

SUMMARY OF OPERATIONS

MONTEREY PENINSULA ASR PROJECT

WATER YEAR 2015



MAY 2018



May 16, 2018 Project No. 12-0043

Monterey Peninsula Water Management District Post Office Box 85 Monterey, California 93942-0085

Attention: Mr. Jonathan Lear, Senior Hydrogeologist

Subject: Monterey Peninsula ASR Project; Water Year 2015 Summary of Operations Report

Dear Jon:

We are transmitting five copies and one digital image (PDF) of the subject report documenting operations of the Monterey Peninsula ASR Project during Water Year 2015 (WY 2015). WY 2015 was a Dry Water Year on the on the Monterey Peninsula, and as a result a commensurately modest volume totaling 215 acre-feet (af) of water was able to be diverted from the Carmel River system for recharge in the Seaside Groundwater Basin (SGB) via the ASR-1, -2, -3 and -4 wells. This contrasts with the over 1,100 af injected via ASR-1 and -2 in both WY 2010 and WY 2011, which were Above Normal Water Years. To date, a total volume of approximately 4,390 af of excess Carmel River system water has been successfully injected, stored, and recovered in the SBG since the ASR project was initiated in 2001.

We appreciate the opportunity to provide ongoing assistance to the District on this important community water-supply project. Please contact us with any questions.

Sincerely,

PUEBLO WATER RESOURCES, INC

Robert C. Marks, P.G., C.Hg.

Principal Hydrogeologist

Stephen P. Tanner, P.E.

Principal Engineer

Copies submitted: 5 hard

1 digital (PDF)



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INTRODUCTION

GENERAL STATEMENT

Presented in this report is a summary of operations of the Monterey Peninsula Aquifer Storage and Recovery (ASR) Project during Water Year 2015 (WY 2015)¹. During WY 2015, approximately 215 acre-feet (af) of excess flows were diverted from the Carmel River system for recharge, storage, and subsequent recovery in the Seaside Groundwater Basin (SGB). This report presents a summary of the project operations during WY 2015, an assessment of ASR well performance, aquifer response and water-quality data, and provides recommendations for ongoing operation of the project.

BACKGROUND

The Monterey Peninsula ASR Project is cooperatively implemented by the Monterey Peninsula Water Management District (MPWMD or District) and California American Water (CAW) and involves the diversion of excess winter and spring time flows from the Carmel River system for recharge and storage in the Seaside Groundwater Basin (SGB). The excess water is captured by CAW wells in the Carmel Valley during periods when flows in the Carmel River exceed fisheries bypass flow requirements, treated to potable drinking water standards, and then conveyed through CAW's distribution system to ASR facilities in the SGB. Recharge is accomplished via injection of these excess flows into specially designed ASR wells drilled in the SGB. The locations of the ASR wells and associated project monitoring wells in the SGB are shown on **Figure 1**. The recharged water is temporarily stored underground utilizing the available storage space within the aquifer system. During periods of high demand, other existing CAW production wells in the SGB and/or the ASR wells can be used to recover the previously recharged water, which in turn allows for reduced extractions from the Carmel River system during seasonal dry periods.

The District and CAW have been cooperatively developing an ASR project on the Monterey Peninsula since 1996. These efforts have evolved over time, from the performance of various technical feasibility investigations, leading to the construction and testing of pilot- and then full-scale ASR test wells to demonstrate the viability and operational parameters for ASR wells in the SGB. Based on the success of the ASR demonstration testing program, MPWMD and CAW are in the process of implementing a full-scale permanent ASR Project.

The Phase 1 ASR Project (a.k.a. Water Project 1) includes two ASR wells (SM ASR-1 and SM ASR-2) located at the Santa Margarita ASR Facility at 1910 General Jim Moore Blvd. in Seaside. The Phase 1 Project is capable of recharging up to the State Water Resources Control Board (SWRCB) water right² maximum annual diversion limit of 2,426 acre-feet per year (afy) at a combined permitted injection rate of approximately 3,000 gallons per minute ([gpm]

¹ Water Year 2015 is the period of October 1, 2014 through September 30, 2015.

² SWRCB water right 20808A for the Phase 1 ASR Project is held jointly by MPWMD and CAW.



maximum diversion rate of 6.7 cubic feet per second [cfs]), with an average annual yield of approximately 920 afy. SM ASR-1 is designed for an injection capacity of 1,000 to 1,250 gpm and SM ASR-2 is designed for an injection capacity of 1,500 to 1,750 gpm. As-built schematics of SM ASR-1 and SM ASR-2 are presented on **Figures 2 and 3**, respectively.

The Phase 2 ASR Project (a.k.a. Water Project 2) includes two ASR wells (SMS ASR-3 and SMS ASR-4) located at the Seaside Middle School (SMS) ASR Facility at 2111 General Jim Moore Blvd. in Seaside. The Phase 2 Project is designed to be capable of recharging up to the SWRCB water right³ maximum annual diversion limit of 2,900 afy at a combined permitted injection rate of approximately 3,600 gpm (maximum diversion rate of 8.0 cfs), with an average annual yield of approximately 1,000 afy. SMS ASR-3 and SMS ASR-4 are both designed for injection capacities of 1,500 to 1,750 gpm. SMS ASR-3 was constructed in 2010, and WY 2012 was the first time injection occurred at this well. As-built schematics of SMS ASR-3 and SMS ASR-4 are presented on **Figures 4 and 5**, respectively.

A graphical summary of historical ASR operations in the SGB is shown on **Figure 6**. Shown are the annual injection and recovery volumes since the inception of injection operations at the Santa Margarita ASR Facility in WY 2001 through the current period of WY 2015. Also presented is a delineation of the various phases of project implementation, starting with the Santa Margarita Test Injection Well (SMTIW) in 2001, which became SM ASR-1 as the project transitioned from a testing program to a permanent project in WY 2008 (Phase 1 ASR Project), through construction and operation of the second well (SM ASR-2) at the facility in 2010. As shown, having the Santa Margarita Facility in full operation with two ASR wells injecting simultaneously since 2010 (combined with above normal rainfall and Carmel River flows during WY 2010 and WY 2011) resulted in significant increases in the volume injected annually. As the two additional Phase 2 Project ASR wells (ASR-3 and ASR-4) come on line in full operation, commensurate increases in annual injection volumes are expected to occur (depending on hydrologic conditions in any given year).

PURPOSE AND SCOPE

The overall purpose of the ongoing ASR program is to recharge the SGB with excess treated Carmel River system water when it is available during wet periods for storage and later extraction (recovery) during dry periods. ASR benefits the resources of both systems by raising water levels in the SGB during the recharge and storage periods and reducing extractions from the Carmel River System during dry periods.

The scope of the ongoing data collection, analysis, and reporting program for the ASR program can be categorized into issues generally associated with:

- 1) ASR well hydraulics and performance;
- 2) Aguifer response to injection, and;

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³ The SWRCB water right 20808C for the Phase 2 ASR Project is held jointly by MPWMD and CAW.



3) Water-quality issues associated with geochemical interaction and mixing of injected and native groundwaters.

The ongoing data collection and reporting program is intended to monitor and track ASR well performance and aquifer response to injection (both hydraulic and water quality) and to comply with the requirements of the Central Coast Regional Water Quality Control Board (RWQCB) for submitting annual technical reports for the project pursuant to Section 13267 of the California Water Code⁴ and the existing General Waiver for Specific Types of Discharges (Resolution R3-2008-0010).

FINDINGS

WY 2015 ASR OPERATIONS

General Recharge Procedures

Recharge of the SGB occurs via injection of diverted flows from the CAW distribution system into ASR wells during periods of available excess Carmel River system flows. The ASR recharge source water is potable (treated) water provided from the CAW distribution system. The water is currently diverted by various production well sources in Carmel Valley and (after treatment and disinfection to potable standards) then conveyed through the Segunda-Crest pipeline network to the ASR Pipeline in General Jim Moore Blvd and then to the Santa Margarita and Seaside Middle School ASR facilities.

Injection water is introduced into the ASR wells via the pump columns. Injection rates are controlled primarily by downhole flow control valves (FCV's) installed on the pump columns, and secondarily by modulating the automatic flow control valves (i.e., Cla-Vals) installed on the ASR wellhead piping. Injection flow rates and total injected volumes are measured with rate and totalizing meters at each of the wellheads. Positive gauge pressures are maintained at the wellheads during injection to prevent cascading of water into the wells (which can lead to airbinding). Continuous water-level data at each of the ASR wells are collected with submersible pressure transducer data loggers.

Injection generally occurs at each of the ASR wells on a continuous basis when flows are available, interrupted only for periodic backflushing, which typically occurs on an approximate weekly basis. Most sources of injection water contain trace amounts of solids that slowly accumulate in the pore spaces in the well's gravel pack and adjacent aquifer materials, and the CAW source water is no exception. Periodic backflushing of the ASR wells is therefore necessary to maintain well performance by removing materials deposited/accumulated around the well bore during injection. The procedure is similar to backwashing a media filter to remove accumulated material deposited during filtration.

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⁴ Letter from Roger W. Briggs, Executive Officer of the Central Coast RWQCB, to Joseph Oliver, Water Resources Manager for MPWMD, dated April 29, 2009.



The trigger for backflushing is when the amount of water-level drawup during injection equals the available drawdown (as measured from the static water level to the top of the pump bowls) in the well for backflushing, or one week of continuous injection, whichever occurs first. This helps to avoid over-pressurization and compression of plugging materials, thereby maximizing the efficiency of backflushing and limiting the amount of residual plugging. This factor is the basis for the maximum recommended drawup levels referenced in the following section.

The general procedure consists of temporarily stopping injection and then pumping the wells at rates of approximately 2,000 to 3,000 gpm (i.e., at least twice the rate of injection) for a period of approximately 15 to 20 minutes, and repeated as necessary to effectively remove particulates from the well screen / gravel pack / aquifer matrix. Backflush water is discharged to the Santa Margarita ASR Facility backflush pit, where it percolates back into the groundwater basin.

Injection Operations Summary

A summary of injection operations at the four ASR wells is presented in **Table 1** below. Field data collected during injection operations are presented in **Appendix A**.

	Injection Season		Active	Injection Rate (gpm)			Total Vol
Well	Start	End	Days	Min	Max	Avg	(af)
ASR-1	12/15/2014	2/17/2015	12	870	1,610	1,274	38.6
ASR-2	12/12/2014	2/17/2015	23	340	1,775	1,404	130.9
ASR-3	12/15/2014	2/15/2015	12	655	1,066	942	45.2
ASR-4	2/11/2015	2/13/2015	3	247	1,073	550	0.5
						Total	215.2

Table 1. WY 2015 Injection Operations Summary

As shown in **Table 1**, recharge operations were performed intermittently in WY 2015 during the period of December 12, 2014 through February 17, 2015. WY 2015 was classified as a Dry Water Year⁵ on the Carmel River with only 23 days of active injection and a commensurately modest total volume of approximately 215 acre-feet (af) of water was available for diversion from the CAW system for recharge in the SGB. The recharge water was injected at all four ASR wells into the Santa Margarita Sandstone aquifer with per-well average injection rates ranging from approximately 550 to 1,400 gpm (approximately 2.43 to 6.20 acre-feet per day [afd]). The combined total volume of injection during WY 2015 was approximately 215 af.

It is noted that the variability in injection rates at the ASR wells during the injection season is controlled by various factors, including the number of active sources to the CAW

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⁵ Based on 22,209 af of unimpaired Carmel River flow at the San Clemente Dam site in WY 2015.



system, customer demands on the CAW system, and the ability of CAW's distribution system to maintain piping pressure at the ASR wellheads.

Water-level data collected at SM ASR-1, SM ASR-2, SMS ASR-3 and SMS ASR-4 during WY 2015 are presented in **Figures 7 through 10**, respectively. The water-level data show the response of both SM ASR-1 and ASR-2 to injection, with maximum water-level drawups of approximately 51 and 95 feet, which were well below the maximum recommended drawup levels of approximately 100 and 130 feet, respectively. At SMS ASR-3 the maximum water-level drawup was approximately 113 feet, which was also well below its maximum recommended drawup level of approximately 170 feet. At ASR-4, the water-level transducer/datalogger malfunctioned and no data are available for WY 2015.

Recovery Operations Summary

As WY 2015 was the fourth consecutive Dry or Critically Dry Year on the Monterey Peninsula, a decision was made by the resource management agencies to not recover the water injected during this year, so that this water could be held over for recovery if needed in the following year, should dry conditions persist. Accordingly, as shown on **Figure 6**, no WY 2015 recharged water was recovered by CAW wells during WY 2015.

When the injected water is recovered via delivery through the CAW system, the recovered water is offset by reduced pumping by CAW from the Carmel River system during the low-flow, high demand periods of the year. It is noted that in this context, ASR recovery is essentially an accounting / allocation of CAW's various water rights and pumping from the SGB, and does not represent a "molecule-for-molecule" recovery of the injected water. Rather, the volume recharged increases the operational yield of the SGB by the same amount and can be "recovered" by any of CAW's wells in the SGB and / or the ASR wells themselves. It is anticipated, however, that recovery operations via the ASR wells will occur more extensively in the future, once all of the wells are permitted for production into the CAW distribution system.

WELL PERFORMANCE

Well performance is generally measured by specific capacity (pumping) and / or specific injectivity (injection), which is the ratio of flow rate (pumping or injection) to water-level change in the well (drawdown or drawup) over a specific elapsed time. The value is typically expressed as gallons per minute per foot of water level change (gpm/ft). The value normalizes well performance by taking into account differing static water levels and flow rates. As such, specific capacity / injectivity data are useful for comparing well performance over time and at differing flow rates. Decreases in specific capacity / injectivity are indicative of decreases in the hydraulic efficiency of a well due to the effects of plugging and/or particle rearrangement.

Injection Performance

Injection performance has been tracked at ASR-1 since the inception of the ASR program in WY 2002 by measurement and comparison of 24-hour injection specific injectivities (a.k.a. injection specific capacity).



SM ASR-1. A summary of 24-hour specific injectivity for ASR-1 for WY 2002 through 2015 is presented in **Table 2** below:

Table 2. Injection Performance Summary - ASR-1

Water Year	Injection Rate (gpm)	24-hour DUP (feet)	Specific Injectivity (gpm/ft)	Water Year Change	Comments
WY2002					
Beginning Period	1,570	81.7	19.2		FCV not installed yet in WY2002.
Ending Period	1,164	199.8	6.4	-67%	No recovery pumping performed.
WY2003					
Beginning Period	1,070	70.0	15.5		Recovery pumping performed following
Ending Period	1,007	49.7	20.3	+31%	WY2003 Injection
WY2004					
Beginning Period	1,383	183.4	7.5		Recovery pumping performed following
Ending Period	1,072	67.4	15.9	+112%	WY2004 Injection
WY2005					
Beginning Period	1,045	46.6	22.4		Injectate dechlorinated in WY2005. No
Ending Period	976	94.1	10.4	-54%	recovery pumping performed.
WY2006					
Beginning Period	1,039	71.5	15.0		Injection procedures consistent and
Ending Period	1,008	62.2	17.5	+17%	performance stable in WY2006. No recovery pumping performed.
WY2007	1		1	1	
Beginning Period	1,098	92.4	11.9		Only one injection period in WY2007.
Ending Period				<u></u>	No recovery pumping performed.
WY2008					
Beginning Period	979	25.5	38.4		Formal rehabilitation performed prior to
Ending Period	1,063	33.4	31.8	-17%	WY2008 injection
WY 2009	•		•	•	
Beginning Period	1,119	56.1	19.9	+56%	Beginning period low specific injectivity due to high plugging rate during initial
Ending Period	1,069	34.3	31.1		injection period. No recovery pumping performed.
WY 2010					
Beginning Period	1,080	35.6	30.3		Observed decline in performance due
Ending Period	1,326	54.0	24.6	-19%	to residual plugging.
	•	•	•		



Water Year	Injection Rate (gpm)	24-hour DUP (feet)	Specific Injectivity (gpm/ft)	Water Year Change	Comments
WY 2011					
Beginning Period	1,367	53.0	25.8		Observed decline in performance due
Ending Period	1,454	63.7	22.8	-10%	to residual plugging.
WY 2012					
Beginning Period	NA	NA	NA		No injection of this well this year
Ending Period	NA	NA	NA	NA	No injection at this well this year.
WY 2013					
Beginning Period	NA	NA	NA		No injection of this well this year
Ending Period	NA	NA	NA	NA	No injection at this well this year.
WY 2014					
Beginning Period	NA	NA	NA		No injection of this well this year
Ending Period	NA	NA	NA	NA	No injection at this well this year.
WY 2015					
Beginning Period	NA	NA	NA		See discussion below.
Ending Period	1,018	40.7	25.0	NA	See discussion below.

As shown in **Table 2**, there are no beginning period data for ASR-1 during WY 2015 because the water-level transducer / datalogger was non-operational; however, the ending period specific injectivity was 25.0 gpm/ft, which is slightly greater than the ending specific injectivity in WY 2011 (the last time data are available) of 22.8 gpm/ft, suggesting that little residual plugging likely occurred at this well during WY 2015.

ASR-2. A summary of the beginning and ending injection performance at ASR-2 for WY 2010 through WY 2015 is presented in **Table 3** below:

Table 3. Injection Performance Summary - ASR-2

Water Year	Injection Rate (gpm)	24-hour DUP (feet)	Specific Injectivity (gpm/ft)	Water Year Change	Comments
WY 2010					
Beginning Period	1,017	156.5	6.5		Significant residual plugging.
Ending Period	237	85.0	2.8	-57%	Significant residual plugging.
WY 2011					
Beginning Period	1,497	39.5	37.9		Significant improvement as a result
Ending Period	1,292	34.3	37.7	-0.5%	of well rehabilitation. No residual plugging during year.



Water Year	Injection Rate (gpm)	24-hour DUP (feet)	Specific Injectivity (gpm/ft)	Water Year Change	Comments
WY 2012					
Beginning Period	1,830	56.1	32.6		Observed decline in performance
Ending Period	1,817	63.4	28.7	-12%	due to residual plugging.
WY 2013					
Beginning Period	1,087	32.7	33.2		No recidual plugging during year
Ending Period	1,508	44.2	34.1	+3%	No residual plugging during year.
WY 2014					
Beginning Period	NA	NA	NA		No injection of this well this year
Ending Period	NA	NA	NA	NA	No injection at this well this year.
WY 2015					
Beginning Period	1,456	38.9	37.4		One discussion halou
Ending Period	1,574	49.1	32.1	-14%	See discussion below.

As shown in **Table 3**, the 24-hour specific injectivity at the beginning of WY 2015 was 37.4 gpm/ft and at the end of WY 2015 it was 32.1 gpm/ft, representing a decrease of approximately 14 percent, indicating that slight residual plugging occurred at ASR-2 over the course of the WY 2015 injection season; however, the WY 2015 ending specific injectivity is only slightly lower than the value at the end of WY 2013 of 34.1 gpm/ft, suggesting that little residual plugging has occurred over the long-term at this well since it was rehabilitated in WY 2011.

ASR-3. A summary of the beginning and ending injection performance at ASR-3 for WY 2013 through WY 2015 is presented in **Table 4** below:

Table 4. Injection Performance Summary – ASR-3

Water Year	Injection Rate (gpm)	24-hour DUP (feet)	Specific Injectivity (gpm/ft)	Water Year Change	Comments
WY 2013					
Beginning Period	1,044	87.0	12.0		See discussion below.
Ending Period	822	99.6	8.3	-31%	See discussion below.
WY 2014					
Beginning Period	NA	NA	NA		No injection at this well this year
Ending Period	NA	NA	NA	NA	No injection at this well this year.
WY 2015					
Beginning Period	NA	NA	NA	NA	On a disconsista halam
Ending Period	892	90.3	9.9		See discussion below.

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As shown in **Table 4**, there are no beginning period data for ASR-3 during WY 2015 because the water-level transducer / datalogger was non-operational; however, the ending period specific injectivity was 9.9 gpm/ft, which is slightly greater than the ending specific injectivity in WY 2013⁶ of 9.9 gpm/ft; this suggests that little residual plugging likely occurred at this well during WY 2015.

ASR-4. Injection at ASR-4 during WY 2015 was limited to three days of well "conditioning" (0.49 af). This conditioning consisted of numerous injection and backflushing cycles at relatively low rates and durations, being incrementally increased upon confirmation that well performance was being maintained. The conditioning was performed in an effort to limit the performance decline that has historically been observed at all three ASR wells following their initial injection operations.

Initial injection was performed at a rate of approximately 280 gpm for 5 minutes, followed by backflushing. The injection rate and duration were incrementally increased over the course of three days, up to an injection rate of approximately 1,070 gpm for a maximum duration of 30 minutes, followed by backflushing. The specific injectivity during these operations was consistently approximately 50 gpm/ft (plus or minus 10 percent), indicating that no measureable residual plugging occurred. Additional well conditioning is planned for WY 2016 to achieve the design injection rate of 1,500 gpm.

Pumping Performance

Pumping performance has also been tracked at ASR-1 since the inception of the SMTIW testing program by measurement and comparison of specific capacity. Following routine backflushing operations and periods of water-level recovery, controlled 10-minute specific-capacity tests are typically performed to track well pumping performance, similar to the tracking of injection performance from 24-hour specific injectivity discussed above.

ASR-1. A summary of injection season beginning and ending 10-minute specific capacities at ASR-1 for WY 2002 through 2015 is presented below in **Table 5**:

Table 5. Pumping Performance Summary - ASR-1

Water Year	Pumping Rate (gpm)	10-min DDN (feet)	Specific Capacity (gpm/ft)	Water Year Change	Comments
WY2002					
Pre-Injection	2,825	45.1	62.6		FCV not installed yet in WY2002
Post- Injection	2,800	95.3	29.4	-53%	rev not installed yet in w 12002

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⁶ The last time data are available.



Water Year	Pumping Rate (gpm)	10-min DDN (feet)	Specific Capacity (gpm/ft)	Water Year Change	Comments
WY2003					
Pre-Injection	2,775	81.9	33.9		Recovery pumping performed
Post- Injection	2,600	91.7	28.4	-16%	following WY2003 Injection
WY2004					
Pre-Injection	2,000	51.8	38.6		Recovery pumping performed
Post- Injection	1,700	81.2	20.9	-46%	following WY2004 Injection
WY2005					
Pre-Injection	1,900	49.8	38.1		Injectate dechlorinated in WY2005.
Post- Injection	1,500	87.1	17.2	-55%	No recovery pumping performed.
WY2006					
Pre-Injection	1,500	82.4	18.2		Injection procedures consistent and
Post- Injection	1,600	74.1	21.6	+19%	performance stable in WY2006. No recovery pumping performed.
WY2007			•		
Pre-Injection	1,500	81.7	18.4		Only one injection period in WY2007.
Post- Injection	1,500	79.4	18.9	+3%	No recovery pumping performed.
WY2008					
Pre-Injection	1,980	31.0	63.8		Formal rehabilitation performed prior
Post- Injection	2,000	55.6	36.0	-44%	to WY2008 injection. No recovery pumping performed.
WY 2009					
Pre-Injection	2,000	52.0	38.5		No recovery pumping performed.
Post- Injection	1,900	62.7	30.3	-21%	No recovery pumping performed.
WY 2010					
Pre-Injection	1,900	62.5	30.4		Performance essentially stable.
Post- Injection	2,000	64.2	31.1	+2%	Terrormance essentially stable.
WY 2011					
Pre-Injection	2,000	64.2	31.1	-3%	Performance essentially stable.
Post- Injection	2,000	64.6	30.1		1 on officially stable.
WY 2012					
Pre-Injection	2,400	74.7	32.1		No injection during WY 2012.
Post-Injection	NA	NA	NA	NA	Datalogger damaged in June 2012.



Water Year	Pumping Rate (gpm)	10-min DDN (feet)	Specific Capacity (gpm/ft)	Water Year Change	Comments
WY 2013					
Pre-Injection	NA	NA	NA		No injection during WY 2013.
Post- Injection	NA	NA	NA	NA	Pump non-operational
WY 2014					
Pre-Injection	NA	NA	NA		No injection during WY 2014.
Post-Injection	NA	NA	NA	NA	No injection during WT 2014.
WY 2015					
Pre-Injection	3,300	73.6	44.8		See discussion below.
Post- Injection	3,600	84.8	42.5	-5%	See discussion below.

As shown in **Table 5**, the pumping performance of ASR-1 declined significantly following initial injection in WY 2002. Performance improved significantly in WY 2008 compared to WY 2007 as a result of rehabilitation of the well prior to the WY 2008 injection season. During WY 2015, pumping performance declined slightly by approximately 5 percent.

ASR-2. A summary of injection season beginning and ending 10-minute specific capacities for ASR-2 is presented below in **Table 6**:

Table 6. Pumping Performance Summary - ASR-2

Water Year	Pumping Rate (gpm)	10-min DDN (feet)	Specific Capacity (gpm/ft)	Water Year Change	Comments
WY 2009					
Pre-Injection	3,200	72.3	44.3		Injection testing performed with
Post- Injection	2,200	117.7	18.7	-58%	source water from MCWD.
WY 2010					
Pre-Injection	2,200	117.7	18.7		Pre-injection is after MCWD testing
Post- Injection	2,300	136.9	16.8	-10%	(refer to WY 2009 Summary of Operation report)
WY 2011					
Pre-Injection	3,100	83.9	36.9		Formal rehabilitation performed prior
Post- Injection	3,100	93.5	33.2	-10%	to WY 2011 injection season. Relatively stable during season.
WY 2012					
Pre-Injection	2,800	84.5	33.1		Minor residual plugging acquired
Post- Injection	2,700	92.3	29.3	-11%	Minor residual plugging occurred.



Water Year	Pumping Rate (gpm)	10-min DDN (feet)	Specific Capacity (gpm/ft)	Water Year Change	Comments
WY 2013					
Pre-Injection	2,700	92.3	29.3		Porformance improved
Post- Injection	3,000	87.7	34.2	+17%	Performance improved.
WY 2014					
Pre-Injection	NA	NA	NA		No injection during MW 2014
Post- Injection	NA	NA	NA	NA	No injection during WY 2014.
WY 2015					
Pre-Injection	3,300	67.4	48.9		See discussion below.
Post- Injection	2,800	86.7	32.3	-34%	See discussion below.

As shown in **Table 6**, the pumping performance of ASR-2 declined significantly following initial injection in WY 2009, similar to the initial decline experienced at ASR-1. ASR-2 performance improved significantly in WY 2011 compared to WY 2010 as a result of rehabilitation of the well prior to the WY 2011 injection season. During WY 2015, pumping performance declined by approximately 34 percent. This compares with the injection performance results, which showed an approximate 14 percent decline in performance over the course of WY 2015. However, the WY 2015 ending specific capacity is only slightly lower than the value at the end of WY 2013 of 34.2 gpm/ft, again indicating that little residual plugging has occurred over the long-term at this well since it was rehabilitated in WY 2011.

ASR-3. A summary of injection season beginning and ending 10-minute specific capacities for ASR-3 is presented below in **Table 7**:

Table 7. Pumping Performance Summary - ASR-3

Water Year	Pumping Rate (gpm)	10-min DDN (feet)	Specific Capacity (gpm/ft)	Water Year Change	Comments
WY 2012					
Pre-Injection	3,200	107.1	29.9		Significant residual plugging
Post- Injection	2,400	186.4	12.9	-57%	occurred.
WY 2013					
Pre-Injection	2,400	186.4	12.9		Slight decline in performance
Post- Injection	2,000	174.3	11.5	-11%	Slight decline in performance
WY 2014					
Pre-Injection	NA	NA	NA		No injection during MW 2014
Post- Injection	NA	NA	NA	NA	No injection during WY 2014.



Water Year	Pumping Rate (gpm)	10-min DDN (feet)	Specific Capacity (gpm/ft)	Water Year Change	Comments
WY 2015					
Pre-Injection	1,600	119.6	13.4		See discussion below.
Post- Injection	2,100	149.8	14.0	+4%	See discussion below.

As shown in **Table 7**, the pumping performance of ASR-3 declined significantly following initial injection in WY 2012, similar to the declines experienced at both SM ASR-1 and SM ASR-2 following initial injection. During WY 2015, performance was relatively stable, increasing very slightly by 4 percent.

The above results indicate a pattern in ASR well performance, with all three ASR wells having experienced comparably significant declines in performance following initial injection, followed by a period of relative stability in performance. It is hypothesized that the observed loss in performance is due to particle rearrangement (mechanical jamming) and/or chemical precipitation, as opposed to the normal and relatively slow plugging caused by particulates. This phenomenon is the reason for the well "conditioning" effort performed at ASR-4 during WY 2015 (discussed previously in the Pumping Performance section on page 9). It is also noted that while ASR-3 has experienced a significant decline in performance following initial injection, (which limits its injection capacity to approximately 1,000 gpm,) it is expected that rehabilitation will result in significantly improved performance as has been observed at both ASR-1 and ASR-2.

Residual Plugging

Experience at injection well sites around the world shows that all injection wells are subject to some amount of plugging, because no water source is completely free of particulates, bionutrients, or oxidants, all of which can contribute to well plugging; the CAW source water is no exception. During injection, trace amounts of suspended solids are continually being deposited in the gravel pack and aquifer pore spaces, much as a media filter captures particulates in the filter bed. The effect of plugging is to impede the flow of water from the injection well into the aquifer, causing increased injection heads in the well to maintain a given injection rate, or reduced injection rates at a given head level. Well plugging reduces injection and extraction capacity, and can result in decreased useful well life if not mitigated.

Relative measurements of the particulate matter in the injectate have historically been made at the Santa Margarita site through silt density index (SDI) testing during injection. The SDI was originally developed to quantitatively assess particulate concentrations in reverse-osmosis feed waters. The SDI test involves pressure filtration of source water through a 0.45-micron membrane, and observation of the decrease in flow rate through the membrane over time; the resulting (dimensionless) value of SDI is used as a comparative value for tracking relative declines in well plugging rates associated with particulate plugging during an injection season (i.e., plugging rates tend to increase directly with SDI). During WY 2015 injection



operations, SDI values at the beginning of the injection season were less than 3.0 and fell to approximately 1.0 after the first week of injection.

Residual plugging is the plugging that remains following backflush pumping. Residual plugging increases drawdown during pumping and drawup during injection, and is manifested as declining specific capacity / injectivity. The presence of residual plugging is indicative of incomplete removal of plugging particulates during backflushing and has the cumulative effect of reducing well performance and capacity over time.

As discussed previously, routine 10-minute specific capacity tests were performed at the ASR wells as part of backflushing events during WY 2015. Presented in **Table 8** below is a summary of the residual plugging calculations for the ASR wells during WY 2015.

Pumping 10-min 10-min Normalize-Normalized Residual Q/s¹ Drawdown² **Plugging** Rate Drawdown ation Ratio² Well (ft) (gpm/ft) (ft) (ft) Test (gpm) Pre-Injection 3,300 73.6 44.8 0.91 66.9 ASR-1 Post-Injection 3,600 84.8 42.5 0.83 70.7 3.8 Pre-Injection 3,300 67.4 49.0 0.91 61.3 ASR-2 Post-Injection 2,800 86.7 32.3 1.07 92.9 31.6 Pre-Injection 1,600 119.6 13.4 1.25 149.5 ASR-3 Post-Injection 2,100 149.8 14.0 0.95 142.7 -6.8 Pre-Injection 2,900 105.8 27.4 1.03 109.4 ASR-4 1.00 Post-Injection 3,000 103.5 29.0 103.5 -5.9 Notes: 1 - Specific Capacity. Ratio of pumping rate to draw dow n.

Table 8. Residual Plugging Summary

2 - Normalized based on ratio of 3,000 gpm to actual test pumping rate for ASR-1, -2 and -4. Based on 2,000 gpm for ASR-3.

As shown on **Figures 7 through 9**, injection water levels were maintained significantly below the recommended maximum available drawups at all three ASR wells during WY 2015. As shown in **Table 8**, the bulk the observed residual plugging during WY 2015 occurred at ASR-2 with 31.6 feet of residual plugging. The other three wells observed little to no residual plugging. The specific reason that ASR-2 experienced a relatively higher level of residual plugging compared to the other wells is unknown, but these results indicate that more intensive backflushing (e.g., multiple backflush cycles as opposed to a single cycle) should be implemented at ASR-2 during WY 2016 to limit residual plugging and maintain performance.

AQUIFER RESPONSE TO INJECTION

The response of the regional aquifer system to injection has been monitored since the SMTIW project was initiated in WY 2002. Submersible water-level transducer/data logger units



have been installed at seven offsite monitoring well locations in the SGB as well as three onsite monitoring wells. The locations of each offsite monitoring well are shown on **Figure 1**, and water-level hydrographs for the monitoring wells during WY 2015 are graphically presented on **Figures 11 through 19**. A summary of the regional water-level observations during the WY 2015 injection season is presented in **Table 9** below.

Table 9. Aquifer Response Summary

Well ID	Distance from Nearest Active ASR Well (feet)	Aquifer Monitored	Fig. No.	Pre- Injection DTW (ft. btoc)	Shallowest Injection DTW (ft. btoc)	Maximum Drawup Response (ft.)		
SMS (Shallow)	25 (SMS ASR-3)	QTp	11	No E	Discernable Res	ponse		
SMS (Deep)	25 (SIVIS ASK-3)	Tsm 11 363.7 Tsm 12 354.1		321.9	41.8			
SM MW-1	190 (SM ASR-2)	Tsm	12	354.1	330.7	23.4		
Paralta Test	650 (SM ASR-2)	QTp & Tsm	13	365.3	356.8	8.5		
Ord Grove Test	1,820 (SM ASR-2)	QTp & Tsm	14	No E	iscernable Response			
Ord Terrace (Shallow)	2,550 (SM ASR-2)	Tsm	15	No E	iscernable Response			
FO-7 (Shallow)	2 700 (SMS ASB 2)	QTp	16	No E	Discernable Res	ponse		
FO-7 (Deep)	3,700 (SMS ASR-3)	Tsm	10	491.9	485.3	6.6		
FO-9 (Deep)	6,130 (SMS ASR-3)	Tsm	17	135.8	131.4	4.4		
PCA East (Shallow)	C 200 (CMC ACD 2)	QTp	40	No E	Discernable Res	ponse		
PCA East (Deep)	6,200 (SMS ASR-3)	Tsm	18	88.6	82.9	5.7		
FO-8 (Deep)	6,450 (SMS ASR-3)	Tsm	19	398.2	393.1	5.1		

Notes:

QTp - Quaternary / Tertiary-age Paso Robles Formation aquifer

Tsm - Tertiary-age Santa Margarita Sandstone aquifer

DTW - Depth to Water

As shown on the water-level hydrographs, water levels in the Santa Margarita Sandstone (Tsm) aquifer at the start of the WY 2015 recharge season ranged between approximately 15 to 65 feet below sea level. Positive response to injection during WY 2015 was observed at 7 of the 9 monitoring wells completed in the Santa Margarita Sandstone aquifer, with apparent water-level responses ranging between approximately 4 to 42 feet, decreasing with distance from the ASR wells, which is the typical and expected aquifer response to hydraulic stresses (i.e., injection or pumping). The WY 2015 responses are comparable to those observed in previous water years.

The available water-level data also continue to show that at the Tsm-only monitoring wells, water levels consistently remained below sea level throughout the injection season. Under these water-level conditions, little to no offshore groundwater flow from the Tsm aquifer would be expected to occur and any "losses" associated with ASR project operations from water potentially migrating offshore are highly unlikely.



The limited available data for wells completed in the Paso Robles Formation (QTp) also continue to show no discernible response to injection and water levels in this aquifer remained above the water levels in the underlying Tsm aquifer during WY 2015. Under these water-level conditions, little to no flow of water from the Tsm to the QTp aquifer would be expected to occur.

It is further noted that the Ord Grove Test and Ord Terrace monitoring wells (refer to **Figures 14 and 15**) continue to show no discernible response to injection operations, as has been observed during previous injection seasons. Most project monitoring wells show no discernible response to the pumping of CAW's Ord Grove production well. These observations suggest that the Ord Terrace Fault or a parallel branch of the fault may represent a hydraulic barrier in the Tsm aquifer.

WATER QUALITY

General

Source water for injection is supplied from the CAW municipal water system, primarily from Carmel River system wells which are treated at the CAW Begonia Iron Removal Plant (BIRP) for iron and manganese removal. The BIRP water is also disinfected and maintains a free chlorine residual. A phosphate-based corrosion inhibitor (Zinc Orthophosphate) is also added to the filtered water before entering the CAW distribution system. The finished product water meets all California Department of Public Health (CADPH) Primary and Secondary water quality standards.

As in previous years, water quality was routinely monitored at the ASR well sites during WY 2015 injection and aquifer storage operations. Far-field water quality was also monitored at the CAW Paralta production well and at the PCE-East Deep monitoring well (PCA-E Deep). Summaries of the collected water-quality data during WY 2015 are presented in **Tables 10 through 18** below. Analytic laboratory reports are presented in **Appendix B**. A discussion of the water-quality data collected during WY 2015 is presented below.

Mixing and Dilution

To track the general mixing, dilution, and interaction between injected and native groundwaters, chloride ion (Cl⁻) has historically been used for the SGB ASR project as a natural tracer. Chloride ion is very stable, highly soluble and is present in both injected and native ground waters; albeit at a 400 percent concentration differential. The historical "native" Cl⁻ concentration of the groundwaters within the Tsm has averaged approximately 120 - 130 milligrams per liter (mg/L) in this area of the basin. Presented in **Table 10** below is a summary of the relative percentages of injection water at each of the monitored wells before WY 2015 injection operations and at the end of the WY 2015 storage period. Calculation of the injected versus native groundwater (NGW) contribution in a given sample is based on the historical NGW and injected water Cl⁻ concentrations.



Table 10. Percent Injectate at Wells

	Pre-Inje	Pre-Injection Conditions			End-Storage Conditions				
Well	Sample	CI	% Injectate	ectate Sample CI % Injectate		Change			
	Date	(mg/l)	in Water	Date	(mg/l)	in Water	(%)		
ASR Wells									
ASR-1	12/4/14	142	0	9/22/15	141	0	0		
ASR-2	12/4/14	107	14	9/22/15	110	11	-2		
ASR-3	12/5/14	95	27	9/23/15	79	47	20		
ASR-4	12/5/14	118	2	No Data					
Monitoring Well	S		,						
SM MW-1	12/4/14	109	12	9/23/15	110	11	0		
SMS Deep	12/5/15	92	30	9/23/15	124	0	-30		
Paralta	7/28/14	76	47	7/14/15	112	9	-38		
PCA-E Deep	12/10/14	80	43	7/23/15	82	43	1		

Notes:

Based on 2001 Tsm NGW Cl⁻ content vs 2015 CAW Injectate Cl⁻

As shown in **Table 10**, prior to the WY 2015 injection season, all of the wells had different percentage mixes of injectate and native groundwater (NGW) and water from the multiple previous injection and recovery seasons. These results range from an estimated 0 percent injected water at ASR-1 to 47 percent at Paralta. By the end of the WY 2015 storage period, the concentrations of injected water at most wells were back to pre-injection levels, with the exception of ASR-3, which observed a net increase in the concentration of injected water of approximately 20 percent. Interestingly, SMS Deep, located approximately 25 feet from ASR-3, and Paralta both observed a net decrease of approximately 30 percent compared to pre-injection conditions (i.e., higher NGW influence) suggesting that the pool of injected water drifted away from the area during WY 2015 operations.

Injection Water Quality

Injection water quality from the CAW system during WY 2015 is presented in **Table 11** below; the data show injection water quality was typical of recent years. Levels of Trihalomethanes (THM) and Haloacetic Acid (HAA) compounds, as well as bionutrients (oxygen, nitrogen, phosphorous, and organic carbon), were all present at levels similar to previous years.



Table 11. Summary of WY 2015 Water Quality Data – Injectate

				Resi	ults
				CAW In	jectate
Parameter	Unit	PQL	MCL	12/13/14	2/11/15
		Sample D	escription	Injec	tate
Major Cations		0.5	-	45	
Calcium	mg/L mg/L	0.5		45 15	<u>4</u> 1
Magnesium Potasium	mg/L	0.5 0.5		2.9	2.
Sodium	mg/L	0.5		46	4
Major Anions	13-				-
Alkalinity, Total (as CaCO3)	mg/L	2		153	13
Chloride	mg/L	1	250	35	3
Sulfate	mg/L	1	250	90	8
Nitrate (as NO3)	mg/L	1	45	1	NI
Nitrite (as Nitrogen)	mg/L	1	1	0.6	0.
General Physical	In				_
pH	Std Units		000	7.5	7.
Specific Conductance (EC) Total Dissolved Solids	uS mg/L	1 10	900 500	611 374	54 33
Metals	IIIg/L	10	300	374	33
Arsenic (Total)	ug/L	1	10	ND	NI
Barium (Total)	ug/L	10	1000	78	6
Iron (Dissolved)	ug/L	10	.500	ND	NI
Iron (Total)	ug/L	10	300	11	NI
Lithium	ug/L	1		6	
Manganese (Dissolved)	ug/L	10		ND	NI
Manganese (Total)	ug/L	10	50	1	NI
Molybdenum	ug/L	1	1000	2	
Nickel	ug/L	10	100	ND	NI
Selenium	ug/L	2	50	2	
Strontium (Total)	ug/L	5		259	22
Uranium (by ICP/MS)	ug/L	1	30	1	NI
Vanadium (Total) Zinc (Total)	ug/L ug/L	1 10	1000 5000	ND 284	NI 27
Miscellaneous	ug/L	10	3000	204	21
Ammonia-N	mg/L	0.05		ND	NI
Boron	mg/L	0.05		ND	NI
Chloramines	mg/L	0.05		ND	0.0
Gross Alpha	pCi/L		15	1.87 +/- 0.74	6.50 +/- 1.3
Kjehldahl Nitrogen (Total)	mg/L	0.5		0.7	NI
Methane	ug/L	0.1		0.53	0.6
Nitrogen (Total)	mg/L	0.5		1.5	NI
o-Phosphate-P	mg/L	0.05		0.2	0.
Phosphorous (Total)	mg/L	0.03	0	0.39	0.4
Radium 226 Organic Analyses	pCi/L		3	0.56 +/- 0.5	5.41 +/- 0.6
Haloacetic Acids (Total)	ua/l	1.0	60.0	9.2	12.:
Dibromoacetic Acid	ug/L	1.0	00.0	3.3	2.5
Dichloroacetic Acid		1.0		3.4	5.7
Monobromoacetic Acid		1.0		ND	NE
Monochloroacetic Acid		2.0		ND	NE
Trichloroacetic Acid		1.0		2.5	4.0
Organic Carbon (Dissolved)	mg/L	0.2		1.0	1.
Organic Carbon (Total)	mg/L	0.2		1.0	1.
Trihalomethanes (Total)	ug/L	1.0	80.0	24.8	25.
Bromodichloromethane		0.5		8.6	9.2
Bromoform		0.5		1.7	0.:
Chloroform		0.5		6.4	9.4
Dibromochloromethane	ug/L	0.5		8.1	6.4
Field Parameters	⁰ C	0.4		15.9	18.
Temperature		0.1 1.0	900	352	46
Specific Conductance (EC)		1.0			
Specific Conductance (EC)	uS Std Units		65-85	7 2	,
рН	Std Units	0.1	6.5 - 8.5	7.2 573	
pH ORP	Std Units mV		6.5 - 8.5 2 - 5	7.2 573 1.3	60
рН	Std Units	0.1 1.0		573	60
pH ORP Free Chlorine Residual	Std Units mV mg/L	0.1 1.0 0.1		573	7. 60 0.
pH ORP Free Chlorine Residual Dissolved Oxygen	Std Units mV mg/L mg/L	0.1 1.0 0.1 0.01		573 1.3	60 0.

Notes



Water Quality During Aquifer Storage

Tables 12 through 15 present summaries of water-quality data collected at the four ASR wells. Tables 16 and 17 present similar data collected at the on-site monitoring wells SM MW-1 and SMS Deep, respectively; and Table 18 presents the water-quality data collected at the off-site monitoring wells (PCA-E Deep and Paralta). Data for the ASR wells include baseline water quality taken prior to WY 2015 injection (end of WY 2013 Storage) and stored water quality (WY 2015 Storage) collected periodically from the aquifer after WY 2015 injection operations were terminated.

Review of water-quality parameters gathered at the ASR wells, including major anions and cations, redox potential (ORP), and conductivity all showed similar effects of dilution / intermixing of injected water with native groundwater during aquifer storage. As found in previous ASR operations at the site, the most significant water-quality changes observed during aquifer storage other than simple dilution/mixing were redox-related (and likely biologically mediated) reactions; these were primarily evidenced by the degradation of HAA and THM compounds and absence of hydrogen sulfide even in mixed NGW and injected waters.

Disinfection Byproducts (DBPs) parameters at the on-site wells during WY 2015 are graphically presented on **Figures 20 through 24**. As shown, THMs at the ASR wells showed their typical initial and significant ingrowth during the storage period, which results from the presence of free chlorine and trace levels of organic carbon in the injected water. THM ingrowth generally peaks in concentration approximately 30-90 days after the cessation of injection, followed by a gradual decline during the storage period. After approximately 150 to 210 days of storage, THMs typically degraded to below the initial injection levels. The decline in THMs observed at the ASR and on-site monitoring wells followed the characteristic process: rapid degradation of Bromoform and the highly brominated species with much slower decline in Chloroform.

It is noted that THMs were below the Maximum Contaminant Level (MCL) of 80 ug/L throughout WY 2015, with the exception of transiently elevated levels up to 95 and 94 ug/L at ASR-2 and ASR-3, respectively during the peak in-growth periods. These THM levels dropped to 13 and 38 ug/L, respectively, by the end of the storage season.



Table 12. Summary of WY 2015 Water-Quality Data - ASR-1

				Results						
			MCL	SM ASR-1						
Parameter	Unit	PQL		3/21/01	12/4/14	3/24/15	6/17/15	9/22/15		
		Sample D	escription	NGW	WY 2013 Storage		/Y 2015 Storag			
Elapsed Storage Time	Days				686	35	120	217		
Volume Purged at Sampling	1,000 gals			-						
Major Cations		0.5		0.5	00	00	0.4	00		
Calcium	mg/L	0.5 0.5		85 19	96 23	39 13	64 20	96 23		
Magnesium Potasium	mg/L mg/L	0.5		5.3	5.5	2.9	3.7	5.7		
Sodium	mg/L	0.5		88	105	42	63	101		
Major Anions	mg/L	0.0			100	72	00	101		
Alkalinity, Total (as CaCO3)	mg/L	2		224	250	133	180	237		
Chloride	mg/L	1	250	120	142	30	77	141		
Sulfate	mg/L	1	250	95	106	83	85	118		
Nitrate (as NO3)	mg/L	1	45	ND	ND	ND	1	ND		
Nitrite (as Nitrogen)	mg/L	1	1		0.6	0.3	0.3	0.3		
General Physical										
pΗ	Std Units			7.1	7.2	7.1	7.4	7.1		
Specific Conductance (EC)	uS	1	900	1015	1186	516	753	1141		
Total Dissolved Solids	mg/L	10	500	618	720	308	463	677		
Metals	//				_1		.1			
Arsenic (Total)	ug/L	10	1000	ND 52	2	1	1	1		
Barium (Total) Iron (Dissolved)	ug/L ug/L	10 10	1000	52	80 30	59 ND	85 ND	84 10		
Iron (Dissolved)	ug/L ug/L	10	300	120	324	27	21	59		
Lithium	ug/L ug/L	10	300	120	38	6	20	41		
Manganese (Dissolved)	ug/L	10			41	ND	ND	20		
Manganese (Total)	ug/L	10	50	40	40	ND	ND	23		
Molybdenum	ug/L	1	1000		10	3	7	10		
Nickel	ug/L	10	100		ND	ND	ND	ND		
Selenium	ug/L	2	50	ND	2	4	2	2		
Strontium (Total)	ug/L	5			454	218	322	472		
Uranium (by ICP/MS)	ug/L	1	30		1	ND	1	1		
Vanadium (Total)	ug/L	1	1000		ND	ND	ND	ND		
Zinc (Total)	ug/L	10	5000	10	108	210	250	118		
Miscellaneous										
Ammonia-N	mg/L	0.05		0.33	0.23	ND	ND	0.19		
Boron	mg/L	0.05 0.05		0.14	0.12	ND ND	0.06	0.13 ND		
Chloramines Gross Alpha	mg/L pCi/L	0.05	15		0.06 3.35 +/- 1.68	ND 2.91 +/- 1.19	ND 3.46 +/- 1.82	4.70 +/- 2.00		
Kjehldahl Nitrogen (Total)	mg/L	0.5	15		3.35 +/- 1.66	2.91 +/- 1.19 ND	3.46 +/- 1.62 ND	4.70 +/- 2.00 ND		
Methane	ug/L	0.1			3.3	0.34	2.1	0.4		
Nitrogen (Total)	mg/L	0.5			1.3	ND	ND	ND		
o-Phosphate-P	mg/L	0.05		0.46	0.2	0.3	0.2	0.2		
Phosphorous (Total)	mg/L	0.03		• • • • • • • • • • • • • • • • • • • •	0.15	0.3	0.3	0.17		
Radium 226	pCi/L		3		2.82 +/- 1.26	0.26 +/- 0.40	0.71 +/- 0.48	1.28 +/- 0.34		
Organic Analyses										
Haloacetic Acids (Total)	ug/L	1.0	60.0		0.0	11.1	0.0	0.0		
Dibromoacetic Acid		1.0			ND	ND	ND	ND		
Dichloroacetic Acid		1.0			ND	2.2	ND	ND		
Monobromoacetic Acid		1.0			ND	ND	ND	ND		
Monochloroacetic Acid		2.0			ND	ND	ND	ND		
Trichloroacetic Acid		1.0			ND	8.9	ND 4.5	ND 4.5		
Organic Carbon (Dissolved)	mg/L	0.2			0.7	1.2	1.5	1.5		
Organic Carbon (Total)	mg/L ug/L	0.2	00.0	6.3	0.8	1.2 53.0	1.1 40.6	1.3 0.6		
Trihalomethanes (Total) Bromodichloromethane	Ü	1.0 0.5	80.0		0.0 ND	53.0 17	12	ND		
Bromoform		0.5			ND ND	0.79	0.75	ND ND		
Chloroform	Ū	0.5			ND	27	22	0.6		
Dibromochloromethane		0.5			ND	8.2	5.8	ND		
Field Parameters										
Temperature	° C	0.1			23.6	16.8	16.8	20.4		
Specific Conductance (EC)	uS	1.0	900	1015	560	476	789	1211		
pH	Std Units	0.1	6.5 - 8.5	7.1	7.1	7.8	7.2	7.3		
ORP	mV	1.0			-203	-63	-72	-147		
Free Chlorine Residual	mg/L	0.1	2 - 5		0.02	0.04	0.11	ND		
Dissolved Oxygen	mg/L	0.01					0.09	ND		
Silt Density Index	Std Units	0.1								
Gas Volume	mL mg/l	2.0		4 =		ND	0.04	0.07		
H₂S	mg/L	0.1		1.5		ND	0.04	0.07		



Table 13. Summary of WY 2015 Water Quality Data – ASR-2

					Results					
				SM ASR-2						
Parameter	Unit	PQL	MCL	12/4/14	3/27/15	6/24/15	9/22/15			
		Sample D	escription	WY 2013 Storage	V	VY 2015 Stora	ge			
Elapsed Storage Time	Days			686	38	127	217			
Volume Purged at Sampling	1,000 gals									
Major Cations										
Calcium	mg/L	0.5		77	43	43				
Magnesium	mg/L	0.5		19	14	14				
Potasium	mg/L	0.5		5.3	2.9	2.8				
Sodium Major Anions	mg/L	0.5		93	44	44	82			
Alkalinity, Total (as CaCO3)	mg/L	2		245	132	139	225			
Chloride	mg/L	1	250	107	30	32	110			
Sulfate	mg/L	1	250	72	82	86				
Nitrate (as NO3)	mg/L	1	45	1.0	ND.	ND				
Nitrite (as Nitrogen)	mg/L	1	1	0.9	0.4	0.4				
General Physical		•								
pН	Std Units			7.8	7.5	7.5	7.3			
Specific Conductance (EC)	uS	1	900	990	566	550	950			
Total Dissolved Solids	mg/L	10	500	597	337	340	540			
Metals										
Arsenic (Total)	ug/L	1	10	2	1	1				
Barium (Total)	ug/L	10	1000	100	60	66				
Iron (Dissolved)	ug/L	10	00-	ND 04	ND 440	ND				
Iron (Total) Lithium	ug/L	10 1	300	91 34	113 6	35 12	145 31			
Manganese (Dissolved)	ug/L ug/L	10		39	ND	ND	ND			
Manganese (Dissolved)	ug/L ug/L	10	50	38	ND ND	ND ND	ND ND			
Molybdenum	ug/L	10	1000	10	3	4	10			
Nickel	ug/L	10	100	ND	ND	ND.	ND.			
Selenium	ug/L	2	50	2	5	5				
Strontium (Total)	ug/L	5		390	213	248				
Uranium (by ICP/MS)	ug/L	1	30	2	ND	ND	1			
Vanadium (Total)	ug/L	1	1000	ND	ND	ND	ND			
Zinc (Total)	ug/L	10	5000	206	208	250	396			
Miscellaneous	1					1	•			
Ammonia-N	mg/L	0.05		0.28	ND	ND	ND			
Boron	mg/L	0.05		0.09	ND	0.05	0.09			
Chloramines	mg/L	0.05	15	ND	ND	ND	ND			
Gross Alpha Kjehldahl Nitrogen (Total)	pCi/L mg/L	0.5	15	2.62 +/- 1.46 0.6	3.48 +/- 2.19 ND	0.273+/- 1.08 ND	1.16 +/- 0.76 ND			
Methane	ug/L	0.5		3.6	0.47	0.54	0.23			
Nitrogen (Total)	mg/L	0.7		1.5	ND	ND				
o-Phosphate-P	mg/L	0.05		0.3	0.3	0.3				
Phosphorous (Total)	mg/L	0.03		0.22	0.37	0.26				
Radium 226	pCi/L		3	2.18 +/- 1.23	0.61 +/- 0.45	0.054+/-0.106	0.189+/-0.16			
Organic Analyses										
Haloacetic Acids (Total)	ug/L	1.0	60.0	0.0	16.7	1.1	0.0			
Dibromoacetic Acid	ug/L	1.0		ND	1.0	ND	ND			
Dichloroacetic Acid	ug/L	1.0		ND	2.7	1.1	ND			
Monobromoacetic Acid	_	1.0		ND	ND	ND	ND			
Monochloroacetic Acid	- 5	2.0		ND	ND	ND	ND			
Trichloroacetic Acid		1.0		ND	13.0	ND				
Organic Carbon (Dissolved)	mg/L	0.2		0.6	1.3	1.4				
Organic Carbon (Total)	mg/L ug/L	0.2	80.0	0.7 0.0	1.1 84.3	1.5 95.1				
Trihalomethanes (Total) Bromodichloromethane		1.0 0.5	80.0	ND	26.0					
Bromoform	ug/L ug/L	0.5		ND ND	1.3	27.0	ND			
Chloroform	ug/L ug/L	0.5		ND ND	44.0	52.0				
Dibromochloromethane		0.5		ND	13.0					
Field Parameters										
Temperature	° C	0.1		24.3	16.5	17.6	19.8			
Specific Conductance (EC)	uS	1.0	900	550	512	550				
pH	Std Units	0.1	6.5 - 8.5	7.0	7.2	7.0				
ORP	mV	1.0		-73	-73	-57	-104			
Free Chlorine Residual	mg/L	0.1	2 - 5	ND	0.23	0.06				
Dissolved Oxygen	mg/L	0.01			ND	0.05	ND			
Silt Density Index	Std Units	0.1					1			
Gas Volume H ₂ S	mL ma/l	2.0 0.1			ND	ND	0.06			
· ·z=	mg/L	0.7			טאו	NL	0.06			



Table 14. Summary of WY 2015 Water Quality Data – ASR-3

				Results SMS ASR-3						
Parameter	Unit	PQL	MCL	10/22/2010	12/5/14	3/25/15 6/25/15 9/23				
Farallieter	Unit		escription	NGW	WY 2013 Storage		VY 2015 Storag			
Elapsed Storage Time	Days	Oample D	escription	NOW	687	36	128	218		
Volume Purged at Sampling	1,000 gals									
Major Cations	1,000 gaio									
Calcium	mg/L	0.5		76	74	41	50	61		
Magnesium	mg/L	0.5		18	21	13	17	18		
Potasium	mg/L	0.5		5	5	3	3	4		
Sodium	mg/L	0.5		102	98	45	52	73		
Major Anions							•	•		
Alkalinity, Total (as CaCO3)	mg/L	2		304	228	133	166	200		
Chloride	mg/L	1	250	107	95	31	55	79		
Sulfate	mg/L	1	250	56	63	83	82	79		
Nitrate (as NO3)	mg/L	1	45	1	1.0	ND	ND	ND		
Nitrite (as Nitrogen)	mg/L	1	1	ND	0.3	0.2	0.4	0.3		
General Physical										
рН	Std Units			7.7	7.3	7.1	7.4	7.3		
Specific Conductance (EC)	uS	1	900	954	886	543	645	810		
Total Dissolved Solids	mg/L	10	500	575	546	334	388	477		
Metals										
Arsenic (Total)	ug/L	1	10	4	4	3	4	5		
Barium (Total)	ug/L	10	1000	50	84	63	75	85		
Iron (Dissolved)	ug/L	10		21	47	ND	ND	ND		
Iron (Total)	ug/L	10	300	21	167	ND	156	116		
Lithium	ug/L	1		36	29	5	18	27		
Manganese (Dissolved)	ug/L	10		27	32	ND	21	12		
Manganese (Total)	ug/L	10	50	27	32	ND	22	12		
Molybdenum	ug/L	1	1000		8	14	20	9		
Nickel	ug/L	10	100	ND	ND	ND	11	ND		
Selenium	ug/L	2	50	ND	2	8	4	2		
Strontium (Total)	ug/L	5		403	360	235	281	330		
Uranium (by ICP/MS)	ug/L	1	30		2	1	2	2		
Vanadium (Total)	ug/L	1	1000		ND	ND	ND	ND		
Zinc (Total)	ug/L	10	5000	-	128	202	227	194		
Miscellaneous										
Ammonia-N	mg/L	0.05		249	0.1	ND	ND	0.06		
Boron	mg/L	0.05		ND	0.09	ND	0.05	0.08		
Chloramines	mg/L	0.05		0.08	ND	ND	ND	ND		
Gross Alpha	pCi/L		15	-	2.20 +/- 0.76	3.03 +/- 1.24	1.33 +/- 1.52	3.11 +/- 1.41		
Kjehldahl Nitrogen (Total)	mg/L	0.5		ND	ND	0.6	ND	ND		
Methane	ug/L	0.1		ND	1.20	0.47	1.10	0.22		
Nitrogen (Total)	mg/L	0.5		ND	0.5	0.8	0.5	ND		
o-Phosphate-P	mg/L	0.05		ND	0.2	0.2	0.2	ND		
Phosphorous (Total)	mg/L	0.03		0.03	0.14	0.27	0.21	0.21		
Radium 226	pCi/L		3		0.80 +/- 0.65	0.07 +/- 0.27	0.081 +/- 0.119	0.288 +/- 0.181		
Organic Analyses										
Haloacetic Acids (Total)	ug/L	1.0	60.0	ND	0.0	19.9	8.7	3.2		
Dibromoacetic Acid		1.0		ND	ND	1.8	ND	ND		
Dichloroacetic Acid	- 5	1.0		ND	ND	7.1	3.8	1.1		
Monobromoacetic Acid	-	1.0		ND	ND	ND	ND	ND		
Monochloroacetic Acid	- 3	2.0		ND	ND	ND	ND 40	ND 0.4		
Trichloroacetic Acid		1.0		ND 0.74	ND	11	4.9	2.1		
Organic Carbon (Dissolved)	mg/L	0.2		0.71	0.5	1.4	1.4	1.3		
Organic Carbon (Total)	mg/L	0.2	00.0	0.70	0.7	1.2	1.2	1.3		
Trihalomethanes (Total)	ug/L	1.0	80.0	ND	5.9	94.0	70.7	37.5		
Bromodichloromethane Bromoform	Ŭ	0.5		ND	1.8	27.0	20.0	11.0		
Bromoform Chloroform	ug/L	0.5		ND ND	ND 3.0	0.98	1.7	1.0		
Dibromochloromethane	ug/L	0.5 0.5		ND ND	1.1	54.0 12.0	38.0 11.0	19.0 6.5		
Field Parameters	uy/L	0.5		ND	1.1	12.0	11.0	0.5		
	° C	0.1		26.2		17.2	16.9	20.4		
Temperature Specific Conductance (EC)	uS	1.0	900	26.2 991		509	516	749		
pH	Std Units	0.1	6.5 - 8.5	7.0		7.3	7.2	749		
рп ORP	mV	1.0	0.0 - 0.0	-82		-62	-65	-65		
Free Chlorine Residual		0.1	2 - 5	-82 ND		0.03	-65 ND	-65 ND		
II 100 CHICHHO NESIUUAI	mg/L		2-3	ND				0.04		
	ma/l	0 01								
Dissolved Oxygen	mg/L Std Units	0.01				ND	0.02	0.04		
	mg/L Std Units mL	0.01 0.1 2.0				ND	0.02	0.04		



Table 15. Summary of WY 2015 Water Quality Data – ASR-4

				Results
				SMS ASR-4
Parameter	Unit	PQL	MCL	11/19/14
i didilioto.	0		escription	Pre-Injection
Elapsed Storage Time	Days			671
Volume Purged at Sampling	1,000 gals			
Major Cations			•	
Calcium	mg/L	0.5		68
Magnesium	mg/L	0.5		15
Potasium	mg/L	0.5		4
Sodium	mg/L	0.5		94
Major Anions	ı	_		
Alkalinity, Total (as CaCO3)	mg/L	2		226
Chloride	mg/L	1	250	118
Sulfate	mg/L	1	250	55
Nitrate (as NO3) Nitrite (as Nitrogen)	mg/L mg/L	1	45 1	1.0 0.3
General Physical	mg/L	, , , , , , , , , , , , , , , , , , ,	,	0.5
pH	Std Units			7.4
Specific Conductance (EC)	uS	1	900	911
Total Dissolved Solids	mg/L	10	500	517
Metals				
Arsenic (Total)	ug/L	1	10	4
Barium (Total)	ug/L	10	1000	55
Iron (Dissolved)	ug/L	10		37
Iron (Total)	ug/L	10	300	71
Lithium	ug/L	1		29
Manganese (Dissolved)	ug/L	10		28
Manganese (Total)	ug/L	10	50	34
Molybdenum	ug/L	1	1000	7
Nickel	ug/L	10 2	100	93
Selenium Strontium (Total)	ug/L ug/L	5	50	2 482
Uranium (by ICP/MS)	ug/L ug/L	1	30	402
Vanadium (Total)	ug/L	1	1000	ND
Zinc (Total)	ug/L	10	5000	ND
Miscellaneous	1-3			
Ammonia-N	mg/L	0.05		ND
Boron	mg/L	0.05		0.1
Chloramines	mg/L	0.05		ND
Gross Alpha	pCi/L		15	3.41 +/- 1.68
Kjehldahl Nitrogen (Total)	mg/L	0.5		ND
Methane	ug/L	0.1		1.30
Nitrogen (Total)	mg/L	0.5		0.5
o-Phosphate-P	mg/L	0.05		ND
Phosphorous (Total) Radium 226	mg/L pCi/L	0.03	3	0.04 2.25 +/- 0.95
Organic Analyses	pc//L		3	2.25 +/- 0.95
Haloacetic Acids (Total)	ug/L	1.0	60.0	0.0
Dibromoacetic Acid		1.0	00.0	ND
Dichloroacetic Acid		1.0		ND
Monobromoacetic Acid		1.0		ND
Monochloroacetic Acid		2.0		ND
Trichloroacetic Acid		1.0		ND
Organic Carbon (Dissolved)	mg/L	0.2		0.4
Organic Carbon (Total)	mg/L	0.2		0.6
Trihalomethanes (Total)	ug/L	1.0	80.0	0.0
Bromodichloromethane		0.5		ND
Bromoform		0.5		ND
Chloroform Dibromochloromothano		0.5		ND ND
Dibromochloromethane Field Parameters	ug/L	0.5		ND
Temperature	° C	0.1		23.3
i omperature	uS	1.0	900	23.3 960
		1.0		7.1
Specific Conductance (EC)		Ω 1	65-85	
Specific Conductance (EC) pH	Std Units	0.1 1.0	6.5 - 8.5	
Specific Conductance (EC) pH ORP	Std Units mV	1.0	6.5 - 8.5 2 - 5	-188
Specific Conductance (EC) pH ORP Free Chlorine Residual	Std Units mV mg/L	1.0 0.1		
Specific Conductance (EC) pH ORP	Std Units mV	1.0 0.1 0.01		
Specific Conductance (EC) pH ORP Free Chlorine Residual Dissolved Oxygen	Std Units mV mg/L mg/L	1.0 0.1		



Table 16. Summary of WY 2015 Water Quality Data – SM MW-1

				Results						
						MW-1				
Parameter	Unit	PQL	MCL	12/4/14	12/23/14	3/27/15	6/24/15	9/23/15		
Elapsed Storage Time	Days	Sample D	escription	686	WY 2015 Injection 0	38	VY 2015 Storag	e 218		
Volume Purged at Sampling	1,000 gals			000	Ů	30	127	210		
Major Cations	r,ooo galo									
Calcium	mg/L	0.5		68			50	81		
Magnesium	mg/L	0.5		20			13	22		
Potasium	mg/L	0.5		5			3.7	4.6		
Sodium	mg/L	0.5		84			52	78		
Major Anions										
Alkalinity, Total (as CaCO3)	mg/L	2		229			153	210		
Chloride	mg/L	1	250	109			42	110		
Sulfate	mg/L	1	250	61			88	83		
Nitrate (as NO3)	mg/L	1	45	ND			ND	ND		
Nitrite (as Nitrogen)	mg/L	1	1	0.7			0.3	0.3		
General Physical										
pH	Std Units		000	7.3			7.5	7.1		
Specific Conductance (EC)	uS ma/l	1 10	900 500	948			610 394	935 540		
Total Dissolved Solids Metals	mg/L	10	500	557			394	540		
	ua/I	1	10	2			2	0		
Arsenic (Total) Barium (Total)	ug/L ug/L	10	1000	63			33	2 59		
Iron (Dissolved)	ug/L ug/L	10	1000	ND			ND	ND		
Iron (Total)	ug/L ug/L	10	300	ND ND			ND ND	62		
Lithium	ug/L	10	300	30			24	24		
Manganese (Dissolved)	ug/L	10		24			ND	14		
Manganese (Total)	ug/L	10	50	22			ND	15		
Molybdenum	ug/L	1	1000	15			6	10		
Nickel	ug/L	10	100	ND			ND	ND		
Selenium	ug/L	2	50	2			5	ND		
Strontium (Total)	ug/L	5		376			256	402		
Uranium (by ICP/MS)	ug/L	1	30	1			1	2		
Vanadium (Total)	ug/L	1	1000	ND			ND	ND		
Zinc (Total)	ug/L	10	5000	43			ND	ND		
Miscellaneous										
Ammonia-N	mg/L	0.05		ND			ND	ND		
Boron	mg/L	0.05		0.08			0.05	0.08		
Chloramines	mg/L	0.05		ND			ND	ND		
Gross Alpha	pCi/L		15	2.16 +/- 0.67			2.81 +/- 1.27	4.82 +/- 1.81		
Kjehldahl Nitrogen (Total)	mg/L	0.5		ND			ND	ND		
Methane	ug/L	0.1		0.67			3.0	3.20		
Nitrogen (Total)	mg/L	0.5		0.8			ND	ND		
o-Phosphate-P	mg/L	0.05		0.2			ND	ND		
Phosphorous (Total)	mg/L	0.03		0.12			0.08	0.08		
Radium 226	pCi/L		3	1.70 +/- 1.01			0.514 +/- 0.243	0.762 +/- 0.265		
Organic Analyses		4.0	00.0	0.0	2.0	0.0		0.0		
Haloacetic Acids (Total)	ug/L	1.0	60.0	0.0	0.0	0.0	0.0	0.0		
Dibromoacetic Acid Dichloroacetic Acid		1.0 1.0		ND ND	ND ND	ND ND	ND ND	ND ND		
Monobromoacetic Acid		1.0		ND ND	ND ND	ND ND	ND ND	ND ND		
Monochloroacetic Acid	- 5	2.0		ND ND	ND ND	ND ND	ND ND	ND ND		
Trichloroacetic Acid		1.0		ND ND	ND ND	ND ND				
Organic Carbon (Dissolved)	mg/L	0.2		0.6	IND	IND	1.2	1.2		
Organic Carbon (Dissolved) Organic Carbon (Total)	mg/L	0.2		0.7			1.3	1.20		
Trihalomethanes (Total)	ug/L	1.0	80.0	0.0	46.2	13.5	44.2	4.9		
Bromodichloromethane	-	0.5	55.0	ND	13.0	4.9	10.0	1.0		
Bromoform		0.5		ND	0.9	ND	0.7	ND		
Chloroform		0.5		ND	27.0	7.2	29.0	3.4		
Dibromochloromethane		0.5		ND	5.3	1.4	4.5	0.5		
Field Parameters										
Temperature	° C	0.1		23.3	22.7	16.1	17.1			
Specific Conductance (EC)	uS	1.0	900	520	510	536	545			
рН	Std Units	0.1	6.5 - 8.5	6.8	7.1	7.2	7.1			
ORP	mV	1.0		-143	-37	-64	-84			
Free Chlorine Residual	mg/L	0.1	2 - 5	ND	ND	ND	0.08			
Dissolved Oxygen	mg/L	0.01				0.23	0.04			
Silt Density Index	Std Units	0.1								
Gas Volume H ₂ S	mL ma/l	2.0 0.1				0.08	ND			
Notes:	mg/L	0.1				0.08	עויו			



Table 17. Summary of WY 2015 Water Quality Data – SMS Deep

				Results SMS Deep						
Parameter	Unit	PQL	MCL							
rarameter	Onic		escription	WY 2013 Storage			VY 2015 Storag	9/23/15 re		
Elapsed Storage Time	Days			687	,	36	128	218		
Volume Purged at Sampling	1,000 gals									
Major Cations										
Calcium	mg/L	0.5		69			56	84		
Magnesium	mg/L	0.5		15			13	19		
Potasium	mg/L	0.5		4.3			3	4.7		
Sodium	mg/L	0.5		93			53	98		
Major Anions										
Alkalinity, Total (as CaCO3)	mg/L	2		225			172	260		
Chloride	mg/L	1	250	92			55	124		
Sulfate	mg/L	1	250	50			80	73		
Nitrate (as NO3)	mg/L	1	45	1.0			ND	ND		
Nitrite (as Nitrogen)	mg/L	1	1	0.3			0.4	0.3		
General Physical	0.111.5				1					
pH	Std Units		000	7.4			7.6	7.3		
Specific Conductance (EC) Total Dissolved Solids	uS mg/L	10	900 500	850 497			656 397	1032 611		
Metals	my/L	10	500	497]		397	L 011		
Arsenic (Total)	ug/L	1	10	5			6	9		
Barium (Total)	ug/L ug/L	10	1000	52			34	65		
Iron (Dissolved)	ug/L	10	1000	ND			ND	ND		
Iron (Total)	ug/L ug/L	10	300	20			ND ND	32		
Lithium	ug/L	10	300	23			19	41		
Manganese (Dissolved)	ug/L	10		23			ND	14		
Manganese (Total)	ug/L	10	50	23			ND	14		
Molybdenum	ug/L	1	1000	7			10	8		
Nickel	ug/L	10	100	ND			ND	ND		
Selenium	ug/L	2	50	2			4	ND		
Strontium (Total)	ug/L	5		421			383	552		
Uranium (by ICP/MS)	ug/L	1	30	2			3	2		
Vanadium (Total)	ug/L	1	1000	ND			ND	ND		
Zinc (Total)	ug/L	10	5000	28			ND	ND		
Miscellaneous										
Ammonia-N	mg/L	0.05		0.06			ND	0.06		
Boron	mg/L	0.05		0.08			0.06	0.1		
Chloramines	mg/L	0.05		ND		ND	ND	ND		
Gross Alpha	pCi/L		15	1.95 +/- 0.72			3.17 +/- 1.29	1.24 +/- 1.42		
Kjehldahl Nitrogen (Total)	mg/L	0.5		ND			ND	ND		
Methane	ug/L	0.1		1.2			0.8	0.27		
Nitrogen (Total)	mg/L	0.5		0.5			0.5	ND		
o-Phosphate-P	mg/L	0.05		ND 0.05			ND 0.1	ND 0.13		
Phosphorous (Total) Radium 226	mg/L pCi/L	0.03	3	1.19 +/- 0.77			0.244 +/- 0.176			
Organic Analyses	pCI/L		3	1.19 +/- 0.77			0.244 +/- 0.170	0.208 +/- 0.170		
Haloacetic Acids (Total)	ug/L	1.0	60.0	0.0	21.1	17.5	6.9	0.0		
Dibromoacetic Acid		1.0	00.0	ND	3.6	1.2	ND	ND		
Dichloroacetic Acid	_	1.0		ND	9.8	4.3	2.3	ND		
Monobromoacetic Acid	-	1.0		ND	ND	ND	ND.	ND		
Monochloroacetic Acid	-	2.0		ND	ND	ND	ND	ND		
Trichloroacetic Acid	- 3	1.0		ND	7.7	12	4.6			
Organic Carbon (Dissolved)	mg/L	0.2		0.4			1.2	1.2		
Organic Carbon (Total)	mg/L	0.2		0.60			1.2	1.2		
Trihalomethanes (Total)	ug/L	1.0	80.0	4.1	67.5	74.1	62.7	3.3		
Bromodichloromethane	ug/L	0.5		1.2	22.0	22.0	18.0	0.7		
Bromoform		0.5		ND	2.5	1.1	1.7	ND		
Chloroform		0.5		2.3	29.0	40.0	33.0	2.6		
Dibromochloromethane	ug/L	0.5		0.6	14.0	11.0	10.0	ND		
							1	1		
Field Parameters	0 -					177	17.5	19.8		
Temperature	⁰ С	0.1			18.4	17.7				
Temperature Specific Conductance (EC)	uS	1.0	900		560	354	445	752		
Temperature Specific Conductance (EC) pH	uS Std Units	1.0 0.1	900 6.5 - 8.5		560 7.5	354 7.3	445 7.3	7.2		
Temperature Specific Conductance (EC) pH ORP	uS Std Units mV	1.0 0.1 1.0	6.5 - 8.5		560 7.5 16.2	354 7.3 -67	445 7.3 -68	7.2		
Temperature Specific Conductance (EC) pH ORP Free Chlorine Residual	uS Std Units mV mg/L	1.0 0.1 1.0 0.1			560 7.5	354 7.3 -67 0.08	445 7.3 -68 ND	7.2 ND		
Temperature Specific Conductance (EC) pH ORP Free Chlorine Residual Dissolved Oxygen	uS Std Units mV mg/L mg/L	1.0 0.1 1.0 0.1 0.01	6.5 - 8.5		560 7.5 16.2	354 7.3 -67	445 7.3 -68	7.2		
Temperature Specific Conductance (EC) pH ORP Free Chlorine Residual	uS Std Units mV mg/L	1.0 0.1 1.0 0.1	6.5 - 8.5		560 7.5 16.2	354 7.3 -67 0.08	445 7.3 -68 ND	7.2 ND		



Table 18. Summary of WY 2015 Water Quality Data – Off-Site Monitoring Wells

					Res	ults	
	Unit	PQL	MCL	PCA-E Deep		Paralta	
Parameter				12/10/14	7/23/15	11/13/14	7/14/15
		Sample D	escription			WY 2013 Storage	
Volume Pumped at Sampling	1,000 gals						
Major Cations				-			
Calcium	mg/L	0.5		44	43		77
Magnesium	mg/L	0.5		9	8		20
Potasium	mg/L	0.5		3.5	3.5		į.
Sodium	mg/L	0.5		81	80		103
Major Anions							
Alkalinity, Total (as CaCO3)	mg/L	2		168	163		22!
Chloride	mg/L	1	250	80	82		112
Sulfate	mg/L	1	250	25	24		70
Nitrate (as NO3) Nitrite (as Nitrogen)	mg/L	1	45 1	ND	ND		NI
General Physical	mg/L	1	- 1	0.7	0.3		
pH	Std Units			7.6	7.5		7.2
Specific Conductance (EC)	uS	1	900	664	628		909
Total Dissolved Solids	mg/L	10	500	388	394		502
Metals	mg/L	10	300	300	1 394		302
Arsenic (Total)	ug/L	1	10	7	7		NE
Barium (Total)	ug/L ug/L	10	1000	69	68		NE NE
Iron (Dissolved)	ug/L ug/L	10	1000	ND	ND		INL
Iron (Total)	ug/L	10	300	ND ND	ND ND		NE
Lithium	ug/L	10	330	23	34		INL
Manganese (Dissolved)	ug/L	10		ND.	ND.		
Manganese (Total)	ug/L	10	50	ND	ND		2.
Molybdenum	ug/L	1	1000	10	11		
Nickel	ug/L	10	100	ND	ND		
Selenium	ug/L	2	50	ND	ND		
Strontium (Total)	ug/L	5		239	228		
Uranium (by ICP/MS)	ug/L	1	30	ND	ND		
Vanadium (Total)	ug/L	1	1000	ND	ND		
Zinc (Total)	ug/L	10	5000	15	ND		
Miscellaneous							
Ammonia-N	mg/L	0.05		ND	ND		0.14
Boron	mg/L	0.05		0.08	0.08		103
Chloramines	mg/L	0.05		ND	ND		
Gross Alpha	pCi/L		15	0.79 +/- 0.78	2.04 +/- 1.86		
Kjehldahl Nitrogen (Total)	mg/L	0.5		ND	ND		
Methane	ug/L	0.1		ND	0.21		
Nitrogen (Total)	mg/L	0.5		0.8	ND		N/F
o-Phosphate-P	mg/L	0.05		ND	ND		NE
Phosphorous (Total) Radium 226	mg/L pCi/L	0.03	3	0.06 0.29 +/- 0.55	0.05 0.150 +/ - 0.227		
Organic Analyses	pci/L		3	0.29 +/- 0.55	0.150 +/ - 0.227		
Haloacetic Acids (Total)	ug/L	1.0	60.0	0.0	0.0		1
Dibromoacetic Acid	_	1.0	00.0	ND	ND		
Dichloroacetic Acid		1.0		ND ND	ND ND		
Monobromoacetic Acid	_	1.0		ND	ND.		
Monochloroacetic Acid		2.0		ND	ND ND		
Trichloroacetic Acid	_	1.0		ND	ND		
Organic Carbon (Dissolved)	mg/L	0.2		0.2	0.8		
Organic Carbon (Total)	mg/L	0.2		0.4	0.6		0.6
Trihalomethanes (Total)	ug/L	1.0	80.0	0.0		1.5	2.:
Bromodichloromethane	ug/L	0.5		ND	ND	ND	NE
	ug/L	0.5		ND	ND	ND	NE
Chloroform		0.5		ND	ND	1.5	2.2
Dibromochloromethane	ug/L	0.5		ND	ND	ND	NI
Field Parameters							
Temperature	° C	0.1			23.9		24.
Specific Conductance (EC)	uS	1.0	900		552		
pH	Std Units	0.1	6.5 - 8.5		7.6		7.
ORP	mV	1.0			-122		
Free Chlorine Residual	mg/L	0.1	2 - 5		ND		NI
Dissolved Oxygen	mg/L	0.01			0.02		
Silt Density Index	Std Units	0.1			ļ		
Gas Volume H₂S	mL mg/l	2.0 0.1			0.06		
	mg/L	0.1			0.06		l

Notes:



Water Quality at Off-Site Monitor Wells

Water-quality data collected from off-site wells in WY 2015 data are presented in **Table 18**. Samples from PCA-E Deep were collected prior to and following the WY 2015 injection season. As discussed previously and as shown in **Table 10**, evaluation of chloride ion concentrations indicates that some previously injected water appears to have reached this well prior to the WY 2013 injection season. The well showed a slightly lower-than-historical chloride concentration; however, the absence of DBP's and the presence of hydrogen sulfide gas suggest that the influence of recharge operations is negligible to date at this location.

Data from the nearest CAW production well to the ASR wells (i.e., Paralta) show a trend similar to the SMS Deep MW, i.e., an increasing contribution of NGW water quality over the WY 2015 storage season.

Additional Water Quality Observations

At the commencement of WY 2013 recovery pumping of ASR-1, a sample collected by CAW had a Mercury (Hg) concentration of 4 μ g/L, exceeding the State MCL of 2 μ g/L. Although the occurrence of Hg in surface water and groundwater has been documented elsewhere in the Monterey Bay region, the detection of Hg in SGB water was unusual; further investigation of the actual sampling conditions and protocols for that sample were also nonstandard. The results were nonetheless followed up with additional sampling to verify the presence of Hg; the subsequent sampling identified detectable levels of Hg, although below the MCL. The fact that detectable Hg was identified, and at levels above historical NGW and Injectate concentrations led to the development of an in-depth investigation of Hg occurrence at the ASR wells. The origin of the detected Hg could be the result one or more sources, including the following:

- Naturally occurring Hg present in the Santa Margarita Sandstone (Tsm) aquifer mineralogy, which solubilized into the groundwater under natural NGW / Tsm geochemical interaction conditions.
- Hg present in the Carmel River System injection source water that accumulated in the well bore area, similar to the accumulation of other particulate matter present in the Carmel River injectate and CAW conveyance system.
- Solubilization of naturally occurring Hg present in the Tsm minerals, which is the result of geochemical interactions between the injection source water, NGW and aquifer minerals.
- Other anthropogenic sources of Hg in well components or other off-site sources.

During WY 2015, a Supplemental Sampling and Analysis Plan (SSAP) was developed for additional investigation of the Hg occurrence. In addition to the collection of Hg samples

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⁷ Collected on October 24, 2013.



utilizing a variety of EPA-approved laboratory methods and detections limits, the suite of analytes included a variety of constituents that are known to affect (or directly react with) Hg and/or Hg compounds. As of this writing, the investigation is ongoing; however, the results of SSAP during WY 2015 provided several initial findings:

- Samples of drill cuttings from ASR-1 (as well as nearby ASR-2) confirmed the low-level presence of Total Hg within the Tsm mineralogy. Methyl-Hg was essentially absent, confirming that inorganic Hg was the primary form of occurrence.
- Total Hg content of the samples collected is largely composed of insoluble (i.e., particulate) Hg as evidenced by the significantly lower Hg levels measured in the sub-micron filtered samples vs the unfiltered samples.
- Elevated Hg levels correlated strongly with turbidity levels, and both parameters dropped precipitously soon after the initiation of backflush pumping to the pit.
- Hg occurrence was found to be highly transient, and extended pumping of the well consistently showed Hg levels to be below MCL's under normal operational conditions for CAW recovery pumping.
- In all cases, Hg levels that did exceed MCL's occurred only within the first few minutes of turbid flush water discharges when the stagnant well casing water was discharged to the on-site percolation pit. Hg levels dropped to below the MCL and/or non-detect levels within the first 10-20 minutes of well flushing operations.

These findings suggested that the issue of sporadic elevated Hg occurrences was potentially a result of particulate Hg released from near-wellbore sediment accumulations when the well was initially started and well casing turbulence and velocity changes result in the release of fine particulate matter.

Additional samples were collected of sediments from the Backflush Pit at the Santa Margarita ASR Facility. Relevant findings from these sediment samples included the following:

- Confirmation that a significant portion of the total Hg content from the wells is insoluble / particulate Hg.
- The particulate Hg does not appear to be migrating beneath the surface of the pit to any measurable extent, but is rather sequestered with the surficial deposits from well backflushing operations.
- The concentration level of Hg in the accumulated surficial sediments is well below the California TTLC limit of 20 mg/kg.

Next Steps in the Investigation. The Hg investigation during WY 2015 has not yet conclusively established the origin of Hg detected at ASR-1; however, issues that will be investigated further in WY 2016 include the following:

• Determination of the origin of the suspected naturally-occurring, predominantly particulate Hg detected at the well as observed during initial well purging (i.e., from



native aquifer minerals within the Santa Margarita Sandstone formation and/or from the produced recharge waters in the Carmel Valley Aquifer System).

- Assessment of the character and cumulative long-term fate of sediments with Hgdetections within the Backflush Pit. This investigation will include further assessment of the Hg particulate matter and its physical and chemical mobility over time.
- Further assessment of the other ASR wells to determine if similar Hg occurrences and mechanisms exist at all ASR facilities.

As the Hg investigation continues, additional findings, conclusions, and recommendations will be documented in the WY 2016 Summary of Operations Report to facilitate ongoing operation of the ASR project.

Water Quality Summary

Overall, water-quality data from WY 2015 showed no significant deviations from previous years. The only deviation from the norm for the ASR program was the anomalous and transient occurrence of Hg detections as described for the ASR-1 well; however, as discussed above, additional investigation in WY 2016 will be implemented to further investigate the origin of the detected Hg. The most important factors regarding ASR operations to date are that:

- No evidence of adverse geochemical reactions has been observed during aquifer storage (with the exception of near-bore Hg accumulation possibly related to Hg dissolution), and;
- Injection has shown direct and measurable benefit to the basin water quality vis-à-vis
 reductions in salinity, dissolved solids, hardness, and aesthetic parameters such as
 manganese and sulfide ion, which impart color and odor to the consumers' drinking
 water.

These improvements are likely to prevail as ASR operations continue and expand in the future.



CONCLUSIONS

Based on the findings developed from operation of Monterey Peninsula ASR Project during WY 2015, we conclude the following:

WY 2015 Recharge Operations

WY 2015 was classified as a Dry Water Year on the Monterey Peninsula and as a result, a commensurately modest total volume of 215 af of water was recharged into the Seaside Groundwater Basin at the Santa Margarita and Seaside Middle Schools ASR Facilities during the WY 2015 injection season.

ASR Well Performance

ASR-1. Pertinent well performance conclusions for ASR-1 during WY 2015 are summarized below:

- <u>Injection Rates:</u> Ranged between approximately 870 to 1,610 gpm, averaging approximately 1,275 gpm.
- Water Levels: Generally maintained greater than 300 ft. bgs with 45 ft. of available "freeboard" remaining below the maximum recommended drawup level.
- Specific Injectivity: Although there are no initial specific injectivity data for WY 2015, the ending specific injectivity was approximately 25 gpm/ft, which is slightly great than the ending value in WY 2011 of approximately 23 gpm/ft.
- Residual Plugging: No residual plugging was observed.
- General Conclusions: ASR-1 performed very well during WY 2015 with no evidence of residual plugging. The positive trend in performance and available "freeboard" at injection rates ranging between 870 to 1,610 gpm suggests the design injection rate of 1,500 gpm can be maintained in WY 2016 without adversely affecting the well's performance.

ASR-2. Pertinent well performance conclusions for ASR-2 during WY 2015 are summarized below:

- <u>Injection Rates:</u> Ranged between approximately 340 to 1,775 gpm, averaging approximately 1,400 gpm.
- Water Levels: Generally maintained greater than 280 ft. bgs with 30 ft. of available "freeboard" remaining below the maximum recommended drawup level.



- <u>Specific Injectivity:</u> Ranged between approximately 32 to 37 gpm/ft and overall trend in 24-hr specific injectivity slightly negative.
- Residual Plugging: Approximately 32 feet of residual plugging occurred.
- General Conclusions: ASR-2 performed well during WY 2015; however, the
 well did experience a moderate level residual plugging. The negative trend in
 performance at injection rates ranging up to 1,775 gpm suggests the injection
 rate at this well should be maintained at or below the design rate of 1,500
 gpm in WY 2016.

ASR-3. Pertinent well performance conclusions for ASR-3 during WY 2015 are summarized below:

- <u>Injection Rates:</u> Ranged between approximately 655 to 1,070 gpm, averaging approximately 940 gpm.
- Water Levels: Generally maintained greater than 240 ft bgs with 50 ft of available "freeboard" remaining below the maximum recommended drawup level.
- Specific Injectivity: Although there are no initial specific injectivity data for WY 2015, the ending specific injectivity was approximately 10 gpm/ft, which is slightly great than the ending value in WY 2013 of approximately 8 gpm/ft.
- Residual Plugging: No residual plugging was observed.
- General Conclusions: ASR-3 performance appeared to be relatively stable compared to the significant declines observed in WY 2012. The pattern of relative performance stabilization followed by the initial significant decline in well performance observed at ASR-3 is very similar to the pattern observed at both ASR-1 and ASR-2 when they were initially brought on-line. The stable performance at injection rates ranging between 655 to 1,070 gpm suggests the injection rate should be maintained at or below 1,000 gpm to maintain performance.
- **ASR-4.** Injection at ASR-4 during WY 2015 was limited to three days of well "conditioning". This conditioning consisted of initial injection at relatively low rates and durations, being incrementally increased following thorough backflushing and upon confirmation that well performance was being maintained. The conditioning was performed in an effort to limit the amount of residual plugging that has historically been observed at all three previous ASR wells following their initial injection operations. Injection rates ranging between approximately 250 to 1,075 gpm for durations up to 30 minutes were achieved during WY 2015 without a measurable loss in performance. Further conditioning is planned for WY 2016 until the design injection rate of 1,500 gpm has been achieved.



Water Quality

Significant conclusions regarding the water-quality investigation during WY 2015 include the following:

- Consistent with previous observations, no significant ion exchange, acidbase, or precipitation reactions were observed at the ASR sites.
- THMs at the ASR sites showed characteristic and significant initial "ingrowth" that peaked at approximately 30 to 90 days after the cessation of injection, followed by a gradual decline over the next 120 to 150 days of storage.
- HAAs showed little "ingrowth" following the cessation of injection and degraded completely during aquifer storage.
- Hg exceedances of the MCL observed in WY 2015 samples are considered anomalous and will be subject to additional investigation in WY 2016.



RECOMMENDATIONS

Based on the WY 2015 ASR program results and our experience with similar ASR projects, we offer the following recommendations for continued and future operations of the Monterey Peninsula ASR Project wells:

ASR-1 Well Operational Parameters

- <u>Injection Rate</u>: Based on the lack of observed residual plugging during WY 2015, ASR-1 can be operated at an injection rate up to approximately **1,500 gpm** (6.6 afd) to avoid excessive plugging during injection. This represents a 50 percent increase in the design injection rate of 1,000 gpm.
- Water-Level Drawup: Under the present local water-level conditions, the
 amount of water-level drawup should be limited to approximately 100 feet.
 This amount of water-level drawup during injection equals the typical
 available drawdown in the well for backflushing. This helps to avoid overpressurization and compression of plugging materials, thereby maximizing
 the efficiency of backflushing and limiting the amount of residual plugging.
- <u>Backflushing Frequency</u>: During the recharge season, routine backflushing should continue to be performed on an approximate weekly basis, or when the amount of water-level drawup in the casing reaches approximately 100 feet, whichever occurs first.

ASR-2 Well Operational Parameters

- <u>Injection Rate</u>: Based on the amount of residual plugging that occurred during WY 2015 with the well injecting up to 1,775 gpm, we recommend the injection rate be limited to the design rate of approximately 1,500 gpm in order to limit residual plugging and maintain long-term performance.
- Water-Level Drawup: Under the present local water-level conditions, the
 amount of water-level drawup should be limited to approximately 130 feet,
 which is equal to the typical amount of available drawdown in the well for
 backflushing. Again, this helps to avoid over-pressurization and compression
 of plugging materials and limiting the amount of residual plugging.
- <u>Backflushing Frequency</u>: During the recharge season, routine backflushing should continue to be performed on an approximate weekly basis, or when the amount of water-level drawup in the casing reaches approximately 130 feet, whichever occurs first.

