foot bgs existing shallow perimeter probes and the 90 to 140 foot bgs deeper interior landfill probes.

Based on the results it was not conclusive as to whether the Old Cave Creek Landfill was the source of the groundwater contamination, or whether landfill vapor or leachate was migrating into the groundwater. However, by comparing leachate, vapor sample, and groundwater analysis results and the fact that the upgradient (Production) well exhibited VOC concentrations, it appears that landfill vapors are the most likely source of VOCs in the groundwater.

Vapor Extraction Remediation System

Due to normal system operations over time, combined with sun and heat exposure, the piping, valves, well heads and louver motors were failing, causing low vacuum and system shutdown. Work was conducted to replace the failing system components and adjustments were made to increase the flow to the system. After the maintenance and adjustments were completed the remediation system ran more efficiently and shutdown of the system due to mechanical failure has not been an issue. By substantially increasing the vacuum, lowering the oxygen concentration and increasing the methane concentration to the remediation system the effectiveness has been increased. We anticipate that the increase in the remediation system effectiveness will decrease the soil vapor VOC concentrations, subsequently decreasing the VOC concentrations in the groundwater.

Should you have any questions or require additional information, please advise.

Sincerely,

A handwritten signature in black ink that reads "William Thornton". The signature is written in a cursive style with a large, prominent "W" and "T".

William Thornton
Director, Solid Waste Management Department
Maricopa County

Cc: Keith Johnson (BAS), w/o attachments
Rita Neill (MCRM), w/o attachments
Kevin Costello (MCAO), w/o attachments