ASR-3 Well Operational Parameters

 <u>Injection Rate</u>: Based on the lack of apparent residual plugging that occurred during WY 2015 with the well injecting up to 1,070 gpm, we recommend the



injection rate continue to be limited to **1,000 gpm** in order to limit residual plugging and maintain long-term performance.

- Water-Level Drawup: Under the present local water-level conditions, the amount of water-level drawup should be limited to approximately 170 feet, which is equal to the typical amount of available drawdown in the well for backflushing. Again, this helps to avoid over-pressurization and compression of plugging materials and limiting the amount of residual plugging.
- <u>Backflushing Frequency</u>: During the recharge season, routine backflushing should continue to be performed on an approximate weekly basis, or when the amount of water-level drawup in the casing reaches approximately 170 feet, whichever occurs first.

ASR-3 should undergo formal rehabilitation to improve well performance and injection capacity, similar to that performed at SM ASR-1 and SM ASR-2. It is believed that following rehabilitation, the well will be able to operate at its design injection rate of 1,500 gpm (i.e., 50 percent greater than the current capacity of 1,000 gpm).

SMS ASR-4 Well Startup Conditioning and Baseline Injection Testing

"Conditioning" of ASR-4 should continue in WY 2016 in an effort to limit the amount of apparent residual plugging that has historically been observed at all three of the existing ASR wells following their initial injection operations. Once the design injection rate of 1,500 gpm has been achieved, a baseline injection testing program should be implemented that includes the following tests:

- 1. 8-hr variable rate injection test (combined with downhole velocity surveys);
- 2. 24-hr constant rate injection test;
- 3. 7-day constant rate injection test;
- 4. Backflushing between each of the above injection tests, and;
- 5. Post-injection production performance testing.

At the conclusion of the baseline injection testing program, recommendations for the long-term injection operations of ASR-4 can then be provided.



CLOSURE

This report has been prepared exclusively for the Monterey Peninsula Water Management District for the specific application to the ASR Project on the Monterey Peninsula. The findings and conclusions presented herein were prepared in accordance with generally accepted hydrogeologic and engineering practices. No other warranty, express or implied, is made.

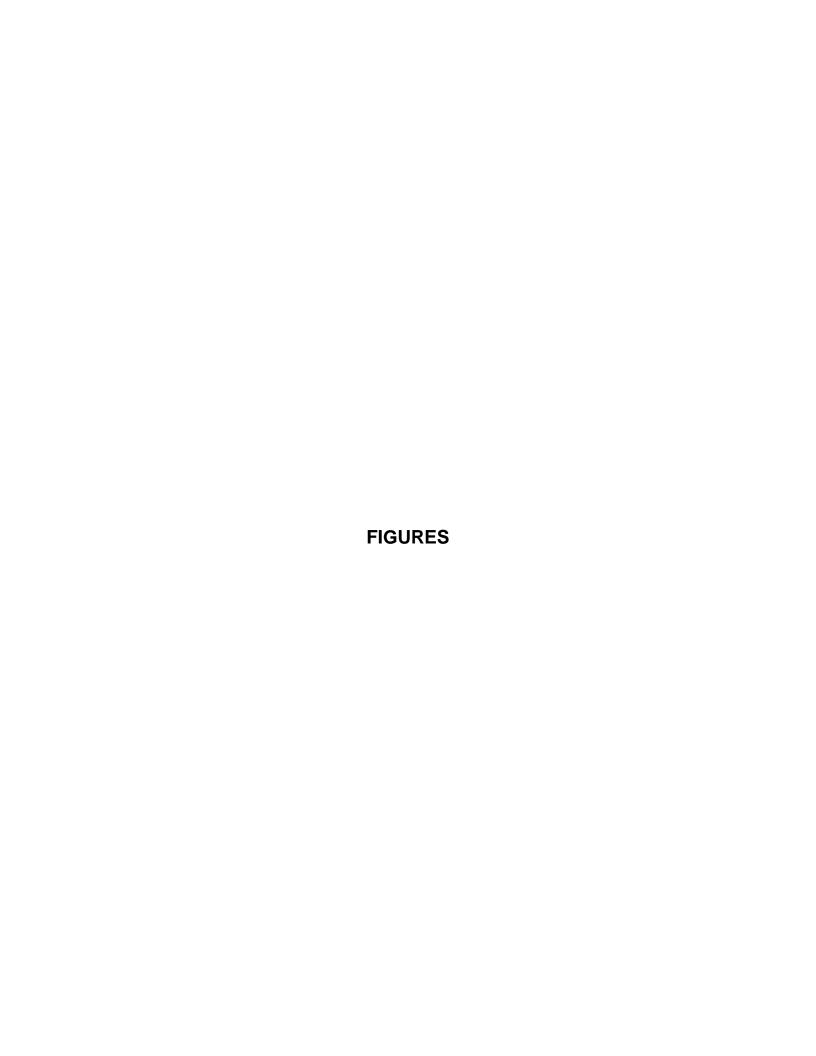


REFERENCES

- Clark, J.C., Dupré, W.R., and Rosenberg, L.I. (1997), Geologic Map of the Monterey and Seaside 7.5-Minute Quadrangles, Monterey County, California: a Digital Database, U.S. Geological Survey Open-File Report 97-30.
- Driscoll, Fletcher, G., (1986), *Groundwater and Wells, Second Edition*, published by Johnson Screens.
- Fugro West, Inc. (1997), *Hydrogeologic Assessment, Seaside Coastal Groundwater Subareas, Phase III Update, Monterey County, California*, prepared for Monterey Peninsula Water Management District.
- Fugro West, Inc. (1997), Reconnaissance-Level Feasibility Study for Seaside Basin Injection/Recovery Project, prepared for Monterey Peninsula Water Management District.
- Huisman, L., and Olsthoorn, T.N. (1983), *Artificial Groundwater Recharge*, Delft University of Technology, Pitman Advanced Publishing Program.
- Nicholson, B.C., Dillon, P.J., and Pavelic, P. (2002), Fate of Disinfection By-Products During Aquifer Storage and Recovery, American Water Works Association Research Project No. 2618.
- Padre Associates, Inc. (2001), Summary of Operations, Well Construction and Testing, Santa Margarita Test Injection Well, prepared for Monterey Peninsula Water Management District.
- Padre Associates, Inc. (2002), Summary of Operations, Water Year 2002 Injection Testing, Santa Margarita Test Injection Well, prepared for Monterey Peninsula Water Management District.
- Padre Associates, Inc. (2004), Summary of Operations, Water Year 2003 Injection Testing, Santa Margarita Test Injection Well, prepared for Monterey Peninsula Water Management District.
- Padre Associates, Inc. (2005), Summary of Operations, Water Year 2004 Injection Testing, Santa Margarita Test Injection Well, prepared for Monterey Peninsula Water Management District.
- Padre Associates, Inc. (2006), Summary of Operations, Water Year 2005 Injection Testing, Santa Margarita Test Injection Well, prepared for Monterey Peninsula Water Management District.



- Pueblo Water Resources, Inc. (2007), Summary of Operations, Water Year 2006 Injection Testing, Santa Margarita Test Injection Well, prepared for Monterey Peninsula Water Management District.
- Pueblo Water Resources, Inc. (2008), Summary of Operations, Well Construction and Testing, Santa Margarita Test Injection Well No. 2, prepared for Monterey Peninsula Water Management District.
- Pueblo Water Resources, Inc. (2009), Summary of Operations, Phase 1 ASR Project, Water Year 2007, prepared for Monterey Peninsula Water Management District.
- Pueblo Water Resources, Inc. (2009), Summary of Operations, Phase 1 ASR Project, Water Year 2008, prepared for Monterey Peninsula Water Management District.
- Pueblo Water Resources, Inc. (2010), Summary of Operations, Phase 1 ASR Project, Water Year 2009, prepared for Monterey Peninsula Water Management District.
- Pueblo Water Resources, Inc. (2011), *Summary of Operations, Phase 1 ASR Project, Water Year 2010*, prepared for Monterey Peninsula Water Management District.
- Pueblo Water Resources, Inc. (2012), Summary of Operations, Well Construction and Testing, Seaside Middle School Test Well, prepared for Monterey Peninsula Water Management District.
- Pueblo Water Resources, Inc. (2012), Summary of Operations, Phase 1 ASR Project, Water Year 2011, prepared for Monterey Peninsula Water Management District.
- Pueblo Water Resources, Inc. (2013), Summary of Operations, Monterey Peninsula ASR Project, Water Year 2012, prepared for Monterey Peninsula Water Management District.
- Pueblo Water Resources, Inc. (2014), Summary of Operations, Monterey Peninsula ASR Project, Water Year 2013, prepared for Monterey Peninsula Water Management District.
- Pyne, R.D. (1994), Ground Water Recharge and Wells, Boca Raton, Florida, CRC Press.
- Raines, Melton & Carella, Inc. (2002), *Plan B Project Report*, prepared for the Water Division of the California Public Utilities Commission.
- Theis, C.V. (1935), Relationship Between Lowering of Piezometer Surface on the Fate and Duration of Discharge of a Well Using Ground Water Storage, Transactions of the Geophysical Union, vol. 16, pp. 519-524.





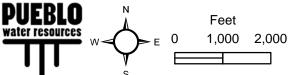
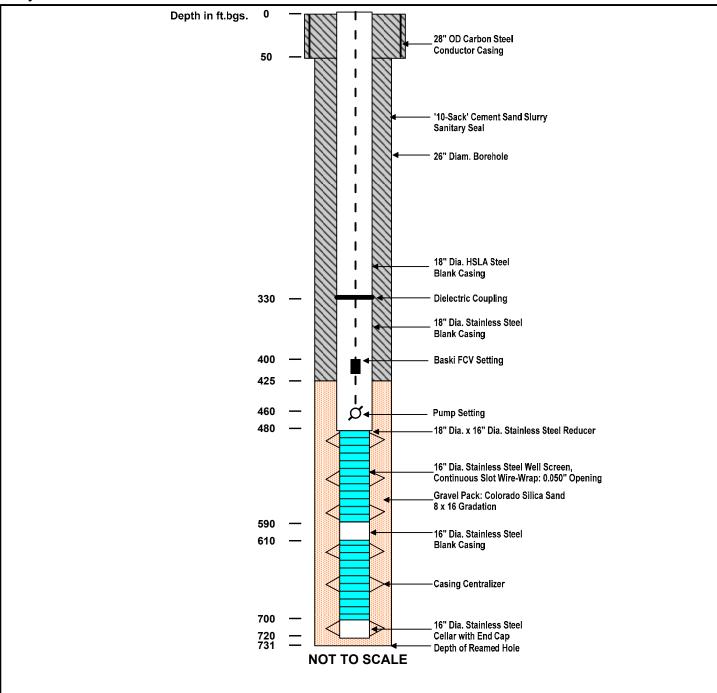


FIGURE 1. SITE LOCATION MAP WY 2015 ASR Program Monterey Peninsula Water Management District



Pump Assembly Notes:

Hp: 600

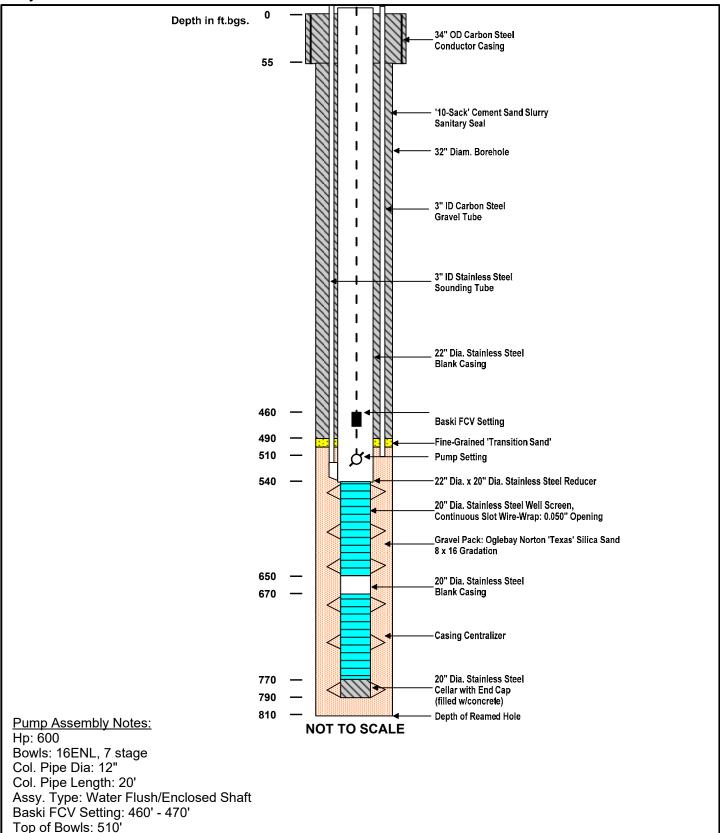
Bowls: 16ENL, 7 stage Col. Pipe Dia: 12" Col. Pipe Length: 20'

Assy. Type: Water Lube/Open Shaft

Baski FCV Setting: 400' - 410'

Top of Bowls: 460' Bowl Length: 10.5' Suction Length: 10' Intake: 480.5'







Bowl Length: 10.5' Suction Length: 10' Intake: 530.5'

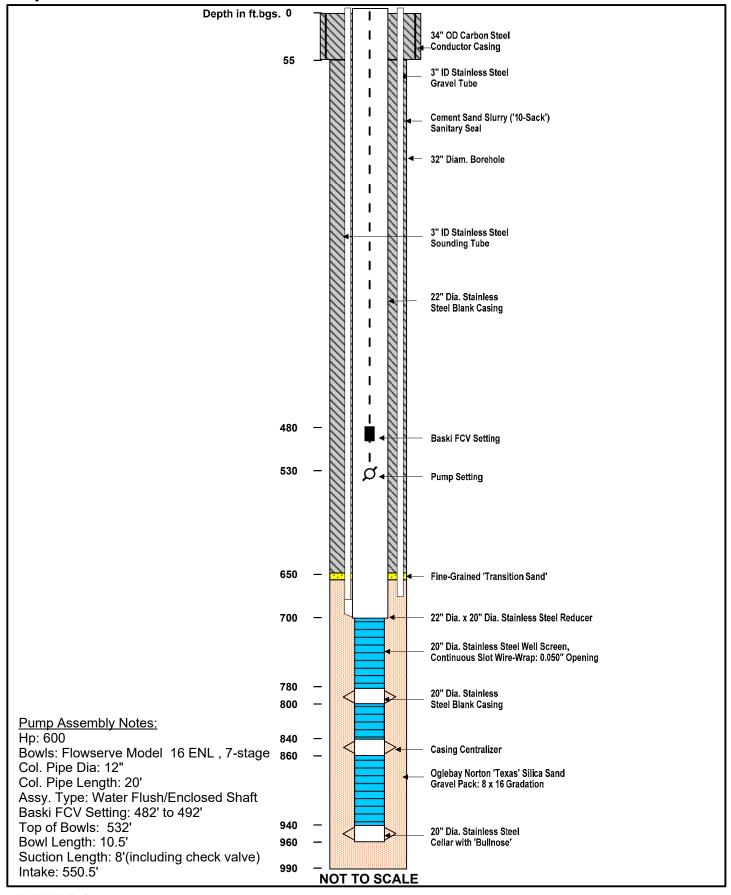




FIGURE 4. ASR-3 AS-BUILT SCHEMATIC
WY 2015 ASR Program
Monterey Peninsula Water Management District

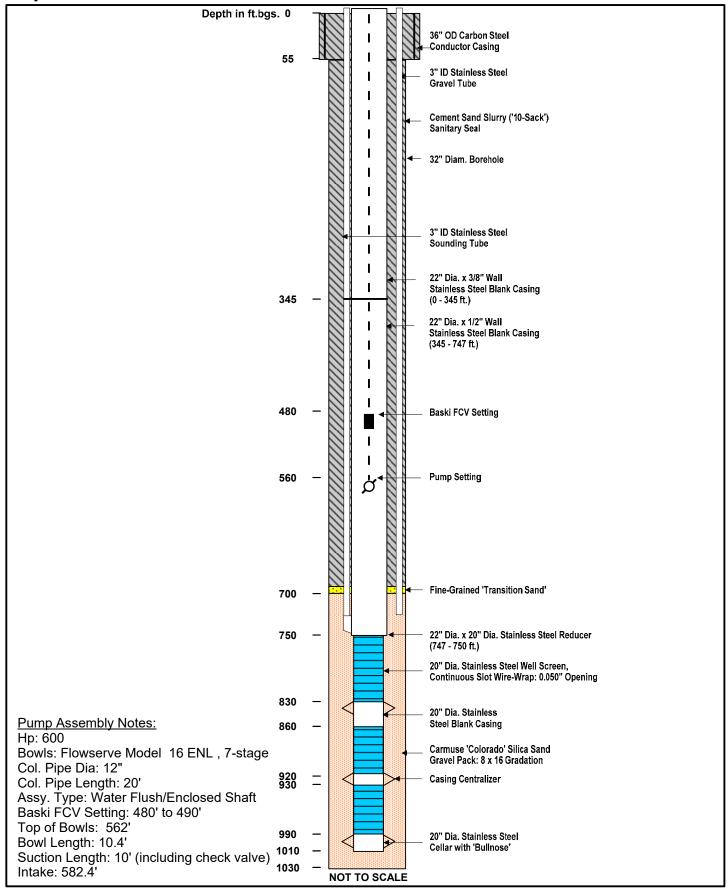




FIGURE 5. ASR-4 AS-BUILT SCHEMATIC WY 2015 ASR Program Monterey Peninsula Water Management District

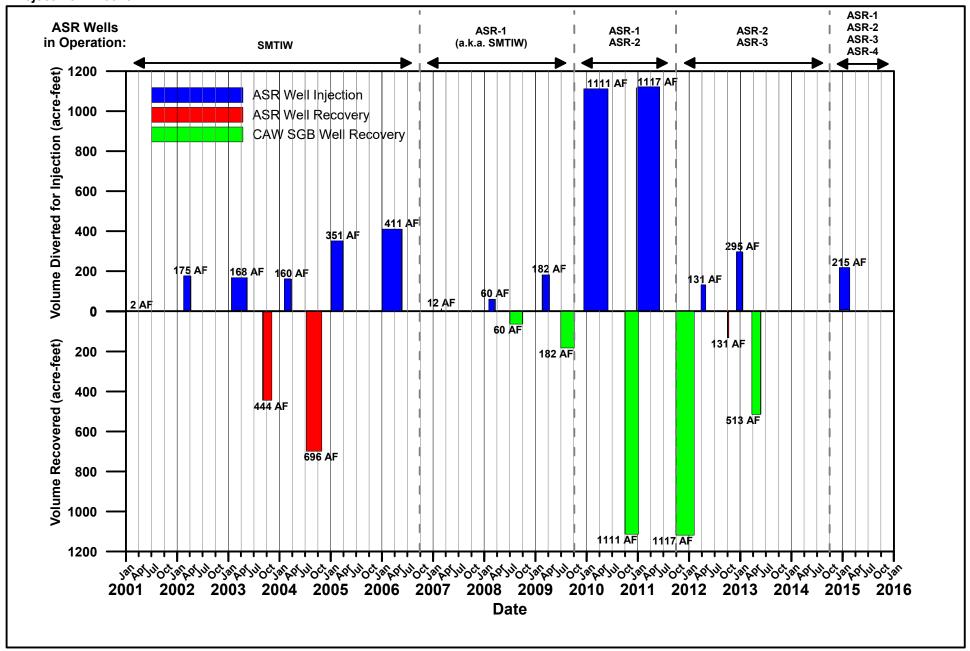




FIGURE 6. SUMMARY OF ASR OPERATIONS (WY 2001 - WY 2015)
WY 2015 ASR Program
Monterey Peninsula Water Management District

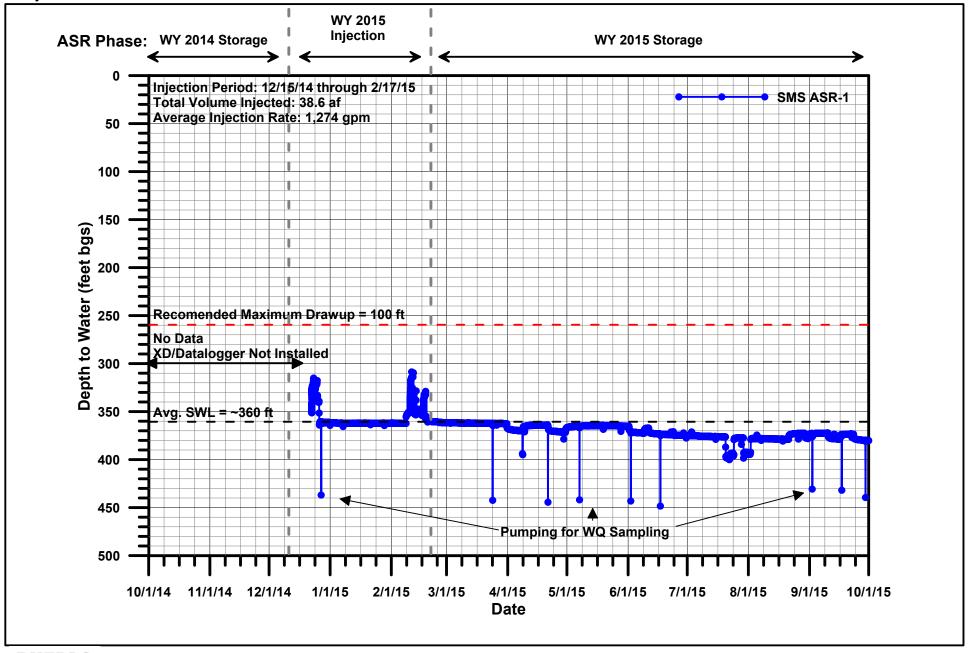




FIGURE 7. ASR-1 WATER-LEVEL DATA WY 2015 ASR Program Monterey Peninsula Water Management District

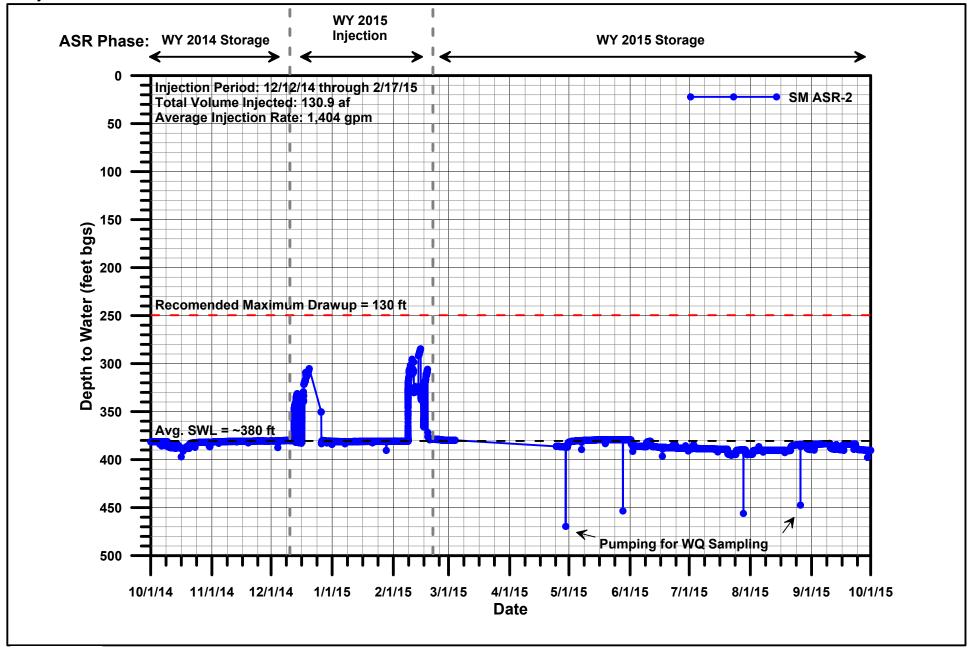




FIGURE 8. ASR-2 WATER-LEVEL DATA
WY 2015 ASR Program
Monterey Peninsula Water Management District

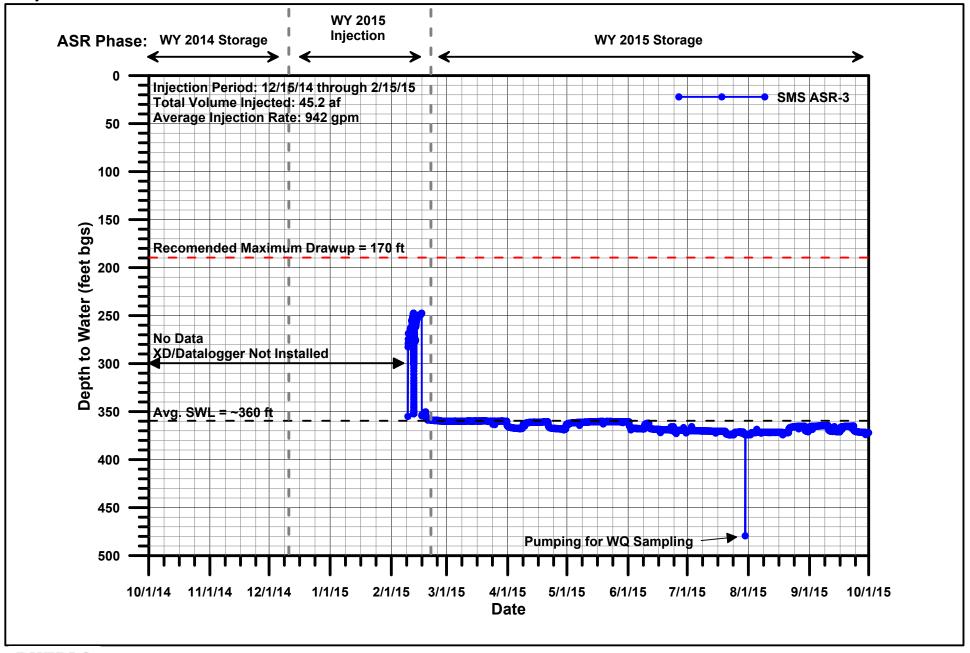




FIGURE 9. ASR-3 WATER-LEVEL DATA WY 2015 ASR Program Monterey Peninsula Water Management District

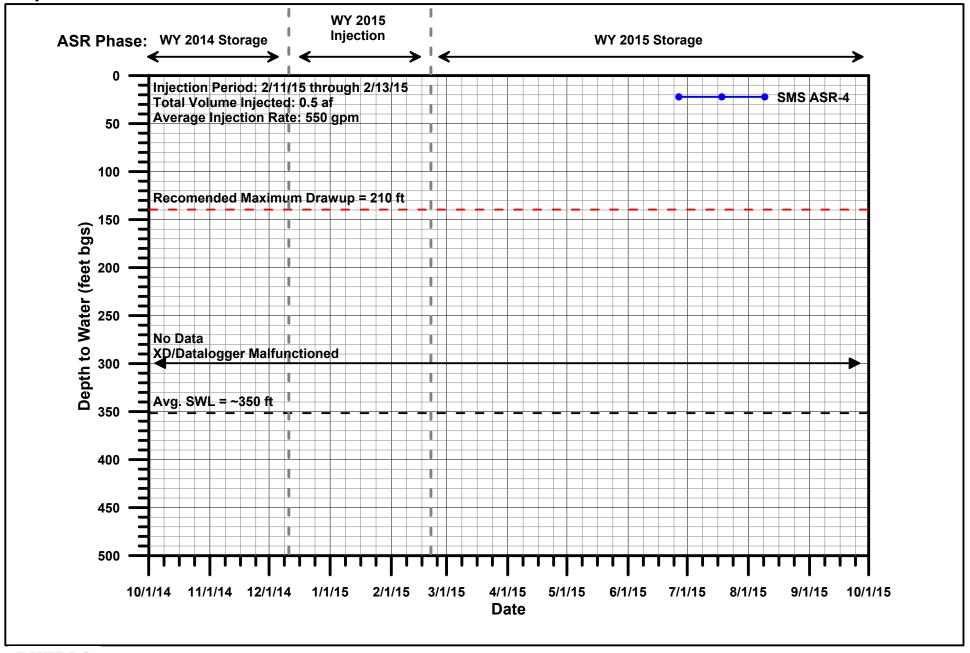




FIGURE 10. ASR-4 WATER-LEVEL DATA WY 2015 ASR Program Monterey Peninsula Water Management District

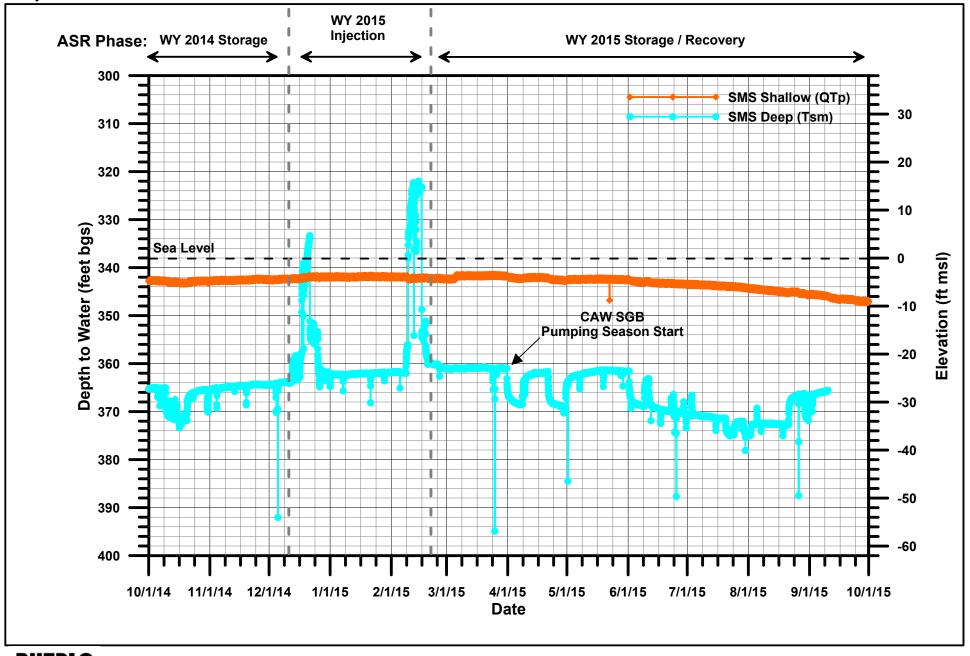




FIGURE 11. SMS MW WATER-LEVEL DATA WY 2015 ASR Program Monterey Peninsula Water Management District

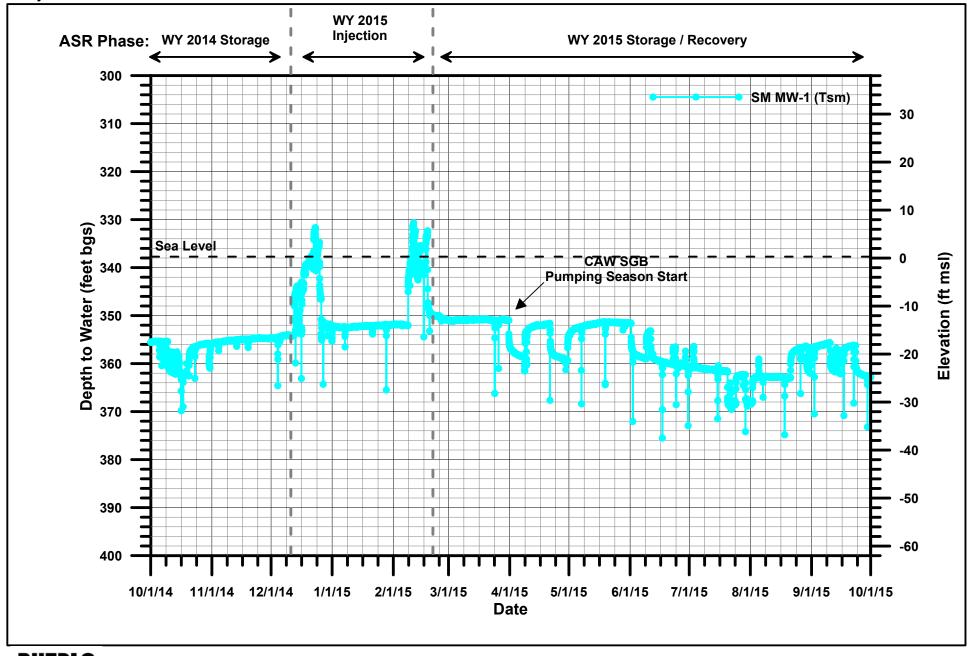




FIGURE 12. SM MW-1 WATER-LEVEL DATA WY 2015 ASR Program Monterey Peninsula Water Management District

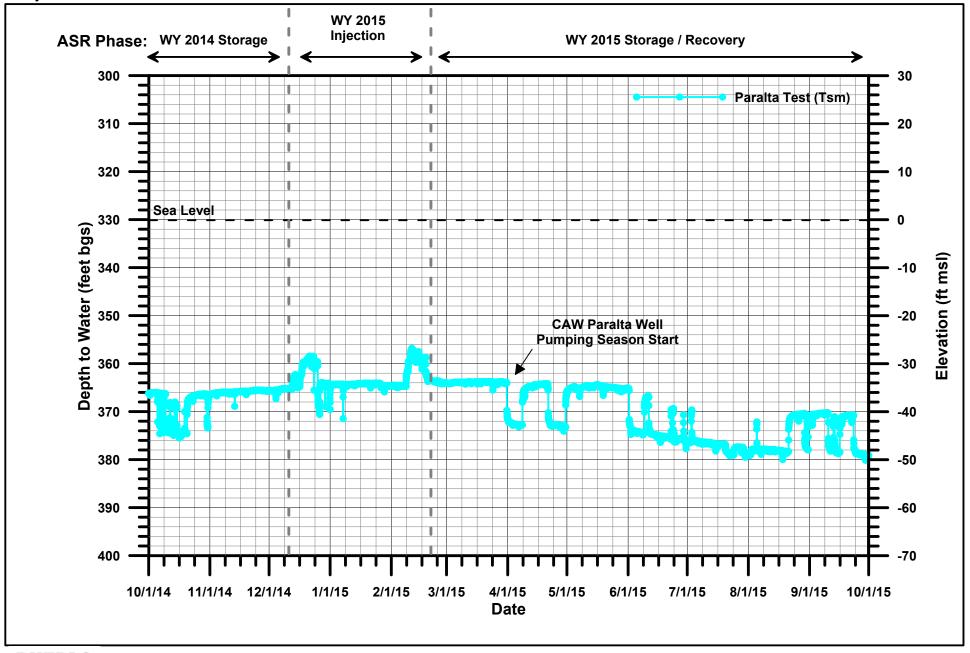




FIGURE 13. PARALTA TEST WATER-LEVEL DATA
WY 2015 ASR Program
Monterey Peninsula Water Management District

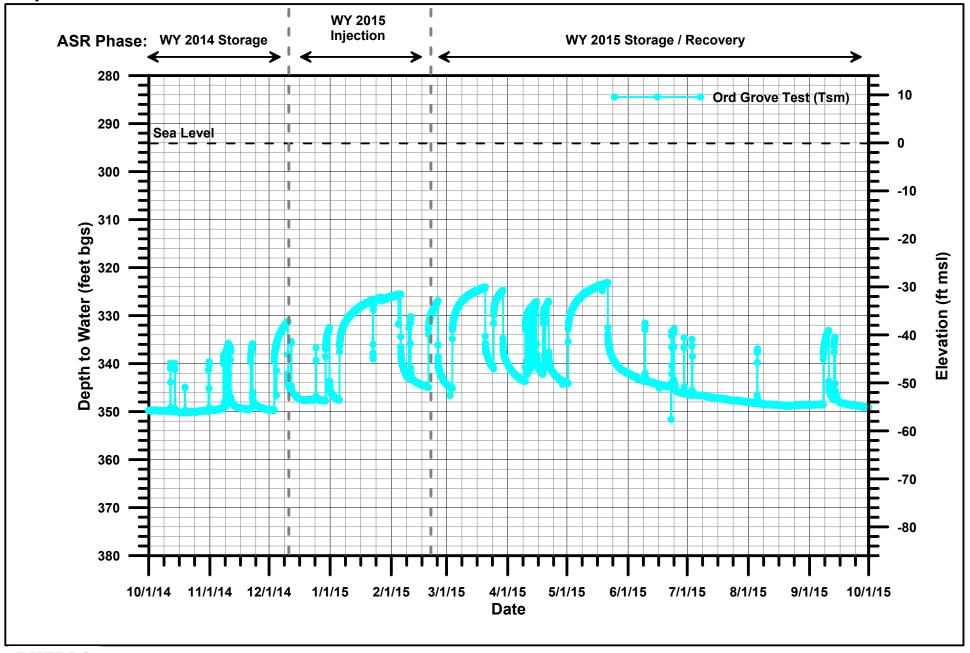




FIGURE 14. ORD GROVE TEST WATER-LEVEL DATA
WY 2015 ASR Program
Monterey Peninsula Water Management District

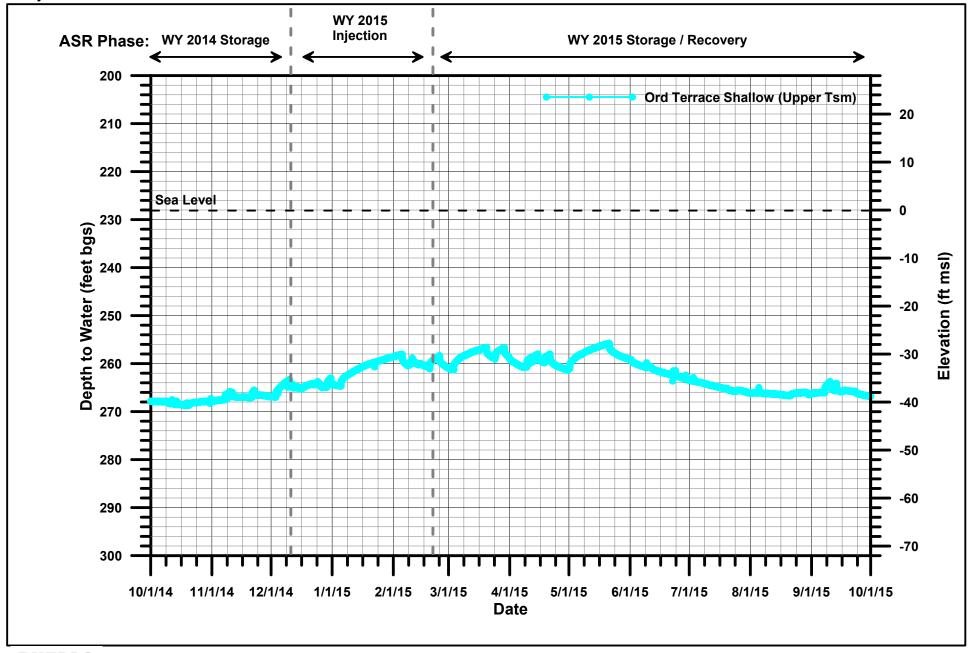




FIGURE 15. ORD TERRACE WATER-LEVEL DATA
WY 2015 ASR Program
Monterey Peninsula Water Management District

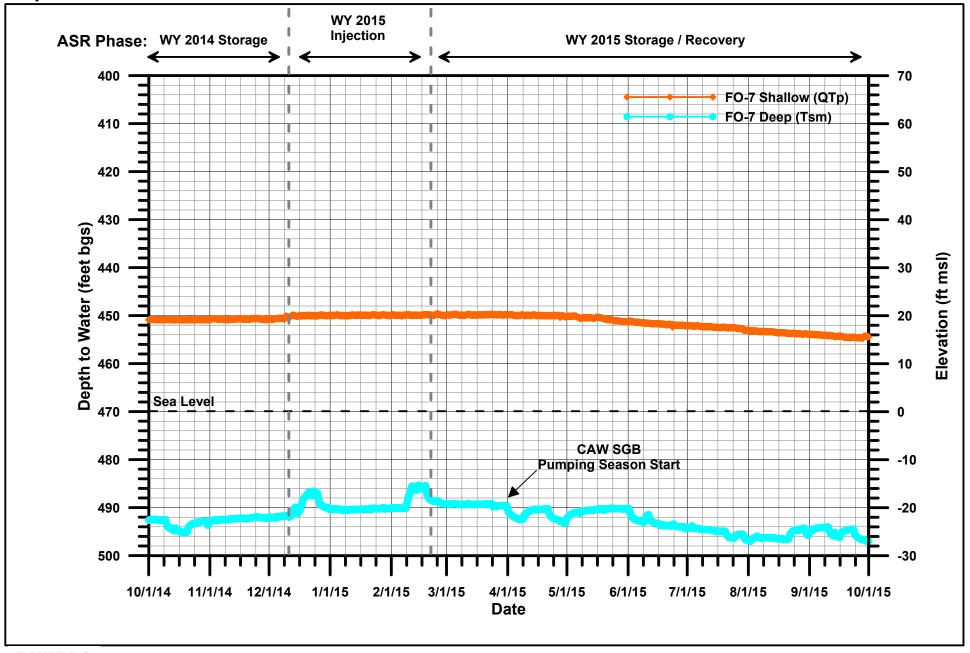




FIGURE 16. FO-7 WATER-LEVEL DATA WY 2015 ASR Program Monterey Peninsula Water Management District

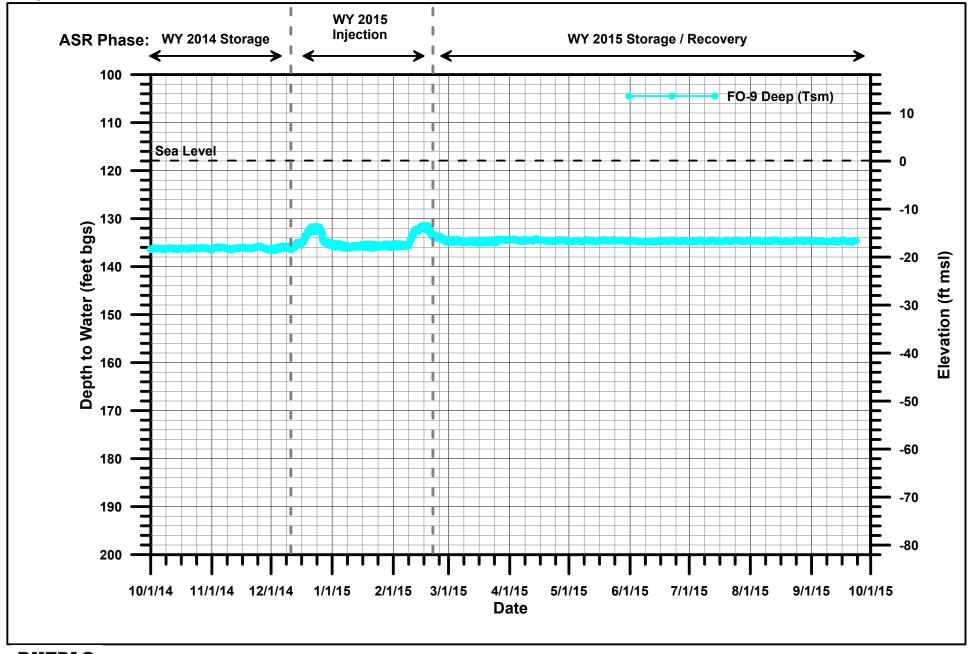




FIGURE 17. FO-9 WATER-LEVEL DATA WY 2015 ASR Program Monterey Peninsula Water Management District

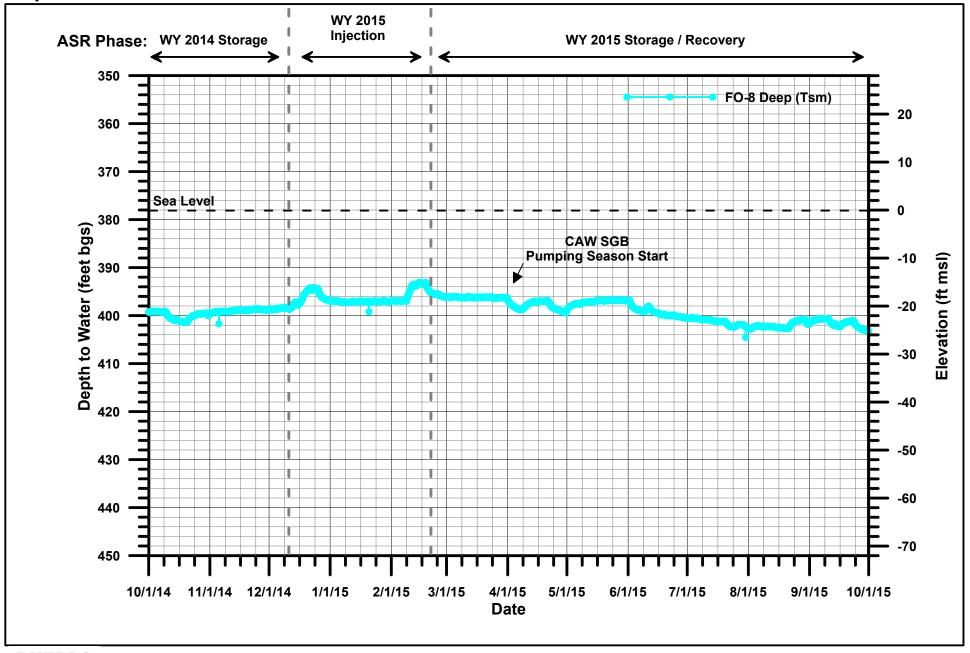




FIGURE 18. FO-8 WATER-LEVEL DATA
WY 2015 ASR Program
Monterey Peninsula Water Management District

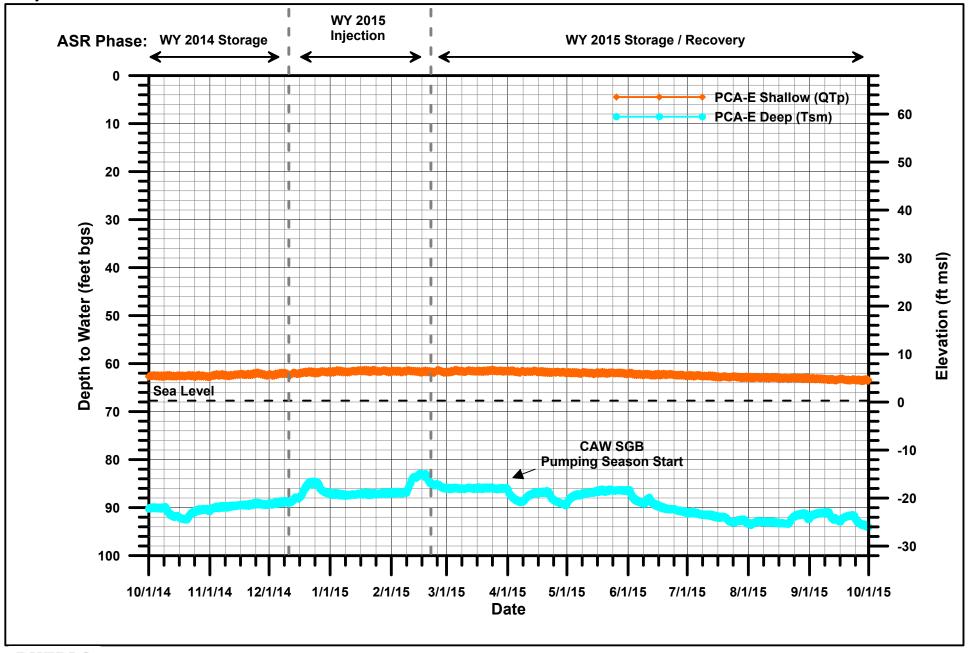
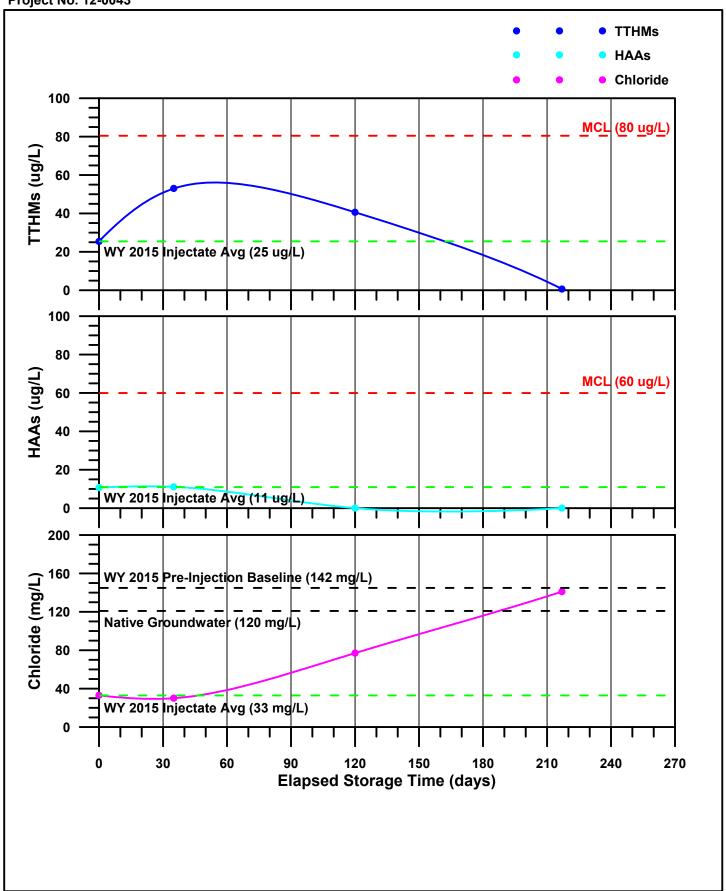
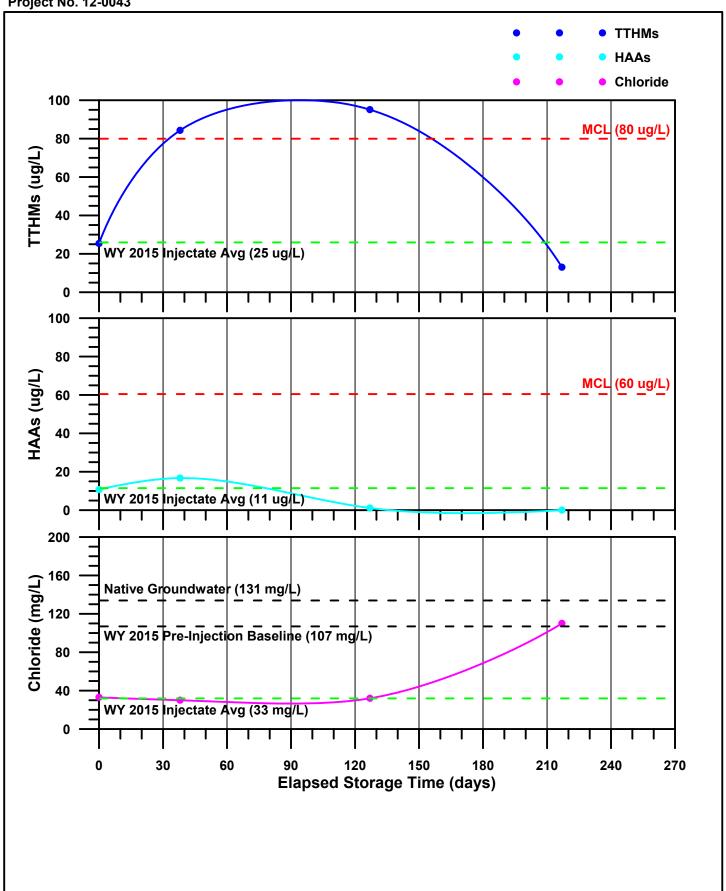




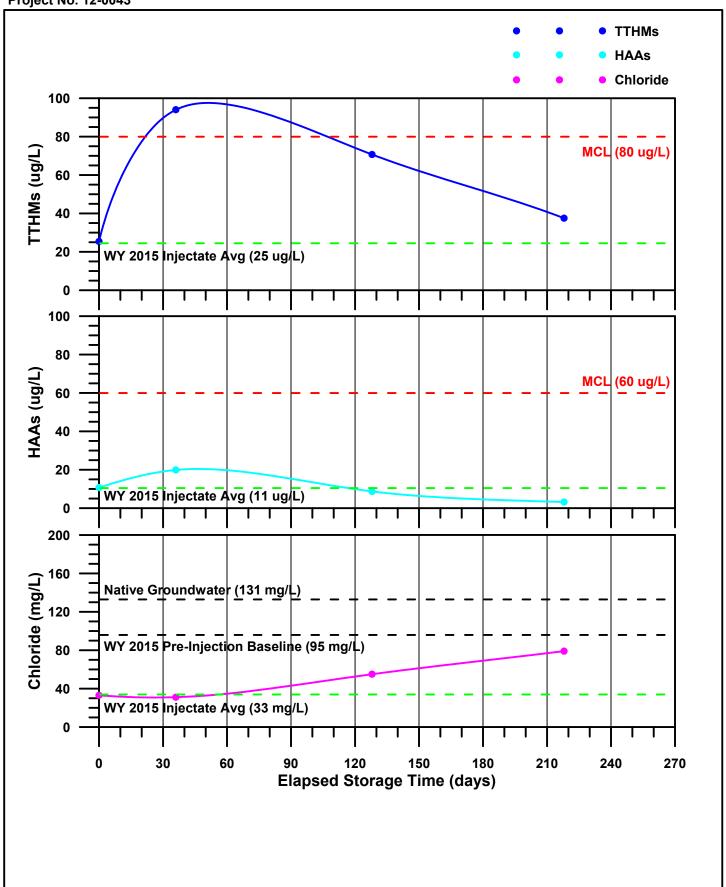
FIGURE 19. PCA-EAST WATER-LEVEL DATA WY 2015 ASR Program Monterey Peninsula Water Management District



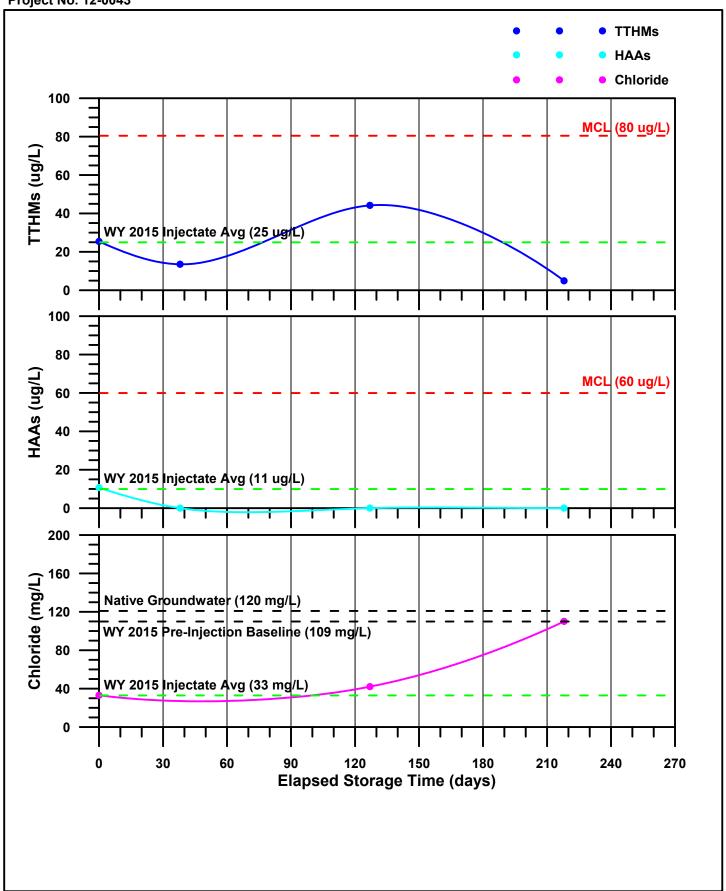




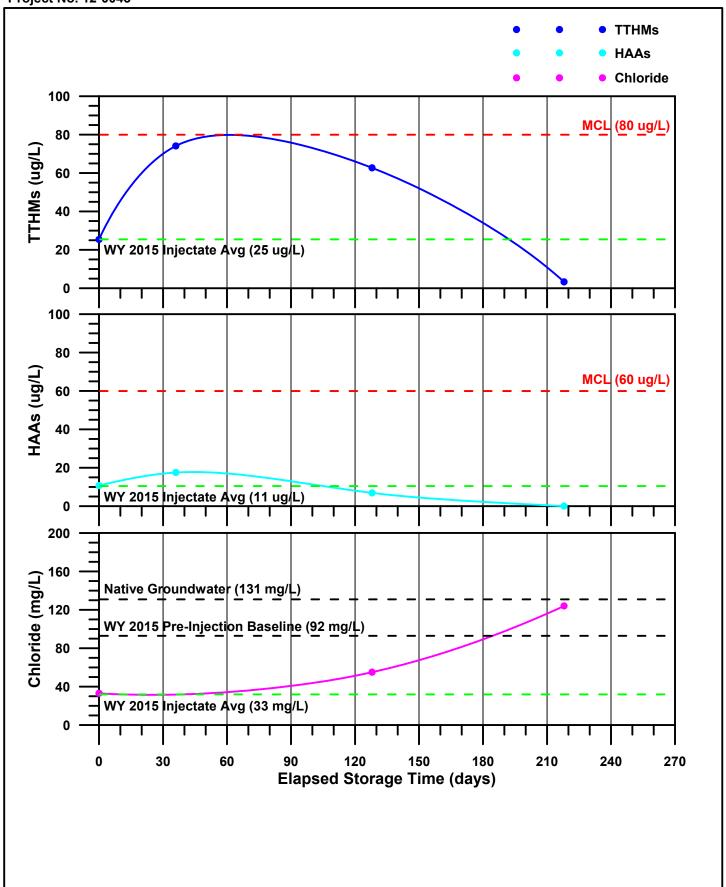
















224-4453 NICHOUS PRESONAL

MPWMD ASR DATA SHEET

Well: ASR 1

Test:

Sheet

MONTEREY PENINSULA MANAGEMENT DISTRICT

Well **FCV** Line Draw Up Inj Rate Date Tiger [F] (gal) Tiger [R] (gal) BF (gal) Head N₂ (psi) DTW (feet) Time Comments (GPM) (psi) (psi) (feet) COOLY ×1000 X1000 (psi) 0258730 1500 361.85 263404 1150448 060332 102 6 BEGIN LINE FUSH; LUBE ON 12.1514 1430 200 40 MAX FLUSH System open BATELLA 26340 1150711 060933 174 45 36 333.8 1500 BEGIN INI 12:16:14 180 48. 34 325,03 763404 1152146 060533 1550 1610 CUBE 0262170 1152230 SHUT DOWN TO BF 1 2 5 10 15 20 8.3 37.8 8 47 2,4 1.11 1169 (QZ) 1.14 mg/L 263464 060533 300 355,20 0 110 1550 060533 357,27 3500 DMIN 06.0569 430,91 3500 90612 EN/S4 1152230 060312 105@ DGPM LINE FUSH TO SEE IF 1 12 Q 1008 066637 1152256 END CF; LUBE OFF 0262600 1030 263404 12/17/14 1024 763404 1152256 60637 300 42 1450 0 testing of flow 1152259 60640 ASR2 10 1670 263404 104D TO JOITL, JL, DV, ST 0 35/140 263404 1152259 060640 304 87 Starting, ~1530, ristalled 1150 0 1515 37 1152269 190 763404 060640 1600 1270 trusducer 45 1400 F 420 98 1255 1153566 060646 adicloser to 1200 762404 J. K. ING ADT 200 12/3/14/0630 263404 327.20 24,20 1270 1155471 232 rate dropped to 1230 after adj at 1100 12 24 14 0900 6606160 84 79 13 RZ -NO 105, here, TL 1445 220 67 78 1230

15/1 Hick from studge

48

Made minor ADJ to FCV to lower pros and bring rate back up to 1230 cpm ator ASR-Z adjustment. Jo

1950 condernto 1060 continul: 1700 540 total - 1195

MPWMD ASR DATA SHEET

Well: ASR-1

Test:

Sheet Z

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1			-							0	1	MANAGEMENT DISTRICT
Date	Time	Tiger [F] (gal)		BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments
12-25-14	0840	263404	1157258	060640	218	77	66	975	320.40	31.00	1305	No ady te
	10	,			212				L'internation		1390	adj on way out n 0930
	1200	7/07.1011	1) 5 2 - 1								1450	747 600 000 000
2/26/14	-	263404	1157561	060640		69	(82)!			-	860	multiple and to soon wello
u 120/14	1040		1158621	060640	249		(83)!	950	339.01		870	will a day to seen world
h	1115	263404		n/and	269	95	93)!	4-39-	351.50		430	Reduce in rate - CAW prod problem (per ES) Jo
7 9 1	1135	201707	1158669	060640	300	102	0	1,000			0	All ini off - riffle did not anso per (4) To
	1245	T. 10	alist to	- / +			A	4 C	4.5		1	lube = 0262600 g Turn on lube for BF to
		2.100	chols stop	5 by sile	to	give	updo	de on	CAWS	ystour.	To	- 1
2/27/14		263404	1158669	60640	300	112	\$	850	351.19	,	6	1 12/5 10 15 26 10 7
16M1				60672					221.11		P	32.1 AT 7.6 8.4 4.2 3.8 [C] 09
END		263404	1158669	60715							Ø	LUBE OFF 267600
							-					
, arrag	20,00	Lat. 1 . 1 . 17.1				1 50						
4	11.00				51				1	,		
												at the second second second
	11	1, 21										The state of the s
									1277		- 12	
W. 4		4 - 2 - 2 - 2		Warry of	100	-			10,000			
		7			2					7		
1									3.00			The second secon

B1=

MPWMD ASR DATA SHEET

Well:	ASR1
weii:	1121

Sheet

MONTEREY PENINSULA
TER

MANAGEMENT DISTRICT

Test: SAMPLE FORLALAM

of

Date	Time	Tiger [F] (gal)	Tiger [R] (gal)	BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments
1.28.15	900	263469	1159828	060745	315	of	4	1800	363.15		3500	27/180
	1	263409	1159828	060856	16	6	4	1800				TOOK WE TANK FROM ASAZ
							12 1	57.7				I was to be a selected as a selected as
D 10 M	N.	263409	1157828	067460		100	7 4	Maria	419,5			
												771540
						- 35	61 41	digion .	100			Z 7/540
								1 - 1	1			
		1 7-3-1	V 19 4.5									337 17.2 731 3.5 2.57 2.01
					1							
												24,2°C 457 mg/m 7.16 ND 0.8 - 115 MV
	200	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1		4-1-1-1	September 1				1.295,-27		100	
	- 4				137							DU= NO
		5 7 3 5							245.00	12 . J L.	N. K.	Charles of the second to
			1		1	100		W. J. "	100	1.00	100	
						1 1						
					5,89	1	ar y	William .	" My har		2 7 7 15 15	
						300		The same	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		100	
		1 1 1 1 1			1.7		10	52				
						4					100	
							1					
1000	1		of White	. 17	Sp. 1.10	100	Ser of	Nine.	Million		100	
£.												
		2 4 7 7 8		1.1.1.1		5		1. 1.	1. 1. 1.			10. 212 1. 2 . 1. 2 . 1. 2

MPWMD ASR DATA SHEET

	A Ch
Well:	HSE-1

Sheet

PENINSULA MONTEREY MANAGEMENT DISTRICT

Test:

of

Date	Time	Tiger [F] (gal)	Tiger [R] (gal)	BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments	(Jo
2-8-15	12054	263409	1159028	060856	332	58	0	1190		NA	0	Lubeline = 0271550	
		263409	1159028	060856	332			1156				LUBE LINE => 02-	15960g
		R CAL AM									100000		7
										15 100 15			
2-9-15	1020	263409	1159028	060856	332	37	\$	1100	351.97	100	SC	BACKFLUSH FOR GALAN	(CompliaNE
2.9.15				060891	100				416.23	64.26	54.6		(JL,TL, ?
	The state of the s	263409	1159028	060988	0	37	95	Well DF	F); deflat	FCV to be	end line	C12=0,0705min	
												H2S < Ing/L	J. Nichols
						1 1 1 1							collected
												17.2°C	compliance
												527 us/cm	Sample at
												7.70 pH -57.1 mV	1145 hrs
												DTIL MY	
	PART												
										1,7 1,250			
							1 5 5						
						1000					31103		
-1155 H										1. 1. 1.			
4 (9) (3)													

1093 GPM ADJ TO

27 FCV

1554 ASR 3 268.58 DTW

MPWMD ASR DATA SHEET

Well:	ASR 1			
	112.7			

PENINSULA TER MONTEREY MANAGEMENT DISTRICT

Sheet

of		
OI		

Date	Time	Tiger [F] (gal)	Tiger [R] (gal)	BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments
2.10.15	1215	263409	1159028	060988	300	60	Ø	600	349.58		×	LUBE 0276560 OFF
												SMETER TEST @ 12
2.10.15	1300			060989	214	53	42	600			825	OSCILLATING BOWN 800 3850
2.11.15	0800	263409	1160479	060989	187	55	50				1550	FCV LOST PRESSURE OVERNIGHT
					P. Linn				6.16.22			AD J TO
											600	HIGHER FLOW BEGAN TO NEGRASO
												TO 1600 OVERNIGHT, CE CALLED
												AT 0800 MS TO INVESTIGATE
2.11.15	D55				244	82	80	2.200			790	SWAPED OUT LOW TANK
												WILL SEE IF INJ RATE INCREASES
			and the property									WHITH NOW TANK
											14	PRV NOT WORKING - JL
										harry a	-	- June
											}	TURBIDITY TAKEN FROM
											1	CALAM SAMPLE ON 2/9/5}
											{	18,5 4,77 4,472 204 (1.41 1.14)
						Fire it.				2.11.	A	
2-11-15	1525	263409	1160832		211	72	40	2400	Limited		596	Adj PCV to reduce in from 1000 gpm
Z.12.15	0814	263409	1161779		204	71	40	2200	332,98		800	Well cupt up to 1600 last night was as by IN last night@ 000
												lastright eus asylog
					4. 1. 1.	100				1 2 2 2	1 1 1 1 1	IN last might @ 0.00

MoTE: Regulator is set at 216 psi. Sheet When close & reopen, FCV pressure slowly rises from 202 to 207 psi. of



Draw Up (feet) Line FCV Inj Rate N₂ (psi) DTW (feet) Head Date Tiger [F] (gal) Tiger [R] (gal) BF (gal) Comments (psi) (psi) (GPM) (psi) ASRZONE ASRYONESOD 2-12-15 1145 263409 1161957 060989 865 202 65 2390 ASR3 ON@ 1060 740 2-12-15 1200 67 38 210 fluttering - 211 2-12-15 1630 2400 640 Shut offing for toright - let system recover 2-12-15 1635 263409 1162147 2-13-15 0830 263409 1162147 060989 330 73 2150 060989 2-13-15 1340 263409 1162147 38 204 68 7.400 703 TURNED OFF FOR OVERNIGHT 2.13.15 1700 1355 37 200 68 2400 162318 2-14-15 0954 263409 060189 300 56 2000 2.15.5 263409 1162318 306 95 060989 95 306 061024 95 306 061063 1900 31.8 579 5,2 2.85 2.12 1.80 FLARE @ WELLHEAD IS CEAKING (12 = 0,09 Mg/L AFSER SMEKING (L 0.22 Mg/L Lube end 02800 (TO)

10

ASRI

Well:

Test:

MONTEREY MANAGEMENT DISTRICT

Test: CALAM COMPCIANCE STORAGE SAMPLE + QUARTERLY SAMPLE S1, 51, D8P Well Draw Up FCV Inj Rate Line N₂ (psi) DTW (feet) Date Time Tiger [F] (gal) Tiger [R] (gal) BF (gal) Head Comments (GPM) (psi) (psi) (feet) (psi) X1000 KIDOO ×1000 LUSE 3 24 5 310 61137 SAMPLE DBP For CACAM 1/2/5/10/15/20 270/37/13,7/3.11/343/2,2 6900 263409 1143392 1600 362.39 61168 442,51 80.12 3/24/15 61367 [C12] => 0.04 mg/L 263409 1163392 310 1600 [CL-]FIELD => 92 PPM OP=>-62.9mV PH => 7.76 TEMP => 16,8°C 6ND => 476 H25 => NO CON <= [20] 1014 - COLLECTED STIGT, DBP RUN TIME 1:07 Mrs LUBE 293020

Well: ASR 1

PENINSULA
TER

MANAGEMENT DISTRICT MONTEREY

Test: MERCURY SAMPLING

Date	Time	Tiger [F] (gal)	Tiger [R] (gal)	BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments STARGED LUSE @ 1730 4/7/15-1
4.8.15	0800		263409	061367	310	102	雪点	900	369.97		Ø	LUBE 02962101GAL -VL
4-8-15	1100	J	4	061380	310	102		1, 11	392.36		1200 FUSH	
		1. 1. 1. 1.	5.57 5				2.5		100		7	1300 /22.39 = 58.1
4.8.15	1716	1163392	263409	061855	310	102	5- T.	1		1		
						1			7			Sompled @ 6min 13 BOTTLES
diana.	777			475,000	1.00	1.93	de g	13,500	177,000		e de la constante de la consta	Sampled @ 30min BENTES
	1		7 3 7 7	240 po 0	100	vocu	u.F					Sompled @ 60min BBOTHES
		1 3 6 6 5	7.00	205000	in	lettra	ted	ouer	6 WS		7.50	Sompled @ 6 hrs 13 BOTLES
		To the A		24 7 1	1			100			1000	A Har Charles Mary Mary Co.
						1						0297970 GAL FINAL 8 (US
		and the said		205000 G	AL 3	60min	J=>	5600	SPM	124	4 100	
				1, 4° , 1	1		1	1			12.00	tuned If well when
	1	1 5 5 12				1		15.5		Project.	200	pond isached lower
			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	J. 18 1.	7	1 20	4	14 m		1000	7- 00	pipe outlet
						1					1.3	
	100			Miles (1,	17.50	and the second	13-15	1,50	1.28	2 2 2	
100	1 -1	, 1 mag	Frida 3				17. 19			Mark.		
		15 15	4 4 4 4	1.20	350	1.	1 5	1.1.7	2.54.5		×	
A To A			1. W. J.	Wat to	1	1	_ =	W. Jan			7. 10	Note that the second
		1										
			1.50		0,000	133	her "	Marie				\$120m; 130m; 120m; 13
	100					12.00	P. T		2 10		11111	4 get STAFF PLATE FOR POND
		A 1 1 1 1		1		1	57 1		1	1		

Well:	ASR1
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Sheet 1

MONTEREY PENINSULA
TER

MANAGEMENT DISTRICT

Test: CALAM DBP BI WEEKLY SAMPLE

of 1

Date	Time	Tiger [F] (gal)	Tiger [R] (gal)	BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments
4.21.15	0800	1163430	263469	61885	310	102	ø	800	344.15	8	Ø	LUBE 030/210
		1111	1	61890	310.	102	10	800	442.63	100	3400	711 258 123 256 11.2 4.5
	1100	1	,	62027	310	102	4	800	40.10			
		7 70 1			V	1.1		- T	120		200	Clz=7 ND
												C1==> 167 mg/L
y my			T. Town	All the state of	Part I		-0	1,500	1000		1000	PH => 7.13
									4 T. P.			ORP => -66.8mV
						1.	2 5					(OND =) 568 & uskin
	100	1,00	1			1		W. A.				DO => 0,12mg/L
									- 1 - 1			H2S=> O.11 mg/L
	1970	4.25	ar in in a	Mary C	2,000	100	my.	Palana	1,515,00		1700	TEMP=> 16.10C
	17.0	1770			10	7		1.4	The Way		7 1	
		1 2 3 3 7	5.34.50	3370		5.5	12.5	563	×3.73			CALAM SAMPLED ORP @ 1009
	100	7			100	100	V. 10	W 7. "	7.5			
					100			100				(UBE 0301550
	1000	Carl Display		Market Company	وعترا	1.5%	au "il",	Rency	1000		J. 1977	
			1. 1. 6. 7	T. 17. 31		75						
1 1	1 - 1 - 1	11221	1000	15 To 15		5 4 5		1, 1	2	San San	1000	(50,00000000000000000000000000000000000
7 71	100	1. 1.	1. 1. 1.			100						
7 .			7.17		17.10			17				
1000	13.80	A 7 59 50	J. 57/200	All the second	1	F 1933		Barry.	1,900	134,00	137	
1		1000	1.00	Carlo by	Lan.	1						
					1 1	-	1	2.5		1.20		1 1 1 1 2 4 5 1 7 7 1 1 1 7 7 5

* CHARGE CIZ METER

Well: ASR 1

Sheet 1

MONTEREY PENINSULA
TER

MANAGEMENT DISTRICT

Test: CALAM BY-WEEKLY STORAGE SAMPLE

Date	Time	Tiger [F] (gal)	Tiger [R] (gal)	BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments
5.7.15	0830	263409	1163430	062027	310	92	ø	750	364.7	100	1 4 4 4	LUBE 0304930
				062058	9	100	S. 1	- 44	422.7		3000 BF	
		NC.	NC	062254	y	23	3.7	196				17 12 12 12 12 12 13 13 13
A	, dr 10	1 1 1 1	10000	N 4 T	(in	1 19		1.00	29 0	and the	1, 100 15	The state of the state of the state of
	1.11				NZT	ANKO	FF-	75				624 197 101 347 19.8 3.24
1000			4		075		7.5			1 700	4 7 7 7 7 7	
					W.	, 1		1.23	1 . 6 %		100	
	-65		John Mary	34.5	11.5	200		3.5.1				1201120112011
	100	200		14 5 To 3	14	1,100	A 1.	5 7	100		1	TEMP => 16.5 °C
						2 - 1						PH => 7.31
Carre de	1997	14 Jun	e military	1970	2.00	1.55	ar gi	e de la compa		1.52/1/20	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	COND => 557 us/cm
7.		a Marie				1			1 - 5 -	1 - 1	100	(C12) => ND
		2 3 4 6 1 2	Daylet Co.			1.3			1.5	3.55	100	[H2S] => 0.03 mg/L
1,5	100	1000			V	10	4		100	. 100	1000	ORP => -69.6 MV
	1.71				-							[C1-] => 125 mg/L
J. 100	141				1		1111	To live	1		, S. 118, A.	DO => 0.19 mg/L
F.		a Bristle	a find.		141	10			7 . V.		1	
1.77	1	1547	33500	S. 1. 1. 1.	4 1 4	300			1.35	Sec. 1		5 0 4 2 5 5 3 17 0 0 4 8 -
1, 4	1.000		To Man To	A 1	1.7	4.10		o n	217	1300	1	
												LUBEOFF 305270]
2	100	1000	A STATE OF	Contract of the	17.00	1.33	.0.	13000	177,420		4 2 113	
			Defails of	1.1.1	- 1.11	11			7 March		100	(ALAM SAMPLED ASR1 (3
			100000	12 1 1 1	15 1				1 1 2			

Well: ASR 1

Sheet 1

MONTEREY PENINSULA
TER

MANAGEMENT DISTRICT

Test: BI WECKLY CAL-AM STRAGE SAMPLE

Date	Time	Tiger [F] (gal)	Tiger [R] (gal)	BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments
	100	263409	1163430	62519	320	105	8	600	367.74		Z8COGPM	LUBE 312810
6/2/15	0900		3 4		150	1		1.7.4	395,23	7 V 19 1	2 3.4	
		V	4	626199	8	100	\$	600	210,0			28 68 11.5 7.9 4.2 5.9
			7 77 6 7	020	P	100	7					2.0 10.01
Silvery.	13.65		F 15 10 W	71,.014	17.00		4.5,	ber.	1000			
4.	100						6.7			11	70	
		3 26 63	7.557			1					4	TEMP 7.26
/	Det.	1.70		W	1	- 200	, T.		11.5	1000	1-1-0	600 552 us/cm
	1.17					1			1 - 1 - 1			ORP -63.4 MV
1000				7.7	77.		17.4	To the sa	200		4	[02] 0.08 mg L
. V.	1 . 11		100	100	177 %		1	13/4	1 1 2 2 1			
	1					100		32.00	Section 1			[CT] 146
	124			M. K	1	1		N 10	100	1 11 14	100	[H2S] ND
	1							276	12.00	7 63 56	1300	
	- 27		8 17 18 18			-	1	1			1	LUBE OFF 313040
					1 7 5							
1		4	5 W 15	The second	1	1	1		1		1.	IN collected somple
					17.				TOTA			0 1030
wit,	1320	A. 120.00	a training	The state of	NE Japan		10-27	177	بالمترافق	المترافق أر		
				1 1 3 2 -			1	1 2 2		71.0		
100	1. 1. 1	1557	1. 1. 1.		100	1	200	2 2	2.50	1.5	0.4	

Well: ASR 1

Sheet

MONTEREY PENINSULA MANAGEMENT DISTRICT

Test: 6.17.15 QUARTERLY SAMPLE + CALAM BI WEEKLY SAMPLE Well Date Time Tiger [F] (gal) FCV Tiger [R] (gal) Line BF (gal) N₂ (psi) DTW (feet) Inj Rate (GPM) Draw Up Head (psi) (psi) X1060 X1606 (feet) Comments (psi) 6.17.15 900 263409 1163430 62699 320 97. 550 365.55 LUBE 0316610 62731 97 440.98 20 48psi = 49psi 1015 97 62948 OFF 550 37 73 24 17 8 12 PH = 7.18 (0ND= 789 us cm TEMP = 16.8°C ORP = - 72 MV [02] = 0.09 mg/L [CI2] = 0.11 mg/L [CI-] = 78 mg/L [H2S] = 0.04 mg/L Sampled SI, GI, DBP - JL ARZEIL SAMPLED DBPC 1000 MARINA COAST (CIZ) = 0.69 mg/L LUBE 03/6930 gal

Well: ASR 1

MONTEREY PENINSULA TER MANAGEMENT DISTRICT

Test: RECOVERY & Ha SAMPLING.

of

Date	Time	Tiger [F] (gal)	Tiger [R] (gal)	BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments
657-15 .	830	263409	1163430	63161	320	89	ø	500	376.02	ø	\$	J.
7/17	1245	263409	1163439	063353	310	32	\$	2500	376.30	9	8	Sweighed NZ touck
1		- 1		W. C.		1	1	500	- Above	ed star-	+ up	~29pmanlube 0333060
												03330601620
7/20/1	5 1000				310			2250				Terry L. festing courtrols
	1					-						91 1015 1.0 hp 8 15 14'5" 4'5" 12'50" 5'30" 0.45
7/21/15	0830	264681	1163446	63365	310	29	29	2075			Recordey 1018	2340910 GAL CUBE 46HZ 10-10"0,34
7-23-15	(030	267355	1163446	63390	315	35	35	1875			875 K	724hr 24hr 315"-0454 9'0"3.34
						10.00	7					LUBE 348530
7-22-19	6830	266001	1163446	63382				1950	K	-	7-21-15 FIELD SAMPLE	20.4°C (-133.2m) 822 US/cm 7.14 0.23 mg/L DO 1 25 CT 102 NO
												4'30" 4'20"
												LUBE 345060)
7-24	5 6830	268412	1163446	63390	310	37	37	1750			873	5'34"-0.34 OFF PM) 8'10"-454
				Market St.	1	0					-	8,10,-421
7.77-15	0930	268856	163498	63392	SFF	97	9	1110			8 (352420 (48)
1.41.16	Ton		DE 1163457		1		9	1425	1	2	2	

OFF-JL

-122 mJ

PCA EAST DEEP FIELD PARAM PLS T3.9°C 0.02Mg/L 552 Ms/cm 0.06mg/L

Well: ASR-/

Sheet 1

MONTEREY PENINSULA
TER

MANAGEMENT DISTRICT

Test: Hy cycle test, then pump to system

(D) of 1

Date	Time	Tiger [F] (gal)	Tiger [R] (gal)	BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments 352640
7-29-15	0900	268856	1163457	063392	329	99	0	1400	377.55			lube meter (ON) = 0356240 Jup = 56 psi
7-29.5	1224			63497	329	99	ø	COH				ARZEL COLLECTED HO STEP
										- A		SAMPLING \$ DEP
7.27.15		268356	1163457	63497	329	99	ø	1400				START TOTHE SYSTEM @ 1330
7.29.15	1330			63520		10	10	1400			1250	flow to system
											780	in system 1 thy 208
7.30.15		269854	1163457	63520	326	40	40	1300			690 Pac	361410 CUBE
7-31-15	1400	271073	1163457	63520	326	45	45	1250			745	367000 lube (0 1545); 50 und blankets
8-1-15	1600							1150			749	Well ON; blankets OK (TL)
9-2-15		272732	1163457								0	Well OFF; note water no (Cl Hatin) (3
		The same										
8-3-15	0930	272732	1163457	63522	323	92		975.			0	well OFF; talked of A. Hulbert - well went off due to system high press yeste
								123-1-A				morning; no plem to immed restart. (380590 lube [OFF@ 1000]



Well: ASR4

Test: CALAM HIS STEPTEST

THIS WAS LEFT OPEN ON ACCIDENT, CALCULATE THE LEAK RATE OF THE PRESSURE SYSTEM, LOMPRESSUR?

Sheet 4

MONTEREY PENINSULA
TER

MANAGEMENT DISTRICT

MANAGEMENT DISTRICT

Date	Time	Tiger [F] (gal)	Tiger [R] (gal)	BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments
87.15	1000	272732	1163457	63522	320	98	Ø	600	(Prince of	- Chien	\$	384340 LBE 50-55 psi
87.15	1100	272732	1163457	63631	320	98		600			p	384540 CURE OFF
			August Maria			1		13 31			1.	
	100							W 3			The second	
						-						ALZEL CONECTED
												STEP HO TEST REQUIRED BY DOW
					4 E G					11 11 11	-1.57	13 y DDW
	delen.			45° 1			-		1 1 1 1			7-
							-					THENED OFF NZ,
								-	1	1 - 12 - 1		well need new
									,		200	work of Calam
											1000	source to system,
			a training					Harry.				
												-
-												
				120	1			1			A. are	
7 9 1												
							200					
						2						
	in its	- in the	The state of the		Star C		1			12.5		The same of the sa

Well: ASR1

Sheet 1

MONTEREY PENINSULA
TER

MANAGEMENT DISTRICT

Test: CALAM BI WEEKLY DBP

of <u>1</u>

Date	Time	Tiger [F] (gal)	Tiger [R] (gal)	BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments
8-18-15	0930	272732	1163457	063631	320	103	Ø	500	37655		ø	387600 LURE
				063661					445.21			47-45 psi
	1040	272732	1163457	663817	320	103	8	500 OFF-31				
	Jan.											P 228 20,9 8,06 11.0 7.47 8,32 7.99 8,15
												868 789 863 7.71 10.8 8 10 236 6.71 11
					P. Are	15 1. 3.	and profit					18 19 20 21 22 23 24 25 26 509 9 22 0 1 759 1 67 354 2 80 11 2 59
			7 1 2 1									27 28 29 30 31 32 35 34 35
												36 37 38 39 40 41 42 43 44
			¥				1				· · · · · · ·	\$\text{\$\psi\$} \begin{array}{c ccccccccccccccccccccccccccccccccccc
		1 X						1.1.				56 56 57 58 59 60
			7 12 14 1		Partie to	100		P. Jack	1.117.4			1.0 1840 17,831582 17.32 111.5
												1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	7 3 2											* USGO ZOMIN LABORED SAMPLE
											- 2	BOTE FOR THIS ANALYSIS - JL
						100						
							and the second					
					2.74			Control of the contro				
Articles Sections					1							ARZEL COLLETED DBP @ 25411
		1 010000				* / /// * * * * * * * * * * * * * * * *	1.			3 74 7.	100	RUN TIME
The Maria												LUSE OFF @ 1100
								1.45				387910 GAL
					1. 1. 1							

Well:	7		*	
Test:	Bi-WEEKLY	DBP	DDW	SAMPLE

Sheet 1



Well Inj Rate FCV Line Draw Up N₂ (psi) DTW (feet) Date BF (gal) Head Comments Time Tiger [F] (gal) Tiger [R] (gal) (feet) (GPM) (psi) (psi) X1000 XIDDO X1000 LURE 391210 44/46 PSÍ 9.2.15 0900 320 80 6 272732 1163457 63817 400 372.91 63842 429,44 272732 1163457 6410 301 42763 2.7 1.3 0.88 0.92 Ph 7.17 6ND 557 TEMP 20.7 H2S 0,07 mg/L DO = 0,55 mg/L C/2 = ND CT => 124 mg/L

10 -

美力级进用证明

. 6

Well: ASR Period STOCAGE

Sheet 1



Date	Time	Tiger [F] (gal) ×1000	Tiger [R] (gal) ×1000	BF (gal) ×1000	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Lube / Skid Meter (gal)		-	C	omme	nts		
7.17.15	915	272732	1163457	64101	319	88	ø	400	373.96			394680	盡	JN	- DF	3P			
			200	64130			15		431.68	57.72	3100			-					
9.17.15		272732	1163457	64286	319	88	ø	400	-			394940	No	TAI	JEGF	F			
	15						,	,					L	UBE	OFF	1	1		
			+																
				* 1)									Sa	uple	ed a	the	1h	_	
					- 1		3					1		,		8			
													-						
															-				
														11.					
				100	-														
														-					
																-			-
			*																
Date	Time	Pre Purge Meter Read	Post Purge Meter Read	Purge Volume	Temp (°C)	Cond (µ/cm)	рН	ORP / Zobell	[Cl ₂]	DO (mg/L)	H ₂ S (mg/L)	Sampler / Laboratory	0	Turbid	ity (N	TU)	min af	ter star	20
7.17.5	0915	64101	64286	185,000	20.4	582	7.44	-130	ND	0.54	0.08	JL CALAM DOP	60.7	6.12	16.9	9.78	2.61	9.73	2.39
			-																
																1			
						2			-		0.0								
													1				_		

		-	
1	(K	-
	A	AC	AGR

ASR Period STURAGE

Sheet 1



Test: Sample event - Cal-AM DEP Weather SUN/WARM MANAGEMENT DISTRICT Well FCV Line DTW Draw Up Inj Rate Lube / Skid Comments Time Head N₂ (psi) Date (feet) (feet) (GPM) Meter (gal) (psi) (psi) TL +JO (psi) Lune 0398340 @ 1515 5/38 0462050 379,99 9-29-15 0900 272732 1163457 064443 2000 91 317 Start 00910 off 1009 1010 272732 1163457 064612 2005 90 317 0402290 437,39 DTW 10 min = 57.4 dd 06476 000] = 3300 GPM X 57.5 gpm/ft = 10min SpC Jwg Arzel collected CAW samples DBP Temp Cond Turbidity (NTU) min after start Post Purge Volume H₂S DO Sampler / Pre Purge ORP/ [Cb] Time

Date	Time	Meter Read	Meter Read	X1000	(°C)	(µ/cm)	P	Zobell	10-21	(mg/L)	(mg/L)	Laboratory	0		1 2	1 5	10	15	20
9-29-15		064443	86450320		23.5	-	-	-170	_	-	- 1		ZYY	20.1	6.52	2,25	1,37	1.23	2.52
			06461210	oft 169															
															5				

ASR3 C772 AFTER FLUSH 4110 BFASE3

MPWMD ASR DATA SHEET

Well: ASR 2

Sheet

MONTEREY PENINSULA
TER

MANAGEMENT DISTRICT

Test: 1

of de

Date	Time	Tiger [F] (gal)	Tiger [R] (gal)	BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments
12.12.14	1344	18479	95766	279807	330	92	NA	2150	380.21	NA	NA	LINE FLUSHING SDI 1357
	1350							- 12			100	BEGAN FLUSHING 1500 GPM
	1450		V	LINGFUSH								IL- LUBE ON 11624 cf
		DEIF		1			1		0		-	* NEED TO REPLACE LUBE FILTER
- 1	1645	18496	95768	280048	330	92	28	2150	38212	-	0	BEG INJECTION (NEW TEST)
	1.54		1		208		28	4 4	17		566	
1					201	54	24		363.2		1250	
2.12.14	1700			100	198	39	22	2150	355,78	1.75	1503	left sethings -
	1715			48.00 m	97	39	23	2150	353,48	1 24 15	1520	ofter equalyed to FeV
2.13.14	0830	18496	97151	280048	199		23	2100	341.48	40.4	1472	1/877 LUKE
	1015	18496	97289	280048	320	76	29	2120	379.14		0	Injoff: Prepare for BF (5000) res
DMINS			97289	280080		1		C=38,9]	461.39			52 37 20 8.4 4.4 2.6 1050 1-3
	3F 1110	18560	97289	280113	1		1	5			1	LUSC OFFO 1100 11914 A3
INE FUEL	1115	18560	97289	280113	320	90	0		(F)		100	SAMPLED INSCRIPTE 51, GI, DBP
	1125			7 - 1		9	0		1.512		1900	At moment, cannot increase > 1900 GPM
		1 1 2 2 10 10 10 10 10 10 10 10 10 10 10 10 10		304						21-11		90 115
	1305	18560	97289	28024	320	92			1		0	Can't get PSV to shut; try opening FCV
	1345			280 304	210	76		40			560	Finally able to shut PSV
	1430	**		77 10	194	25	14.5		100	7	1735	Can't sustain this due to low line psi
-	1435				198	30	20				1670	This rate is borderline to sustain
1.8-1	1440				199	32	23	2200	345.93	2 100,00	1650	· Lower to this rate for safety. Two
	1510		77.0	280304				1000	1 7 7 1		0	Restort after J. Nichols re-sets DRO val
18	1609			280304	197	30	21	1900	-		1700	JN - TURNED VALUE @ OROGRAME.

1400 SD $\frac{1}{30}$. $\frac{1}{95}$ $\frac{1}{105}$ $\frac{1}{10$

= 5.33

: 5.33

= 4.35

17 TO SM ZG TO ASR 3 ASR 3 Done I - > need 1/4" corp stop for up press line

MPWMD ASR DATA SHEET

Well: 45R-2 WY 7015

Sheet 2

MONTEREY PENINSULA
TER

MANAGEMENT DISTRICT

Test:

of

						-					OT	
Date	Time	Tiger [F] (gal)	Tiger [R] (gal)	BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments
12-14-14	0500	18560	99064	280304	200	32	24	1850	331,50	50,7	1660	Adj Fev to 210, ACT CLAUME -
		1,					1		- 1 1		14	not making have going were to 53F
		4				7						Hum well, ADS FEV grants 250, 330
	0825	1 0 0										1750 gpu to pit, 0 to well.
	0830	18560	99077	280315	332	88	Ø	1800	376.4		8	ALL SHUT IN, much walk at psigg
1 2 2		4			100							1
2-16-14		18560	99077	280315	332	74	Ø	1850	381.42	NA	Ø	Prepare to BF lube ON 12162 of
-	1108	Start BF	99077	280345	1			3	461,52		3000	Prepare to BF lube ON 12/62 of 1 12/5 10 15 20 [CL_2]0,28 25.727.8 12.9 4.26 7.44 4.95
DMIN		No.			1			10-min Spl	= 37.4]			25.7 27.8 12.9 4.24 7.94 4.95
DFF	1130	18621	19077	280377 -	11							Cuseoff@ 1133 12168
olic lu	deine	18621	99077	201 202		00		200	0.000			
3/16/14	1400	10621	110++	280 377		90	- 2		. 9 4		1	
	1413					14		4	1. 1. 1. 1. 1.	1.56	1900LF	
						200				1.00		OPENING BASKI
2/10/10	1700	7.00			1m	40			701 70			
2/18/4	2				199	29	22		381.52		-1672	TVENED ON ASR Z
2/17/14	D811	18621	100852	2011/2	too	21	7.0				11.0	
	1300		100852	280463	199	3	22	1800	33003	- jt.	-1670	=
Y 5	1300			175	203	31	24	1800			-1485	IL APJUSTED AFTER SMARING ASKS
2/18/14	0830	18621	163239	286403	204	357	71	1800	317.22	7 63 7 7	1170	
				230 10	409	**	31	[400	217.22		-1675	SLOW WENT POWN, FEVUP
, , ,											2	^
-1- 1		F 1 1 1 1 1 1 1 1 1		2/16/14					4	10 - 0, 0	1	

12/16/14

ASR 3

74 PSi 1 25 PSi V

157 GPM

1670-1640

Well:	A3R-2				

Test:

Sheet_____of___

MONTEREY PENINSULA
TER

MANAGEMENT DISTRICT

Date	Time	Tiger [F] (gal)	Tiger [R] (gal)	BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments
12-19-14	0837	18621	105761	280400	206	62	32	1809	311.43	1.10	17/0	
12.20.14	0930	18621	108363	280400	208	56	34	1800	30528	76.14	1750	Luse=12168
12-21-14	0930	18621	110882	280400	208	54	36	1850	300.55	80-87	1775	3 F divity toward 280399
2/21/14	1630	18621	111646	280400	205	73	30	1830	in a		1740	No adj (note PRV is noisy) Jo
12/22/14	0900	18621	113360	290397	203	73	29	1800	302.38		1720	NO AD 3 - 5L
22314	1000	18621	115967	280396	205	44	36	1800	Z89.9Z		1755	ON 405-JC
12/24	0900	18621	116817	280396	232	77	32	1800	358,80	22.62	340	
12024	1000		(00)		221	75	32				500	ADS, rate to
2/24/14	1440	7			217	64	31	1			1030	Increase rate per Ok from E. Sabolsice via phone to Jo @ 1400 hr
2/25/14	0855	1862	118122	280396	218	6 Y	32	1800	321.50	59.92	1055	Tow soul rate = 2360. No alj, shelter
11	1200	18621	118318	31.00	-		Wag .	7,000			1060	
. 1.	1230	18621	118344	280346	222	77	34	1850		-	705	Adj to comb. total 1565 gpm
2/26/14	0930	18621	119196	280396	224	77	31	1860	350.39		640	
u	1030	18621	119214	280396	300	87	0		378.34		0	Welling off - CAW prodissue (per Esreguest) go
Daly	1000	18621	119214	280396	530	85	Ø	1900	377.85		11,12	JL- BACKFLUSH 5C12 31.1
lowin				1			1				7 1	DIETY WATER SMIN
GN3		18664	119214	280441	330	85	ø	1900				58.8 23 155 9.4 5.5 43 LUSE
							7 -		-			12437
1000	- 1		7 1 N									a Prince of the Control of the Contr
					Y '							
											1 1 1	

Well:	ASR#2			

Sheet



Test:

of

Date	Time	Tiger [F] (gal)	Tiger [R] (gal)	BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments
2-8-15	1015	18745	119214	280440	299	788	ø	2200	381.11	\$	0	Prior to INS,
	1110	18750	19220	280525	193	46	16	2200	3 \$3.88	46	1650	Pestart Test 1109
	1125	18750	119243	280525	183		8	2200	332,23	48.88	1760	
-9-15		18750	121509	280521	182	46	6	2190	309.22	71.89	1775	lube meter 12437 ft OFF
1	1030	18750	121714	280521	190	25	13	2200			1755	Hdj FCV and up hand value after ASR3 star
The second				No.	-		ALC: Y					
V	1600				207	33		2150			1917	A0J 10 1850
2-10-15		18750	123751	280521	205	61	29	Z200	306.81	74.3	1450	FELL OFF QUEENIGHT
1	0820	The later is	1000		202	61	28.5	2200	296,74		1680	
	1250				208	43	30	1				ADJ TO 1850 pm
2.11.15	0830	18750	125680	280521	ZII	44	39				1350	
1		- The state of the									1350	
V	900				241	54	54		330,6	50.51	880	REDUCED TO 880 - JL
2.12.5	1550	18750	126876	280521	220	58	32	2206	32610	55.01	840	NO ADS < JL
1-12-15		18750	127285	280521	219	54	30				840	No adj - (JO)
2-13-15			128064	280521	218	64	30	2200			840	RM ody MSR-3, NO NOS. Luce (TL)
-13-15	1	2	100		204	44	33	2150			1700	SET TO 1700 ASRA OFF
2.14.15	-	18750	130112	280521	264	44	33	7200	287.74	93.37	1667	NO ADJ - SL
1.15.15	the second	18750	131859	280521	224	74	31	Z300	1	43,68	750	TURNED UP TO 900
V	0915	A Charles			219	74	31				890	
2.1615		18750	133236	280521	219	84	29	2300	329.11	373.75		LUBE 12672 CF
			1	280551				1	466,78	-		373/57577.7/5.92/3.59/2.75

-2.16:15 1111 18809 133236

10

LUBB OFF @ 1120

12640 CF

S\$1 25

1-(25/30) = 17 ×000 1.7

ASR1, 3, 4

O Jam

ASR2 O=O=O



MPWMD ASR DATA SHEET

Well: ASQ2

Test: 2-16-15

- // -	
1	of
1	

Sheet

Date	Time	Tiger [F] (gal)	Tiger [R] (gal) × ∠∞∞	BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments
1-16:15	1118	18809	133236	280587	330	32	100	2200	367,793	-	8	STARTED NEW LOG CYCLE
1615		18809	133236	280587	208	29	73	2200	Christo).	JL	1602	SOME UF TOGET IN GOING
17-15		18809	135314	F82025	205	74	31	2100	317.25	\$50.54	1670	Company of the second
l)	2150	1 22 0			202		A S	2150			1670	
-18-15	OSOE		137702	280586	206	57	33	2100			1735	No Adj. TL
in y	009			Million (1)	1	17.7%	W. a	100	·	77) 14	137	
2-18-15	1000	18809	137876	280586	320	90	Ø	2050	307.16		ø	STOPPED FLOWS 490 SHW
- 10 .3	1000	10001	13.1610			1, 1					1	LUBE ON (0 1000 HRS
			*			100		100		N 10	1. 10.	12681 cf
					17.7							
2-19-15	0930	18809	137876	280586	330	82	Ø	2100	377.91		4-1-10	13030 cf
1		18834	137876	280614	1	1	1	11	464.61	100	2850	19 123 239 5,28 4.11 2.24 [(12] 0.
J		18866	137876	28061	J	1	J	4			7.7.1	
PERM		18000	1340.6	280644			7	1		1	7	2800/86,7=> 32.29
41	-	4 - 7 - 7						1		1		
		- 111/L	J. 12 June 2	37				1		15000	y Carry	DECREASE IN SP
1	1			17				17.1			-	N10 4PM/Gt
								1				
7			1	1,1	1					T TOP J.	7	LUBE OF @ 1000 hrs
					177.5	F					1.	
	Carlo			Manager 1	11:00	100					-	13038 €
-	1.77				T in	5	4	17		7-70	7-7-1	
	1 1						-					

Well:	ASR2	

Sheet 1

MONTEREY PENINSULA
TER

MANAGEMENT DISTRICT

Test: QUARTERLY SAMPLE

of <u>1</u>

Date	Time	Tiger [F] (gal)	Tiger [R] (gal)	BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments
3.26.15	0830	18866	137876	280614	320	79	225	Party of	NA	1	100	13281 NO LEVEL LOGGER
		10000	7	286725	320	79			NA.			in wed
								11.5	100			137 03 13.2 6.59 1289 3.67
, ,			7. W. W.	100 1	12.00	T. A.V.	A 7	100			4 500	
		- 11 - 11			1. 1. 1.			1,-7				C12=70.23
	1			2500	17.00	, 77	- 2º	P. San	F 77.70	150		C1 => 10Z
7		7772			1.0	1, 77		17.2	V 1	77.4		PH=> 7.18
							-	1				ORP=> -72.5 mV
	100	7	W Total Total				7	1000		7	17.	(OND => 512 us/cm
	1		7. 7.		1.2	y		17.5			1.7	DO = NO
			F 400		7	7 4 7	1	17.7		7 7 7		HS => ND
1 11		1 100				1				3.77.33		TEMP => 16.5°C
	1	5 1 1 1 1										1EM1 - 10:3
	1	1 7 7 1	2 - 1		1000	1	1		1	the state of	M. Total	
MW	1	1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			1	1	1 24					CIZE > NONOTE
				353		2 = 5	-		1 1		1 11 17	
Carrier of		4 11/10	4 1 1 1 1	A PARTY OF THE PAR	1000	1	(A) (B)	2.		1	THE STATE OF THE S	c1-=> 52 mg/L pH=> 7.18
151		1 190		1 1 2 2 2	2 2 2	1 /	1	- 4				
3.1		1			4			13.34		A STATE	7 - 7	08P=>-63.4
	-		100	21 -	47.0	100	A	17 6	100		1 2 2 3	COND=> 536 US/CM
	1	10										00=> 0-23 mg/L
tan.	100	The state of	a Carlotte		10000		47 3	200	1	1 7724	4 - 5	1+25=> 0.08 mg/L
	1						1					TEMP=> 16.18C
	1	10000			1500		- 5	1	0.20		13	Charles Charles Charles

Well:	ASR 2	

Sheet 1

MONTEREY PENINSULA
TER
MANAGEMENT DISTRICT

Test: MERCURY SAMPUNG

of 1

Date	Time	Tiger [F] (gal)	Tiger [R] (gal)	BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments
4.9.15	0830	18969	137876	286725	325	72	9	1900	T. Miner	-	ا بستندان	LUBE 13520 CF
110	- ***				100	1	1	To the			1	Sample for Hg
			3.1.1.1						100		200	
1 1	14	7	1 10 1		1.	100		17	Section 1		100	* NO XD IN WELL
7 1		1 - 1		1.75								
7	100	100	J. Million	Marine .	May :	175	wy	Millian .	t The		41130	Sompeled BROTTES @ 6min
	-	77.		T. J. V			R 2	1-50				the state of the s
11.15	1500		51677	281186	1, 20				0.51.	4-3-1		POND FULL TO OVERFLOW
1.113	1300	4, 1, 1, 1, 1		461,000	100	- 10	5 %	100		100	1000	I Company
7 5		1		1011		1 - 1						
4.9.15	1528	19410	137876	281224	327	72	6	1900				13616 LUBE OFF @ 1530
1 4						71.		11.4	1.3%		17.74	
		15.12			1	1			1			Sompled final somple (8 15
		1000		461,000 -	270.0	= 000	191,000	3/320	= 596	PM	T .62	
1 1 1		1	1.00					1		7	1.51	
5000	100	ing the state of	w Miles	Mary Company	17.00	7.33	ber of	Parent.	100	, ' P.		
	153	75.2		1000		V T	1	1	1.5		0 1	
		V 5.3.1		11115	/		200			12.50		Children Children Child
1		1 1		100	10	1 70				1 20 1	Tally of	
17 5-7		1			17.							
Film	153	155	Jan Way	10000		7.32	A TOP OF	A Property	Cartinia .	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
		1. 7. 6.			13.		1	15.4		300		
100				11111			·	1				12111121112111

6 Hours @ 1200 GPM; TOTAL VOLUME 475,000 GAL SHS 20MM @ 1500 GPM; TOTAL VOLUME 461,000 GAL 320 min x 1200GPM = 475,000 - X 320 min x 1500GPM = 461,000 - X

Sheet 1

MONTEREY PENINSULA
TER

MANAGEMENT DISTRICT

Test: MONTHLY STURAGE SAMPLE

Date	Time	Tiger [F] (gal)	Tiger [R] (gal)	BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments
4.29.15	0830	1 1 1 1 1 1	137876	281224	320	84	8	1800	376,18	Ø	6	LUBE 13815
	0840	19438	1	281252	1	1	20	1 2	465.51		Z800	50.1 17.8 104 591 4.43 5.33
		19494		281310	7	A	Ø	1800	100	238 6	100	
				W. Jan.	100		5	11	122 A	1,30	1000	
												PH = 7.23
	1 20				Section 5		W. F.	Partie W	1.71 200	1. 17 10		COND = 548 us/cm
1, 1	1 1						5 .		or Town			TEMP = 14.4
	100		7.35.5	4.1.7		3			rain (1)		1	[[1] = ND
7		7. 32 3.		72	1		5	Art are	100 M			[C1-] => S6mg L
							1					[H2S] = NO
		Carlotte Commence	of Minny	Minima !	Pylan .	1.50	Art of	Water a	17/20	C. Million	4 1236	ORP = -66,4 MV
		1. 1. 1.				1	4. 7	1,11				[DO] => 0.03 mg/L
	1	1 3 4 5	5.56	400		1.	2 %	100	1.30	24863	5.55	
		The same	T. 201 32 7.								1	CUBE OFF 0945
								112			*	13828
	(187	Part Street	al March	Milmail	Parent.	1.00	and of	William .	P. Barrell	7.77		
		1 7 7 6		1.61		1		1	1.00	3 100	100	
	100	1 7 2 7	3.3.7.7.5	13.7.5	4		2 2				4	
1		1 50 7			73		+		300			
har.	1335		757 W.	Share.	S. Carlo	100		17,000	T. Stiller			
	100		177.17			1		11	1 - 11	3 1 1 1	1 1 1	
7	1.			1.1	17	- 1	1 -	17.7	1777	2.27		

Well: ASR2

Sheet 1

MONTEREY PENINSULA
TER

MANAGEMENT DISTRICT

Test: MONTHY STRAGE FIELD SAMPLE

Date	Time	Tiger [F] (gal)	Tiger [R] (gal)	BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments
5/28/15	0900	19494	137876	281310	340	78	Ø	1800	375.56	e Time	2750 BF	FIELD SAMPLE - MONTHLY STORAGE
5/28/15			1000	281338		7.			465,37		1	LUBE 14029
5/28/15	840	19846	137876	281363	OFF	78	8	OFF	2 2 7	24.5	0	SZ-50 PSI FILTER
					Nº W			W m ?	1000		100	52-50 PSI FILTER 112 5 10 15 70 375 152 9.1 4.8 6.2 3.5
			a transfer	The same of	Same	25	are of	17.00	***		4 750	PH 7.28
7.					100			100	1 Va	P. C.	71.4	COND 527 MS/CM
		the second			1	V 25	1 1		W 45 T.		1466	Temp 17.1 °C
	100					10		W	11/3		7	ORP 0.05 mg/L
											9	ORP 0.05 mg/L
film a		and the first		parties and	-	1 33	1000	Sir.	(a) w		1 1 1 h	HzS O.Obmall
	11	1 1 6		Copy !	1.0	X		1			2 - 1	[CIZ] ND
		2 7 6 6 3		1.54. 1		1.	155	3.4.7	Vistal.	200		[ci-] 62
- 1			1.00			1			1700	100	1	[02] 0.05 mg/L
				/		41,7						
Marie L	127			A STATE OF THE STA	t jan	17.5%	No.	the serve	1.75	17 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	4 11 11	lule of glo 1000
	1			14. 1	1.1	1	11	1	11.00	No.	1 11	00-
1 8		22347			1		100	13-11	7350	7	19.34	14036 CF
	225							- ·	100			
	4 (1)											
Jan-	1220	- 1 32 por	a way	Mary 1	1,000		NO N	il jama	100			
10	100	1 1 Car.		1000	1.00		2. 1			100	35.0	
		V Same in	4 1 2 2	1.00	2		2 %	1				

Well: ASR 2

Sheet 1

MONTEREY PENINSULA
TER

MANAGEMENT DISTRICT

Test: QUARTERLY SAMPLE

Date	Time	Tiger [F] (gal)	Tiger [R] (gal)	BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments
6.24.15	0930	19568	137876	781363	340	89	Ø	1520	387,57	-	\$	LUBE 14276
100			X 14 1	281390	12	1			457.15		2550 BF	SSPSI (FUER SOPS)
1		19681	137876	281487	J	4			V-34.1	in the last		
100	100	"CALD	a de la la	W 4 3	1	1, 100	4	14.2	22 14	17 M	1000	899 9.25 9.71 4.67 2.56 4.53
										1		
	1100	100		The same of the	1700		Marie .	13000		a de la company		
				Type II				1.27	1 19	1.00	200	[CI-] = 145 mg/L
		2 1 3 2		6 1.7		1.3	1				2.5	[C1-] = 145 mg/L [C12] => 0.06 mg/L
17. 18	100	#			W. L.	1.7	4		100	100	1000	PH => 6.96
				X 20		1.7					1	OPP => -57.3 mV
		Car Town			Preser.		w.f.	12,000	The same	Philips	4 7 7	DO = 7 0.05 mall
				11.64	100	J. Co	7	J. W.		7 15	25	TEMP => 17.6°C
3 7 7					5	100	12.7		1.3.1.5	7.5	2.5	H2S => NO
					100	The second	2. "	100	74 14		7. 101	COND = 550 US/CM
											1	
			a the same of	Party Co.	300	473	N' T	Property.	Part of the second	and the state of		
			7 . 4 . 1	11.00	1.4		1			200	35.9	SAMPLED S1, G4, DBP, Hg
						1	12.5	1.40	1 3 4 3	200	3.63	1028 - JL
1 5			T. T. T.	30 2 1	14 .5	1	27	10	100	1	1 100	
								1,77			1.50	(UBE 144291
1.70	1	Part Maria	ar Million	State of	1	. 7.7.2	William !	Million.	1.145,000	100	g (1997)	
			200				1	1			18 91 4	
		U 1 1 1 1	1.7.		100		2.3	1. 1. 1	1000			Charles and Charles

Sheet 1

MONTEREY PENINSULA TER MANAGEMENT DISTRICT

Well: ASR 2

ASR Period STORAGE

Test: QUARTERLY S1,G1,D8P Weather FOG, COOL

Date	Time	Tiger [F] (gal) ×1000	Tiger [R] (gal) ×1000	BF (gal) ×1000	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Lube / Skid Meter (gal)		C	omme	nts		
9.22.15	1100	21840	134876	281725	320	52	ø	1750	385.89	-		15103	544	-> 30	* NE	ED TO	0	
				281752					445,34				a	EAN FI	LTER			
				281786	320	52	\$	1750	_			15112						
																	-	
					132					2.00	1		1					
						-	1									7		
					-													
	1 196																	
							*				-							
																-		
						-					1 6 1							
										3								
										1								
																1		733
																1		
Date	Time	Pre Purge Meter Read	Post Purge Meter Read	Purge Volume	Temp (°C)	Cond (µ/cm)	рН	ORP/ Zobell	[Cl ₂]	DO (mg/L)	H ₂ S (mg/L)	Sampler / Laboratory	Tur 0	bidity (N	TU)	min af	ter star	20
9.22-15	1100	281725	281786		19.8	971	7.30	-104	ND	OU	0.06	51,42,08P	144 14	1 58.8	16.0	4.54	6.02	8.43
							-4						-					
								/										43
													200					3
														1/12				
																		- 1
					4													
		1															2.0	2

Well: ASR 3

Sheet

MONTEREY PENINSULA MANAGEMENT DISTRICT

Test: 1

Date	Time	Tiger [F] (gal)	Tiger [R] (gal)	BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments
12/12/14	1000	50737	6745	004084	360	0	The s	1800	360.13		Ø	A LINE FLUSHING SLITLISO
				194				1 1 2				27 PSI @ ASRY CALLED CE
	1200		A			1		1.7.2	1		1 20	VINCE FROM CALAM ONSITE
0.00					-	- 3-	-	13	7.7		S. W.	TO OPEN UPLUES
		DRIFT		004085	(o)						1 11	
2/6/14	1300	50984	6745	004805	-	100+	-	1850	1.480.00			LF B TEST FLOWS
	1315		12 100		122	15		1000			306 UFR	2455 // ST 15 15 15 15 15 15 15 15 15 15 15 15 15
417/4	0830	50984	6772	004110	355	86	31	1800		NA	Ø	Morning meter checking (To)
	1110				17	100		11	356.98		5.5	Repare to LF prior to injection (To)
											de Se	lube line turn ON 145680
12.5	1246	50984	6863	4195	216	82	42	1800	1500	-	740	storted rejection
										Try	70	A SOLO MARCION
				13-7-10	1 = 2	1		3 = -				
12/18/14	0830	509.84	7863	4195	216	76	46	1800	295.41		887	flow increased occurrent.
			100	A COLUMN			7	1-1-				from street out of the
4	1000	50984	7931	004195	338	87	45	1800	350.41	· Control	\$	014834 Quile on BF well
HIMO	1			004211	,	1			460.65	I		250-260 stops flow
TOP		V	7	4238								1700 spin stat 7.50mmcc
		7			1	2					7. 25	"drafted to 1500 gpm. C 49 HZ
	lico	56984	7931	4238	223	80	48	1800	356.15		630	after 20 mm increase speed to 57
,000 mg		1-1-4	1	40,50		1.	60.7	500		ा पृष्ट पष्टि	- Lube.	= 2800 gpm, At 23 min dwn to
	1			14. 2							end	2500 gpm rate, T = 12.4 NTU
7 - 2	5	35,51					1		7'5			2500 gpm rate, T = 12.4 NTU WL draps to 528 ft. Stop at 24
ide		EUSH @ 105		7,711							T T	18.8 201 37.1 11,1 3.8 4.74

1122

1230

4.5 spi 1205 25 39 77

22 25 31 38 3590

3000,7

2080A

15.9

C12 0.94

13.3

Well:	ASR-3	
	4	

Sheet

MONTEREY PENINSULA MANAGEMENT DISTRICT

Test:

of

Date	Time	Tiger [F] (gal)	Tiger [R] (gal)	BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments
12-19-14	6850	50984	8779	004238	223	78	48	1800	307.92		655	TL
1 4	0910	50984	8794	4238	219	78	49	1800	303.51	20924	730	121. Flow pressure TL, JO
12/20/1	4 0930	50984	9945	4238	219.	77	48	1800			815	
12/21	0430	50984	11128	4238	219	77	48	1800	284.60	-66	875	
12/21/14	1625	50984	11501	4238	219/300	76/77					890/0	Shut inj per C. Evans text reguest (1600 h
12/22/14	1530	50984	11501	4238	1 +	-	100%	127-5.	- Francis		eci i	Rube = 148480 gol. Turn on lube Jo
1 2 - 1			1. 1. 1. 1.								12.	12 r
12/23/14	1100	50984	11561	4238	307	73	D	1850	350.86	\$	1450	BF PATE JL-TO BF
NIMOL			100	4253	1				453.02		1	
FINISH		50984	V	4269	307	73					Ø	LUBE 0150970 gm
	100								1000			
					y - 2						3.3.5	
	199				1			1			7. 20 %	
	1											
	200		1.500					250				
100			1 - 0									
		1 2 - 5 - 1						1000	1 2 1			
· .	-	- //						1	, etc. 1, 1			
V		1										
	250		S. S. San J.		Secret.		Brand,		100	(127, 43	* 10 a.s	
		,										
					0.00			1. 200				

SMS(D)

PH 7.51

[012] NO

SAMPLED FOR DBP (MONTHLY) SAMPLE)

#S/N 300151 on ressed weath last sugs site : 11512

ORP ILZAN

12/22/14 1 2 5 10 15 20 BF >72/85/20.2/10.0/3.60/2.86

0.14 [012]

18.4°C 560 uslcm

ASR-3

MONTEREY PENINSULA
TER

MANAGEMENT DISTRICT

Test:								Park to the	160 mayo of		
Time	Tiger [F] (gal)	Tiger [R] (gal)	BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments
0920	56987	11519	004269		72	1700	1750	355.25	NA	NA	Well OFF - no water in wellhead piping
0940				330	34					(ineflush)	Open PRV To line flush before injection
				4.					10 - 1-1-1		
1010	56987	11550	004291	213	44	45	1750	35525) —	990	CLIMED UP TO 1040
1023										1020	NEED TO FALL TREE
0845	56987	12847	004291	217	63	48	1700	273,04	82.21	940	DID NOT CHANGE SETTINGS
				219	63	48		271.64		945	
				217				266.90		1000	Adj FCV to get as close to 1000 gpm as can
1600	2										
4				217	56	45		263.5	91.75	1025	NO ART
1000	56987	14339	004291	219	67	46	1680	254,79	100.46	1042	NO ADJ
0845	56987	15779	004291	219	67	46	1700	25097	104.28	1066	STOPPED FOR BF
0917	56987	15797	004291	340	89	0	1700	348.2		8	LUBE 152900
	56987	15787	004305	340		100	1700	453.0		130571M	301 128 18.72 39.3 25.9 19.1
											[C12] = 0.84 mg/L
0954	56987	15797	00 4330	end	060	well 13	F				The state of the s
1005	56987	15797	00 4331								14000 GAL/(453-348,2)/10=> \3.3
					10.15						
				M. C.							
1.00											
						entari.					
							1. 11.				
										1.	
	Time 0920 0940 1010 1623 0845 1600 1000 0845 0917	Time Tiger [F] (gal)	Time Tiger [F] (gal) Tiger [R] (gal) X1000 0920 56987 11519 0940 1010 56987 11850 1023 0845 56987 12847 1600 \$ 56987 14339 0845 56987 15797 56987 15797	Time Tiger [F] (gal)	Time Tiger [F] (gal) X1000	Time Tiger [F] (gal)	Time Tiger [F] (gal) Tiger [R] (gal) BF (gal) FCV (psi) (psi	Time Tiger [F] (gal)	Time Tiger [F] (gal) Tiger [R] (gal) BF (gal) (psi) (p	Time Tiger [F] (gal)	Time Tiger [F] (gal) Tiger [R] (gal) BF (gal) X1000 (psi) (p

2776122 Rug

103193 103246

2-12-15 103246

103352

BEG: MGO) 0174261 × 10

174780 x10

[OP51]

m(NEW) 00004 x100

00009×100

MPWMD ASR DATA SHEET

ASR-3

Sheet

040

1310

PENINSULA 0175570 MONTEREY / WOTER MANAGEMENT DISTRICT

Date Tin 2-12-15 101 2-12-15 102 2-12-15 165	x1000 56987	Tiger [R] (gal) ×/∞6 15 797	BF (gal)	FCV (psi)	Line (psi)	Well Head	N ₂ (psi)	DTW (feet)	Draw Up	Inj Rate	Comments
2-12-15 102		15797				(psi)		2111 (1.001)	(feet)	(GPM)	Comments
	F = 000	15717	4331	330	B	88	1700	352.4	100	Ø	BEG NEW INJ CYCLE
2-12-15 165	56987	15805	4331	216	67	46	1	290.50		1020	2" lube line OFF 0153050g
				215	64	47		1000		1200	
2-12-15 165	2			220	68	46	W 1	100		1000	RM adj FCV to & flow (50)
2-13-15 08	56987	17037	4331	220	78	47	1700	278.8		860	815 Adj. Q1 slightly PM (TL for)
08	20		1	216	78	47	The N	263.3		4000	Fre for RM)
2.13.15 160	0 56987	17510	004331	218	65	46	1700			-1013	
2.14.15 092		18573	004331	219	54	43	1750	251,98	100.42	-1018	No AD)
2.15.15 1000	-	20085	004331	219	84	45	1775	249,92	102,48	7020	NO ADJ 1530450
2-16-15 080	0 56987	21516	004331	330	78	Ø	1700	153,43		\$	TURNED OFF CURON BORDO
2-17-15 094	5 56990	21516	604331	347	8.7	d	1650	353,018		Ø	Before St Luye on = 015601151
2-17-15				1	1	1					1 2 3 10 15 20.
2-17-15	V	V	001	A	4	V	7				wilds to the same
	1. 1. 1.					1	4 1				ABOUT BF LINE TO PIT 3
											LEAKING IN ELECTRICAL }
Maria M	Jan Jan State		, Trees,		(10)	ka ji	Wires,			, 1895a	BOX, SET UP SUMP, -JL
2-25-15 64	30 57423	21539	004336	347	8	Ø.	1656	359,53	Ø	BF	Psi gage by PSV not working
			004357			1	13.7	509.34	1850 90% H	rt.	0-700 psi-ned new me
- cas	50 4	1	004379	V	A	8	1100			6	85.9 27 42.2 9.16 5.35 3.27 Cl2=>0.10
						1 -		1			0161010 luse
Mine of the			100	1.00	100	-	17,000	177.00			[(1-) => 107 majl.

Well: ASR 3 Test: DUARRY SI, GI, DBP SAMPLE Sheet 1

MONTEREY PENINSULA
T E R
MANAGEMENT DISTRICT

Date	Time	Tiger [F] (gal)	Tiger [R] (gal)	BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments
3.25115	0930	60485	21676	004378	345	76	p	1700	359.98		-	76,8 26 9,77/10.8 8,17/3.0
6		1		064399	1	1	1	1	509.35		2	and the state of the state of the state of
111		J	7	604439	7	4	7	2			200	
1	200	7-101		Pro O	A1 3	1	a T	Was .	217 34			TEMP => 17.2°C
												con0 => 509 us/cm
Special		Martin Artis			We will		de la C	Paler.	1,100		8 2770	DO => ND
	11							1	15.4	A STATE		H2S => ND
		FSLIT		13.2	6-1		12.5	117				Cl2 => 0.03
7	7,97	1000	1	J	11/4/		A *C	W. 1.				CT=>75
		1 1 1 1	- 174			-						ORP => -61.9
Contract of	1 - 1	1200	and the same		12.50	17.50	my "	2000	1 11 11		1.75	PH => 7.29
		1 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			1.2.		C.					
		1 5 5 7 7	53183					1. 1.			10.11	1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
	1	1. 1.	1. 1. 1.		11 1	1	Y.				JL -	SI, GI, DBP COLLECTED 1030 HIS
				17								0163350 GAL
3.25.15		Source auc	DUE SCHOOL	Co.P	INIT	AL		FINAL				DO => NO
0 23 8		ZASILE IVIII.	ACC SCIOSC	201		23 × 100.	C+		74 ×100		1. 1. 1.	ONC= 25H
The state of		1 4 1 2 11	7	100	-		7				1	ORP => -67.3 mV
Y 2 1		K 1 - 1 -	11.1/11.		177		1	1 77 -				(12 => 0.08
	4 52 5	1.730			No.		line of	Mile.	F 127	7.7		(1-=> 147 mall
		7.00	700	17.0	1.0	1	12.	13.00		- 1	- 5- 6	PH => 7.34
							1	15.				(OND = > 354 us/cm

MONTEREY MANAGEMENT DISTRICT

Date	Time	Tiger [F] (gal)	Tiger [R] (gal)	BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments
	0910	633357	21629	604439	345	88	NA	1800	361.23	8	10	LUBE 0165430
7.5	2 7 1	1		004454	1	1	22	1800	465.10	153.87	1600	(2.5)
FINAL	tuvo	V	20	004475	A	V	\$	1800	1 1 1	2 45 51	V 1,5 1	8.1979 39.8 16.2 10.1 21.1
INAC	1100	1. 7.	To the same	AL A	, ST		1	S. 1	100			
	- 1	1 1 1 1 1						1657			1.20	(12) => NO
	4.50		Salara Color	Million of	William.	1	may "	Pine.	100	1 2 4	- 13 1	[C1-]=> 25 mg/L
		75.3	1. 1. 1. 1.		100		1		11.00	11.4		Temp => 1630C
		1 1 2 2 7			1, -	1		3.5.5	14.3 5.1	Mark Control	V. S. C.	COND => 412 us/cm
1.77		1	7 7 7 7 7			100		100		00 1		H2S =>NO
7	12.2	- 1 - 1		170 1	17.			1.7				OPP => -74.5 mV
Jane .		100	J. S. Salar	Mintella	A pour	1 50	lucia, i	17,5	100	1000	W. 1997	[02] => 0.02 mg/L
	0	100		1. 3. 1		30.00	10				100	PH => 7.41
							1 - 5	1			100	
				350 10 10		100	V. T.	107 7.	100	1	9. 1.	US LUBE DS
	1				1.7		1 3	1.77	1			Sopsi SSpsi
		100			15/10	1100	July C	Hillian .	111120	7 70	1 Mills	
10.		1 7 6 6		1.00	100	1 -68		1			200	
				13.3.2.3	100		100	11.1				FINAL CUBE
1		1 + 1 / 1	7. 7. 7. 7.	100			1 1		W.	1000	9	0165510
	1			100			12.5	100		W.		
1	1 3		The state of	No control	1 House	1 1 2	100	1-1-1-1	F. May and		4,759	and the same of the same of the same of
			177	AT YES	100	2 1	1	1.00	100	3 " 6"	. 270	
							1	1				

Well: ASR 3

Sheet 4

MONTEREY PENINSULA
TER

MANAGEMENT DISTRICT

Test: MONTHLY STURAGE SAMPLE

of ______

Date	Time	Tiger [F] (gal)	Tiger [R] (gal) ェルンシ	BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments 49 - 47 Bi LARE FILTER
5.29.15	915	64176	21633	4476	330	102	×	1600			X	LUBE 167900
5-21.5			21633	4493			/				1600	98 GPM FRWARD DRIFT
5.21.15	-	64176	21633	4508	OFF	102	ø					
												55,115,8175 21 7.6 5.7
												[CIZ] NO
												C1-7 => 97 mg/1 D0 => 0.03 mg/1
												DO => 0.03 mall
												ORP => -77,7 mV
												PH => 7.31
								-				6M => 458 us/cm
					-							TEMP => 17.3°C
					4							CM <= [5th]
										- 1		
												LURE OFF (1000
÷												167980
			-									

Well:	ASR 3				Sheet	1
Test:	QUARTERLY	SAMPLE			of	1

MONTEREY PENINSULA MANAGEMENT DISTRICT

of _____

Date	Time	Tiger [F] (gal)	Tiger [R] (gal)	BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments
6/25/15	1000		A Million e	004208	345	94	\$	1800	371,21		Ø	
	3 1			004521					472,53		1350	647 125 9.8 3.72 4.7 6.3
V	1035	5 3 3 1	3 40 14	004547	8	94	8	CLOSED				
r	100	1. 10			AT I	- 700	S. 7.	W 7 3	100	100	9	[CI2] = ND
									- 7			[CI-] = 79 male
		- 12 m		Maria C	Prince.		and the	Miles .		100		ORP = -65,3 mV
							1, 7				7-17	COND = 516 uskun
		2 5 3 2 3	/:		100		11 2	11.0				TEMP = 16.9°C
	177	1. 11.	1. 1. 1. 1.	W & T.	1		14	W			7	PH = 7.22
	- 11				17.5							
Park to	1		P. Millery	Mary Co	Gara.		.777	17.00	17.70			DO = 0.02 mg/L [HzS] = ND
					1.2		1	7.4	100			Contract the second
1.7		e to the second	4.7.	T. 1.	1	5.75	100	3.00	1			
9 0. 9	100	1. 100		100		100	4		1		4. 5/	
			100						1		7	0170886 LUBE OFF
Take a	100	A Carlo	, 5 3 5 jun - 1	31-1-1	P. Com	1.00	W	de la company	1 12,000	,	4.77	
14			1.00	177 16 17	7	7 = 5	1. 7	7.00	1.		2.	
	11.	7-12-13			100	5.1	2 5	100		5.5.17	5.57	SM8(0) 001338865 GAL
V 1	170		The state of	a T	No.	100	7 1	W 1. 3	100		Y	
7.		1			177	(' ·		1.7		1	1 - 12	SKID METER 0604700 GA
100	100	a detail	of the same	A Carry	Print.	A st	St. of	The same	100	1911	100	
	154	100		1.00	1.2	100	0 1	T.A.	V. C.		The Contract	proxidations for
					1			177		100		

Well: ASR 3

ASR Period STORAGE

Sheet 1

MONTEREY PENINSULA

Test: QUARTLY SAMPLE Weather SUNNY, WARM

of 1

MANAGEMENT DISTRICT

Date	Time	Tiger [F] (gal) ×1000	Tiger [R] (gal) ×1000	BF (gal) ×1000	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Lube / Skid Meter (gal)			Comm	ents	
9-13-15	1000	67064	21644	4695	340	88	ø	1750	367.78	_	_	172460	86-	786	- 1		
	5			4713					474.41		BF 1500.						AMPLE
		67064	21644	4737	\$	88	4	1750	-	-	-	178040	POR	SE	BROKEN.	LINEOS	15 15
1							-						SA	MPLE	D 52,0	1, DBP	
1															1		
																77	
-																	
									1								
										and side			1				
1 40															P .		
															1	-7	
							-						1				
									-								
		4			- 1												
100	-									1				-			F
	. 5	1															
		4-11															
			- 1														
							1										
Date	Time	Pre Purge Meter Read	Post Purge Meter Read	Purge Volume	Temp (°C)	Cond (µ/cm)	рН	ORP/ Zobell	[Cl ₂]	DO (mg/L)	H ₂ S (mg/L)	Sampler / Laboratory	0 I	urbidit	y (NTU) 2 1 5	min after	start 5 20
9.23.15	1000	4695	4737		20.4	749	7,37	W 245	ND	0.01	0.05	SIGITORP Y-MEAS	157	17.9	24 69.1	5.39 9.5	105
9.23.5	1100		14016		19.8	752	7.24		ND	0.01	0.04	SIGIDBP JL-MEAS	-	-		-	-
								/									
					4			/		2							
								/		1							
							-		1	1							-
				4						Bear I	-			7.			

10

ASR3

Well: HERLY

Sheet 1

MONTEREY PENINSULA
TER

MANAGEMENT DISTRICT

Test: SAMPLE FUR CALAM

Date	Time	Tiger [F] (gal)	Tiger [R] (gal)	BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments
-21-15	905	22644	101321	000643	360	82	ø	2150	363.56			SAMPLE FOR CALAM 15180 GAL
-21-15	920	22644	101321	000662	368	82	15	2150	421.30	57.74	~1900	N1750
21-15	1040	22644	101321	58F.000	360	82	16	2150			\$	
	in the					1, 17	/					335 211 748 15,8 10,5 7,9
	1,447,7		-	SELLO .	1	-		7.4	* * * * * * * * * * * * * * * * * * * *			
					Y STE	7113					200	\$ NO FLOW FROM LUBE ON
	1 - 5 - 1		1.51.1	10 11 11		7 (5)		197.1			1.5	SCHOA
4 1	100			W B	12 12	1,71		100	15		1000	The transfer of the transfer o
											1 1 1	JL- SAMPLED FOR [Ha]
	100	The state of	a comment		Parent,		111	11-11-4			4	7
dia.		1 1	2 100			2 1		1.0	The Miles	of Table	200	[CI2] COND ORP PH °C DO H2S NO 538 -153 7.3 237 NO Z
		10.444			البليط	7.3			4.35.4		200	NO 539 -153 173 237 NO Z
	1				100	1 22		111		1,000	1	
					1	17.1						* HOSSFELT SAMPLED @ 130
	21.0	Market States		Allerence of a	1000	1.00		Linear,	100		1000	
φ.	1 . 0	27 21 4	1. 4.		1	100			7 11	200	1.19	LUBE OFF @ 1040
		" being !			4	4	1	100				15330 GAL
7. 4	111	1 1 1 1		25	100	-		14 m	A 100 A		1 17 2	
	1.1.										0.00	
	100	100		27,727.52	100		Maria .	Market a	200	C. Marie		
4	1 19			4	1	1	h"					
		Y			4			- "	S			I have the section of the

Well: ASR 4

Sheet /

MONTEREY PENINSULA
TER

MANAGEMENT DISTRICT

Test: Conditioning (Day 1)

Date	Time	Tiger [F] (gal) > 22644	Tiger [R] (gal)	BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments
2.10.15	1126	22683	103193	060788	314	63	0	-	177.44			Open upstream valve to test MAC
	1130	22684	103194	000788				1 22			100	MAG working; step flow
	1140						1117	1		7		001540 gel; lube on (70)
2-11-15	0910	22684	103210	000 788	361	51	. 0	2100	349.92		0	Willflush 2350gal from line - pre -testi
	1000	22684	103213	000 789	1	4.11	1	1.	(Pione)	DON		Backflush @ - 3000 gpm (60
	1000		1.0	000818					455.73	(105.81)	77.4	Q/s: 2800/105.8 = 27.4 gpm/A
	10"			000821				4, 4		7,5		Stop Pump
	1030	22684	103213	000821	370	66	0		352,23		Ø	Start opening Fev
	1032		and the second	Minney"	210	1	Description of	17/20	a same	" Silyan	280	0
	1034		103214	CW 821	380	79						Stop Faj,
11111	1115			000821	380				352.1	000		start Backflush (BE)
	1125			000850					457.5	(105.4)		a/s: 2900/105.4=27.5 apr/0
2/2/2	1126			000853				1				stup
	1,35	22684	103214		276			1	354,9		-260	open For / start Inj
	1/39	22684	103216	42.1				1/2	350.2	100		stop Inj.
	1,40	G (ph)	, t 435,	000853	380			-	353,4	000		start BE
	1,45			000882		1. "			458.6	(105.2)	100	Q/5: 2900/1052 = 27.6 gpm/
	1147	-		000884			-	-				Stop

Well: ASR-4
Test: Conditioning (Days)

Sheet 2



Date	Time	Tiger [F] (gal)	Tiger [R] (gal)	BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments
2-11-15	1155	22684	103216		385	71		1000	356.3	1 2 2	- 17.0	open Feu/ Start Inj
	1200				276			1,15	351,1		247	open Feu/Start Inj
	1202	22684	103217		385	- 1		1	(17.5)	100	245	close FCU/stop Fnj
	1215	22684	103218	orngos	385	25			353.6	٥٥٠		Start BF
	1225		,	000915	7,111	- 77	W.			105.8	100	Q/5:3000/105.8=28.4
P	1226			000916					1,1	11.00	11.5	Stop
									2 4 5 4 6			Charles and heart of
	1230	22684	103218	N - C	385	77		11 2	355.9	1000	1 N A	open FCU
	1235				280	73	71		350.7		281	
	1240	22684	103221	000916	385	77	0	17.00	1,72,014	7 7 7 W		close FCU
	1255	22	1	000916	385				353.7	2000		Start BE
1 1	1305			000945		33	32	11/1	456.9	(03.2)	". N	a/5:2900/103.2 = 28.1
	1306			000946								stop
	1325	22684	103221	(907,044	385	66	0		354.9			men Fey/start In!
7 .	,,30		5.1.1.	000710			37		350.8	1.37	248	open For/start In!
	1340	22684	103225	000946	380	1		100				Close FCU
in a	1350		1000	000946	383	GO	0	3,-	353.2	OON	1000	Start BE
	140			000975		100		7		(101.9)	- 7	Q/s: 2900/101.9 = 28.5
	1401			000977			V	1 2				Stop

Well: ASR-4

Sheet 3

MONTEREY PENINSULA
TER

MANAGEMENT DISTRICT

Test: Conditioning (Day)

of 3

Date	Time	Tiger [F] (gal)	Tiger [R] (gal)	BF (gal) メ ノクひひ	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments
2-11-15	1415	22684	103225	000977	383	GI	0	7 1 1	355.3			open FCV/start Izz.
	1422		- 120		268	57	52		350.3	5.0	255	(d/s = 50 gpm/ft)
	1435	22684	103230						349.3			Open FCV/start In. (a/s = so gpm/ft) Close FCV/stap Inj.
	1440	22684	103230	000977	383				352.9	000		Start BE
	1450	The State of		001007		100	4	1000	456.7	(1038)		Q/5: 3000/103.8=28.9
	1451			001009	1 112						100	540
	15°	22684	103230	001009	386	57	0	2100	354,9			open Few/start In;
	150				266				349.7		275	a/s 2 63 gpm/ft
	1525	22684	103238	001009					Total Control		Ø	close FCU
	1540	22684	103238	001009	380	70	0		352.6	SON	Terrel	Start BF
	150	1 20	1. W.	001040	1	117	X "	W 10 "	456.0	103.4)	7-18-15	a/s: 3100/1034=300
	1551			001042								stop
	16w	22684	103238	001042	386	69			355.2		Ø	open tou/start Inj.
	16'0	1 1 1 1			277	67	62			5.00	262	a/s = 52 gpm/ft
	1630	22684	103246					V				Close FCU
	1645	22684	103246	001042	385	72	0	200	352.9	DON		Start BF
	1655	V CE		001072					456.4	(1035)		Q/s: 3000/103.5=[29.0]
	1651	22684	103246		391	72	0	1.	1		5	Stop.

Well: ASR-4

Sheet Test: Conditioning (Day 2)

PENINSULA T E R MANAGEMENT DISTRICT MONTEREY

	Date	Time	Tiger [F] (gal)	Tiger [R] (gal)	BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	H20-L-be = 1.7 gpm
	2-12-15	843		103246	001074	381	68	0	200	351.6	DON	0 1	Start 13 = (57 Hz)
_		800		21.7	001103					457.7	106.1	7.	a/s: 2900 /106.1 : 27.3 gpm/
10	, b	856			001105	2	10.00		D 1	1			Stop
			To make		100	9	100	4	10 0	. N .			(Note: Pause to BF ASR-3)
		1045	22684	103246		390	68	0		353.7	100	Ø	Start Inj
1		104t		4 4 4 4	The same of the	250	57	49		344.8	4 7	518	
		1050		103248									Stop Inj (5-mins)
-	7 7	1055	23684	103248	001105	380	67	0		353.1	DON		Start BE
		1105			001135						(103,3)		Q/s:300/103.3=[29.0]
4	in the	1106			001136				dam.	1 1 1 1 1			Stop
		1110	22684	103248		382	66	64		356.2		Ø	Start Ing
1	1	1115	"	14	127		57	53		345.3	10.9	547	
		1120	22684	103253								p	Stop Inj (10 mins)
		1130	7 - N P	70	001136	370				353.1	OON		Ads Few Setting slightly & Start BF, (1 UFD to 524)
H		1,40	200		00 1167			22			109.6		9/6:3100/169.6=[28.3]
L		1141	7 7 7	200	00 1169	P 20	1 27		V 1.				Stup BF
		1145	22684	103253	ab ing i	370	66	63	E.	356,5	× 57 L.,	6	Start Inj
	7	1155	700			255		53	[.]	344.4	12.1	570	Q/s = ~ 47 gpm/ft
1		1200		103262		1,-1				V. T.		Ø	Stop In (15 mins)

Well: ASR-4

Sheet 2



Date	Time	Tiger [F] (gal)	Tiger [R] (gal)	BF (gal)	FCV (psi)	Line (psi)	Well Head	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments
-	10	Y www	KIVED	xhoo			(psi)			(1001)	(0.1)	1-1-0-
-12-15	12/0		g a g	001/69	355	68	0	1	353.1	000	2 2 2	Start BF
<u> </u>	1200			001201					463.7	(110.6)		a/5:3200/110.6=28.9 gg
44	1221			00/203		-						Stop
	1200	22684	103262		360	66	65		353.5		Ø	Start Inj.
	1300			100	258		54	All the	343.7	9.8	542	Q/s: ~ 55 gpm/ft
·		22684	103272		360		0				Ø	4 top (20 mins)
	1300			001203	360	68	0		352.5	oon		Start BF
5 to 1	1330	S - 1 5		00/235	-			1.	463.9			a/6:3200/111.4=28.7
	1331	e i e		001237	7,744		Par 1	Marine C	(17)		4 10 1	Stop
	1340	22684	103272		366	67	60	1.11	355.2		ø	start Inj
-	1350	2001	103272		260		54	1		10.4	510	
	1410	22684	103289		7 7	68	0			70.7	Ø	Stop (somins)
	1420			001237	360	88	0		352.5	DON		Start BF
7 .	1430		1.1.4.	001270			1			113.9		a/5: 3300/113.9= 29.0
	1481			001272	12	. 10		17 11			1	stop
	1440	22684	103289		370	67	65	11,500	355.3	18	ø	Start Inj
	1443	2 1. 2	7.5			53	47	The state of	340.8		720	
	1445		103292		358		0				Ø	Stop Ino (Smins)

Well: 4SR-4

Sheet 3

MONTEREY PENINSULA
T E R
MANAGEMENT DISTRICT

Test: Conditioning (Day 2)

of 4

	Date	Time	Tiger [F] (gal)		BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments
10	-12-15	1455	22684	103292	001272	357	69	0	1900	353,2	DON		Start BF
0-		1505		1111	001305		, - 1			466.7		1	Q/s: 3300/113.5 = 29.1 gpm/A
1		1506			001307		-	- 1	550			3 5	Stop
			1.75		W "				A STATE OF	- W			No. of No. of No.
		1515	22684	103292	Y	360	68	66		355.6		Ø	Start Inj
	Serve !	1520	1000	A STATE OF	11-1-1	245	52	48	10 mg	340.8	14.8	768	Q15: ~52
		1525	22684	103301		350	68	0				Ø	Stop (10 mins) Adis Feu V
		1535	1		001307	350	68	0		353.1	DON		Start BE
0-		1545			001340					466.0			a/s! 3300/112.9=29.2
4	-20-4	1546			001342			914	17.00	Chillian C		A	stop
		1555	22684	103301	2.11.12.	360	67	65		355.6		6	Start Inj
	4	1605			10 To 10		50				16.5		9/5: ~ 47
		1610	22684	103313		350		0				ø	a/s: ~ 47 stop (is mins)
_		1620			001342	350	67	0		352,9	200	4	Start BF
0-		1630			001375			100	-	467.5			Q/5:3300/114.6= 28.8)
-		1631	12,000		001377		4						Stop
		1640	22684	103313		360	80	75	1.50	355.9	,	Ø	Start Inj
	1	1650	12.00	2 11.11	17 11 11		64	_	1	-	17.5	810	Q/s: 46.3
		1700	22684	103329		354		0	1	307.7		Ø	Stop (20 mins)

Well:	4	014-4	
_	_	. 1. 1	100

Sheet 4



	Tiger [F] (gal)	Tiger [R] (gal)	BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments
17'0	22684	103329	001377	354	84	0	100	353.2	DON		Start BF
1720			001409		25			470.8	(17.6)		Q/s: 3200/117.6= 27.2 gpm
721			001411	53.1	1.55	1 2		V 4 1.1	La sales		Stop
20	1 12 10	10000	25 10	·	100		19 4	100	". JOP 11	100	
730	22684	103329		360	84	63		356.1	1000	ø	Start Inj
740	Tel Minute	4 4 7 7 8 4	Town or I	255	70	59	Party.	339.5	16.6	800	a/s: 4812
8w	22684	103352		355	84		127		1980	Ø	Stop (30 min)
410			001411	355	84	0	W 10	353.6	DOM	7 7 11	Start BF
820			001443				1.2			1 - 1.5	Q/s:3200/120.8= 26.5
821	100		001445				1700	1.57	1 2 1		Stop
. 57		7 19 2 1		1			100				1830 Leave Site (Rm)
	1.1.0				10	7 %	1		Y. Jan J.		Leave Site (RM)
				1					1	1 - 1 -	
100	4 2 1 1 2	1 1 m	Sale of the			W.	Chr.	1797			
1	of the		11 21 3	1.4		100	T. de		200		
					1	1	1.12			The state of	The state of the state of the
1	The second		41 4	17 14	1			100	- 27	200	
71/24	10 g 10 g 10	w 12.49		1000		2		11/100			
	2 2 2 2 1	7 7 7 7 1		127		1					
	7 ³⁰ 7 ⁴⁰ 8 ⁴⁰ 8 ¹⁰ 8 ²⁰	7 ³⁰ 22684 7 ⁴⁰ 8 ⁴⁰ 22684	7 ³⁰ 22684 103329 7 ⁴⁰ 8 ^w 22684 103352 8 ¹⁰	7 ³⁰ 22684 103329 7 ⁴⁰ 8 ⁴⁰ 22684 103352 8 ¹⁰ 001411 8 ²⁰ 001473	7 ³⁰ 22684 103329 360 7 ⁴⁰ 255 8 ⁶⁰ 22684 103352 355 8 ¹⁰ 001411 355 8 ²⁰ 001473	7 ³⁰ 22684 103329 360 84 7 ⁴⁰ 255 70 8 ⁴⁰ 22684 103352 365 84 8 ¹⁰ 001411 355 84	7 ³⁰ 22684 103329 360 84 63 7 ⁴⁰ 255 70 59 8 ¹⁰ 22684 103352 365 84 8 ¹⁰ 001411 355 84 0	7 ³⁰ 22684 103329 360 84 63 7 ⁴⁰ 255 70 59 8 ⁴⁰ 22684 103352 355 84 8 ¹⁰ 001411 355 84 0	7^{20} 22684 103329 360 84 63 356.1 7^{40} 255 70 59 339.5 8^{40} 22684 103352 365 84 0 353.6 8^{20} 001411 355 84 0 353.6	7^{20} 22684 103329 360 84 63 356.1 7^{40} 255 70 59 339.5 16.6 8^{40} 22684 103352 355 84 0 353.6 00N 8^{20} 001413 355 84 0 474.4 120.8	7^{20} 22684 103329 360 84 63 356.1 Ø 255 70 59 339.5 16.6 800 80 22684 103352 355 84 Ø 353.6 000 820 001413 355 84 O 353.6 000 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9

Sheet

MONTEREY PENINSULA MANAGEMENT DISTRICT

Well: ASR-4 Test: Conditioning (Dny3) of 2

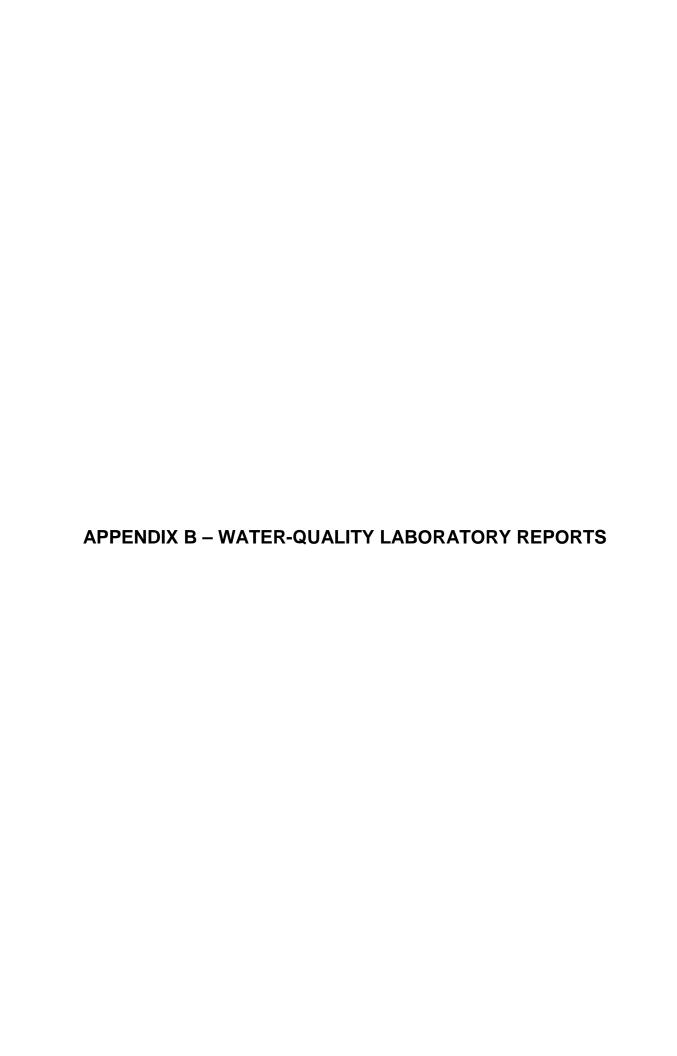
		1000	1	('				1			-	
Date	Time	Tiger [F] (gal)	Tiger [R] (gal)	BF (gal)	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments Hao-Lube = 1.7 gpm)
1/3/15	840	22684	103352	001445	35%	72	0	1700	354.5	DON	- 1	Start BF
,,	850			001476				-	475.6	(21.1)		Q/5:3100/121.1=256 ap
	851	1 1 1 1	14,654	001478		2.19	1	- / X	4.00			stop
	3	22684	103352	001178	365	70	.61				7-1-1	
	900	22684	103352	001478	365	70	61		357.0		ø	Start In;
	910	22684	103358		245		46	14.00	77.00		995	The state of the s
<i>Y</i>	9/2		14 100		197			-6-			p	Stop (10-mins)
	920			001478	360	72	0	77	354.6	DON	1	Start BE
	930			001510	1				471.3	(116.7)		Q/s: 3200/116.7=27.4
	931	E D'allin		001512			1.5			277		stop
	940	22684	103358		367	72	62		357.3		Ø	Start Ins
	950	1.7/1	1	30 T	245		48			22.6	/	Q/5 2 46
	955	22684	103373								p	Stop (15 mins)
	1005			001512	355	74	0		354.7			Start BF
1.0	1015	1. 5. 5. 6.	100	001545	1		1	1. 7 4	473.5	118.8	7.1.	4/5:3300/118.8= 27.8
	106	7. 7.	1, 1, 2, 1, 1,	001547	1	1.00		127		7-101		Stop
		1										Note! How borning from
	(97)	1	y Thinks		1	1.0		,-,-	·	150	4,17,17	pipeline in Accoss Rd.
1	100		7 11 6									from Elec. Box in Front
		1.5			1	1					1	of Elec. Bldg.

Well: ASR-4 Test: (anditioning (Day 3) Sheet 2

of 2



Date	Time	Tiger [F] (gal) 火化な	Tiger [R] (gal)	BF (gal) メルロの	FCV (psi)	Line (psi)	Well Head (psi)	N ₂ (psi)	DTW (feet)	Draw Up (feet)	Inj Rate (GPM)	Comments
2/13/15	1045	22684	103373		365	74	70	The same	355.5		Ø	Start In
	1055				247	52	48	- V	333.4	22.1	1073	Q/s: ~49 gpm/ft
	1105	22684	103395	W-53	350	82	0			1000	ø	a/s: ~49 gpm/ft stop (20 min)
T. T.		To all the	The second second		, r				17 m	100	1, 22 6	
	1135			001547	352	82	0		354,7	ODN		Start BE
17.00	1145	The state of	1 10 horse	001579	Private S		Way.	Total Services	476.1	(121.4)	100	a/s:3200/121.4=26.4 gpm/A
	1146			001581		1		7.	1,000	100	2 38	Stop
, L. 1		1030	2.565	13-27		1	1.5	1	1			
V 1	1,50	22684	103395	001581	360	82	0	1680	1000	100	6	
											/	12 w Leave site (Rm)
Mary Car	100		y Party	Prince!	2,194,	6.33	arg f	-	1900	1 24 10		Salar Sand
			200	1000	1,77			100	1	7 . V.	1 17	
3 - 1					5		11.5				Day.	The state of the s
12 a "	100	77 10		140 1	1	1,20		e a	100	1,24	1000	The Market And Allendar
									1.7			
Promise.			- W. O. C.	Mary 1	Ser.	1 (1)			130	100	1 115	
		100		1.00	1.4	2.	12	1.0%	11.30	11 di	1111	The second second second second
1, 1, 1, 1		1 25511			/	100	25	3.1.1	2.34	200		
	Jan 1	15. 10.	The sale of the sa	Water	N. A.	-		W 14		To the second	10,000	
						1, 1,1		1				
Post of	1530		a Share	Street,	2,000	2.31		Die.			1 2 3 4	
	100						C		150			at alm take the fact
			Section 1	100	200	1	100	10				





4 Justin Court Suite D, Monterey, CA 93940 831.375.MBAS

montereybayanalytical@usa.net ELAP Certification Number: 2385

Page 1 of 1 Friday, October 24, 2014

Lab Number: AB22163

Collection Date/Time: 10/17/2014 11:00 Sample Collector: LINDBERG T

Submittal Date/Time: 10/17/2014 12:24 Sample ID Coliform Designation:

		Sample Descr	iption: AS	R-1 Tes	t			
Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
Coliform E Coli - 18 Hour	Colitag	MPN/100mL	Absent		1		10/17/2014	MW
Coliform Total - 18 Hour		MPN/100mL	Present		1		10/17/2014	MW
Mercury, Total	EPA200.8	μg/L	4		0.5	2	10/23/2014	SM

Sample Comments:

Report Approved by:

David Holland, Laboratory Director



4 Justin Court Suite D, Monterey, CA 93940 831.375.MBAS

montereybayanalytical@usa.net ELAP Certification Number: 2385

Page 1 of 1 Friday, October 31, 2014

Lab Number: AB22447

Collection Date/Time: 10/23/2014 11:30 Sample Collector: LEAR J

Submittal Date/Time: 10/23/2014 12:57 Sample ID Coliform Designation:

	;	Sample Desc	cription: AR	S1 Tes	t			
Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
Chlorine Residual (Field Test)	SM4500-CI G	mg/L	Not Detected	l	0.05	4.00	10/23/2014	JL
Coliform, E. coli (Quantitray)	SM9223	MPN/100mL	<1		1	1	10/23/2014	MW
Coliform, Total (Quantitray)	SM9223	MPN/100mL	<1		1	1	10/23/2014	MW
Heterotrophic Plate Count	SimPlate	MPN/mL	90		2		10/23/2014	MW/TC

Sample Comments:

Lab Number: AB22448

Collection Date/Time: 10/23/2014 11:30 Sample Collector: LEAR J

Submittal Date/Time: 10/23/2014 12:57 Sample ID Coliform Designation:

		Sample D	escription: AR	S1 Test	t			
Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
Mercury, Total	EPA200.8	μg/L	0.4		0.5	2	10/30/2014	SM

Sample Comments:

Report Approved by:

David Holland, Laboratory Director



4 Justin Court Suite D, Monterey, CA 93940 831.375.MBAS

montereybayanalytical@usa.net ELAP Certification Number: 2385

David Holland, Laboratory Director

T = Temperature Exceedance

Page 1 of 1 Tuesday, November 11, 2014

Lab Number: AB23013

Collection Date/Time: 11/4/2014 11:00 Sample Collector: LEAR J

Submittal Date/Time: 11/4/2014 11:25 Sample ID Coliform Designation:

		Sample De	escription:	ASR4				
Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
Coliform, E. coli (Quantitray)	SM9223	MPN/100mL	<1		1	1	11/4/2014	MW
Coliform, Total (Quantitray)	SM9223	MPN/100mL	<1		1	1	11/4/2014	MW
Heterotrophic Plate Count	SimPlate	MPN/mL	19		2		11/4/2014	MW
Mercury, Total	EPA200.8	μg/L	Not Detected		0.5	2	11/7/2014	SM

Sample Comments:

Report Approved by:

mg/L: Milligrams per liter ug/L: Micrograms per liter PQL: Practical Quantitation Limit MCL: Maximum Contamination Level

 $\mbox{H = Analyzed ouside of hold time} \qquad \mbox{E = Analysis performed by External Laboratory; See Report attachments}.$



831.375.MBAS

montereybayanalytical@usa.net **ELAP Certification Number: 2385**

Monday, December 22, 2014 Page 1 of 2

Lab Number: AB23686

Collection Date/Time: 11:00 Sample Collector: LEAR J 11/19/2014

Submittal Date/Time: 11/19/2014 11:45 Sample ID Coliform Designation:

	Sam	ple Desc	ription: ASR-4	Backfl	ush			
Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
Alkalinity, Total (as CaCO3)	SM2320B	mg/L	226		2		11/20/2014	LRH
Aluminum, Total	EPA200.8	μg/L	Not Detected		10	1000	11/21/2014	SM
Ammonia-N	SM4500NH3 D	mg/L	Not Detected		0.05		11/25/2014	TC
Arsenic, Total	EPA200.8	μg/L	4		1	10	11/21/2014	SM
Barium, Total	EPA200.8	μg/L	55		10	1000	11/21/2014	SM
Bicarbonate (as HCO3-)	SM2320B	mg/L	276		10		11/20/2014	LRH
Boron	EPA200.7	mg/L	0.10		0.05		11/20/2014	MW
Bromide	EPA300.0	mg/L	0.3		0.1		11/20/2014	MW
Calcium	EPA200.7	mg/L	68		0.5		11/20/2014	MW
Carbonate as CaCO3	SM2320B	mg/L	Not Detected		10		11/20/2014	LRH
Chloramines	SM4500-CI G	mg/L	Not Detected		0.05		11/19/2014	LJ
Chloride	EPA300.0	mg/L	118		1	250	11/20/2014	MW
DOC		mg/L	0.4		0.2		12/17/2014	MW
Fluoride	EPA300.0	mg/L	0.2		0.1	2.0	11/20/2014	MW
Gross Alpha	EPA900.0	pCi/L	3.41 ± 1.68	Е		15	11/26/2014	DAVI LA
Haloacetic Acids	EPA552	μg/L	Not Detected	E		60	12/3/2014	BSK
Iron	EPA200.7	μg/L	71		10	300	11/20/2014	MW
Iron, Dissolved	EPA200.7	μg/L	37		10	300	11/20/2014	MW
Kjehldahl Nitrogen	SM4500-NH3 B,	mg/L	Not Detected		0.5		12/4/2014	LJ
Lithium	EPA200.8	μg/L	29		1		11/21/2014	SM
Magnesium	EPA200.7	mg/L	15		0.5		11/20/2014	MW
Manganese, Dissolved	EPA200.7	μg/L	28		10	50	11/20/2014	MW
Manganese, Total	EPA200.7	μg/L	34		10	50	11/20/2014	MW
Methane	EPA174/175	μg/L	1.3	E	0.1		11/26/2014	MCCAM
Molybdenum, Total	EPA200.8	μg/L	7		1	1000	11/21/2014	SM
Nickel, Total	EPA200.8	μg/L	93		10	100	11/21/2014	SM
Nitrate as NO3	EPA300.0	mg/L	1		1	45	11/20/2014	MW
Nitrate as NO3-N	EPA300.0	mg/L	0.2		0.1	10	11/20/2014	MW
Nitrate+Nitrite as N	EPA300.0	mg/L	0.5		0.1		11/20/2014	MW
Nitrite as NO2-N	EPA300.0	mg/L	0.3		0.1	1.0	11/20/2014	MW
o-Phosphate-P	EPA300.0	mg/L	Not Detected		0.1		11/20/2014	MW
pH (Laboratory)	SM4500-H+B	pH (H)	7.4				11/19/2014	LRH

mg/L: Milligrams per liter ug/L: Micrograms per liter PQL: Practical Quantitation Limit MCL: Maximum Contamination Level H = Analyzed ouside of hold time E = Analysis performed by External Laboratory; See Report attachments. T = Temperature Exceedance Lab Number: AB23686

Collection Date/Time: 11/19/2014 11:00 Sample Collector: LEAR J

Submittal Date/Time: 11/19/2014 11:45 Sample ID Coliform Designation:

	Sar	nple Descri	ption: ASR-4	Backfl	ush			
Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
Phosphorus, Total	HACH 8190	mg/L	0.04		0.03		12/9/2014	SM
Potassium	EPA200.7	mg/L	4.3		0.5		11/20/2014	MW
QC Anion Sum x 100	Calculation	%	99%				11/21/2014	LRH
QC Anion-Cation Balance	Calculation	%	-1				11/21/2014	LRH
QC Cation Sum x 100	Calculation	%	97%				11/21/2014	LRH
QC Ratio TDS/SEC	Calculation		0.57				11/21/2014	MW
Selenium, Total	EPA200.8	μg/L	2		2	50	11/21/2014	SM
Silica as SiO2, Total	EPA200.7	mg/L	43.0		0.5		11/20/2014	MW
Sodium	EPA200.7	mg/L	94		0.5		11/20/2014	MW
Specific Conductance (E.C)	SM2510B	µmhos/cm	911		1	900	11/20/2014	НМ
Strontium, Total	EPA200.8	μg/L	482		5		11/21/2014	SM
Sulfate	EPA300.0	mg/L	55		1	250	11/20/2014	MW
TOC	SM5310C	mg/L	0.6		0.2		12/17/2014	MW
Total Diss. Solids	SM2540C	mg/L	517		10	500	11/21/2014	НМ
Total Nitrogen	Calculation	mg/L	0.5		0.5		12/5/2014	LJ
Total Radium 226	EPA903.0	pCi/L	2.25 ± 0.95	E		3	11/26/2014	DAVI LA
Trihalomethanes	EPA524.2	μg/L	Not Detected	E		80	11/24/2014	BSK
Uranium by ICP/MS	EPA200.8	μg/L	1		1	30	11/21/2014	SM
Vanadium, Total	EPA200.8	μg/L	Not Detected		5	1000	11/21/2014	SM
Zinc, Total	EPA200.8	μg/L	Not Detected		10	5000	11/21/2014	SM

Sample Comments:

Report Approved by:

David Holland, Laboratory Director



BSK Associates Fresno 1414 Stanislaus St Fresno, CA93706 559-497-2888 (Main) 559-485-6935 (FAX)

A4K1961 12/05/2014

Invoice: A426593

David Holland Monterey Bay Analytical 4 Justin Court Suite D Monterey, CA 93940

RE: Report for A4K1961 MPWMD

Dear David Holland,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 11/21/2014. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2009 TNI Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

John Montierth, Project Manager

If additional clarification of any information is required, please contact your Project Manager, John Montierth, at (800) 877-8310 or (559) 497-2888 x201.



Accredited in Accordance with NELAP ORELAP #4021





Case Narrative

Project and Report Details

Invoice Details

Client: Monterey Bay Analytical Invoice To: Monterey Bay Analytical

Report To: David Holland Invoice Attn: David Holland

Project #:

Project PO#: -

Received:

11/21/2014 - 12:21

12/09/2014 **Report Due:**

Sample Receipt Conditions

Cooler: Default Cooler **Containers Intact** COC/Labels Agree Temperature on Receipt °C: 0.4 Received On Wet Ice

Received On Blue Ice

Packing Material - Bubble Wrap Packing Material - Paper Initial receipt at BSK-FAL

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

BS1.0 Blank spike recovery for this analyte was biased high; no material impact on reported result as sample is ND for this

parameter.

CV0.0 CCV recovery was above method acceptance limits; no material impact on reported result as sample is ND for this

parameter.

Report Distribution

Recipient(s)	Report Format	CC:
David Holland	FINAL.RPT	

A4K1961 FINAL 12052014 1521

Printed: 12/05/2014

QA-RP-0001-10 Final.rpt



Certificate of Analysis

Sample ID: A4K1961-01 **Sample Date - Time:** 11/19/14 - 11:00

Sampled By: Jon Lear Matrix: Waste Water

Sample Description: ASR-4 Backflush // AB23686 Sample Type: Grab

BSK Associates Fresno Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	ND	0.50	ug/L	1	A415001	11/24/14	11/24/14	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A415001	11/24/14	11/24/14	
Chloroform	EPA 524.2	ND	0.50	ug/L	1	A415001	11/24/14	11/24/14	
Dibromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A415001	11/24/14	11/24/14	
Surrogate: Bromofluorobenzene	EPA 524.2	101 %	Acceptal	ole range:	70-130 %				
Total Trihalomethanes, EPA 524.2		ND	0.50	ug/L					
Haloacetic Acids by GC-ECD, G	C-MS								
Dibromoacetic Acid (DBAA)	EPA 552.3	ND	1.0	ug/L	1	A415224	12/01/14	12/03/14	BS1.0, CV0.0
Dichloroacetic Acid (DCAA)	EPA 552.3	ND	1.0	ug/L	1	A415224	12/01/14	12/03/14	
Monobromoacetic Acid (MBAA)	EPA 552.3	ND	1.0	ug/L	1	A415224	12/01/14	12/03/14	
Monochloroacetic Acid (MCAA)	EPA 552.3	ND	2.0	ug/L	1	A415224	12/01/14	12/03/14	
Trichloroacetic Acid (TCAA)	EPA 552.3	ND	1.0	ug/L	1	A415224	12/01/14	12/03/14	BS1.0
Surrogate: 2-Bromobutanoic Acid	EPA 552.3	118 %	Acceptal	ole range:	70-130 %				
Total Haloacetic Acids, EPA 552.3		ND	2.0	ug/L					





BSK Associates Fresno **Organics Quality Control Report**

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual	
		EPA 5	24.2 - Q	uality Cor	ntrol							
Batch: A415001				-						Prepared	: 11/24	/201
Prep Method: EPA 524.2											nalyst:	
Blank (A415001-BLK1)												
Bromodichloromethane	ND	0.50	ug/L							11/24/14		
Bromoform	ND	0.50	ug/L							11/24/14		
Chloroform	ND	0.50	ug/L							11/24/14		
Dibromochloromethane	ND	0.50	ug/L							11/24/14		
Surrogate: Bromofluorobenzene	54		9	50		108	70-130			11/24/14		
Blank Spike (A415001-BS1)												
Bromodichloromethane	10	0.50	ug/L	10		103	70-130			11/24/14		
Bromoform	10	0.50	ug/L	10		104	70-130			11/24/14		
Chloroform	9.0	0.50	ug/L	10		90	70-130			11/24/14		
Dibromochloromethane	9.8	0.50	ug/L	10		98	70-130			11/24/14		
Surrogate: Bromofluorobenzene	51		-	50		101	70-130			11/24/14		
Blank Spike Dup (A415001-BSD1)												
Bromodichloromethane	11	0.50	ug/L	10		107	70-130	4	30	11/24/14		
Bromoform	11	0.50	ug/L	10		112	70-130	7	30	11/24/14		
Chloroform	10	0.50	ug/L	10		102	70-130	12	30	11/24/14		
Dibromochloromethane	11	0.50	ug/L	10		107	70-130	8	30	11/24/14		
Surrogate: Bromofluorobenzene	53			50		105	70-130			11/24/14		
		EPA 5	52.3 - Q	uality Co	ntrol							
Batch: A415224										Prepared	: 12/01	/201
Prep Method: EPA 552.3										А	nalyst:	KHI
Blank (A415224-BLK1)												
Dibromoacetic Acid (DBAA)	ND	1.0	ug/L							12/03/14		
Dichloroacetic Acid (DCAA)	ND	1.0	ug/L							12/03/14		
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L							12/03/14		
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L							12/03/14		
Trichloroacetic Acid (TCAA)	ND	1.0	ug/L							12/03/14		
Surrogate: 2-Bromobutanoic Acid	26			25		105	70-130			12/03/14		
Blank Spike (A415224-BS1)												
Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10		114	70-130			12/03/14		
Dichloroacetic Acid (DCAA)	11	1.0	ug/L	10		106	70-130			12/03/14		
Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10		109	70-130			12/03/14		
Monochloroacetic Acid (MCAA)	22	2.0	ug/L	20		112	70-130			12/03/14		
Trichloroacetic Acid (TCAA)	11	1.0	ug/L	10		109	70-130			12/03/14		
Surrogate: 2-Bromobutanoic Acid	27			25		107	70-130			12/03/14		
Blank Spike Dup (A415224-BSD1)												
Dibromoacetic Acid (DBAA)	12	1.0	ug/L	10		115	70-130	1	30	12/04/14		
Dichloroacetic Acid (DCAA)	10	1.0	ug/L	10		102	70-130	4	30	12/04/14		
Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10		107	70-130	2	30	12/04/14		
Monochloroacetic Acid (MCAA)	22	2.0	ug/L	20		108	70-130	4	30	12/04/14		
A4K1961 FINAL 12052014 1521												
Printed: 12/05/2014										Po	ge 4 (of O
QA-RP-0001-10 Final.rpt		— www.	BSKAs	sociates.	com —			_		ı a	90 7 (<i>J</i> 1 <i>J</i>



BSK Associates Fresno Organics Quality Control Report

Analyte	Result	RI	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
Pilitiyit	Result					MILEO	Lillits	TAI D	Lillit	Anaryzeu	- Quui
		EPA 5	52.3 - Q	uality Co	ntroi						10/01/001
Batch: A415224										•	12/01/2014
Prep Method: EPA 552.3										Aı	nalyst: KHH
Blank Spike Dup (A415224-BSD1)											
Trichloroacetic Acid (TCAA)	11	1.0	ug/L	10		107	70-130	2	30	12/04/14	
Surrogate: 2-Bromobutanoic Acid	27			25		106	70-130			12/04/14	
Matrix Spike (A415224-MS1), Source: A	A4K1966-01										
Dibromoacetic Acid (DBAA)	23	1.0	ug/L	10	11	116	70-130			12/03/14	
Dichloroacetic Acid (DCAA)	13	1.0	ug/L	10	2.1	111	70-130			12/03/14	
Monobromoacetic Acid (MBAA)	12	1.0	ug/L	10	1.0	113	70-130			12/03/14	
Monochloroacetic Acid (MCAA)	23	2.0	ug/L	20	ND	112	70-130			12/03/14	
Trichloroacetic Acid (TCAA)	12	1.0	ug/L	10	ND	110	70-130			12/03/14	
Surrogate: 2-Bromobutanoic Acid	26			25		103	70-130			12/03/14	
Matrix Spike Dup (A415224-MSD1), So	urce: A4K1966-0	1									
Dibromoacetic Acid (DBAA)	23	1.0	ug/L	10	11	118	70-130	1	30	12/03/14	
Dichloroacetic Acid (DCAA)	13	1.0	ug/L	10	2.1	108	70-130	2	30	12/03/14	
Monobromoacetic Acid (MBAA)	12	1.0	ug/L	10	1.0	112	70-130	1	30	12/03/14	
Monochloroacetic Acid (MCAA)	23	2.0	ug/L	20	ND	111	70-130	1	30	12/03/14	
Trichloroacetic Acid (TCAA)	12	1.0	ug/L	10	ND	108	70-130	2	30	12/03/14	
Surrogate: 2-Bromobutanoic Acid	26			25		104	70-130			12/03/14	



Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- · Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- · Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.
- The MCLs provided in this report (if applicable) represent the primary MCLs for that analyte.

Definitions

MDL: mg/L: Milligrams/Liter (ppm) MDA95: Min. Detected Activity Method Detection Limit mg/Kg: Milligrams/Kilogram (ppm) RL: Reporting Limit: DL x Dilution MPN: Most Probable Number CFU: μg/L: Micrograms/Liter (ppb) ND: None Detected at RL Colony Forming Unit Micrograms/Kilogram (ppb) pCi/L: Picocuries per Liter Absent: Less than 1 CFU/100mLs μg/Kg: Percent Recovered (surrogates) RL Mult: **RL Multiplier** Present: 1 or more CFU/100mLs NR: Non-Reportable MCL: Maximum Contaminant Limit

BSK is not accredited under the NELAC program for the following parameters:

NA

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

Fresno

State of California - ELAP1180State of Hawaii4021State of NevadaCA000792014-1State of Oregon - ORELAP4021EPA - UCMR3CA00079State of WashingtonC997-14

Sacramento

State of California - ELAP 2435

Vancouver

State of Oregon - ORELAP WA100008 State of Washington C824-13

A4K1961 FINAL 12052014 1521

Printed: 12/05/2014

A4K1961



Monterey Bay Analytical

Monte6227

11212014

Turnaround: Standard

Due Date: 12/9/2014

Printed: 11/21/2014 5:41:17PM



1414 Stanislaus St., Fresno, CA 93706 (559) 497-2888 · Fax (559) 497-2893

www.bskassociates.com

		<u> </u>] _{='}
Date needed:	Rush (Surcharge may apply)	Standard - 10 business days	urnaround Time Request

Monte6227	A411701
10	11/21/2014

Page 8 of 9

*Required Fields		Temp	Temp: O. 4										
Company/Client Name*:	Report Attention*: David Holland		<u></u>	Invoice To*: Mason Weidner-Holland	er-Holland	Phone*:	Phone": 831-375-6227	7		831	Fax: 831-641-0734	734	
vionterey Bay Analytical Services	Additional cc's:			P0#:		E-mail*	E-mail:: montereybayanalytical@usa.net	eybaya	analyti	cal@us	a.net		
adress*: 4 Justin Court, Suite D	city*: Monterey			State*: CA	z _{ip*:} 93940								
Project: MPWMD	Project #:			How would you like to re	How would you like to receive your completed results?								
Reporting Options:	Reguia	Regulatory Carbon Copies	es	Regulato	TCe	-							
race (J-Flag) Swamp DD Type:	SWRC6 (I	SWRC8 (Drinking Water)		EDT to California	EDT to California SWRCB (Drinking Water)								
Sampler Name (Printed/Signature)*:	Merced Co	- -	Fresno Co	System Number*:									
Jon Lear] [Madera Co		I ulare Co	Captractur #		s	5			-			
- 1	W=Ground Water WW=Wa	ste Water STW=	Storm Water	DW=Drinking Water St)=Solid	١N	۱-۲				- 11 //1		
# Sample Description* Sampled* Matrix* Comments / Station Co	Sa	mpled*	Matrix*	Comments / Sta	Comments / Station Code / WTRAX	TT	HA						
ASR-4 Backflush	11/19/14		ww	AB	AB23686	×	×						
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eceived for Lab by: (Signature and Printed Name)		1	Date	Time Payment Re	Payment Received at Delivery:				Di A	-	Check	Į _	Cash
hipping Method: ONTRAC UPS GSO	WALK-IN	FED EX	Courier:		D/N/D	Custody	Custody Seal: Y (187))					
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Cooling Method: Wet Slue None

Cooling Method: Wet Slue None

Chilling Process Begun Y Chilling Process Begun Y None

Chilli

20

A4K1961 Monte6227 11/21/2014

10

Sample Integrity

BSK Bottles: Yes No Page ___ of __/

		emperature within	range?	Page	OT		Nere corre	ect containe	rs and pres	servatives	No.	NIA NIA
		stry ≤ 6°C Mic			No NA			or the tests			res	No NA
COC Info		ples were taken to illing has begun?	day, is there evider	rce Yes	No (NA		Vere there Volatiles C	e bubbles in)nly)	the VOA v	ials?	Yes	No. NA
ည	Did all	bottles arrive unb	roken and intact?	Yes	No			icient amou			i? Yes	No
ö		bottle labels agree		∕Yes⁄	No			s have a ho			Yes	No
			added to CN sampl	e(s) Yes	No NA			otified of dis		i?	Yes I	No (NA .
		nlorine was no long					PM:	B	y/Time:			****
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			OH(NH4)2SO4 DW	AMIN COMMISSION AND AND AND AND AND AND AND AND AND AN	Y	N						
0		P) ^{Pink Label} Hex Cr		1 .	Y	N					/	
performed in the lab	Cr6 (F	P) Pink Label Hex Ch	rome Buffer WW	pH 9.3-9.7	Y	N					Asia .	
Ę	HNO ₃	(P) Red Cap		<u> </u>	-							
. <u>=</u> 78	H₂SO,	4 (P) or (AG	Yellow Cap/Label	pH < 2	Υ	N.			i Like Sec. 19		/	
Jr. W	NaOH	I (P) Green Cap		Cl, pH >10	Υ	N	***************************************					in a fire in the second and the second
erfo		I + ZnAc (P)		pH > 9	Y	N						
le p		ved Oxygen 300)ml (a)				<u></u>					<u> </u>
or are		(AG) 608/8081/808					5. \$	5286.388.55			1	1
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	Soil Tube Brass / Steel / Plastic Tedlar Bag / Plastic Bag						periodical control		P. Len			
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Comments												
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Page 9 of 9



DAVI LABORATORIES, ENVIRONMENTAL ASSOCIATES 730 Alfred Nobel Dr. Hercules, CA 94547

ANALYTICAL RESULTS REPORT

Company: Address: Monterey Bay Analytical Services

4 Justin Court-Suite D Monterey, CA 93940

Project Manager: Report Date: David Holland

Subcontract Order #:

November28, 2014

AB23686

-	A		_	-

Sample ID	Collection Date/Time	Matrix	EPA Method	Analyses	Results pCi/L	<u>+</u>	2 Sigma error	MDA
ASR-4 Backfl	ush		Water					
	11/19/14 (11	00)	900.0 903.1	Gross Alpha Radium 226	3.41	+	1.68 0.95	0.88

Analyses date: November 26, 2014

TABLE II QA/QC

Analyses	Spike Added	Detected Activity	% Agreement
Gross Alpha	571.11 pCi/L	536.29 pCi/L	98.63
Ra 226	2.88 pCi/L	2.81 pCi/L	97.49

Patricia Davi Davi Laboratories QA/QC Manager



McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1411920

Report Created for: Monterey Bay Analytical

4 Justin Court, Suite D Monterey, CA 93940

Project Contact: David Holland

Project P.O.:

Project Name: MPWMD

Project Received: 11/21/2014

Analytical Report reviewed & approved for release on 12/01/2014 by:

Question about your data?

Click here to email
McCampbell

Angela Rydelius,

Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.



1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ www.mccampbell.com NELAP: 4033ORELAP ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3

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Glossary of Terms & Qualifier Definitions

Client: Monterey Bay Analytical

Project: MPWMD **WorkOrder:** 1411920

Glossary Abbreviation

95% Interval 95% Confident Interval

DF Dilution Factor
DUP Duplicate

EDL Estimated Detection Limit

ITEF International Toxicity Equivalence Factor

LCS Laboratory Control Sample

MB Method Blank

MB % Rec % Recovery of Surrogate in Method Blank, if applicable

MDL Method Detection Limit

ML Minimum Level of Quantitation

MS Matrix Spike

MSD Matrix Spike Duplicate

ND Not detected at or above the indicated MDL or RL

NR Data Not Reported due to matrix interference or insufficient sample amount.

PF Prep Factor

RD Relative Difference

RL Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)

RPD Relative Percent Deviation
RRT Relative Retention Time

SPK Val Spike Value

SPKRef Val Spike Reference Value TEQ Toxicity Equivalence

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Analytical Report

Client:Monterey Bay AnalyticalWorkOrder:1411920Project:MPWMDExtraction Method:RSK175Date Received:11/21/14 14:04Analytical Method:RSK175Date Prepared:11/26/14Unit:μg/L

Light Gases

Client ID	Lab ID	Matrix/ExtType	Date C	Collected Instrument	Batch ID
ASR-4 backflush	1411920-001A	Water/DISS.	11/19/2	014 11:00 GC26	98323
<u>Analytes</u>	Result		<u>RL</u>	<u>DF</u>	Date Analyzed
Methane	1.3		0.10	1	11/26/2014 11:49

Analyst(s): KBO

Matrix:

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:Monterey Bay AnalyticalWorkOrder:1411920Date Prepared:11/26/14BatchID:98323Date Analyzed:11/26/14Extraction Method:RSK175Instrument:GC26Analytical Method:RSK175

Air Unit: $\mu L/L$

Project: MPWMD **Sample ID:** MB/LCS-98323

QC Summary Report for RSK175							
Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Methane	ND	11.1	0.50	10	-	111	70-130

McCampbell Analytical, Inc.

1534 Willow Pass Rd Pittsburg, CA 94565-1701 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

Page 1 of

WorkOrder: 1411920 ClientCode: MBAS

	☐ WaterTrax	WriteOn	EDF	Excel	EQuIS	✓ Email	HardCopy	ThirdParty	J-flag
Report to:				Bill	to:		Req	uested TAT:	5 days
David Holland Monterey Bay Analytical	Email: 4m cc/3rd Party:	bas@sbcgloba	al.net		Accounts Pay Monterey Bay				
4 Justin Court, Suite D	PO:				4 Justin Court	t, Suite D	Dat	e Received:	11/21/2014
Monterey, CA 93940 831-375-6227 FAX: 831-641-0734	ProjectNo: MP	PWMD			Monterey, CA	93940	Dat	e Printed:	12/01/2014

							Re	quested	Tests (See leg	end belo	ow)			
Lab ID	Client ID	Matrix	Collection Date Ho	ld 1	2	3	4	5	6	7	8	9	10	11	12
1411920-001	ASR-4 backflush	Water	11/19/2014 11:00	Α											

Test Legend:

1 RSK175_W	2	3	4	5	
6	7	8	9	10	
11	12	7			

Prepared by: Shana Carter

Comments: Needs analysts initials for all reports per D.H. 4/5/13

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).

Hazardous samples will be returned to client or disposed of at client expense.



McCampbell Analytical, Inc. "When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com

WORK ORDER SUMMARY

Client Name	: MONTEREY	BAY ANALYTICA	L		QC Level:	LEVEL	. 2			Work	Order:	1411920
Project:	MPWMD				Client Contact:	David F	Holland			Date Ro	eceived:	11/21/2014
Comments:	Needs analysts	initials for all reports p	per D.H. 4/5/13		Contact's Email:	4mbas@	sbcglobal.net					
		☐WaterTrax	WriteOn	EDF	Excel	Fax	✓ Email	HardCo	ppy ThirdParty	⁄	flag	
Lab ID	Client ID	Matrix	Test Name		Containe /Composi		tle & Preservative	De- chlorinated	Collection Date & Time	TAT	Sediment Content	t Hold SubOut
1411920-001A	ASR-4 backflush	Water	RSK175 <me< td=""><td>thane_4></td><td>3</td><td></td><td>VOA w/ HCl</td><td></td><td>11/19/2014 11:00</td><td>5 days</td><td>None</td><td></td></me<>	thane_4>	3		VOA w/ HCl		11/19/2014 11:00	5 days	None	

^{*} NOTE: STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

McCAMPBELL ANALYTICAL, INC. CHAIN OF CUSTODY RECORD 1534 WILLOW PASS ROAD TURN AROUND TIME PITTSBURG, CA 94565-1701 Website: www.mccampbell.com Email: main@mccampbell.com RUSH 24 HR 48 HR 72 HR 5 DAY Telephone: (877) 252-9262 ☐ GeoTracker EDF ☐ PDF ☐ Excel Fax: (925) 252-9269 ☐ Write On (DW) Report To: David Holland Bill To: Analysis Request Other Comments Company: Monterey Bay Analytical Services EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners Total Petroleum Oil & Grease (1664 / 5520 E/B&F) 4 Justin Ct. Suite D 8015) Filter Monterey, Ca 93940 E-Mail: 4mbas@sbcglobal.net Samples MTBE / BTEX & TPH as Gas (602 / 8021 + CAM 17 Metals (200.7 / 200.8 / 6010 / 6020) Tele: (831) 375 - 6227 LUFT 5 Metals (200,7 / 200.8 / 6010 / 6020) for Metals Fax: (831) 641-0734 MTBE / BTEX ONLY (EPA 602 / 8021) EPA 502.2 / 601 / 8010 / 8021 (HVOCs) Fotal Petroleum Hydrocarbons (418.1) EPA 515 / 8151 (Acidic CI Herbicides) analysis: Project #: EPA 8270 SIM / 8310 (PAHs / PNAs) Project Name: EPA 505/ 608 / 8081 (Cl Pesticides) Yes / No Project Location: MPWMD TPH as Diesel / Motor Oil (8015) Lead (200.7 / 200.8 / 6010 / 6020) EPA 507 / 8141 (NP Pesticides) EPA 525.2 / 625 / 8270 (SVOCs) EPA 524.2 / 624 / 8260 (VOCs) Sampler Signature: Jon Lear METHOD SAMPLING Type Containers MATRIX PRESERVED # Containers LOCATION/ SAMPLE ID **Field Point** Sludge Water Name Methane Date Time Other HNO3 Other HCL ICE Soil ASR-4 11/19/14 1100 XX X AB23686 backflush REC'D SEALED & INTACT VIA Relinquished By: Date: Time: Received By: ICE/t° COMMENTS: David Holland/ 11/20/14 1600 GOOD CONDITION MASON HEAD SPACE ABSENT Relinquished By: Date: Time: Received By: DECHLORINATED IN LAB APPROPRIATE CONTAINERS PRESERVED IN LAB Relinquished By: Date: Time: Received By: VOAS O&G METALS OTHER PRESERVATION pH<2

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name:	Monterey Bay A	nalytical			Date and	Time Received:	11/21/2014 2:04:50 PM
Project Name:	MPWMD				LogIn Rev	iewed by:	Shana Carter
WorkOrder №:	1411920	Matrix: Water			Carrier:	<u>OnTrac</u>	
		Chain of C	ustod	(COC)	Information		
Chain of custody	present?		Yes	✓	No 🗆		
Chain of custody	signed when relin	quished and received?	Yes	✓	No 🗆		
Chain of custody	agrees with samp	le labels?	Yes	✓	No 🗌		
Sample IDs note	d by Client on CO	0?	Yes	✓	No 🗆		
Date and Time of	f collection noted b	y Client on COC?	Yes	✓	No 🗆		
Sampler's name	noted on COC?		Yes	✓	No 🗆		
		Sampl	e Rece	eipt Info	rmation		
Custody seals int	tact on shipping co	-	Yes		No 🗆		NA 🗸
Shipping contain	er/cooler in good o	ondition?	Yes	✓	No 🗆		
Samples in prope	er containers/bottle	s?	Yes	✓	No 🗆		
Sample containe	ers intact?		Yes	✓	No 🗆		
Sufficient sample	e volume for indica	ted test?	Yes	✓	No 🗌		
		Sample Preservation	on and	Hold Ti	me (HT) Info	ormation	
All samples recei	ived within holding	time?	Yes	•	No 🗌		
Sample/Temp Bl	ank temperature			Temp	: 0.5°C		NA 🗌
Water - VOA vial	ls have zero heads	pace / no bubbles?	Yes	•	No 🗌		NA \square
Sample labels ch	necked for correct p	preservation?	Yes	•	No 🗌		
pH acceptable up	pon receipt (Metal:	<2; 522: <4; 218.7: >8)?	Yes		No 🗌		NA 🗹
Samples Receive	ed on Ice?		Yes	•	No 🗌		
		(Ісе Туре	e: WE	TICE)		
UCMR3 Samples Total Chlorine	<u></u>	able upon receipt for EPA 522?	Yes		No 🗌		NA 🗸
Free Chlorine t 300.1, 537, 539		ble upon receipt for EPA 218.7,	Yes		No 🗌		NA ✓
* NOTE: If the "N	lo" box is checked	see comments below.					
Comments:		:=====::					=======



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www.MBASinc.com ELAP Certification Number: 2385

Thursday, January 15, 2015

Lab Number: AB24222

Collection Date/Time: 12/4/2014 11:00 Sample Collector: LEAR J

Submittal Date/Time: 12/4/2014 16:06 Sample ID Coliform Designation:

Sample Description: ASR1										
Analyte	Method	Unit	Result C	Qual	PQL	MCL	Date Analyzed	Analyst:		
Alkalinity, Total (as CaCO3)	SM2320B	mg/L	250		2		12/8/2014	LRH		
Aluminum, Total	EPA200.8	μg/L	Not Detected		10	1000	12/17/2014	SM		
Ammonia-N	SM4500NH3 D	mg/L	0.23		0.05		12/9/2014	LRH		
Arsenic, Total	EPA200.8	μg/L	2		1	10	12/17/2014	SM		
Barium, Total	EPA200.8	μg/L	80		10	1000	12/17/2014	SM		
Bicarbonate (as HCO3-)	SM2320B	mg/L	305		10		12/8/2014	НМ		
Boron	EPA200.7	mg/L	0.12		0.05		12/15/2014	MW		
Bromide	EPA300.0	mg/L	0.5		0.1		12/5/2014	TC		
Calcium	EPA200.7	mg/L	96		0.5		12/15/2014	MW		
Carbonate as CaCO3	SM2320B	mg/L	Not Detected		10		12/8/2014	НМ		
Chloramines	SM4500-CI G	mg/L	0.06 ⊦	ł	0.05		12/10/2014	LRH		
Chloride	EPA300.0	mg/L	142		1	250	12/5/2014	TC		
DOC		mg/L	0.7		0.2		12/17/2014	MW		
Fluoride	EPA300.0	mg/L	0.4		0.1	2.0	12/5/2014	TC		
Gross Alpha	EPA900.0	pCi/L	3.35 ± 1.68			15	12/13/2014	DAVI LA		
Haloacetic Acids	EPA552	μg/L	Not Detected E			60	12/12/2014	BSK		
Iron	EPA200.7	μg/L	324		10	300	12/15/2014	MW		
Iron, Dissolved	EPA200.7	μg/L	30		10	300	12/15/2014	MW		
Kjehldahl Nitrogen	SM4500-NH3 B,C.	mg/L	0.6		0.5		12/12/2014	TC		
Lithium	EPA200.8	μg/L	38		1		12/17/2014	SM		
Magnesium	EPA200.7	mg/L	23		0.5		12/15/2014	MW		
Manganese, Dissolved	EPA200.7	μg/L	41		10	50	12/15/2014	MW		
Manganese, Total	EPA200.7	μg/L	40		10	50	12/15/2014	MW		
Mercury, Total	EPA200.8	μg/L	0.6		0.5	2	12/17/2014	SM		
Methane	EPA174/175	μg/L	3.3 E		0.1		12/12/2014	MCCAM		
Molybdenum, Total	EPA200.8	μg/L	10		1	1000	12/17/2014	SM		
Nickel, Total	EPA200.8	μg/L	Not Detected		10	100	12/17/2014	SM		
Nitrate as NO3	EPA300.0	mg/L	Not Detected		1	45	12/5/2014	TC		
Nitrate as NO3-N	EPA300.0	mg/L	0.1		0.1	10	12/5/2014	TC		
Nitrate+Nitrite as N	EPA300.0	mg/L	0.8		0.1		12/5/2014	TC		
Nitrite as NO2-N	EPA300.0	mg/L	0.6		0.1	1.0	12/5/2014	TC		

mg/L: Milligrams per liter (=ppm)

ug/L : Micrograms per liter (=ppb)

PQL: Practical Quantitation Limit

H = Analyzed ouside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

D = Method deviates from standard method due to insufficient sample for MS/MSD

T = Temperature Exceedance



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WWW.MBASInc.com
ELAP Certification Number: 2385

Thursday, January 15, 2015

Lab Number: AB24222

Collection Date/Time: 12/4/2014 11:00 Sample Collector: LEAR J

Submittal Date/Time: 12/4/2014 16:06 Sample ID Coliform Designation:

		Sample	Description: ASR1				
Analyte	Method	Unit	Result Qual	PQL	MCL	Date Analyzed	Analyst:
o-Phosphate-P	EPA300.0	mg/L	0.2	0.1		12/5/2014	TC
pH (Laboratory)	SM4500-H+B	pH (H)	7.2			12/4/2014	LRH
Phosphorus, Total	HACH 8190	mg/L	0.15	0.03		12/9/2014	SM
Potassium	EPA200.7	mg/L	5.5	0.5		12/15/2014	MW
QC Anion Sum x 100	Calculation	%	95%			12/8/2014	НМ
QC Anion-Cation Balance	Calculation	%	1			12/16/2014	MW
QC Cation Sum x 100	Calculation	%	96%			12/16/2014	MW
QC Ratio TDS/SEC	Calculation		0.61			12/10/2014	HM
Selenium, Total	EPA200.8	μg/L	2	2	50	12/17/2014	SM
Silica as SiO2, Total	EPA200.7	mg/L	40	0.5		12/15/2014	MW
Sodium	EPA200.7	mg/L	105	0.5		12/15/2014	MW
Specific Conductance (E.C)	SM2510B	µmhos/cm	1186	1	900	12/8/2014	LRH
Strontium, Total	EPA200.8	μg/L	454	5		12/17/2014	SM
Sulfate	EPA300.0	mg/L	106	1	250	12/5/2014	TC
TOC	SM5310C	mg/L	0.8	0.2		12/17/2014	MW
Total Diss. Solids	SM2540C	mg/L	720	10	500	12/8/2014	HM
Total Nitrogen	Calculation	mg/L	1.3	0.5		12/15/2014	TC
Total Radium 226	EPA903.0	pCi/L	2.82 ± 1.26 E		3	12/13/2014	DAVI LA
Trihalomethanes	EPA524.2	μg/L	Not Detected E		80	12/11/2014	BSK
Uranium by ICP/MS	EPA200.8	μg/L	1	1	30	12/17/2014	SM
Vanadium, Total	EPA200.8	μg/L	Not Detected	5	1000	12/17/2014	SM
Zinc, Total	EPA200.8	μg/L	108	10	5000	12/17/2014	SM

Sample Comments:

Report Approved by:

David Holland, Laboratory Director

mg/L: Milligrams per liter (=ppm)

ug/L : Micrograms per liter (=ppb)

PQL : Practical Quantitation Limit

H = Analyzed ouside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

T = Temperature Exceedance

D = Method deviates from standard method due to insufficient sample for MS/MSD



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ELAP Certification Number: 2385

Thursday, January 15, 2015

Lab Number: AB24223

Collection Date/Time: 12/4/2014 11:30 Sample Collector: LEAR J

Submittal Date/Time: 12/4/2014 16:06 Sample ID Coliform Designation:

Sample Description: ASR2										
Analyte	Method	Unit	Result Qual	PQL	MCL	Date Analyzed	Analyst:			
Alkalinity, Total (as CaCO3)	SM2320B	mg/L	245	2		12/8/2014	LRH			
Aluminum, Total	EPA200.8	μg/L	Not Detected	10	1000	12/17/2014	SM			
Ammonia-N	SM4500NH3 D	mg/L	0.28	0.05		12/9/2014	LRH			
Arsenic, Total	EPA200.8	μg/L	2	1	10	12/17/2014	SM			
Barium, Total	EPA200.8	μg/L	100	10	1000	12/17/2014	SM			
Bicarbonate (as HCO3-)	SM2320B	mg/L	299	10		12/8/2014	НМ			
Boron	EPA200.7	mg/L	0.09	0.05		12/15/2014	MW			
Bromide	EPA300.0	mg/L	0.4	0.1		12/5/2014	TC			
Calcium	EPA200.7	mg/L	77	0.5		12/15/2014	MW			
Carbonate as CaCO3	SM2320B	mg/L	Not Detected	10		12/8/2014	НМ			
Chloramines	SM4500-CI G	mg/L	Not Detected H	0.05		12/10/2014	LRH			
Chloride	EPA300.0	mg/L	107	1	250	12/5/2014	TC			
DOC		mg/L	0.6	0.2		12/17/2014	MW			
Fluoride	EPA300.0	mg/L	0.4	0.1	2.0	12/5/2014	TC			
Gross Alpha	EPA900.0	pCi/L	2.62 ± 1.46 E		15	12/13/2014	DAVI LA			
Haloacetic Acids	EPA552	μg/L	Not Detected E		60	12/12/2014	BSK			
Iron	EPA200.7	μg/L	91	10	300	12/15/2014	MW			
Iron, Dissolved	EPA200.7	μg/L	Not Detected	10	300	12/15/2014	MW			
Kjehldahl Nitrogen	SM4500-NH3 B,C.	mg/L	0.6	0.5		12/12/2014	TC			
Lithium	EPA200.8	μg/L	34	1		12/17/2014	SM			
Magnesium	EPA200.7	mg/L	19	0.5		12/15/2014	MW			
Manganese, Dissolved	EPA200.7	μg/L	39	10	50	12/15/2014	MW			
Manganese, Total	EPA200.7	μg/L	38	10	50	12/15/2014	MW			
Mercury, Total	EPA200.8	μg/L	6	0.5	2	12/17/2014	SM			
Methane	EPA174/175	μg/L	3.6 E	0.1		12/12/2014	MCCAM			
Molybdenum, Total	EPA200.8	μg/L	10	1	1000	12/17/2014	SM			
Nickel, Total	EPA200.8	μg/L	Not Detected	10	100	12/17/2014	SM			
Nitrate as NO3	EPA300.0	mg/L	1	1	45	12/5/2014	TC			
Nitrate as NO3-N	EPA300.0	mg/L	0.2	0.1	10	12/5/2014	TC			
Nitrate+Nitrite as N	EPA300.0	mg/L	0.9	0.1		12/5/2014	TC			
Nitrite as NO2-N										

mg/L: Milligrams per liter (=ppm)

ug/L : Micrograms per liter (=ppb)

PQL: Practical Quantitation Limit

H = Analyzed ouside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

External Laboratory Report attachments

D = Method deviates from standard method due to insufficient sample for MS/MSD

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ELAP Certification Number: 2385

Thursday, January 15, 2015

Lab Number: AB24223

Collection Date/Time: 12/4/2014 11:30 Sample Collector: LEAR J

Submittal Date/Time: 12/4/2014 16:06 Sample ID Coliform Designation:

QC Anion Sum x 100 Calculation % 95% 12/8/2014 QC Anion-Cation Balance Calculation % 1 12/16/2014 QC Cation Sum x 100 Calculation % 97% 12/16/2014 QC Ratio TDS/SEC Calculation 0.60 12/10/2014 Selenium, Total EPA200.8 μg/L 2 2 50 12/17/2014 Silica as SiO2, Total EPA200.7 mg/L 41 0.5 12/15/2014 Sodium EPA200.7 mg/L 93 0.5 12/15/2014 Specific Conductance (E.C) SM2510B μmhos/cm 990 1 900 12/8/2014 Strontium, Total EPA200.8 μg/L 390 5 12/17/2014	Analyst: TC LRH SM MW HM MW HM
pH (Laboratory) SM4500-H+B pH (H) 7.8 12/4/2014 Phosphorus, Total HACH 8190 mg/L 0.22 0.03 12/9/2014 Potassium EPA200.7 mg/L 5.3 0.5 12/15/2014 QC Anion Sum x 100 Calculation % 95% 12/8/2014 QC Anion-Cation Balance Calculation % 1 12/16/2014 QC Cation Sum x 100 Calculation % 97% 12/16/2014 QC Ratio TDS/SEC Calculation % 97% 12/16/2014 Selenium, Total EPA200.8 μg/L 2 2 50 12/17/2014 Selenium, Total EPA200.7 mg/L 41 0.5 12/15/2014 Sodium EPA200.7 mg/L 93 0.5 12/15/2014 Specific Conductance (E.C) SM2510B μmhos/cm 990 1 900 12/8/2014 Sulfate EPA200.8 μg/L 390 5 12/17/2014 TOC SM5310C	LRH SM MW HM MW MW HM
Phosphorus, Total HACH 8190 mg/L 0.22 0.03 12/9/2014 Potassium EPA200.7 mg/L 5.3 0.5 12/15/2014 QC Anion Sum x 100 Calculation % 95% 12/8/2014 QC Anion-Cation Balance Calculation % 97% 12/16/2014 QC Cation Sum x 100 Calculation % 97% 12/16/2014 QC Ratio TDS/SEC Calculation % 97% 12/16/2014 Selenium, Total EPA200.8 μg/L 2 2 50 12/17/2014 Silica as SiO2, Total EPA200.7 mg/L 41 0.5 12/15/2014 Sodium EPA200.7 mg/L 93 0.5 12/15/2014 Specific Conductance (E.C) SM2510B μmhos/cm 990 1 900 12/8/2014 Sulfate EPA300.0 mg/L 72 1 250 12/17/2014 TOC SM5310C mg/L 0.7 0.2 12/17/2014	SM MW HM MW MW
Potassium EPA200.7 mg/L 5.3 0.5 12/15/2014 QC Anion Sum x 100 Calculation % 95% 12/18/2014 QC Anion-Cation Balance Calculation % 1 12/16/2014 QC Cation Sum x 100 Calculation % 97% 12/16/2014 QC Ratio TDS/SEC Calculation 0.60 12/10/2014 Selenium, Total EPA200.8 μg/L 2 2 50 12/17/2014 Silica as SiO2, Total EPA200.7 mg/L 41 0.5 12/15/2014 Sodium EPA200.7 mg/L 93 0.5 12/15/2014 Specific Conductance (E.C) SM2510B μmhos/cm 990 1 900 12/8/2014 Sulfate EPA200.8 μg/L 390 5 12/17/2014 Sulfate EPA300.0 mg/L 72 1 250 12/5/2014 TOC SM5310C mg/L 0.7 0.2 12/17/2014	MW HM MW MW HM
QC Anion Sum x 100 Calculation % 95% 12/8/2014 QC Anion-Cation Balance Calculation % 1 12/16/2014 QC Cation Sum x 100 Calculation % 97% 12/16/2014 QC Ratio TDS/SEC Calculation 0.60 12/10/2014 Selenium, Total EPA200.8 μg/L 2 2 50 12/17/2014 Silica as SiO2, Total EPA200.7 mg/L 41 0.5 12/15/2014 Sodium EPA200.7 mg/L 93 0.5 12/15/2014 Specific Conductance (E.C) SM2510B μmhos/cm 990 1 900 12/8/2014 Strontium, Total EPA200.8 μg/L 390 5 12/17/2014 Sulfate EPA300.0 mg/L 72 1 250 12/5/2014 TOC SM5310C mg/L 0.7 0.2 12/17/2014	HM MW MW HM
QC Anion-Cation Balance Calculation % 1 12/16/2014 QC Cation Sum x 100 Calculation % 97% 12/16/2014 QC Ratio TDS/SEC Calculation 0.60 12/10/2014 Selenium, Total EPA200.8 µg/L 2 2 50 12/17/2014 Silica as SiO2, Total EPA200.7 mg/L 41 0.5 12/15/2014 Sodium EPA200.7 mg/L 93 0.5 12/15/2014 Specific Conductance (E.C) SM2510B µmhos/cm 990 1 900 12/8/2014 Strontium, Total EPA200.8 µg/L 390 5 12/17/2014 Sulfate EPA300.0 mg/L 72 1 250 12/5/2014 TOC SM5310C mg/L 0.7 0.2 12/17/2014	MW MW HM
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QC Ratio TDS/SEC Calculation 0.60 12/10/2014 Selenium, Total EPA200.8 μg/L 2 2 50 12/17/2014 Silica as SiO2, Total EPA200.7 mg/L 41 0.5 12/15/2014 Sodium EPA200.7 mg/L 93 0.5 12/15/2014 Specific Conductance (E.C) SM2510B μmhos/cm 990 1 900 12/8/2014 Strontium, Total EPA200.8 μg/L 390 5 12/17/2014 Sulfate EPA300.0 mg/L 72 1 250 12/5/2014 TOC SM5310C mg/L 0.7 0.2 12/17/2014	НМ
Selenium, Total EPA200.8 μg/L 2 2 50 12/17/2014 Silica as SiO2, Total EPA200.7 mg/L 41 0.5 12/15/2014 Sodium EPA200.7 mg/L 93 0.5 12/15/2014 Specific Conductance (E.C) SM2510B μmhos/cm 990 1 900 12/8/2014 Strontium, Total EPA200.8 μg/L 390 5 12/17/2014 Sulfate EPA300.0 mg/L 72 1 250 12/5/2014 TOC SM5310C mg/L 0.7 0.2 12/17/2014	
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Specific Conductance (E.C) SM2510B μmhos/cm 990 1 900 12/8/2014 Strontium, Total EPA200.8 μg/L 390 5 12/17/2014 Sulfate EPA300.0 mg/L 72 1 250 12/5/2014 TOC SM5310C mg/L 0.7 0.2 12/17/2014	MW
Strontium, Total EPA200.8 μg/L 390 5 12/17/2014 Sulfate EPA300.0 mg/L 72 1 250 12/5/2014 TOC SM5310C mg/L 0.7 0.2 12/17/2014	MW
Sulfate EPA300.0 mg/L 72 1 250 12/5/2014 TOC SM5310C mg/L 0.7 0.2 12/17/2014	LRH
TOC SM5310C mg/L 0.7 0.2 12/17/2014	SM
y	TC
Total Diss. Solids SM2540C mg/L 597 10 500 12/10/2014	MW
	HM
Total Nitrogen Calculation mg/L 1.5 0.5 12/15/2014	TC
Total Radium 226 EPA903.0 pCi/L 2.18 ± 1.23 E 3 12/13/2014	DAVI LA
Trihalomethanes EPA524.2 μg/L Not Detected E 80 12/11/2014	BSK
Uranium by ICP/MS EPA200.8 μg/L 2 1 30 12/17/2014	SM
Vanadium, Total EPA200.8 μg/L Not Detected 5 1000 12/17/2014	
Zinc, Total EPA200.8 μg/L 206 10 5000 12/17/2014	SM

Sample Comments:

Report Approved by:

David Holland, Laboratory Director

mg/L: Milligrams per liter (=ppm)

ug/L : Micrograms per liter (=ppb)

PQL : Practical Quantitation Limit

H = Analyzed ouside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

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ELAP Certification Number: 2385

Thursday, January 15, 2015

Lab Number: AB24224

Collection Date/Time: 12/4/2014 12:00 Sample Collector: LEAR J

Submittal Date/Time: 12/4/2014 Sample ID 16:06 Coliform Designation:

Alkalinity, Total (as CaCO3) SM2320B mg/L 229 2 12/8/2014 LRH			Sam	ple Description: MW1				
Aluminum, Total EPA200.8 µg/L Not Detected 10 1000 12/17/2014 SM Anmonia-N SM4500NH3 D mg/L Not Detected 0.05 12/9/2014 LRH Arsenic, Total EPA200.8 µg/L 63 10 1000 12/17/2014 SM Sarium, Total EPA200.8 µg/L 63 10 1000 12/17/2014 SM Sarium, Total EPA200.8 µg/L 63 10 1000 12/17/2014 SM Sarium, Total EPA200.8 µg/L 63 10 1000 12/17/2014 SM Sarium, Total EPA200.7 mg/L 0.08 0.05 12/15/2014 MW Seronide (as HCO3-) SM2320B mg/L 279 10 12/8/2014 HM Soron EPA200.7 mg/L 0.08 0.05 12/15/2014 MW Seronide EPA300.0 mg/L 0.4 0.1 12/5/2014 TC Calcium EPA200.7 mg/L 68 0.5 12/16/2014 MW Carbonate as CaCO3 SM2320B mg/L Not Detected 10 12/8/2014 HM Chloramines SM4500-CI G mg/L Not Detected H 0.05 12/16/2014 LRH Chloride EPA300.0 mg/L 109 1 250 12/5/2014 TC COCC mg/L 0.6 0.2 12/17/2014 MW Fluoride EPA300.0 mg/L 0.4 0.1 2.0 12/5/2014 TC COCC mg/L 0.6 0.2 12/17/2014 MW Fluoride EPA300.0 mg/L 0.4 0.1 2.0 12/5/2014 TC COCC mg/L 0.6 0.2 12/17/2014 MW Fluoride EPA300.0 mg/L 0.4 0.1 2.0 12/5/2014 TC COCC mg/L 0.4 0.1 2.0 12/5/2014 TC COCC mg/L 0.4 0.1 2.0 12/5/2014 TC COCC mg/L 0.4 0.1 0.1 2.0 12/5/2014 TC COCC mg/L 0.4 0.1 0.1 0.0 12/15/2014 MW Fluoride EPA300.0 mg/L 0.4 0.1 0.1 0.0 12/15/2014 MW Fluoride EPA300.0 mg/L 0.4 0.1 0.1 0.0 12/15/2014 TC COCC mg/L 0.4 0.1 0.1 0.0 12/15/2014 MW Fluoride EPA200.7 µg/L Not Detected 10 300 12/15/2014 MW Foron, Dissolved EPA200.7 µg/L Not Detected 10 300 12/15/2014 MW Foron EPA200.7 µg/L Not Detected 10 300 12/15/2014 MW Foron, Dissolved EPA200.7 µg/L Not Detected 10 50 12/15/2014 MW Manganese, Total EPA200.7 µg/L 22 10 50 12/15/2014 MW Manganese, Total EPA200.8 µg/L 0.8 0.5 2 12/17/2014 SM MW Manganese, Total EPA200.8 µg/L 0.8 0.5 2 12/17/2014 SM MW Manganese, Total EPA200.8 µg/L 0.6 E 0.1 12/15/2014 MW MW Manganese, Total EPA200.8 µg/L 0.6 E 0.1 12/15/2014 MW MW Manganese, Total EPA200.8 µg/L 0.6 E 0.1 12/15/2014 MW MW Manganese, Total EPA200.8 µg/L 0.6 E 0.1 12/15/2014 MW MW Manganese, Total EPA200.8 µg/L 0.6 E 0.1 12/15/2014 MW MW Manganese, Total EPA200.8 µg/L 0.6 E 0.1 12/15/2014 TC WW MW Mangan	Analyte	Method	Unit	Result Qual	PQL	MCL	Date Analyzed	Analyst:
Ammonia-N SM4500NH3 D mg/L Not Detected 0.05 12/9/2014 LRH	Alkalinity, Total (as CaCO3)	SM2320B	mg/L	229	2		12/8/2014	LRH
Arsenic, Total EPA200.8 µg/L 2 1 10 12/17/2014 SM Barium, Total EPA200.8 µg/L 63 10 1000 12/17/2014 SM Barium, Total EPA200.8 µg/L 63 10 1000 12/17/2014 SM Barium, Total EPA200.7 mg/L 279 10 12/8/2014 HM Boron EPA200.7 mg/L 0.08 0.05 12/15/2014 MW Bromide EPA300.0 mg/L 0.4 0.1 12/8/2014 TC Calcium EPA200.7 mg/L 68 0.5 12/15/2014 MW Carbonate as CaCO3 SM2320B mg/L Not Detected 10 12/8/2014 HM Carbonate as CaCO3 SM2320B mg/L Not Detected H 0.05 12/16/2014 HM Chloramines SM4500-CI G mg/L 109 1 250 12/5/2014 TC Chloride EPA300.0 mg/L 109 1 250 12/5/2014 TC Chloride EPA300.0 mg/L 0.6 0.2 12/17/2014 MW Carbonate as CaCO3 SM2320B mg/L Not Detected H 0.05 12/16/2014 TC Chloride EPA300.0 mg/L 109 1 250 12/5/2014 TC Chloride EPA300.0 mg/L 0.6 0.2 12/17/2014 MW Carbonate as CaCO3 SM4500-CI G mg/L 0.6 0.2 12/17/2014 MW Carbonate as CaCO3 mg/L 0.4 0.1 2.0 12/5/2014 TC Chloride EPA300.0 mg/L 0.4 0.1 2.0 12/5/2014 TC Carbonate as CaCO3 mg/L 0.4 0.1 2.0 12/5/2014 TC Carbonate as CaCO3 mg/L 0.4 0.1 2.0 12/5/2014 TC Carbonate as CaCO3 mg/L 0.4 0.1 2.0 12/5/2014 TC Carbonate as CaCO3 mg/L Not Detected E 60 12/12/2014 BSK aron EPA300.0 pCi/L 2.16 ± 0.67 E 15 12/13/2014 DAVI LA Haloacetic Acids EPA552 µg/L Not Detected E 60 12/12/2014 BSK aron EPA200.7 µg/L Not Detected 10 300 12/15/2014 MW Gighldahl Nitrogen SM4500-NH3 B,C. mg/L Not Detected 10 300 12/15/2014 MW Gighldahl Nitrogen SM4500-NH3 B,C. mg/L Not Detected 0.5 12/12/2014 SM Magnanese, Dissolved EPA200.7 µg/L 20 0.5 12/15/2014 MW Manganese, Dissolved EPA200.7 µg/L 24 10 50 12/15/2014 MW Manganese, Total EPA200.8 µg/L 0.8 0.5 2 12/17/2014 SM MW Manganese, Total EPA200.8 µg/L 0.67 E 0.1 12/12/2014 MW Manganese, Total EPA200.8 µg/L 0.67 E 0.1 12/12/2014 SM MW Molydehum, Total EPA200.8 µg/L 0.67 E 0.1 12/12/2014 SM MW Molydehum, Total EPA200.8 µg/L 0.67 E 0.1 12/12/2014 SM MW Molydehum, Total EPA200.0 mg/L Not Detected 10 10 100 12/17/2014 SM Noticate as NO3 EPA300.0 mg/L Not Detected 10 10 100 12/17/2014 SM Noticate as NO3 EPA300.0 mg/L Not Detected 10 10 100 12/17/2014 SM Not	Aluminum, Total	EPA200.8	μg/L	Not Detected	10	1000	12/17/2014	SM
Barium, Total EPA200.8 µg/L 63 10 1000 12/17/2014 SM	Ammonia-N	SM4500NH3 D	mg/L	Not Detected	0.05		12/9/2014	LRH
Silicarbonate (as HCO3-) SM2320B mg/L 279 10 12/8/2014 HM	Arsenic, Total	EPA200.8	μg/L	2	1	10	12/17/2014	SM
Boron EPA200.7 mg/L 0.08 0.05 12/15/2014 MW Bromide EPA300.0 mg/L 0.4 0.1 12/5/2014 TC Calcium EPA200.7 mg/L 68 0.5 12/15/2014 MW Carbonate as CaCO3 SM2320B mg/L Not Detected 10 12/8/2014 HM Chloramines SM4500-CI G mg/L Not Detected 1 0.05 12/10/2014 LRH Chloride EPA300.0 mg/L 109 1 250 12/5/2014 TC DOC mg/L 0.6 0.2 12/17/2014 MW Fluoride EPA300.0 mg/L 0.4 0.1 2.0 12/5/2014 TC Gross Alpha EPA300.0 mg/L 0.4 0.1 2.0 12/17/2014 MW Fluoride EPA300.0 mg/L Not Detected 0.1 300 12/15/2014 TC Gross Alpha EPA300.0 pg/L Not Det	Barium, Total	EPA200.8	μg/L	63	10	1000	12/17/2014	SM
Bromide	Bicarbonate (as HCO3-)	SM2320B	mg/L	279	10		12/8/2014	НМ
Calcium EPA200.7 mg/L 68 0.5 12/15/2014 MW	Boron	EPA200.7	mg/L	0.08	0.05		12/15/2014	MW
Carbonate as CaCO3 SM2320B mg/L Not Detected 10 12/8/2014 HM Chloramines SM4500-CI G mg/L Not Detected H 0.05 12/10/2014 LRH Chloride EPA300.0 mg/L 109 1 250 12/5/2014 TC DOC mg/L 0.6 0.2 12/17/2014 MW Fluoride EPA300.0 mg/L 0.4 0.1 2.0 12/15/2014 TC Gross Alpha EPA300.0 pCi/L 2.16 ± 0.67 E 15 12/13/2014 DAVI LA Haloacetic Acids EPA552 µg/L Not Detected 60 12/12/2014 BSK Iron EPA552 µg/L Not Detected 10 300 12/15/2014 MW Iron EPA500.7 µg/L Not Detected 10 300 12/15/2014 MW Iron, Dissolved EPA200.7 µg/L Not Detected 0.5 12/15/2014 MW Kipindahi Nitrogen	Bromide	EPA300.0	mg/L	0.4	0.1		12/5/2014	TC
Chloramines SM4500-CI G mg/L Not Detected H 0.05 12/10/2014 LRH Chloride EPA300.0 mg/L 109 1 250 12/5/2014 TC DOC mg/L 0.6 0.2 12/17/2014 MW Fluoride EPA300.0 mg/L 0.4 0.1 2.0 12/5/2014 TC Gross Alpha EPA900.0 pCi/L 2.16 ± 0.67 E 15 12/13/2014 DAVI LA Haloacetic Acids EPA552 µg/L Not Detected E 60 12/12/2014 BSK Iron EPA200.7 µg/L Not Detected 10 300 12/15/2014 MW Kiphldahl Nitrogen SM4500-NH3 B,C. mg/L Not Detected 10 300 12/15/2014 MW Kiphldahl Nitrogen SM4500-NH3 B,C. mg/L Not Detected 0.5 12/17/2014 SM Wagnesium EPA200.8 µg/L 30 1 12/17/2014 MW <t< td=""><td>Calcium</td><td>EPA200.7</td><td>mg/L</td><td>68</td><td>0.5</td><td></td><td>12/15/2014</td><td>MW</td></t<>	Calcium	EPA200.7	mg/L	68	0.5		12/15/2014	MW
Chloride	Carbonate as CaCO3	SM2320B	mg/L	Not Detected	10		12/8/2014	НМ
DOC	Chloramines	SM4500-CI G	mg/L	Not Detected H	0.05		12/10/2014	LRH
Fluoride EPA300.0 mg/L 0.4 0.1 2.0 12/5/2014 TC Gross Alpha EPA900.0 pCi/L 2.16 ± 0.67 E 15 12/13/2014 DAVI LA Haloacetic Acids EPA552 µg/L Not Detected E 60 12/12/2014 BSK fron EPA200.7 µg/L Not Detected 10 300 12/15/2014 MW fron, Dissolved EPA200.7 µg/L Not Detected 10 300 12/15/2014 MW Kjehldahl Nitrogen SM4500-NH3 B,C. mg/L Not Detected 0.5 12/12/2014 TC Lithium EPA200.8 µg/L 30 1 12/17/2014 SM Magnesium EPA200.7 µg/L 20 0.5 12/15/2014 MW Manganese, Dissolved EPA200.7 µg/L 24 10 50 12/15/2014 MW Manganese, Total EPA200.7 µg/L 22 10 50 12/15/2014 MW Mercury, Total EPA200.8 µg/L 0.8 0.5 2 12/17/2014 SM Methane EPA174/175 µg/L 0.67 E 0.1 12/12/2014 SM Molybdenum, Total EPA200.8 µg/L 15 1 1000 12/17/2014 SM Molybdenum, Total EPA200.8 µg/L 15 1 1000 12/17/2014 SM Nitrate as NO3 EPA300.0 mg/L Not Detected 10 10 100 12/17/2014 SM Nitrate as NO3-N EPA300.0 mg/L Not Detected 1 1 45 12/5/2014 TC Nitrate +Nitrite as N EPA300.0 mg/L 0.8 0.1 12/5/2014 TC	Chloride	EPA300.0	mg/L	109	1	250	12/5/2014	TC
Gross Alpha EPA900.0 pCi/L 2.16 ± 0.67 E 15 12/13/2014 DAVI LA Haloacetic Acids EPA552 μg/L Not Detected E 60 12/12/2014 BSK Iron EPA200.7 μg/L Not Detected 10 300 12/15/2014 MW Iron, Dissolved EPA200.7 μg/L Not Detected 10 300 12/15/2014 MW Kjehldahl Nitrogen SM4500-NH3 B,C. mg/L Not Detected 0.5 12/17/2014 TC Lithium EPA200.8 μg/L 30 1 12/17/2014 SM Magnesium EPA200.7 mg/L 20 0.5 12/15/2014 MW Manganese, Dissolved EPA200.7 μg/L 24 10 50 12/15/2014 MW Mercury, Total EPA200.7 μg/L 0.8 0.5 2 12/17/2014 SM Methane EPA174/175 μg/L 0.67 E 0.1 12/12/2014 MCC	DOC		mg/L	0.6	0.2		12/17/2014	MW
Haloacetic Acids EPA552 μg/L Not Detected E 60 12/12/2014 BSK Iron EPA200.7 μg/L Not Detected 10 300 12/15/2014 MW Iron, Dissolved EPA200.7 μg/L Not Detected 10 300 12/15/2014 MW Iron, Dissolved EPA200.7 μg/L Not Detected 0.5 12/12/2014 TC Lithium EPA200.8 μg/L 30 1 12/17/2014 SM Magnesium EPA200.7 mg/L 20 0.5 12/15/2014 MW Manganese, Dissolved EPA200.7 μg/L 24 10 50 12/15/2014 MW Manganese, Total EPA200.7 μg/L 22 10 50 12/15/2014 MW Mercury, Total EPA200.8 μg/L 0.8 0.5 2 12/17/2014 SM Mercury, Total EPA200.8 μg/L 0.8 0.5 2 12/17/2014 SM Mercury, Total EPA200.8 μg/L 0.8 0.5 2 12/17/2014 SM MCCAM Molybdenum, Total EPA200.8 μg/L 15 1 1000 12/17/2014 SM Nitrate as NO3 EPA300.0 mg/L Not Detected 10 100 12/17/2014 SM Nitrate as NO3 EPA300.0 mg/L Not Detected 1 1 45 12/5/2014 TC Nitrate + Nitrate as NO3-N EPA300.0 mg/L 0.1 0.1 12/5/2014 TC	Fluoride	EPA300.0	mg/L	0.4	0.1	2.0	12/5/2014	TC
FA200.7	Gross Alpha	EPA900.0	pCi/L	2.16 ± 0.67 E		15	12/13/2014	DAVI LA
FPA200.7 FPA200.7 FPA200.8 FPA200.8 FPA200.7 FPA200.8 FPA200.7 FPA200.8 FPA200.7 FPA200.8 FPA200.7 FPA200.8 FPA200.7 FPA200.7 FPA200.7 FPA200.7 FPA200.7 FPA200.7 FPA200.7 FPA200.7 FPA200.7 FPA200.8 FPA200.7 FPA200.8	Haloacetic Acids	EPA552	μg/L	Not Detected E		60	12/12/2014	BSK
Kjehldahl Nitrogen SM4500-NH3 B,C. mg/L Not Detected 0.5 12/12/2014 TC Lithium EPA200.8 μg/L 30 1 12/17/2014 SM Magnesium EPA200.7 mg/L 20 0.5 12/15/2014 MW Manganese, Dissolved EPA200.7 μg/L 24 10 50 12/15/2014 MW Manganese, Total EPA200.7 μg/L 22 10 50 12/15/2014 MW Mercury, Total EPA200.8 μg/L 0.8 0.5 2 12/17/2014 SM Methane EPA174/175 μg/L 0.67 E 0.1 12/12/2014 MCCAM Molybdenum, Total EPA200.8 μg/L 15 1 1000 12/17/2014 SM Nitrate as NO3 EPA300.0 mg/L Not Detected 10 10 12/17/2014 SM Nitrate as NO3-N EPA300.0 mg/L 0.1 0.1 12/5/2014 TC	Iron	EPA200.7	μg/L	Not Detected	10	300	12/15/2014	MW
Lithium EPA200.8 μg/L 30 1 12/17/2014 SM Magnesium EPA200.7 mg/L 20 0.5 12/15/2014 MW Manganese, Dissolved EPA200.7 μg/L 24 10 50 12/15/2014 MW Manganese, Total EPA200.7 μg/L 22 10 50 12/15/2014 MW Mercury, Total EPA200.8 μg/L 0.8 0.5 2 12/17/2014 SM Methane EPA174/175 μg/L 0.67 E 0.1 12/12/2014 MCCAM Molybdenum, Total EPA200.8 μg/L 15 1 1000 12/17/2014 SM Nickel, Total EPA200.8 μg/L Not Detected 10 100 12/17/2014 SM Nitrate as NO3 EPA300.0 mg/L Not Detected 1 45 12/5/2014 TC Nitrate+Nitrite as N EPA300.0 mg/L 0.1 0.1 12/5/2014 TC <td>Iron, Dissolved</td> <td>EPA200.7</td> <td>μg/L</td> <td>Not Detected</td> <td>10</td> <td>300</td> <td>12/15/2014</td> <td>MW</td>	Iron, Dissolved	EPA200.7	μg/L	Not Detected	10	300	12/15/2014	MW
Magnesium EPA200.7 mg/L 20 0.5 12/15/2014 MW Manganese, Dissolved EPA200.7 μg/L 24 10 50 12/15/2014 MW Manganese, Total EPA200.7 μg/L 22 10 50 12/15/2014 MW Mercury, Total EPA200.8 μg/L 0.8 0.5 2 12/17/2014 SM Methane EPA174/175 μg/L 0.67 E 0.1 12/12/2014 MCCAM Molybdenum, Total EPA200.8 μg/L 15 1 1000 12/17/2014 SM Nickel, Total EPA200.8 μg/L Not Detected 10 100 12/17/2014 SM Nitrate as NO3 EPA300.0 mg/L Not Detected 1 45 12/5/2014 TC Nitrate+Nitrite as N EPA300.0 mg/L 0.1 0.1 12/5/2014 TC	Kjehldahl Nitrogen	SM4500-NH3 B,C.	mg/L	Not Detected	0.5		12/12/2014	TC
Manganese, Dissolved EPA200.7 μg/L 24 10 50 12/15/2014 MW Manganese, Total EPA200.7 μg/L 22 10 50 12/15/2014 MW Mercury, Total EPA200.8 μg/L 0.8 0.5 2 12/17/2014 SM Methane EPA174/175 μg/L 0.67 E 0.1 12/12/2014 MCCAM Molybdenum, Total EPA200.8 μg/L 15 1 1000 12/17/2014 SM Nickel, Total EPA200.8 μg/L Not Detected 10 100 12/17/2014 SM Nitrate as NO3 EPA300.0 mg/L Not Detected 1 45 12/5/2014 TC Nitrate+Nitrite as N EPA300.0 mg/L 0.1 0.1 12/5/2014 TC	Lithium	EPA200.8	μg/L	30	1		12/17/2014	SM
Manganese, Total EPA200.7 μg/L 22 10 50 12/15/2014 MW Mercury, Total EPA200.8 μg/L 0.8 0.5 2 12/17/2014 SM Methane EPA174/175 μg/L 0.67 E 0.1 12/12/2014 MCCAM Molybdenum, Total EPA200.8 μg/L 15 1 1000 12/17/2014 SM Nickel, Total EPA200.8 μg/L Not Detected 10 100 12/17/2014 SM Nitrate as NO3 EPA300.0 mg/L Not Detected 1 45 12/5/2014 TC Nitrate as NO3-N EPA300.0 mg/L 0.1 0.1 10 12/5/2014 TC Nitrate+Nitrite as N EPA300.0 mg/L 0.8 0.1 12/5/2014 TC	Magnesium	EPA200.7	mg/L	20	0.5		12/15/2014	MW
Mercury, Total EPA200.8 μg/L 0.8 0.5 2 12/17/2014 SM Methane EPA174/175 μg/L 0.67 E 0.1 12/12/2014 MCCAM Molybdenum, Total EPA200.8 μg/L 15 1 1000 12/17/2014 SM Nickel, Total EPA200.8 μg/L Not Detected 10 100 12/17/2014 SM Nitrate as NO3 EPA300.0 mg/L Not Detected 1 45 12/5/2014 TC Nitrate as NO3-N EPA300.0 mg/L 0.1 0.1 10 12/5/2014 TC Nitrate+Nitrite as N EPA300.0 mg/L 0.8 0.1 12/5/2014 TC	Manganese, Dissolved	EPA200.7	μg/L	24	10	50	12/15/2014	MW
Methane EPA174/175 μg/L 0.67 E 0.1 12/12/2014 MCCAM Molybdenum, Total EPA200.8 μg/L 15 1 1000 12/17/2014 SM Nickel, Total EPA200.8 μg/L Not Detected 10 100 12/17/2014 SM Nitrate as NO3 EPA300.0 mg/L Not Detected 1 45 12/5/2014 TC Nitrate as NO3-N EPA300.0 mg/L 0.1 0.1 10 12/5/2014 TC Nitrate+Nitrite as N EPA300.0 mg/L 0.8 0.1 12/5/2014 TC	Manganese, Total	EPA200.7	μg/L	22	10	50	12/15/2014	MW
Molybdenum, Total EPA200.8 μg/L 15 1 1000 12/17/2014 SM Nickel, Total EPA200.8 μg/L Not Detected 10 100 12/17/2014 SM Nitrate as NO3 EPA300.0 mg/L Not Detected 1 45 12/5/2014 TC Nitrate as NO3-N EPA300.0 mg/L 0.1 0.1 10 12/5/2014 TC Nitrate+Nitrite as N EPA300.0 mg/L 0.8 0.1 12/5/2014 TC	Mercury, Total	EPA200.8	μg/L	0.8	0.5	2	12/17/2014	SM
Nickel, Total EPA200.8 μg/L Not Detected 10 100 12/17/2014 SM Nitrate as NO3 EPA300.0 mg/L Not Detected 1 45 12/5/2014 TC Nitrate as NO3-N EPA300.0 mg/L 0.1 0.1 10 12/5/2014 TC Nitrate+Nitrite as N EPA300.0 mg/L 0.8 0.1 12/5/2014 TC	Methane	EPA174/175	μg/L	0.67 E	0.1		12/12/2014	MCCAM
Nickel, Total EPA200.8 μg/L Not Detected 10 100 12/17/2014 SM Nitrate as NO3 EPA300.0 mg/L Not Detected 1 45 12/5/2014 TC Nitrate as NO3-N EPA300.0 mg/L 0.1 0.1 10 12/5/2014 TC Nitrate+Nitrite as N EPA300.0 mg/L 0.8 0.1 12/5/2014 TC	Molybdenum, Total	EPA200.8	μg/L	15	1	1000	12/17/2014	SM
Nitrate as NO3-N EPA300.0 mg/L 0.1 0.1 10 12/5/2014 TC Nitrate+Nitrite as N EPA300.0 mg/L 0.8 0.1 12/5/2014 TC	Nickel, Total	EPA200.8	μg/L	Not Detected	10	100	12/17/2014	SM
Nitrate as NO3-N EPA300.0 mg/L 0.1 0.1 10 12/5/2014 TC Nitrate+Nitrite as N EPA300.0 mg/L 0.8 0.1 12/5/2014 TC	Nitrate as NO3	EPA300.0	mg/L	Not Detected	1	45	12/5/2014	TC
Nitrate+Nitrite as N EPA300.0 mg/L 0.8 0.1 12/5/2014 TC	Nitrate as NO3-N	EPA300.0		0.1	0.1	10	12/5/2014	TC
Nitrite as NO2-N EPA300.0 mg/L 0.7 0.1 1.0 12/5/2014 TC	Nitrate+Nitrite as N	EPA300.0		0.8	0.1		12/5/2014	TC
	Nitrite as NO2-N	EPA300.0	mg/L	0.7	0.1	1.0	12/5/2014	TC

mg/L: Milligrams per liter (=ppm)

ug/L: Micrograms per liter (=ppb)

PQL: Practical Quantitation Limit

H = Analyzed ouside of hold time E = Analysis performed by External Laboratory; See External Laboratory Report attachments. D = Method deviates from standard method due to insufficient sample for MS/MSD



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ELAP Certification Number: 2385

Thursday, January 15, 2015

Lab Number: AB24224

Collection Date/Time: 12/4/2014 12:00 Sample Collector: LEAR J

Submittal Date/Time: 12/4/2014 Sample ID 16:06 Coliform Designation:

		Sample	Description: MW1		·		·
Analyte	Method	Unit	Result Qual	PQL	MCL	Date Analyzed	Analyst:
o-Phosphate-P	EPA300.0	mg/L	0.2	0.1		12/5/2014	TC
pH (Laboratory)	SM4500-H+B	pH (H)	7.3			12/4/2014	LRH
Phosphorus, Total	HACH 8190	mg/L	0.12	0.03		12/9/2014	SM
Potassium	EPA200.7	mg/L	5.0	0.5		12/15/2014	MW
QC Anion Sum x 100	Calculation	%	94%			12/8/2014	НМ
QC Anion-Cation Balance	Calculation	%	-1			12/16/2014	MW
QC Cation Sum x 100	Calculation	%	93%			12/16/2014	MW
QC Ratio TDS/SEC	Calculation		0.59			12/10/2014	HM
Selenium, Total	EPA200.8	μg/L	2	2	50	12/17/2014	SM
Silica as SiO2, Total	EPA200.7	mg/L	38	0.5		12/15/2014	MW
Sodium	EPA200.7	mg/L	84	0.5		12/15/2014	MW
Specific Conductance (E.C)	SM2510B	µmhos/cm	948	1	900	12/8/2014	LRH
Strontium, Total	EPA200.8	μg/L	376	5		12/17/2014	SM
Sulfate	EPA300.0	mg/L	61	1	250	12/5/2014	TC
TOC	SM5310C	mg/L	0.7	0.2		12/17/2014	MW
Total Diss. Solids	SM2540C	mg/L	557	10	500	12/10/2014	НМ
Total Nitrogen	Calculation	mg/L	0.8	0.5		12/15/2014	TC
Total Radium 226	EPA903.0	pCi/L	1.70 ± 1.01 E		3	12/13/2014	DAVI LA
Trihalomethanes	EPA524.2	μg/L	Not Detected E		80	12/11/2014	BSK
Uranium by ICP/MS	EPA200.8	μg/L	1	1	30	12/17/2014	SM
Vanadium, Total	EPA200.8	μg/L	Not Detected	5	1000	12/17/2014	SM
Zinc, Total	EPA200.8	μg/L	43	10	5000	12/17/2014	SM

Sample Comments:

Report Approved by:

David Holland, Laboratory Director

mg/L: Milligrams per liter (=ppm)

ug/L: Micrograms per liter (=ppb)

PQL: Practical Quantitation Limit

H = Analyzed ouside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

D = Method deviates from standard method due to insufficient sample for MS/MSD



BSK Associates Fresno 1414 Stanislaus St Fresno, CA93706 559-497-2888 (Main) 559-485-6935 (FAX)

A4L1173 12/22/2014

Invoice: A427882

David Holland Monterey Bay Analytical 4 Justin Court Suite D Monterey, CA 93940

RE: Report for A4L1173 MPWMD

Dear David Holland,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 12/10/2014. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2009 TNI Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

John Montierth, Project Manager

If additional clarification of any information is required, please contact your Project Manager, John Montierth, at (800) 877-8310 or (559) 497-2888 x201.



Accredited in Accordance with NELAP ORELAP #4021



Case Narrative

Project and Report Details

Invoice Details

Client: Monterey Bay Analytical Invoice To: Monterey Bay Analytical

Report To: David Holland Invoice Attn: David Holland

Project #: **MPWMD** Project PO#: -

12/10/2014 - 16:30 Received:

12/24/2014 Report Due:

Sample Receipt Conditions

Containers Intact Cooler: Default Cooler COC/Labels Agree Temperature on Receipt °C: 1.5 Received On Wet Ice

Received On Blue Ice

Packing Material - Bubble Wrap

Packing Material - Paper

Sample(s) were received in temperature range.

Initial receipt at BSK-FAL

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

Report Distribution

Recipient(s) Report Format CC:

David Holland FINAL.RPT

^{***}None applied***



Certificate of Analysis

Sample ID: A4L1173-01 Sampled By: Jon Lear Sample Date - Time: 12/04/14 - 11:00

. Matrix:

Matrix: Waste Water

Sample Description: ASR1 // AB24222

Sample Type: Grab

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	ND	0.50	ug/L	1	A415638	12/11/14	12/11/14	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A415638	12/11/14	12/11/14	
Chloroform	EPA 524.2	ND	0.50	ug/L	1	A415638	12/11/14	12/11/14	
Dibromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A415638	12/11/14	12/11/14	
Surrogate: Bromofluorobenzene	EPA 524.2	90 %	Acceptal	ble range:	70-130 %				
Total Trihalomethanes, EPA 524.2		ND	0.50	ug/L					
Haloacetic Acids by GC-ECD, G	C-MS								
Dibromoacetic Acid (DBAA)	EPA 552.3	ND	1.0	ug/L	1	A415727	12/11/14	12/12/14	
Dichloroacetic Acid (DCAA)	EPA 552.3	ND	1.0	ug/L	1	A415727	12/11/14	12/12/14	
Monobromoacetic Acid (MBAA)	EPA 552.3	ND	1.0	ug/L	1	A415727	12/11/14	12/12/14	
Monochloroacetic Acid (MCAA)	EPA 552.3	ND	2.0	ug/L	1	A415727	12/11/14	12/12/14	
Trichloroacetic Acid (TCAA)	EPA 552.3	ND	1.0	ug/L	1	A415727	12/11/14	12/12/14	
Surrogate: 2-Bromobutanoic Acid	EPA 552.3	107 %	Acceptal	ble range:	70-130 %				
Total Haloacetic Acids, EPA 552.3		ND	2.0	ug/L					



Certificate of Analysis

Sample ID: A4L1173-02 Sampled By: Jon Lear Sample Date - Time: 12/04/14 - 11:30

Matella

Matrix: Waste Water

Sample Description: ASR2 // AB24223

Sample Type: Grab

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	ND	0.50	ug/L	1	A415638	12/11/14	12/11/14	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A415638	12/11/14	12/11/14	
Chloroform	EPA 524.2	ND	0.50	ug/L	1	A415638	12/11/14	12/11/14	
Dibromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A415638	12/11/14	12/11/14	
Surrogate: Bromofluorobenzene	EPA 524.2	88 %	Acceptal	ble range:	70-130 %				
Total Trihalomethanes, EPA 524.2		ND	0.50	ug/L					
Haloacetic Acids by GC-ECD, G	C-MS								
Dibromoacetic Acid (DBAA)	EPA 552.3	ND	1.0	ug/L	1	A415727	12/11/14	12/12/14	
Dichloroacetic Acid (DCAA)	EPA 552.3	ND	1.0	ug/L	1	A415727	12/11/14	12/12/14	
Monobromoacetic Acid (MBAA)	EPA 552.3	ND	1.0	ug/L	1	A415727	12/11/14	12/12/14	
Monochloroacetic Acid (MCAA)	EPA 552.3	ND	2.0	ug/L	1	A415727	12/11/14	12/12/14	
Trichloroacetic Acid (TCAA)	EPA 552.3	ND	1.0	ug/L	1	A415727	12/11/14	12/12/14	
Surrogate: 2-Bromobutanoic Acid	EPA 552.3	105 %	Acceptal	ble range:	70-130 %				
Total Haloacetic Acids, EPA 552.3		ND	2.0	ug/L					



Certificate of Analysis

Sample ID: A4L1173-03

Sample Date - Time: 12/04/14 - 12:00

Sampled By: Jon Lear

Matrix: Waste Water

Sample Description: MW1 // AB24224

Sample Type: Grab

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	ND	0.50	ug/L	1	A415638	12/11/14	12/11/14	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A415638	12/11/14	12/11/14	
Chloroform	EPA 524.2	ND	0.50	ug/L	1	A415638	12/11/14	12/11/14	
Dibromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A415638	12/11/14	12/11/14	
Surrogate: Bromofluorobenzene	EPA 524.2	86 %	Acceptal	ble range:	70-130 %				
Total Trihalomethanes, EPA 524.2		ND	0.50	ug/L					
Haloacetic Acids by GC-ECD, G	C-MS								
Dibromoacetic Acid (DBAA)	EPA 552.3	ND	1.0	ug/L	1	A415727	12/11/14	12/12/14	
Dichloroacetic Acid (DCAA)	EPA 552.3	ND	1.0	ug/L	1	A415727	12/11/14	12/12/14	
Monobromoacetic Acid (MBAA)	EPA 552.3	ND	1.0	ug/L	1	A415727	12/11/14	12/12/14	
Monochloroacetic Acid (MCAA)	EPA 552.3	ND	2.0	ug/L	1	A415727	12/11/14	12/12/14	
Trichloroacetic Acid (TCAA)	EPA 552.3	ND	1.0	ug/L	1	A415727	12/11/14	12/12/14	
Surrogate: 2-Bromobutanoic Acid	EPA 552.3	107 %	Acceptal	ble range:	70-130 %				
Total Haloacetic Acids, EPA 552.3		ND	2.0	ug/L					





BSK Associates Fresno **Organics Quality Control Report**

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual	
		EPA 5	24.2 - Q	uality Co	ntrol							
Batch: A415638										Prepared	: 12/11	/201
Prep Method: EPA 524.2										•	nalyst	
Plank (A445620 BLV4)												
Blank (A415638-BLK1) Bromodichloromethane	ND	0.50	ua/l							12/11/14		
Bromoform	ND ND	0.50	ug/L ug/L							12/11/14		
Chloroform	ND	0.50	ug/L ug/L							12/11/14		
Dibromochloromethane	ND	0.50	ug/L							12/11/14		
Surrogate: Bromofluorobenzene	43	0.00	ug/L	50		85	70-130			12/11/14		
Blank Spike (A415638-BS1)												
Bromodichloromethane	8.6	0.50	ug/L	10		86	70-130			12/11/14		
Bromoform	9.4	0.50	ug/L ug/L	10		94	70-130			12/11/14		
Chloroform	9.2	0.50	ug/L	10		92	70-130			12/11/14		
Dibromochloromethane	9.0	0.50	ug/L	10		90	70-130			12/11/14		
Surrogate: Bromofluorobenzene	46	3.30	g/ - -	50		92	70-130			12/11/14		
Blank Spike Dup (A415638-BSD1)												
Bromodichloromethane	8.3	0.50	ug/L	10		83	70-130	3	30	12/11/14		
Bromoform	8.8	0.50	ug/L	10		88	70-130	7	30	12/11/14		
Chloroform	8.9	0.50	ug/L	10		89	70-130	3	30	12/11/14		
Dibromochloromethane	8.5	0.50	ug/L	10		85	70-130	6	30	12/11/14		
Surrogate: Bromofluorobenzene	45		3	50		90	70-130			12/11/14		
		EDA 5	.									
Batch: A415727		EPA 5	52.3 - Q	uality Co	ntroi					Droporod	. 10/11	/201
										Prepared		
Prep Method: EPA 552.3										A	nalyst:	KH
Blank (A415727-BLK1)												
Dibromoacetic Acid (DBAA)	ND	1.0	ug/L							12/11/14		
Dichloroacetic Acid (DCAA)	ND	1.0	ug/L							12/11/14		
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L							12/11/14		
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L							12/11/14		
Trichloroacetic Acid (TCAA)	ND	1.0	ug/L							12/11/14		
Surrogate: 2-Bromobutanoic Acid	26			25		105	70-130			12/11/14		
Blank Spike (A415727-BS1)												
Dibromoacetic Acid (DBAA)	12	1.0	ug/L	10		119	70-130			12/11/14		
Dichloroacetic Acid (DCAA)	11	1.0	ug/L	10		105	70-130			12/11/14		
Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10		110	70-130			12/11/14		
Monochloroacetic Acid (MCAA)	22	2.0	ug/L	20		112	70-130			12/11/14		
Trichloroacetic Acid (TCAA)	11	1.0	ug/L	10		108	70-130			12/11/14		
Surrogate: 2-Bromobutanoic Acid	27			25		106	70-130			12/11/14		
Blank Spike Dup (A415727-BSD1)												
Dibromoacetic Acid (DBAA)	12	1.0	ug/L	10		123	70-130	3	30	12/11/14		
Dichloroacetic Acid (DCAA)	11	1.0	ug/L	10		108	70-130	3	30	12/11/14		
Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10		114	70-130	4	30	12/11/14		
Monochloroacetic Acid (MCAA)	23	2.0	ug/L	20		114	70-130	2	30	12/11/14		
A4L1173 FINAL 12222014 1711												
Printed: 12/22/2014												

QA-RP-0001-10 Final.rpt





BSK Associates Fresno Organics Quality Control Report

Analyte	Result	DI.	Units	Spike Level	Source Result	%REC	%REC Limits	BBD	RPD	Date Analyzed	Qual
Analyte—	Result	RL	Onits	Level	Result	70REC	Limits	KPU	Limit	Analyzed	Qual
		EPA 5	52.3 - Q	uality Co	ntrol						
Batch: A415727										Prepared:	12/11/2014
Prep Method: EPA 552.3										Aı	nalyst: KHH
Blank Spike Dup (A415727-BSD1)											
Trichloroacetic Acid (TCAA)	11	1.0	ug/L	10		113	70-130	4	30	12/11/14	
Surrogate: 2-Bromobutanoic Acid	27			25		108	70-130			12/11/14	
Matrix Spike (A415727-MS1), Source: A	A4L0766-01										
Dibromoacetic Acid (DBAA)	12	1.0	ug/L	10	ND	117	70-130			12/11/14	
Dichloroacetic Acid (DCAA)	12	1.0	ug/L	10	2.1	104	70-130			12/11/14	
Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10	ND	107	70-130			12/11/14	
Monochloroacetic Acid (MCAA)	22	2.0	ug/L	20	ND	108	70-130			12/11/14	
Trichloroacetic Acid (TCAA)	13	1.0	ug/L	10	2.9	106	70-130			12/11/14	
Surrogate: 2-Bromobutanoic Acid	25			25		100	70-130			12/11/14	
Matrix Spike Dup (A415727-MSD1), So	urce: A4L0766-01	I									
Dibromoacetic Acid (DBAA)	12	1.0	ug/L	10	ND	118	70-130	1	30	12/11/14	
Dichloroacetic Acid (DCAA)	12	1.0	ug/L	10	2.1	104	70-130	0	30	12/11/14	
Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10	ND	106	70-130	0	30	12/11/14	
Monochloroacetic Acid (MCAA)	22	2.0	ug/L	20	ND	109	70-130	1	30	12/11/14	
Trichloroacetic Acid (TCAA)	14	1.0	ug/L	10	2.9	109	70-130	2	30	12/11/14	
Surrogate: 2-Bromobutanoic Acid	27			25		107	70-130			12/11/14	



Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- · Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- · Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- · RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.
- The MCLs provided in this report (if applicable) represent the primary MCLs for that analyte.

Definitions

MDL: mg/L: Milligrams/Liter (ppm) Method Detection Limit MDA95: Min. Detected Activity mg/Kg: Milligrams/Kilogram (ppm) RL: Reporting Limit: DL x Dilution MPN: Most Probable Number None Detected at RL CFU: μg/L: Micrograms/Liter (ppb) ND: Colony Forming Unit Micrograms/Kilogram (ppb) pCi/L: Picocuries per Liter Absent: Less than 1 CFU/100mLs μg/Kg: Percent Recovered (surrogates) RL Mult: **RL Multiplier** Present: 1 or more CFU/100mLs NR: Non-Reportable MCL: Maximum Contaminant Limit

BSK is not accredited under the NELAC program for the following parameters:

NA

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

Fresno

State of California - ELAP1180State of Hawaii4021State of NevadaCA000792014-1State of Oregon - ORELAP4021EPA - UCMR3CA00079State of WashingtonC997-14

Sacramento

State of California - ELAP 2435

Vancouver

State of Oregon - ORELAP WA100008 State of Washington C824-13

A4L1173



Monterey Bay Analytical

Monte6227

12102014

Turnaround: Standard

Due Date: 12/24/2014

Printed: 12/10/2014 5:39:32PM

Page 1 of 1 Page 9 of 11

Company/Client Name*: Associates Fingineer Paboratories

1414 Stanislaus St., Fresno, CA 93706 (559) 497-2888 · Fax (559) 497-2893

www.bskassociates.com

*Required Fields

Report Attention*: David Holland

Temp

1	1	L	\Box		7	
Invoice To*: Mason Weidner-Holland		Date needed:	Rush (Surcharge may apply)	Standard - 10 business days	Turnaround Time Request	
Phone*: 831-375-6227		C	7		Monte6227	A4L1173
Fax: 831-641-0734	I Tomas - 1				10	12/10/2014
	Р	ag	e 1	0 0	f 1	1

Address*: 4 Justin Court, Suite D Reporting Options: Sampler Name (Printed/Signature)*: Project: Reporting Options: Swamp DD Type SWRCB (Drinking Water)	Project # Regulatory Carbon Co Regulatory Carbon C	rey Regulatory Carbon Copies RCB (Drinking Water) Greed Co Jera Co W=Waste Water STW-SI Sampled* Date Time 2/4/14 1130		State*: Zip*: CA 93940 How would you like to receive your competed results?* [X] E-Mail	× × × TTHMs	× × × TTHMs × × × HAA-5			
MPWMD g Options: race (J-Flag) gr Name (Printed/Signatu Lear Matrix Types:	Ionterey Feel # Regulatory C	arbon Copies g Water) gler STW=S led* Time 1100 1130		How would you like to receive your completed results?" E.Mail Fax Mail Regulatory Compliance EDT to California SWRCB (Drinking Water) System Number*: Geotracker # DW=Drinking Water SO=Solid Comments / Station Code / WTRAX AB24223 AB24223 AB24223	× × × TTHMs	× × HAA-5			
MPWMD race (J-Flag) Fr Name (Printed/Signatu Lear Matrix Types	Regulatory C Regulatory C SWRCB (Drinkin Merced Co Madera Co Other Other Date 12/4/14 12/4/14	iarbon Copies y Water) later STW=5 led* Time 1100 1130		How would you like to receive your completed results?"	× × × TTHMs	× × HAA-5			
Sampler Name (Printed/Signature)*: Jon Lear Matrix Types SW=Surface Water BW=Bottled Water GW=Ground W ASR1	Regulatory C SWRCB (Drinkin Merced Co Madera Co Other Water WW=Waste W Varter WW=Waste W 12/4/14 12/4/14	y Water) y Water) later STW=S led* Time 1100 1130		Regulatory Compliance EDT to California SWRCB (Drinking Water) System Number*: Geotracker # DW=Drinking Water S0=Solid Comments / Station Code / WTRAX AB24222 AB24223 AR24223	× × × TTHMs	× × HAA-5			
Sampler Name (Printed/Signature)*: Jon Lear Matrix Types: SW=Surface Water BW=Bottled Water GW=Ground W Sample Description* ASR1	Merced Co Madera Co Other Water WW=Waste W Water 12/4/14 12/4/14	later STW-S led* Time 1100 1130		System Number*: Geotracker # DW=Drinking Water S0=Solid Comments / Station Code / WTRAX AB24222 AB24223 AB24223	× × × TTHMs	× × × HAA-5			
Matrix Types	Other Other Other Other Other Sampi Date 12/4/14	later STW::5 led* Time 1100 1130		Geotracker # DW=Drinking Water SO=Solid Comments / Station Code / WTRAX AB24222 AB24223 AB24223	× × × TTHMs	× × × HAA-5			
Matrix Types	12/4/14	Time 1130		DW=Drinking Water S0=Solid Comments / Station Code / WTRAX AB24222 AB24223 AB24223	× × × TTHI	× × × HAA			
	Date 12/4/14 12/4/14	Time 1100 1130	Matrix*	Comments / Station Code / WTRAX AB24222 AB24223 AB24223	× × × TT	× × × HA			
ASR1	12/4/14	1 10 0	WW WWW	AB24222 AB24223 AB24223	×××	× × ×			
	12/4/14	1130	WW	AB24223	××	××			
2 ASR2			WW	V667437	 × 	×			_
NW	12/4/14	1200	***	VDC+CC+	;		-		
			,						
	/								
	/				/				
		, /							
)		,	<i>7</i>						
David Holland (Milland Mank)	MBAS		12/9/14	1600 Received by: (Signature and Printed Name)	ų.		C	Company	
Relinquished by (Signature and Printed Name)	Company			Time Received by (Signature and Printed Name)			C	Company	
Received for Lab by: (Signature and Printed Name)	Mars		Date 12/0/hu	Time Payment Received at Delivery:		Amount:	PIA#:	Check	/ Cash Init.
UPS GSO	(FED EX	Courier:		Custody Seal: Y/N	÷ (2)			

A4L1173

Monte6227

12/10/2014

Sample Integrity

	K Bottles: Yes No P	age d	UI	_						
	Was temperature within range? Chemistry ≤ 6°C Micro < 10°C	Ýes N	lo NA	receiv	ed fo	ect containe or the tests i	equested?) 	(Yes)	No NA
COC Info	If samples were taken today, is there evidence	e Yes N	lo (NA)	Were (Volati		bubbles in	the VOA	/ials?	Yes	No NA
	that chilling has begun? Did all bottles arrive unbroken and intact?	(Yes)	No			icient amou	nt of same	le receive	d? (Yes)	No
Ŏ	Did all bottle labels agree with COC?	(Yes)	No			s have a ho			Yes	. No ∋
·	Was sodium thiosulfate added to CN sample	(2)				otified of dis				No NA
	until chlorine was no longer present?	Yes N	lo (NA)	PM:		В	y/Time:		res	NOC INA
	250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)	Checks	Passed?	1.	3					
	Bacti Na ₂ S ₂ O ₃	_								
	None (P) ^{White Cap}	<u> </u>	_							
	Cr6 (P) Br. Green Label NH4OH(NH4)2SO4 DW	pH > 8	Y N							
	Cr6 (P) Pink Label Hex Chrome Buffer DW	pH 9-9.5	YN							
lab	Cr6 (P) Pink Label Hex Chrome Buffer WW	pH 9.3-9.7	YN							
performed in the lab	HNO ₃ (P) Red Cap	_								
.=	H ₂ SO ₄ (P) or (AG) Yellow Cap/Label	pH < 2	YN						1,	
Je Je	H ₂ SO ₄ (F) OI (AG)			+						
To l	NaOH (P) Green Cap	Cl, pH >10	YN	-						
	NaOH + ZnAc (P)	pH > 9	YN							
are	Dissolved Oxygen 300ml (g)	_	_							111
Aor	None (AG) 608/8081/8082, 625, 632/8321, 8151, 8270	_							$\prod_{i=1}^{n} \chi_{i}$	W, ,
Received are either N/A or	HCI (AG) ^{Lt. Blue Label} O&G, Diesel		_						11 1	/ / / -
Received are either N	Na ₂ O ₃ S+HCl (AG) ^{Lt, Pink Label} 525	_	_						11 / 1	
are	Na ₂ S ₂ O ₃ 1 Liter (Brown P) 549		_							" D
- "	Na ₂ S ₂ O ₃ (AG) ^{Blue Label} 547,515,548,THM,524	<u> </u>	_	3/	/					W-
Bottles I ne checks	Na ₂ S ₂ O ₃ (CG) ^{Blue Label} 504, 505	_		-				- 	1	
6 9	Na ₂ S ₂ O ₃ + MCAA (CG) ^{Orango Label} 531									
_ i <u>n</u>	Na ₂ S ₂ O ₃ + MCAA (CG) 531	pH < 3	YN	1				ļ	ļ	
ر ا	NH ₄ CI (AG) ^{Purple Label} 552	_	_	10						
atio	EDA (AG) ^{Brown Label} DBPs									
Bo preservation/chlorine	HCL (CG) 524.2,BTEX,Gas, MTBE, 8260/624	_		ļ						_
pre	Buffer pH 4 (CG)									
ans	None (CG)	_	_							
mea	H ₃ PO ₄ (CG) ^{Salmon Label}	_							\	
,	Other:								1.	\
±*	Asbestos 1Liter Plastic w/ Foil	_								\
	Low Level Hg / Metals Double Baggie	<u> </u>		-				 		
	Bottled Water Clear Glass Jar: 250 / 500 / 1 Liter			-				1		
	Soil Tube Brass / Steel / Plastic			+				<u> </u>		
	Tedlar Bag / Plastic Bag						1	1	 	
		 Date/Time/In	itials	'	C	ontainer	Prese	rvative	Date/Tin	ne/Initials
Split	S P			3 P			1	-		
S	SP		5	S P						
(0				1		_	1			
Comments										
Ē										
Ö										



DAVI LABORATORIES, ENVIRONMENTAL ASSOCIATES

730 Alfred Nobel Dr, Hercules, CA 94547

ANALYTICAL RESULTS REPORT

Company:

Monterey Bay Analytical Services

Address:

4 Justin Court-Suite D Monterey, CA 93940

Project Manager: Report Date: David Holland

December 16, 2014

Subcontract Order #:

AB24222, AB24223, AB24224

TABLE I

Sample ID	Collection Date/Time	Matrix	EPA Method	Analyses	Results pCi/L	+	2 Sigma error	MDA
ASR1		ww						
AB24222	12/04/14 (1:	100)	900.0	Gross Alpha	3.35	+	1.68	0.67
			903.1	Radium 226	2.82	+	1.26	0.79
ASR2		WW						
AB24223	12/04/14 (1:	130)	900.0	Gross Alpha	2.62	+	1.46	1.04
			903.1	Radium 226	2.18	<u>+</u>	1.23	0.95
MW1		WW				-		
AB24224	12/04/14 (12	200)	900.0	Gross Alpha	2.16	+	0.67	0.18
			903.1	Radium 226	1.70	+	1.01	0.81

Analyses Date: 12/13/14

TABLE II QA/QC

Analyses	Spike Added	Detected Activity	% Agreement
Gross Alpha	571.11 pCi/L	547.45 pCi/L	95.86
Radium 226	2.88 pCi/L	2.73 pCi/L	94.79

Patricia Ďavi Davi Laboratories QA/QC Manager





DAVI LABORATORIES, ENVIRONMENTAL ASSOCIATES

730 Alfred Nobel Dr. * Hercules, Ca 94547 (510) 724-9450 Fax (510) 724-9174 davilaboratories@aol.com

SAMPLE CHAIN OF CUSTODY 831-375-6227

4 Justin Court, Suite D Monterey, CA 93940

Bill To: Fax # Phone #

Monterey Bay Analytical

Credit Card On File David Holland

831-641-0734

Report To:

Monterey Bay Analytical Services

P.O. Number Address: Company Name:

		Relinquished by:	2	Relinquished by:			MW1	ASR2	ASR1	Sample ID		Sampled by: Jon Lear
			1	D. Holland			12/4/14 1200	12/4/14 1130	12/4/14 1100	Collection Date /Time		
	W.	Date/time:	12/9/14	Date/time:			ww	ww	ww	Matrix		Employed By:
	ta.		1600							Method		3y:
ttsh1		Rece		Rece			×	×	×		Alpha	
77		Received by:		Received by:							Beta	⊳
7		' :		/ :							Gamma	z
ń	,										Uranium	>
1		Reli		Reli							Tritium	
9	1	onguis		nquis		Ц					Strontium 90	_ <
973	8	inquished by:		inquished by:			×	×	×		Radium 226	S
W		7.		::							Radium 228	-
											Radium Total	S
-	1/2	Date		Date							Radon 222	
	0/4/2	Date/time:		Date/time:			AB24224	AB24223	AB24222	MBAS Lab ID:	Other	

14577 \$ 299 F3



McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1412433

Report Created for: Monterey Bay Analytical

4 Justin Court, Suite D Monterey, CA 93940

Project Contact: David Holland

Project P.O.:

Project Name: MPWMD

Project Received: 12/10/2014

Analytical Report reviewed & approved for release on 12/15/2014 by:

Question about your data?

Click here to email
McCampbell

Angela Rydelius,

Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.



1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ www.mccampbell.com NELAP: 4033ORELAP ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3

Glossary of Terms & Qualifier Definitions

Client: Monterey Bay Analytical

Project: MPWMD **WorkOrder:** 1412433

Glossary Abbreviation

95% Interval 95% Confident Interval

DF Dilution Factor
DUP Duplicate

EDL Estimated Detection Limit

ITEF International Toxicity Equivalence Factor

LCS Laboratory Control Sample

MB Method Blank

MB % Rec % Recovery of Surrogate in Method Blank, if applicable

MDL Method Detection Limit

ML Minimum Level of Quantitation

MS Matrix Spike

MSD Matrix Spike Duplicate

ND Not detected at or above the indicated MDL or RL

NR Data Not Reported due to matrix interference or insufficient sample amount.

PF Prep Factor

RD Relative Difference

RL Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)

RPD Relative Percent Deviation
RRT Relative Retention Time

SPK Val Spike Value

SPKRef Val Spike Reference Value TEQ Toxicity Equivalence

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Analytical Report

Client: WorkOrder: Monterey Bay Analytical 1412433 **Project: MPWMD Extraction Method:** RSK175 **Analytical Method: RSK175 Date Received:** 12/10/14 11:27 **Date Prepared:** 12/12/14 Unit:

	Light Gases			
Lab ID	Matrix/ExtType	Date Collected	Instrument	Batch ID
1412433-001A	Water/DISS.	12/04/2014 11:00	GC26	98947

Analytes Result <u>RL</u> DF **Date Analyzed** 0.10 Methane 3.3 1 12/12/2014 11:01

Analyst(s): KBO

Client ID

ASR1

Client ID	Lab ID	Matrix/ExtType	Date (Collected Instrument	t Batch ID
ASR2	1412433-002A	Water/DISS.	12/04/2	014 11:30 GC26	98947
<u>Analytes</u>	Result		<u>RL</u>	<u>DF</u>	Date Analyzed
Methane	3.6		0.10	1	12/12/2014 11:36

Analyst(s): KBO

Client ID	Lab ID	Matrix/ExtType	Date C	ollected Instrument	Batch ID
MW1	1412433-003A	Water/DISS.	12/04/20	014 12:00 GC26	98947
<u>Analytes</u>	Result		<u>RL</u>	<u>DF</u>	Date Analyzed
Methane	0.67		0.10	1	12/12/2014 12:23

Analyst(s): KBO

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Quality Control Report

Client:Monterey Bay AnalyticalWorkOrder:1412433Date Prepared:12/12/14BatchID:98947Date Analyzed:12/12/14Extraction Method:RSK175

Project: MPWMD **Sample ID:** MB/LCS-98947

	QC Sum	mary Report	for RSK175				
Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Methane	ND	10.9	0.50	10	_	109	70-130

McCampbell Analytical, Inc.

1534 Willow Pass Rd Pittsburg, CA 94565-1701 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 1412433 ClientCode: MBAS

(925) 252-9262			WOIKO	iuci. i	1712733	Cite	incode. NIDA	,			
	☐ WaterTrax ☐ WriteOn	□EDF	Excel		EQuIS	✓ Email	HardCopy	ThirdF	Party	☐ J-fla	g
Report to:			В	ill to:			Re	quested TAT	Γ:	5 d	ays
David Holland Monterey Bay Analytical 4 Justin Court, Suite D Monterey, CA 93940 831-375-6227 FAX: 831-641-0734	Email: 4mbas@sbcgl cc/3rd Party: PO: ProjectNo: MPWMD	lobal.net		Monter 4 Justii	nts Payab rey Bay A n Court, S rey, CA 93	nalytical Suite D	_ ,	ate Received ate Printed:		12/10/20 12/10/20	
						Requested	Tests (See legend	d below)			
ab ID Client ID	Matrix	Collection Date	Hold 1	2	3	4 5	6 7	8 9	10	11	12

1412433-002	ASR2	water	12/4/2014 11:30	Ш	Α				
1412433-003	MW1	Water	12/4/2014 12:00		Α				
							,		

12/4/2014 11:00

Water

Test Legend:

1412433-001

_				
1 RSK175_W	2	3	4	5
6	7	8	9	10
44	42			

Prepared by: Maria Venegas

Comments: Needs analysts initials for all reports per D.H. 4/5/13

ASR1

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).

Hazardous samples will be returned to client or disposed of at client expense.



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WORK ORDER SUMMARY

Client Name: MONTEREY BAY ANALYTICAL **QC Level:** LEVEL 2 **Work Order:** 1412433 **Project: MPWMD** Client Contact: David Holland **Date Received:** 12/10/2014

Needs analysts initials for all reports per D.H. 4/5/13 **Comments:** Contact's Email: 4mbas@sbcglobal.net

		WaterTrax	WriteOn ED	F Excel]Fax ☑ Email	HardC	opy ThirdParty	/ [J-flag	
Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De- chlorinated	Collection Date & Time	TAT	Sediment Content	Hold SubOut
1412433-001A	ASR1	Water	RSK175 <methane_4></methane_4>	3	VOA w/ HCl		12/4/2014 11:00	5 days	None	
1412433-002A	ASR2	Water	RSK175 <methane_4></methane_4>	3	VOA w/ HCl		12/4/2014 11:30	5 days	None	
1412433-003A	MW1	Water	RSK175 <methane_4></methane_4>	3	VOA w/ HCl		12/4/2014 12:00	5 days	None	

^{*} NOTE: STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

1412433

Web		PITTSBU campbell.	RG, CA 94	SS RO 1565-17	TICA AD 701 nin@n	AL		NC	om						TUF			OU	JNI) T	IM	E		RUS	Н	24	HR xce		48 F	IR		2 HF	R 5 DAY
Report To: David	Holland		В	Bill To):														A	nal	ysis	Rec	lues	t					- 1	(Othe	r	Comments
Company: Monte		alytical S	Services														6				13												E:IA
	in Ct. Suite I													8015)			B&F				gene												Filter Samples
Monte	erey, Ca 9394	10	E	-Mail	: 4ml	bas(asbo	glo	bal.	net			`	+			0 E/				Con						(0:	6					for Metals
Tele: (831) 375 -	6227		F	ax: (831)	641	-0734	1						8021	21)		1 552	=	(s.	1	ors/		(S			_	/ 602	602					analysis:
Project #:			P	rojec	t Nan	ne:								02 /	/ 80		664	418.	VOC	(SS	rocl		icide		F	NAS	010	010		3			Yes / No
Project Location:	MPWMD													as (6	602	015)	se (1	ous (E	hicid	Y; A	les)	lerb	(\$2	Cs)	ls / P	9/8	9/8	020	.0			
Sampler Signatur	e: Jon Lear													as Gas (602 / 8021	EPA	9) 11 (8	Grea	carb	802	Pes	ONE	sticio	CII	VOC	SVC	PAH	200	200.	9/01				
		SAMI	PLING	S.	ners		MAT	RI	X		ME'		OD VED	& TPH	ONLY (Motor (Oil &	Hydro	/ 8010 /	3081 (CI	PCB's ((NP Per	(Acidic	/ 8260 (/8270 (/8310 ((200.7 /	(2002)	0.8 / 601				
SAMPLE ID	LOCATION/ Field Point Name	Date	Time	# Containers	Type Containers	Water	Soil	AIF	Sludge	ICE	HCL	HNO.	Other	MTBE / BTEX	MTBE / BTEX ONLY (EPA 602 / 8021)	TPH as Diesel / Motor Oil (8015)	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 502.2 / 601 / 8010 / 8021 (HVOCs)	EPA 505/ 608 / 8081 (CI Pesticides)	EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)	LUFT 5 Metals (200,7 / 200.8 / 6010 / 6020)	Lead (200.7 / 200.8 / 6010 / 6020)	Methane		,	
V	ASR1	12/4/14	1100	3	G	Х		\dagger		13	(X	(X			AB24222
/	ASR2	12/4/14	1130	3	G	X		+	+	1	(X	<	-						-											X			AB24223
. /	MW1	12/4/14	1200	3	G	X		+	+	_	(x		+		-		-		-											X			AB24224
	IVI W I		1200	-	-	-	-	+	+	+	-	-	+	\vdash	-	-	-		-					-							\vdash		
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Relinquished By: David Holland/	AR	Date: 12/9/14	Time: 1600	Rece	ived B	y:								G	E/t°_OOD	CO	NDIT			_										NTS		1	6
Relinquished By:		Date:	Time:	Rece	ived B	8.	11	10	x.	1	7		6	DI Al	ECH PPRO RESE	LOR	INA	TED CO	IN I	V/ 10 / 10 / 10 / 10 / 10 / 10 / 10 / 10	RS_	RE	EC'E	SE	ALE	ED 8	& IN	TAC	CT \	/IA	UV)	rac
Relinquished By:		Date:	Time:	Rece	ived B	y:									RESE			V	OAS	0	&G	ME pH<		S	отн	IER							

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Sample Receipt Checklist

Client Name:	Monterey Bay A	nalytical			Date and I	ime Received:	12/10/2014 11:27:48 AM
Project Name:	MPWMD				LogIn Revi	ewed by:	Maria Venegas
WorkOrder №:	1412433	Matrix: Water			Carrier:	<u>OnTrac</u>	
		Chain of C	ustod	y (COC) I	Information		
Chain of custody	present?		Yes	•	No 🗌		
Chain of custody	signed when relin	quished and received?	Yes	•	No 🗌		
Chain of custody	agrees with samp	le labels?	Yes	✓	No 🗌		
Sample IDs note	ed by Client on CO	C?	Yes	✓	No 🗌		
Date and Time o	f collection noted I	by Client on COC?	Yes	✓	No 🗆		
Sampler's name	noted on COC?		Yes	•	No 🗌		
		Sampl	e Rece	eipt Infor	mation		
Custody seals in	tact on shipping co	ontainer/cooler?	Yes		No 🗌		NA 🗹
Shipping contain	er/cooler in good o	condition?	Yes	✓	No 🗆		
Samples in prope	er containers/bottle	es?	Yes	✓	No 🗌		
Sample containe	ers intact?		Yes	✓	No 🗌		
Sufficient sample	e volume for indica	ted test?	Yes	•	No 🗌		
		Sample Preservation	on and	l Hold Tiı	me (HT) Info	rmation	
All samples rece	ived within holding	time?	Yes	✓	No 🗌		
Sample/Temp Bl	lank temperature			Temp	: 1°C		NA 🗌
Water - VOA vial	ls have zero heads	space / no bubbles?	Yes	✓	No \square		NA 🗌
Sample labels ch	necked for correct	preservation?	Yes	✓	No 🗌		
pH acceptable up	pon receipt (Metal:	<2; 522: <4; 218.7: >8)?	Yes		No \square		NA 🗹
Samples Receive	ed on Ice?		Yes	✓	No 🗌		
		(Ісе Туре	e: WE	T ICE)		
UCMR3 Samples Total Chlorine		able upon receipt for EPA 522?	Yes		No 🗌		NA 🗹
	tested and accepta	able upon receipt for EPA 218.7,			No 🗌		NA 🗹
* NOTE: If the "N	No" box is checked	l, see comments below.					
Comments:		=======	==:				



831.375.MBAS

montereybayanalytical@usa.net **ELAP Certification Number: 2385**

Monday, December 29, 2014

Lab Number: AB24234

Collection Date/Time: 12/5/2014 11:00 Sample Collector:

Submittal Date/Time: 12/5/2014 Sample ID 12:30 Coliform Designation:

LEAR J

		Samp	le Description: ASR-3	3			
Analyte	Method	Unit	Result Qual	PQL	MCL	Date Analyzed	Analyst:
Alkalinity, Total (as CaCO3)	SM2320B	mg/L	228	2		12/8/2014	LRH
Aluminum, Total	EPA200.8	μg/L	10	10	1000	12/17/2014	SM
Ammonia-N	SM4500NH3 D	mg/L	0.10	0.05		12/9/2014	LRH
Arsenic, Total	EPA200.8	μg/L	4	1	10	12/17/2014	SM
Barium, Total	EPA200.8	μg/L	84	10	1000	12/17/2014	SM
Bicarbonate (as HCO3-)	SM2320B	mg/L	278	10		12/8/2014	НМ
Boron	EPA200.7	mg/L	0.09	0.05		12/15/2014	MW
Bromide	EPA300.0	mg/L	0.3	0.1		12/6/2014	MW
Calcium	EPA200.7	mg/L	74	0.5		12/15/2014	MW
Carbonate as CaCO3	SM2320B	mg/L	Not Detected	10		12/8/2014	НМ
Chloramines	SM4500-CI G	mg/L	Not Detected H	0.05		12/10/2014	LRH
Chloride	EPA300.0	mg/L	95	1	250	12/6/2014	MW
OOC		mg/L	0.5	0.2		12/17/2014	MW
luoride	EPA300.0	mg/L	0.3	0.1	2.0	12/6/2014	MW
Gross Alpha	EPA900.0	pCi/L	2.20 ± 0.76 E		15	12/13/2014	DAVI LA
Haloacetic Acids	EPA552	μg/L	Not Detected E		60	12/12/2014	BSK
ron	EPA200.7	μg/L	167	10	300	12/15/2014	MW
ron, Dissolved	EPA200.7	μg/L	47	10	300	12/15/2014	MW
Kjehldahl Nitrogen	SM4500-NH3 B,C.	mg/L	Not Detected	0.5		12/12/2014	TC
ithium	EPA200.8	μg/L	29	1		12/17/2014	SM
Magnesium	EPA200.7	mg/L	21	0.5		12/15/2014	MW
Manganese, Dissolved	EPA200.7	μg/L	32	10	50	12/15/2014	MW
Manganese, Total	EPA200.7	μg/L	32	10	50	12/15/2014	MW
Mercury, Total	EPA200.8	μg/L	2	0.5	2	12/17/2014	SM
Methane	EPA174/175	μg/L	1.2 E	0.1		12/12/2014	BSK
Molybdenum, Total	EPA200.8	μg/L	8	1	1000	12/17/2014	SM
lickel, Total	EPA200.8	μg/L	Not Detected	10	100	12/17/2014	SM
litrate as NO3	EPA300.0	mg/L	1	1	45	12/6/2014	MW
litrate as NO3-N	EPA300.0	mg/L	0.2	0.1	10	12/6/2014	MW
Nitrate+Nitrite as N	EPA300.0	mg/L	0.5	0.1		12/6/2014	MW
Nitrite as NO2-N	EPA300.0	mg/L	0.3	0.1	1.0	12/6/2014	MW

mg/L: Milligrams per liter (=ppm)

ug/L: Micrograms per liter (=ppb)

PQL: Practical Quantitation Limit

H = Analyzed ouside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

D = Method deviates from standard method due to insufficient sample for MS/MSD



831.375.MBAS

montereybayanalytical@usa.net **ELAP Certification Number: 2385**

Monday, December 29, 2014

Lab Number: AB24234

Collection Date/Time: 12/5/2014 11:00 Sample Collector: LEAR J

Submittal Date/Time: 12/5/2014 Sample ID 12:30 Coliform Designation:

D-Phosphate-P EPA300.0 mg/L 0.2 0.1 12/6/2014 MW OH (Laboratory) SM4500-H+B pH (H) 7.3 12/5/2014 HM Phosphorus, Total HACH 8190 mg/L 0.14 0.03 12/9/2014 SM POtassium EPA200.7 mg/L 5.0 0.5 12/15/2014 MW POTASSIUM EPA200.7 mg/L 5.0 0.5 12/15/2014 MW POTASSIUM EPA200.7 mg/L 5.0 0.5 12/16/2014 MW POTASSIUM EPA200.7 mg/L 5.0 0.5 12/16/2014 MW POTASSIUM EPA200.7 mg/L 111% 12/16/2014 MW POTASSIUM EPA200.8 µg/L 2 2 50 12/17/2014 MW POTASSIUM EPA200.8 µg/L 2 2 50 12/17/2014 SM POTASSIUM, Total EPA200.8 µg/L 2 2 50 12/17/2014 SM POTASSIUM, EPA200.7 mg/L 40 0.5 12/15/2014 MW POTASSIUM EPA200.7 mg/L 98 0.5 12/15/2014 MW POTASSIUM EPA200.8 µg/L 98 0.5 12/15/2014 MW POTASSIUM EPA200.8 µg/L 360 5 12/15/2014 MW POTASSIUM EPA200.8 POTASSIUM EPA200			Sample	Description: AS	SR-3			
SH (Laboratory) SM4500-H+B pH (H) 7.3 12/5/2014 HM Phosphorus, Total HACH 8190 mg/L 0.14 0.03 12/9/2014 SM Potassium EPA200.7 mg/L 5.0 0.5 12/15/2014 MW QC Anion Sum x 100 Calculation % 97% 12/8/2014 HM QC Anion-Cation Balance Calculation % 7 12/16/2014 MW QC Cation Sum x 100 Calculation % 111% 12/16/2014 MW QC Ratio TDS/SEC Calculation % 111% 12/16/2014 MW QC Ratio TDS/SEC Calculation % 111% 12/16/2014 MW QC Ratio TDS/SEC Calculation 9.62 12/17/2014 SM Selenium, Total EPA200.8 μg/L 2 2 50 12/17/2014 SM Solica as SiO2, Total EPA200.7 mg/L 40 0.5 12/15/2014 MW Specific Conductance (E.C.) SM2510B	Analyte	Method	Unit	Result Qu	ial PQL	MCL	Date Analyzed	Analyst:
Phosphorus, Total HACH 8190 mg/L 0.14 0.03 12/9/2014 SM Potassium EPA200.7 mg/L 5.0 0.5 12/15/2014 MW QC Anion Sum x 100 Calculation % 97% 12/16/2014 MW QC Anion-Cation Balance Calculation % 7 12/16/2014 MW QC Cation Sum x 100 Calculation % 7 12/16/2014 MW QC Cation Sum x 100 Calculation % 111% 12/16/2014 MW QC Ratio TDS/SEC Calculation 0.62 12/10/2014 HM Selenium, Total EPA200.8 µg/L 2 2 50 12/17/2014 SM Silica as SiO2, Total EPA200.7 mg/L 40 0.5 12/15/2014 MW Sepecific Conductance (E.C) SM2510B µmhos/cm 886 1 900 12/8/2014 LRH Strontium, Total EPA200.8 µg/L 360 5 12/17/2014 SM Sulfate EPA300.0 mg/L 63 1 250 12/6/2014 MW TOC SM5310C mg/L 0.7 0.2 12/17/2014 SM TOC SM5310C mg/L 546 10 500 12/10/2014 HM TOTAL SM540C mg/L 546 10 500 12/10/2014 HM Total Nitrogen Calculation mg/L 0.5 0.5 12/15/2014 MW Total Radium 226 EPA903.0 pCi/L 0.80 ± 0.65 E 3 12/13/2014 DAVI LA Trihalomethanes EPA524.2 µg/L 5.9 E 80 12/11/2014 SM Vanadium, Total EPA200.8 µg/L 5.9 E 80 12/11/2014 SM Vanadium, Total EPA200.8 µg/L 5.9 E 80 12/11/2014 SM Vanadium, Total EPA200.8 µg/L 5.9 E 80 12/11/2014 SM Vanadium, Total EPA200.8 µg/L 5.9 E 80 12/11/2014 SM Vanadium, Total EPA200.8 µg/L 5.9 E 80 12/11/2014 SM Vanadium, Total EPA200.8 µg/L 5.9 E 80 12/11/2014 SM	o-Phosphate-P	EPA300.0	mg/L	0.2	0.1		12/6/2014	MW
Potassium EPA200.7 mg/L 5.0 0.5 12/15/2014 MW QC Anion Sum x 100 Calculation % 97% 12/16/2014 HM QC Anion-Cation Balance Calculation % 7 12/16/2014 MW QC Cation Sum x 100 Calculation % 111% 12/16/2014 MW QC Cation Sum x 100 Calculation % 111% 12/16/2014 MW QC Ratio TDS/SEC Calculation 0.62 12/10/2014 HM QC Ratio TDS/SEC Calculation 0.62 12/17/2014 SM Gelenium, Total EPA200.8 μg/L 2 2 50 12/17/2014 SM Golium EPA200.7 mg/L 40 0.5 12/15/2014 MW GOLIum EPA200.7 mg/L 98 0.5 12/15/2014 MW GOLIum EPA200.7 mg/L 98 0.5 12/15/2014 MW GOLium EPA200.8 μg/L 360 5 12/17/2014 SM Golium EPA200.8 μg/L 360 5 12/17/2014 SM Golifate EPA300.0 mg/L 63 1 250 12/6/2014 MW GOLIum EPA200.8 μg/L 360 5 12/17/2014 SM GOLIum EPA200.8 μg/L 360 5 12/17/2014 MW GOLIum EPA200.8 μg/L 360 10 500 12/10/2014 HM GOLIum EPA200.8 μg/L 360 10 500 12/10/2014 HM GOLIum EPA200.8 μg/L 360 10 500 12/10/2014 HM GOLIum EPA200.8 μg/L 360 5 12/15/2014 TC Golial Radium 226 EPA903.0 pCi/L 360 ± 36 ± 36 ± 36 ± 36 ± 36 ± 36 ± 36	pH (Laboratory)	SM4500-H+B	pH (H)	7.3			12/5/2014	HM
QC Anion Sum x 100 Calculation % 97% 12/8/2014 HM QC Anion-Cation Balance Calculation % 7 12/16/2014 MW QC Cation Sum x 100 Calculation % 111% 12/16/2014 MW QC Ratio TDS/SEC Calculation 0.62 12/10/2014 HM Selenium, Total EPA200.8 μg/L 2 2 50 12/17/2014 SM Selenium, Total EPA200.7 mg/L 40 0.5 12/15/2014 MW Sodium EPA200.7 mg/L 98 0.5 12/15/2014 MW Specific Conductance (E.C) SM2510B μmhos/cm 886 1 900 12/8/2014 LRH Strontium, Total EPA200.8 μg/L 360 5 12/17/2014 SM Sulfate EPA300.0 mg/L 63 1 250 12/6/2014 MW Total Diss. Solids SM2540C mg/L 0.7 0.2 12/17/2014 MW	Phosphorus, Total	HACH 8190	mg/L	0.14	0.03		12/9/2014	SM
QC Anion-Cation Balance Calculation % 7 12/16/2014 MW QC Cation Sum x 100 Calculation % 111% 12/16/2014 MW QC Ratio TDS/SEC Calculation 0.62 12/10/2014 HM Selenium, Total EPA200.8 μg/L 2 2 50 12/17/2014 SM Silica as SiO2, Total EPA200.7 mg/L 40 0.5 12/15/2014 MW Sodium EPA200.7 mg/L 98 0.5 12/15/2014 MW Specific Conductance (E.C) SM2510B μmhos/cm 886 1 900 12/8/2014 LRH Strontium, Total EPA200.8 μg/L 360 5 12/17/2014 SM Sulfate EPA300.0 mg/L 63 1 250 12/17/2014 MW Total Diss. Solids SM2540C mg/L 0.7 0.2 12/17/2014 MW Total Nitrogen Calculation mg/L 0.5 0.5 12/15/2014<	Potassium	EPA200.7	mg/L	5.0	0.5		12/15/2014	MW
QC Cation Sum x 100 Calculation % 111% 12/16/2014 MW QC Ratio TDS/SEC Calculation 0.62 12/10/2014 HM Selenium, Total EPA200.8 μg/L 2 2 50 12/17/2014 SM Silica as SiO2, Total EPA200.7 mg/L 40 0.5 12/15/2014 MW Sodium EPA200.7 mg/L 98 0.5 12/15/2014 MW Specific Conductance (E.C) SM2510B μmhos/cm 886 1 900 12/8/2014 LRH Strontium, Total EPA200.8 μg/L 360 5 12/17/2014 SM Sulfate EPA300.0 mg/L 63 1 250 12/6/2014 MW TOC SM5310C mg/L 0.7 0.2 12/17/2014 MW Total Diss. Solids SM2540C mg/L 546 10 500 12/10/2014 HM Total Radium 226 EPA903.0 pCi/L 0.80 ± 0.65 E </td <td>QC Anion Sum x 100</td> <td>Calculation</td> <td>%</td> <td>97%</td> <td></td> <td></td> <td>12/8/2014</td> <td>HM</td>	QC Anion Sum x 100	Calculation	%	97%			12/8/2014	HM
QC Ratio TDS/SEC Calculation 0.62 12/10/2014 HM Selenium, Total EPA200.8 μg/L 2 2 50 12/17/2014 SM Silica as SiO2, Total EPA200.7 mg/L 40 0.5 12/15/2014 MW Sodium EPA200.7 mg/L 98 0.5 12/15/2014 MW Specific Conductance (E.C) SM2510B μmhos/cm 886 1 900 12/8/2014 LRH Strontium, Total EPA200.8 μg/L 360 5 12/17/2014 SM Sulfate EPA300.0 mg/L 63 1 250 12/6/2014 MW FOC SM5310C mg/L 0.7 0.2 12/17/2014 MW Fotal Diss. Solids SM2540C mg/L 546 10 500 12/10/2014 HM Fotal Radium 226 EPA903.0 pCi/L 0.80 ± 0.65 E 3 12/15/2014 TC Tribalomethanes EPA524.2 μg/L	QC Anion-Cation Balance	Calculation	%	7			12/16/2014	MW
Selenium, Total EPA200.8 μg/L 2 2 50 12/17/2014 SM Silica as SiO2, Total EPA200.7 mg/L 40 0.5 12/15/2014 MW Sodium EPA200.7 mg/L 98 0.5 12/15/2014 MW Specific Conductance (E.C) SM2510B μmhos/cm 886 1 900 12/8/2014 LRH Strontium, Total EPA200.8 μg/L 360 5 12/17/2014 SM Sulfate EPA300.0 mg/L 63 1 250 12/6/2014 MW TOC SM5310C mg/L 0.7 0.2 12/11/2014 MW Total Diss. Solids SM2540C mg/L 546 10 500 12/10/2014 HM Total Radium 226 EPA903.0 pCi/L 0.80 ± 0.65 E 3 12/13/2014 DAVI LA Trihalomethanes EPA524.2 μg/L 5.9 E 80 12/11/2014 SM Vanadium, T	QC Cation Sum x 100	Calculation	%	111%			12/16/2014	MW
Gilica as SiO2, Total EPA200.7 mg/L 40 0.5 12/15/2014 MW Sodium EPA200.7 mg/L 98 0.5 12/15/2014 MW Specific Conductance (E.C) SM2510B μmhos/cm 886 1 900 12/8/2014 LRH Strontium, Total EPA200.8 μg/L 360 5 12/17/2014 SM Sulfate EPA300.0 mg/L 63 1 250 12/6/2014 MW FOC SM5310C mg/L 0.7 0.2 12/17/2014 MW Fotal Diss. Solids SM2540C mg/L 546 10 500 12/10/2014 HM Fotal Nitrogen Calculation mg/L 0.5 0.5 12/15/2014 TC Total Radium 226 EPA903.0 pCi/L 0.80 ± 0.65 E 3 12/13/2014 DAVI LA Trihalomethanes EPA524.2 μg/L 5.9 E 80 12/11/2014 SM Vanadium, Total	QC Ratio TDS/SEC	Calculation		0.62			12/10/2014	НМ
Sodium EPA200.7 mg/L 98 0.5 12/15/2014 MW Specific Conductance (E.C) SM2510B μmhos/cm 886 1 900 12/8/2014 LRH Strontium, Total EPA200.8 μg/L 360 5 12/17/2014 SM Sulfate EPA300.0 mg/L 63 1 250 12/6/2014 MW FOC SM5310C mg/L 0.7 0.2 12/17/2014 MW Fotal Diss. Solids SM2540C mg/L 546 10 500 12/10/2014 HM Fotal Nitrogen Calculation mg/L 0.5 0.5 12/15/2014 TC Fotal Radium 226 EPA903.0 pCi/L 0.80 ± 0.65 E 3 12/13/2014 DAVI LA Frihalomethanes EPA524.2 μg/L 5.9 E 80 12/11/2014 BSK Vanadium, Total EPA200.8 μg/L Not Detected 5 1000 12/17/2014 SM	Selenium, Total	EPA200.8	μg/L	2	2	50	12/17/2014	SM
Specific Conductance (E.C) SM2510B μmhos/cm 886 1 900 12/8/2014 LRH Strontium, Total EPA200.8 μg/L 360 5 12/17/2014 SM Sulfate EPA300.0 mg/L 63 1 250 12/6/2014 MW FOC SM5310C mg/L 0.7 0.2 12/17/2014 MW Total Diss. Solids SM2540C mg/L 546 10 500 12/10/2014 HM Total Nitrogen Calculation mg/L 0.5 0.5 12/15/2014 TC Total Radium 226 EPA903.0 pCi/L 0.80 ± 0.65 E 3 12/13/2014 DAVI LA Trihalomethanes EPA524.2 μg/L 5.9 E 80 12/11/2014 BSK Uranium by ICP/MS EPA200.8 μg/L 2 1 30 12/17/2014 SM Vanadium, Total EPA200.8 μg/L Not Detected 5 1000 12/17/2014 SM	Silica as SiO2, Total	EPA200.7	mg/L	40	0.5		12/15/2014	MW
Strontium, Total EPA200.8 μg/L 360 5 12/17/2014 SM Sulfate EPA300.0 mg/L 63 1 250 12/6/2014 MW TOC SM5310C mg/L 0.7 0.2 12/17/2014 MW Total Diss. Solids SM2540C mg/L 546 10 500 12/10/2014 HM Total Nitrogen Calculation mg/L 0.5 0.5 12/15/2014 TC Total Radium 226 EPA903.0 pCi/L 0.80 ± 0.65 E 3 12/13/2014 DAVI LA Trihalomethanes EPA524.2 μg/L 5.9 E 80 12/11/2014 BSK Uranium by ICP/MS EPA200.8 μg/L 2 1 30 12/17/2014 SM Vanadium, Total EPA200.8 μg/L Not Detected 5 1000 12/17/2014 SM	Sodium	EPA200.7	mg/L	98	0.5		12/15/2014	MW
Sulfate EPA300.0 mg/L 63 1 250 12/6/2014 MW FOC SM5310C mg/L 0.7 0.2 12/17/2014 MW Total Diss. Solids SM2540C mg/L 546 10 500 12/10/2014 HM Total Nitrogen Calculation mg/L 0.5 0.5 12/15/2014 TC Total Radium 226 EPA903.0 pCi/L 0.80 ± 0.65 E 3 12/13/2014 DAVI LA Trihalomethanes EPA524.2 µg/L 5.9 E 80 12/11/2014 BSK Uranium by ICP/MS EPA200.8 µg/L 2 1 30 12/17/2014 SM Vanadium, Total EPA200.8 µg/L Not Detected 5 1000 12/17/2014 SM	Specific Conductance (E.C)	SM2510B	µmhos/cm	886	1	900	12/8/2014	LRH
FOC SM5310C mg/L 0.7 0.2 12/17/2014 MW Total Diss. Solids SM2540C mg/L 546 10 500 12/10/2014 HM Total Nitrogen Calculation mg/L 0.5 0.5 12/15/2014 TC Total Radium 226 EPA903.0 pCi/L 0.80 ± 0.65 E 3 12/13/2014 DAVI LA Trihalomethanes EPA524.2 μg/L 5.9 E 80 12/11/2014 BSK Uranium by ICP/MS EPA200.8 μg/L 2 1 30 12/17/2014 SM Vanadium, Total EPA200.8 μg/L Not Detected 5 1000 12/17/2014 SM	Strontium, Total	EPA200.8	μg/L	360	5		12/17/2014	SM
Total Diss. Solids SM2540C mg/L 546 10 500 12/10/2014 HM Total Nitrogen Calculation mg/L 0.5 0.5 12/15/2014 TC Total Radium 226 EPA903.0 pCi/L 0.80 ± 0.65 E 3 12/13/2014 DAVI LA Trihalomethanes EPA524.2 μg/L 5.9 E 80 12/11/2014 BSK Jranium by ICP/MS EPA200.8 μg/L 2 1 30 12/17/2014 SM Vanadium, Total EPA200.8 μg/L Not Detected 5 1000 12/17/2014 SM	Sulfate	EPA300.0	mg/L	63	1	250	12/6/2014	MW
Total Nitrogen Calculation mg/L 0.5 0.5 12/15/2014 TC Total Radium 226 EPA903.0 pCi/L 0.80 ± 0.65 E 3 12/13/2014 DAVI LA Trihalomethanes EPA524.2 μg/L 5.9 E 80 12/11/2014 BSK Jranium by ICP/MS EPA200.8 μg/L 2 1 30 12/17/2014 SM Vanadium, Total EPA200.8 μg/L Not Detected 5 1000 12/17/2014 SM	TOC	SM5310C	mg/L	0.7	0.2		12/17/2014	MW
Total Radium 226 EPA903.0 pCi/L 0.80 ± 0.65 E 3 12/13/2014 DAVI LA Trihalomethanes EPA524.2 μg/L 5.9 E 80 12/11/2014 BSK Jranium by ICP/MS EPA200.8 μg/L 2 1 30 12/17/2014 SM Vanadium, Total EPA200.8 μg/L Not Detected 5 1000 12/17/2014 SM	Total Diss. Solids	SM2540C	mg/L	546	10	500	12/10/2014	НМ
Trihalomethanes EPA524.2 μg/L 5.9 E 80 12/11/2014 BSK Jranium by ICP/MS EPA200.8 μg/L 2 1 30 12/17/2014 SM Vanadium, Total EPA200.8 μg/L Not Detected 5 1000 12/17/2014 SM	Total Nitrogen	Calculation	mg/L	0.5	0.5		12/15/2014	TC
Jranium by ICP/MS EPA200.8 μg/L 2 1 30 12/17/2014 SM Vanadium, Total EPA200.8 μg/L Not Detected 5 1000 12/17/2014 SM	Total Radium 226	EPA903.0	pCi/L	0.80 ± 0.65 E		3	12/13/2014	DAVI LA
Vanadium, Total EPA200.8 μg/L Not Detected 5 1000 12/17/2014 SM	Trihalomethanes	EPA524.2	μg/L	5.9 E		80	12/11/2014	BSK
10 100 200	Uranium by ICP/MS	EPA200.8	μg/L	2	1	30	12/17/2014	SM
Zinc, Total EPA200.8 μg/L 128 10 5000 12/17/2014 SM	Vanadium, Total	EPA200.8	μg/L	Not Detected	5	1000	12/17/2014	SM
	Zinc, Total	EPA200.8	μg/L	128	10	5000	12/17/2014	SM

Sample Comments:

Report Approved by:

David Holland, Laboratory Director

mg/L: Milligrams per liter (=ppm)

ug/L: Micrograms per liter (=ppb)

PQL: Practical Quantitation Limit

H = Analyzed ouside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

D = Method deviates from standard method due to insufficient sample for MS/MSD



831.375.MBAS

montereybayanalytical@usa.net **ELAP Certification Number: 2385**

Monday, December 29, 2014

Lab Number: AB24235

Collection Date/Time: 12/5/2014 11:45 Sample Collector: LEAR J

Submittal Date/Time: Sample ID 12/5/2014 12:30 Coliform Designation:

		Sample	Description: SMS De	ер			
Analyte	Method	Unit	Result Qual	PQL	MCL	Date Analyzed	Analyst:
Alkalinity, Total (as CaCO3)	SM2320B	mg/L	225	2		12/8/2014	LRH
Aluminum, Total	EPA200.8	μg/L	19	10	1000	12/17/2014	SM
Ammonia-N	SM4500NH3 D	mg/L	0.06	0.05		12/9/2014	LRH
Arsenic, Total	EPA200.8	μg/L	5	1	10	12/17/2014	SM
Barium, Total	EPA200.8	μg/L	52	10	1000	12/17/2014	SM
Bicarbonate (as HCO3-)	SM2320B	mg/L	275	10		12/8/2014	HM
Boron	EPA200.7	mg/L	0.08	0.05		12/15/2014	MW
Bromide	EPA300.0	mg/L	0.3	0.1		12/6/2014	MW
Calcium	EPA200.7	mg/L	69	0.5		12/15/2014	MW
Carbonate as CaCO3	SM2320B	mg/L	Not Detected	10		12/8/2014	HM
Chloramines	SM4500-CI G	mg/L	Not Detected H	0.05		12/10/2014	LRH
Chloride	EPA300.0	mg/L	92	1	250	12/6/2014	MW
OOC		mg/L	0.4	0.2		12/17/2014	MW
Fluoride	EPA300.0	mg/L	0.3	0.1	2.0	12/6/2014	MW
Gross Alpha	EPA900.0	pCi/L	1.95 ± 0.72 E		15	12/13/2014	DAVI LA
Haloacetic Acids	EPA552	μg/L	Not Detected E		60	12/12/2014	BSK
ron	EPA200.7	μg/L	20	10	300	12/15/2014	MW
ron, Dissolved	EPA200.7	μg/L	Not Detected	10	300	12/15/2014	MW
Kjehldahl Nitrogen	SM4500-NH3 B,C.	mg/L	Not Detected	0.5		12/12/2014	TC
₋ithium	EPA200.8	μg/L	23	1		12/17/2014	SM
Magnesium	EPA200.7	mg/L	15	0.5		12/15/2014	MW
Manganese, Dissolved	EPA200.7	μg/L	23	10	50	12/15/2014	MW
Manganese, Total	EPA200.7	μg/L	23	10	50	12/15/2014	MW
Mercury, Total	EPA200.8	μg/L	1	0.5	2	12/17/2014	SM
Methane	EPA174/175	μg/L	1.2 E	0.1		12/12/2014	BSK
Molybdenum, Total	EPA200.8	μg/L	7	1	1000	12/17/2014	SM
Nickel, Total	EPA200.8	μg/L	Not Detected	10	100	12/17/2014	SM
Nitrate as NO3	EPA300.0	mg/L	1	1	45	12/6/2014	MW
Nitrate as NO3-N	EPA300.0	mg/L	0.2	0.1	10	12/6/2014	MW
Nitrate+Nitrite as N	EPA300.0	mg/L	0.4	0.1		12/6/2014	MW
Nitrite as NO2-N	EPA300.0	mg/L	0.3	0.1	1.0	12/6/2014	MW

mg/L: Milligrams per liter (=ppm)

ug/L: Micrograms per liter (=ppb)

PQL: Practical Quantitation Limit

H = Analyzed ouside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

D = Method deviates from standard method due to insufficient sample for MS/MSD



831.375.MBAS

montereybayanalytical@usa.net **ELAP Certification Number: 2385**

Monday, December 29, 2014

Lab Number: AB24235

Collection Date/Time: 12/5/2014 Sample Collector: LEAR J 11:45

Submittal Date/Time: 12/5/2014 Sample ID 12:30 Coliform Designation:

		Sample De	escription: SMS Dec	p			
Analyte	Method	Unit	Result Qual	PQL	MCL	Date Analyzed	Analyst:
o-Phosphate-P	EPA300.0	mg/L	Not Detected	0.1		12/6/2014	MW
pH (Laboratory)	SM4500-H+B	pH (H)	7.4			12/5/2014	HM
Phosphorus, Total	HACH 8190	mg/L	0.05	0.03		12/9/2014	SM
Potassium	EPA200.7	mg/L	4.3	0.5		12/15/2014	MW
QC Anion Sum x 100	Calculation	%	96%			12/8/2014	HM
QC Anion-Cation Balance	Calculation	%	4			12/16/2014	MW
QC Cation Sum x 100	Calculation	%	104%			12/16/2014	MW
QC Ratio TDS/SEC	Calculation		0.58			12/10/2014	HM
Selenium, Total	EPA200.8	μg/L	2	2	50	12/17/2014	SM
Silica as SiO2, Total	EPA200.7	mg/L	39	0.5		12/15/2014	MW
Sodium	EPA200.7	mg/L	93	0.5		12/15/2014	MW
Specific Conductance (E.C)	SM2510B	µmhos/cm	850	1	900	12/8/2014	LRH
Strontium, Total	EPA200.8	μg/L	421	5		12/17/2014	SM
Sulfate	EPA300.0	mg/L	50	1	250	12/6/2014	MW
TOC	SM5310C	mg/L	0.6	0.2		12/17/2014	MW
Total Diss. Solids	SM2540C	mg/L	497	10	500	12/10/2014	HM
Total Nitrogen	Calculation	mg/L	0.5	0.5		12/15/2014	TC
Total Radium 226	EPA903.0	pCi/L	1.19 ± 0.77 E		3	12/13/2014	DAVI LA
Trihalomethanes	EPA524.2	μg/L	4.1 E		80	12/11/2014	BSK
Uranium by ICP/MS	EPA200.8	μg/L	2	1	30	12/17/2014	SM
Vanadium, Total	EPA200.8	μg/L	Not Detected	5	1000	12/17/2014	SM
Zinc, Total	EPA200.8	μg/L	28	10	5000	12/17/2014	SM

Sample Comments:

Report Approved by:

David Holland, Laboratory Director

mg/L: Milligrams per liter (=ppm)

ug/L: Micrograms per liter (=ppb)

PQL: Practical Quantitation Limit

H = Analyzed ouside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

T = Temperature Exceedance

D = Method deviates from standard method due to insufficient sample for MS/MSD



BSK Associates Fresno 1414 Stanislaus St Fresno, CA93706 559-497-2888 (Main) 559-485-6935 (FAX)

A4L1176 12/23/2014

Invoice: A427896

David Holland Monterey Bay Analytical 4 Justin Court Suite D Monterey, CA 93940

RE: Report for A4L1176 MPWMD

Dear David Holland,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 12/10/2014. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2009 TNI Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

John Montierth, Project Manager

If additional clarification of any information is required, please contact your Project Manager, John Montierth, at (800) 877-8310 or (559) 497-2888 x201.



Accredited in Accordance with NELAP ORELAP #4021



Case Narrative

Project and Report Details

Invoice Details

Client: Monterey Bay Analytical Invoice To: Monterey Bay Analytical

Report To: David Holland Invoice Attn: David Holland

Project #: MPWMD Project PO#: -

Received: 12/10/2014 - 16:00 **Report Due:** 12/24/2014

Sample Receipt Conditions

Cooler: Default Cooler Containers Intact

Temperature on Receipt °C: 1.5

COC/Labels Agree

Received On Wet Ice

Received On Wet Ice Received On Blue Ice

Packing Material - Bubble Wrap

Packing Material - Paper

Sample(s) were received in temperature range.

Initial receipt at BSK-FAL

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

None applied

Report Distribution

Recipient(s) Report Format CC:

David Holland FINAL.RPT



Certificate of Analysis

Sample ID: A4L1176-01 **Sampled By:** Jon Lear

Sample Date - Time: 12/05/14 - 11:00

Matrix: Waste Water

Sample Type: Grab

Sample Description: ASR-3 // AB24234

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	1.8	0.50	ug/L	1	A415638	12/11/14	12/11/14	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A415638	12/11/14	12/11/14	
Chloroform	EPA 524.2	3.0	0.50	ug/L	1	A415638	12/11/14	12/11/14	
Dibromochloromethane	EPA 524.2	1.1	0.50	ug/L	1	A415638	12/11/14	12/11/14	
Surrogate: Bromofluorobenzene	EPA 524.2	87 %	Acceptal	ble range:	70-130 %				
Total Trihalomethanes, EPA 524.2		5.9	0.50	ug/L					
Haloacetic Acids by GC-ECD, G	C-MS								
Dibromoacetic Acid (DBAA)	EPA 552.3	ND	1.0	ug/L	1	A415727	12/11/14	12/12/14	
Dichloroacetic Acid (DCAA)	EPA 552.3	ND	1.0	ug/L	1	A415727	12/11/14	12/12/14	
Monobromoacetic Acid (MBAA)	EPA 552.3	ND	1.0	ug/L	1	A415727	12/11/14	12/12/14	
Monochloroacetic Acid (MCAA)	EPA 552.3	ND	2.0	ug/L	1	A415727	12/11/14	12/12/14	
Trichloroacetic Acid (TCAA)	EPA 552.3	ND	1.0	ug/L	1	A415727	12/11/14	12/12/14	
Surrogate: 2-Bromobutanoic Acid	EPA 552.3	107 %	Acceptal	ble range:	70-130 %				
Total Haloacetic Acids, EPA 552.3		ND	2.0	ug/L					



Certificate of Analysis

Sample ID: A4L1176-02

Sample Date - Time: 12/05/14 - 11:45

Matrix: Waste Water

Sampled By: Jon Lear

Sample Type: Grab

Sample Description: SMS Deep // AB24235

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	1.2	0.50	ug/L	1	A415638	12/11/14	12/11/14	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A415638	12/11/14	12/11/14	
Chloroform	EPA 524.2	2.3	0.50	ug/L	1	A415638	12/11/14	12/11/14	
Dibromochloromethane	EPA 524.2	0.59	0.50	ug/L	1	A415638	12/11/14	12/11/14	
Surrogate: Bromofluorobenzene	EPA 524.2	89 %	Acceptal	ole range:	70-130 %				
Total Trihalomethanes, EPA 524.2		4.1	0.50	ug/L					
Haloacetic Acids by GC-ECD, G	C-MS								
Dibromoacetic Acid (DBAA)	EPA 552.3	ND	1.0	ug/L	1	A415727	12/11/14	12/12/14	
Dichloroacetic Acid (DCAA)	EPA 552.3	ND	1.0	ug/L	1	A415727	12/11/14	12/12/14	
Monobromoacetic Acid (MBAA)	EPA 552.3	ND	1.0	ug/L	1	A415727	12/11/14	12/12/14	
Monochloroacetic Acid (MCAA)	EPA 552.3	ND	2.0	ug/L	1	A415727	12/11/14	12/12/14	
Trichloroacetic Acid (TCAA)	EPA 552.3	ND	1.0	ug/L	1	A415727	12/11/14	12/12/14	
Surrogate: 2-Bromobutanoic Acid	EPA 552.3	106 %	Acceptal	ole range:	70-130 %				
Total Haloacetic Acids, EPA 552.3		ND	2.0	ug/L					





BSK Associates Fresno Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
		EPA 52	24.2 - Qı	uality Co	ntrol						
Batch: A415638										Prepared	: 12/11/20
Prep Method: EPA 524.2										A	nalyst: J
Blank (A415638-BLK1)											
Bromodichloromethane	ND	0.50	ug/L							12/11/14	
Bromoform	ND	0.50	ug/L							12/11/14	
Chloroform	ND	0.50	ug/L							12/11/14	
Dibromochloromethane	ND	0.50	ug/L							12/11/14	
Surrogate: Bromofluorobenzene	43	0.00	-9/-	50		85	70-130			12/11/14	
Blank Spike (A415638-BS1)											
Bromodichloromethane	8.6	0.50	ug/L	10		86	70-130			12/11/14	
Bromoform	9.4	0.50	ug/L	10		94	70-130			12/11/14	
Chloroform	9.2	0.50	ug/L	10		92	70-130			12/11/14	
Dibromochloromethane	9.0	0.50	ug/L	10		90	70-130			12/11/14	
Surrogate: Bromofluorobenzene	46	0.00	~g, ∟	50		92	70-130			12/11/14	
Blank Spike Dup (A415638-BSD1)											
Bromodichloromethane	8.3	0.50	ug/L	10		83	70-130	3	30	12/11/14	
Bromoform	8.8	0.50	ug/L	10		88	70-130	7	30	12/11/14	
Chloroform	8.9	0.50	ug/L	10		89	70-130	3	30	12/11/14	
Dibromochloromethane	8.5	0.50	ug/L	10		85	70-130	6	30	12/11/14	
Surrogate: Bromofluorobenzene	45	0.00	ug/L	50		90	70-130	Ů	00	12/11/14	
Batch: A415727		EPA 5	52.3 - Qı	uality Co	ntrol					Prepared	
Batch: A415727		EPA 5	52.3 - Qı	uality Co	ntrol						: 12/11/20 nalyst: Kl
Batch: A415727 Prep Method: EPA 552.3 Blank (A415727-BLK1)		EPA 5	52.3 - Qı	uality Co	ntrol						
Batch: A415727 Prep Method: EPA 552.3 Blank (A415727-BLK1) Dibromoacetic Acid (DBAA)	ND	EPA 5 :	52.3 - Q ı ug/L	uality Co	ntrol						
Batch: A415727 Prep Method: EPA 552.3 Blank (A415727-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA)	ND ND	1.0 1.0	ug/L ug/L	uality Co	ntrol					12/11/14 12/11/14	
Batch: A415727 Prep Method: EPA 552.3 Blank (A415727-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA)	ND ND	1.0 1.0 1.0	ug/L	uality Co	ntrol					12/11/14 12/11/14 12/11/14	
Batch: A415727 Prep Method: EPA 552.3 Blank (A415727-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA) Monochloroacetic Acid (MCAA)	ND	1.0 1.0 1.0 2.0	ug/L ug/L	uality Co	ntrol					12/11/14 12/11/14 12/11/14 12/11/14	
Batch: A415727 Prep Method: EPA 552.3 Blank (A415727-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA)	ND ND ND ND	1.0 1.0 1.0	ug/L ug/L ug/L		ntrol					12/11/14 12/11/14 12/11/14 12/11/14 12/11/14	
Batch: A415727 Prep Method: EPA 552.3 Blank (A415727-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA) Monochloroacetic Acid (MCAA) Trichloroacetic Acid (TCAA)	ND ND ND	1.0 1.0 1.0 2.0	ug/L ug/L ug/L ug/L	uality Co	ntrol	105	70-130			12/11/14 12/11/14 12/11/14 12/11/14	
Batch: A415727 Prep Method: EPA 552.3 Blank (A415727-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA) Monochloroacetic Acid (MCAA) Trichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A415727-BS1)	ND ND ND ND 26	1.0 1.0 1.0 2.0	ug/L ug/L ug/L ug/L		ntrol					12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14	
Batch: A415727 Prep Method: EPA 552.3 Blank (A415727-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A415727-BS1) Dibromoacetic Acid (DBAA)	ND ND ND ND 26	1.0 1.0 1.0 2.0 1.0	ug/L ug/L ug/L ug/L ug/L	25	ntrol	119	70-130			12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14	
Batch: A415727 Prep Method: EPA 552.3 Blank (A415727-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A415727-BS1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA)	ND ND ND ND 26	1.0 1.0 1.0 2.0 1.0	ug/L ug/L ug/L ug/L ug/L ug/L	25 10 10	ntrol	119 105	70-130 70-130			12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14	
Batch: A415727 Prep Method: EPA 552.3 Blank (A415727-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A415727-BS1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (DBAA) Dichloroacetic Acid (DCAA)	ND ND ND 26 12 11	1.0 1.0 1.0 2.0 1.0 1.0	ug/L ug/L ug/L ug/L ug/L ug/L	25 10 10 10	ntrol	119 105 110	70-130 70-130 70-130			12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14	
Batch: A415727 Prep Method: EPA 552.3 Blank (A415727-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A415727-BS1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DBAA) Monochloroacetic Acid (MBAA) Monochloroacetic Acid (MBAA) Monochloroacetic Acid (MBAA) Monochloroacetic Acid (MCAA)	ND ND ND 26 12 11 11 22	1.0 1.0 2.0 1.0 1.0 1.0 2.0	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	25 10 10 10 20	ntrol	119 105 110 112	70-130 70-130 70-130 70-130			12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14	
Batch: A415727 Prep Method: EPA 552.3 Blank (A415727-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A415727-BS1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (MBAA) Monochloroacetic Acid (MBAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA)	ND ND ND 26 12 11 11 22	1.0 1.0 1.0 2.0 1.0 1.0	ug/L ug/L ug/L ug/L ug/L ug/L	25 10 10 10 20 10	ntrol	119 105 110 112 108	70-130 70-130 70-130 70-130 70-130			12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14	
Batch: A415727 Prep Method: EPA 552.3 Blank (A415727-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA)	ND ND ND 26 12 11 11 22	1.0 1.0 2.0 1.0 1.0 1.0 2.0	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	25 10 10 10 20	ntrol	119 105 110 112	70-130 70-130 70-130 70-130			12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14	
Batch: A415727 Prep Method: EPA 552.3 Blank (A415727-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A415727-BS1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (MBAA) Monochloroacetic Acid (MBAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA)	ND ND ND 26 12 11 11 22	1.0 1.0 2.0 1.0 1.0 1.0 2.0	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	25 10 10 10 20 10	ntrol	119 105 110 112 108	70-130 70-130 70-130 70-130 70-130			12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14	
Batch: A415727 Prep Method: EPA 552.3 Blank (A415727-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A415727-BS1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (MBAA) Monochloroacetic Acid (MBAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike Dup (A415727-BSD1)	ND ND ND 26 12 11 11 22	1.0 1.0 2.0 1.0 1.0 1.0 2.0	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	25 10 10 10 20 10	ntrol	119 105 110 112 108	70-130 70-130 70-130 70-130 70-130	3	30	12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14	
Batch: A415727 Prep Method: EPA 552.3 Blank (A415727-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (MCAA) Trichloroacetic Acid (TCAA) Blank Spike (A415727-BS1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DBAA) Dichloroacetic Acid (MBAA) Monochloroacetic Acid (DCAA) Monochloroacetic Acid (DCAA) Monochloroacetic Acid (MCAA) Trichloroacetic Acid (MCAA) Trichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike Dup (A415727-BSD1) Dibromoacetic Acid (DBAA)	ND ND ND 26 12 11 11 22 11 27	1.0 1.0 2.0 1.0 1.0 2.0 1.0	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	25 10 10 10 20 10 25	ntrol	119 105 110 112 108 106	70-130 70-130 70-130 70-130 70-130 70-130	3 3	30 30	12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14	
Batch: A415727 Prep Method: EPA 552.3 Blank (A415727-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (MCAA) Trichloroacetic Acid (TCAA) Blank Spike (A415727-BS1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (DCAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (DCAA) Monochloroacetic Acid (MCAA) Trichloroacetic Acid (TCAA) Blank Spike (A415727-BSD1) Dibromoacetic Acid (TCAA) Dichloroacetic Acid (TCAA) Dichloroacetic Acid (TCAA) Dichloroacetic Acid (DCAA)	ND ND ND 26 12 11 11 22 11 27	1.0 1.0 2.0 1.0 1.0 1.0 1.0 1.0 1.0	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	25 10 10 10 20 10 25	ntrol	119 105 110 112 108 106	70-130 70-130 70-130 70-130 70-130 70-130			12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14	
Batch: A415727 Prep Method: EPA 552.3 Blank (A415727-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (MCAA) Trichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A415727-BS1) Dibromoacetic Acid (DCAA) Monochloroacetic Acid (DCAA) Monochloroacetic Acid (DCAA) Monochloroacetic Acid (MCAA) Trichloroacetic Acid (TCAA) Dichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike Dup (A415727-BSD1) Dibromoacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike Dup (A415727-BSD1) Dibromoacetic Acid (DCAA) Monochloroacetic Acid (DCAA)	ND ND ND 26 12 11 11 22 11 27	1.0 1.0 2.0 1.0 1.0 2.0 1.0 1.0 1.0	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	25 10 10 10 20 10 25	ntrol	119 105 110 112 108 106	70-130 70-130 70-130 70-130 70-130 70-130 70-130	3	30	12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14	
Batch: A415727 Prep Method: EPA 552.3 Blank (A415727-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (MCAA) Trichloroacetic Acid (TCAA) Blank Spike (A415727-BS1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DBAA) Dichloroacetic Acid (MBAA) Monochloroacetic Acid (MBAA) Monochloroacetic Acid (MCAA) Trichloroacetic Acid (DCAA) Monochloroacetic Acid (MCAA) Trichloroacetic Acid (TCAA) Blank Spike (A415727-BSD1) Dibromoacetic Acid (TCAA) Dichloroacetic Acid (TCAA) Dichloroacetic Acid (DBAA) Dichloroacetic Acid (DBAA) Dichloroacetic Acid (DBAA) Dichloroacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA)	ND ND ND 26 12 11 11 22 11 27	1.0 1.0 2.0 1.0 1.0 1.0 1.0 1.0 1.0	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	25 10 10 10 20 10 25	ntrol	119 105 110 112 108 106	70-130 70-130 70-130 70-130 70-130 70-130 70-130 70-130	3 4	30 30	12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14	
Batch: A415727 Prep Method: EPA 552.3 Blank (A415727-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A415727-BS1) Dibromoacetic Acid (DCAA) Monochloroacetic Acid (DCAA) Monochloroacetic Acid (DCAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (DCAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA) Dichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike Dup (A415727-BSD1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (MBAA) Monochloroacetic Acid (MCAA) Monochloroacetic Acid (MCAA) Monochloroacetic Acid (MCAA)	ND ND ND 26 12 11 11 22 11 27	1.0 1.0 2.0 1.0 1.0 1.0 1.0 1.0 1.0	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	25 10 10 10 20 10 25	ntrol	119 105 110 112 108 106	70-130 70-130 70-130 70-130 70-130 70-130 70-130 70-130	3 4	30 30	12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14 12/11/14	





BSK Associates Fresno Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
		EPA 5	52.3 - Q	uality Co	ntrol						
Batch: A415727										Prepared:	12/11/2014
Prep Method: EPA 552.3										Ar	nalyst: KHH
Blank Spike Dup (A415727-BSD1)											
Trichloroacetic Acid (TCAA)	11	1.0	ug/L	10		113	70-130	4	30	12/11/14	
Surrogate: 2-Bromobutanoic Acid	27			25		108	70-130			12/11/14	
Matrix Spike (A415727-MS1), Source: A	A4L0766-01										
Dibromoacetic Acid (DBAA)	12	1.0	ug/L	10	ND	117	70-130			12/11/14	
Dichloroacetic Acid (DCAA)	12	1.0	ug/L	10	2.1	104	70-130			12/11/14	
Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10	ND	107	70-130			12/11/14	
Monochloroacetic Acid (MCAA)	22	2.0	ug/L	20	ND	108	70-130			12/11/14	
Trichloroacetic Acid (TCAA)	13	1.0	ug/L	10	2.9	106	70-130			12/11/14	
Surrogate: 2-Bromobutanoic Acid	25			25		100	70-130			12/11/14	
Matrix Spike Dup (A415727-MSD1), So	urce: A4L0766-01										
Dibromoacetic Acid (DBAA)	12	1.0	ug/L	10	ND	118	70-130	1	30	12/11/14	
Dichloroacetic Acid (DCAA)	12	1.0	ug/L	10	2.1	104	70-130	0	30	12/11/14	
Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10	ND	106	70-130	0	30	12/11/14	
Monochloroacetic Acid (MCAA)	22	2.0	ug/L	20	ND	109	70-130	1	30	12/11/14	
Frichloroacetic Acid (TCAA)	14	1.0	ug/L	10	2.9	109	70-130	2	30	12/11/14	
Surrogate: 2-Bromobutanoic Acid	27			25		107	70-130			12/11/14	



Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- · Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- · Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.
- The MCLs provided in this report (if applicable) represent the primary MCLs for that analyte.

Definitions

MDL: mg/L: Milligrams/Liter (ppm) Method Detection Limit MDA95: Min. Detected Activity mg/Kg: Milligrams/Kilogram (ppm) RL: Reporting Limit: DL x Dilution MPN: Most Probable Number None Detected at RL CFU: μg/L: Micrograms/Liter (ppb) ND: Colony Forming Unit Micrograms/Kilogram (ppb) pCi/L: Picocuries per Liter Absent: Less than 1 CFU/100mLs μg/Kg: Percent Recovered (surrogates) RL Mult: **RL Multiplier** Present: 1 or more CFU/100mLs NR: Non-Reportable MCL: Maximum Contaminant Limit

BSK is not accredited under the NELAC program for the following parameters:

NA

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

Fresno

State of California - ELAP1180State of Hawaii4021State of NevadaCA000792014-1State of Oregon - ORELAP4021EPA - UCMR3CA00079State of WashingtonC997-14

Sacramento

State of California - ELAP 2435

Vancouver

State of Oregon - ORELAP WA100008 State of Washington C824-13

A4L1176



Monterey Bay Analytical

Monte6227

12102014

Turnaround: Standard
Due Date: 12/24/2014

Printed: 12/10/2014 5:39:25PM

1414 Stanislaus St., Fresno, CA 93706 (559) 497-2888 · Fax (559) 497-2893

> Monte6227 A4L1176

12/10/2014

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	1414 Stanislaus St., Fresno, CA 93706 (559) 497-2888 - Fax (559) 497-2893	+resno, CA 93/0 x (559) 497-2893	σ		Turna	urnaround Time Request Standard - 10 business days			-	Monte6227	6227	12	12/10/2014	
	Ociates	com			-	Rush (Surcharge may apply)			ဂ					je 9 c
šu: i	inginees aboratories		_	<u> </u>] إ								Ĭ	Pa
Comp	Company/Client Name*:	Report Attention*: David Holland)	Invoice To*: Mason Weidner-Holland	Phon 831	Phone*: 831-375-6227	5227			Fax: 831-641-0734	4	
Mon	Monterey Bay Analytical Services	Additional cc's:			PO#		E-ma	ir: mor	terey	bayar	alytica	E-mailr: montereybayanalytical@usa.net		
Address*:	Address': 4 Justin Court, Suite D	c _{ity} ∗: Monterey				State*: zip*: CA 93940								
Project	MPWMD	Project #:				How would you like to receive your completed results?* X E-Mail Fax Mail	*				······································			1
Report	Reporting Options:	Reg	Regulatory Carbon Copies	Copies	-	ulatory Co								
Î	race (3-Hag) Swamp DD Type:	SWRC	SWROB (Drinking Water)		· 	Control Numbers	5			-				
Garage	Gampro Isano (Frincenoignacus).	Madera Co	60	Tulare Co	909	Oyotelo dell'oo	<u> </u>							
5	סטון בממו	Other		1		George #	<u> </u> IM							
#	Sample Description* Sampled* Matrix* Comments / Station Co.	Sa	Sampled*	Ma	Matrix*	Comments / Station Code / WTRAX	TTH	HA.						
~	ASR-3	12/5/14			WW	AB24234	×	×						
2	SMS Deep	12/5/14	/14 1145		WW	AB24235	×	×						
					7							and the first of t		
									_					<u> </u>
										<u> </u>				
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						and the state of t				<u> </u>				<u></u>
						Target design and a second supplier of the se		_		_				<u> </u>
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		/		-					-	1				
			7		-						7			
							_	_	\vdash				_	
Relinqu Dav	Relinquished by: (Signature and Printeg Name) David Holland	MBAS		12/	9/14	00	me)					Company		
Relinqu	Relinquished by: (Signature and Printed Name)	Company		Date	Time	ne Received by: (Signature and Printed Name)	me)					Company		
Receive	Received for Lab by (Signature and Printed Name)		16:55	Date	Date Time	Time Payment Received at Delivery:		Amount	₽		PIA#:	Check	Init.	Cash
Shippir	Shipping Method: ONTRAC UPS GSO		FED EX		ier	- BW/Bre	Custo	Custody Seal: Y(N)	,					
	1					1/4/201	0			2				

12/10/2014

Sample Integrity

10 Monte6227

D2	K Bottles: (Yeş INO F	'age	of	_						
	Was temperature within range? Chemistry ≤ 6°C Micro < 10°C	(Yes N	lo NA			ect containe or the tests i	rs and preservative: equested?	s	Yes	No NA
COC Info	If samples were taken today, is there eviden that chilling has begun?	ce Yes N	NO (NA)		there	bubbles in	the VOA vials?		Yes (NO NA
ပ	Did all bottles arrive unbroken and intact?	(Yes)	No				nt of sample receive	ed?	gYes)	No_
ဂ္ဂ	Did all bottle labels agree with COC?	Yes	No				old time <72 hours?		Yes	No
•	Was sodium thiosulfate added to CN sample	/a\					crepancies?			
	until chlorine was no longer present?	Yes N	(AB) of	PM:			y/Time:		Yes	No (NA)
	250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)	Checks	Passed?	1-	2_					
	Bacti Na ₂ S ₂ O ₃	_		1						
	None (P) ^{White Cap}			 						
	Cr6 (P) Br. Green Label NH4OH(NH4)2SO4 DW	pH > 8	YN							
	Cr6 (P) Pink Label Hex Chrome Buffer DW	pH 9-9.5	ΥN							
lat	Cr6 (P) Pink Label Hex Chrome Buffer WW	pH 9.3-9.7	YN							/
performed in the lab	HNO ₃ (P) Red Cap								/	
ed	H ₂ SO ₄ (P) or (AG) Yellow Cap/Label	pH < 2	YN					ŀ		
ΕŪ	NaOH (P) Green Cap	CI, pH >10	Y N							
erfe	NaOH + ZnAc (P)	pH > 9	Y N						/	
are p	Dissolved Oxygen 300ml (g)	<u> </u>	_						<u>i</u>	
or 8	None (AG) 608/8081/8082, 625, 632/8321,									
_ \	8151 8270									
/ed	HCI (AG) ^{Lt. Blue Label} O&G, Diesel		_						1	JIV.
ë ë	Na ₂ O ₃ S+HCl (AG) ^{Lt. Pink Label} 525								$\mathcal{N}_{\mathbb{Z}}$	1
Re	Na ₂ S ₂ O ₃ 1 Liter (Brown P) 549	_	_							()
es Sks	Na ₂ S ₂ O ₃ (AG) ^{Blue Label} 547,515,548,THM,524			3\	7				\sim	
# de	Na ₂ S ₂ O ₃ (CG) ^{Blue Label} 504, 505	_	<u> </u>							
Bottles Received ans preservation/chlorine checks are either N/A or	Na ₂ S ₂ O ₃ + MCAA (CG) ^{Orange Label} 531	pH < 3	Y N							
/ch	NH ₄ Cl (AG) ^{Purple Label} 552	_	_	1A						
atior	EDA (AG) ^{Brown Label} DBPs									
erv.	HCL (CG) 524.2,BTEX,Gas, MTBE, 8260/624	_	_					'		
pres	Buffer pH 4 (CG)		—							
SUE	None (CG)	_	_						X.	
me	H ₃ PO ₄ (CG) ^{Salmon Label}	_	_		1				\	
וי	Other:									
a'	Asbestos 1Liter Plastic w/ Foil									
	Low Level Hg / Metals Double Baggie		_							
	Bottled Water	<u> </u>								
	Clear Glass Jar: 250 / 500 / 1 Liter	_	_							
	Soil Tube Brass / Steel / Plastic	_								
	Tedlar Bag / Plastic Bag	<u> </u>								
<u></u>		Date/Time/In	itials		Cc	ontainer	Preservative	Da	te/Tim	e/Initials
Split	SP		S	Р						
0)	S P		S	P						
Comments										
Com										
							<u> </u>			



DAVI LABORATORIES, ENVIRONMENTAL ASSOCIATES 730 Alfred Nobel Dr., Hercules, CA 94547

ANALYTICAL RESULTS REPORT

Company: Address: Monterey Bay Analytical Services

4 Justin Court-Suite D Monterey, CA 93940

Project Manager:

David Holland

Report Date:

December 16, 2014 AB24234 , AB24235

Subcontract Order #:

TABLET

BLE I								
mple ID	Collection Date/Time	Matrix	EPA Method	Analyses	Results pCi/L	+	2 Sigma error	MDA
R 324234		ww						
	12/05/14 (1100	0)	900.0 903.1	Gross Alpha Radium 226	2.20 0.80	± ±	0.76 0.65	0.22 0.40
IS Deep 324235		V	VW					
2 . 2 3 3	12/05/14 (114	5)	900.0 903.1	Gross Alpha Radium 226	1.95 1.19	<u>+</u> <u>+</u>	0.72 0.77	0.22 0.39
IS Deep 324235		V	903.1 VW 900.0	Radium 226 Gross Alpha	1.95	± ±	0.65	

Analyses Date: 12/13/14

TABLE II QA/QC

Analyses	Spike Added	Detected Activity	% Agreement
Gross Alpha	571.11 pCi/L	547.45 pCi/L	95.86
Radium 226	2.88 pCi/L	2.73 pCi/L	94.79

Patricia Davi Davi Laboratories QA/QC Manager



DAVI LABORATORIES, ENVIRONMENTAL ASSOCIATES
730 Alfred Nobel Dr. * Hercules, Ca 94547 (510) 724-9450 Fax (510) 724-9174 davilaboratories@aol.com

SAMPLE CHAIN OF CUSTODY

Company Name:	Monterey Bay Analytical Services	Phone #	831-375-6227	Report To:
Address:	4 Justin Court, Suite D Monterey, CA 93940	Fax #	831-641-0734	David Holland
P.O. Number		Bill To:	Monterey Bay Analytical	Credit Card On File

	Relinquished by:	CET	Relinquished by:			SMS Deep	ASR-3	Sample ID		Sampled by: Jon Lear
			D. Holland			12/5/14 1145	12/5/14 1100	Collection Date /Time		
	Date/time:	12/9/14	Date/time:			ww	ww	Matrix		Employed By:
		1600						Method		ву:
	Rece		Rece			×	×		Alpha	
	Received by:		Received by:						Beta	>
	Y.		×						Gamma	z
									Uranium	>
0	Reli		Reli						Tritium	
4	nquis		nquis		П				Strontium 90	_ <
8	elinquished by:		elinquished by:			×	×		Radium 226	S
	*:		÷.	1					Radium 228	-
									Radium Total	S
	Dáte	12	Date						Radon 222	
	Date/time:	1:1 4/01	Date/time:			AB24235	AB24234	MBAS Lab ID:	Other	

14576 \$1993E



McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1412432

Report Created for: Monterey Bay Analytical

4 Justin Court, Suite D Monterey, CA 93940

Project Contact: David Holland

Project P.O.:

Project Name: MPWMD

Project Received: 12/10/2014

Analytical Report reviewed & approved for release on 12/15/2014 by:

Question about your data?

Click here to email
McCampbell

Angela Rydelius,

Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.



1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ www.mccampbell.com NELAP: 4033ORELAP ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3

Glossary of Terms & Qualifier Definitions

Client: Monterey Bay Analytical

Project: MPWMD **WorkOrder:** 1412432

Glossary Abbreviation

95% Interval 95% Confident Interval

DF Dilution Factor
DUP Duplicate

EDL Estimated Detection Limit

ITEF International Toxicity Equivalence Factor

LCS Laboratory Control Sample

MB Method Blank

MB % Rec % Recovery of Surrogate in Method Blank, if applicable

MDL Method Detection Limit

ML Minimum Level of Quantitation

MS Matrix Spike

MSD Matrix Spike Duplicate

ND Not detected at or above the indicated MDL or RL

NR Data Not Reported due to matrix interference or insufficient sample amount.

PF Prep Factor

RD Relative Difference

RL Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)

RPD Relative Percent Deviation
RRT Relative Retention Time

SPK Val Spike Value

SPKRef Val Spike Reference Value TEQ Toxicity Equivalence

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client:Monterey Bay AnalyticalWorkOrder:1412432Project:MPWMDExtraction Method:RSK175Date Received:12/10/14 11:26Analytical Method:RSK175Date Prepared:12/12/14Unit:µg/L

Light Gases

		Eight Guses			
Client ID	Lab ID	Matrix/ExtType	Date C	ollected Instrument	Batch ID
ASR-3	1412432-001A	Water/DISS.	12/05/20	014 11:00 GC26	98947
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	Date Analyzed
Methane	1.2		0.10	1	12/12/2014 10:28

Analyst(s): KBO

Client ID	Lab ID	Matrix/ExtType	Date Co	ollected Instrument	Batch ID
SMS Deep	1412432-002A	Water/DISS.	12/05/20	14 11:45 GC26	98947
<u>Analytes</u>	Result		<u>RL</u>	<u>DF</u>	Date Analyzed
Methane	0.62		0.10	1	12/12/2014 10:41

Analyst(s): KBO

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Quality Control Report

Client:Monterey Bay AnalyticalWorkOrder:1412432Date Prepared:12/12/14BatchID:98947Date Analyzed:12/12/14Extraction Method:RSK175

Project: MPWMD **Sample ID:** MB/LCS-98947

	QC Sum	mary Report	for RSK175				
Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Methane	ND	10.9	0.50	10	-	109	70-130

McCampbell Analytical, Inc.

1534 Willow Pass Rd Pittsburg, CA 94565-1701

CHAIN-OF-CUSTODY RECORD

(925) 252-9262					W	orkU)rder: 14	412432		Che	ntCoc	ie: MB	AS				
		WaterTrax	WriteOn	EDF	ΠE	xcel	E	EQuIS	✓ E	Email		HardCo	ру	ThirdF	Party	J-fla	аg
Report to:						В	Bill to:						Reque	ested TAT	Γ:	5 d	days
David Holland Monterey Bay Analytical 4 Justin Court, Suite D Monterey, CA 93940 831-375-6227 FAX: 8	31-641-0734	Email: cc/3rd Party: PO: ProjectNo:	4mbas@sbcglo MPWMD	bal.net			Accoun Montere 4 Justin Montere	ey Bay <i>I</i> n Court,	Analytic Suite D					Received Printed:		12/10/2 12/10/2	
									Req	uested 7	Tests (See lege	end be	elow)			
Lab ID	Client ID		Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12

Α

Α

12/5/2014 11:00

12/5/2014 11:45

Test Legend:

1412432-001

1412432-002

_				
1 RSK175_W	2	3	4	5
6	7	8	9	10
44	40			

Prepared by: Maria Venegas

Needs analysts initials for all reports per D.H. 4/5/13 **Comments:**

ASR-3

SMS Deep

Water

Water

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



McCampbell Analytical, Inc. "When Quality Counts"

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WORK ORDER SUMMARY

Client Name: MONTEREY BAY ANALYTICAL **QC Level:** LEVEL 2 **Work Order:** 1412432 **Project: MPWMD** Client Contact: David Holland **Date Received:** 12/10/2014 Needs analysts initials for all reports per D.H. 4/5/13 **Comments:** Contact's Email: 4mbas@sbcglobal.net

		☐ WaterTrax	☐ WriteOn ☐ EDF	Excel]Fax ☑ Email	HardC	opyThirdPart	y	J-flag	
Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De- chlorinated	Collection Date & Time	TAT	Sediment Content	Hold SubOut
1412432-001A	ASR-3	Water	RSK175 <methane_4></methane_4>	3	VOA w/ HCl		12/5/2014 11:00	5 days	None	
1412432-002A	SMS Deep	Water	RSK175 <methane_4></methane_4>	3	VOA w/ HCl		12/5/2014 11:45	5 days	None	

^{*} NOTE: STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

412432

McCAMPBELL ANALYTICAL, INC. CHAIN OF CUSTODY RECORD 1534 WILLOW PASS ROAD TURN AROUND TIME PITTSBURG, CA 94565-1701 RUSH 24 HR 48 HR 72 HR Website: www.mccampbell.com Email: main@mccampbell.com ☐ GeoTracker EDF ☐ PDF ☐ Excel ☐ Write On (DW) Telephone: (877) 252-9262 Fax: (925) 252-9269 Report To: David Holland Bill To: **Analysis Request** Other Comments Company: Monterey Bay Analytical Services EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners 8015) Filter 4 Justin Ct. Suite D Samples Monterey, Ca 93940 E-Mail: 4mbas@sbcglobal.net for Metals LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020) Tele: (831) 375 - 6227 Fax: (831) 641-0734 analysis: EPA 515 / 8151 (Acidic Cl Herbicides) EPA 8270 SIM / 8310 (PAHs / PNAs) Project #: **Project Name:** Yes / No PH as Diesel / Motor Oil (8015) Project Location: MPWMD Lead (200.7 / 200.8 / 6010 / 6020) EPA 507 / 8141 (NP Pesticides) EPA 524.2 / 624 / 8260 (VOCs) Sampler Signature: Jon Lear METHOD SAMPLING MATRIX Type Containers PRESERVED Containers LOCATION/ MTBE / BTEX SAMPLE ID **Field Point** Sludge Water Name Date Time HNO3 Other Other HCL ICE Soil 12/5/14 ASR-3 1100 G X XX X AB24234 12/5/14 SMS 1145 G X XX X AB24235 Deep COMMENTS: Relinquished By: Received By: Date: Time: ICE/t°_____, David Holland 12/9/14 1600 GOOD CONDITION HEAD SPACE ABSENT___ REC'D SEALED & INTACT VIA Relinquished By: Received By: Time: **DECHLORINATED IN LAB** 0855 APPROPRIATE CONTAINERS PRESERVED IN LAB Relinquished By: Date: Time: Received By: VOAS O&G METALS OTHER PRESERVATION pH<2

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Sample Receipt Checklist

Client Name:	Monterey Bay Anal	ytical			Date and	Time Received:	12/10/2014 11:26:12 AM
Project Name:	MPWMD				LogIn Rev	iewed by:	Maria Venegas
WorkOrder №:	1412432	Matrix: Water			Carrier:	<u>OnTrac</u>	
		Chain of C	ustody	/ (COC) I	nformation		
Chain of custody	present?		Yes	✓	No 🗌		
Chain of custody	signed when relinqu	shed and received?	Yes	✓	No 🗆		
Chain of custody	agrees with sample	labels?	Yes	✓	No 🗌		
Sample IDs note	d by Client on COC?		Yes	•	No 🗆		
Date and Time of	f collection noted by	Client on COC?	Yes	•	No 🗆		
Sampler's name	noted on COC?		Yes	✓	No 🗆		
		<u>Sampl</u>	e Rece	eipt Infor	mation_		
Custody seals int	tact on shipping cont	ainer/cooler?	Yes		No 🗌		NA 🗸
Shipping contain	er/cooler in good con	dition?	Yes	•	No 🗆		
Samples in prope	er containers/bottles?		Yes	✓	No 🗆		
Sample containe	rs intact?		Yes	✓	No 🗆		
Sufficient sample	e volume for indicated	I test?	Yes	✓	No 🗌		
		Sample Preservation	on and	Hold Tin	ne (HT) Info	ormation	
All samples recei	ived within holding tin	ne?	Yes	✓	No 🗌		
Sample/Temp Bl	ank temperature			Temp:	1°C		NA 🗆
Water - VOA vial	s have zero headspa	ce / no bubbles?	Yes		No 🗌		NA 🗹
Sample labels ch	necked for correct pre	servation?	Yes	✓	No 🗌		
pH acceptable up	pon receipt (Metal: <2	2; 522: <4; 218.7: >8)?	Yes		No 🗌		NA 🗹
Samples Receive	ed on Ice?		Yes	✓	No 🗌		
		(Ice Type	e: WE	T ICE)		
UCMR3 Samples Total Chlorine	<u>=-</u>	e upon receipt for EPA 522?	Yes		No 🗌		NA 🗹
Free Chlorine t 300.1, 537, 539		e upon receipt for EPA 218.7,	Yes		No 🗌		NA 🗹
* NOTE: If the "N	lo" box is checked, s	ee comments below.					
Comments:						=====	



MPWMD Joe Oliver P.O. Box 85 Monterey, CA 93442-0085

Monterey Bay Analytical Services
4 Justin Court Suite D, Monterey, CA 93940
831.375.MBAS

www.MBASinc.com ELAP Certification Number: 2385

Page 1 of 2 Tuesday, January 13, 2015

Lab Number: AB24456

Collection Date/Time: 12/10/2014 9:40 Sample Collector: LINDBERG T

Submittal Date/Time: 12/10/2014 13:45 Sample ID Coliform Designation:

	;	Sample	Description: PC	A E-D				
Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
Alkalinity, Total (as CaCO3)	SM2320B	mg/L	168		2		12/15/2014	LRH
Aluminum, Total	EPA200.8	μg/L	Not Detected		10	1000	12/17/2014	SM
Ammonia-N	SM4500NH3 D	mg/L	Not Detected		0.05		12/18/2014	TC
Arsenic, Total	EPA200.8	μg/L	7		1	10	12/17/2014	SM
Barium, Total	EPA200.8	μg/L	69		10	1000	12/17/2014	SM
Bicarbonate (as HCO3-)	SM2320B	mg/L	205		10		12/15/2014	НМ
Boron	EPA200.7	mg/L	0.08		0.05		12/22/2014	MW
Bromide	EPA300.0	mg/L	0.3		0.1		12/10/2014	TC
Calcium	EPA200.7	mg/L	44		0.5		12/22/2014	MW
Carbonate as CaCO3	SM2320B	mg/L	Not Detected		10		12/15/2014	НМ
Chloramines	SM4500-CI G	mg/L	Not Detected		0.05		12/10/2014	SM
Chloride	EPA300.0	mg/L	80		1	250	12/10/2014	TC
DOC		mg/L	0.2		0.2		12/17/2014	MW
Fluoride	EPA300.0	mg/L	0.4		0.1	2.0	12/10/2014	TC
Gross Alpha	EPA900.0	pCi/L	0.79 ± 0.78	E		15	12/13/2014	DAVI LA
Haloacetic Acids	EPA552	μg/L	Not Detected	E		60	12/16/2014	BSK
Iron	EPA200.7	μg/L	Not Detected		10	300	12/22/2014	MW
Iron, Dissolved	EPA200.7	μg/L	Not Detected		10	300	12/29/2014	MW
Kjehldahl Nitrogen	SM4500-NH3 B,	mg/L	Not Detected		0.5		12/22/2014	TC
Lithium	EPA200.8	μg/L	23		1		12/17/2014	SM
Magnesium	EPA200.7	mg/L	9.0		0.5		12/22/2014	MW
Manganese, Dissolved	EPA200.7	μg/L	Not Detected		10	50	12/29/2014	MW
Manganese, Total	EPA200.7	μg/L	Not Detected		10	50	12/22/2014	MW
Mercury, Total	EPA200.8	μg/L	Not Detected		0.5	2	12/17/2014	SM
Methane	EPA174/175	μg/L	Not Detected	E	0.1		12/12/2014	MCCAM
Molybdenum, Total	EPA200.8	μg/L	10		1	1000	12/17/2014	SM
Nickel, Total	EPA200.8	μg/L	Not Detected		10	100	12/17/2014	SM
Nitrate as NO3	EPA300.0	mg/L	Not Detected		1	45	12/10/2014	TC
Nitrate as NO3-N	EPA300.0	mg/L	0.1		0.1	10	12/10/2014	TC
Nitrate+Nitrite as N	EPA300.0	mg/L	0.8		0.1		12/10/2014	TC
Nitrite as NO2-N	EPA300.0	mg/L	0.7		0.1	1.0	12/10/2014	TC
o-Phosphate-P	EPA300.0	mg/L	Not Detected		0.1		12/10/2014	TC

mg/L: Milligrams per liter ug/L: Micrograms per liter PQL: Practical Quantitation Limit MCL: Maximum Contamination Level

H = Analyzed ouside of hold time E = Analysis performed by External Laboratory; See Report attachments. T = Temperature Exceedance

Lab Number: AB24456

Collection Date/Time: 12/10/2014 9:40 Sample Collector: LINDBERG T

Submittal Date/Time: 12/10/2014 13:45 Sample ID Coliform Designation:

		Sample De	scription: PC	CA E-D				•
Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
pH (Laboratory)	SM4500-H+B	pH (H)	7.6				12/10/2014	НМ
Phosphorus, Total	HACH 8190	mg/L	0.06		0.03		12/16/2014	SM
Potassium	EPA200.7	mg/L	3.5		0.5		12/22/2014	MW
QC Anion Sum x 100	Calculation	%	92%				12/15/2014	НМ
QC Anion-Cation Balance	Calculation	%	3				12/23/2014	SM
QC Cation Sum x 100	Calculation	%	99%				12/23/2014	SM
QC Ratio TDS/SEC	Calculation		0.58				12/12/2014	НМ
Selenium, Total	EPA200.8	μg/L	Not Detected		2	50	12/17/2014	SM
Silica as SiO2, Total	EPA200.7	mg/L	46		0.5		12/22/2014	MW
Sodium	EPA200.7	mg/L	81		0.5		12/22/2014	MW
Specific Conductance (E.C)	SM2510B	µmhos/cm	664		1	900	12/11/2014	НМ
Strontium, Total	EPA200.8	μg/L	239		5		12/17/2014	SM
Sulfate	EPA300.0	mg/L	25		1	250	12/10/2014	TC
TOC	SM5310C	mg/L	0.4		0.2		12/17/2014	MW
Total Diss. Solids	SM2540C	mg/L	388		10	500	12/10/2014	НМ
Total Nitrogen	Calculation	mg/L	0.8		0.5		12/22/2014	НМ
Total Radium 226	EPA903.0	pCi/L	0.29 ± 0.55	E		3	12/13/2014	DAVI LA
Trihalomethanes	EPA524.2	μg/L	Not Detected	E		80	12/13/2014	BSK
Uranium by ICP/MS	EPA200.8	μg/L	Not Detected		1	30	12/17/2014	SM
Vanadium, Total	EPA200.8	μg/L	Not Detected		5	1000	12/17/2014	SM
Zinc, Total	EPA200.8	μg/L	15		10	5000	12/17/2014	SM

Sample Comments:

Report Approved by:

David Holland, Laboratory Director



BSK Associates Fresno 1414 Stanislaus St Fresno, CA93706 559-497-2888 (Main) 559-485-6935 (FAX)

A4L1290 12/23/2014

Invoice: A427932

David Holland Monterey Bay Analytical 4 Justin Court Suite D Monterey, CA 93940

RE: Report for A4L1290 MPWMD

Dear David Holland,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 12/11/2014. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2009 TNI Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

John Montierth, Project Manager

If additional clarification of any information is required, please contact your Project Manager, John Montierth, at (800) 877-8310 or (559) 497-2888 x201.



Accredited in Accordance with NELAP ORELAP #4021



Case Narrative

Project and Report Details

Invoice To: Monterey Bay Analytical

Report To: David Holland Invoice Attn: David Holland

Project #:

Client:

Project PO#: -

Invoice Details

12/11/2014 - 12:00 Received:

12/29/2014 **Report Due:**

Sample Receipt Conditions

Containers Intact Cooler: Default Cooler COC/Labels Agree Temperature on Receipt °C: 2.3 Received On Blue Ice

Monterey Bay Analytical

Packing Material - Other

Sample(s) were received in temperature range.

Initial receipt at BSK-FAL

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

MS1.0 Matrix spike recoveries exceed control limits.

Report Distribution

Recipient(s) CC: Report Format

David Holland FINAL.RPT



Certificate of Analysis

Sample ID: A4L1290-01 Sampled By: T. Lindberg Sample Date - Time: 12/10/14 - 09:40

Matrix: Waste Water

Sample Description: PCA E-D // AB24456

Sample Type: Grab

BSK Associates Fresno Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	ND	0.50	ug/L	1	A415797	12/12/14	12/13/14	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A415797	12/12/14	12/13/14	
Chloroform	EPA 524.2	ND	0.50	ug/L	1	A415797	12/12/14	12/13/14	
Dibromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A415797	12/12/14	12/13/14	
Surrogate: Bromofluorobenzene	EPA 524.2	104 %	Acceptal	ble range:	70-130 %				
Total Trihalomethanes, EPA 524.2		ND	0.50	ug/L					
Haloacetic Acids by GC-ECD, G	C-MS								
Dibromoacetic Acid (DBAA)	EPA 552.3	ND	1.0	ug/L	1	A415929	12/16/14	12/16/14	
Dichloroacetic Acid (DCAA)	EPA 552.3	ND	1.0	ug/L	1	A415929	12/16/14	12/16/14	
Monobromoacetic Acid (MBAA)	EPA 552.3	ND	1.0	ug/L	1	A415929	12/16/14	12/16/14	
Monochloroacetic Acid (MCAA)	EPA 552.3	ND	2.0	ug/L	1	A415929	12/16/14	12/16/14	
Trichloroacetic Acid (TCAA)	EPA 552.3	ND	1.0	ug/L	1	A415929	12/16/14	12/16/14	
Surrogate: 2-Bromobutanoic Acid	EPA 552.3	103 %	Acceptal	ble range:	70-130 %				
Total Haloacetic Acids, EPA 552.3		ND	2.0	ug/L					





BSK Associates Fresno **Organics Quality Control Report**

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual	
		EPA 5	24.2 - Q	uality Co	ntrol							
Batch: A415797										Prepared	: 12/12	/201
Prep Method: EPA 524.2										A	nalyst:	JG
Plank (A 445707 PI V4)												
Blank (A415797-BLK1) Bromodichloromethane	ND	0.50	ug/L							12/12/14		
Bromoform	ND	0.50	ug/L ug/L							12/12/14		
Chloroform	ND	0.50	ug/L ug/L							12/12/14		
Dibromochloromethane	ND ND	0.50	-							12/12/14		
Surrogate: Bromofluorobenzene	56	0.50	ug/L	50		111	70-130			12/12/14		
										,,		
Blank Spike (A415797-BS1)												
Bromodichloromethane	10	0.50	ug/L	10		100	70-130			12/12/14		
Bromoform	9.5	0.50	ug/L	10		95	70-130			12/12/14		
Chloroform	10	0.50	ug/L	10		105	70-130			12/12/14		
Dibromochloromethane	9.6	0.50	ug/L	10		96	70-130			12/12/14		
Surrogate: Bromofluorobenzene	50			50		100	70-130			12/12/14		
Blank Spike Dup (A415797-BSD1)												
Bromodichloromethane	11	0.50	ug/L	10		111	70-130	10	30	12/12/14		
Bromoform	10	0.50	ug/L	10		103	70-130	8	30	12/12/14		
Chloroform	12	0.50	ug/L	10		120	70-130	13	30	12/12/14		
Dibromochloromethane	10	0.50	ug/L	10		104	70-130	8	30	12/12/14		
Surrogate: Bromofluorobenzene	52		Ü	50		104	70-130			12/12/14		
		EDA 6	E22 O	wality Ca	ntral							
Batch: A415929		EPA 3	5∠.3 - Q	uality Co	ntroi					Droporod	. 10/16	1201
										Prepared		
Prep Method: EPA 552.3										A	nalyst:	KH
Blank (A415929-BLK1)												
Dibromoacetic Acid (DBAA)	ND	1.0	ug/L							12/16/14		
Dichloroacetic Acid (DCAA)	ND	1.0	ug/L							12/16/14		
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L							12/16/14		
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L							12/16/14		
Trichloroacetic Acid (TCAA)	ND	1.0	ug/L							12/16/14		
Surrogate: 2-Bromobutanoic Acid	25		Ü	25		102	70-130			12/16/14		
Blank Spike (A415929-BS1)												
Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10		114	70-130			12/16/14		
Dichloroacetic Acid (DCAA)	10	1.0	ug/L	10		103	70-130			12/16/14		
Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10		106	70-130			12/16/14		
Monochloroacetic Acid (MCAA)	21	2.0	ug/L	20		106	70-130			12/16/14		
Trichloroacetic Acid (TCAA)	11	1.0	ug/L	10		106	70-130			12/16/14		
Surrogate: 2-Bromobutanoic Acid	26	1.0	ug/∟	25		103	70-130			12/16/14		
B												
Blank Spike Dup (A415929-BSD1)	40	4.5		40		440	70.100		66	40/40/4:		
Dibromoacetic Acid (DBAA)	12	1.0	ug/L	10		116	70-130	1	30	12/16/14		
Dichloroacetic Acid (DCAA)	11	1.0	ug/L	10		105	70-130	2	30	12/16/14		
Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10		110	70-130	3	30	12/16/14		
Monochloroacetic Acid (MCAA)	21	2.0	ug/L	20		106	70-130	0	30	12/16/14		
A4L1290 FINAL 12232014 1215												
Printed: 12/23/2014												
										Pa	ae 4	of a

QA-RP-0001-10 Final.rpt



BSK Associates Fresno Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
		EPA 5	52.3 - Q	uality Co	ntrol						
Batch: A415929										Prepared	: 12/16/2014
Prep Method: EPA 552.3										A	nalyst: KHH
Blank Spike Dup (A415929-BSD1)											
Trichloroacetic Acid (TCAA)	11	1.0	ug/L	10		108	70-130	2	30	12/16/14	
Surrogate: 2-Bromobutanoic Acid	25			25		102	70-130			12/16/14	
Matrix Spike (A415929-MS1), Source:	A4L1182-01										
Dibromoacetic Acid (DBAA)	28	1.0	ug/L	10	17	113	70-130			12/16/14	
Dichloroacetic Acid (DCAA)	28	1.0	ug/L	10	12	158	70-130			12/16/14	MS1.0 High
Monobromoacetic Acid (MBAA)	13	1.0	ug/L	10	2.0	110	70-130			12/16/14	
Monochloroacetic Acid (MCAA)	25	2.0	ug/L	20	2.0	115	70-130			12/16/14	
Trichloroacetic Acid (TCAA)	16	1.0	ug/L	10	5.0	114	70-130			12/16/14	
Surrogate: 2-Bromobutanoic Acid	26			25		102	70-130			12/16/14	
Matrix Spike Dup (A415929-MSD1), Sc	ource: A4L1182-01	I									
Dibromoacetic Acid (DBAA)	28	1.0	ug/L	10	17	114	70-130	0	30	12/16/14	
Dichloroacetic Acid (DCAA)	24	1.0	ug/L	10	12	121	70-130	14	30	12/16/14	
Monobromoacetic Acid (MBAA)	13	1.0	ug/L	10	2.0	106	70-130	4	30	12/16/14	
Monochloroacetic Acid (MCAA)	25	2.0	ug/L	20	2.0	116	70-130	1	30	12/16/14	
Trichloroacetic Acid (TCAA)	16	1.0	ug/L	10	5.0	110	70-130	2	30	12/16/14	
Surrogate: 2-Bromobutanoic Acid	26			25		103	70-130			12/16/14	



Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- · Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- · Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.
- · The MCLs provided in this report (if applicable) represent the primary MCLs for that analyte.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
μg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
μg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable	MCL:	Maximum Contaminant Limit		

BSK is not accredited under the NELAC program for the following parameters:

"*NA**

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

_			
F	res	n	O

State of California - ELAP1180State of Hawaii4021State of NevadaCA000792014-1State of Oregon - ORELAP4021EPA - UCMR3CA00079State of WashingtonC997-14

Sacramento

State of California - ELAP 2435

Vancouver

State of Oregon - ORELAP WA100008 State of Washington C824-13

A4L1290



Monterey Bay Analytical

Monte6227

12112014

Turnaround:

Standard

Due Date:

12/29/2014

Printed: 12/11/2014 5:21:53PM

Page 1 of 1

Page 7 of 9

Associates Associates Associates

1414 Stanislaus St. Fresno, CA 93706 (559) 497-2888 Fax (559) 497-2893

www.bskassociates.com 2.3

Turnaround Time Request

Standard - 10 business days

Rush (Surcharge may apply)

Date needed:

A4L1290 Monte6227

> 12/11/2014 10

te6227 1

Danified Flaids	Tamo			
Company/Client Name":	Report Attention*: David Holland	(hvoice for: Mason Weidner-Holland	Phone:: 831-375-6227	Fax: 831-641-0734
Monterey Bay Analytical Services	Additional cc's		E-mair: montereybayanalytical@usa.net	alytical@usa.net
Address: 4 Justin Court, Suite D	city: Monterey	State*: Zip*: CA 93940		
MPWMD	Project #	How would you like to receive your completed results?" E-Maid Fax Mail		
Reposing Ophors (ace (J4 lag)) Swamp Uti Type	Regulatory Cerbon Copies SWRCB (Dirnking Water)	Regulatory Compliance EDT to California SWRCB (Dirnking Water)		
Sampler Name (Printed/Signature):	Merced Co Fresno Co	Co System Number*		
T. Lindberg	Other		Ms -5	
Matrix Types SW=Surface Water BW=Bottled Water GW=Ground Water WW=Waste Water STW=Storm Water Sampled*	W=Ground Water WW=Waste Water STW=Storm W	70%	AA	
# Sample Description"	Date Time Marrix	Comments / Station Code / evi cass	╀╴	
PCA E-D	12/10/14 0940 WW	N AB24456	×	
Reinquished by (Signature and Printige Norms) David Holland	MBAS 12/10/14	Time Received by: (Signature and	!	Company
Reinquished by (Signeture and Printed Name)	Company	Time Received by (Signature and Printed Name)		Сопрапу
Received for Lab by (Signature and Printed Name)	awtur wit 1:341	Time Payment Received at Delivery	Amount:	Check (Cash
Shipping Method ONTBAC UPS GSO Cooling Method: Weir Bible None	WALK-IN FED EX Course	and halmons are alighed to specify sender change and specify deed	Chiting Process Begun Y/N Chiting Process Begun Y/N	\sim
Cappein to service recorded a record print algorith that stand of one could exceed a record of the country of t	end, that the Client agrees to be responsible for payment for the st	twices on this Cours of Custody, and agrees to 85% to terms and conditions.	terms and conditions for laboratory condess whites confractually bo	equally bound of he native. ESK's compart to tree and conditions
Control and an analysis of the second				

12/11/2014

Sample Integrity

Lof (BSK Bottles; Yes No Page Was temperature within range? Were correct containers and preservatives No NA NO NA Chemistry ≤ 6°C Micro < 10°C received for the tests requested? COC Info If samples were taken today, is there evidence Were there bubbles in the VOA vials? Yes No NA Yes No NA that chilling has begun? (Volatiles Only) (eş Yes Did all bottles arrive unbroken and intact? Was a sufficient amount of sample received? No No Did all bottle labels agree with COC? Yes No. (Yes) Do samples have a hold time <72 hours? No Was sodium thiosulfate added to CN sample(s) Was PM notified of discrepancies? No NA Yes No NA until chlorine was no longer present? By/Time: 250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V) Checks Passed? Bacti Na₂S₂O₃ None (P)White Cap Cr6 (P) Br. Green Label NH4OH(NH4)2SO4 DW 8 < Hq Υ N Cr6 (P) Pink Label Hex Chrome Buffer pH 9-9.5 Υ Ν Cr6 (P) Pink Label Hex Chrome Buffer WW pH 9.3-9.7 Υ N performed in the $HNO_3(P)^{Red Cap}$ Yellow Cap/Label H_2SO_4 (P) or (AG) pH < 2 Υ N NaOH (P) Green Cap Cl, pH >10 Υ Ν NaOH + ZnAc (P) pH > 9 Υ N Dissolved Oxygen 300ml (g) 5 None (AG) 608/8081/8082, 625, 632/8321, preservation/chlorine checks are either N/A 8151, 8270 HCI (AG) Lt. Blue Label O&G, Diesel Received Na₂O₃S+HCl (AG)^{Lt. Pink Label} 525 Na₂S₂O₃ 1 Liter (Brown P) 549 Na₂S₂O₃ (AG)^{Blue Label} 547,515,548,THM,524 Na₂S₂O₃ (CG) Blue Label 504, 505 3V Na₂S₂O₃ + MCAA (CG)^{Orange Label} 531 pH < 3Y N NH₄CI (AG)^{Purple Label} 552 17 EDA (AG) Brown Label DBPs HCL (CG) 524.2,BTEX,Gas, MTBE, 8260/624 Buffer pH 4 (CG) None (CG) H₃PO₄ (CG)^{Salmon Label} Other: Asbestos 1Liter Plastic w/ Foil Low Level Hg / Metals Double Baggie **Bottled Water** Clear Glass Jar: 250 / 500 / 1 Liter Soil Tube Brass / Steel / Plastic Plastic Bag Tedlar Bag / Container Preservative Date/Time/Initials Container Preservative Date/Time/Initials Split SP SP SP SP Comments



DAVI LABORATORIES, ENVIRONMENTAL ASSOCIATES

730 Alfred Nobel Dr, Hercules, CA 94547

ANALYTICAL RESULTS REPORT

Company:

Monterey Bay Analytical Services

Address:

4 Justin Court-Suite D Monterey, CA 93940

Project Manager: Report Date: David Holland

December 16, 2014

Subcontract Order #:

AB24456,

TABLE I

Sample ID	Collection Date/Time	Matrix	EPA Method	Analyses	Results pCi/L	<u>+</u>	2 Sigma error	MDA
PCA E-D		,	ww					
AB24456	12/10/14 (09	40)	900.0	Gross Alpha	0.79	<u>+</u>	0.78	0.56
			903.1	Radium 226	0.29	+	0.55	0.85

Analyses Date: 12/13/14

TABLE II QA/QC

Analyses	Spike Added	Detected Activity	% Agreement
Gross Alpha	571.11 pCi/L	547.45 pCi/L	95.86
Radium 226	2.88 pCi/L	2.73 pCi/L	94.79

Patricia Davi Davi Laboratories QA/QC Manager



DAVI LABORATORIES, ENVIRONMENTAL ASSOCIATES
730 Alfred Nobel Dr. * Hercules, Ca 94547 (510) 724-9450 Fax (510) 724-9174 davilaboratories@aol.com

SAMPLE CHAIN OF CUSTODY

Credit Card On File	Monterey Bay Analytical	Bill To:		P.O. Number
David Holland	831-641-0734	Fax #	4 Justin Court, Suite D Monterey, CA 93940	Address:
Report To:	831-375-6227	Phone #	Monterey Bay Analytical Services	Company Name:

	Relinquished by:	A SHOW	Relinquished by:		PCA E-D	Sample ID		Sampled by:
		David Holland	David Holland		12/10/14 0940	Collection Date /Time		
84541	Date/time:	12/10/14 1600	Date/time:		WW	Matrix		Employed By:
84		1600				Method		зу:
#	Recei		Recei		×		Alpha	
#705	Received by:		Received by:				Beta	Þ
							Gamma	z
A	,	,					Uranium	Þ
2	Relin		Relir				Tritium	
12154	iquist		quisi	-	4		Strontium 90	_ <
2	Relinquished by:		Relinquished by:		×		Radium 226	S
<	2 "						Radium 228	-
	,	,					Radium Total	S
-	Date		Date				Radon 222	
1	Date/lime:		Date/time:		AB24456	MBAS Lab ID:	Other	



McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1412488

Report Created for: Monterey Bay Analytical

4 Justin Court, Suite D Monterey, CA 93940

Project Contact: David Holland

Project P.O.:

Project Name: MPWMD

Project Received: 12/11/2014

Analytical Report reviewed & approved for release on 12/17/2014 by:

Question about your data?

Click here to email
McCampbell

Angela Rydelius,

Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.



1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ www.mccampbell.com NELAP: 4033ORELAP ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3

Glossary of Terms & Qualifier Definitions

Client: Monterey Bay Analytical

Project: MPWMD **WorkOrder:** 1412488

Glossary Abbreviation

95% Interval 95% Confident Interval

DF Dilution Factor
DUP Duplicate

EDL Estimated Detection Limit

ITEF International Toxicity Equivalence Factor

LCS Laboratory Control Sample

MB Method Blank

MB % Rec % Recovery of Surrogate in Method Blank, if applicable

MDL Method Detection Limit

ML Minimum Level of Quantitation

MS Matrix Spike

MSD Matrix Spike Duplicate

ND Not detected at or above the indicated MDL or RL

NR Data Not Reported due to matrix interference or insufficient sample amount.

PF Prep Factor

RD Relative Difference

RL Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)

RPD Relative Percent Deviation
RRT Relative Retention Time

SPK Val Spike Value

SPKRef Val Spike Reference Value TEQ Toxicity Equivalence

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client: Monterey Bay Analytical WorkOrder: 1412488 **Project: MPWMD Extraction Method:** RSK175 **Date Received:** 12/11/14 11:04 **Analytical Method:** RSK175 Unit: **Date Prepared:** 12/12/14

Light Gases

		8			
Client ID	Lab ID	Matrix/ExtType	Date C	ollected Instrument	Batch ID
PCA E-D	1412488-001A	Water/DISS.	12/10/20	014 09:40 GC26	98947
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	Date Analyzed
Methane	ND		0.10	1	12/12/2014 12:36

Analyst(s): KBO

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:Monterey Bay AnalyticalWorkOrder:1412488Date Prepared:12/12/14BatchID:98947Date Analyzed:12/12/14Extraction Method:RSK175Instrument:GC26Analytical Method:RSK175

Matrix: Air Unit: $\mu L/L$

Project: MPWMD **Sample ID:** MB/LCS-98947

	QC Sum	mary Report	for RSK175				
Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Methane	ND	10.9	0.50	10	-	109	70-130

McCampbell Analytical, Inc.

FAX: 831-641-0734

PCA E-D

1534 Willow Pass Rd Pittsburg, CA 94565-1701 (925) 252-9262

831-375-6227

1412488-001

CHAIN-OF-CUSTODY RECORD

ClientCode: MBAS

1 of 1

12/11/2014

Date Received:

☐ WaterTrax	WriteOn	EDF	Excel	■ EQuIS	✓ Email	HardCopy	ThirdParty	☐ J-flag

WorkOrder: 1412488

Report to: Requested TAT: 5 days

David Holland 4mbas@sbcglobal.net Accounts Payable Email:

cc/3rd Party: Monterey Bay Analytical Monterey Bay Analytical PO: 4 Justin Court, Suite D 4 Justin Court, Suite D

Water

ProjectNo: MPWMD Monterey, CA 93940 Monterey, CA 93940 Date Printed: 12/12/2014

Requested Tests (See legend below) Lab ID **Client ID** 3 10 12 Matrix Collection Date Hold 11

Α

12/10/2014 9:40

Test Legend:

1 RSK175_W	2	3	4	5	
6	7	8	9	10	
11	12				

Prepared by: Maria Venegas

Comments: Needs analysts initials for all reports per D.H. 4/5/13

> NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



McCampbell Analytical, Inc. "When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com

WORK ORDER SUMMARY

Client Name	: MONTEREY	BAY ANALYTICA	AL		QC Level:	LEVEL	2			Work Order	: 1412488
Project:	MPWMD				Client Contact:	David H	olland			Date Received	1: 12/11/2014
Comments:	Needs analysts	s initials for all reports p	per D.H. 4/5/13		Contact's Email:	4mbas@	sbcglobal.net				
		☐ WaterTrax	WriteOn	EDF	Excel	Fax	∠ Email	HardCo	ppyThirdParty	√	
Lab ID	Client ID	Matrix	Test Name		Containe /Composi		le & Preservative	De- chlorinated	Collection Date & Time	TAT Sedimo	ent Hold SubOut nt
1412488-001A	PCA E-D	Water	RSK175 <me< td=""><td>ethane_4></td><td>2</td><td></td><td>VOA w/ HCl</td><td></td><td>12/10/2014 9:40</td><td>5 days None</td><td>: 🗌</td></me<>	ethane_4>	2		VOA w/ HCl		12/10/2014 9:40	5 days None	: 🗌

* NOTE: STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

1412488

Web	osite: <u>www.mc</u> ne: (877) 252	1534 WI PITTSBU campbell	LLOW PA JRG, CA 9	LY7 SS RO 4565-1	AD 701 ain@r	AL	, I	N(com		9					UF			JO	JNI	T	IM	E			h	[RI		R 5 DAY
Report To: David	Holland		1	Bill To	o:															A	nal	ysis	Red	ques	t						(Othe	r	Comments
Company: Mont			Services															0				S												ETT.
	in Ct. Suite														8015)			B&I				gene												Filter
	erey, Ca 939	40	E	-Mai	l: 4m	bas(@sb	cgle	obal	.ne	t				+			20 E/				Con						(0	6					Samples for Metals
Tele: (831) 375 -	6227			ax: (-073	4							8021	21)		/ 553	1	(\$;		ors/		(s)			_	602	602					analysis:
Project #:			1	rojec	t Nai	ne:									(602/	/ 80		664	418.	VOC	(Sc	rock		icide			NAS	010	/010		7			Yes / No
Project Location:	MPWMD														as (6	602	015)	se (1	ous (E	icide	Y; A	es)	lerbi	(\$	Cs)	s/P	9/8	9/8	020)	10			
Sampler Signatur	e: T. Lindbe	rg													as G	EPA	8) II (8	rea	arb	8021	Pest	NE	ticid	CLH	000	SVO	AH	200.	200.	9/0				
		SAMI	PLING	S	iers		MA	TR	IX	ı		ETE			& TPH	NLY (Motor C	Oil & C	Hydroc	/ 8010 /	081 (CI	CB's C	NP Pes	Acidic	8260 (8270 (5	8310 (F	200.7 /	200.77	.8 / 601				
SAMPLE ID	LOCATION/ Field Point Name	Date	Time	# Containers	Type Containers	Water	Soil	Air	Sludge	Other	ICE	HCL	HNO ₃	Other	MTBE/BTEX &	MTBE / BTEX ONLY (EPA 602 / 8021)	TPH as Diesel / Motor Oil (8015)	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 502.2 / 601 / 8010 / 8021 (HVOCs)	EPA 505/ 608 / 8081 (CI Pesticides)	EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)	LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	Lead (200.7 / 200.8 / 6010 / 6020)	Methane		*	
V	PCA E-D	12/10/14	0940	82	G	X		1		†	X	X		7														-			X			AB24456
*2/3 vials su	- W - 4						1	1		†	+	1	1	+								-1												
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Relinquished By:	100	Date:	Time:	Rece	ived B	v.				1				+	ICE	C/t°	4	9		- 1									CON	IME	NTC			
David Holland/	OHN	12/10/14	1600	Rece	ived D	y ·									GO	OD O	CON	DIT			_							,	COIV	LIVIE	NIS			
Relinquished By:		Date:	Time:	Rece	ived B	y:						104				CHL					AB_													
		12/11/14	0915	/	//	0	10	10	2 -	2	-	6)			PRO					NER	S_		4										
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1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name.	wonterey Bay An	aiyticai			Date and I	ime Received.	12/11/2014 11:04:00 AW
Project Name:	MPWMD				LogIn Revi	ewed by:	Maria Venegas
WorkOrder №:	1412488	Matrix: <u>Water</u>			Carrier:	<u>OnTrac</u>	
		Chain of C	ustod	v (COC)	<u>Information</u>		
Chain of custody	present?		Yes	✓	No 🗌		
Chain of custody	signed when relind	uished and received?	Yes	✓	No 🗌		
Chain of custody	agrees with sampl	e labels?	Yes	✓	No 🗌		
Sample IDs note	d by Client on COC	??	Yes	✓	No 🗌		
Date and Time o	f collection noted b	y Client on COC?	Yes	✓	No 🗌		
Sampler's name	noted on COC?		Yes	•	No 🗌		
		Sampl	e Rece	eipt Info	<u>rmation</u>		
Custody seals in	tact on shipping co	ntainer/cooler?	Yes		No 🗌		NA 🗹
Shipping contain	er/cooler in good co	ondition?	Yes	•	No 🗌		
Samples in prope	er containers/bottle	s?	Yes	✓	No 🗌		
Sample containe	rs intact?		Yes	•	No 🗌		
Sufficient sample	e volume for indicat	ed test?	Yes	•	No 🗌		
		Sample Preservation	on and	Hold Ti	me (HT) Info	<u>rmation</u>	
All samples recei	ived within holding	time?	Yes	•	No 🗌		
Sample/Temp Bl	ank temperature			Temp	: 4.8°C		NA 🗌
Water - VOA vial	s have zero heads	pace / no bubbles?	Yes		No 🗌		NA 🗸
Sample labels ch	necked for correct p	reservation?	Yes	✓	No 🗌		
pH acceptable up	oon receipt (Metal:	<2; 522: <4; 218.7: >8)?	Yes		No 🗌		NA 🗹
Samples Receive	ed on Ice?		Yes	✓	No 🗌		
		(Ice Type	∍: WE	TICE)		
UCMR3 Samples Total Chlorine		ble upon receipt for EPA 522?	Yes		No 🗌		NA 🗹
	ested and accepta	ole upon receipt for EPA 218.7,			No 🗌		NA 🗹
* NOTE: If the "N	lo" box is checked,	see comments below.					
Comments:						=====	



MPWMD Joe Oliver P.O. Box 85 Monterey, CA 93442-0085

831.375.MBAS

www.MBASinc.com **ELAP Certification Number: 2385**

Thursday, January 15, 2015 Page 1 of 2

Lab Number: AB24745

Collection Date/Time: 11:00 Sample Collector: LEAR J 12/13/2014

Submittal Date/Time: 12/15/2014 16:45 Sample ID Coliform Designation:

	;	Sample	Description: Injectat	е			
Analyte	Method	Unit	Result Qual	PQL	MCL	Date Analyzed	Analyst:
Alkalinity, Total (as CaCO3)	SM2320B	mg/L	153	2		12/23/2014	LRH
Aluminum, Total	EPA200.8	μg/L	12	10	1000	12/17/2014	SM
Ammonia-N	SM4500NH3 D	mg/L	Not Detected	0.05		12/18/2014	TC
Arsenic, Total	EPA200.8	μg/L	Not Detected	1	10	12/17/2014	SM
Barium, Total	EPA200.8	μg/L	78	10	1000	12/17/2014	SM
Bicarbonate (as HCO3-)	SM2320B	mg/L	187	10		12/23/2014	НМ
Boron	EPA200.7	mg/L	Not Detected	0.05		12/29/2014	MW
Bromide	EPA300.0	mg/L	Not Detected	0.1		12/17/2014	MW
Calcium	EPA200.7	mg/L	45	0.5		12/29/2014	MW
Carbonate as CaCO3	SM2320B	mg/L	Not Detected	10		12/23/2014	НМ
Chloramines	SM4500-CI G	mg/L	Not Detected	0.05		12/15/2014	TC
Chloride	EPA300.0	mg/L	35	1	250	12/17/2014	MW
DOC		mg/L	1.0	0.2		12/17/2014	MW
Fluoride	EPA300.0	mg/L	0.3	0.1	2.0	12/17/2014	MW
Gross Alpha	EPA900.0	pCi/L	1.87±0.74 E		15	1/9/2015	DAVI
Haloacetic Acids	EPA552	μg/L	9.2 E		60	12/20/2014	BSK
Iron	EPA200.7	μg/L	11	10	300	12/29/2014	MW
Iron, Dissolved	EPA200.7	μg/L	Not Detected	10	300	12/29/2014	MW
Kjehldahl Nitrogen	SM4500-NH3 B,	mg/L	0.7	0.5		1/6/2015	TC
Lithium	EPA200.8	μg/L	6	1		12/17/2014	SM
Magnesium	EPA200.7	mg/L	15	0.5		12/29/2014	MW
Manganese, Dissolved	EPA200.7	μg/L	Not Detected	10	50	12/29/2014	MW
Manganese, Total	EPA200.7	μg/L	1.0	10	50	12/29/2014	MW
Mercury, Total	EPA200.8	μg/L	Not Detected	0.5	2	12/17/2014	SM
Methane	EPA174/175	μg/L	0.53 E	0.1		12/23/2014	MCCAM
Molybdenum, Total	EPA200.8	μg/L	2	1	1000	12/17/2014	SM
Nickel, Total	EPA200.8	μg/L	Not Detected	10	100	12/17/2014	SM
Nitrate as NO3	EPA300.0	mg/L	1	1	45	12/17/2014	MW
Nitrate as NO3-N	EPA300.0	mg/L	0.2	0.1	10	12/17/2014	MW
Nitrate+Nitrite as N	EPA300.0	mg/L	0.8	0.1		12/17/2014	MW
Nitrite as NO2-N	EPA300.0	mg/L	0.6	0.1	1.0	12/17/2014	MW
o-Phosphate-P	EPA300.0	mg/L	0.2	0.1		12/17/2014	MW

mg/L: Milligrams per liter ug/L: Micrograms per liter PQL: Practical Quantitation Limit MCL: Maximum Contamination Level H = Analyzed ouside of hold time E = Analysis performed by External Laboratory; See Report attachments. T = Temperature Exceedance Lab Number: AB24745

Collection Date/Time: 12/13/2014 11:00 Sample Collector: LEAR J

Submittal Date/Time: 12/15/2014 16:45 Sample ID Coliform Designation:

		Sample De	scription: Ir	njectate				
Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
pH (Laboratory)	SM4500-H+B	pH (H)	7.5				12/15/2014	LRH
Phosphorus, Total	HACH 8190	mg/L	0.39		0.03		12/16/2014	SM
Potassium	EPA200.7	mg/L	2.9		0.5		12/29/2014	MW
QC Anion Sum x 100	Calculation	%	97%				12/23/2014	НМ
QC Anion-Cation Balance	Calculation	%	-3				12/30/2014	MW
QC Cation Sum x 100	Calculation	%	91%				12/30/2014	MW
QC Ratio TDS/SEC	Calculation		0.61				12/18/2014	TC
Selenium, Total	EPA200.8	μg/L	2		2	50	12/17/2014	SM
Silica as SiO2, Total	EPA200.7	mg/L	22		0.5		12/29/2014	MW
Sodium	EPA200.7	mg/L	46		0.5		12/29/2014	MW
Specific Conductance (E.C)	SM2510B	µmhos/cm	611		1	900	12/17/2014	НМ
Strontium, Total	EPA200.8	μg/L	259		5		12/17/2014	SM
Sulfate	EPA300.0	mg/L	90		1	250	12/17/2014	MW
TOC	SM5310C	mg/L	1.0		0.2		12/17/2014	MW
Total Diss. Solids	SM2540C	mg/L	374		10	500	12/16/2014	НМ
Total Nitrogen	Calculation	mg/L	1.5		0.5		1/6/2015	TC
Total Radium 226	EPA903.0	pCi/L	0.56±0.5	Е		3	1/9/2015	DAVI
Trihalomethanes	EPA524.2	μg/L	25	Е		80	12/18/2014	BSK
Uranium by ICP/MS	EPA200.8	μg/L	1		1	30	12/17/2014	SM
Vanadium, Total	EPA200.8	μg/L	Not Detected	d	5	1000	12/17/2014	SM
Zinc, Total	EPA200.8	μg/L	284		10	5000	12/17/2014	SM

Sample Comments: Samples for TTHM were preserved in lab 12/15/14

Report Approved by:

David Holland, Laboratory Director



BSK Associates Fresno 1414 Stanislaus St Fresno, CA93706 559-497-2888 (Main) 559-485-6935 (FAX)

A4L1809 1/06/2015

Invoice: A500156

David Holland Monterey Bay Analytical 4 Justin Court Suite D Monterey, CA 93940

RE: Report for A4L1809 MPWMD

Dear David Holland,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 12/17/2014. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2009 TNI Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an fias receivedfl basis.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

Renea Rangell, Client Services Manager

Lenea Gangell

If additional clarification of any information is required, please contact your Project Manager, John Montierth, at (800) 877-8310 or (559) 497-2888 x201.



Accredited in Accordance with NELAP ORELAP #4021

QA-RP-0001-10 Final.rpt



Case Narrative

Project and Report Details

Invoice Details

Client: Monterey Bay Analytical Invoice To: Monterey Bay Analytical

Report To: David Holland Invoice Attn: David Holland

Project #:

Received:

Project PO#: -

12/17/2014 - 08:30

1/06/2015 **Report Due:**

Sample Receipt Conditions

Containers Intact Cooler: Default Cooler COC/Labels Agree Temperature on Receipt °C: 3.8

Received On Wet Ice Received On Blue Ice

Packing Material - Bubble Wrap

Sample(s) were received in temperature range.

Initial receipt at BSK-FAL

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

Report Distribution

Recipient(s) Report Format CC: David Holland FINAL.RPT

^{***}None applied***



Certificate of Analysis

Sample ID: A4L1809-01 Sampled By: J Lear **Sample Date - Time:** 12/13/14 - 11:00

Matrix: Waste Water

Sample Description: Injectate // AB24745

Sample Type: Grab

BSK Associates Fresno Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	8.6	0.50	ug/L	1	A416052	12/18/14	12/18/14	
Bromoform	EPA 524.2	1.7	0.50	ug/L	1	A416052	12/18/14	12/18/14	
Chloroform	EPA 524.2	6.4	0.50	ug/L	1	A416052	12/18/14	12/18/14	
Dibromochloromethane	EPA 524.2	8.1	0.50	ug/L	1	A416052	12/18/14	12/18/14	
Surrogate: Bromofluorobenzene	EPA 524.2	101 %	Acceptal	ble range:	70-130 %				
Total Trihalomethanes, EPA 524.2		25	0.50	ug/L					
Haloacetic Acids by GC-ECD, G	C-MS								
Dibromoacetic Acid (DBAA)	EPA 552.3	3.3	1.0	ug/L	1	A416130	12/19/14	12/20/14	
Dichloroacetic Acid (DCAA)	EPA 552.3	3.4	1.0	ug/L	1	A416130	12/19/14	12/20/14	
Monobromoacetic Acid (MBAA)	EPA 552.3	ND	1.0	ug/L	1	A416130	12/19/14	12/20/14	
Monochloroacetic Acid (MCAA)	EPA 552.3	ND	2.0	ug/L	1	A416130	12/19/14	12/20/14	
Trichloroacetic Acid (TCAA)	EPA 552.3	2.5	1.0	ug/L	1	A416130	12/19/14	12/20/14	
Surrogate: 2-Bromobutanoic Acid	EPA 552.3	110 %	Acceptal	ble range:	70-130 %				
Total Haloacetic Acids, EPA 552.3		9.2	2.0	ug/L					





Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual	
		EPA 5	24.2 - Q	uality Co	ntrol							
Batch: A416052				-						Prepared	12/18/2	201
Prep Method: EPA 524.2										•	nalyst: 、	
Blank (A416052-BLK1) Bromodichloromethane	ND	0.50	ug/L							12/18/14		
Bromoform	ND	0.50	ug/L ug/L							12/18/14		
Chloroform	ND	0.50	ug/L							12/18/14		
Dibromochloromethane	ND	0.50	ug/L							12/18/14		
Surrogate: Bromofluorobenzene	50	0.00	ug/L	50		99	70-130			12/18/14		
Blank Spike (A416052-BS1)												
Bromodichloromethane	9.4	0.50	ug/L	10		94	70-130			12/18/14		
Bromoform	10	0.50	ug/L ug/L	10		102	70-130			12/18/14		
Chloroform	9.6	0.50	ug/L ug/L	10		96	70-130			12/18/14		
Dibromochloromethane	10	0.50	ug/L ug/L	10		100	70-130			12/18/14		
Surrogate: Bromofluorobenzene	51	0.50	ug/L	50		101	70-130			12/18/14		
D												
Blank Spike Dup (A416052-BSD1)	0.0	2.50	n	40		00	70 100	_	00	40/40/44		
Bromodichloromethane	9.2	0.50	ug/L	10		92	70-130	3	30	12/18/14		
Bromoform	9.8	0.50	ug/L	10		98	70-130	5	30	12/18/14		
Chloroform	9.4	0.50	ug/L	10		94	70-130	3	30	12/18/14		
Dibromochloromethane	9.6	0.50	ug/L	10 <i>50</i>		96 99	70-130 <i>70-130</i>	3	30	12/18/14 12/18/14		
Surrogate: Bromofluorobenzene	50											
•	50	EPA 5	52.3 - Q	uality Co	ntrol					D	40/40/0	
Batch: A416130	50	EPA 5	52.3 - Q	uality Co	ntrol					Prepared:		
Batch: A416130	30	EPA 5	52.3 - Q	uality Co	ntrol						: 12/19/2 nalyst: k	
Batch: A416130 Prep Method: EPA 552.3 Blank (A416130-BLK1)				uality Co	ntrol					A		
Batch: A416130 Prep Method: EPA 552.3 Blank (A416130-BLK1) Dibromoacetic Acid (DBAA)	ND	1.0	ug/L	uality Co	ntrol					12/19/14		
Batch: A416130 Prep Method: EPA 552.3 Blank (A416130-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA)	ND ND	1.0 1.0	ug/L ug/L	uality Co	ntrol					12/19/14 12/19/14		
Batch: A416130 Prep Method: EPA 552.3 Blank (A416130-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA)	ND ND ND	1.0 1.0 1.0	ug/L ug/L ug/L	uality Co	ntrol					12/19/14 12/19/14 12/19/14		
Batch: A416130 Prep Method: EPA 552.3 Blank (A416130-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA) Monochloroacetic Acid (MCAA)	ND ND ND ND	1.0 1.0 1.0 2.0	ug/L ug/L ug/L ug/L	uality Co	ntrol					12/19/14 12/19/14 12/19/14 12/19/14		
Batch: A416130 Prep Method: EPA 552.3 Blank (A416130-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA) Monochloroacetic Acid (MCAA) Trichloroacetic Acid (TCAA)	ND ND ND ND ND	1.0 1.0 1.0	ug/L ug/L ug/L		ntrol	400				12/19/14 12/19/14 12/19/14 12/19/14 12/19/14		
Batch: A416130 Prep Method: EPA 552.3 Blank (A416130-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA) Monochloroacetic Acid (MCAA) Trichloroacetic Acid (TCAA)	ND ND ND ND	1.0 1.0 1.0 2.0	ug/L ug/L ug/L ug/L	uality Co	ntrol	102	70-130			12/19/14 12/19/14 12/19/14 12/19/14		
Batch: A416130 Prep Method: EPA 552.3 Blank (A416130-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA) Monochloroacetic Acid (MCAA) Trichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A416130-BS1)	ND ND ND ND ND	1.0 1.0 1.0 2.0	ug/L ug/L ug/L ug/L ug/L		ntrol	102	70-130			12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14		
Batch: A416130 Prep Method: EPA 552.3 Blank (A416130-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA) Monochloroacetic Acid (MCAA) Trichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A416130-BS1)	ND ND ND ND 25	1.0 1.0 1.0 2.0 1.0	ug/L ug/L ug/L ug/L ug/L		ntrol	115	70-130			12/19/14 12/19/14 12/19/14 12/19/14 12/19/14		
Batch: A416130 Prep Method: EPA 552.3 Blank (A416130-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MCAA) Trichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A416130-BS1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA)	ND ND ND ND 25	1.0 1.0 1.0 2.0 1.0	ug/L ug/L ug/L ug/L ug/L ug/L	25 10 10	ntrol	115 106	70-130 70-130			12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14		
Batch: A416130 Prep Method: EPA 552.3 Blank (A416130-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MCAA) Trichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A416130-BS1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA)	ND ND ND ND 25	1.0 1.0 1.0 2.0 1.0 1.0	ug/L ug/L ug/L ug/L ug/L ug/L ug/L	25 10 10 10	ntrol	115 106 113	70-130 70-130 70-130			12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14		
Batch: A416130 Prep Method: EPA 552.3 Blank (A416130-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MCAA) Trichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A416130-BS1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA) Monobromoacetic Acid (MBAA)	ND ND ND ND 25 12 11 11 22	1.0 1.0 2.0 1.0 1.0 1.0 2.0	ug/L ug/L ug/L ug/L ug/L ug/L	25 10 10 10 20	ntrol	115 106 113 112	70-130 70-130 70-130 70-130			12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14		
Batch: A416130 Prep Method: EPA 552.3 Blank (A416130-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MCAA) Frichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A416130-BS1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA) Monobromoacetic Acid (MBAA) Monobromoacetic Acid (MBAA) Monobromoacetic Acid (MCAA) Frichloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA)	ND ND ND ND 25 12 11 11 22 11	1.0 1.0 1.0 2.0 1.0 1.0	ug/L ug/L ug/L ug/L ug/L ug/L ug/L	25 10 10 10 20 10	ntrol	115 106 113 112 107	70-130 70-130 70-130 70-130 70-130			12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14		
Batch: A416130 Prep Method: EPA 552.3 Blank (A416130-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (MCAA) Monochloroacetic Acid (MCAA) Trichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A416130-BS1) Dibromoacetic Acid (DCAA) Monochloroacetic Acid (MCAA) Trichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A416130-BS1) Dibromoacetic Acid (DCAA) Monochloroacetic Acid (MCAA) Trichloroacetic Acid (MCAA) Trichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid	ND ND ND ND 25 12 11 11 22	1.0 1.0 2.0 1.0 1.0 1.0 2.0	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	25 10 10 10 20	ntrol	115 106 113 112	70-130 70-130 70-130 70-130			12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14		
Batch: A416130 Prep Method: EPA 552.3 Blank (A416130-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MCAA) Trichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A416130-BS1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MCAA) Trichloroacetic Acid (DBAA) Dichloroacetic Acid (MBAA) Monobromoacetic Acid (MCAA) Trichloroacetic Acid (MCAA) Trichloroacetic Acid (TCAA)	ND ND ND ND 25 12 11 11 22 11	1.0 1.0 2.0 1.0 1.0 1.0 2.0	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	25 10 10 10 20 10	ntrol	115 106 113 112 107	70-130 70-130 70-130 70-130 70-130			12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14		
Batch: A416130 Prep Method: EPA 552.3 Blank (A416130-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MCAA) Trichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A416130-BS1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MCAA) Trichloroacetic Acid (DBAA) Dichloroacetic Acid (MCAA) Trichloroacetic Acid (MCAA) Monobromoacetic Acid (MCAA) Trichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid	ND ND ND ND 25 12 11 11 22 11	1.0 1.0 2.0 1.0 1.0 1.0 2.0	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	25 10 10 10 20 10	ntrol	115 106 113 112 107	70-130 70-130 70-130 70-130 70-130	4	30	12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14		
Batch: A416130 Prep Method: EPA 552.3 Blank (A416130-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MCAA) Trichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A416130-BS1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MCAA) Trichloroacetic Acid (MCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike Dup (A416130-BSD1)	ND ND ND ND 25 12 11 11 22 11 27	1.0 1.0 2.0 1.0 1.0 2.0 1.0	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	25 10 10 10 20 10 25	ntrol	115 106 113 112 107 106	70-130 70-130 70-130 70-130 70-130 70-130	4 3	30 30	12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14		
Batch: A416130 Prep Method: EPA 552.3 Blank (A416130-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (MCAA) Trichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A416130-BS1) Dibromoacetic Acid (DCAA) Monochloroacetic Acid (DCAA) Monochloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA) Monochloroacetic Acid (MCAA) Trichloroacetic Acid (MCAA) Trichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike Dup (A416130-BSD1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DBAA) Dichloroacetic Acid (DBAA)	ND ND ND ND 25 12 11 11 22 11 27	1.0 1.0 2.0 1.0 1.0 2.0 1.0	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	25 10 10 10 20 10 25	ntrol	115 106 113 112 107 106	70-130 70-130 70-130 70-130 70-130 70-130			12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14		
Batch: A416130 Prep Method: EPA 552.3 Blank (A416130-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MCAA) Trichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A416130-BS1) Dibromoacetic Acid (DBAA) Monobromoacetic Acid (DCAA) Monobromoacetic Acid (DBAA) Dichloroacetic Acid (MBAA) Monobromoacetic Acid (MCAA) Trichloroacetic Acid (MCAA) Monobromoacetic Acid (MCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike Dup (A416130-BSD1) Dibromoacetic Acid (DBAA)	ND ND ND ND 25 12 11 11 22 11 27	1.0 1.0 2.0 1.0 1.0 1.0 1.0 1.0 1.0	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	25 10 10 10 20 10 25	ntrol	115 106 113 112 107 106	70-130 70-130 70-130 70-130 70-130 70-130 70-130	3	30	12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14		
Batch: A416130 Prep Method: EPA 552.3 Blank (A416130-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A416130-BS1) Dibromoacetic Acid (DCAA) Monochloroacetic Acid (MBAA) Monochloroacetic Acid (DCAA) Monochloroacetic Acid (MBAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (MCAA) Frichloroacetic Acid (MCAA) Dichloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike Dup (A416130-BSD1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochromoacetic Acid (MBAA)	ND ND ND ND 25 12 11 11 22 11 27	1.0 1.0 2.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	25 10 10 10 20 10 25	ntrol	115 106 113 112 107 106	70-130 70-130 70-130 70-130 70-130 70-130 70-130 70-130	3 1	30 30	12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14		
Batch: A416130 Prep Method: EPA 552.3 Blank (A416130-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A416130-BS1) Dibromoacetic Acid (DCAA) Monochloroacetic Acid (MBAA) Monochloroacetic Acid (MBAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (MCAA) Frichloroacetic Acid (MCAA) Dichloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike Dup (A416130-BSD1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (MBAA) Monochloroacetic Acid (MBAA) Monochloroacetic Acid (MBAA) Monochloroacetic Acid (MBAA) Monochloroacetic Acid (MCAA)	ND ND ND ND 25 12 11 11 22 11 27	1.0 1.0 2.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	25 10 10 10 20 10 25	ntrol	115 106 113 112 107 106	70-130 70-130 70-130 70-130 70-130 70-130 70-130 70-130	3 1	30 30	12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14 12/19/14		(HI



Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Date Analyzed	Qual
				uality Co							
Batch: A416130				y						Prepared:	12/19/2014
Prep Method: EPA 552.3										•	nalyst: KHH
Blank Spike Dup (A416130-BSD1)											
Trichloroacetic Acid (TCAA)	11	1.0	ug/L	10		111	70-130	3	30	12/19/14	
Surrogate: 2-Bromobutanoic Acid	27			25		107	70-130			12/19/14	
Matrix Spike (A416130-MS1), Source:	A4L1614-01										
Dibromoacetic Acid (DBAA)	13	1.0	ug/L	10	1.3	119	70-130			12/19/14	
Dichloroacetic Acid (DCAA)	11	1.0	ug/L	10	ND	107	70-130			12/19/14	
Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10	ND	107	70-130			12/19/14	
Monochloroacetic Acid (MCAA)	22	2.0	ug/L	20	ND	110	70-130			12/19/14	
Trichloroacetic Acid (TCAA)	11	1.0	ug/L	10	ND	107	70-130			12/19/14	
Surrogate: 2-Bromobutanoic Acid	26			25		104	70-130			12/19/14	
Matrix Spike Dup (A416130-MSD1), Sc	ource: A4L1614-01										
Dibromoacetic Acid (DBAA)	14	1.0	ug/L	10	1.3	126	70-130	5	30	12/19/14	
Dichloroacetic Acid (DCAA)	12	1.0	ug/L	10	ND	113	70-130	5	30	12/19/14	
Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10	ND	108	70-130	1	30	12/19/14	
Monochloroacetic Acid (MCAA)	22	2.0	ug/L	20	ND	112	70-130	1	30	12/19/14	
Trichloroacetic Acid (TCAA)	12	1.0	ug/L	10	ND	115	70-130	7	30	12/19/14	
Surrogate: 2-Bromobutanoic Acid	29			25		116	70-130			12/19/14	



Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- · Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- · Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- · RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.
- The MCLs provided in this report (if applicable) represent the primary MCLs for that analyte.

Definitions

MDL: mg/L: Milligrams/Liter (ppm) MDA95: Min. Detected Activity Method Detection Limit mg/Kg: Milligrams/Kilogram (ppm) RL: Reporting Limit: DL x Dilution MPN: Most Probable Number CFU: μg/L: Micrograms/Liter (ppb) ND: None Detected at RL Colony Forming Unit Micrograms/Kilogram (ppb) pCi/L: Picocuries per Liter Absent: Less than 1 CFU/100mLs μg/Kg: Percent Recovered (surrogates) RL Mult: **RL Multiplier** Present: 1 or more CFU/100mLs NR: Non-Reportable MCL: Maximum Contaminant Limit

BSK is not accredited under the NELAC program for the following parameters:

NA

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

Fresno

State of California - ELAP1180State of Hawaii4021State of NevadaCA000792014-1State of Oregon - ORELAP4021EPA - UCMR3CA00079State of WashingtonC997-14

Sacramento

State of California - ELAP 2435

Vancouver

State of Oregon - ORELAP WA100008 State of Washington C824-13

A4L1809



Monterey Bay Analytical

Monte6227

12172014

Turnaround: Standard

Due Date: 1/6/2015

Printed: 12/17/2014 4:39:16PM

Page 7 of 9

A4L1809

12/17/2014

Payment for services relieved as ficial herbanase see the Clientic company acknowledges that they are either the can be found at www.bskassnobites.com/85KLabTerms(Statema Method: ONTRAG	Received by Lay (Signalup and Prints Kany)	Relinquished by: (Signature and Printed Name)	Relinquished by (Signature and Printed Name) David Holland							# Compie	Water A Types	- 1		Sampler Name (Printed/Signature)*:		Project: MPWMD	Address': 4 Justin Court, Suite D	Monterey Bay Analytical Services	Company/Client Name*:	2	Associates	BSK
fiful within 30 days from the date involved. If not so paid, account balances at section and the Client agrees to be respectioned or an authorized agent to the Client, that the Client agrees to be respectionally respect.	UPS GSO WALK-IN	71/20 BILL	Сотрану	MBAS)					Injectate 12/13/14		,	SW=Surface Water BW=Bortled Water GW=Ground Water WW=Waste Water	Madera Co		Do Type: SWRCB (Drinking Water)	F(5)@0 #	cily: Monterey		Report Attention*: David Holland	*Required Fields	www.bskassociates.com	1414 Stanislaus St., Fresno, CA 93706 (559) 497-2888 · Fax (559) 497-2893
is deemed delinguent. Delinquent balances are subject to monning service crauges and in- orsible for payment for the services on this Chain of Custody, and agrees to BSK's terms	FED EX Courier:	How I Delivery Delie:		00 Received by						THE CONTRACT OF THE PARTY OF TH	AR24AGG	Matrix*	STW=Storm Water DW=	Tulare Co	Fresno Co	EDT to		CA 93940		Mason Weidner-Holland	Temp:	Rush (Surcharge may apply) Date needed:	Turnaround Time Request Standard - 10 business days
Payment for services and the transport of the date involved. If not so paid, account bearings and delinquent, Delinquent belances are depind allowed by an explicit to mornly service unless conflictions for Jaborskovy services unless conflicti	Chilling Process Begur Y JA Chill Process B	PIA			Company						× ×	TT	THN			/aler)	<u>a</u>		E-mail::montereybayanalytical@usa.net	831-375-6227 831-641-0734	Dhone'. Fax:		Monte6227 10
s and condition	son signing f		Casi						 -												P	age 8	of 9

12/17/2014

10

Sample Integrity

BSK Bottles/ Yes No Page Was temperature within range? Were correct containers and preservatives Chemistry ≤ 6°C Micro < 10°C Yes No NA Yes No NA received for the tests requested? Info If samples were taken today, is there evidence Were there bubbles in the VOA vials? NΑ (No. ΝA Yes No Yes (Volatiles Only) that chilling has begun? Yes Did all bottles arrive unbroken and intact? Was a sufficient amount of sample received? Yes No Did all bottle labels agree with COC? Do samples have a hold time <72 hours? Yes. Νø Yes Was PM notified of discrepancies? Was sodium thiosulfate added to CN sample(s) Yes MA Yes No/NA No until chlorine was no longer present? PM: By/Time: 250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V) Passed? Bacti Na₂S₂O₃ None (P)White Cap Cr6 (P) Br Green Label NH4OH(NH4)2904 DW 8 < Hq Cr6 (P) Pink Label Hex Chrome Buffer pH 9-9.5 Cr6 (P) Pink Label Hex Chrome Buffer WW Υ pH 9.3-9.7 N HNO₃ (P) Red Cap Yellow Cap/Label H₂SO₄ (P) or (AG) $pH \le 2$ Υ Ν NaOH (P) Green Cap CI, pH >10 NaOH + ZnAc (P) pH > 9 N Υ Dissolved Oxygen 300ml (g) preservation/chlorine checks are either N/A or None (AG) 608/8081/8082, 625, 632/8321, 8151, 8270 **Bottles Received** HCI (AG) Lt. Blue Label O&G, Diesel Na₂O₃S+HCl (AG)Lt Pink Label 525 Na₂S₂O₃ 1 Liter (Brown P) 549 Na₂S₂O₃ (AG)^{Blue Label}547,515,548,THM,524 Na₂S₂O₃ (CG) Blue Label 504, 505 Na₂S₂O₃ + MCAA (CG)^{Orange Label} 531 E > Ha NH₄CI (AG) Purple Label 552 EDA (AG) Brown Label DBPs HCL (CG) 524.2,BTEX,Gas, MTBE, 8260/624 Buffer pH 4 (CG) None (CG) H₃PO₄ (CG)^{Salmon Label} Other: 1Liter Plastic w/ Foil Asbestos Low Level Hg / Metals Double Baggie Bottled Water Clear Glass Jar: 250 / 500 / 1 Liter Soil Tube Brass / Steel / Plastic Tedlar Bag / Plastic Bag Container Preservative Date/Time/Initials Container Preservative Date//ime/Initials SP SP SP S P Comments Page 9 of 9 Labeled by: <u>514</u> @ 12.57

Labels checked by: 2200 @ 1531/6

RUSH Paged by:___



DAVI LABORATORIES, ENVIRONMENTAL ASSOCIATES 730 Alfred Nobel Dr. * Hercules, Ca 94547 (510) 724-9450 Fax (510) 724-9174

ANALYTICAL RESULTS REPORT

Company: Address: Monterey Bay Analytical Services

4 Justin Court, Suite D Monterey, CA 93940

David Holland

Report Date:

January 12, 2015

TABLE I									
Sample ID	Collection Date/Time	Matrix	EPA	Analyses Method	Results pCi/L	±	2 Sigma error	MDA	
AB24745									
Injectate		ww							
	12/13/14		900.0 903.0	Gross Alpha Radium-226	1.87 0.56	± ±	0.74	0.23 0.86	

Analyses Date: 01/09/15

TABLE II QA/QC

Analyses	Spike Added	Detected Activity	% Agreement
Gross Alpha	492.43 pCi	474.20 pCi	96.30
Radium-226	2.88 pCi	2.69 pCi	93.24

Patricia Davi QA/QC Manager Davi Laboratories



McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1412782

Report Created for: Monterey Bay Analytical

4 Justin Court, Suite D Monterey, CA 93940

Project Contact: David Holland

Project P.O.:

Project Name: MPWMD

Project Received: 12/17/2014

Analytical Report reviewed & approved for release on 12/23/2014 by:

Question about your data?

Click here to email
McCampbell

Angela Rydelius,

Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.



1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ www.mccampbell.com NELAP: 4033ORELAP ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3

Glossary of Terms & Qualifier Definitions

Client: Monterey Bay Analytical

Project: MPWMD **WorkOrder:** 1412782

Glossary Abbreviation

95% Interval 95% Confident Interval

DF Dilution Factor
DUP Duplicate

EDL Estimated Detection Limit

ITEF International Toxicity Equivalence Factor

LCS Laboratory Control Sample

MB Method Blank

MB % Rec % Recovery of Surrogate in Method Blank, if applicable

MDL Method Detection Limit

ML Minimum Level of Quantitation

MS Matrix Spike

MSD Matrix Spike Duplicate

ND Not detected at or above the indicated MDL or RL

NR Data Not Reported due to matrix interference or insufficient sample amount.

PF Prep Factor

RD Relative Difference

RL Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)

RPD Relative Percent Deviation
RRT Relative Retention Time

SPK Val Spike Value

SPKRef Val Spike Reference Value TEQ Toxicity Equivalence

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client: Monterey Bay Analytical WorkOrder: 1412782 **Project: MPWMD Extraction Method: RSK175 Date Received:** 12/17/14 13:10 **Analytical Method:** RSK175 **Date Prepared:** 12/23/14 Unit: $\mu g/L$

Light Gases

Client ID	Lab ID	Matrix/ExtType	Date C	Collected Instrument	Batch ID
Injectate	1412782-001A	Water/DISS.	12/13/2	014 11:00 GC26	99375
<u>Analytes</u>	Result		<u>RL</u>	<u>DF</u>	Date Analyzed
Methane	0.53		0.10	1	12/23/2014 14:08

Analyst(s): KBO

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client:Monterey Bay AnalyticalWorkOrder:1412782Date Prepared:12/23/14BatchID:99375Date Analyzed:12/23/14Extraction Method:RSK175Instrument:GC26Analytical Method:RSK175

 $\textbf{Matrix:} \qquad \text{Air} \qquad \qquad \textbf{Unit:} \qquad \qquad \mu L/L$

Project: MPWMD **Sample ID:** MB/LCS-99375

	QC Sum	mary Report	for RSK175				
Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Methane	ND	10.7	0.50	10	-	107	70-130

McCampbell Analytical, Inc.

1534 Willow Pass Rd Pittsburg, CA 94565-1701 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

Page 1 of

WorkOrder: 1412782 ClientCode: MBAS

	☐ WaterTrax ☐ WriteOn	EDF	Excel	EQuIS	✓ Email	HardCopy	ThirdParty	☐ J-flag
Report to:			Bill	to:		Req	uested TAT:	5 days
David Holland	Email: 4mbas@sbcglobal	.net	A	Accounts Payal	ble			-
Monterey Bay Analytical	cc/3rd Party:		N	Monterey Bay A	Analytical			
4 Justin Court, Suite D	PO:		4	Justin Court,	Suite D	Date	e Received:	12/17/2014
Monterey, CA 93940	ProjectNo: MPWMD		N	Monterey, CA 9	3940	Date	e Printed:	12/17/2014
831-375-6227 FAX: 831-641-0734				•				

				Requested Tests (See legend below)											
Lab ID	Client ID	Matrix	Collection Date Hold	1	2	3	4	5	6	7	8	9	10	11	12
		T			,	_	1								
1412782-001	Injectate	Water	12/13/2014 11:00	Α											

Test Legend:

1	RSK175_W	2	3	4	5	
6		7	8	9	10	
11		12]			

Prepared by: Maria Venegas

Comments: Needs analysts initials for all reports per D.H. 4/5/13

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).

Hazardous samples will be returned to client or disposed of at client expense.



CI AN MONTEDEN DAN ANALYTICAL

McCampbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com

WORK ORDER SUMMARY

OCT LIEVELA

Chent Name:	: MONTERET	BAY ANALYTICA	L	QC Level: LEVEL 2						WOLK	Oraer:	1412/82	
Project:	MPWMD				Client Contact:	David Ho	lland			Date Re	eceived:	12/17/2014	
Comments:	Needs analysts in	nitials for all reports po	er D.H. 4/5/13		Contact's Email:	4mbas@s	bcglobal.net						
		☐ WaterTrax	WriteOn	EDF	Excel	Fax	✓ Email	HardCo	opyThirdParty	yJ-	·flag		
Lab ID	Client ID	Matrix	Test Name		Containe /Composi		& Preservative	De- chlorinated	Collection Date & Time	TAT	Sediment Content	Hold SubC)ut
1412782-001A	Injectate	Water	RSK175 <met< th=""><th>thane 4></th><th>3</th><th>,</th><th>VOA w/ HCl</th><th></th><th>12/13/2014 11:00</th><th>5 days</th><th>None</th><th></th><th></th></met<>	thane 4>	3	,	VOA w/ HCl		12/13/2014 11:00	5 days	None		

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

TT 1 0 1 1410700

412782

CHAIN OF CUSTODY RECORD McCAMPBELL ANALYTICAL, INC. 1534 WILLOW PASS ROAD TURN AROUND TIME PITTSBURG, CA 94565-1701 72 HR RUSH 24 HR 48 HR Website: www.mccampbell.com Email: main@mccampbell.com ☐ GeoTracker EDF ☐ PDF ☐ Excel ☐ Write On (DW) Telephone: (877) 252-9262 Fax: (925) 252-9269 **Analysis Request** Other Report To: David Holland Comments Bill To: Company: Monterey Bay Analytical Services Total Petroleum Oil & Grease (1664 / 5520 E/B&F) Filter 8015) 4 Justin Ct. Suite D Samples Monterey, Ca 93940 E-Mail: 4mbas@sbcglobal.net LUFT 5 Metals (200,7 / 200.8 / 6010 / 6020) for Metals Tele: (831) 375 - 6227 Fax: (831) 641-0734 MTBE / BTEX ONLY (EPA 602 / 8021) analysis: 8270 SIM / 8310 (PAHs / PNAs) **Project Name:** Project #: Yes / No fPH as Diesel / Motor Oil (8015) Lead (200.7 / 200.8 / 6010 / 6020) **Project Location: MPWMD** EPA 507 / 8141 (NP Pesticides) EPA 524.2 / 624 / 8260 (VOCs) Sampler Signature: J. Lear METHOD SAMPLING MATRIX Type Containers PRESERVED Containers LOCATION/ MTBE / BTEX SAMPLE ID **Field Point** Sludge Methane Water Other HNO₃ Time Name Date HCL ICE AB24456 12/13/14 G X XX X Injectate 1100 24745 REC'D SEALED & INTACT VIA ICE/t°Z COMMENTS: Relinquished By: Received By: Date: Time: David Holland/ 12/16/14 GOOD CONDITION 1600 HEAD SPACE ABSENT Received By: Relinquished By: Date: Time: DECHLORINATED IN LAB APPROPRIATE CONTAINERS PRESERVED IN LAB Relinquished By: Received By: Date: Time: VOAS O&G METALS OTHER PRESERVATION pH<2

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name:	Monterey Bay Analytical			Date and Time Received	d: 12/17/2014 1:10:03 PM
Project Name:	MPWMD			LogIn Reviewed by:	Maria Venegas
WorkOrder №:	1412782 Matrix: <u>Water</u>			Carrier: OnTrac	
	Chain of C	Custod	y (COC) I	<u>nformation</u>	
Chain of custody	present?	Yes	•	No 🗆	
Chain of custody	signed when relinquished and received?	Yes	✓	No 🗆	
Chain of custody	agrees with sample labels?	Yes	✓	No 🗌	
Sample IDs noted	d by Client on COC?	Yes	✓	No 🗌	
Date and Time of	f collection noted by Client on COC?	Yes	✓	No 🗌	
Sampler's name	noted on COC?	Yes	•	No 🗌	
	Samp	le Rece	eipt Infor	<u>mation</u>	
Custody seals int	act on shipping container/cooler?	Yes		No 🗌	NA 🗹
Shipping containe	er/cooler in good condition?	Yes	✓	No 🗌	
Samples in prope	er containers/bottles?	Yes	✓	No 🗆	
Sample container	rs intact?	Yes	✓	No 🗆	
Sufficient sample	volume for indicated test?	Yes	•	No 🗌	
	Sample Preservati	on and	Hold Tir	ne (HT) Information	
All samples recei	ved within holding time?	Yes	✓	No 🗌	
Sample/Temp Bla	ank temperature		Temp:	2°C	NA 🗌
Water - VOA vials	s have zero headspace / no bubbles?	Yes	✓	No 🗌	NA 🗌
Sample labels ch	ecked for correct preservation?	Yes	✓	No 🗌	
pH acceptable up	oon receipt (Metal: <2; 522: <4; 218.7: >8)?	Yes		No 🗌	NA 🗹
Samples Receive		Yes	✓	No 🗌	
	(Ісе Тур	e: WE	TICE)	
UCMR3 Samples		Voc		No 🗌	NA 🗸
	tested and acceptable upon receipt for EPA 522?				
300.1, 537, 539	ested and acceptable upon receipt for EPA 218.7, 9?	res		No 🗌	NA 🗹
* NOTE: If the "N	lo" box is checked, see comments below.				
Comments:					========



MPWMD Joe Oliver P.O. Box 85 Monterey, CA 93442-0085

831.375.MBAS www.MBASinc.com

ELAP Certification Number: 2385

Tuesday, January 13, 2015

Lab Number: AB25072

Collection Date/Time: 12/23/2014 11:50

Sample Collector: LINDBERG T Sample ID

Submittal Date/Time: 12/23/2014 12:30 Coliform Designation:

		Sample D	escription: \$	SMS-Dee	p			
Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
Haloacetic Acids	EPA552	μg/L	21	E		60	12/31/2014	BSK
Trihalomethanes	EPA524.2	μg/L	68	Е		80	12/30/2014	BSK

Sample Comments:

Report Approved by:

David Holland, Laboratory Director

D = Method deviates from standard method due to insufficient sample for MS/MSD



MPWMD Joe Oliver P.O. Box 85 Monterey, CA 93442-0085

831.375.MBAS www.MBASinc.com **ELAP Certification Number: 2385**

Tuesday, January 13, 2015

Lab Number: AB25073

Collection Date/Time: 12/23/2014 12:05 Sample Collector: LINDBERG T

Submittal Date/Time: 12/23/2014 12:30 Sample ID Coliform Designation:

		Samp	le Description:	MW-1				
Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
Haloacetic Acids	EPA552	μg/L	Not Detected	E		60	1/6/2015	BSK
Trihalomethanes	EPA524.2	μg/L	46	E		80	12/30/2014	BSK

Sample Comments:

Report Approved by:

David Holland, Laboratory Director



BSK Associates Fresno 1414 Stanislaus St Fresno, CA93706 559-497-2888 (Main) 559-485-6935 (FAX)

A4L2433 1/12/2015

Invoice: A500648

David Holland Monterey Bay Analytical 4 Justin Court Suite D Monterey, CA 93940

RE: Report for A4L2433 MPWMD

Dear David Holland,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 12/24/2014. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2009 TNI Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

John Montierth, Project Manager

If additional clarification of any information is required, please contact your Project Manager, John Montierth, at (800) 877-8310 or (559) 497-2888 x201.



Accredited in Accordance with NELAP ORELAP #4021



Case Narrative

Project and Report Details

Invoice Details

Client: Monterey Bay Analytical Invoice To: Monterey Bay Analytical

Report To: David Holland Invoice Attn: David Holland

Project #: **MPWMD** Project PO#: -

12/24/2014 - 09:00 Received:

1/13/2015 Report Due:

Sample Receipt Conditions

Containers Intact Cooler: Default Cooler COC/Labels Agree Temperature on Receipt °C: 1.1

Received On Wet Ice Received On Blue Ice

Packing Material - Bubble Wrap

Sample(s) were received in temperature range.

Initial receipt at BSK-FAL

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

Report Distribution

Recipient(s) Report Format CC: David Holland FINAL.RPT

^{***}None applied***



MPWMDMPWMD

Certificate of Analysis

Sample ID: A4L2433-01 Sampled By: T. Lindberg

Sample Description: SMS-Deep // AB25072

Sample Date - Time: 12/23/14 - 11:50

Matrix: Waste Water

Sample Type: Grab

BSK Associates Fresno Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	22	0.50	ug/L	1	A416354	12/29/14	12/30/14	
Bromoform	EPA 524.2	2.5	0.50	ug/L	1	A416354	12/29/14	12/30/14	
Chloroform	EPA 524.2	29	0.50	ug/L	1	A416354	12/29/14	12/30/14	
Dibromochloromethane	EPA 524.2	14	0.50	ug/L	1	A416354	12/29/14	12/30/14	
Surrogate: Bromofluorobenzene	EPA 524.2	110 %	Acceptal	ble range:	70-130 %				
Total Trihalomethanes, EPA 524.2		68	0.50	ug/L					
Haloacetic Acids by GC-ECD, G	C-MS								
Dibromoacetic Acid (DBAA)	EPA 552.3	3.6	1.0	ug/L	1	A416371	12/29/14	12/31/14	
Dichloroacetic Acid (DCAA)	EPA 552.3	9.8	1.0	ug/L	1	A416371	12/29/14	12/31/14	
Monobromoacetic Acid (MBAA)	EPA 552.3	ND	1.0	ug/L	1	A416371	12/29/14	12/31/14	
Monochloroacetic Acid (MCAA)	EPA 552.3	ND	2.0	ug/L	1	A416371	12/29/14	12/31/14	
Trichloroacetic Acid (TCAA)	EPA 552.3	7.7	1.0	ug/L	1	A416371	12/29/14	12/31/14	
Surrogate: 2-Bromobutanoic Acid	EPA 552.3	103 %	Acceptal	ble range:	70-130 %				
Total Haloacetic Acids, EPA 552.3		21	2.0	ug/L					



MPWMDMPWMD

Certificate of Analysis

Sample ID: A4L2433-02

Sample Date - Time: 12/23/14 - 12:05

Matrix: Waste Water

Sampled By: T. Lindberg

Sample Type: Grab

Sample Description: MW-1 // AB25073

BSK Associates Fresno Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	13	0.50	ug/L	1	A416354	12/29/14	12/30/14	
Bromoform	EPA 524.2	0.85	0.50	ug/L	1	A416354	12/29/14	12/30/14	
Chloroform	EPA 524.2	27	0.50	ug/L	1	A416354	12/29/14	12/30/14	
Dibromochloromethane	EPA 524.2	5.3	0.50	ug/L	1	A416354	12/29/14	12/30/14	
Surrogate: Bromofluorobenzene	EPA 524.2	105 %	Acceptal	ble range:	70-130 %				
Total Trihalomethanes, EPA 524.2		46	0.50	ug/L					
Haloacetic Acids by GC-ECD, G	GC-MS								
Dibromoacetic Acid (DBAA)	EPA 552.3	ND	1.0	ug/L	1	A500023	01/05/15	01/06/15	
Dichloroacetic Acid (DCAA)	EPA 552.3	1.2	1.0	ug/L	1	A500023	01/05/15	01/06/15	
Monobromoacetic Acid (MBAA)	EPA 552.3	ND	1.0	ug/L	1	A500023	01/05/15	01/06/15	
Monochloroacetic Acid (MCAA)	EPA 552.3	ND	2.0	ug/L	1	A500023	01/05/15	01/06/15	
Trichloroacetic Acid (TCAA)	EPA 552.3	ND	1.0	ug/L	1	A500023	01/05/15	01/06/15	
Surrogate: 2-Bromobutanoic Acid	EPA 552.3	103 %	Acceptal	ble range:	70-130 %				
Total Haloacetic Acids, EPA 552.3		ND	2.0	ug/L					





Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual	
		EPA 5	24.2 - Q	uality Co	ntrol							
Batch: A416354				-						Prepared	: 12/29	/201
Prep Method: EPA 524.2											nalyst	
Blank (A416354-BLK1)												
Bromodichloromethane	ND	0.50	ug/L							12/29/14		
3romoform	ND	0.50	ug/L							12/29/14		
Chloroform	ND	0.50	ug/L							12/29/14		
Dibromochloromethane	ND	0.50	ug/L							12/29/14		
Surrogate: Bromofluorobenzene	51		_	50		103	70-130			12/29/14		
Blank Spike (A416354-BS1)												
Bromodichloromethane	11	0.50	ug/L	10		107	70-130			12/29/14		
3romoform	10	0.50	ug/L	10		104	70-130			12/29/14		
Chloroform	11	0.50	ug/L	10		107	70-130			12/29/14		
Dibromochloromethane	11	0.50	ug/L	10		109	70-130			12/29/14		
Surrogate: Bromofluorobenzene	52		5	50		103	70-130			12/29/14		
Blank Spike Dup (A416354-BSD1)												
Bromodichloromethane	11	0.50	ug/L	10		110	70-130	3	30	12/29/14		
Bromoform	10	0.50	ug/L	10		103	70-130	1	30	12/29/14		
Chloroform	11	0.50	ug/L	10		111	70-130	3	30	12/29/14		
Dibromochloromethane	11	0.50	ug/L	10		110	70-130	1	30	12/29/14		
Surrogate: Bromofluorobenzene	54		Ü	50		107	70-130			12/29/14		
Prep Method: EPA 552.3										A	nalyst:	KH
Blank (A416371-BLK1)												
Dibromoacetic Acid (DBAA)	ND	1.0	ug/L							12/30/14		
Dichloroacetic Acid (DCAA)	ND	1.0	ug/L							12/30/14		
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L							12/30/14		
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L							12/30/14		
Trichloroacetic Acid (TCAA)	ND	1.0	ug/L							12/30/14		
Surrogate: 2-Bromobutanoic Acid	25			25		100	70-130			12/30/14		
Blank Spike (A416371-BS1)												
Dibromoacetic Acid (DBAA)	10	1.0	ug/L	10		103	70-130			12/30/14		
Dichloroacetic Acid (DCAA)	10	1.0	ug/L	10		105	70-130			12/30/14		
Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10		107	70-130			12/30/14		
Monochloroacetic Acid (MCAA)	21	2.0	ug/L	20		105	70-130			12/30/14		
Frichloroacetic Acid (TCAA)	11	1.0	ug/L	10		105	70-130			12/30/14		
Surrogate: 2-Bromobutanoic Acid	26			25		102	70-130			12/30/14		
Blank Spike Dup (A416371-BSD1)												
Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10		106	70-130	3	30	12/30/14		
Dichloroacetic Acid (DCAA)	11	1.0	ug/L	10		105	70-130	1	30	12/30/14		
Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10		108	70-130	1	30	12/30/14		
Monochloroacetic Acid (MCAA)	21	2.0	ug/L	20		107	70-130	2	30	12/30/14		
A4L2433 FINAL 01122015 1259												
Printed: 01/12/2015										Do	30 F 6	f 1
QA-RP-0001-10 Final.rpt		— www.	BSKAs	sociates.	com —			_		Pa	ge 5 c	лП





				Spike	Source		%REC		RPD	Date	
Analyte	Result	RL	Units	Level	Result	%REC	Limits	RPD	Limit	Analyzed	Qual
		EPA 5	52.3 - Q	uality Co	ntrol						
Batch: A416371										Prepared	: 12/29/201
Prep Method: EPA 552.3										Α	nalyst: KH
Blank Spike Dup (A416371-BSD1)											
Trichloroacetic Acid (TCAA)	11	1.0	ug/L	10		109	70-130	3	30	12/30/14	
Surrogate: 2-Bromobutanoic Acid	25			25		101	70-130			12/30/14	
Matrix Spike (A416371-MS1), Source	: A4L2263-01										
Dibromoacetic Acid (DBAA)	32	1.0	ug/L	10	21	107	70-130			12/30/14	
Dichloroacetic Acid (DCAA)	20	1.0	ug/L	10	9.2	110	70-130			12/30/14	
Monobromoacetic Acid (MBAA)	13	1.0	ug/L	10	2.9	100	70-130			12/30/14	
Monochloroacetic Acid (MCAA)	22	2.0	ug/L	20	ND	102	70-130			12/30/14	
richloroacetic Acid (TCAA)	15	1.0	ug/L	10	4.9	103	70-130			12/30/14	
Surrogate: 2-Bromobutanoic Acid	26	1.0	ug/L	25	4.0	102	70-130			12/30/14	
Matriy Sniko Dun (A446274 MSD4) S	Source: A41 2262 04										
Matrix Spike Dup (A416371-MSD1), S Dibromoacetic Acid (DBAA)	32	1.0	ug/L	10	21	106	70-130	0	30	12/30/14	
Dichloroacetic Acid (DCAA)	20	1.0	ug/L ug/L	10	9.2	110	70-130	0	30	12/30/14	
Monobromoacetic Acid (MBAA)	13	1.0	ug/L	10	2.9	103	70-130	2	30	12/30/14	
Monochloroacetic Acid (MCAA)	24	2.0	ug/L	20	ND	110	70-130	7	30	12/30/14	
Frichloroacetic Acid (TCAA)	15	1.0	ug/L ug/L	10	4.9	106	70-130	2	30	12/30/14	
Surrogate: 2-Bromobutanoic Acid	24	1.0	ug/L	25	4.5	97	70-130	2	30	12/30/14	
Batch: A500023		LIAS	J2.J - Q	uality Co	inti Oi						: 01/05/201
Prep Method: EPA 552.3										A	nalyst: MTI
Blank (A500023-BLK1)											
Dibromoacetic Acid (DBAA)	ND	1.0	ug/L							01/06/15	
Dichloroacetic Acid (DCAA)	ND	1.0	ug/L							01/06/15	
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L							01/06/15	
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L							01/06/15	
Frichloroacetic Acid (TCAA)	ND	1.0	ug/L							01/06/15	
Surrogate: 2-Bromobutanoic Acid	25			25		102	70-130			01/06/15	
Blank Spike (A500023-BS1)											
Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10		108	70-130			01/06/15	
Dichloroacetic Acid (DCAA)	11	1.0	ug/L	10		107	70-130			01/06/15	
Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10		106	70-130			01/06/15	
Monochloroacetic Acid (MCAA)	21	2.0	ug/L	20		103	70-130			01/06/15	
Frichloroacetic Acid (TCAA)	11	1.0	ug/L	10		108	70-130			01/06/15	
Surrogate: 2-Bromobutanoic Acid	26			25		104	70-130			01/06/15	
Blank Spike Dup (A500023-BSD1)											
Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10		111	70-130	2	30	01/06/15	
Dichloroacetic Acid (DCAA)	11	1.0	ug/L	10		106	70-130	1	30	01/06/15	
Monobromoacetic Acid (MBAA)	10	1.0	ug/L	10		104	70-130	1	30	01/06/15	
Monochloroacetic Acid (MCAA)	21	2.0	ug/L	20		103	70-130	1	30	01/06/15	
Frichloroacetic Acid (TCAA)	11	1.0	ug/L	10		110	70-130	1	30	01/06/15	
A4L0422 FINIAL 04400045 4050											
A4L2433 FINAL 01122015 1259											
Printed: 01/12/2015											

Printed: 01/12/2015

QA-RP-0001-10 Final.rpt





Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
		EPA 5	52.3 - Q	uality Co	ntrol						
Batch: A500023										Prepared:	01/05/2015
Prep Method: EPA 552.3										Ar	nalyst: MTM
Blank Spike Dup (A500023-BSD1)											
Surrogate: 2-Bromobutanoic Acid	26			25		105	70-130			01/06/15	
Matrix Spike (A500023-MS1), Source: A	A4L2433-02										
Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10	ND	105	70-130			01/06/15	
Dichloroacetic Acid (DCAA)	11	1.0	ug/L	10	1.2	102	70-130			01/06/15	
Monobromoacetic Acid (MBAA)	10	1.0	ug/L	10	ND	103	70-130			01/06/15	
Monochloroacetic Acid (MCAA)	21	2.0	ug/L	20	ND	104	70-130			01/06/15	
Trichloroacetic Acid (TCAA)	11	1.0	ug/L	10	ND	104	70-130			01/06/15	
Surrogate: 2-Bromobutanoic Acid	25			25		98	70-130			01/06/15	
Matrix Spike Dup (A500023-MSD1), So	urce: A4L2433-02										
Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10	ND	107	70-130	2	30	01/06/15	
Dichloroacetic Acid (DCAA)	12	1.0	ug/L	10	1.2	105	70-130	3	30	01/06/15	
Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10	ND	106	70-130	4	30	01/06/15	
Monochloroacetic Acid (MCAA)	20	2.0	ug/L	20	ND	102	70-130	1	30	01/06/15	
Trichloroacetic Acid (TCAA)	11	1.0	ug/L	10	ND	106	70-130	2	30	01/06/15	
Surrogate: 2-Bromobutanoic Acid	25			25		102	70-130			01/06/15	



Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- · Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- · Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.
- The MCLs provided in this report (if applicable) represent the primary MCLs for that analyte.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
μg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
μg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable	MCL:	Maximum Contaminant Limit		

BSK is not accredited under the NELAC program for the following parameters:

`*NA**

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

Fresno

State of California - ELAP1180State of Hawaii4021State of NevadaCA000792014-1State of Oregon - ORELAP4021EPA - UCMR3CA00079State of WashingtonC997-14

Sacramento

State of California - ELAP 2435

Vancouver

State of Oregon - ORELAP WA100008 State of Washington C824-13

A4L2433 12242014



Turnaround: Standard
Due Date: 1/13/2015

Monte6227



Monterey Bay Analytical



Printed: 12/24/2014 1:04:24PM

Associates Engineer & Caboratories

Monterey Bay Analytical Services

Company/Client Name*:

1414 Stanislaus St , Fresno, CA 93706 (559) 497-2888 Fax (559) 497-2893

www.bskassociates.com

*Required Fields

Report Attention*:
David Holland
Additional cc's

Temp (

Invoice To*: Mason Weidner-Holland

Date needed:	Rush (Surcharge may apply)	Standard - 10 business days	Sanbay aum ninousium
	ge may apply)	business days	e Kednest

Phone": 831-375-6227	O
Fax: 831-641-0734	A4L2433 12/2 Monte6227 Page 10 of 11
	Page 10 of 11
	012

Project #				E-mail*: monte	E-mail*: montereybayanalytical@usa.net
Project #	4 Justin Court, Suite D	ci y *: Monterey	zip⁺: 93940		
DD Type		Project #	How would you like to receive your completed results?" X F.Mail Fax Mail		
Do Type	Reporting Options	Regulatory Carbon Copies	ulatory Compliance		
Merced Co	ō	SWRCB (Drinking Water)	EDT to California SWRCB (Drinking Water)		
Maler BW-Bottled Water SW-Ground Water Water STW-Storm Water Dw-Drinking Water SO-Solid Holder	Sampler Name (Printed/Signature)*:	· []	System Number		
Company Comp	T. Lindberg	a co]	***********	
Sampled* Matrix* Comments / Station Code / WTRAX Fill	Matrix Types SW=Surface Water BW=Bottled Water GW	=Ground Water WW=Waste Water STW=Ston	m Water DW=Drinking Water SO=Solid		
MS-Deep 12/23/14 1150 WW AB25072 X MW-1 12/23/14 1205 WW AB25073 X MBAS 12/23/14 1205 WW AB25073 X Company Date Time Received by (Signature and Printed Name) Date Time Payment Received by (Signature and Printed Name)		Sampled* M	atrix* Comments / Station Code / WTRAX		
MW-1 12/23/14 1205 WW AB25073 X In a company	SMS-Deep	1150	ARS	+	
Company Company Date Time Received by (Signature and Printed Name) Date Time Date Time Date Time Date Time Date Date	WW-1	1205	AB2	-	
Company Date Time Company Date Time					
Company NBAS Company Company Date 11/23/14 1600 Date Time					
Company Date Time Company Date Time					
Company NBAS Company Company Date 11/23/14 1600 Company Date Time					
Company Date Time Company Date Time Company Date Time					
Company MBAS Company Company Date 11/23/14 1600 Company Date Time					
Company MBAS Company Date 12/23/14 1600 Date Time					
Company MBAS Date 11/23/14 1600 Company Date Time Date Time					
Company MBAS Company Company Date Time Date Time Date Time				/	
Company MBAS Date Time Company Company Date Time Date Time				/	
Company Company Company Company Date Time Date Time					
MBAS Company Company Date Time Date Time	Binoushed by (Special and Breated Name)				
Company Date Time	David Holland V		Time 1600		Сотралу
Date, Time	sinquisned by: (Signature and Printed Name)		Time		Company
	sceived for Lab by (Signature and Printed Name)	Date	Time Payment Received at Delivery		Check / Cas
GSO WALK-IN FEDEX COLLIER	ONIBAC UPS	FED EX	Ch(tr) baile	Amount Amount) PA# Int
Wet Blue None Chilling Process Begins	Wet Blue None			ustody Seat Y / N	(a) (C)

Payment for services rendered as padd hewarare due in full within 30 days from the date invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service charges and interest specified in BSK's current Standard Terms and Conditions for Laboratory Services. The person signing for the Client of the Client agrees to be responsible for payment for the services on this Chain of Custody, and agrees to BSK's terms and conditions for laboratory services unless contractually bound otherwise. BSK's current terms and conditions for laboratory services unless contractually bound otherwise.

170 5.07

A4L2433 Monte6227

12/24/2014

10

Sample Integrity

BS	K Bottles: Yes No F	Page	- 1			#13 1 B.U. #1 B.IB.U. #18 1		P#	
	Was temperature within range?	7	of	10/					
	Chemistry ≤ 6°C Micro < 10°C	(Yes) I	No NA	NA Were correct containers and preservatives received for the tests requested?				Yes	No NA
£	If samples were taken today, is there eviden	ce v.	(,)		re bubbles i				
=	that chilling has begun?	res	No (NA)	(Volatiles	Only)				NO) NA
COC Info	Did all bottles arrive unbroken and intact?	(Yes	No	Was a su	ufficient amo	unt of samp	le received	? X (es)	No
ပ	Did all bottle labels agree with COC? Was sodium thiosulfate added to CN sample	Yes)	No	Do samp	les have a h	old time <72	2 hours?	Yes	(No)
	until chlorine was no longer present?	e(s) Yes 1	No NA	Was PM PM:	notified of di		37	Yes	No (VA
	250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)	Checks	Passed?	1-7		By/Time.	1		
	Bacti Na ₂ S ₂ O ₃			1.0					-
	None (P) ^{White Cap}					1		1	-
	Cr6 (P) Br Green Label NH4OH(NH4)2SO4 DW	pH > 8	YN	-		-		 	
	Cr6 (P) Pink Label Hex Chrome Buffer DW	+	 	 	<u> </u>	<u> </u>	<u> </u>	 	
g		pH 9-9 5	YN						
performed in the lab	Cr6 (P) Pink Label Hex Chrome Buffer WW	pH 9.3-9.7	YN				į		
=	HNO ₃ (P) Red Cap	_	-						
eq	H ₂ SO ₄ (P) or (AG) Yellow Cap/Label	pH < 2	Y N					T/	
o.	NaOH (P) Green Cap	Cl, pH >10	YN			 		/	
Jerf	NaOH + ZnAc (P)	pH > 9	YN	1				1	<u> </u>
are	Dissolved Oxygen 300ml (g)		. 14	-		<u> </u>		4	<u> </u>
Bottles Received preservation/chlorine checks are either N/A or a	None (AG) 608/8081/8082, 625, 632/8321,						_/		
	8151, 8270		_		ľ		/ /		
	HCI (AG) ^{Lt Blue Label} O&G, Diesel	_					/		
	Na ₂ O ₃ S+HCl (AG) ^{Lt Pink Label} 525		_				 / 		<u> </u>
gre are	Na ₂ S ₂ O ₃ 1 Liter (Brown P) 549						1	\	
S S	Na ₂ S ₂ O ₃ (AG) ^{Blue Label} 547,515,548,THM,524						15	mce	
te	Na ₂ S ₂ O ₃ (CG) Blue Label 504, 505			7.1		ļ			1
Bottles ne checks		_						1224	114
	Na ₂ S ₂ O ₃ + MCAA (CG) ^{Orange Label} 531	pH < 3	YN			/		,	,
ch	NH ₄ CI (AG) ^{Purple Label} 552		_	IV					
tlo	EDA (AG) ^{Brown Label} DBPs					-/-			
S≥	HCL (CG) 524.2,BTEX.Gas, MTBE, 8260/624				 	-/-			
ese	Buffer pH 4 (CG)								
r			****						
means	None (CG)	_							
Ě	H ₃ PO ₄ (CG) ^{Salmon Label}	*****							
_	Other: Asbestos 1Liter Plastic w/ Foil								
	Low Level Hg / Metals Double Baggie	*****							
ŀ	Bottled Water				 				
-	Clear Glass Jar 250 / 500 / 1 Liter				1				
Ì	Soil Tube Brass / Steel / Plastic				1 - 1				
	Tedlar Bag / Plastic Bag				+ - 1				
		Date/Time/Ini	itials	С	ontainer	Presen	vative	L Date/Time/	Initials
Split	SP			P	1	Preservative Da		Jaker Hille/	muais
S	SP			Р	L			WW 1 000	
v				- 1			L		
Comments									
Ē									
Cor									
-									44

Page 11 of 11

MPWMD Joe Oliver P.O. Box 85 Monterey, CA 93442-0085



831.375.MBAS

www.MBASinc.com **ELAP Certification Number: 2385**

Page 1 of 1 Friday, January 23, 2015

Lab Number: AB25915

Collection Date/Time: 1/21/2015 10:00 Sample Collector: LEAR J

Coliform Designation: Submittal Date/Time: 1/21/2015 12:36 Sample ID

Sample Description: ASR4							
Analyte	Method	Unit	Result Qual	PQL	MCL	Date Analyzed	Analyst:
Mercury, Total	EPA200.8	μg/L	Not Detected	0.5	2	1/22/2015	SM
Nickel, Total	EPA200.8	μg/L	98	10	100	1/22/2015	SM

Sample Comments:

Report Approved by:

David Holland, Laboratory Director



MPWMD Joe Oliver P.O. Box 85 Monterey, CA 93442-0085

Monterey Bay Analytical Services 4 Justin Court Suite D, Monterey, CA 93940 831.375.MBAS

www.MBASinc.com ELAP Certification Number: 2385

Page 1 of 2 Monday, March 09, 2015

Lab Number: AB26828

Collection Date/Time: 2/11/2015 15:15 Sample Collector: LINDBERG T

Submittal Date/Time: 2/11/2015 15:35 Sample ID Coliform Designation:

	San	nple De	scription: ASR-3 Inject	ate			
Analyte	Method	Unit	Result Qual	PQL	MCL	Date Analyzed	Analyst:
Alkalinity, Total (as CaCO3)	SM2320B	mg/L	135	2		2/18/2015	LRH
Aluminum, Total	EPA200.8	μg/L	Not Detected	10	1000	2/20/2015	SM
Ammonia-N	SM4500NH3 D	mg/L	Not Detected HP	0.05		2/23/2015	TC
Arsenic, Total	EPA200.8	μg/L	Not Detected	1	10	2/20/2015	SM
Barium, Total	EPA200.8	μg/L	61	10	1000	2/20/2015	SM
Bicarbonate (as HCO3-)	SM2320B	mg/L	165	10		2/18/2015	LRH
Boron	EPA200.7	mg/L	Not Detected	0.05		2/17/2015	MW
Bromide	EPA300.0	mg/L	Not Detected	0.1		2/12/2015	MW
Calcium	EPA200.7	mg/L	42	0.5		2/17/2015	MW
Carbonate as CaCO3	SM2320B	mg/L	Not Detected	10		2/18/2015	LRH
Chloramines	SM4500-CI G	mg/L	0.06	0.05		2/12/2015	LJ
Chloride	EPA300.0	mg/L	30	1	250	2/12/2015	MW
DOC		mg/L	1.7	0.2		3/3/2015	MW
Fluoride	EPA300.0	mg/L	0.3	0.1	2.0	2/12/2015	MW
Gross Alpha	EPA900.0	pCi/L	6.50 ± 1.39 E		15	2/19/2015	DAVI
Haloacetic Acids	EPA552	μg/L	12 E		60	2/24/2015	BSK
Iron	EPA200.7	μg/L	Not Detected	10	300	2/17/2015	MW
Iron, Dissolved	EPA200.7	μg/L	Not Detected	10	300	3/6/2015	MW
Kjehldahl Nitrogen	SM4500-NH3 B,	mg/L	Not Detected	0.5		2/24/2015	TC
Lithium	EPA200.8	μg/L	5	1		2/20/2015	SM
Magnesium	EPA200.7	mg/L	13	0.5		2/17/2015	MW
Manganese, Dissolved	EPA200.7	μg/L	Not Detected	10	50	3/6/2015	MW
Manganese, Total	EPA200.7	μg/L	Not Detected	10	50	2/17/2015	MW
Mercury, Total	EPA200.8	μg/L	Not Detected	0.5	2	2/20/2015	SM
Methane	EPA174/175	μg/L	0.66 E	0.1		2/19/2015	MCCAM
Molybdenum, Total	EPA200.8	μg/L	3	1	1000	2/20/2015	SM
Nickel, Total	EPA200.8	μg/L	Not Detected	10	100	2/20/2015	SM
Nitrate as NO3	EPA300.0	mg/L	Not Detected	1	45	2/12/2015	MW
Nitrate as NO3-N	EPA300.0	mg/L	Not Detected	0.1	10	2/12/2015	MW
Nitrate+Nitrite as N	EPA300.0	mg/L	0.2	0.1		2/12/2015	MW
Nitrite as NO2-N	EPA300.0	mg/L	0.1	0.1	1.0	2/12/2015	MW
o-Phosphate-P	EPA300.0	mg/L	0.4	0.1		2/12/2015	MW

mg/L: Milligrams per liter ug/L: Micrograms per liter PQL: Practical Quantitation Limit MCL: Maximum Contamination Level

H = Analyzed ouside of hold time E = Analysis performed by External Laboratory; See Report attachments. T = Temperature Exceedance

Page 2 of 2 Monday, March 09, 2015

Lab Number: AB26828

Collection Date/Time: 2/11/2015 15:15 Sample Collector: LINDBERG T

Submittal Date/Time: 2/11/2015 15:35 Sample ID Coliform Designation:

		<u> </u>				<u> </u>	9.14.10.11			
Sample Description: ASR-3 Injectate										
Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:		
pH (Laboratory)	SM4500-H+B	pH (H)	7.5				2/11/2015	TC		
Phosphorus, Total	HACH 8190	mg/L	0.44		0.03		2/25/2015	LRH		
Potassium	EPA200.7	mg/L	2.9		0.5		2/17/2015	MW		
QC Anion Sum x 100	Calculation	%	100%				2/18/2015	LRH		
QC Anion-Cation Balance	Calculation	%	-1				2/18/2015	LRH		
QC Cation Sum x 100	Calculation	%	97%				2/18/2015	MW		
QC Ratio TDS/SEC	Calculation		0.61				2/16/2015	НМ		
Selenium, Total	EPA200.8	μg/L	3		2	50	2/20/2015	SM		
Silica as SiO2, Total	EPA200.7	mg/L	23		0.5		2/17/2015	MW		
Sodium	EPA200.7	mg/L	46		0.5		2/17/2015	MW		
Specific Conductance (E.C)	SM2510B	µmhos/cm	542		1	900	2/12/2015	НМ		
Strontium, Total	EPA200.8	μg/L	223		5		2/20/2015	SM		
Sulfate	EPA300.0	mg/L	89		1	250	2/12/2015	MW		
TOC	SM5310C	mg/L	1.4		0.2		3/3/2015	MW		
Total Diss. Solids	SM2540C	mg/L	331		10	500	2/12/2015	НМ		
Total Nitrogen	Calculation	mg/L	Not Detected		0.5		2/24/2015	НМ		
Total Radium 226	EPA903.0	pCi/L	5.41 ± 0.69	Е		3	2/19/2015	DAVI		
Trihalomethanes	EPA524.2	μg/L	26	Е		80	2/18/2015	BSK		
Uranium by ICP/MS	EPA200.8	μg/L	Not Detected		1	30	2/20/2015	SM		
Vanadium, Total	EPA200.8	μg/L	Not Detected		5	1000	2/20/2015	SM		
Zinc, Total	EPA200.8	μg/L	271		20	5000	2/20/2015	SM		

Sample Comments:

Report Approved by:

David Holland, Laboratory Director



BSK Associates Fresno 1414 Stanislaus St Fresno, CA93706 559-497-2888 (Main) 559-485-6935 (FAX)

A5B1179 2/24/2015

Invoice: A503904

David Holland Monterey Bay Analytical 4 Justin Court Suite D Monterey, CA 93940

RE: Report for A5B1179 MPWMD

Dear David Holland,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 2/13/2015. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2009 TNI Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

John Montierth, Project Manager

If additional clarification of any information is required, please contact your Project Manager, John Montierth, at (800) 877-8310 or (559) 497-2888 x201.



Accredited in Accordance with NELAP ORELAP #4021

QA-RP-0001-10 Final.rpt



Case Narrative

Project and Report Details

Invoice Details

Client: Monterey Bay Analytical Invoice To: Monterey Bay Analytical

Report To: David Holland Invoice Attn: David Holland

Project #:

Project PO#: MPWMD

Received:

Report Due:

2/13/2015 - 10:30

3/02/2015

Sample Receipt Conditions

Containers Intact Cooler: Default Cooler

COC/Labels Agree Temperature on Receipt °C: 2.0

Received On Wet Ice Received On Blue Ice

Packing Material - Bubble Wrap

Sample(s) were received in temperature range.

Initial receipt at BSK-FAL

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

MS1.0 Matrix spike recoveries exceed control limits.

Report Distribution

CC: Recipient(s) Report Format

David Holland FINAL.RPT Mason Weidner FINAL.RPT

MPWMD



Sample Description: ASR-3 Injectate // AB26828

Certificate of Analysis

Sample ID: A5B1179-01 **Sample Date - Time:** 02/11/15 - 15:15 Sampled By: T Lindberg

Matrix: Waste Water

Sample Type: Grab

BSK Associates Fresno Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	9.2	0.50	ug/L	1	A501785	02/18/15	02/18/15	
Bromoform	EPA 524.2	0.88	0.50	ug/L	1	A501785	02/18/15	02/18/15	
Chloroform	EPA 524.2	9.4	0.50	ug/L	1	A501785	02/18/15	02/18/15	
Dibromochloromethane	EPA 524.2	6.4	0.50	ug/L	1	A501785	02/18/15	02/18/15	
Surrogate: Bromofluorobenzene	EPA 524.2	98 %	Acceptal	ble range:	70-130 %				
Total Trihalomethanes, EPA 524.2		26	0.50	ug/L					
Haloacetic Acids by GC-ECD, G	C-MS								
Dibromoacetic Acid (DBAA)	EPA 552.3	2.5	1.0	ug/L	1	A501926	02/20/15	02/24/15	
Dichloroacetic Acid (DCAA)	EPA 552.3	5.7	1.0	ug/L	1	A501926	02/20/15	02/24/15	
Monobromoacetic Acid (MBAA)	EPA 552.3	ND	1.0	ug/L	1	A501926	02/20/15	02/24/15	
Monochloroacetic Acid (MCAA)	EPA 552.3	ND	2.0	ug/L	1	A501926	02/20/15	02/24/15	
Trichloroacetic Acid (TCAA)	EPA 552.3	4.0	1.0	ug/L	1	A501926	02/20/15	02/24/15	
Surrogate: 2-Bromobutanoic Acid	EPA 552.3	114 %	Acceptal	ble range:	70-130 %				
Total Haloacetic Acids, EPA 552.3		12	2.0	ug/L					





RL	Inits	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual	
EPA 5	.2 - (Quality Co	ntrol							
								Prepared	: 02/18	/201
								A	nalyst	JG
0.50	ıg/L							02/18/15		
0.50	ıg/L							02/18/15		
0.50	ıg/L							02/18/15		
0.50	ıg/L							02/18/15		
		50		99	70-130			02/18/15		
0.50	ıg/L	10		106	70-130			02/18/15		
0.50	ıg/L	10		100	70-130			02/18/15		
0.50	ıg/L	10		108	70-130			02/18/15		
0.50	ıg/L	10		104	70-130			02/18/15		
		50		101	70-130			02/18/15		
0.50	ıg/L	10		106	70-130	0	30	02/18/15		
0.50	ıg/L	10		99	70-130	0	30	02/18/15		
0.50	ıg/L	10		107	70-130	1	30	02/18/15		
0.50	ıg/L	10		104	70-130	1	30	02/18/15		
		50		99	70-130			02/18/15		
								A	nalyst:	KH
	_									
1.0	ıg/L							02/23/15		
1.0	ıg/L							02/23/15		
1.0	ıg/L							02/23/15		
2.0	ıg/L							02/23/15		
1.0	ıg/L	25		109	70-130			02/23/15 02/23/15		
1.0	ıg/L	10		110	70-130			02/23/15		
1.0	ıg/L	10		108	70-130			02/23/15		
1.0	ıg/L	10		108	70-130			02/23/15		
2.0	ıg/L	20		103	70-130			02/23/15		
1.0	ıg/L	10		110	70-130			02/23/15		
	J -	25		111	70-130			02/23/15		
1.0	ıg/L	10		113	70-130	3	30	02/24/15		
1.0	ıg/L	10		114	70-130	5	30	02/24/15		
1.0	ıg/L	10		119	70-130	10	30	02/24/15		
2.0	-	20		111	70-130	8	30	02/24/15		
								Do	no 1	of O
		Ū	·	2.0 ug/L 20 www.BSKAssociates.com	•				Pa	Page 4.



BSK Associates Fresno Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
		EPA 5	52.3 - Q	uality Co	ntrol						
Batch: A501926				•						Prepared	: 02/20/2015
Prep Method: EPA 552.3										А	nalyst: KHH
Blank Spike Dup (A501926-BSD1)											
Trichloroacetic Acid (TCAA)	12	1.0	ug/L	10		115	70-130	5	30	02/24/15	
Surrogate: 2-Bromobutanoic Acid	28			25		111	70-130			02/24/15	
Matrix Spike (A501926-MS1), Source:	A5B1170-01										
Dibromoacetic Acid (DBAA)	15	1.0	ug/L	10	3.4	111	70-130			02/23/15	
Dichloroacetic Acid (DCAA)	21	1.0	ug/L	10	6.2	145	70-130			02/23/15	MS1.0 High
Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10	ND	108	70-130			02/23/15	
Monochloroacetic Acid (MCAA)	22	2.0	ug/L	20	ND	102	70-130			02/23/15	
Trichloroacetic Acid (TCAA)	14	1.0	ug/L	10	2.4	112	70-130			02/23/15	
Surrogate: 2-Bromobutanoic Acid	27			25		109	70-130			02/23/15	
Matrix Spike Dup (A501926-MSD1), So	ource: A5B1170-01										
Dibromoacetic Acid (DBAA)	15	1.0	ug/L	10	3.4	114	70-130	2	30	02/23/15	
Dichloroacetic Acid (DCAA)	19	1.0	ug/L	10	6.2	124	70-130	11	30	02/23/15	
Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10	ND	108	70-130	0	30	02/23/15	
Monochloroacetic Acid (MCAA)	22	2.0	ug/L	20	ND	102	70-130	0	30	02/23/15	
Trichloroacetic Acid (TCAA)	14	1.0	ug/L	10	2.4	113	70-130	1	30	02/23/15	
Surrogate: 2-Bromobutanoic Acid	28			25		112	70-130			02/23/15	



Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- · Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- · Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- · RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.
- The MCLs provided in this report (if applicable) represent the primary MCLs for that analyte.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
μg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
μg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable	MCL:	Maximum Contaminant Limit		

BSK is not accredited under the NELAC program for the following parameters:

`*NA**

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

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F	res	n	O

State of California - ELAP	1180	State of Hawaii	4021
State of Nevada	CA000792015-1	State of Oregon - NELAC	4021
EPA - UCMR3	CA00079	State of Washington	C997-14

Sacramento

State of California - ELAP 2435

Vancouver

State of Oregon - NELAC WA100008 State of Washington C824-13







02132015

Monte6227

Turnaround: Standard

Due Date: 3/2/2015



Monterey Bay Analytical





Printed: 2/13/~

rage 7 of 9

E-mail: mweidner@mbasinc.com, dholland@mbasin	E-mail*: mweidner@mb	PO#:	Additional cc's: David Holland	rvices	erey Bay Analytical Services
831-641-0734	831-375-6227	David Holland	Report Attention*: Mason Weidner-Holland		y/Client Name*:
Project and resident the Company of	9	Temp: 2.0	Temp:	*Required Fields	2
179 02/13/201 26227 10 Page 8 of 9	A5B1179 Monte6227 C	Turnaround Time Request Standard - 10 business days Rush (Surcharge may apply) Date needed:	1414 Stanislaus St., Fresno, CA 93706 (559) 497-2888 · Fax (559) 497-2893 www.bskassociates.com	1414 Stanislaus St., Fres (559) 497-2888 · Fax (55 www.bskassociates.com	BSIX Associates Associates Associates

Shipping Method: ONTRAC	Market (v) Lay by, (Symanic grad in modernment)	Donation for Lab har (Company) and Direct Na	Relinquished by: (Signature and Printed Name)	THE TOTAL	Selinguished by (Signature and Brinted Marrie)									1. ASR-3 Injectate	# Samp	1 1	T. Lindberg	Sampler Name (Printed/Signature)":	Trace (J-Flag) Swamp	Reporting Options:	Project: MPWMD	\ddress*։ 1 Justin Court, Suite D	Monterey Bay Analytical Services	Sompany/Client Name*:	4	Associates		
UPS GSO	The Michael	arrel													Sample Description*	face Water BW=Bottled Water GW			EDD Type:						*Required Fields	www.bskassociates.com	(559) 497-2888 · Fax (559) 497-2893	1414 Stanislaus St., Fresno, CA 93706
WALK-IN FED EX	In Weiss		Company	MBAS	Company									2/11/15 1515	Date Time	Matrix Types: SW=Surface Water BW=Bottled Water GW=Ground Water WW=Waste Water STW=Storm Water	Other:	Madera Co	SWRCB (Drinking Water)	Regulatory Carbon Copies	Project #:	cityt: Monterey	Additional cc's: David Holland	Report Attention*: Mason Weidner-Holland	Temp:	om	(559) 497-2893	resno, CA 93706
Counier:	01 51/8/2	Date, Time	Date Time	2/15	Shite Time									W		78		Tulare Co			н.		PO#:	Dav	0.0	Pus	∑ Star	Turnar
38	10:30 Date:	Payment Received at Delivery:	Received by: (Signature and Printed Name)	1600	Received by: (Signature and Printed Name)									AB26828	Comments / Station Code / WTRAX	DW=Drinking Water SO=Solid	Geotracker #:		EDT to California SWRCB (Drinking Water) System Number*:	Regulatory Compliance	How would you like to receive your completed results?" X E-Mail Fax Mail	CA 93940		David Holland		Rush (Surcharge may apply) Date needed:	Standard - 10 business days	Turnaround Time Request
Custody Seal: Y/09/ Chilling Process Begun (***)N	Amount:		ı					/	/					×	, HA		Мs						E-mail*: mweidner@m	831-375-6227	The state of the s	A 2011 - 42 4 4 20 6 10 4 20 6 10 4 10 10 10 10 10 10 10 10 10 10 10 10 10	INTOIN	A5B1179
	PIA#: Init.	Check /	Company		Company	/																	E-mail*: mweidner@mbasinc.com, dholland@mbasin	831-641-0734	PRODUCTION AND A CONTRACT TO ALLOW SHARE AND THE ALLOW SHARE AND THE ALLOW T			02/1
		Cash																					asin a			Page	8 of	

Cooling Method: (Wel) Blup None

Non

A5B1179 02/13/2015 Monte6227

Sample Integrity

BSI	⟨ Bottles: Yes No Pa	ge/_ c	of/_	_	· · · · · · · · · · · · · · · · · · ·			
	Was temperature within range? Chemistry ≤ 6°C Micro < 10°C	Yes N	o NA		orrect contained d for the tests r	rs and preservatives equested?	Yes	No NA
COC Info	If samples were taken today, is there evidence that chilling has begun?	Yes N	· NA		nere bubbles in	the VOA vials?	Yes	№ NA
<u>ပ</u>	Did all bottles arrive unbroken and intact?	(Yes)	No			nt of sample received?	Yes	
응	Did all bottle labels agree with COC?	Yes	No			ld time <72 hours?	Yes	(No)
	Was sodium thiosulfate added to CN sample(s until chlorine was no longer present?	Yes N	≪NA)	Was Pl	M notified of dis By	crepancies? //Time:	Yes	No NA
	250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)	Checks	Passed?					
	Bacti Na ₂ S ₂ O ₃			,				
	None (P) ^{White Cap}	_						
	Cr6 (P) Br Green Label NH4OH(NH4)2SO4 DW	pH > 8	Y N					
	Cr6 (P) Pink Label Hex Chrome Buffer DW	pH 9-9.5	Y N				1	
ap	Cr6 (P) Pink Label Hex Chrome Buffer WW	pH 9.3-9.7	Y N					
the the	HNO ₃ (P) ^{Red Cap}		_				1/	
performed in the lab	H ₂ SO ₄ (P) or (AG) Yellow Cap/Label	pH < 2	Y N					
rme	NaOH (P) Green Cap	Cl, pH >10	ΥN				1/	
erfo	NaOH + ZnAc (P)	pH > 9	Y N				/	/
are p	Dissolved Oxygen 300ml (g)	- Pri					1	1 2
ō	None (AG) 608/8081/8082, 625, 632/8321,						١	1
ed er N/⁄	8151, 8270 HCI (AG) ^{Lt. Blue Label} O&G, Diesel						1	7
eithe	Na ₂ O ₃ S+HCl (AG) ^{Lt. Pink Label} 525						. N.	1.7
Received are either N	Na ₂ S ₂ O ₃ 1 Liter (Brown P) 549	_	_					W
S K	Na ₂ S ₂ O ₃ (AG) ^{Blue Label} 547,515,548,THM,524			3\	/			
Bottles ine check	Na ₂ S ₂ O ₃ (CG) ^{Blue Label} 504, 505	_	_				1	
Bottles Received preservation/chlorine checks are either N/A	Na ₂ S ₂ O ₃ + MCAA (CG) ^{Orange Label} 531	pH < 3	Y N				1	
chlc	NH ₄ CI (AG) ^{Purple Label} 552	_		1A				
ion/	EDA (AG) ^{Brown Label} DBPs							
ıva	HCL (CG) 524.2,BTEX,Gas, MTBE, 8260/624		_					
rese	Buffer pH 4 (CG)							
	None (CG)	_	_					
means	H ₃ PO ₄ (CG) ^{Salmon Label}							
"	Other:							
] ²	Asbestos 1Liter Plastic w/ Foil						 	\
	Low Level Hg / Metals Double Baggie	_	_					-1
	Bottled Water Clear Glass Jar: 250 / 500 / 1 Liter							
	Soil Tube Brass / Steel / Plastic							
	Tedlar Bag / Plastic Bag		_					
+		Date/Time/Ir	nitials		Container	Preservative	Date/Ti	me/Initials
Split	SP			SP				
(J)	SP			SP				
<u>so</u>								
Comments								
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DAVI LABORATORIES, ENVIRONMENTAL ASSOCIATES

730 Alfred Nobel Dr. * Hercules, Ca 94547 (510) 724-9450 Fax (510) 724-9174

ANALYTICAL RESULTS REPORT

Company: Address:

Monterey Bay Analytical Services 4 Justin Court, Suite D

Monterey, CA 93940

Report Date:

David Holland February 24, 2015

TABLE I	`							<u>-</u>
Sample ID	Collection Date/Time	Matrix	EPA	Analyses Method	Results pCi/L	<u>+</u>	2 Sigma error	MDA
AB26828								
ASR- 3 Injec	tate							
,	-	ww						
	02/11/15 (1	5:15)	900.0 903.0	Gross Alpha Radium-226	6.50 5.41	± ±	1.39 0.69	1.95 0.27

Analyses Date: 02/19/15

TABLE II QA/QC

Analyses	Spike Added	Detected Activity	% Agreement	
Gross Alpha	492.43 pCi	457.71 pCi	92.95	
Radium-226	2.88 pCi	2.74 pCi	95.13	

Patricia Davi QA/QC Manager Davi Laboratories



McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1502515

Report Created for: Monterey Bay Analytical

4 Justin Court, Suite D Monterey, CA 93940

Project Contact: David Holland

Project P.O.:

Project Name: MPWMD

Project Received: 02/13/2015

Analytical Report reviewed & approved for release on 02/20/2015 by:

Question about your data?

Click here to email
McCampbell

Angela Rydelius,

Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.



1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ www.mccampbell.com NELAP: 4033ORELAP ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3

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Glossary of Terms & Qualifier Definitions

Client: Monterey Bay Analytical

Project: MPWMD **WorkOrder:** 1502515

Glossary Abbreviation

95% Interval 95% Confident Interval

DF Dilution Factor
DUP Duplicate

EDL Estimated Detection Limit

ITEF International Toxicity Equivalence Factor

LCS Laboratory Control Sample

MB Method Blank

MB % Rec % Recovery of Surrogate in Method Blank, if applicable

MDL Method Detection Limit

ML Minimum Level of Quantitation

MS Matrix Spike

MSD Matrix Spike Duplicate

ND Not detected at or above the indicated MDL or RL

NR Data Not Reported due to matrix interference or insufficient sample amount.

PF Prep Factor

RD Relative Difference

RL Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)

RPD Relative Percent Deviation
RRT Relative Retention Time

SPK Val Spike Value

SPKRef Val Spike Reference Value TEQ Toxicity Equivalence

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Analytical Report

Client:Monterey Bay AnalyticalWorkOrder:1502515Project:MPWMDExtraction Method:RSK175Date Received:2/13/15 10:00Analytical Method:RSK175Date Prepared:2/19/15Unit:μg/L

Light Gases

		8			
Client ID	Lab ID	Matrix/ExtType	Date (Collected Instrument	Batch ID
ASR-3 Injectate	1502515-001A	Water/DISS.	02/11/2	015 15:15 GC26	101403
<u>Analytes</u>	Result		<u>RL</u>	<u>DF</u>	Date Analyzed
Methane	0.66		0.10	1	02/19/2015 13:47

Analyst(s): AK

Matrix:

Air

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 $\mu L/L$

Quality Control Report

Client:Monterey Bay AnalyticalWorkOrder:1502515Date Prepared:2/19/15BatchID:101403Date Analyzed:2/19/15Extraction Method:RSK175Instrument:GC26Analytical Method:RSK175

Project: MPWMD **Sample ID:** MB/LCS-101403

	QC Sum	mary Report	for RSK175				
Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Methane	ND	11.1	0.50	10	-	111	70-130

Unit:

McCampbell Analytical, Inc.

1534 Willow Pass Rd Pittsburg, CA 94565-1701 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

Page 1 of

WorkOrder: 1502515 ClientCode: MBAS

David Holland Monterey Bay Analytical Colort, Suite D Monterey, CA 93940 ProjectNo: MPWMD Monterey, CA 93940 Date Received: 02/12			☐ WaterTrax	WriteOn	EDF		Excel		EQuIS	✓	Email		HardC	ору [ThirdF	^o arty	J-fla	ıg
Monterey Bay Analytical 4 Justin Court, Suite D PO: 4 Justin Court, Suite D Monterey, CA 93940 831-375-6227 FAX: 831-641-0734 Lab ID Client ID Matrix Collection Date Water 2/11/2015 15:15 A Monterey Bay Analytical 4 Justin Court, Suite D Monterey, CA 93940 Monterey, CA 93940 Date Received: 02/13 02/20 02			Email· r	mweidner@mb	asinc com: Dhollar	nd@m			inte Pav	vahle				Reques	sted TAT	۲:	5 d	days
Lab ID Client ID Matrix Collection Date Hold 1 2 3 4 5 6 7 8 9 10 11 1502515-001 ASR-3 Injectate Water 2/11/2015 15:15 A A A B 9 10 11	Monterey Bay Analyt 4 Justin Court, Suite Monterey, CA 93940	e D 0	cc/3rd Party: PO:		asine.com, brioliai	шш	ivas	Monte 4 Just	rey Bay in Cour	Analyt t, Suite	D						02/13/2 02/20/2	
1502515-001 ASR-3 Injectate Water 2/11/2015 15:15 A		O!! ID		••	0 11 11 12 1						1		1					
	Lab ID	Client ID		Matrix	Collection Date	Hold	1	2	3	4	5	6	/	8	9	10	11	12
	1502515-001	ASR-3 Injectate	е	Water	2/11/2015 15:15		Α											
Test Legend:	Test Legend:																	
1 RSK175_W 6 7 8 9 10	1 RSK175_W																	

Comments: Needs analysts initials for all reports per D.H. 4/5/13

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).

Hazardous samples will be returned to client or disposed of at client expense.

Prepared by: Maria Venegas



McCampbell Analytical, Inc.

"When Quality Counts"

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WORK ORDER SUMMARY

Client Name:	: MONTEREY	BAY ANALYTICA	L		QC Level:	LEVEL 2				Work	Order:	1502515	
Project:	MPWMD				Client Contact:	David Ho	lland			Date Re	eceived:	2/13/2015	
Comments:	Needs analysts	initials for all reports p	er D.H. 4/5/13		Contact's Email: mweidner@mbasinc.com; Dholland@mbasinc.com								
		WaterTrax	WriteOn	EDF	Excel	Fax	✓ Email	HardCo	ppyThirdParty	, □]-	flag		
Lab ID	Client ID	Matrix	Test Name		Containe /Composi		e & Preservative	De- chlorinated	Collection Date & Time	TAT	Sediment Content	Hold Sub(Out
1502515-001A	ASR-3 Injectate	Water	RSK175 <m< td=""><td>[ethane_4></td><td>3</td><td></td><td>VOA w/ HCl</td><td></td><td>2/11/2015 15:15</td><td>5 days</td><td>None</td><td></td><td></td></m<>	[ethane_4>	3		VOA w/ HCl		2/11/2015 15:15	5 days	None		

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

1502515

McCAMPBELL ANALYTICAL, INC. CHAIN OF CUSTODY RECORD 1534 WILLOW PASS ROAD TURN AROUND TIME PITTSBURG, CA 94565-1701 RUSH 24 HR 48 HR 72 HR 5 DAY Website: www.mccampbell.com Email: main@mccampbell.com ☐ GeoTracker EDF ☐ PDF ☐ Excel Write On (DW) Telephone: (877) 252-9262 Fax: (925) 252-9269 Analysis Request Report To: David Holland Bill To: Other Comments Company: Monterey Bay Analytical Services Filter 4 Justin Ct. Suite D Samples Monterey, Ca 93940 E-Mail: mweidner@mbasinc.com CAM 17 Metals (200,7 / 200.8 / 6010 / 6020) LUFT 5 Metals (200,7 / 200.8 / 6010 / 6020) for Metals Tele: (831) 375 - 6227 Fax: (831) 641-0734 Total Petroleum Hydrocarbons (418.1) analysis: 8270 SIM / 8310 (PAHs / PNAs) Project #: Project Name: Yes / No TPH as Diesel / Motor Oil (8015) Lead (200.7 / 200.8 / 6010 / 6020) Project Location: MPWMD EPA 507 / 8141 (NP Pesticides) EPA 524.2 / 624 / 8260 (VOCs) Sampler Signature: T. Lindberg METHOD MATRIX SAMPLING Type Containers PRESERVED Containers LOCATION/ MTBE / BTEX SAMPLE ID Field Point Sludge Methane Water Other HNO3 Name Date Time HCL ICE Soil 2/11/15 XX X ASR-3 1515 G AB26828 Injectate PEC'D SEALED & INTACT VIA ONTYCLO ICE/t° | • COMMENTS: Relinquished By: Date: Time: Received By: David Holland 2/11/15 1600 GOOD CONDITION HEAD SPACE ABSENT Relinquished By: Received By: Date: Time: DECHLORINATED IN LAB APPROPRIATE CONTAINERS 0920 43/16 PRESERVED IN LAB Relinquished By: Date: Time: Received By: VOAS O&G METALS OTHER PRESERVATION pH<2 Page 7 of 8

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Sample Receipt Checklist

Client Name:	Monterey Bay Analy	ytical			Date and	Time Received:	2/13/2015 10:00:03 AM
Project Name:	MPWMD				LogIn Rev	iewed by:	Maria Venegas
WorkOrder №:	1502515	Matrix: Water			Carrier:	<u>OnTrac</u>	
		Chain of C	ustody	/ (COC) I	nformation		
Chain of custody	present?		Yes	✓	No 🗌		
Chain of custody	signed when relinqui	shed and received?	Yes	✓	No 🗌		
Chain of custody	agrees with sample l	abels?	Yes	✓	No 🗌		
Sample IDs note	d by Client on COC?		Yes	•	No 🗌		
Date and Time of	f collection noted by 0	Client on COC?	Yes	✓	No 🗌		
Sampler's name	noted on COC?		Yes	✓	No 🗌		
		Sampl	e Rece	eipt Infor	mation		
Custody seals int	tact on shipping conta	-	Yes		No 🗌		NA 🗹
Shipping containe	er/cooler in good cond	dition?	Yes	✓	No 🗌		
Samples in prope	er containers/bottles?		Yes	✓	No 🗌		
Sample containe	ers intact?		Yes	✓	No 🗆		
Sufficient sample	e volume for indicated	test?	Yes	✓	No 🗌		
		Sample Preservation	on and	Hold Tin	ne (HT) Info	ormation .	
All samples recei	ived within holding tim	ne?	Yes	✓	No 🗌		
Sample/Temp Bla	ank temperature			Temp:	1.6°C		NA 🗌
Water - VOA vial	ls have zero headspa	ce / no bubbles?	Yes	•	No 🗌		NA 🗌
Sample labels ch	necked for correct pre	servation?	Yes	✓	No 🗌		
pH acceptable up	pon receipt (Metal: <2	; 522: <4; 218.7: >8)?	Yes		No 🗌		NA 🗹
Samples Receive	ed on Ice?		Yes	✓	No 🗌		
		(Ice Type	e: WE	TICE))		
UCMR3 Samples Total Chlorine to		e upon receipt for EPA 522?	Yes		No 🗌		NA 🗸
Free Chlorine t 300.1, 537, 539		upon receipt for EPA 218.7,	Yes		No 🗌		NA 🗸
* NOTE: If the "N	lo" box is checked, se	ee comments below.					
Comments:							



MPWMD Joe Oliver P.O. Box 85 Monterey, CA 93442-0085

831.375.MBAS

www.MBASinc.com **ELAP Certification Number: 2385**

Thursday, April 09, 2015 Page 1 of 2

Lab Number: AB28385

Collection Date/Time: 3/24/2015 10:00 Sample Collector: LEAR J

Submittal Date/Time: 3/24/2015 12:13 Sample ID Coliform Designation:

Sample Description: ASR1												
Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:				
Alkalinity, Total (as CaCO3)	SM2320B	mg/L	133		2		3/26/2015	LRH				
Aluminum, Total	EPA200.8	μg/L	Not Detected		10	1000	3/26/2015	SM				
Ammonia-N	SM4500NH3 D	mg/L	Not Detected		0.05		4/1/2015	TC				
Arsenic, Total	EPA200.8	μg/L	1		1	10	3/26/2015	SM				
Barium, Total	EPA200.8	μg/L	59		10	1000	3/26/2015	SM				
Bicarbonate (as HCO3-)	SM2320B	mg/L	162		10		3/27/2015	TC				
Boron	EPA200.7	mg/L	Not detected		0.05		3/27/2015	MW				
Bromide	EPA300.0	mg/L	Not Detected		0.1		3/25/2015	TC				
Calcium	EPA200.7	mg/L	39		0.5		3/27/2015	MW				
Carbonate as CaCO3	SM2320B	mg/L	Not Detected		10		3/27/2015	TC				
Chloramines	SM4500-CI G	mg/L	Not Detected		0.05		3/24/2015	TC				
Chloride	EPA300.0	mg/L	30		1	250	3/25/2015	TC				
DOC		mg/L	1.2		0.2		3/27/2015	MW				
Fluoride	EPA300.0	mg/L	0.3		0.1	2.0	3/25/2015	TC				
Gross Alpha	EPA900.0	pCi/L	2.91 ± 1.19	E		15	3/31/2015	DAVI				
Haloacetic Acids	EPA552	μg/L	11	E		60	4/2/2015	BSK				
Iron	EPA200.7	μg/L	27		10	300	3/27/2015	MW				
Iron, Dissolved	EPA200.7	μg/L	Not Detected		10	300	4/2/2015	MW				
Kjehldahl Nitrogen	SM4500-NH3 B,	mg/L	Not Detected		0.5		4/3/2015	TC				
Lithium	EPA200.8	μg/L	6		1		3/26/2015	SM				
Magnesium	EPA200.7	mg/L	13		0.5		3/27/2015	MW				
Manganese, Dissolved	EPA200.7	μg/L	Not Detected		10	50	4/2/2015	MW				
Manganese, Total	EPA200.7	μg/L	Not Detected		10	50	3/27/2015	MW				
Mercury, Total	EPA200.8	μg/L	Not Detected		0.5	2	3/26/2015	SM				
Methane	EPA174/175	μg/L	0.34	E	0.1		3/31/2015	MCCAM				
Molybdenum, Total	EPA200.8	μg/L	3		1	1000	3/26/2015	SM				
Nickel, Total	EPA200.8	μg/L	Not Detected		10	100	3/26/2015	SM				
Nitrate as NO3	EPA300.0	mg/L	Not Detected		1	45	3/25/2015	TC				
Nitrate as NO3-N	EPA300.0	mg/L	Not Detected		0.1	10	3/25/2015	TC				
Nitrate+Nitrite as N	EPA300.0	mg/L	0.4		0.1	·	3/25/2015	TC				
Nitrite as NO2-N	EPA300.0	mg/L	0.3		0.1	1.0	3/25/2015	TC				
o-Phosphate-P	EPA300.0	mg/L	0.3		0.1		3/25/2015	TC				

mg/L: Milligrams per liter ug/L: Micrograms per liter PQL : Practical Quantitation Limit MCL: Maximum Contamination Level H = Analyzed ouside of hold time E = Analysis performed by External Laboratory; See Report attachments. T = Temperature Exceedance Page 2 of 2 Thursday, April 09, 2015

AB28385 Lab Number: Collection Date/Time:

3/24/2015 10:00

Sample Collector: LEAR J

Submittal Date/Time: 3/24/2015 12:13 Sample ID Coliform Designation:

0 4 2 11 11 10 10 10 10 10 10 10 10 10 10 10	Oup.o .2			•	oo = oo.;	9		
		Sample	Description:	ASR1				
Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
pH (Laboratory)	SM4500-H+B	pH (H)	7.1		0.1		3/24/2015	LRH
Phosphorus, Total	HACH 8190	mg/L	0.30		0.03		4/2/2015	SM
Potassium	EPA200.7	mg/L	2.9		0.5		3/27/2015	MW
QC Anion Sum x 100	Calculation	%	101%				3/27/2015	TC
QC Anion-Cation Balance	Calculation	%	-3				3/30/2015	MW
QC Cation Sum x 100	Calculation	%	95%				3/30/2015	MW
QC Ratio TDS/SEC	Calculation		0.60				3/30/2015	НМ
Selenium, Total	EPA200.8	μg/L	4		2	50	3/26/2015	SM
Silica as SiO2, Total	EPA200.7	mg/L	23		0.5		3/27/2015	MW
Sodium	EPA200.7	mg/L	42		0.5		3/27/2015	MW
Specific Conductance (E.C)	SM2510B	µmhos/cm	516		1	900	3/25/2015	НМ
Strontium, Total	EPA200.8	μg/L	218		5		3/26/2015	SM
Sulfate	EPA300.0	mg/L	83		1	250	3/25/2015	TC
TOC	SM5310C	mg/L	1.2		0.2		3/27/2015	MW
Total Diss. Solids	SM2540C	mg/L	308		10	500	3/26/2015	НМ
Total Nitrogen	Calculation	mg/L	Not Detected		0.5		4/3/2015	TC
Total Radium 226	EPA903.0	pCi/L	0.26 ± 0.40	E		3	3/31/2015	DAVI
Trihalomethanes	EPA524.2	μg/L	53	E		80	3/30/2015	BSK
Uranium by ICP/MS	EPA200.8	μg/L	Not Detected		1	30	3/26/2015	SM
Vanadium, Total	EPA200.8	μg/L	Not Detected		5	1000	3/26/2015	SM
Zinc, Total	EPA200.8	μg/L	210		20	5000	3/26/2015	SM

Sample Comments:

Report Approved by:

David Holland, Laboratory Director



BSK Associates Fresno 1414 Stanislaus St Fresno, CA93706 559-497-2888 (Main) 559-485-6935 (FAX)

A5C2233 4/09/2015

Invoice: A507212

David Holland Monterey Bay Analytical 4 Justin Court Suite D Monterey, CA 93940

RE: Report for A5C2233 MPWMD

Dear David Holland,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 3/27/2015. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2009 TNI Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an fias receivedfl basis.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

Kijuana Hartshorn, Project Coordinator

If additional clarification of any information is required, please contact your Project Manager, John Montierth, at (800) 877-8310 or (559) 497-2888 x201.



Accredited in Accordance with NELAP ORELAP #4021

QA-RP-0001-10 Final.rpt





Case Narrative

Invoice Details

Project and Report Details

Client: Monterey Bay Analytical Invoice To: Monterey Bay Analytical

Report To: David Holland Invoice Attn: David Holland

Project #: - Project PO#: -

Received: 3/27/2015 - 10:00 **Report Due:** 4/10/2015

Sample Receipt Conditions

Cooler: Default Cooler Containers Intact

Temperature on Receipt °C: 3.8 COC/Labels Agree

Received On Wet Ice

Packing Material - Bubble Wrap

Sample(s) were received in temperature range.

Initial receipt at BSK-FAL

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

MS1.0 Matrix spike recoveries exceed control limits.

MS1.3 Matrix spike recovery data unavailable or unreliable due to significant dilution required for matrix interferences.

Report Distribution

Recipient(s)	Report Format	CC:	
David Holland	FINAL.RPT		
Mason Weidner	FINAL.RPT		



Certificate of Analysis

Sample ID: A5C2233-01

Sample Date - Time: 03/24/15 - 10:00

Sampled By: Jonathan Lear

Matrix: Ground Water

Sample Description: ASR1 // AB28385

Sample Type: Grab

BSK Associates Fresno Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	17	0.50	ug/L	1	A503470	03/30/15	03/30/15	
Bromoform	EPA 524.2	0.79	0.50	ug/L	1	A503470	03/30/15	03/30/15	
Chloroform	EPA 524.2	27	0.50	ug/L	1	A503470	03/30/15	03/30/15	
Dibromochloromethane	EPA 524.2	8.2	0.50	ug/L	1	A503470	03/30/15	03/30/15	
Surrogate: Bromofluorobenzene	EPA 524.2	91 %	Acceptable	range: 70	0-130 %				
Total Trihalomethanes, EPA 524.2		53	0.50	ug/L					
Haloacetic Acids by GC-ECD, G	SC-MS								
Dibromoacetic Acid (DBAA)	EPA 552.3	ND	1.0	ug/L	1	A503488	03/30/15	04/02/15	
Dichloroacetic Acid (DCAA)	EPA 552.3	2.2	1.0	ug/L	1	A503488	03/30/15	04/02/15	
Monobromoacetic Acid (MBAA)	EPA 552.3	ND	1.0	ug/L	1	A503488	03/30/15	04/02/15	
Monochloroacetic Acid (MCAA)	EPA 552.3	ND	2.0	ug/L	1	A503488	03/30/15	04/02/15	
Trichloroacetic Acid (TCAA)	EPA 552.3	8.9	1.0	ug/L	1	A503488	03/30/15	04/02/15	
Surrogate: 2-Bromobutanoic Acid	EPA 552.3	116 %	Acceptable	range: 70	0-130 %				
Total Haloacetic Acids, EPA 552.3		11	2.0	ug/L					

QA-RP-0001-10 Final.rpt





BSK Associates Fresno Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
		EPA 5	24.2 - Q	uality Co	ntrol						
Batch: A503470										Prepared	d: 3/30/201
Prep Method: EPA 524.2										Α	nalyst: JG
Blank (A503470-BLK1)											
Bromodichloromethane	ND	0.50	ug/L							03/30/15	
Bromoform	ND	0.50	ug/L							03/30/15	
Chloroform	ND	0.50	ug/L							03/30/15	
Dibromochloromethane	ND	0.50	ug/L							03/30/15	
Surrogate: Bromofluorobenzene	46		Ü	50		92	70-130			03/30/15	
Blank Spike (A503470-BS1)											
Bromodichloromethane	9.5	0.50	ug/L	10		95	70-130			03/30/15	
Bromoform	8.2	0.50	ug/L	10		82	70-130			03/30/15	
Chloroform	9.4	0.50	ug/L	10		94	70-130			03/30/15	
Dibromochloromethane	9.3	0.50	ug/L	10		93	70-130			03/30/15	
Surrogate: Bromofluorobenzene	47		J	50		93	70-130			03/30/15	
Blank Spike Dup (A503470-BSD1)											
Bromodichloromethane	9.6	0.50	ug/L	10		96	70-130	2	30	03/30/15	
Bromoform	8.5	0.50	ug/L	10		85	70-130	4	30	03/30/15	
Chloroform	9.6	0.50	ug/L	10		96	70-130	2	30	03/30/15	
Dibromochloromethane	9.5	0.50	ug/L	10		95	70-130	2	30	03/30/15	
Surrogate: Bromofluorobenzene	47		Ü	50		95	70-130			03/30/15	
Prep Method: EPA 552.3										Aı	nalyst: KH
Blank (A503488-BLK1)											
Dibromoacetic Acid (DBAA)	ND	1.0	ug/L							04/02/15	
Dichloroacetic Acid (DCAA)	ND	1.0	ug/L							04/02/15	
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L							04/02/15	
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L							04/02/15	
Frichloroacetic Acid (TCAA)	ND	1.0	ug/L							04/02/15	
Surrogate: 2-Bromobutanoic Acid	25			25		101	70-130			04/02/15	
Blank Spike (A503488-BS1)											
Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10		113	70-130			04/02/15	
Dichloroacetic Acid (DCAA)	11	1.0	ug/L	10		107	70-130			04/02/15	
Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10		107	70-130			04/02/15	
Monochloroacetic Acid (MCAA)	21	2.0	ug/L	20		103	70-130			04/02/15	
richloroacetic Acid (TCAA)	11	1.0	ug/L	10		109	70-130			04/02/15	
Surrogate: 2-Bromobutanoic Acid	26			25		105	70-130			04/02/15	
Blank Spike Dup (A503488-BSD1)											
Dibromoacetic Acid (DBAA)	13	1.0	ug/L	10		130	70-130	14	30	04/02/15	
Dichloroacetic Acid (DCAA)	11	1.0	ug/L	10		112	70-130	5	30	04/02/15	
Monobromoacetic Acid (MBAA)	12	1.0	ug/L	10		117	70-130	9	30	04/02/15	
Monochloroacetic Acid (MCAA)	22	2.0	ug/L	20		111	70-130	7	30	04/02/15	
A5C2233 FINAL 04092015 1503											
Printed: 4/9/2015											
										Da	ge 4 of 9





BSK Associates Fresno Organics Quality Control Report

				Spike	Source	~~==	%REC		RPD	Date	
Analyte	Result	RL	Units	Level	Result	%REC	Limits	RPD	Limit	Analyzed	Qual
		EPA 5	52.3 - Q	uality Co	ntrol						
Batch: A503488										Prepare	d: 3/30/2015
Prep Method: EPA 552.3										A	nalyst: KHH
Blank Spike Dup (A503488-BSD1)											
Trichloroacetic Acid (TCAA)	12	1.0	ug/L	10		117	70-130	8	30	04/02/15	
Surrogate: 2-Bromobutanoic Acid	29			25		116	70-130			04/02/15	
Matrix Spike (A503488-MS1), Source:	A5C2222-01										
Dibromoacetic Acid (DBAA)	26	1.0	ug/L	10	11	155	70-130			04/02/15	MS1.0 High
Dichloroacetic Acid (DCAA)	730	20	ug/L	10	710	244	70-130			04/02/15	MS1.3 High
Monobromoacetic Acid (MBAA)	13	1.0	ug/L	10	ND	121	70-130			04/02/15	
Monochloroacetic Acid (MCAA)	23	2.0	ug/L	20	ND	106	70-130			04/02/15	
Trichloroacetic Acid (TCAA)	260	20	ug/L	10	240	211	70-130			04/02/15	MS1.3 High
Surrogate: 2-Bromobutanoic Acid	31			25		122	70-130			04/02/15	
Matrix Spike Dup (A503488-MSD1), Sc	ource: A5C2222-0	1									
Dibromoacetic Acid (DBAA)	25	1.0	ug/L	10	11	145	70-130	4	30	04/02/15	MS1.0 High
Dichloroacetic Acid (DCAA)	680	20	ug/L	10	710	NR	70-130	7	30	04/02/15	MS1.3 <i>Low</i>
Monobromoacetic Acid (MBAA)	12	1.0	ug/L	10	ND	117	70-130	3	30	04/02/15	
Monochloroacetic Acid (MCAA)	22	2.0	ug/L	20	ND	104	70-130	2	30	04/02/15	
Trichloroacetic Acid (TCAA)	240	20	ug/L	10	240	NR	70-130	9	30	04/02/15	MS1.3 <i>Low</i>
Surrogate: 2-Bromobutanoic Acid	30			25		122	70-130			04/02/15	



Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- · Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- · Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- · RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.
- The MCLs provided in this report (if applicable) represent the primary MCLs for that analyte.

Definitions

MDL: mg/L: Milligrams/Liter (ppm) Method Detection Limit MDA95: Min. Detected Activity mg/Kg: Milligrams/Kilogram (ppm) RL: Reporting Limit: DL x Dilution MPN: Most Probable Number None Detected at RL CFU: μg/L: Micrograms/Liter (ppb) ND: Colony Forming Unit Micrograms/Kilogram (ppb) pCi/L: Picocuries per Liter Absent: Less than 1 CFU/100mLs μg/Kg: Percent Recovered (surrogates) RL Mult: **RL Multiplier** Present: 1 or more CFU/100mLs NR: Non-Reportable MCL: Maximum Contaminant Limit

BSK is not accredited under the NELAC program for the following parameters:

NA

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

Fresno

State of California - ELAP1180State of Hawaii4021State of NevadaCA000792015-1State of Oregon - NELAC4021EPA - UCMR3CA00079State of WashingtonC997-14

Sacramento

State of California - ELAP 2435

Vancouver

State of Oregon - NELAC WA100008 State of Washington C824-13







03272015

Monte6227

Turnaround: Standard

Due Date: 4/10/2015



Monterey Bay Analytical





Printed: 3/27/1

23/27/1 Page 7 of 9

Associates
Engineer Laboratories

(559) 497-2888 · Fax (559) 497-2893 1414 Stanislaus St., Fresno, CA 93706

www.bskassociates.com

*Required Fields

Turnaround Time Request

Standard - 10 business days Date needed: Rush (Surcharge may apply)

> Monte6227 A5C2233

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03/27/2015

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	Fax: 831-641-0734	œ ~	Phone": 831-375-6227	David Holland	Davi	lland	Mason Weidner-Holland	Mason V		ne:	Company/Client Name:	2
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03/27/2015

10

Sample Integrity

BSK Bottles: (Yes No Page of Was temperature within range? Were correct containers and preservatives No NA No NA Chemistry ≤ 6°C Micro < 10°C received for the tests requested? COC Info If samples were taken today, is there evidence Were there bubbles in the VOA vials? NA Yes No No (NA that chilling has begun? (Volatiles Only) **Y68** Was a sufficient amount of sample received? Did all bottles arrive unbroken and intact? Nο Did all bottle labels agree with COC? Yes No Do samples have a hold time <72 hours? (No) Was PM notified of discrepancies? Was sodium thiosulfate added to CN sample(s) Yes Yes No until chlorine was no longer present? By/Time: 250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V) Passed? Bacti Na₂S₂O₃ None (P) White Cap Cr6 (P) Br Green Label NH4OH(NH4)2SO4 DW pH > 8 N Cr6 (P) Pink Label Hex Chrome Buffer pH 9-9.5 Cr6 (P) Pink Label Hex Chrome Buffer WW pH 9.3-9.7 Y N means preservation/chlorine checks are either N/A or are performed in the HNO₃ (P) Red Cap H₂SO₄ (P) or (AG) pH < 2 Y N NaOH (P) Green Cap Cl. pH >10 Υ NaOH + ZnAc (P) pH > 9Dissolved Oxygen 300ml (g) None (AG) 608/8081/8082, 625, 632/8321, 8151, 8270 HCI (AG)^{Lt. Blue Label} O&G, Diesel **Bottles Received** Na₂O₃S+HCl (AG)^{Lt. Pink Label} 525 Na₂S₂O₃ 1 Liter (Brown P) 549 Na₂S₂O₃ (AG)^{Blue Label} 547,515,548,THM,524 Na₂S₂O₃ (CG) Blue Label 504, 505 Na₂S₂O₃ + MCAA (CG)^{Orange Label} 531 Υ oH < 3 N NH₄CI (AG)^{Purple Label} 552 IA EDA (AG) Brown Label DBPs HCL (CG) 524.2,BTEX,Gas, MTBE, 8260/624 Buffer pH 4 (CG) None (CG) H₃PO₄ (CG) Salmon Label Other: Asbestos 1Liter Plastic w/ Foil Low Level Hg / Metals Double Baggie Bottled Water Clear Glass Jar: 250 / 500 / 1 Liter Soil Tube Brass / Steel / Plastic Tedlar Bag / Plastic Bag Container Preservative Date/Time/Initials Container Preservative Date/Time/Initials SP SP S P S P Comments



DAVI LABORATORIES, ENVIRONMENTAL ASSOCIATES

730 Alfred Nobel Dr, Hercules, CA 94547

ANALYTICAL RESULTS REPORT

Company: Address:

Monterey Bay Analytical Services

4 Justin Court-Suite D Monterey, CA 93940

Project Manager: Report Date: Subcontract Order #:

David Holland March 31, 2015

AB28385

TABLE I

Sample ID	Collection Date/Time	Matrix	EPA Method	Analyses	Results pCi/L	<u>+</u>	2 Sigma error	MDA
ASR1		Water						
	3/24/15 (10	00)	900.0 903.0	Gross Alpha Radium226	2.91 0.26	<u>+</u> <u>+</u>	1.19 0.40	1.19 0.69

Analyses completed on 3/31/15

TABLE II QA/QC

 Analyses
 Spike Added
 Detected Activity
 % Agreement

 Gross Alpha
 386.65 pCi/L
 352.39 pCi/L
 91.14

 Ra 226
 2.87 pCi/L
 2.85 pCi/L
 99.30

Patricia Davi Davi Laboratories QA/QC Manager



McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1503B90

Report Created for: Monterey Bay Analytical

4 Justin Court, Suite D Monterey, CA 93940

Project Contact: David Holland

Project P.O.:

Project Name: MPWMD

Project Received: 03/27/2015

Analytical Report reviewed & approved for release on 04/02/2015 by:

Question about your data?

Click here to email
McCampbell

Angela Rydelius,

Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.



1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ www.mccampbell.com NELAP: 4033ORELAP ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3

Glossary of Terms & Qualifier Definitions

Client: Monterey Bay Analytical

Project: MPWMD **WorkOrder:** 1503B90

Glossary Abbreviation

95% Interval 95% Confident Interval

DF Dilution Factor

DI WET (DISTLC) Waste Extraction Test using DI water

DISS Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)

DUP Duplicate

EDL Estimated Detection Limit

ITEF International Toxicity Equivalence Factor

LCS Laboratory Control Sample

MB Method Blank

MB % Rec % Recovery of Surrogate in Method Blank, if applicable

MDL Method Detection Limit

ML Minimum Level of Quantitation

MS Matrix Spike

MSD Matrix Spike Duplicate

N/A Not Applicable

ND Not detected at or above the indicated MDL or RL

NR Data Not Reported due to matrix interference or insufficient sample amount.

PF Prep Factor

RD Relative Difference

RL Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)

RPD Relative Percent Deviation
RRT Relative Retention Time

SPK Val Spike Value

SPKRef Val Spike Reference Value

SPLP Synthetic Precipitation Leachate Procedure
TCLP Toxicity Characteristic Leachate Procedure

TEQ Toxicity Equivalents

WET (STLC) Waste Extraction Test (Soluble Threshold Limit Concentration)

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Analytical Report

Client:Monterey Bay AnalyticalWorkOrder:1503B90Project:MPWMDExtraction Method:RSK175Date Received:3/27/15 17:36Analytical Method:RSK175

Date Prepared: 3/31/15 **Unit:** $\mu g/L$

Light Gases

Client ID	Lab ID	Matrix/ExtType	Date C	Collected Instrument	Batch ID
ASR1	1503B90-001A	Water/DISS.	03/24/20	015 10:00 GC26	103059
<u>Analytes</u>	Result		<u>RL</u>	<u>DF</u>	Date Analyzed
Methane	0.34		0.10	1	03/31/2015 14:29

Analyst(s): KBO

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Quality Control Report

Client:Monterey Bay AnalyticalWorkOrder:1503B90Date Prepared:3/31/15BatchID:103059Date Analyzed:3/31/15Extraction Method:RSK175Instrument:GC26Analytical Method:RSK175

 $\textbf{Matrix:} \qquad \text{Air} \qquad \qquad \textbf{Unit:} \qquad \qquad \mu L/L$

Project: MPWMD **Sample ID:** MB/LCS-103059

	QC Sumi	QC Summary Report for RSK175											
Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits						
Methane	ND	11.9	0.50	10	-	119	70-130						

McCampbell Analytical, Inc.

1534 Willow Pass Rd Pittsburg, CA 94565-1701 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

Page 1 of

WorkOrder:	1503R90	ClientCode:	MRAS
WOLKOTUEL.	1303070	Chenicoue.	MIDAS

	WaterTrax	WriteOn	EDF	Excel	EQuIS	✓ Email	HardCopy	ThirdParty	☐ J-flag
Report to:				В	ill to:		Req	uested TAT:	5 days
David Holland	Email: m	nweidner@mbas	sinc.com; Dholla	and@mbas	Accounts Paya	ble			_
Monterey Bay Analytical	cc/3rd Party:				Monterey Bay A	Analytical			
4 Justin Court, Suite D	PO:				4 Justin Court,	Suite D	Date	e Received:	03/27/2015
Monterey, CA 93940	ProjectNo: M	1PWMD			Monterey, CA 9	3940	Date	e Printed:	03/27/2015
831-375-6227 FAX: 831-641-0734					•				

				Requested Tests (See legend below)											
Lab ID	Client ID	Matrix	Collection Date Hold	1	2	3	4	5	6	7	8	9	10	11	12
1503B90-001	ASR1	Water	3/24/2015 10:00	Α											

Test Legend:

1	RSK175_W	2	3	4	5
6		7	8	9	10
11		12			

Prepared by: Maria Venegas

Comments: Needs analysts initials for all reports per D.H. 4/5/13

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).

Hazardous samples will be returned to client or disposed of at client expense.



OP AN MONTEDEN DAY AND INTEGRAL

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WORK ORDER SUMMARY

OCT LIEVELA

Chent Name:	: MONTEREY I	MONTEREY BAY ANALYTICAL QC L				LEVEL 2	2			work	Oraer:	1503B90	
Project:	MPWMD	MPWMD Client Conta					olland			Date Re	eceived:	3/27/2015	
Comments:	Needs analysts in	nitials for all reports po	Contact's Email: mweidner@mbasinc.com; Dholland@mbasinc.com										
		☐ WaterTrax	WriteOn	EDF	Excel	Fax	✓ Email	HardCo	ppy ThirdParty	/J-	·flag		
Lab ID	Client ID	Matrix	Test Name		Containe /Composi		e & Preservative	De- chlorinated	Collection Date & Time	TAT	Sediment Content	Hold Sub	Out
1503B90-001A	ASR1	Water	RSK175 <me< th=""><th>thane_4></th><th>3</th><th>,</th><th>VOA w/ HCl</th><th></th><th>3/24/2015 10:00</th><th>5 days</th><th>None</th><th></th><th></th></me<>	thane_4>	3	,	VOA w/ HCl		3/24/2015 10:00	5 days	None		

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

W 1 0 1 1500D00

1503B90

CHAIN OF CUSTODY RECORD McCAMPBELL ANALYTICAL, INC. 1534 WILLOW PASS ROAD TURN AROUND TIME PITTSBURG, CA 94565-1701 72 HR RUSH 24 HR 48 HR Website: www.mccampbell.com Email: main@mccampbell.com ☐ GeoTracker EDF ☐ PDF ☐ Excel ☐ Write On (DW) Telephone: (877) 252-9262 Fax: (925) 252-9269 Report To: David Holland **Analysis Request** Bill To: Other Comments Company: Monterey Bay Analytical Services Total Petroleum Oil & Grease (1664 / 5520 E/B&F) Filter 8015) 4 Justin Ct. Suite D Samples Monterey, Ca 93940 E-Mail: mweidner@mbasinc.com MTBE / BTEX & TPH as Gas (602 / 8021 + for Metals LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020) Tele: (831) 375 - 6227 Fax: (831) 641-0734 MTBE / BTEX ONLY (EPA 602 / 8021) EPA 502.2 / 601 / 8010 / 8021 (HVOCs) analysis: Fotal Petroleum Hydrocarbons (418.1) EPA 515 / 8151 (Acidic CI Herbicides) EPA 8270 SIM / 8310 (PAHs / PNAs) **Project Name:** Project #: Yes / No EPA 505/ 608 / 8081 (CI Pesticides) TPH as Diesel / Motor Oil (8015) Lead (200.7 / 200.8 / 6010 / 6020) Project Location: MPWMD EPA 507 / 8141 (NP Pesticides) EPA 524.2 / 624 / 8260 (VOCs) Sampler Signature: Jonathan Lear METHOD MATRIX SAMPLING Type Containers PRESERVED Containers LOCATION/ SAMPLE ID Field Point Air Sludge Water Other HNO3 Name Date Time Other HCL ICE Soil XX ASR1 3/24/15 1000 G X X AB28385 REC'D SEALED & INTACT VIA Relinquished By: ICE/t°' COMMENTS: Date: Time: Received By: GOOD CONDITION David Holland 1600 HEAD SPACE ABSENT Relinquished By: Received By: Date: Time: DECHLORINATED IN LAB APPROPRIATE CONTAINERS 1/21/15 0910 PRESERVED IN LAB Relinquished By: Received By: Date: Time: VOAS O&G METALS OTHER PRESERVATION pH<2

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Sample Receipt Checklist

Client Name:	Monterey Bay A	nalytical			Date and I	ime Received:	3/27/2015 5:36:46 PM
Project Name:	MPWMD				LogIn Revi	ewed by:	Maria Venegas
WorkOrder №:	1503B90	Matrix: Water			Carrier:	<u>OnTrac</u>	
		Chain of C	ustod	y (COC)	Information		
Chain of custody	present?		Yes	✓	No 🗌		
Chain of custody	signed when relin	quished and received?	Yes	✓	No 🗌		
Chain of custody	agrees with samp	ole labels?	Yes	•	No 🗌		
Sample IDs note	ed by Client on CO	C?	Yes	✓	No 🗌		
Date and Time o	of collection noted l	by Client on COC?	Yes	✓	No 🗌		
Sampler's name	noted on COC?		Yes	•	No 🗌		
		<u>Sampl</u>	e Reco	eipt Info	<u>rmation</u>		
Custody seals in	tact on shipping co	ontainer/cooler?	Yes		No 🗌		NA 🗹
Shipping contain	er/cooler in good	condition?	Yes	✓	No 🗌		
Samples in prope	er containers/bottle	es?	Yes	✓	No 🗌		
Sample containe	ers intact?		Yes	✓	No 🗌		
Sufficient sample	e volume for indica	ited test?	Yes	•	No 🗌		
		Sample Preservation	on and	Hold Ti	me (HT) Info	rmation	
All samples rece	ived within holding	time?	Yes	✓	No 🗌		
Sample/Temp Bl	lank temperature			Temp	: 3.6°C		NA 🗌
Water - VOA via	ls have zero heads	space / no bubbles?	Yes	✓	No 🗌		NA 🗌
Sample labels ch	necked for correct	preservation?	Yes	✓	No 🗌		
pH acceptable up	pon receipt (Metal	: <2; 522: <4; 218.7: >8)?	Yes		No \square		NA 🗹
Samples Receive	ed on Ice?		Yes	✓	No 🗌		
		(Ісе Туре	e: WE	T ICE)		
UCMR3 Samples Total Chlorine		able upon receipt for EPA 522?	Yes		No 🗌		NA 🗹
	tested and accepta	able upon receipt for EPA 218.7,			No 🗌		NA 🗹
* NOTE: If the "N	No" box is checked	l, see comments below.					
Comments:							



MPWMD Joe Oliver P.O. Box 85 Monterey, CA 93442-0085 4 Justin Court Suite D, Monterey, CA 93940 831.375.MBAS www.MBASinc.com

ELAP Certification Number: 2385

Thursday, April 09, 2015

Lab Number: AB28487

Collection Date/Time: 3/25/2015 10:30 Sample Collector:

Submittal Date/Time: 3/25/2015 16:00 Sample ID Coliform Designation:

LINDBERG T

Sample Description: ASR-3										
Analyte	Method	Unit	Result Qual	PQL	MCL	Date Analyzed	Analyst:			
Alkalinity, Total (as CaCO3)	SM2320B	mg/L	133	2		3/26/2015	LRH			
Aluminum, Total	EPA200.8	μg/L	Not Detected	10	1000	3/26/2015	SM			
Ammonia-N	SM4500NH3 D	mg/L	Not Detected	0.05		4/1/2015	TC			
Arsenic, Total	EPA200.8	μg/L	3	1	10	3/26/2015	SM			
Barium, Total	EPA200.8	μg/L	63	10	1000	3/26/2015	SM			
Bicarbonate (as HCO3-)	SM2320B	mg/L	162	10		3/27/2015	TC			
Boron	EPA200.7	mg/L	Not detected	0.05		4/2/2015	MW			
Bromide	EPA300.0	mg/L	Not Detected	0.1		3/26/2015	TC			
Calcium	EPA200.7	mg/L	41	0.5		4/2/2015	MW			
Carbonate as CaCO3	SM2320B	mg/L	Not Detected	10		3/27/2015	TC			
Chloramines	SM4500-CI G	mg/L	Not Detected	0.05		3/25/2015	LJ			
Chloride	EPA300.0	mg/L	31	1	250	3/26/2015	TC			
DOC		mg/L	1.4	0.2		3/27/2015	MW			
Fluoride	EPA300.0	mg/L	0.2	0.1	2.0	3/26/2015	TC			
Gross Alpha	EPA900.0	pCi/L	3.03 ± 1.24 E		15	3/31/2015	DAVI			
Haloacetic Acids	EPA552	μg/L	20 E		60	4/2/2015	BSK			
Iron	EPA200.7	μg/L	Not Detected	10	300	4/2/2015	MW			
Iron, Dissolved	EPA200.7	μg/L	Not Detected	10	300	4/2/2015	MW			
Kjehldahl Nitrogen	SM4500-NH3 B,C.	mg/L	0.6	0.5		4/9/2015	TC			
Lithium	EPA200.8	μg/L	5	1		3/26/2015	SM			
Magnesium	EPA200.7	mg/L	13	0.5		4/2/2015	MW			
Manganese, Dissolved	EPA200.7	μg/L	Not Detected	10	50	4/2/2015	MW			
Manganese, Total	EPA200.7	μg/L	Not Detected	10	50	4/2/2015	MW			
Mercury, Total	EPA200.8	μg/L	Not Detected	0.5	2	3/26/2015	SM			
Methane	EPA174/175	μg/L	0.47 E	0.1		3/31/2015	MCCAM			
Molybdenum, Total	EPA200.8	μg/L	14	1	1000	3/26/2015	SM			
Nickel, Total	EPA200.8	μg/L	Not Detected	10	100	3/26/2015	SM			
Nitrate as NO3	EPA300.0	mg/L	Not Detected	1	45	3/26/2015	TC			
Nitrate as NO3-N	EPA300.0	mg/L	Not Detected	0.1	10	3/26/2015	TC			
Nitrate+Nitrite as N	EPA300.0	mg/L	0.3	0.1		3/26/2015	TC			
Nitrite as NO2-N	EPA300.0	mg/L	0.2	0.1	1.0	3/26/2015	TC			

mg/L: Milligrams per liter (=ppm)

ug/L : Micrograms per liter (=ppb)

PQL: Practical Quantitation Limit

H = Analyzed ouside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

D = Method deviates from standard method due to insufficient sample for MS/MSD

T = Temperature Exceedance



MPWMD Joe Oliver P.O. Box 85 Monterey, CA 93442-0085 4 Justin Court Suite D, Monterey, CA 93940 831.375.MBAS

www.MBASinc.com ELAP Certification Number: 2385

Thursday, April 09, 2015

Lab Number: AB28487

Collection Date/Time: 3/25/2015 10:30 Sample Collector: LINDBERG T

Submittal Date/Time: 3/25/2015 16:00 Sample ID Coliform Designation:

Sample Description: ASR-3												
Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:				
o-Phosphate-P	EPA300.0	mg/L	0.2		0.1		3/26/2015	TC				
pH (Laboratory)	SM4500-H+B	pH (H)	7.1		0.1		3/25/2015	НМ				
Phosphorus, Total	HACH 8190	mg/L	0.27		0.03		4/2/2015	SM				
Potassium	EPA200.7	mg/L	2.8		0.5		4/2/2015	MW				
QC Anion Sum x 100	Calculation	%	97%				3/27/2015	TC				
QC Anion-Cation Balance	Calculation	%	-1				4/3/2015	MW				
QC Cation Sum x 100	Calculation	%	95%				4/3/2015	MW				
QC Ratio TDS/SEC	Calculation		0.62				3/30/2015	HM				
Selenium, Total	EPA200.8	μg/L	8		2	50	3/26/2015	SM				
Silica as SiO2, Total	EPA200.7	mg/L	24		0.5		4/2/2015	MW				
Sodium	EPA200.7	mg/L	45		0.5		4/2/2015	MW				
Specific Conductance (E.C)	SM2510B	µmhos/cm	543		1	900	3/26/2015	НМ				
Strontium, Total	EPA200.8	μg/L	235		5		3/26/2015	SM				
Sulfate	EPA300.0	mg/L	83		1	250	3/26/2015	TC				
TOC	SM5310C	mg/L	1.2		0.2		3/27/2015	MW				
Total Diss. Solids	SM2540C	mg/L	334		10	500	3/26/2015	НМ				
Total Nitrogen	Calculation	mg/L	0.8		0.5		4/9/2015	TC				
Total Radium 226	EPA903.0	pCi/L	0.07 ± 0.27	E		3	3/31/2015	DAVI				
Trihalomethanes	EPA524.2	μg/L	94	E		80	3/31/2015	BSK				
Uranium by ICP/MS	EPA200.8	μg/L	1		1	30	3/26/2015	SM				
Vanadium, Total	EPA200.8	μg/L	Not Detected		5	1000	3/26/2015	SM				
Zinc, Total	EPA200.8	μg/L	202		20	5000	3/26/2015	SM				

Sample Comments:

Report Approved by:

David Holland, Laboratory Director

mg/L: Milligrams per liter (=ppm)

ug/L : Micrograms per liter (=ppb)

PQL : Practical Quantitation Limit

H = Analyzed ouside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

T = Temperature Exceedance

D = Method deviates from standard method due to insufficient sample for MS/MSD



831.375.MBAS www.MBASinc.com

ELAP Certification Number: 2385 Thursday, April 09, 2015

Lab Number: AB28488

Collection Date/Time: 3/25/2015 11:30

16:00 Sample ID Submittal Date/Time: 3/25/2015

Sample Collector: LINDBERG T

Coliform Designation:

Cubilitia Date, Illion	72072010 10100	Oup.o	-				00.9	
		Sample	Description: S	MS-Dee	p			
Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
Chloramines	SM4500-CI G	mg/L	Not Detected		0.05		3/25/2015	LJ
Haloacetic Acids	EPA552	μg/L	18	E		60	4/2/2015	BSK
Trihalomethanes	EPA524.2	μg/L	74	Е		80	3/31/2015	BSK

Sample Comments:

Report Approved by:

David Holland, Laboratory Director



DAVI LABORATORIES, ENVIRONMENTAL ASSOCIATES

730 Alfred Nobel Dr, Hercules, CA 94547

ANALYTICAL RESULTS REPORT

Company: Address:

Monterey Bay Analytical Services

4 Justin Court-Suite D Monterey, CA 93940

Project Manager: Report Date: David Holland March 31, 2015

Subcontract Order #:

AB28487

TABLE I

Sample ID	Collection Date/Time	Matrix	EPA Method	Analyses	Results pCi/L	<u>+</u>	2 Sigma error	MDA
ASR3		Water						
	3/25/15 (10	30)	900.0 903.0	Gross Alpha Radium226	3.03 0.07	± ±	1.24 0.27	1.20 0.58

Analyses completed on 3/31/15

TABLE II QA/QC

 Analyses
 Spike Added
 Detected Activity
 % Agreement

 Gross Alpha
 386.65 pCi/L
 352.39 pCi/L
 91.14

 Ra 226
 2.87 pCi/L
 2.85 pCi/L
 99.30

Patricia Davi Davi Laboratories QA/QC Manager



McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1503B91

Report Created for: Monterey Bay Analytical

4 Justin Court, Suite D Monterey, CA 93940

Project Contact: David Holland

Project P.O.:

Project Name: MPWMD

Project Received: 03/27/2015

Analytical Report reviewed & approved for release on 04/02/2015 by:

Question about your data?

Click here to email
McCampbell

Angela Rydelius,

Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.



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Glossary of Terms & Qualifier Definitions

Client: Monterey Bay Analytical

Project: MPWMD **WorkOrder:** 1503B91

Glossary Abbreviation

95% Interval 95% Confident Interval

DF Dilution Factor

DI WET (DISTLC) Waste Extraction Test using DI water

DISS Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)

DUP Duplicate

EDL Estimated Detection Limit

ITEF International Toxicity Equivalence Factor

LCS Laboratory Control Sample

MB Method Blank

MB % Rec % Recovery of Surrogate in Method Blank, if applicable

MDL Method Detection Limit

ML Minimum Level of Quantitation

MS Matrix Spike

MSD Matrix Spike Duplicate

N/A Not Applicable

ND Not detected at or above the indicated MDL or RL

NR Data Not Reported due to matrix interference or insufficient sample amount.

PF Prep Factor

RD Relative Difference

RL Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)

RPD Relative Percent Deviation
RRT Relative Retention Time

SPK Val Spike Value

SPKRef Val Spike Reference Value

SPLP Synthetic Precipitation Leachate Procedure
TCLP Toxicity Characteristic Leachate Procedure

TEQ Toxicity Equivalents

WET (STLC) Waste Extraction Test (Soluble Threshold Limit Concentration)

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Analytical Report

Client: Monterey Bay Analytical WorkOrder: 1503B91 **Project: MPWMD Extraction Method: RSK175 Date Received:** 3/27/15 17:45 **Analytical Method:** RSK175 **Date Prepared:** 3/31/15

Unit: $\mu g \! / \! L$

Light Gases

		-			
Client ID	Lab ID	Matrix/ExtType	Date C	ollected Instrument	Batch ID
ASR-3	1503B91-001A	Water/DISS.	03/25/20	15 10:30 GC26	103059
<u>Analytes</u>	Result		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Methane	0.47		0.10	1	03/31/2015 16:40

Analyst(s): KBO

Angela Rydelius, Lab Manager

Matrix:

Air

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com

 $\mu L/L$

Quality Control Report

Client:Monterey Bay AnalyticalWorkOrder:1503B91Date Prepared:3/31/15BatchID:103059Date Analyzed:3/31/15Extraction Method:RSK175Instrument:GC26Analytical Method:RSK175

Project: MPWMD **Sample ID:** MB/LCS-103059

	QC Sum	mary Report	for RSK175				
Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Methane	ND	11.9	0.50	10	-	119	70-130

Unit:

McCampbell Analytical, Inc.

1534 Willow Pass Rd Pittsburg, CA 94565-1701 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

Page 1 of

WorkOrder: 1503B91 ClientCode: MBAS

(525) 252 5202																
		WaterTrax	WriteOn	EDF	□E	xcel		EQuIS	VE	Email	HardCo	ору	ThirdPart	у []J-flag	
Report to:						Bi	ill to:					Requ	ested TAT:		5 day	ys
David Holland Monterey Bay Analyti 4 Justin Court, Suite I Monterey, CA 93940 831-375-6227 FA	D	Email: m cc/3rd Party: PO: ProjectNo: M		asinc.com; Dholla	nd@ml	oas	Monte 4 Justi	n Court	vable v Analytio t, Suite I v 93940				Received: Printed:		/27/201 /27/201	
									Req	uested Tes	sts (See leg	end b	elow)			
Lab ID	Client ID		Matrix	Collection Date	Hold	1	2	3	4	5 6	5 7	8	9	10	11	12
1503B91-001	ASR-3		Water	3/25/2015 10:30		Α										

Test Legend:

					
1 RSK175_W	2	3	4	5	
6	7	8	9	10	
11	12				

Prepared by: Maria Venegas

Comments: Needs analysts initials for all reports per D.H. 4/5/13

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).

Hazardous samples will be returned to client or disposed of at client expense.



McCampbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com

WORK ORDER SUMMARY

Client Name:	: MONTEREY E	BAY ANALYTICA	L		QC Level:	LEVEL 2				Work	drder:	1503B91	
Project:	MPWMD				Client Contact:	David Ho	lland			Date R	eceived:	3/27/2015	
Comments:	Needs analysts in	itials for all reports po	er D.H. 4/5/13		Contact's Email:	mweidner	mbasinc.com;	Dholland@n	nbasinc.com				
		☐ WaterTrax	WriteOn	EDF	Excel	Fax	 Email	HardCo	ppy ThirdParty	y D	-flag		
Lab ID	Client ID	Matrix	Test Name		Containe /Composi		& Preservative	De- chlorinated	Collection Date & Time	TAT	Sediment Content	Hold Sub	Out
1503B91-001A	ASR-3	Water	RSK175 <me< th=""><th>ethane_4></th><th>3</th><th>7</th><th>VOA w/ HCl</th><th></th><th>3/25/2015 10:30</th><th>5 days</th><th>None</th><th></th><th></th></me<>	ethane_4>	3	7	VOA w/ HCl		3/25/2015 10:30	5 days	None		

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

503B91

McCAMPBELL ANALYTICAL, INC. CHAIN OF CUSTODY RECORD 1534 WILLOW PASS ROAD X TURN AROUND TIME PITTSBURG, CA 94565-1701 RUSH 24 HR 48 HR 72 HR 5 DAY Website: www.mccampbell.com Email: main@mccampbell.com □ PDF □ Excel ☐ Write On (DW) ☐ GeoTracker EDF Fax: (925) 252-9269 Telephone: (877) 252-9262 Report To: David Holland Bill To: **Analysis Request** Other Comments Company: Monterey Bay Analytical Services EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners Total Petroleum Oil & Grease (1664 / 5520 E/B&F) Filter 8015) 4 Justin Ct. Suite D Samples Monterey, Ca 93940 E-Mail: mweidner@mbasinc.com as Gas (602 / 8021 + CAM 17 Metals (200.7 / 200.8 / 6010 / 6020) for Metals LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020) Tele: (831) 375 - 6227 Fax: (831) 641-0734 MTBE / BTEX ONLY (EPA 602 / 8021) analysis: Fotal Petroleum Hydrocarbons (418.1) EPA 502.2 / 601 / 8010 / 8021 (HVOCs) EPA 515 / 8151 (Acidic Cl Herbicides) EPA 8270 SIM / 8310 (PAHs / PNAs) Project #: **Project Name:** Yes / No EPA 505/ 608 / 8081 (CI Pesticides) TPH as Diesel / Motor Oil (8015) Lead (200.7 / 200.8 / 6010 / 6020) EPA 525.2 / 625 / 8270 (SVOCs) Project Location: MPWMD EPA 507 / 8141 (NP Pesticides) EPA 524.2 / 624 / 8260 (VOCs) Sampler Signature: T. Lindberg METHOD MTBE / BTEX & TPH SAMPLING MATRIX Type Containers PRESERVED # Containers LOCATION/ SAMPLE ID **Field Point** Sludge Methane Water Time HNO₃ Name Date Other Other HCL ICE Soil X 3/25/15 AB28487 ASR-3 1030 G X XX ICE/t° O. COMMENTS: Relinquished By: Received By: Date: Time: GOOD CONDITION David Holland 1600 HEAD SPACE ABSENT Relinquished By: Received By DECHLORINATED IN LAB Time: Date: APPROPRIATE CONTAINERS 127/15 0910 PRESERVED IN LAB Relinquished By: Time: Received By: Date: VOAS O&G METALS OTHER PRESERVATION pH<2

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com

Sample Receipt Checklist

Client Name:	Monterey Bay Ar	nalytical			Date and I	ime Received:	3/27/2015 5:45:32 PM
Project Name:	MPWMD				LogIn Revi	ewed by:	Maria Venegas
WorkOrder №:	1503B91	Matrix: Water			Carrier:	<u>OnTrac</u>	
		Chain of C	ustod	y (COC)	<u>Information</u>		
Chain of custody	present?		Yes	✓	No 🗌		
Chain of custody	signed when relin	quished and received?	Yes	•	No 🗌		
Chain of custody	agrees with samp	le labels?	Yes	•	No 🗌		
Sample IDs note	ed by Client on CO	0?	Yes	✓	No 🗌		
Date and Time o	f collection noted b	y Client on COC?	Yes	✓	No 🗌		
Sampler's name	noted on COC?		Yes	✓	No 🗌		
		<u>Sampl</u>	e Rece	eipt Info	rmation		
Custody seals in	tact on shipping co	ntainer/cooler?	Yes		No 🗌		NA 🗹
Shipping contain	er/cooler in good c	ondition?	Yes	✓	No 🗌		
Samples in prope	er containers/bottle	s?	Yes	✓	No 🗌		
Sample containe	ers intact?		Yes	✓	No 🗌		
Sufficient sample	e volume for indica	ted test?	Yes	•	No 🗌		
		Sample Preservation	on and	Hold Ti	me (HT) Info	rmation	
All samples rece	ived within holding	time?	Yes	✓	No 🗌		
Sample/Temp Bl	lank temperature			Temp	: 3.6°C		NA 🗌
Water - VOA vial	ls have zero heads	pace / no bubbles?	Yes	✓	No 🗌		NA 🗌
Sample labels ch	necked for correct p	preservation?	Yes	✓	No 🗌		
pH acceptable up	pon receipt (Metal:	<2; 522: <4; 218.7: >8)?	Yes		No 🗌		NA 🗹
Samples Receive	ed on Ice?		Yes	✓	No 🗌		
		(Ісе Туре	e: WE	TICE)		
UCMR3 Samples Total Chlorine		able upon receipt for EPA 522?	Yes		No 🗌		NA 🗹
	tested and accepta	ble upon receipt for EPA 218.7,			No 🗌		NA 🗹
* NOTE: If the "N	No" box is checked	see comments below.					
Comments:			:				



BSK Associates Fresno 1414 Stanislaus St Fresno, CA93706 559-497-2888 (Main) 559-485-6935 (FAX)

A5C2235 4/09/2015

Invoice: A507223

David Holland Monterey Bay Analytical 4 Justin Court Suite D Monterey, CA 93940

RE: Report for A5C2235 MPWMD

Dear David Holland,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 3/27/2015. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2009 TNI Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an fias receivedfl basis.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

Kijuana Hartshorn, Project Coordinator

If additional clarification of any information is required, please contact your Project Manager, John Montierth, at (800) 877-8310 or (559) 497-2888 x201.



Accredited in Accordance with NELAP ORELAP #4021





Case Narrative

Project and Report Details Invoice Details

Client: Monterey Bay Analytical Invoice To: Monterey Bay Analytical

Report To: David Holland Invoice Attn: David Holland

Project #: - Project PO#: -

Received: 3/27/2015 - 10:00 **Report Due:** 4/10/2015

Sample Receipt Conditions

Cooler: Default Cooler Containers Intact

Temperature on Receipt °C: 3.8 COC/Labels Agree

Received On Wet Ice

Packing Material - Bubble Wrap

Sample(s) were received in temperature range.

Initial receipt at BSK-FAL

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

MS1.0 Matrix spike recoveries exceed control limits.

MS1.3 Matrix spike recovery data unavailable or unreliable due to significant dilution required for matrix interferences.

Report Distribution

Recipient(s)	Report Format	CC:	
David Holland	FINAL.RPT		
Mason Weidner	FINAL.RPT		



Certificate of Analysis

Sample ID: A5C2235-01 **Sampled By:** T. Lindberg

Sample Description: ASR-3 // AB28487

Sample Date - Time: 03/25/15 - 10:30

Matrix: Ground Water

Sample Type: Grab

BSK Associates Fresno Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	27	0.50	ug/L	1	A503475	03/31/15	03/31/15	
Bromoform	EPA 524.2	0.98	0.50	ug/L	1	A503475	03/31/15	03/31/15	
Chloroform	EPA 524.2	54	0.50	ug/L	1	A503475	03/31/15	03/31/15	
Dibromochloromethane	EPA 524.2	12	0.50	ug/L	1	A503475	03/31/15	03/31/15	
Surrogate: Bromofluorobenzene	EPA 524.2	94 %	Acceptable	range: 70	0-130 %				
Total Trihalomethanes, EPA 524.2		94	0.50	ug/L					
Haloacetic Acids by GC-ECD, G	GC-MS								
Dibromoacetic Acid (DBAA)	EPA 552.3	1.8	1.0	ug/L	1	A503488	03/30/15	04/02/15	
Dichloroacetic Acid (DCAA)	EPA 552.3	7.1	1.0	ug/L	1	A503488	03/30/15	04/02/15	
Monobromoacetic Acid (MBAA)	EPA 552.3	ND	1.0	ug/L	1	A503488	03/30/15	04/02/15	
Monochloroacetic Acid (MCAA)	EPA 552.3	ND	2.0	ug/L	1	A503488	03/30/15	04/02/15	
Trichloroacetic Acid (TCAA)	EPA 552.3	11	1.0	ug/L	1	A503488	03/30/15	04/02/15	
Surrogate: 2-Bromobutanoic Acid	EPA 552.3	114 %	Acceptable	range: 70	0-130 %				
Total Haloacetic Acids, EPA 552.3		20	2.0	ug/L					

QA-RP-0001-10 Final.rpt



Certificate of Analysis

Sample ID: A5C2235-02 Sampled By: T. Lindberg

-02 Sample Date - Time: 03/25/15 - 11:30 Matrix: Ground Water

Sample Type: Grab

Sample Description: SMS-Deep // AB28488

BSK Associates Fresno Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	22	0.50	ug/L	1	A503475	03/31/15	03/31/15	
Bromoform	EPA 524.2	1.1	0.50	ug/L	1	A503475	03/31/15	03/31/15	
Chloroform	EPA 524.2	40	0.50	ug/L	1	A503475	03/31/15	03/31/15	
Dibromochloromethane	EPA 524.2	11	0.50	ug/L	1	A503475	03/31/15	03/31/15	
Surrogate: Bromofluorobenzene	EPA 524.2	95 %	Acceptable	range: 70	0-130 %				
Total Trihalomethanes, EPA 524.2		74	0.50	ug/L					
Haloacetic Acids by GC-ECD, G	SC-MS								
Dibromoacetic Acid (DBAA)	EPA 552.3	1.2	1.0	ug/L	1	A503488	03/30/15	04/02/15	
Dichloroacetic Acid (DCAA)	EPA 552.3	4.3	1.0	ug/L	1	A503488	03/30/15	04/02/15	
Monobromoacetic Acid (MBAA)	EPA 552.3	ND	1.0	ug/L	1	A503488	03/30/15	04/02/15	
Monochloroacetic Acid (MCAA)	EPA 552.3	ND	2.0	ug/L	1	A503488	03/30/15	04/02/15	
Trichloroacetic Acid (TCAA)	EPA 552.3	12	1.0	ug/L	1	A503488	03/30/15	04/02/15	
Surrogate: 2-Bromobutanoic Acid	EPA 552.3	115 %	Acceptable	range: 70	0-130 %				
Total Haloacetic Acids, EPA 552.3		18	2.0	ug/L					



BSK Associates Fresno Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed Q	ual
		EPA 5	24.2 - Q	uality Co	ntrol						
Batch: A503475										Prepared: 3	3/31/201
Prep Method: EPA 524.2										Anal	yst: JG
Blank (A503475-BLK1)											
Bromodichloromethane	ND	0.50	ug/L							03/31/15	
Bromoform	ND	0.50	ug/L							03/31/15	
Chloroform	ND	0.50	ug/L							03/31/15	
Dibromochloromethane	ND	0.50	ug/L							03/31/15	
Surrogate: Bromofluorobenzene	47			50		93	70-130			03/31/15	
Blank Spike (A503475-BS1)											
Bromodichloromethane	9.4	0.50	ug/L	10		94	70-130			03/31/15	
Bromoform	8.4	0.50	ug/L	10		84	70-130			03/31/15	
Chloroform	9.4	0.50	ug/L	10		94	70-130			03/31/15	
Dibromochloromethane	9.4	0.50	ug/L	10		94	70-130			03/31/15	
Surrogate: Bromofluorobenzene	49			50		98	70-130			03/31/15	
Blank Spike Dup (A503475-BSD1)											
Bromodichloromethane	9.8	0.50	ug/L	10		98	70-130	4	30	03/31/15	
Bromoform	8.5	0.50	ug/L	10		85	70-130	1	30	03/31/15	
Chloroform	9.8	0.50	ug/L	10		98	70-130	4	30	03/31/15	
Dibromochloromethane	9.7	0.50	ug/L	10		97	70-130	3	30	03/31/15	
	40			50		99	70-130			03/31/15	
Surrogate: Bromofluorobenzene	49	EDA 5	-000								
Surrogate: Bromofluorobenzene Batch: A503488	49	EPA 5	52.3 - Q	uality Co	ntrol					Prepared: 3	3/30/201
Batch: A503488	49	EPA 5	52.3 - Q	uality Co	ntrol						
	49	EPA 5	52.3 - Q	uality Co	ntrol						
Batch: A503488 Prep Method: EPA 552.3	49 ND	EPA 5 :	52.3 - Q ug/L	uality Co	ntrol						
Batch: A503488 Prep Method: EPA 552.3 Blank (A503488-BLK1) Dibromoacetic Acid (DBAA)				uality Co	ntrol					Anal	
Batch: A503488 Prep Method: EPA 552.3 Blank (A503488-BLK1)	ND	1.0	ug/L	uality Co	ntrol					Anal 04/02/15	
Batch: A503488 Prep Method: EPA 552.3 Blank (A503488-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA)	ND ND	1.0 1.0	ug/L ug/L	uality Co	ntrol					Anal 04/02/15 04/02/15	
Batch: A503488 Prep Method: EPA 552.3 Blank (A503488-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA) Monochloroacetic Acid (MCAA)	ND ND ND	1.0 1.0 1.0	ug/L ug/L ug/L	uality Co	ntrol					04/02/15 04/02/15 04/02/15	
Batch: A503488 Prep Method: EPA 552.3 Blank (A503488-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA)	ND ND ND ND	1.0 1.0 1.0 2.0	ug/L ug/L ug/L ug/L	uality Co	ntrol	101	70-130			04/02/15 04/02/15 04/02/15 04/02/15	
Batch: A503488 Prep Method: EPA 552.3 Blank (A503488-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid	ND ND ND ND ND	1.0 1.0 1.0 2.0	ug/L ug/L ug/L ug/L		ntrol	101	70-130			04/02/15 04/02/15 04/02/15 04/02/15 04/02/15	
Batch: A503488 Prep Method: EPA 552.3 Blank (A503488-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (MBAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A503488-BS1) Dibromoacetic Acid (DBAA)	ND ND ND ND ND	1.0 1.0 1.0 2.0	ug/L ug/L ug/L ug/L		ntrol	101 113	70-130 70-130			04/02/15 04/02/15 04/02/15 04/02/15 04/02/15	
Batch: A503488 Prep Method: EPA 552.3 Blank (A503488-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA)	ND ND ND ND ND 25	1.0 1.0 1.0 2.0 1.0	ug/L ug/L ug/L ug/L ug/L	25	ntrol					04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15	
Batch: A503488 Prep Method: EPA 552.3 Blank (A503488-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MCAA) Trichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A503488-BS1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA)	ND ND ND ND 25	1.0 1.0 1.0 2.0 1.0	ug/L ug/L ug/L ug/L ug/L ug/L	25	ntrol	113	70-130 70-130 70-130			04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15	
Batch: A503488 Prep Method: EPA 552.3 Blank (A503488-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A503488-BS1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DBAA) Monochloroacetic Acid (MBAA) Monochloroacetic Acid (MBAA) Monochloroacetic Acid (MBAA) Monochloroacetic Acid (MCAA)	ND ND ND ND ND 25	1.0 1.0 1.0 2.0 1.0	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	25 10 10	ntrol	113 107	70-130 70-130			04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15	
Batch: A503488 Prep Method: EPA 552.3 Blank (A503488-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MCAA) Frichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A503488-BS1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA) Monobromoacetic Acid (MBAA) Monobromoacetic Acid (MCAA) Frichloroacetic Acid (MCAA) Frichloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA)	ND ND ND ND 25	1.0 1.0 2.0 1.0 1.0	ug/L ug/L ug/L ug/L ug/L ug/L	25 10 10 10 20 10	ntrol	113 107 107 103 109	70-130 70-130 70-130 70-130 70-130			04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15	
Batch: A503488 Prep Method: EPA 552.3 Blank (A503488-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A503488-BS1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DBAA) Monochloroacetic Acid (MBAA) Monochloroacetic Acid (MBAA) Monochloroacetic Acid (MBAA) Monochloroacetic Acid (MCAA)	ND ND ND ND 25	1.0 1.0 2.0 1.0 1.0 1.0 2.0	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	25 10 10 10 20	ntrol	113 107 107 103	70-130 70-130 70-130 70-130			04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15	
Batch: A503488 Prep Method: EPA 552.3 Blank (A503488-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A503488-BS1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (MBAA) Monochloroacetic Acid (MBAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA)	ND ND ND ND 25	1.0 1.0 2.0 1.0 1.0 1.0 2.0	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	25 10 10 10 20 10	ntrol	113 107 107 103 109	70-130 70-130 70-130 70-130 70-130			04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15	
Batch: A503488 Prep Method: EPA 552.3 Blank (A503488-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A503488-BS1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DBAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (DCAA) Monobromoacetic Acid (MCAA) Frichloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid	ND ND ND ND 25	1.0 1.0 2.0 1.0 1.0 1.0 2.0	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	25 10 10 10 20 10	ntrol	113 107 107 103 109	70-130 70-130 70-130 70-130 70-130	14	30	04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15	
Batch: A503488 Prep Method: EPA 552.3 Blank (A503488-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A503488-BS1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (MBAA) Monochloroacetic Acid (MBAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike Dup (A503488-BSD1)	ND ND ND ND 25	1.0 1.0 2.0 1.0 1.0 2.0 1.0	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	25 10 10 10 20 10 25	ntrol	113 107 107 103 109 105	70-130 70-130 70-130 70-130 70-130	14 5	30 30	04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15	
Batch: A503488 Prep Method: EPA 552.3 Blank (A503488-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A503488-BS1) Dibromoacetic Acid (DBAA) Monochloroacetic Acid (MBAA) Monochloroacetic Acid (DBAA) Dichloroacetic Acid (MBAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike Dup (A503488-BSD1) Dibromoacetic Acid (DBAA)	ND ND ND ND 25	1.0 1.0 2.0 1.0 1.0 1.0 1.0 1.0 1.0	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	25 10 10 10 20 10 25	ntrol	113 107 107 103 109 105	70-130 70-130 70-130 70-130 70-130 70-130			04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15	
Batch: A503488 Prep Method: EPA 552.3 Blank (A503488-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (MCAA) Trichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A503488-BS1) Dibromoacetic Acid (DCAA) Monochloroacetic Acid (MBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (MCAA) Trichloroacetic Acid (MCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A503488-BS1) Dibromoacetic Acid (MCAA) Trichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike Dup (A503488-BSD1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DBAA) Dichloroacetic Acid (DCAA)	ND ND ND ND 25	1.0 1.0 2.0 1.0 1.0 1.0 1.0 1.0 1.0	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	25 10 10 10 20 10 25	ntrol	113 107 107 103 109 105	70-130 70-130 70-130 70-130 70-130 70-130 70-130	5	30	04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15	
Batch: A503488 Prep Method: EPA 552.3 Blank (A503488-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike (A503488-BS1) Dibromoacetic Acid (DCAA) Monochloroacetic Acid (MBAA) Dichloroacetic Acid (MBAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (DCAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike Dup (A503488-BSD1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (DCAA)	ND ND ND ND 25 11 11 21 11 26	1.0 1.0 2.0 1.0 1.0 1.0 1.0 1.0 1.0	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	25 10 10 10 20 10 25	ntrol	113 107 107 103 109 105	70-130 70-130 70-130 70-130 70-130 70-130 70-130 70-130	5 9	30 30	04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15	
Batch: A503488 Prep Method: EPA 552.3 Blank (A503488-BLK1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monochloroacetic Acid (MCAA) Trichloroacetic Acid (TCAA) Blank Spike (A503488-BS1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DBAA) Dichloroacetic Acid (MBAA) Monochloroacetic Acid (MCAA) Trichloroacetic Acid (DCAA) Monobromoacetic Acid (MCAA) Trichloroacetic Acid (MCAA) Dichloroacetic Acid (MCAA) Dichloroacetic Acid (TCAA) Dibromoacetic Acid (TCAA) Dichloroacetic Acid (TCAA) Dichloroacetic Acid (TCAA) Dichloroacetic Acid (DBAA) Dichloroacetic Acid (DBAA) Dichloroacetic Acid (DBAA) Monochloroacetic Acid (MBAA) Monochloroacetic Acid (MBAA) Monochloroacetic Acid (MCAA)	ND ND ND ND 25 11 11 21 11 26	1.0 1.0 2.0 1.0 1.0 1.0 1.0 1.0 1.0	ug/L ug/L ug/L ug/L ug/L ug/L ug/L ug/L	25 10 10 10 20 10 25	ntrol	113 107 107 103 109 105	70-130 70-130 70-130 70-130 70-130 70-130 70-130 70-130	5 9	30 30	04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15 04/02/15	3/30/201 yst: KH



BSK Associates Fresno Organics Quality Control Report

				Spike	Source		%REC		RPD	Date	
Analyte	Result	RL	Units	Level	Result	%REC	Limits	RPD	Limit	Analyzed	Qual
		EPA 5	52.3 - Q	uality Co	ntrol						
Batch: A503488										Prepare	d: 3/30/201
Prep Method: EPA 552.3										A	nalyst: KHI
Blank Spike Dup (A503488-BSD1)											
Frichloroacetic Acid (TCAA)	12	1.0	ug/L	10		117	70-130	8	30	04/02/15	
Surrogate: 2-Bromobutanoic Acid	29			25		116	70-130			04/02/15	
Matrix Spike (A503488-MS1), Source: A	A5C2222-01										
Dibromoacetic Acid (DBAA)	26	1.0	ug/L	10	11	155	70-130			04/02/15	MS1.0 High
Dichloroacetic Acid (DCAA)	730	20	ug/L	10	710	244	70-130			04/02/15	MS1.3 High
Monobromoacetic Acid (MBAA)	13	1.0	ug/L	10	ND	121	70-130			04/02/15	
Monochloroacetic Acid (MCAA)	23	2.0	ug/L	20	ND	106	70-130			04/02/15	
Frichloroacetic Acid (TCAA)	260	20	ug/L	10	240	211	70-130			04/02/15	MS1.3 High
Surrogate: 2-Bromobutanoic Acid	31			25		122	70-130			04/02/15	
Matrix Spike Dup (A503488-MSD1), So	urce: A5C2222-01	1									
Dibromoacetic Acid (DBAA)	25	1.0	ug/L	10	11	145	70-130	4	30	04/02/15	MS1.0 High
Dichloroacetic Acid (DCAA)	680	20	ug/L	10	710	NR	70-130	7	30	04/02/15	MS1.3 <i>Low</i>
Monobromoacetic Acid (MBAA)	12	1.0	ug/L	10	ND	117	70-130	3	30	04/02/15	
Monochloroacetic Acid (MCAA)	22	2.0	ug/L	20	ND	104	70-130	2	30	04/02/15	
Frichloroacetic Acid (TCAA)	240	20	ug/L	10	240	NR	70-130	9	30	04/02/15	MS1.3 Low
Surrogate: 2-Bromobutanoic Acid	30			25		122	70-130			04/02/15	



Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- · Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- · Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.
- The MCLs provided in this report (if applicable) represent the primary MCLs for that analyte.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
μg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
μg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable	MCL:	Maximum Contaminant Limit		

BSK is not accredited under the NELAC program for the following parameters:

`*NA**

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

|--|

State of California - ELAP	1180	State of Hawaii	4021
State of Nevada	CA000792015-1	State of Oregon - NELAC	4021
EPA - UCMR3	CA00079	State of Washington	C997-14

Sacramento

State of California - ELAP 2435

Vancouver

State of Oregon - NELAC WA100008 State of Washington C824-13







03272015

Monte6227

Turnaround: Standard

Due Date: 4/10/2015



Monterey Bay Analytical





Printed: 3/27/2___

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Page 1 of 1

Associates Engineer & Laboratories

1414 Stanislaus St., Fresno, CA 93706 (559) 497-2888 · Fax (559) 497-2893

www.bskassociates.com

X Standard - 10 business days

Rush (Surcharge may apply)

Date needed:

Turnaround Time Request

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Page 9 of 10

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Payment for services rendered as noted herein and eate in full within 30 days from the date invoiced. If not so paid, account balances are deemed delinquent. Delinquent balances are subject to monthly service charges and interest specified in BKY's current Standard Terms and Conditions for Laboratory Services. The person signing for the Client/Company asknowledges that they are either the Client agrees to be responsible for payment for the services on this Chain of Custody, and agrees to BSY's terms and conditions for laboratory services unless contractually bound otherwise. BSYs current terms and conditions on the Client agrees to be responsible for payment for the services on this Chain of Custody, and agrees to BSYs terms and conditions for laboratory services unless contractually bound otherwise. BSYs current terms and conditions for laboratory services unless contractually bound otherwise. BSYs current terms and conditions for laboratory services unless contractually bound otherwise. BSYs current terms and conditions for laboratory services unless contractually bound otherwise. BSYs current terms and conditions for laboratory services unless contractually bound otherwise. BSYs current terms and conditions for laboratory services unless contractually bound otherwise. BSYs current terms and conditions for laboratory services are subject to monthly s

A5C2235 Monte6227 03/27/2015

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Sample Integrity

of BSK Bottles: ∀es Nο Page Was temperature within range? Were correct containers and preservatives Yes/ No NA No NA received for the tests requested? Chemistry ≤ 6°C Micro < 10°C If samples were taken today, is there evidence Were there bubbles in the VOA vials? Yes NA NO NA Yes (Volatiles Only) that chilling has begun? (yes) Was a sufficient amount of sample received? Yes Νo Did all bottles arrive unbroken and intact? No Do samples have a hold time <72 hours? Yes Νo Yes No Did all bottle labels agree with COC? Was PM notified of discrepancies? Was sodium thiosulfate added to CN sample(s) No NA Yes By/Time: until chlorine was no longer present? 250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V) Checks Passed? Bacti Na₂S₂O₃ None (P) White Cap Cr6 (P) Br. Green Label NH4OH(NH4)2SO4 DW pH > 8 Cr6 (P) Pink Label Hex Chrome Buffer DW pH 9-9.5 Cr6 (P) Pink Label Hex Chrome Buffer WW pH 9.3-9.7 Ν in the HNO₃ (P) Red Cap H_2SO_4 (P) or (AG) pH < 2 Υ Ν are performed NaOH (P) Green Cap CI, pH >10 Υ Ν pH > 9 Υ Ν NaOH + ZnAc (P) Dissolved Oxygen 300ml (g) ъ None (AG) 608/8081/8082, 625, 632/8321, means preservation/chlorine checks are either N/A 8151, 8270 HCI (AG)^{Lt. Blue Label} O&G, Diesel **Bottles Received** Na₂O₃S+HCI (AG)^{Lt. Pink Label} 525 Na₂S₂O₃ 1 Liter (Brown P) 549 Na₂S₂O₃ (AG)^{Blue Label} 547,515,548,THM,524 Na₂S₂O₃ (CG) Blue Label 504, 505 Na₂S₂O₃ + MCAA (CG)^{Orange Label} 531 Y N pH < 3NH₄CI (AG)^{Purple Label} 552 117 EDA (AG) Brown Label DBPs HCL (CG) 524.2,BTEX,Gas, MTBE, 8260/624 Buffer pH 4 (CG) None (CG) H₃PO₄ (CG)^{Salmon Label} Other: Asbestos 1Liter Plastic w/ Foil Low Level Hg / Metals Double Baggie Bottled Water Clear Glass Jar: 250 / 500 / 1 Liter Soil Tube Brass / Steel / Plastic Tedlar Bag / Plastic Bag Date/Time/Initials Container Preservative Container Preservative Date/Time/Initials Split SP S P SP SP Comments



4 Justin Court Suite D, Monterey, CA 93940 831.375.MBAS www.MBASinc.com

ELAP Certification Number: 2385

Monday, April 27, 2015

Lab Number: AB28550

Collection Date/Time: 3/27/2015 9:00 Sample Collector: LEAR J

Submittal Date/Time: 3/27/2015 8:48 Sample ID Coliform Designation:

Mailaninity, Total (as CaCO3) SM2320B mg/L 132 2 4/9/2015 LRH			Sam	ple Description: ASR2				
Aluminum, Total EPA200.8 µg/L Not Detected 10 1000 4/3/2015 SM Anmonia-N SM4500NH3 D mg/L Not Detected 0.05 4/1/2015 TC Arsenic, Total EPA200.8 µg/L 60 10 1000 4/3/2015 SM Barium, Total EPA200.8 µg/L 60 10 1000 4/3/2015 SM Barium, Total EPA200.8 µg/L 60 10 1000 4/3/2015 SM Barium, Total EPA200.8 µg/L 161 10 4/9/2015 LRH Boron EPA200.7 mg/L Not Detected 0.05 4/2/2015 MW Bromide EPA300.0 mg/L Not Detected 0.05 4/2/2015 MW Bromide EPA300.0 mg/L Not Detected 0.1 3/27/2015 HM Carbonate as CaCO3 SM2320B mg/L Not Detected 10 4/9/2015 LRH Chloramines SM4500-CI G mg/L Not Detected 10 4/9/2015 LRH Chloramines SM4500-CI G mg/L Not Detected 0.05 3/27/2015 LJ Chloride EPA300.0 mg/L Not Detected 0.1 2.0 3/27/2015 HM DOCC 10 13 0.0 3/27/2015 MW Plus Cross Alpha EPA900.0 pC//L 3.48 ± 2.19 E 15 4/8/2015 DAVI Haloacetic Acids EPA552 µg/L 17 E 60 4/3/2015 BSK Toron EPA200.7 µg/L 113 10 300 4/2/2015 MW Toron EPA200.7 µg/L 113 10 300 4/2/2015 MW Toron EPA200.7 µg/L Not Detected 10 300 4/2/2015 MW Toron EPA200.7 µg/L Not Detected 10 300 4/2/2015 MW Manganese, Dissolved EPA200.7 µg/L Not Detected 10 50 4/2/2015 MW Manganese, Dissolved EPA200.7 µg/L Not Detected 10 50 4/2/2015 MW Manganese, Total EPA200.8 µg/L Not Detected 10 50 4/2/2015 MW Manganese, Total EPA200.8 µg/L Not Detected 10 50 4/2/2015 MW Manganese, Total EPA200.8 µg/L Not Detected 10 50 4/2/2015 MW Manganese, Total EPA200.8 µg/L Not Detected 10 50 4/2/2015 MW Manganese, Total EPA200.8 µg/L Not Detected 10 50 4/2/2015 MW Morton, Total EPA200.8 µg/L Not Detected 10 10 4/3/2015 SM MW Morton, Total EPA200.0 mg/L Not Detected 10 10 4/3/2015 SM MW Morton, Total EPA200.0 mg/L Not Detected 10 10 10 4/3/2015 SM MW Morton EPA300.0 mg/L Not Detected 11 10 10 4/3/2	Analyte	Method	Unit	Result Qual	PQL	MCL	Date Analyzed	Analyst:
Anmonia-N SM4500NH3 D mg/L Not Detected 0.05 4/1/2015 TC Arsenic, Total EPA200.8 μg/L 1 1 10 4/3/2015 SM Barium, Total EPA200.8 μg/L 60 10 1000 4/3/2015 SM Bicarbonate (as HCO3-) SM2320B mg/L 161 10 4/9/2015 LRH Boron EPA200.7 mg/L Not detected 0.05 4/2/2015 MW Bromide EPA200.7 mg/L Not Detected 0.1 3/27/2015 HM Carbonate as CaCO3 SM2320B mg/L Not Detected 10 4/9/2015 LRH Chloratines SM4500-CIG mg/L Not Detected 10 4/9/2015 LRH Chloratide EPA300.0 mg/L 30 1 250 3/27/2015 HM Chloride EPA300.0 mg/L 1.3 0.2 4/23/2015 MW Chloride EPA300.0 mg/L	Alkalinity, Total (as CaCO3)	SM2320B	mg/L	132	2		4/9/2015	LRH
Arsenic, Total EPA200.8 μg/L 1 1 10 4/3/2015 SM Barium, Total EPA200.8 μg/L 60 10 1000 4/3/2015 SM Bicarbonate (as HCO3-) SM2320B mg/L 161 10 4/9/2015 LRH Boron EPA200.7 mg/L Not Detected 0.1 3/27/2015 HM Bromide EPA300.0 mg/L Not Detected 0.1 3/27/2015 HM Calcium EPA300.7 mg/L 43 0.5 4/2/2015 MW Carbonate as CaCO3 SM2320B mg/L Not Detected 10 4/9/2015 LRH Chloride EPA300.0 mg/L 30 1 250 3/27/2015 LJ Chloride EPA300.0 mg/L 1.3 0.2 4/23/2015 MW Fluoride EPA300.0 mg/L Not Detected 0.1 2.0 3/27/2015 HM Gross Alpha EPA300.0 pCi/L	Aluminum, Total	EPA200.8	μg/L	Not Detected	10	1000	4/3/2015	SM
Barium, Total EPA200.8 µg/L 60 10 1000 4/3/2015 SM	Ammonia-N	SM4500NH3 D	mg/L	Not Detected	0.05		4/1/2015	TC
Bicarbonate (as HCO3-) SM2320B mg/L 161 10 4/9/2015 LRH	Arsenic, Total	EPA200.8	μg/L	1	1	10	4/3/2015	SM
Boron EPA200.7 mg/L Not detected 0.05 4/2/2015 MW Bromide EPA300.0 mg/L Not Detected 0.1 3/27/2015 HM Calcium EPA200.7 mg/L 43 0.5 4/2/2015 MW Carbonate as CaCO3 SM2320B mg/L Not Detected 1.0 4/9/2015 LRH Chloramines SM4500-CI G mg/L Not Detected 0.05 3/27/2015 LJ Chloride EPA300.0 mg/L 30 1 250 3/27/2015 HM DOC mg/L 1.3 0.2 4/23/2015 MW Fluoride EPA300.0 mg/L Not Detected 0.1 2.0 3/27/2015 HM Gross Alpha EPA300.0 mg/L Not Detected 0.1 2.0 3/27/2015 DAVI Haloacetic Acids EPA502.7 µg/L 17 E 60 4/3/2015 DAVI Haloacetic Acids EPA200.7 µg/L <	Barium, Total	EPA200.8	μg/L	60	10	1000	4/3/2015	SM
Bromide	Bicarbonate (as HCO3-)	SM2320B	mg/L	161	10		4/9/2015	LRH
Calcium EPA200.7 mg/L 43 0.5 4/2/2015 MW Carbonate as CaCO3 SM2320B mg/L Not Detected 10 4/9/2015 LRH Chloramines SM4500-Cl G mg/L Not Detected 0.05 3/27/2015 LJ Chloride EPA300.0 mg/L 30 1 250 3/27/2015 HM DOC mg/L 1.3 0.2 4/23/2015 MW Fluoride EPA300.0 mg/L Not Detected 0.1 2.0 3/27/2015 HM Gross Alpha EPA300.0 pCi/L 3.48 ± 2.19 E 15 4/8/2015 DAVI Haloacetic Acids EPA552 µg/L 17 E 60 4/3/2015 DSK Iron EPA200.7 µg/L 113 10 300 4/2/2015 MW Viron, Dissolved EPA200.7 µg/L Not Detected 10 300 4/2/2015 MW Kjehldahl Nitrogen SM4500-NH3 B,C:	Boron	EPA200.7	mg/L	Not detected	0.05		4/2/2015	MW
Carbonate as CaCO3 SM2320B mg/L Not Detected 10 4/9/2015 LRH Chloramines SM4500-CI G mg/L Not Detected 0.05 3/27/2015 LJ Chloride EPA300.0 mg/L 30 1 250 3/27/2015 HM DOC mg/L 1.3 0.2 4/23/2015 MW Fluoride EPA300.0 mg/L Not Detected 0.1 2.0 3/27/2015 HM Gross Alpha EPA300.0 pCi/L 3.48 ± 2.19 E 15 4/8/2015 DAVI Haloacetic Acids EPA552 µg/L 17 E 60 4/3/2015 BSK Iron EPA552 µg/L 113 10 300 4/2/2015 MW Iron EPA552 µg/L Not Detected 10 300 4/2/2015 MW Iron EPA200.7 µg/L Not Detected 10 300 4/2/2015 MW Iron, Dissolved EPA200.	Bromide	EPA300.0	mg/L	Not Detected	0.1		3/27/2015	НМ
Chloramines SM4500-CI G mg/L Not Detected 0.05 3/27/2015 LJ Chloride EPA300.0 mg/L 30 1 250 3/27/2015 HM DOC mg/L 1.3 0.2 4/23/2015 MW Fluoride EPA300.0 mg/L Not Detected 0.1 2.0 3/27/2015 HM Gross Alpha EPA300.0 pCi/L 3.48 ± 2.19 E 15 4/8/2015 DAVI Haloacetic Acids EPA552 µg/L 17 E 60 4/3/2015 BSK Iron EPA200.7 µg/L 113 10 300 4/2/2015 MW Vigoria, Dissolved EPA200.7 µg/L Not Detected 10 300 4/2/2015 MW Kiphidahl Nitrogen SM4500-NH3 B,C. mg/L Not Detected 0.5 4/9/2015 TC Lithium EPA200.8 µg/L 6 1 4/3/2015 MW Magnesium EPA200.7	Calcium	EPA200.7	mg/L	43	0.5		4/2/2015	MW
Chloride EPA300.0 mg/L 30 1 250 3/27/2015 HM DOC mg/L 1.3 0.2 4/23/2015 MW Fluoride EPA300.0 mg/L Not Detected 0.1 2.0 3/27/2015 HM Gross Alpha EPA900.0 pCi/L 3.48 ± 2.19 E 15 4/8/2015 DAVI Haloacetic Acids EPA552 µg/L 17 E 60 4/3/2015 BSK Iron EPA200.7 µg/L 113 10 300 4/2/2015 MW Iron, Dissolved EPA200.7 µg/L Not Detected 10 300 4/2/2015 MW Iron, Dissolved EPA200.7 µg/L Not Detected 10 300 4/2/2015 MW Iron, Dissolved EPA200.8 µg/L Not Detected 0.5 4/9/2015 TC Lithium EPA200.8 µg/L Not Detected 10 50 4/2/2015 MW Magnes	Carbonate as CaCO3	SM2320B	mg/L	Not Detected	10		4/9/2015	LRH
DOC	Chloramines	SM4500-CI G	mg/L	Not Detected	0.05		3/27/2015	LJ
Fluoride EPA300.0 mg/L Not Detected 0.1 2.0 3/27/2015 HM Gross Alpha EPA900.0 pCi/L 3.48 ± 2.19 E 15 4/8/2015 DAVI Haloacetic Acids EPA552 µg/L 17 E 60 4/3/2015 BSK Gron EPA200.7 µg/L 113 10 300 4/2/2015 MW Gron, Dissolved EPA200.7 µg/L Not Detected 10 300 4/2/2015 MW Gron, Dissolved EPA200.8 µg/L 6 1 4/3/2015 TC Lithium EPA200.8 µg/L 6 1 4/3/2015 SM Magnesium EPA200.7 mg/L 14 0.5 4/2/2015 MW Manganese, Dissolved EPA200.7 µg/L Not Detected 10 50 4/2/2015 MW Manganese, Total EPA200.7 µg/L Not Detected 10 50 4/2/2015 MW Manganese, Total EPA200.8 µg/L Not Detected 10 50 4/2/2015 MW Mercury, Total EPA200.8 µg/L Not Detected 10 50 4/2/2015 MW Mercury, Total EPA200.8 µg/L Not Detected 10 50 4/2/2015 MW Mercury, Total EPA200.8 µg/L Not Detected 0.5 2 4/3/2015 SM Methane EPA174/175 µg/L 0.47 E 0.1 4/3/2015 SM Molybdenum, Total EPA200.8 µg/L Not Detected 10 100 4/3/2015 SM Molybdenum, Total EPA200.8 µg/L Not Detected 10 100 4/3/2015 SM Mitrate as NO3 EPA300.0 mg/L Not Detected 10 100 4/3/2015 SM Nitrate as NO3 EPA300.0 mg/L Not Detected 10 100 3/27/2015 HM Nitrate as NO3-N EPA300.0 mg/L Not Detected 1 10 3/27/2015 HM Nitrate +Nitrite as N EPA300.0 mg/L Not Detected 0.1 10 3/27/2015 HM	Chloride	EPA300.0	mg/L	30	1	250	3/27/2015	НМ
Gross Alpha EPA900.0 pCi/L 3.48 ± 2.19 E 15 4/8/2015 DAVI Haloacetic Acids EPA552 μg/L 17 E 60 4/3/2015 BSK Iron EPA200.7 μg/L 113 10 300 4/2/2015 MW Iron, Dissolved EPA200.7 μg/L Not Detected 10 300 4/2/2015 MW Kjehldahl Nitrogen SM4500-NH3 B,C. mg/L Not Detected 0.5 4/9/2015 TC Lithium EPA200.8 μg/L 6 1 4/3/2015 SM Magnesium EPA200.7 μg/L Not Detected 10 50 4/2/2015 MW Manganese, Dissolved EPA200.7 μg/L Not Detected 10 50 4/2/2015 MW Mercury, Total EPA200.8 μg/L Not Detected 0.5 2 4/3/2015 SM Methane EPA174/175 μg/L 0.47 E 0.1 4/3/2015 <t< td=""><td>DOC</td><td></td><td>mg/L</td><td>1.3</td><td>0.2</td><td></td><td>4/23/2015</td><td>MW</td></t<>	DOC		mg/L	1.3	0.2		4/23/2015	MW
Haloacetic Acids EPA552 μg/L 17 E 60 4/3/2015 BSK Iron EPA200.7 μg/L 113 10 300 4/2/2015 MW Iron, Dissolved EPA200.7 μg/L Not Detected 10 300 4/2/2015 MW Iron, Dissolved EPA200.7 μg/L Not Detected 0.5 4/9/2015 TC Lithium EPA200.8 μg/L 6 1 4/3/2015 SM Magnesium EPA200.7 mg/L Not Detected 10 0.5 4/2/2015 MW Manganese, Dissolved EPA200.7 mg/L Not Detected 10 50 4/2/2015 MW Manganese, Total EPA200.7 μg/L Not Detected 10 50 4/2/2015 MW Manganese, Total EPA200.7 μg/L Not Detected 10 50 4/2/2015 MW Mercury, Total EPA200.8 μg/L Not Detected 10 50 4/2/2015 MW Mercury, Total EPA200.8 μg/L Not Detected 0.5 2 4/3/2015 SM MCCAM Molybdenum, Total EPA200.8 μg/L 0.47 E 0.1 4/3/2015 SM MCCAM Molybdenum, Total EPA200.8 μg/L 3 1 1000 4/3/2015 SM NICAM Molybdenum, Total EPA200.8 μg/L Not Detected 10 10 4/3/2015 SM NICAM Molybdenum, Total EPA200.8 μg/L Not Detected 10 10 4/3/2015 SM NICAM Molybdenum, Total EPA200.8 μg/L Not Detected 10 10 4/3/2015 SM NICAM Molybdenum, Total EPA200.8 μg/L Not Detected 10 100 4/3/2015 SM NICAM Molybdenum, Total EPA300.0 mg/L Not Detected 1 1 45 3/27/2015 HM Nitrate as NO3 EPA300.0 mg/L Not Detected 0.1 10 3/27/2015 HM Nitrate as NO3-N EPA300.0 mg/L Not Detected 0.1 10 3/27/2015 HM	Fluoride	EPA300.0	mg/L	Not Detected	0.1	2.0	3/27/2015	HM
Tron	Gross Alpha	EPA900.0	pCi/L	3.48 ± 2.19 E		15	4/8/2015	DAVI
FPA200.7 μg/L Not Detected 10 300 4/2/2015 MW	Haloacetic Acids	EPA552	μg/L	17 E		60	4/3/2015	BSK
Kjehldahl Nitrogen SM4500-NH3 B,C. mg/L Not Detected 0.5 4/9/2015 TC Lithium EPA200.8 μg/L 6 1 4/3/2015 SM Magnesium EPA200.7 mg/L 14 0.5 4/2/2015 MW Manganese, Dissolved EPA200.7 μg/L Not Detected 10 50 4/2/2015 MW Manganese, Total EPA200.7 μg/L Not Detected 10 50 4/2/2015 MW Mercury, Total EPA200.8 μg/L Not Detected 0.5 2 4/3/2015 SM Methane EPA174/175 μg/L 0.47 E 0.1 4/3/2015 SM Molybdenum, Total EPA200.8 μg/L 3 1 1000 4/3/2015 SM Nickel, Total EPA200.8 μg/L Not Detected 10 100 4/3/2015 SM Nitrate as NO3-N EPA300.0 mg/L Not Detected 0.1 10 3/27/2015	Iron	EPA200.7	μg/L	113	10	300	4/2/2015	MW
Lithium EPA200.8 μg/L 6 1 4/3/2015 SM Magnesium EPA200.7 mg/L 14 0.5 4/2/2015 MW Manganese, Dissolved EPA200.7 μg/L Not Detected 10 50 4/2/2015 MW Manganese, Total EPA200.7 μg/L Not Detected 10 50 4/2/2015 MW Mercury, Total EPA200.8 μg/L Not Detected 0.5 2 4/3/2015 SM Methane EPA174/175 μg/L 0.47 E 0.1 4/3/2015 SM Molybdenum, Total EPA200.8 μg/L 3 1 1000 4/3/2015 SM Nickel, Total EPA200.8 μg/L Not Detected 10 100 4/3/2015 SM Nitrate as NO3 EPA300.0 mg/L Not Detected 1 45 3/27/2015 HM Nitrate+Nitrite as N EPA300.0 mg/L Not Detected 0.1 1 3/27/2015	Iron, Dissolved	EPA200.7	μg/L	Not Detected	10	300	4/2/2015	MW
Magnesium EPA200.7 mg/L 14 0.5 4/2/2015 MW Manganese, Dissolved EPA200.7 μg/L Not Detected 10 50 4/2/2015 MW Manganese, Total EPA200.7 μg/L Not Detected 10 50 4/2/2015 MW Mercury, Total EPA200.8 μg/L Not Detected 0.5 2 4/3/2015 SM Methane EPA174/175 μg/L 0.47 E 0.1 4/3/2015 MCCAM Molybdenum, Total EPA200.8 μg/L 3 1 1000 4/3/2015 SM Nickel, Total EPA200.8 μg/L Not Detected 10 100 4/3/2015 SM Nitrate as NO3 EPA300.0 mg/L Not Detected 1 45 3/27/2015 HM Nitrate+Nitrite as N EPA300.0 mg/L Not Detected 0.1 10 3/27/2015 HM	Kjehldahl Nitrogen	SM4500-NH3 B,C.	mg/L	Not Detected	0.5		4/9/2015	TC
Manganese, Dissolved EPA200.7 μg/L Not Detected 10 50 4/2/2015 MW Manganese, Total EPA200.7 μg/L Not Detected 10 50 4/2/2015 MW Mercury, Total EPA200.8 μg/L Not Detected 0.5 2 4/3/2015 SM Methane EPA174/175 μg/L 0.47 E 0.1 4/3/2015 MCCAM Molybdenum, Total EPA200.8 μg/L 3 1 1000 4/3/2015 SM Nickel, Total EPA200.8 μg/L Not Detected 10 100 4/3/2015 SM Nitrate as NO3 EPA300.0 mg/L Not Detected 1 45 3/27/2015 HM Nitrate+Nitrite as N EPA300.0 mg/L Not Detected 0.1 10 3/27/2015 HM	Lithium	EPA200.8	μg/L	6	1		4/3/2015	SM
Manganese, Total EPA200.7 μg/L Not Detected 10 50 4/2/2015 MW Mercury, Total EPA200.8 μg/L Not Detected 0.5 2 4/3/2015 SM Methane EPA174/175 μg/L 0.47 E 0.1 4/3/2015 MCCAM Molybdenum, Total EPA200.8 μg/L 3 1 1000 4/3/2015 SM Nickel, Total EPA200.8 μg/L Not Detected 10 100 4/3/2015 SM Nitrate as NO3 EPA300.0 mg/L Not Detected 1 45 3/27/2015 HM Nitrate as NO3-N EPA300.0 mg/L Not Detected 0.1 10 3/27/2015 HM Nitrate+Nitrite as N EPA300.0 mg/L 0.4 0.1 3/27/2015 HM	Magnesium	EPA200.7	mg/L	14	0.5		4/2/2015	MW
Mercury, Total EPA200.8 μg/L Not Detected 0.5 2 4/3/2015 SM Methane EPA174/175 μg/L 0.47 E 0.1 4/3/2015 MCCAM Molybdenum, Total EPA200.8 μg/L 3 1 1000 4/3/2015 SM Nickel, Total EPA200.8 μg/L Not Detected 10 100 4/3/2015 SM Nitrate as NO3 EPA300.0 mg/L Not Detected 1 45 3/27/2015 HM Nitrate as NO3-N EPA300.0 mg/L Not Detected 0.1 10 3/27/2015 HM Nitrate+Nitrite as N EPA300.0 mg/L 0.4 0.1 3/27/2015 HM	Manganese, Dissolved	EPA200.7	μg/L	Not Detected	10	50	4/2/2015	MW
Methane EPA174/175 μg/L 0.47 E 0.1 4/3/2015 MCCAM Molybdenum, Total EPA200.8 μg/L 3 1 1000 4/3/2015 SM Nickel, Total EPA200.8 μg/L Not Detected 10 100 4/3/2015 SM Nitrate as NO3 EPA300.0 mg/L Not Detected 1 45 3/27/2015 HM Nitrate as NO3-N EPA300.0 mg/L Not Detected 0.1 10 3/27/2015 HM Nitrate+Nitrite as N EPA300.0 mg/L 0.4 0.1 3/27/2015 HM	Manganese, Total	EPA200.7	μg/L	Not Detected	10	50	4/2/2015	MW
Molybdenum, Total EPA200.8 μg/L 3 1 1000 4/3/2015 SM Nickel, Total EPA200.8 μg/L Not Detected 10 100 4/3/2015 SM Nitrate as NO3 EPA300.0 mg/L Not Detected 1 45 3/27/2015 HM Nitrate as NO3-N EPA300.0 mg/L Not Detected 0.1 10 3/27/2015 HM Nitrate +Nitrite as N EPA300.0 mg/L 0.4 0.1 3/27/2015 HM	Mercury, Total	EPA200.8	μg/L	Not Detected	0.5	2	4/3/2015	SM
Nickel, Total EPA200.8 μg/L Not Detected 10 100 4/3/2015 SM Nitrate as NO3 EPA300.0 mg/L Not Detected 1 45 3/27/2015 HM Nitrate as NO3-N EPA300.0 mg/L Not Detected 0.1 10 3/27/2015 HM Nitrate+Nitrite as N EPA300.0 mg/L 0.4 0.1 3/27/2015 HM	Methane	EPA174/175	μg/L	0.47 E	0.1	_	4/3/2015	MCCAM
Nitrate as NO3 EPA300.0 mg/L Not Detected 1 45 3/27/2015 HM Nitrate as NO3-N EPA300.0 mg/L Not Detected 0.1 10 3/27/2015 HM Nitrate+Nitrite as N EPA300.0 mg/L 0.4 0.1 3/27/2015 HM	Molybdenum, Total	EPA200.8	μg/L	3	1	1000	4/3/2015	SM
Nitrate as NO3-N EPA300.0 mg/L Not Detected 0.1 10 3/27/2015 HM Nitrate+Nitrite as N EPA300.0 mg/L 0.4 0.1 3/27/2015 HM	Nickel, Total	EPA200.8	μg/L	Not Detected	10	100	4/3/2015	SM
Nitrate+Nitrite as N EPA300.0 mg/L 0.4 0.1 3/27/2015 HM	Nitrate as NO3	EPA300.0	mg/L	Not Detected	1	45	3/27/2015	НМ
<u> </u>	Nitrate as NO3-N	EPA300.0	mg/L	Not Detected	0.1	10	3/27/2015	НМ
Nitrite as NO2-N EPA300.0 mg/L 0.3 0.1 1.0 3/27/2015 HM	Nitrate+Nitrite as N	EPA300.0	mg/L	0.4	0.1		3/27/2015	НМ
	Nitrite as NO2-N	EPA300.0	mg/L	0.3	0.1	1.0	3/27/2015	НМ

mg/L: Milligrams per liter (=ppm)

ug/L : Micrograms per liter (=ppb)

PQL: Practical Quantitation Limit

H = Analyzed ouside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

D = Method deviates from standard method due to insufficient sample for MS/MSD

T = Temperature Exceedance



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ELAP Certification Number: 2385

Monday, April 27, 2015

Lab Number: AB28550

Collection Date/Time: 3/27/2015 9:00 Sample Collector: LEAR J

Submittal Date/Time: 3/27/2015 Sample ID 8:48 Coliform Designation:

		Sample	Description: ASR2				
Analyte	Method	Unit	Result Qual	PQL	MCL	Date Analyzed	Analyst:
o-Phosphate-P	EPA300.0	mg/L	0.3	0.1		3/27/2015	НМ
pH (Laboratory)	SM4500-H+B	pH (H)	7.5	0.1		3/27/2015	НМ
Phosphorus, Total	HACH 8190	mg/L	0.37	0.03		4/2/2015	SM
Potassium	EPA200.7	mg/L	2.9	0.5		4/2/2015	MW
QC Anion Sum x 100	Calculation	%	92%			4/9/2015	LRH
QC Anion-Cation Balance	Calculation	%	1			4/9/2015	LRH
QC Cation Sum x 100	Calculation	%	93%			4/3/2015	MW
QC Ratio TDS/SEC	Calculation		0.60			4/1/2015	НМ
Selenium, Total	EPA200.8	μg/L	5	2	50	4/3/2015	SM
Silica as SiO2, Total	EPA200.7	mg/L	25	0.5		4/2/2015	MW
Sodium	EPA200.7	mg/L	44	0.5		4/2/2015	MW
Specific Conductance (E.C)	SM2510B	µmhos/cm	566	1	900	3/27/2015	НМ
Strontium, Total	EPA200.8	μg/L	213	5		4/3/2015	SM
Sulfate	EPA300.0	mg/L	82	1	250	3/27/2015	НМ
TOC	SM5310C	mg/L	1.1	0.2		4/23/2015	MW
Total Diss. Solids	SM2540C	mg/L	337	10	500	3/30/2015	НМ
Total Nitrogen	Calculation	mg/L	Not Detected	0.5		4/9/2015	TC
Total Radium 226	EPA903.0	pCi/L	0.61 ± 0.45 E		3	4/8/2015	DAVI
Trihalomethanes	EPA524.2	μg/L	84 E		80	4/3/2015	BSK
Uranium by ICP/MS	EPA200.8	μg/L	Not Detected	1	30	4/3/2015	SM
Vanadium, Total	EPA200.8	μg/L	Not Detected	5	1000	4/3/2015	SM
Zinc, Total	EPA200.8	μg/L	208	20	5000	4/3/2015	SM

Sample Comments:

Report Approved by:

David Holland, Laboratory Director

mg/L: Milligrams per liter (=ppm)

ug/L: Micrograms per liter (=ppb)

PQL: Practical Quantitation Limit

H = Analyzed ouside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

D = Method deviates from standard method due to insufficient sample for MS/MSD

T = Temperature Exceedance



831.375.MBAS www.MBASinc.com **ELAP Certification Number: 2385**

Monday, April 27, 2015

Lab Number: AB28551

Collection Date/Time: 3/27/2015 9:20 Sample Collector:

Submittal Date/Time: 3/27/2015 Sample ID Coliform Designation: 8:48

			=		-			
		Samp	ole Description	: MW1				
Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
Haloacetic Acids	EPA552	μg/L	Not Detected	E		60	4/3/2015	BSK
Mercury, Total	EPA200.8	μg/L	Not Detected		0.5	2	4/3/2015	SM
Trihalomethanes	EPA524.2	μg/L	14	E		80	4/3/2015	BSK

LEAR J

Sample Comments:

Report Approved by:

David Holland, Laboratory Director



DAVI LABORATORIES, ENVIRONMENTAL ASSOCIATES 730 Alfred Nobel Dr. Hercules, CA 94547

ANALYTICAL RESULTS REPORT

Company: Address:

Monterey Bay Analytical Services

4 Justin Court-Suite D Monterey, CA 93940

Project Manager: Report Date: David Holland April 9, 2015

Subcontract Order #:

AB28550

T	۸	R	1	F	T

Collection Date/Time	Matrix	EPA Method	Analyses	Results pCi/L	<u>+</u>	2 Sigma error	MDA
		900.0	Gross Alpha	3.48	<u>+</u>	2.19	1.03 0.90
	Date/Time Wate		Date/Time Method Water	Date/Time Method Water 3/25/15 (1030) 900.0 Gross Alpha	Date/Time Method pCi/L Water 3/25/15 (1030) 900.0 Gross Alpha 3.48	Date/Time Method pCi/L Water 3/25/15 (1030) 900.0 Gross Alpha 3.48 ±	Date/Time Method pCi/L error Water 3/25/15 (1030) 900.0 Gross Alpha 3.48 + 2.19

Analyses Date: 04/08/2015

TABLE II QA/QC

Analyses	Spike Added	Detected Activity	% Agreement
Gross Alpha	271.52 pCi/L	247.16 pCi/L	100.97
Radium 226	119.20 pCi/L	108.01 pCi/L	90.61

Patricia Davi Davi Laboratories QA/QC Manager



McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1504002

Report Created for: Monterey Bay Analytical

4 Justin Court, Suite D Monterey, CA 93940

Project Contact: David Holland

Project P.O.:

Project Name: MPWMD

Project Received: 04/01/2015

Analytical Report reviewed & approved for release on 04/07/2015 by:

Question about your data?

Click here to email
McCampbell

Angela Rydelius,

Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.



1534 Willow Pass Rd. Pittsburg, CA 94565 ♦ TEL: (877) 252-9262 ♦ FAX: (925) 252-9269 ♦ www.mccampbell.com NELAP: 4033ORELAP ♦ ELAP: 1644 ♦ ISO/IEC: 17025:2005 ♦ WSDE: C972-11 ♦ ADEC: UST-098 ♦ UCMR3

Glossary of Terms & Qualifier Definitions

Client: Monterey Bay Analytical

Project: MPWMD **WorkOrder:** 1504002

Glossary Abbreviation

95% Interval 95% Confident Interval

DF Dilution Factor

DI WET (DISTLC) Waste Extraction Test using DI water

DISS Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)

DUP Duplicate

EDL Estimated Detection Limit

ITEF International Toxicity Equivalence Factor

LCS Laboratory Control Sample

MB Method Blank

MB % Rec % Recovery of Surrogate in Method Blank, if applicable

MDL Method Detection Limit

ML Minimum Level of Quantitation

MS Matrix Spike

MSD Matrix Spike Duplicate

N/A Not Applicable

ND Not detected at or above the indicated MDL or RL

NR Data Not Reported due to matrix interference or insufficient sample amount.

PF Prep Factor

RD Relative Difference

RL Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)

RPD Relative Percent Deviation
RRT Relative Retention Time

SPK Val Spike Value

SPKRef Val Spike Reference Value

SPLP Synthetic Precipitation Leachate Procedure
TCLP Toxicity Characteristic Leachate Procedure

TEQ Toxicity Equivalents

WET (STLC) Waste Extraction Test (Soluble Threshold Limit Concentration)

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com

Analytical Report

Client: Monterey Bay Analytical WorkOrder: 1504002 **Project: MPWMD Extraction Method:** RSK175 **Date Received:** 4/1/15 9:46 **Analytical Method:** RSK175 Unit: **Date Prepared:** 4/3/15

Light Gases

		8			
Client ID	Lab ID	Matrix/ExtType	Date C	Collected Instrument	Batch ID
ASR2	1504002-001A	Water/DISS.	03/26/20	015 09:00 GC26	103212
<u>Analytes</u>	Result		<u>RL</u>	<u>DF</u>	Date Analyzed
Methane	0.47		0.10	1	04/03/2015 16:45

Analyst(s): KBO

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com

Quality Control Report

Client: Monterey Bay Analytical WorkOrder: 1504002 **Date Prepared:** 4/3/15 **BatchID:** 103212 **Date Analyzed:** 4/3/15 **Extraction Method:** RSK175 **Analytical Method:** RSK175 **Instrument:** GC26 **Matrix:** Air Unit: $\mu L/L$

Project: MPWMD **Sample ID:** MB/LCS-103212

QC Summary Report for RSK175									
Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits		
Methane	ND	12.6	0.50	10	-	126	70-130		

McCampbell Analytical, Inc.

1534 Willow Pass Rd Pittsburg, CA 94565-1701 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

Page 1 of

WorkOrder: 1504002 ClientCode: MBAS

,																
		WaterTrax	WriteOn	EDF	E:	xcel		EQuIS	√ E	Email	HardCo	ру	ThirdPa	rty	☐ J-flag	
Report to:						Bi	ll to:					Requ	ested TAT:		5 da	ys
David Holland Monterey Bay Analytic 4 Justin Court, Suite I Monterey, CA 93940 831-375-6227 FA	D	Email: n cc/3rd Party: PO: ProjectNo: M	_	asinc.com; Dholla	nd@mb		4 Justir	ey Bay n Court	vable v Analytic t, Suite D v 93940				Received: Printed:		04/01/20 04/01/20	
									Req	uested Test	ts (See lege	end b	elow)			
Lab ID	Client ID		Matrix	Collection Date	Hold	1	2	3	4	5 6	7	8	9	10	11	12
1504002-001	ASR2		Water	3/26/2015 9:00		Α										

Test Legend:

1 RSK175_W	2	3	4	5
6	7	8	9	10
11	12			

Prepared by: Maria Venegas

Comments: Needs analysts initials for all reports per D.H. 4/5/13

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).

Hazardous samples will be returned to client or disposed of at client expense.



OP AN MONTEDEN DAY AND INTEGRAL

McCampbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com

WORK ORDER SUMMARY

OCT LIEVELA

Chent Name:	: MONTEREY I	BAY ANALYTICA	L		QC Level:	LEVEL 2	2			work	Oraer:	1504002	
Project:	MPWMD				Client Contact:	David Ho	olland			Date Re	eceived:	4/1/2015	
Comments:	Needs analysts in	nitials for all reports po	er D.H. 4/5/13		Contact's Email:	mweidne	r@mbasinc.com;	Dholland@n	nbasinc.com				
		WaterTrax	WriteOn	EDF	Excel	Fax	 Email	HardCo	ppyThirdParty	/J-	flag		
Lab ID	Client ID	Matrix	Test Name		Containe /Composi		e & Preservative	De- chlorinated	Collection Date & Time	TAT	Sediment Content	Hold Sub	Out
1504002-001A	ASR2	Water	RSK175 <me< th=""><th>thane_4></th><th>3</th><th>,</th><th>VOA w/ HCl</th><th></th><th>3/26/2015 9:00</th><th>5 days</th><th>None</th><th></th><th></th></me<>	thane_4>	3	,	VOA w/ HCl		3/26/2015 9:00	5 days	None		

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

TT 1 0 1 1504000

504002

McCAMPBELL ANALYTICAL, INC. CHAIN OF CUSTODY RECORD 1534 WILLOW PASS ROAD TURN AROUND TIME PITTSBURG, CA 94565-1701 RUSH 24 HR Website: www.mccampbell.com Email: main@mccampbell.com 48 HR 72 HR □ PDF □ Excel ☐ GeoTracker EDF Telephone: (877) 252-9262 ☐ Write On (DW) Fax: (925) 252-9269 Report To: David Holland Bill To: **Analysis Request** Other Comments Company: Monterey Bay Analytical Services EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners Total Petroleum Oil & Grease (1664 / 5520 E/B&F) 8015) 4 Justin Ct. Suite D Filter Samples Monterey, Ca 93940 E-Mail: mweidner@mbasinc.com Gas (602 / 8021 + CAM 17 Metals (200.7 / 200.8 / 6010 / 6020) LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020) for Metals Tele: (831) 375 - 6227 Fax: (831) 641-0734 MTBE / BTEX ONLY (EPA 602 / 8021) Total Petroleum Hydrocarbons (418.1) EPA 502.2 / 601 / 8010 / 8021 (HVOCs) EPA 515 / 8151 (Acidic Cl Herbicides) analysis: EPA 8270 SIM / 8310 (PAHs / PNAs) Project #: Project Name: EPA 505/ 608 / 8081 (CI Pesticides) Yes / No TPH as Diesel / Motor Oil (8015) Project Location: MPWMD Lead (200.7 / 200.8 / 6010 / 6020) EPA 525.2 / 625 / 8270 (SVOCs) EPA 507 / 8141 (NP Pesticides) EPA 524.2 / 624 / 8260 (VOCs) Sampler Signature: Jonathan Lear MTBE / BTEX & TPH as METHOD SAMPLING MATRIX Type Containers PRESERVED Containers LOCATION/ SAMPLE ID Field Point Sludge Water Methane Name Date Time Other HNO₃ Other HCL ICE Soil 3/26/15 ASR2 0900 G X XX X AB28550 REC'D SEALED & INTACT VIA Relinquished By: Received By: ICE/t° Date: Time: COMMENTS: David Holland/ 3/31/15 1600 GOOD CONDITION HEAD SPACE ABSENT Received By; Relinquished By: Date: Time: DECHLORINATED IN LAB 0920 APPROPRIATE CONTAINERS PRESERVED IN LAB Relinquished By: Received By: Date: Time:

PRESERVATION

VOAS O&G METALS OTHER

pH<2

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Sample Receipt Checklist

Client Name.	Monterey Bay Anai	iyticai			Date and 1	ine Received.	4/1/2015 9:46:41 AW	
Project Name:	MPWMD				LogIn Revi	ewed by:	Maria Venegas	
WorkOrder №:	1504002	Matrix: Water			Carrier:	<u>OnTrac</u>		
		Chain of C	ustod	y (COC) I	nformation			
Chain of custody	present?		Yes	✓	No 🗆			
Chain of custody	signed when relinqui	ished and received?	Yes	✓	No 🗌			
Chain of custody	agrees with sample	labels?	Yes	✓	No 🗌			
Sample IDs noted	d by Client on COC?		Yes	•	No 🗌			
Date and Time of	f collection noted by	Client on COC?	Yes	✓	No 🗌			
Sampler's name	noted on COC?		Yes	✓	No 🗌			
		Samp	le Rece	eipt Infor	<u>mation</u>			
Custody seals int	tact on shipping conta	ainer/cooler?	Yes		No 🗌		NA 🗹	
Shipping containe	er/cooler in good con	dition?	Yes	✓	No 🗌			
Samples in prope	er containers/bottles?		Yes	✓	No 🗌			
Sample containe	rs intact?		Yes	✓	No 🗆			
Sufficient sample	e volume for indicated	d test?	Yes	•	No 🗌			
		Sample Preservati	on and	l Hold Tir	ne (HT) Info	<u>rmation</u>		
All samples recei	ived within holding tin	me?	Yes	✓	No 🗌			
Sample/Temp Bla	ank temperature			Temp:	4.1°C		NA 🗌	
Water - VOA vial	s have zero headspa	ice / no bubbles?	Yes	✓	No 🗌		NA \square	
Sample labels ch	necked for correct pre	eservation?	Yes	✓	No 🗌			
pH acceptable up	pon receipt (Metal: <2	2; 522: <4; 218.7: >8)?	Yes	✓	No 🗌		NA \square	
Samples Receive	ed on Ice?		Yes	✓	No 🗌			
		(Ice Typ	e: WE	ET/BLU)			
UCMR3 Samples Total Chlorine t	_	e upon receipt for EPA 522?	Yes		No 🗌		NA 🗸	
	tested and acceptable	e upon receipt for EPA 218.7,			No 🗆		NA 🗹	
* NOTE: If the "N	lo" box is checked, s	ee comments below.						
Comments:							=======	



BSK Associates Fresno 1414 Stanislaus St Fresno, CA93706 559-497-2888 (Main) 559-485-6935 (FAX)

A5D0055 4/13/2015

Invoice: A507403

David Holland Monterey Bay Analytical 4 Justin Court Suite D Monterey, CA 93940

RE: Report for A5D0055 MPWMD

Dear David Holland,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 4/1/2015. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2009 TNI Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an fias receivedfl basis.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

Kijuana Hartshorn, Project Coordinator

If additional clarification of any information is required, please contact your Project Manager, John Montierth, at (800) 877-8310 or (559) 497-2888 x201.



Accredited in Accordance with NELAP ORELAP #4021

QA-RP-0001-10 Final.rpt



Case Narrative

Project and Report Details Invoice Details

Client: Monterey Bay Analytical Invoice To: Monterey Bay Analytical

Report To: David Holland Invoice Attn: David Holland

Project #: - Project PO#: -

Received: 4/01/2015 - 08:30 **Report Due:** 4/15/2015

Sample Receipt Conditions

Cooler: Default Cooler Containers Intact

Temperature on Receipt °C: 2.1

COC/Labels Agree

Received On Wet Ice

Packing Material - Bubble Wrap

Sample(s) were received in temperature range.

Initial receipt at BSK-FAL

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

Report Distribution

 Recipient(s)
 Report Format
 CC:

 David Holland
 FINAL.RPT

 Mason Weidner
 FINAL.RPT

^{***}None applied***





Certificate of Analysis

Sample ID: A5D0055-01

Sample Date - Time: 03/26/15 - 09:00 Matrix: Ground Water

Sampled By: Jonathan Lear

Sample Type: Grab

Sample Description: ASR2 // AB28550

BSK Associates Fresno Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS					Marc		<u> </u>		
Bromodichloromethane	EPA 524.2	26	0.50	ug/L	1	A503664	04/03/15	04/03/15	
Bromoform	EPA 524.2	1.3	0.50	ug/L	1	A503664	04/03/15	04/03/15	
Chloroform	EPA 524.2	44	0.50	ug/L	1	A503664	04/03/15	04/03/15	
Dibromochloromethane	EPA 524.2	13	0.50	ug/L	1	A503664	04/03/15	04/03/15	
Surrogate: Bromofluorobenzene	EPA 524.2	98 %	Acceptable	range: 70	0-130 %				
Total Trihalomethanes, EPA 524.2		84	0.50	ug/L					
Haloacetic Acids by GC-ECD, G	GC-MS								
Dibromoacetic Acid (DBAA)	EPA 552.3	1.0	1.0	ug/L	1	A503525	04/02/15	04/03/15	
Dichloroacetic Acid (DCAA)	EPA 552.3	2.7	1.0	ug/L	1	A503525	04/02/15	04/03/15	
Monobromoacetic Acid (MBAA)	EPA 552.3	ND	1.0	ug/L	1	A503525	04/02/15	04/03/15	
Monochloroacetic Acid (MCAA)	EPA 552.3	ND	2.0	ug/L	1	A503525	04/02/15	04/03/15	
Trichloroacetic Acid (TCAA)	EPA 552.3	13	1.0	ug/L	1	A503525	04/02/15	04/03/15	
Surrogate: 2-Bromobutanoic Acid	EPA 552.3	111 %	Acceptable	range: 70	0-130 %				
Total Haloacetic Acids, EPA 552.3		17	2.0	ug/L					

QA-RP-0001-10 Final.rpt





Certificate of Analysis

Sample ID: A5D0055-02 **Sampled By:** Jonathan Lear

Sample Description: MW1 // AB28551

Sample Date - Time: 03/26/15 - 09:20

Matrix: Ground Water

Sample Type: Grab

BSK Associates Fresno Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	4.9	0.50	ug/L	1	A503664	04/03/15	04/03/15	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A503664	04/03/15	04/03/15	
Chloroform	EPA 524.2	7.2	0.50	ug/L	1	A503664	04/03/15	04/03/15	
Dibromochloromethane	EPA 524.2	1.4	0.50	ug/L	1	A503664	04/03/15	04/03/15	
Surrogate: Bromofluorobenzene	EPA 524.2	97 %	Acceptable	range: 70	0-130 %				
Total Trihalomethanes, EPA 524.2		14	0.50	ug/L					
Haloacetic Acids by GC-ECD, G	GC-MS								
Dibromoacetic Acid (DBAA)	EPA 552.3	ND	1.0	ug/L	1	A503525	04/02/15	04/03/15	
Dichloroacetic Acid (DCAA)	EPA 552.3	ND	1.0	ug/L	1	A503525	04/02/15	04/03/15	
Monobromoacetic Acid (MBAA)	EPA 552.3	ND	1.0	ug/L	1	A503525	04/02/15	04/03/15	
Monochloroacetic Acid (MCAA)	EPA 552.3	ND	2.0	ug/L	1	A503525	04/02/15	04/03/15	
Trichloroacetic Acid (TCAA)	EPA 552.3	ND	1.0	ug/L	1	A503525	04/02/15	04/03/15	
Surrogate: 2-Bromobutanoic Acid	EPA 552.3	112 %	Acceptable	range: 70	0-130 %				
Total Haloacetic Acids, EPA 552.3		ND	2.0	ug/L					





BSK Associates Fresno Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
		EPA 5	24.2 - Q	uality Co	ntrol						
Batch: A503664										Prepar	ed: 4/3/201
Prep Method: EPA 524.2										Α	nalyst: JG
Blank (A503664-BLK1)											
Bromodichloromethane	ND	0.50	ug/L							04/03/15	
Bromoform	ND	0.50	ug/L							04/03/15	
Chloroform	ND	0.50	ug/L							04/03/15	
Dibromochloromethane	ND	0.50	ug/L							04/03/15	
Surrogate: Bromofluorobenzene	53		J	50		106	70-130			04/03/15	
Blank Spike (A503664-BS1)											
Bromodichloromethane	10	0.50	ug/L	10		104	70-130			04/03/15	
Bromoform	9.3	0.50	ug/L	10		93	70-130			04/03/15	
Chloroform	10	0.50	ug/L	10		101	70-130			04/03/15	
Dibromochloromethane	10	0.50	ug/L	10		104	70-130			04/03/15	
Surrogate: Bromofluorobenzene	51		3	50		102	70-130			04/03/15	
Blank Spike Dup (A503664-BSD1)											
Bromodichloromethane	10	0.50	ug/L	10		105	70-130	1	30	04/03/15	
Bromoform	9.1	0.50	ug/L	10		91	70-130	3	30	04/03/15	
Chloroform	10	0.50	ug/L	10		104	70-130	3	30	04/03/15	
Dibromochloromethane	10	0.50	ug/L	10		105	70-130	1	30	04/03/15	
Surrogate: Bromofluorobenzene	53		3	50		106	70-130			04/03/15	
Prep Method: EPA 552.3											nalyst: KH
Blank (A503525-BLK1) Dibromoacetic Acid (DBAA)	ND	1.0	ua/l							04/03/15	
Dichloroacetic Acid (DBAA)	ND	1.0	ug/L ug/L							04/03/15	
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L ug/L							04/03/15	
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L							04/03/15	
Trichloroacetic Acid (TCAA)	ND	1.0	ug/L							04/03/15	
Surrogate: 2-Bromobutanoic Acid	27	1.0	ug/L	25		110	70-130			04/03/15	
Blank Spike (A503525-BS1)											
Dibromoacetic Acid (DBAA)	12	1.0	ug/L	10		124	70-130			04/03/15	
• • •	12 11	1.0 1.0	ug/L ug/L	10 10		124 110	70-130 70-130			04/03/15 04/03/15	
Dichloroacetic Acid (DCAA)			ug/L ug/L ug/L								
Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10		110	70-130			04/03/15	
Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA) Monochloroacetic Acid (MCAA)	11 11	1.0 1.0	ug/L ug/L	10 10		110 111	70-130 70-130			04/03/15 04/03/15	
Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA) Monochloroacetic Acid (MCAA) Trichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid	11 11 20	1.0 1.0 2.0	ug/L ug/L ug/L	10 10 20		110 111 99	70-130 70-130 70-130			04/03/15 04/03/15 04/03/15	
Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA) Monochloroacetic Acid (MCAA) Trichloroacetic Acid (TCAA)	11 11 20 12	1.0 1.0 2.0	ug/L ug/L ug/L	10 10 20 10		110 111 99 116	70-130 70-130 70-130 70-130			04/03/15 04/03/15 04/03/15 04/03/15	
Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA) Monochloroacetic Acid (MCAA) Trichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike Dup (A503525-BSD1)	11 11 20 12	1.0 1.0 2.0	ug/L ug/L ug/L	10 10 20 10		110 111 99 116	70-130 70-130 70-130 70-130	3	30	04/03/15 04/03/15 04/03/15 04/03/15	
Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA) Monochloroacetic Acid (MCAA) Trichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike Dup (A503525-BSD1) Dibromoacetic Acid (DBAA)	11 11 20 12 27	1.0 1.0 2.0 1.0	ug/L ug/L ug/L ug/L	10 10 20 10 25		110 111 99 116 110	70-130 70-130 70-130 70-130 70-130	3 2	30 30	04/03/15 04/03/15 04/03/15 04/03/15 04/03/15	
Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike Dup (A503525-BSD1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA)	11 11 20 12 27	1.0 1.0 2.0 1.0	ug/L ug/L ug/L ug/L ug/L	10 10 20 10 25		110 111 99 116 110	70-130 70-130 70-130 70-130 70-130			04/03/15 04/03/15 04/03/15 04/03/15 04/03/15	
Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA) Monochloroacetic Acid (MCAA) Trichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid	11 11 20 12 27	1.0 1.0 2.0 1.0	ug/L ug/L ug/L ug/L ug/L	10 10 20 10 25		110 111 99 116 110 127 107	70-130 70-130 70-130 70-130 70-130 70-130	2	30	04/03/15 04/03/15 04/03/15 04/03/15 04/03/15 04/03/15	
Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA) Monochloroacetic Acid (MCAA) Trichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike Dup (A503525-BSD1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA) Monochloroacetic Acid (MCAA) A5D0055 FINAL 04132015 1647	11 11 20 12 27 13 11	1.0 1.0 2.0 1.0 1.0 1.0	ug/L ug/L ug/L ug/L ug/L ug/L ug/L	10 10 20 10 25		110 111 99 116 110 127 107 111	70-130 70-130 70-130 70-130 70-130 70-130 70-130	2 0	30 30	04/03/15 04/03/15 04/03/15 04/03/15 04/03/15 04/03/15 04/03/15	
Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA) Monochloroacetic Acid (MCAA) Frichloroacetic Acid (TCAA) Surrogate: 2-Bromobutanoic Acid Blank Spike Dup (A503525-BSD1) Dibromoacetic Acid (DBAA) Dichloroacetic Acid (DCAA) Monobromoacetic Acid (MBAA) Monochloroacetic Acid (MCAA)	11 11 20 12 27 13 11	1.0 2.0 1.0 1.0 1.0 1.0 2.0	ug/L ug/L ug/L ug/L ug/L ug/L ug/L	10 10 20 10 25		110 111 99 116 110 127 107 111	70-130 70-130 70-130 70-130 70-130 70-130 70-130	2 0	30 30	04/03/15 04/03/15 04/03/15 04/03/15 04/03/15 04/03/15 04/03/15 04/03/15	ge 5 of 10







BSK Associates Fresno Organics Quality Control Report

Analyte	Result	RL Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
		EPA 552.3 - Q	uality Co	ntrol						
Batch: A503525									Prepare	ed: 4/2/2015
Prep Method: EPA 552.3									Ar	nalyst: KHH
Blank Spike Dup (A503525-BSD1)										
Trichloroacetic Acid (TCAA)	12	1.0 ug/L	10		117	70-130	1	30	04/03/15	
Surrogate: 2-Bromobutanoic Acid	28		25		113	70-130			04/03/15	



Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- · Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- · Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.
- The MCLs provided in this report (if applicable) represent the primary MCLs for that analyte.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
μg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
μg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs

NR: Non-Reportable MCL: Maximum Contaminant Limit

BSK is not accredited under the NELAC program for the following parameters:

"*NA**

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

Fresno

State of California - ELAP1180State of Hawaii4021State of NevadaCA000792015-1State of Oregon - NELAC4021EPA - UCMR3CA00079State of WashingtonC997-14

Sacramento

State of California - ELAP 2435

Vancouver

State of Oregon - NELAC WA100008 State of Washington C824-13







04012015

Monte6227

Turnaround: Standard

Due Date: 4/15/2015



Monterey Bay Analytical





Printed: 4/1/2 Page 8 of 10

Page 1 of 1

presidente esta esta esta esta esta esta esta es	Monte6227	A5D0055
	10	04/01/2015

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	1/ /		elinquished by: (Signature and Printed Name	D. Holland											MW1	ASR2		Matrix	Jonathan Lear	Sampler Name (Printed/Signature)*:	Trace (J-Flag)	Reporting Options:	MD	4 Justin Court, Suite D	Addrass*:	Montorov Boy A	٦	\$\$O	S S)
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GSO	133			\times													ion*	=Bottled Water			9						*Required Fields	www.bskassociates.com	14 14 Stanislaus St., Fresno, CA 93706 (559) 497-2888 · Fax (559) 497-2893	?
WAI K-LZ			Company	MBAS							The same of the sa							GW=Ground Wa					Project #:	Mo	David Holland	Report Atte		s.com	ax (559) 49	1
	7)((ny	AS P										!	3/26/15	3/26/15	Sample Description* Sampled* Matrix* Comments / Station Co	ter WW=Waste	Other:	Merced Co	SWRCB (Drinking Water)	Regulaton	ect #:	Monterey	olland	Report Attention*: Mason Weidner-Holland	9	ا ا	JA 93/06 17-2893	,
FEDEX	77	7.7	0	() D						/					0920	0900	pled* Time	Water STW=S	[king Water)	Regulatory Carbon Copies				olland	Temp:	70	ブ 	
Courier:	11/2	Tim	Date Time	3/31/15 16										L		GW A	Matrix*	torm Water D		Fresno Co Tulare Co										
	73 Cate:		Recei	8											AB28551	AB28550	Comment	W=Drinking W	Geotracker #:	System	EDT to Ca	[20	How would you like	State*: CA	PO#:	Invoice To*: David Holland		Rush (Surcha Date needed:	naround T Standard - 1	
		wment Received at Delivery	ed by: (Signature	ed by: (Signaturi						$\setminus \mid$							Comments / Station Code / WTRAX	ater SO=Solid	*	System Number*:	ilifornia SWRC	datory	like to receive your com			land		Rush (Surcharge may apply) Date needed:	Turnaround Time Request Standard - 10 business days	
	. Common y	Pelivany	ed by: (Signature and Printed Name)	Received by: (Signature and Printed Name)													de / WTRAX				EDT to California SWRCB (Drinking Water)	liance [How would you like to receive your completed results?	Zip*: 93940				pply)	est days	
	Ą			\										>	<	\times	7A/			!					E-mail*: ⁷	Phone*: 831-3				
	Amount:								1			$\frac{1}{1}$		>	4	X	TTF	110	·			*************************			nweidnei	Phone*: 831-375-6227	E Property of the second	Seese Andrew Language	A5D0055 Monte622	1
	<u> 1</u> 22											#													@mbasi				A5D0055 Monte6227	1
, ,	PIA#:		Company	Company				1	1	1			-												nc.com,	Fax: 831.				
נ	Init.		¥	Y																					E-mailr: mweidner@mbasinc.com, dholland@mbasin	Fax: 831-641-0734	1130000000011100013000 ppermyryp 00000119000110000000000000000000000000		10	01 01 DO15
	Casi	})asing		1	Page	9 of 1	0

A5D0055 Monte6227 04/01/2015

10

Sample Integrity BSK Bottles: Yes No Page of

1	Was temperature within range?		age / o	. NIA	Were co	rrect containe	ers and pres	ervatives	Yes	No NA
	Chemistry ≤ 6°C Micro < 1	0°C(\(\)(lo NA		for the tests				
lu Po	If samples were taken today, is that chilling has begun?	there evidence	Yes N	10 (NA)	(Volatile:	ere bubbles ir s Only)				No NA_
ပ္က	Did all bottles arrive unbroken	and intact? (Yes	No		ufficient amo			Yes	No
ပ္ပ	Did all bottle labels agree with		Yes	No		oles have a h			Yes	\bigcirc
	Was sodium thiosulfate added		s) Yes N	IO NA	Was PM	notified of di		?	Yes	No (NA
	until chlorine was no longer pre				7PM: 	2	By/Time:			$_{ o}$
-	250ml(A) 500ml(B) 1Liter(C) 4	iumi VOA(V)	Checks	Passed?		<u>`</u>	# 748 A 1840			
ŀ	Bacti Na ₂ S ₂ O ₃									1
	None (P) ^{White Cap}						 	78		
	Cr6 (P) Br. Green Label NH4OH(NH	The state of the s	pH > 8	YN						1
	Cr6 (P) Pink Label Hex Chrome		pH 9-9.5	YN		1	1			<i> </i>
a	Cr6 (P) Pink Label Hex Chrome	Buffer WW	pH 9.3-9.7	YN					111	\ \ \ \ \
ŧ	HNO ₃ (P) Red Cap		_	–					BY 1	MI_{I}
훘	H ₂ SO ₄ (P) or (AG)	Yellow Cap/Label	pH < 2	Y N				1/1/4	ין וע	11//
are performed in the lab	NaOH (P) Green Cap	The state of the s	Cl, pH >10	Y N				I/I I		/ /
erfc	NaOH + ZnAc (P)		pH > 9	Y N		1	V	UT		
e p	Dissolved Oxygen 300ml (g	1)	<u> </u>	_						
5	None (AG) 608/8081/8082, 625						N			
χŞ	8151, 8270						1 \			
je je	HCI (AG) ^{Lt. Blue Label} O&G, Die	esel		-	1 13 (3) (3) (3) (3)		\ \			
<u>5</u> = 8	Na ₂ O ₃ S+HCl (AG) ^{Lt. Pink Label}			-				\		
a G	Na ₂ S ₂ O ₃ 1 Liter (Brown P)			_		/			20 a 1 a 2 a 2 a 2 a 2 a 2 a 2 a 2 a 2 a 2	
S S	Na ₂ S ₂ O ₃ (AG) ^{Blue Label} 547,515	5,548,THM,524	-		LCI	<u> </u>		1		
Bottles Received ine checks are either N	Na ₂ S ₂ O ₃ (CG) Blue Label 504,	505								
bottles Received preservation/chlorine checks are either N/A	Na ₂ S ₂ O ₃ + MCAA (CG) ^{Orang}	e Label 531	pH < 3	YN				$\perp \perp \perp$		
/chlc	NH ₄ Cl (AG) ^{Purple Label} 552		_	_	10	<u></u>				
ıţi	EDA (AG) ^{Brown Label} DBPs			-						
erve	HCL (CG) 524.2,BTEX,Gas, M	TBE, 8260/624	_	_					1	
ies	Buffer pH 4 (CG)							1 sect	Λ	
d su		1100 A 2010 BAR (\$100 BAL)	_							
mear	H ₃ PO ₄ (CG) ^{Salmon Label}				100				1	
۔ ت	Other:		PROPERTY AND ASSO	<u>. * 3. 1.00.13.</u>						
اً	Asbestos 1Liter Plastic v	v/ Foil								
	Low Level Hg / Metals Dou	ble Baggie		_						
	Bottled Water									
	Clear Glass Jar: 250 / 5		_	_						
	Soil Tube Brass / Stee					<u>, 11 11 12 13 14 15 15 15 15 15 15 15</u>			<u> 18 Julyani in</u>	
	Tedlar Bag / Plastic B		— Date/Time/I	nitials		Container	Prese	ervative	Date/Tim	 ne/Initials
Split	Container Pro	coei valive			S P	Jonamo	1,1000	,	/	
Sp	SP				S P					
	У Г				<u> </u>					
Comments			<u> </u>							
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	eled by:			α.	1/	470				age 10 c



831.375.MBAS

www.MBASinc.com **ELAP Certification Number: 2385**

Page 1 of 1 Friday, May 22, 2015

Lab Number: AB30775

Collection Date/Time: 5/19/2015 11:05 Sample Collector: OLIVER J

Submittal Date/Time: 5/19/2015 11:40 Sample ID Coliform Designation:

	Samp	le Descr	iption: ASR1 Te	est - unf	iltered			
Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
Mercury, Total	EPA200.8	μg/L	1.2		0.5	2	5/21/2015	SM
Nickel, Total	EPA200.8	μg/L	Not Detected		10	100	5/21/2015	SM

Sample Comments:

Lab Number: AB30776

Sample Collector: OLIVER J Collection Date/Time: 5/19/2015 11:10

Sample ID Submittal Date/Time: 5/19/2015 11:40 Coliform Designation:

	Sam	ple Desc	ription: ASR1	Test - filt	tered			
Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
Mercury, Total	EPA200.8	μg/L	0.9		0.5	2	5/21/2015	SM
Nickel, Total	EPA200.8	μg/L	Not Detected		10	100	5/21/2015	SM

Sample Comments:

Report Approved by:

David Holland, Laboratory Director

Amended Report

MPWMD Joe Oliver P.O. Box 85 Monterey, CA 93442-0085



4 Justin Court Suite D, Monterey, CA 93940 831.375.MBAS www.MBASinc.com

ELAP Certification Number: 2385

Page 1 of 2 Wednesday, July 29, 2015

Lab Number: AB31955

Collection Date/Time: 6/17/2015 10:00 Sample Collector: LEAR J

Submittal Date/Time: 6/18/2015 9:17 Sample ID Coliform Designation:

Submittal Date/Time: 6/18/2015		Sample ID	orinties: AC	D4 Tasi		oliform Desig	gnation:	
	S	•	cription: AS	KI I EST				
Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:
Alkalinity, Total (as CaCO3)	SM2320B	mg/L	180		2		6/29/2015	LRH
Aluminum, Total	EPA200.8	μg/L	Not Detected		10	1000	6/25/2015	SM
Ammonia-N	SM4500NH3 D	mg/L	Not Detected		0.05		6/25/2015	TC
Arsenic, Total	EPA200.8	μg/L	1		1	10	6/25/2015	SM
Barium, Total	EPA200.8	μg/L	85		10	1000	6/25/2015	SM
Bicarbonate (as HCO3-)	SM2320B	mg/L	220		10		6/29/2015	LRH
Boron	EPA200.7	mg/L	0.06		0.05		6/19/2015	MW
Bromide	EPA300.0	mg/L	0.2		0.1		6/18/2015	MW
Calcium	EPA200.7	mg/L	64		0.5		6/19/2015	MW
Carbonate as CaCO3	SM2320B	mg/L	Not Detected		10		6/29/2015	LRH
Chloramines	SM4500-CI G	mg/L	Not Detected		0.05		6/18/2015	LJ
Chloride	EPA300.0	mg/L	77		1	250	6/18/2015	MW
DOC		mg/L	1.5		0.2		7/1/2015	MW
Fluoride	EPA300.0	mg/L	0.2		0.1	2.0	6/18/2015	MW
Gross Alpha	EPA900.0	pCi/L	3.46 ± 1.82	Е		15	6/30/2015	DAVI
Haloacetic Acids	EPA552	μg/L	Not Detected	E		60	6/26/2015	BSK
Iron	EPA200.7	μg/L	21		10	300	6/19/2015	MW
Iron, Dissolved	EPA200.7	μg/L	Not Detected		10	300	6/19/2015	MW
Kjehldahl Nitrogen	SM4500-NH3 B,	mg/L	Not Detected		0.5		7/1/2015	TC
Lithium	EPA200.8	μg/L	20		1		6/25/2015	SM
Magnesium	EPA200.7	mg/L	20		0.5		6/19/2015	MW
Manganese, Dissolved	EPA200.7	μg/L	Not Detected		10	50	6/19/2015	MW
Manganese, Total	EPA200.7	μg/L	Not Detected		10	50	6/19/2015	MW
Mercury, Total	EPA200.8	μg/L	1.6		0.5	2	6/25/2015	SM
Methane	EPA174/175	μg/L	2.1	E	0.1		6/26/2015	MCCAM
Molybdenum, Total	EPA200.8	μg/L	7		1	1000	6/25/2015	SM
Nickel, Total	EPA200.8	μg/L	Not Detected		10	100	6/25/2015	SM
Nitrate as NO3	EPA300.0	mg/L	1		1	45	6/18/2015	MW
Nitrate as NO3-N	EPA300.0	mg/L	0.1		0.1	10	6/18/2015	MW
Nitrate+Nitrite as N	EPA300.0	mg/L	0.4		0.1		6/18/2015	MW
Nitrite as NO2-N	EPA300.0	mg/L	0.3		0.1	1.0	6/18/2015	MW
o-Phosphate-P	EPA300.0	mg/L	0.2		0.1		6/18/2015	MW
pH (Laboratory)	SM4500-H+B	pH (H)	7.4		0.1		6/18/2015	НМ
Phosphorus, Total	HACH 8190	mg/L	0.30		0.03		7/1/2015	LRH
Potassium	EPA200.7	mg/L	3.7		0.5		6/19/2015	MW
QC Anion Sum x 100	Calculation	%	100%				6/29/2015	LRH
QC Anion-Cation Balance	Calculation	%	1				6/29/2015	LRH
QC Cation Sum x 100	Calculation	%	102%				6/19/2015	MW
QC Ratio TDS/SEC	Calculation		0.61				6/23/2015	НМ
Selenium, Total	EPA200.8	μg/L	2		2	50	6/25/2015	SM
Silica as SiO2, Total	EPA200.7	mg/L	30		0.5		6/19/2015	MW
Sodium	EPA200.7	mg/L	63		0.5		6/19/2015	MW
Specific Conductance (E.C)		µmhos/cm	753			900	6/18/2015	НМ

Page 2 of 2 Wednesday, July 29, 2015

Lab Number: AB31955

Collection Date/Time: 6/17/2015 10:00 Sample Collector: LEAR J

Submittal Date/Time: 6/18/2015 9:17 Sample ID Coliform Designation:

		Sample D	escription: ASR1 Tes	t			
Analyte	Method	Unit	Result Qual	PQL	MCL	Date Analyzed	Analyst:
Strontium, Total	EPA200.8	μg/L	322	5		6/25/2015	SM
Sulfate	EPA300.0	mg/L	85	1	250	6/18/2015	MW
TOC	SM5310C	mg/L	1.1	0.2		7/2/2015	MW
Total Diss. Solids	SM2540C	mg/L	463	10	500	6/18/2015	HM
Total Nitrogen	Calculation	mg/L	Not Detected	0.5		7/1/2015	HM
Total Radium 226	EPA903.0	pCi/L	0.71 ± 0.48 E		3	6/30/2015	DAVI
Trihalomethanes	EPA524.2	μg/L	41 E		80	6/24/2015	BSK
Uranium by ICP/MS	EPA200.8	μg/L	1	1	30	6/25/2015	SM
Vanadium, Total	EPA200.8	μg/L	Not Detected	5	1000	6/25/2015	SM
Zinc, Total	EPA200.8	μg/L	250	20	5000	6/25/2015	SM

Sample Comments:

Report Approved by:

David Holland, Laboratory Director



BSK Associates Fresno 1414 Stanislaus St Fresno, CA93706 559-497-2888 (Main) 559-485-6935 (FAX)

A5F1825

Invoice: A513620

David Holland Monterey Bay Analytical 4 Justin Court Suite D Monterey, CA 93940

RE: Report for A5F1825 MPWMD

Dear David Holland,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 6/19/2015. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2009 TNI Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

If additional clarification of any information is required, please contact your Project Manager, John Montierth, at (800) 877-8310 or (559) 497-2888 x201.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

John Montierth, Project Manager



Accredited in Accordance with NELAP ORELAP #4021



Case Narrative

Project and Report Details

Invoice Details

Client: Monterey Bay Analytical

Invoice To: Monterey Bay Analytical

Report To: David Holland

Invoice Attn: David Holland

Project #: -

Project PO#: -

Received: 6/19

6/19/2015 - 09:30

Report Due: 7/06/2015

Sample Receipt Conditions

Cooler:Default CoolerContainers IntactTemperature on Receipt °C: 4.6COC/Labels Agree

Received On Wet Ice Received On Blue Ice

Packing Material - Bubble Wrap

Packing Material - Paper

Sample(s) were received in temperature range.

Initial receipt at BSK-FAL

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

CV0.0 CCV recovery was above method acceptance limits; no material impact on reported result as sample is ND for this

parameter.

Report Distribution

Recipient(s) Report Format CC:

David Holland FINAL.RPT Mason Weidner FINAL.RPT



Certificate of Analysis

Sample ID: A5F1825-01 **Sampled By:** Jonathan Lear

Sample Description: ASR1 Test // AB31955

Sample Date - Time: 06/17/15 - 10:00

Matrix: Ground Water

Sample Type: Grab

BSK Associates Fresno Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	12	0.50	ug/L	1	A506976	06/23/15	06/24/15	
Bromoform	EPA 524.2	0.75	0.50	ug/L	1	A506976	06/23/15	06/24/15	
Chloroform	EPA 524.2	22	0.50	ug/L	1	A506976	06/23/15	06/24/15	
Dibromochloromethane	EPA 524.2	5.8	0.50	ug/L	1	A506976	06/23/15	06/24/15	
Surrogate: Bromofluorobenzene	EPA 524.2	104 %	Acceptable	e range:	70-130 %				
Total Trihalomethanes, EPA 524.2		41	0.50	ug/L					
Haloacetic Acids by GC-ECD, G	C-MS								
Dibromoacetic Acid (DBAA)	EPA 552.3	ND	1.0	ug/L	1	A507092	06/25/15	06/26/15	
Dichloroacetic Acid (DCAA)	EPA 552.3	ND	1.0	ug/L	1	A507092	06/25/15	06/26/15	
Monobromoacetic Acid (MBAA)	EPA 552.3	ND	1.0	ug/L	1	A507092	06/25/15	06/26/15	
Monochloroacetic Acid (MCAA)	EPA 552.3	ND	2.0	ug/L	1	A507092	06/25/15	06/26/15	
Trichloroacetic Acid (TCAA)	EPA 552.3	ND	1.0	ug/L	1	A507092	06/25/15	06/26/15	
Surrogate: 2-Bromobutanoic Acid	EPA 552.3	101 %	Acceptable	e range:	70-130 %				
Total Haloacetic Acids, EPA 552.3		ND	2.0	ug/L					

QA-RP-0001-10 Final.rpt





BSK Associates Fresno Organics Quality Control Report

Analyte	Result	RI	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Date Analyzed	Qual
·				uality Co		701120				7	
Batch: A506976				adility 00	111101					Prepared	: 06/23/201
Prep Method: no prep-volatiles											nalyst: JG
· · · · · · · · · · · · · · · · · · ·											,
Blank (A506976-BLK1)											
Bromodichloromethane	ND	0.50	ug/L							06/24/15	
Bromoform	ND	0.50	ug/L							06/24/15	
Chloroform	ND	0.50	ug/L							06/24/15	
Dibromochloromethane	ND	0.50	ug/L							06/24/15	
Surrogate: Bromofluorobenzene	53			50		106	70-130			06/24/15	
Blank Spike (A506976-BS1)											
Bromodichloromethane	11	0.50	ug/L	10		108	70-130			06/23/15	
Bromoform	8.8	0.50	ug/L	10		88	70-130			06/23/15	
Chloroform	11	0.50	ug/L	10		111	70-130			06/23/15	
Dibromochloromethane	9.6	0.50	ug/L	10		96	70-130			06/23/15	
Surrogate: Bromofluorobenzene	51		3	50		102	70-130			06/23/15	
Blank Spike Dup (A506976-BSD1)											
Bromodichloromethane	11	0.50	ua/I	10		113	70-130	4	30	06/24/15	
			ug/L								
Bromoform	9.4	0.50	ug/L	10		94	70-130	7	30	06/24/15	
Chloroform	11	0.50	ug/L	10		115	70-130	3	30	06/24/15	
Dibromochloromethane Surrogate: Bromofluorobenzene	10 <i>51</i>	0.50	ug/L	10 <i>50</i>		101 <i>102</i>	70-130 70-130	5	30	06/24/15 06/24/15	
tromoform Chloroform Dibromochloromethane Currogate: Bromofluorobenzene	33 19 51 <i>50</i>	0.50 0.50 0.50	ug/L ug/L ug/L	10 10 10 50	22 8.0 41	107 106 94 101	70-130 70-130 70-130 70-130			06/24/15 06/24/15 06/24/15 06/24/15	
· ·		EDA 5	52 3 ₋ O	uality Co	ntrol						
Batch: A507092		EFA 3	32.3 - Q	uanty Co	iitioi					Droparad	. 06/25/201
Prep Method: EPA 552.3											: 06/25/201 nalyst: MTN
Blank (A507092-BLK1)											
Dibromoacetic Acid (DBAA)	ND	1.0	ug/L							06/26/15	
Dichloroacetic Acid (DCAA)	ND	1.0	ug/L							06/26/15	0) (0, 0
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L							06/26/15	CV0.0
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L							06/26/15	
Furrageta: 2 Promobutonoia Acid	ND	1.0	ug/L	25		100	70 120			06/26/15	
Surrogate: 2-Bromobutanoic Acid	25			25		100	70-130			06/26/15	
Blank Spike (A507092-BS1)											
Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10		109	70-130			06/26/15	
Dichloroacetic Acid (DCAA)	12	1.0	ug/L	10		116	70-130			06/26/15	
Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10		111	70-130			06/26/15	
Monochloroacetic Acid (MCAA)	22	2.0	ug/L	20		112	70-130			06/26/15	
richloroacetic Acid (TCAA)	11	1.0	ug/L	10		114	70-130			06/26/15	
A5F1825 FINAL 06302015 1650											
Printed: 06/30/2015											
QA-RP-0001-10 Final.rpt			BSK Ac	sociates.	com —					Pa	ge 4 of 9





BSK Associates Fresno Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
		EPA 5	52.3 - Q	uality Co	ntrol						
Batch: A507092										Prepared:	06/25/2015
Prep Method: EPA 552.3										Ar	nalyst: MTM
Blank Spike (A507092-BS1)											
Surrogate: 2-Bromobutanoic Acid	25			25		98	70-130			06/26/15	
Blank Spike Dup (A507092-BSD1)											
Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10		112	70-130	3	30	06/27/15	
Dichloroacetic Acid (DCAA)	12	1.0	ug/L	10		116	70-130	0	30	06/27/15	
Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10		115	70-130	3	30	06/27/15	
Monochloroacetic Acid (MCAA)	23	2.0	ug/L	20		116	70-130	4	30	06/27/15	
Trichloroacetic Acid (TCAA)	11	1.0	ug/L	10		114	70-130	0	30	06/27/15	
Surrogate: 2-Bromobutanoic Acid	26			25		103	70-130			06/27/15	
Matrix Spike (A507092-MS1), Source	: A5F1735-02										
Dibromoacetic Acid (DBAA)	12	1.0	ug/L	10	ND	110	70-130			06/26/15	
Dichloroacetic Acid (DCAA)	11	1.0	ug/L	10	ND	114	70-130			06/26/15	
Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10	ND	113	70-130			06/26/15	
Monochloroacetic Acid (MCAA)	22	2.0	ug/L	20	ND	110	70-130			06/26/15	
Trichloroacetic Acid (TCAA)	11	1.0	ug/L	10	ND	108	70-130			06/26/15	
Surrogate: 2-Bromobutanoic Acid	27			25		109	70-130			06/26/15	



Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- · Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- · Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.
- The MCLs provided in this report (if applicable) represent the primary MCLs for that analyte.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
μg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
μg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable	MCL:	Maximum Contaminant Limit		

Please see the individual Subcontract Lab's report for applicable certifications.

BSK is not accredited under the NELAC program for the following parameters:

NA

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

F	res	sn	o
		911	v

State of California - ELAP	1180	State of Hawaii	4021
State of Nevada	CA000792015-1	State of Oregon - NELAC	4021
FPA - UCMR3	CA00079	State of Washington	C997-15

Sacramento

State of California - ELAP 2435

Vancouver

State of Oregon - NELAC WA100008 State of Washington C824-14a









Turnaround:

Standard

Due Date:

7/6/2015



Monte6227



Monterey Bay Analytical





]
	1414 Stanislaus St., Fresno, CA 93706	7	Turnaround Time Request	A5F1825	<u> </u>
スノス	(559) 497-2888 · Fax (559) 497-2893	\boxtimes	Standard - 10 business days		8 of
Associates	www.bskassociates.com		Rush (Surcharge may apply)	an de de la constitue de consti	
Engineers Laboratories			Date needed:		
	*Required Fields	Temp: 4. 6		THE REAL WAY AND COME	Fraudomowiczneminiowowoweminio
Company/Client Name*:	Report Attention*: Mason Weidner-Holland		Invoice To*: David Holland	Phone*: 831-375-6227	Fax: 831-641-0734
Monterey Bay Analytical Services	ces Additional cc's: David Holland		PO#:	E-mail*: mweidner@mbasi	_{E-mail} r: mweidner@mbasinc.com, dholland@mbasin
Address*: 4 Justin Court Suite D	city*: Monterev	V	State*: Zip*: CA 93940		
Project:	Project #:		How would you like to receive your completed results?*		
MPWMD			X E-Mail ☐ Fax ☐ Mail		
Reporting Options:	Re	Regulatory Carbon Copies	Regulatory Compliance		
ited/Signa		ed Co Fresno Co	System Number*:		
	☐ Madera Co				
Jonathan Lear	ar Other: Geotracker #:		Geotracker #:		
	Nater BW=Bottled Water GW=Ground Water WW-	Sampled*	DW=Drinking Water SO=Solid	THI	
# Sample [Sample Description*	Date Time Matrix*	Comments / Station Code / WTRAX	TT	
1. ASR1 Test	6/1:	GW	AB31955	×	
				-	

Coling Method: Wet Blue None

Chilling Process Begun Y N

Payment for services rendered to be in full within 30 days from the date invoiced. It not so paid, account balances are deemed delinquent, Delinquent balances are subject to monthly service charges and interest specified in BSK's current Standard Ferms and Conditions for Laboratory Services. The person signing for the Client Company acknowledges that they are either the Client or an authorized agent to the Client, that the Client agrees to be responsible for payment for the services on this Chain of Custody, and agrees to BSK's terms and conditions for laboratory services unless contractually bound otherwise. BSK's current terms and conditions for laboratory services unless contractually bound otherwise. BSK's current terms and conditions for laboratory services unless contractually bound otherwise. BSK's current terms and conditions for laboratory services unless contractually bound otherwise. BSK's current terms and conditions for laboratory services unless contractually bound otherwise. BSK's current terms and conditions for laboratory services unless contractually bound otherwise. BSK's current terms and conditions for laboratory services unless contractually bound otherwise. BSK's current terms and conditions for laboratory services unless contractually bound otherwise. BSK's current terms and conditions for laboratory services unless contractually bound otherwise. BSK's current terms and conditions for laboratory services unless contractually bound otherwise. BSK's current terms and conditions for laboratory services unless contractually bound otherwise. BSK's current terms and conditions for laboratory services unless contractually bound otherwise. BSK's current terms and conditions for laboratory services unless contractually bound otherwise.

Shipping Method:

Received for Lab by: (Signatur)

antra

WALK-IN

FED EX

Courier:

Soli el Topo

Date:

Amount: Custody Seal: Y

PIA#:

nit.

Check

Cash

ray cra

Payment Received at Delivery:

Relinquished by: (Signature and Printed Name)

MBAS

Date Time 6/18/15 1600

Time

Received by: (Signature and Printed Name)

Received by: (Signature and Printed Name)

Company

Company

Sample Integrity

A5F1825 06/19/2015 Monte6227 10

B 2	V RO	ttles: Yes/) NO P	age	7	of <u> </u>							
	Chemis	mperature within r stry ≤ 6°C Micr	ange? o < 10°C	γe	3) N	lo NA	rece	eived fo	r the tests			(%	No NA
COC Info	that chi	lling has begun?	day, is there eviden	16		lo ((Vol	atiles O	nly)	the VOA vi			NA State
ည		bottles arrive unbr		Ye	<u> </u>	No					e received?	<u>(Tes</u>	No
ŭ		bottle labels agree		χΈ	3	No				old time <72		Yes	(D)
	until ch	lorine was no long		Ye		lo (NA	PM			screpancies y/Time:		Yes	No MA
			r(C) 40ml VOA(V)	Check	(S	Passed	?						
	Bacti None	Na ₂ S ₂ O ₃ (P) ^{White Cap}		_		<u> </u>							
	Cr6 (P) Br. Green Label NH40	OH(NH4)2SO4 DW	CI, pH		ΥN	-						
_			rome Buffer DW	pH 9-9	9.5	ΥN							
are performed in the lab	Cr6 (P HNO₃) ^{Pink Label} Hex Ch (P) ^{Red Cap}	rome Buffer WW	pH 9.3	-9.7	Y N	I						
ned ir	H ₂ SO ₄	(P) or (AG	Yellow Cap/Label	pH <	2	YN							
form	NaOH	(P) Green Cap		CI, pH	>10	YN		,,,					
per	NaOH	+ ZnAc (P)		pH>	9	YN	ı		20				
are	Dissol	ved Oxygen 300	ml (g)	_									
J/A or	8151, 8		2, 625, 632/8321,	_		_							
r ed er ∧			G, Diesel	_		_							
eith	Na ₂ O ₃	S+HCI (AG) ^{Lt Pin}	k Label 525										
%e (Na ₂ S ₂	O ₃ 1 Liter (Browr	1 P) 549	-		_					/		
Bottles Received ine checks are either N	Na ₂ S ₂	O ₃ (AG) ^{Blue Label} 54	17,515,548,THM,524					3				10/10	115
# 6		O ₃ (CG) ^{Blue Label}				_							
Bottles Received ns preservation/chlorine checks are either N/A	Na ₂ S ₂	O ₃ + MCAA (CG		pH<	3	Y	ı					Y	0
-ych	NH₄CI	` ,	552			_		Ì					
/atior		AG) ^{Brown Label} DE				_		•		1			
ser			as, MTBE, 8260/624			_					\		
s pre		pH 4 (CG)								<u> </u>	<u> </u>		
eans	None	(CG) (CG) ^{Salmon Label}		_		_					1		
-" meai	Other:	, (UG)		 		_					1		
,	h		stic w/ Foil	-									
				_		_					1		
	Bottle	d Water	3.3										
				_		_				'			
				_		_							
	i ediai	Asbestos 1Liter Plastic w/ Foil Low Level Hg / Metals Double Baggie Sottled Water Clear Glass Jar: 250 / 500 / 1 Liter Soil Tube Brass / Steel / Plastic Fedlar Bag / Plastic Bag Container Preservative		Date/Tir	me/lr	itiale			 ontainer	Pracai	rvative [)ate/Tin	ne/Initials
Split	S P	Containe	Fleseivative	Daterin	116/11	iluais	S P		Ontainer	11030	I Valive	Ja(C/ 1111	TC/ II III CIG
ઝ	S P						S P						
Comments													
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Col													
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DAVI LABORATORIES, ENVIRONMENTAL ASSOCIATES 730 Alfred Nobel Dr, Hercules, CA 94547

ANALYTICAL RESULTS REPORT

Company: Monterey Bay Analytical Services

Address: 4 Justin Court-Suite D Monterey, CA 93940

Project Manager: David Holland June 30, 2015 Report Date: Subcontract Order #: AB31955

TABLE I

Sample ID	Collection Date/Time	Matrix	EPA Method	Analyses	Results pCi/L	6 <u>+</u>	2 Sigma error	MDA
ASR1 Test		GW						
	6/17/15 (100	00)	903.0 900.0	Ra 226 Gross Alpha	0.71 3.46	<u>+</u> <u>+</u>	0.48 1.82	0.07 1.79

Analyses Date: 6/30/15

TABLE II QA/QC

Analyses	Spike Added	Detected Activity	% Agreement
Gross Alpha	170.19 pCi/L	164.80 pCi/L	96.83
Ra 226	577.79 pCi/L	571.11 pCi/L	98.84

Patricia Davi

Patricia Davi Davi Laboratories QA/QC Manager



McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1506A67

Report Created for: Monterey Bay Analytical

4 Justin Court, Suite D Monterey, CA 93940

Project Contact:

David Holland

Project P.O.:

Project Name: MPWMD

Project Received: 06/25/2015

Analytical Report reviewed & approved for release on 07/01/2015 by:

Angela Rydelius, Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.



Glossary of Terms & Qualifier Definitions

Client: Monterey Bay Analytical

Project: MPWMD **WorkOrder:** 1506A67

Glossary Abbreviation

95% Interval 95% Confident Interval

DF Dilution Factor

DI WET (DISTLC) Waste Extraction Test using DI water

DISS Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)

DUP Duplicate

EDL Estimated Detection Limit

ITEF International Toxicity Equivalence Factor

LCS Laboratory Control Sample

MB Method Blank

MB % Rec % Recovery of Surrogate in Method Blank, if applicable

MDL Method Detection Limit

ML Minimum Level of Quantitation

MS Matrix Spike

MSD Matrix Spike Duplicate

N/A Not Applicable

ND Not detected at or above the indicated MDL or RL

NR Data Not Reported due to matrix interference or insufficient sample amount.

PF Prep Factor

RD Relative Difference

RL Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)

RPD Relative Percent Deviation
RRT Relative Retention Time

SPK Val Spike Value

SPKRef Val Spike Reference Value

SPLP Synthetic Precipitation Leachate Procedure
TCLP Toxicity Characteristic Leachate Procedure

TEQ Toxicity Equivalents

WET (STLC) Waste Extraction Test (Soluble Threshold Limit Concentration)

Analytical Report

Client:Monterey Bay AnalyticalWorkOrder:1506A67Project:MPWMDExtraction Method:RSK175Date Received:6/25/15 11:08Analytical Method:RSK175

Date Prepared: 6/26/15 **Unit:** $\mu g/L$

Light Gases

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
ASR1 Test	1506A67-001A	Water	06/17/2015 10:00	GC26	106997
<u>Analytes</u>	<u>Result</u>		<u>RL</u> <u>DF</u>		Date Analyzed
Methane	2.1		0.10 1		06/26/2015 11:50

Analyst(s): KBO

Quality Control Report

Client:Monterey Bay AnalyticalWorkOrder:1506A67Date Prepared:6/26/15BatchID:106997Date Analyzed:6/26/15Extraction Method:RSK175Instrument:GC26Analytical Method:RSK175

 $\textbf{Matrix:} \qquad \text{Air} \qquad \qquad \textbf{Unit:} \qquad \qquad \mu L/L$

Project: MPWMD **Sample ID:** MB/LCS-106997

	QC Sum	mary Report	for RSK175				
Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Ethane	ND	11.6	0.50	10	-	116	70-130
Ethylene	ND	8.38	0.50	10	-	84	70-130
Methane	ND	12.7	0.50	10	-	127	70-130

McCampbell Analytical, Inc.

1534 Willow Pass Rd Pittsburg, CA 94565-1701 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

Page 1 of

WorkOrder: 1506A67 ClientCode: MBAS

		WaterTrax	WriteOn	EDF	E	cel		EQuIS	✓ I	Email		HardCo	ру [ThirdP	arty	J-fla	ag
Report to:						E	Bill to:					ı	Reques	sted TAT	:	5 c	days
David Holland Monterey Bay Analytic 4 Justin Court, Suite I Monterey, CA 93940 831-375-6227 FA	D	Email: m cc/3rd Party: PO: ProjectNo: M	_	asinc.com; Dholla	nd@mb	as	Monte 4 Just	ints Pay rey Bay in Court rey, CA	Analyti , Suite l					Received Printed:		06/25/2 06/25/2	
									Red	queste	d Tests	(See lege	nd bel	ow)			
Lab ID	Client ID		Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12
1506A67-001	ASR1 Test		Water	6/17/2015 10:00		Α											
Test Legend: 1	2 7			8				9					5	_			

Comments: Needs analysts initials for all reports per D.H. 4/5/13

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).

Hazardous samples will be returned to client or disposed of at client expense.

Prepared by: Erika Santos



McCampbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com

WORK ORDER SUMMARY

Client Name	: MONTERE	Y BAY ANALYTICA	L		QC Level:	LEVEL 2				wor	k Oraer:	1506A67	
Project:	MPWMD				Client Contact:	David Ho	lland			Date R	eceived:	6/25/2015	
Comments:	Needs analyst	ts initials for all reports p	er D.H. 4/5/13		Contact's Email:	mweidne	r@mbasinc.com;	Dholland@n	nbasinc.com				
		WaterTrax	WriteOn	EDF	Excel	Fax	HardCo	opyThirdPart	y J-flag				
Lab ID	Client ID	Matrix	Test Name		Containe /Compos		e & Preservative	De- chlorinated	Collection Date & Time	TAT	Sediment Content	Hold Sub	Out
1506A67-001A	ASR1 Test	Water	RSK175 <me< td=""><td>thane_4></td><td>3</td><td>,</td><td>VOA w/ HCl</td><td></td><td>6/17/2015 10:00</td><td>5 days</td><td>None</td><td></td><td></td></me<>	thane_4>	3	,	VOA w/ HCl		6/17/2015 10:00	5 days	None		

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

506A67

McCAMPBELL ANALYTICAL, INC. CHAIN OF CUSTODY RECORD 1534 WILLOW PASS ROAD TURN AROUND TIME PITTSBURG, CA 94565-1701 RUSH 24 HR 48 HR 72 HR 5 DAY Website: www.mccampbell.com Email: main@mccampbell.com ☐ GeoTracker EDF ☐ PDF □ Excel ☐ Write On (DW) Telephone: (877) 252-9262 Fax: (925) 252-9269 Report To: David Holland Bill To: **Analysis Request** Other Comments Company: Monterey Bay Analytical Services EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners Total Petroleum Oil & Grease (1664 / 5520 E/B&F) Filter 8015) 4 Justin Ct. Suite D Samples Monterey, Ca 93940 E-Mail: mweidner@mbasinc.com CAM 17 Metals (200.7 / 200.8 / 6010 / 6020) LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020) for Metals Gas (602 / 8021 Tele: (831) 375 - 6227 Fax: (831) 641-0734 MTBE / BTEX ONLY (EPA 602 / 8021) EPA 502.2 / 601 / 8010 / 8021 (HVOCs) analysis: Fotal Petroleum Hydrocarbons (418.1) EPA 515 / 8151 (Acidic Cl Herbicides) EPA 8270 SIM / 8310 (PAHs / PNAs) Project #: Project Name: Yes / No Lead (200.7 / 200.8 / 6010 / 6020) TPH as Diesel / Motor Oil (8015) Project Location: MPWMD EPA 525.2 / 625 / 8270 (SVOCs) EPA 507 / 8141 (NP Pesticides) EPA 524.2 / 624 / 8260 (VOCs) Sampler Signature: Jonathan Lear MTBE / BTEX & TPH as METHOD SAMPLING MATRIX Type Containers PRESERVED Containers LOCATION/ SAMPLE ID Field Point Sludge Methane Water Name Time HNO3 Other Other Date HCL ICE Soil 6/17/15 X AB31955 ASR1 1000 3 G XX Test REC'D SEALED & INTACT VIA -+TAC ICE/ 3.9 Blue wet ice COMMENTS: Relinquished By: Time: Received By: Date: GOOD CONDITION David Holland/ 6/23/15 1600 HEAD SPACE ABSENT Relinquished By: Received By: DECHLORINATED IN LAB Date: Time: APPROPRIATE CONTAINERS PRESERVED IN LAB Relinquished By: Received By: Time: VOAS O&G METALS OTHER PRESERVATION pH<2

Sample Receipt Checklist

Client Name:	Monterey Bay Ana	nyticai			Date and 1	ime Received:	6/25/2015 11:08:13 AW	
Project Name:	MPWMD				LogIn Revi	ewed by:	Erika Santos	
WorkOrder №:	1506A67	Matrix: <u>Water</u>			Carrier:	<u>OnTrac</u>		
		Chain of C	ustod	y (COC) I	nformation			
Chain of custody	present?		Yes	•	No 🗌			
Chain of custody	signed when relinqu	ished and received?	Yes	•	No 🗌			
Chain of custody	agrees with sample	labels?	Yes	•	No 🗆			
Sample IDs note	d by Client on COC?		Yes	✓	No 🗌			
Date and Time of	f collection noted by	Client on COC?	Yes	✓	No 🗌			
Sampler's name	noted on COC?		Yes	✓	No 🗌			
		<u>Sampl</u>	e Rece	eipt Infor	<u>mation</u>			
Custody seals int	tact on shipping con	tainer/cooler?	Yes		No 🗌		NA 🗹	
Shipping containe	er/cooler in good co	ndition?	Yes	•	No 🗌			
Samples in prope	er containers/bottles	?	Yes	•	No 🗌			
Sample containe	rs intact?		Yes	•	No 🗌			
Sufficient sample	volume for indicate	d test?	Yes	•	No 🗌			
		Sample Preservation	on and	Hold Tir	ne (HT) Info	<u>rmation</u>		
All samples recei	ived within holding ti	me?	Yes	✓	No 🗌			
Sample/Temp Bla	ank temperature			Temp:	3.9°C		NA 🗌	
Water - VOA vial	s have zero headsp	ace / no bubbles?	Yes	✓	No 🗌		NA 🗆	
Sample labels ch	necked for correct pr	eservation?	Yes	✓	No 🗌			
pH acceptable up	oon receipt (Metal: <	2; 522: <4; 218.7: >8)?	Yes		No 🗌		NA 🗹	
Samples Receive	ed on Ice?		Yes	✓	No 🗆			
		(Ice Type	e: WE	T/BLU)			
UCMR3 Samples Total Chlorine		le upon receipt for EPA 522?	Yes		No 🗌		NA 🗹	
	ested and acceptab	e upon receipt for EPA 218.7,			No 🗆		NA 🗹	
* NOTE: If the "N	lo" box is checked, s	see comments below.						
Comments:								



4 Justin Court Suite D, Monterey, CA 93940 831.375.MBAS www.MBASinc.com

> ELAP Certification Number: 2385 Tuesday, July 21, 2015

Lab Number: AB32315

Collection Date/Time: 6/24/2015 10:00 Sample Collector: LEAR J

Submittal Date/Time: 6/25/2015 11:25 Sample ID Coliform Designation:

Sample Description: ASR2 Test									
Analyte	Method	Unit	Result Qual	PQL	MCL	Date Analyzed	Analyst:		
Alkalinity, Total (as CaCO3)	SM2320B	mg/L	139	2		7/7/2015	LRH		
Aluminum, Total	EPA200.8	μg/L	Not Detected	10	1000	7/2/2015	SM		
Ammonia-N	SM4500NH3 D	mg/L	Not Detected	0.05		6/30/2015	TC		
Arsenic, Total	EPA200.8	μg/L	1	1	10	7/2/2015	SM		
Barium, Total	EPA200.8	μg/L	66	10	1000	7/2/2015	SM		
Bicarbonate (as HCO3-)	SM2320B	mg/L	170	10		7/7/2015	LJ		
Boron	EPA200.7	mg/L	0.05	0.05		7/1/2015	MW		
Bromide	EPA300.0	mg/L	Not Detected	0.1		6/26/2015	MW		
Calcium	EPA200.7	mg/L	43	0.5		7/1/2015	MW		
Carbonate as CaCO3	SM2320B	mg/L	Not Detected	10		7/7/2015	LJ		
Chloramines	SM4500-CI G	mg/L	Not Detected	0.05		6/25/2015	LJ		
Chloride	EPA300.0	mg/L	32	1	250	6/26/2015	MW		
DOC		mg/L	1.4	0.2		7/1/2015	MW		
Fluoride	EPA300.0	mg/L	0.3	0.1	2.0	6/26/2015	MW		
Gross Alpha	EPA900.0	pCi/L	0.273 ± 1.08 E		15	7/13/2015	FGL		
Haloacetic Acids	EPA552	μg/L	Attached E		60	7/1/2015	BSK		
Iron	EPA200.7	μg/L	35	10	300	7/1/2015	MW		
Iron, Dissolved	EPA200.7	μg/L	Not Detected	10	300	7/1/2015	MW		
Kjehldahl Nitrogen	SM4500-NH3 B,C.	mg/L	Not Detected	0.5		7/7/2015	TC		
Lithium	EPA200.8	μg/L	12	1		7/2/2015	SM		
Magnesium	EPA200.7	mg/L	14	0.5		7/1/2015	MW		
Manganese, Dissolved	EPA200.7	μg/L	Not Detected	10	50	7/1/2015	MW		
Manganese, Total	EPA200.7	μg/L	Not Detected	10	50	7/1/2015	MW		
Mercury, Total	EPA200.8	μg/L	Not Detected	0.5	2	7/2/2015	SM		
Methane	EPA174/175	μg/L	0.54 E	0.1		7/1/2015	MCCAM		
Molybdenum, Total	EPA200.8	μg/L	4	1	1000	7/2/2015	SM		
Nickel, Total	EPA200.8	μg/L	Not Detected	10	100	7/2/2015	SM		
Nitrate as NO3	EPA300.0	mg/L	Not Detected	1	45	6/26/2015	MW		
Nitrate as NO3-N	EPA300.0	mg/L	0.1	0.1	10	6/26/2015	MW		
Nitrate+Nitrite as N	EPA300.0	mg/L	0.4	0.1		6/26/2015	MW		
Nitrite as NO2-N	EPA300.0	mg/L	0.3	0.1	1.0	6/26/2015	MW		

mg/L: Milligrams per liter (=ppm) H = Analyzed ouside of hold time ug/L : Micrograms per liter (=ppb)

PQL : Practical Quantitation Limit

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

D = Method deviates from standard method due to insufficient sample for MS/MSD



831.375.MBAS www.MBASinc.com

ELAP Certification Number: 2385

Tuesday, July 21, 2015

Lab Number: AB32315

Collection Date/Time: 6/24/2015 10:00 Sample Collector: LEAR J

6/25/2015 Submittal Date/Time: Sample ID 11:25 Coliform Designation:

		Sample De	escription: ASR	2 Test	t			
Analyte	Method	Unit	Result Qu	ual	PQL	MCL	Date Analyzed	Analyst:
o-Phosphate-P	EPA300.0	mg/L	0.3		0.1		6/26/2015	MW
pH (Laboratory)	SM4500-H+B	pH (H)	7.5		0.1		6/25/2015	LRH
Phosphorus, Total	HACH 8190	mg/L	0.26		0.03		7/17/2015	LRH
Potassium	EPA200.7	mg/L	2.8		0.5		7/1/2015	MW
QC Anion Sum x 100	Calculation	%	100%				7/7/2015	LJ
QC Anion-Cation Balance	Calculation	%	-2				7/7/2015	LJ
QC Cation Sum x 100	Calculation	%	96%				7/6/2015	TC
QC Ratio TDS/SEC	Calculation		0.62				7/2/2015	HM
Selenium, Total	EPA200.8	μg/L	5		2	50	7/2/2015	SM
Silica as SiO2, Total	EPA200.7	mg/L	25		0.5		7/1/2015	MW
Sodium	EPA200.7	mg/L	44		0.5		7/1/2015	MW
Specific Conductance (E.C)	SM2510B	µmhos/cm	550		1	900	6/30/2015	LJ
Strontium, Total	EPA200.8	μg/L	248		5		7/2/2015	SM
Sulfate	EPA300.0	mg/L	86		1	250	6/26/2015	MW
TOC	SM5310C	mg/L	1.5		0.2		7/1/2015	MW
Total Diss. Solids	SM2540C	mg/L	340		10	500	6/30/2015	HM
Total Nitrogen	Calculation	mg/L	Not Detected		0.5	_	7/7/2015	НМ
Total Radium 226	EPA903.0	pCi/L	0.054 ± 0.106 E		_	3	7/17/2015	FGL
Trihalomethanes	EPA524.2	μg/L	95 E			80	6/30/2015	BSK
Uranium by ICP/MS	EPA200.8	μg/L	Not Detected		1	30	7/2/2015	SM
Vanadium, Total	EPA200.8	μg/L	Not Detected		5	1000	7/2/2015	SM
Zinc, Total	EPA200.8	μg/L	250		20	5000	7/2/2015	SM

Sample Comments:

Report Approved by:

David Holland, Laboratory Director

mg/L: Milligrams per liter (=ppm)

ug/L: Micrograms per liter (=ppb)

PQL: Practical Quantitation Limit

H = Analyzed ouside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

D = Method deviates from standard method due to insufficient sample for MS/MSD



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ELAP Certification Number: 2385

Tuesday, July 21, 2015

Lab Number: AB32316

Collection Date/Time: 6/24/2015 11:30 Sample Collector: LEAR J

Submittal Date/Time: 6/25/2015 11:25 Sample ID Coliform Designation:

		Sam	ple Description: MW-1				
Analyte	Method	Unit	Result Qual	PQL	MCL	Date Analyzed	Analyst:
Alkalinity, Total (as CaCO3)	SM2320B	mg/L	153	2		7/7/2015	LRH
Aluminum, Total	EPA200.8	μg/L	Not Detected	10	1000	7/2/2015	SM
Ammonia-N	SM4500NH3 D	mg/L	Not Detected	0.05		6/30/2015	TC
Arsenic, Total	EPA200.8	μg/L	2	1	10	7/2/2015	SM
Barium, Total	EPA200.8	μg/L	33	10	1000	7/2/2015	SM
Bicarbonate (as HCO3-)	SM2320B	mg/L	187	10		7/7/2015	LJ
Boron	EPA200.7	mg/L	0.05	0.05		7/1/2015	MW
Bromide	EPA300.0	mg/L	0.1	0.1		6/26/2015	MW
Calcium	EPA200.7	mg/L	50	0.5		7/1/2015	MW
Carbonate as CaCO3	SM2320B	mg/L	Not Detected	10		7/7/2015	LJ
Chloramines	SM4500-CI G	mg/L	Not Detected	0.05		6/25/2015	LJ
Chloride	EPA300.0	mg/L	42	1	250	6/26/2015	MW
OOC		mg/L	1.2	0.2		7/1/2015	MW
Fluoride	EPA300.0	mg/L	0.3	0.1	2.0	6/26/2015	MW
Gross Alpha	EPA900.0	pCi/L	2.81 ± 1.27 E		15	7/13/2015	FGL
Haloacetic Acids	EPA552	μg/L	Not Detected E		60	7/1/2015	BSK
ron	EPA200.7	μg/L	Not Detected	10	300	7/1/2015	MW
ron, Dissolved	EPA200.7	μg/L	Not Detected	10	300	7/1/2015	MW
Kjehldahl Nitrogen	SM4500-NH3 B,C.	mg/L	Not Detected	0.5		7/7/2015	TC
Lithium	EPA200.8	μg/L	24	1		7/2/2015	SM
Magnesium	EPA200.7	mg/L	13	0.5		7/1/2015	MW
Manganese, Dissolved	EPA200.7	μg/L	Not Detected	10	50	7/1/2015	MW
Manganese, Total	EPA200.7	μg/L	Not Detected	10	50	7/1/2015	MW
Mercury, Total	EPA200.8	μg/L	Not Detected	0.5	2	7/2/2015	SM
Methane	EPA174/175	μg/L	3.0 E	0.1		7/1/2015	MCCAM
Molybdenum, Total	EPA200.8	μg/L	6	1	1000	7/2/2015	SM
Nickel, Total	EPA200.8	μg/L	Not Detected	10	100	7/2/2015	SM
Nitrate as NO3	EPA300.0	mg/L	Not Detected	1	45	6/26/2015	MW
Nitrate as NO3-N	EPA300.0	mg/L	0.1	0.1	10	6/26/2015	MW
Nitrate+Nitrite as N	EPA300.0	mg/L	0.5	0.1		6/26/2015	MW
Nitrite as NO2-N	EPA300.0	mg/L	0.3	0.1	1.0	6/26/2015	MW
// A 41111							

mg/L: Milligrams per liter (=ppm)

ug/L : Micrograms per liter (=ppb)

PQL: Practical Quantitation Limit

H = Analyzed ouside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

D = Method deviates from standard method due to insufficient sample for MS/MSD



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www.MBASinc.com **ELAP Certification Number: 2385**

Tuesday, July 21, 2015

Lab Number: AB32316

Collection Date/Time: 6/24/2015 11:30 Sample Collector: LEAR J

Submittal Date/Time: 6/25/2015 Sample ID 11:25 Coliform Designation:

O-Phosphate-P EPA300.0 mg/L Not Detected 0.1 6/26/2015 MW pH (Laboratory) SM4500-H+B pH (H) 7.5 0.1 6/25/2015 LRH phosphorus, Total HACH 8190 mg/L 0.08 0.03 7/17/2015 LRH Prosphorus, Total HACH 8190 mg/L 3.7 0.5 7/1/2015 MW QC Anion Sum x 100 Calculation % 100% 7/7/2015 LJ QC Anion-Cation Balance Calculation % 97% 7/6/2015 LJ QC Cation Sum x 100 Calculation % 97% 7/6/2015 TC QC Ratio TDS/SEC Calculation % 97% 7/6/2015 TC QC Ratio TDS/SEC Calculation 0.65 7/2/2015 HM Selenium, Total EPA200.8 µg/L 5 2 50 7/2/2015 SM Silica as SiO2, Total EPA200.7 mg/L 31 0.5 7/1/2015 MW Sodium EPA200.7 mg/L 31 0.5 7/1/2015 MW Specific Conductance (E.C) SM2510B µmhos/cm 610 1 900 6/30/2015 LJ Strontium, Total EPA200.8 µg/L 256 5 7/2/2015 SM Sulfate EPA300.0 mg/L 88 1 250 6/26/2015 MW TOC SM5310C mg/L 1.3 0.2 7/2/2015 MW TOC SM5310C mg/L 1.3 0.2 7/2/2015 MW TOTAL EPA300.0 mg/L 394 10 500 6/30/2015 HM TOtal Diss. Solids SM2540C mg/L 394 10 500 6/30/2015 HM TOtal Diss. Solids SM2540C mg/L 394 10 500 6/30/2015 HM Total Diss. Solids SM2540C mg/L 394 10 500 6/30/2015 HM Total Diss. Solids SM2540C mg/L 394 10 500 6/30/2015 HM Total Diss. Solids EPA30.0 pCi/L 0.514 ± 0.243 E 3 7/17/2015 MW Total Diss. Solids EPA30.8 µg/L 44 E 80 6/30/2015 BSK Uranium by ICP/MS EPA300.8 µg/L 1 1 1 30 7/2/2015 SM			Sample	Description: MW-1				
pH (Laboratory) SM4500-H+B pH (H) 7.5 0.1 6/25/2015 LRH Phosphorus, Total HACH 8190 mg/L 0.08 0.03 7/17/2015 LRH Potassium EPA200.7 mg/L 3.7 0.5 7/11/2015 MW QC Anion Sum x 100 Calculation % 100% 7/7/2015 LJ QC Anion-Cation Balance Calculation % -1 7/7/2015 LJ QC Cation Sum x 100 Calculation % 97% 7/6/2015 TC QC Ratio TDS/SEC Calculation 0.65 7/2/2015 HM Selenium, Total EPA200.8 μg/L 5 2 50 7/2/2015 SM Silica as SiO2, Total EPA200.7 mg/L 31 0.5 7/1/2015 MW Sodium EPA200.7 mg/L 52 0.5 7/1/2015 MW Specific Conductance (E.C) SM2510B μmhos/cm 610 1 900 6/30/2015 LJ	Analyte	Method	Unit	Result Qual	PQL	MCL	Date Analyzed	Analyst:
Phosphorus, Total HACH 8190 mg/L 0.08 0.03 7/17/2015 LRH Potassium EPA200.7 mg/L 3.7 0.5 7/1/2015 MW QC Anion Sum x 100 Calculation % 100% 7/7/2015 LJ QC Anion-Cation Balance Calculation % -1 7/7/2015 LJ QC Cation Sum x 100 Calculation % 97% 7/6/2015 TC QC Ratio TDS/SEC Calculation 0.65 7/2/2015 HM Selenium, Total EPA200.8 μg/L 5 2 50 7/2/2015 SM Silica as SiO2, Total EPA200.7 mg/L 31 0.5 7/11/2015 MW Sodium EPA200.7 mg/L 52 0.5 7/11/2015 MW Specific Conductance (E.C) SM2510B μmhos/cm 610 1 900 6/30/2015 LJ Strontium, Total EPA200.8 μg/L 256 5 7/2/2015 SM	o-Phosphate-P	EPA300.0	mg/L	Not Detected	0.1		6/26/2015	MW
Potassium EPA200.7 mg/L 3.7 0.5 7/1/2015 MW QC Anion Sum x 100 Calculation % 100% 7/7/2015 LJ QC Anion-Cation Balance Calculation % -1 7/7/2015 LJ QC Cation Sum x 100 Calculation % 97% 7/6/2015 TC QC Ratio TDS/SEC Calculation 0.65 7/2/2015 HM Selenium, Total EPA200.8 μg/L 5 2 50 7/2/2015 SM Sellica as SiO2, Total EPA200.7 mg/L 31 0.5 7/1/2015 MW Sodium EPA200.7 mg/L 52 0.5 7/1/2015 MW Specific Conductance (E.C) SM2510B μmhos/cm 610 1 900 6/30/2015 LJ Strontium, Total EPA200.8 μg/L 256 5 7/2/2015 SM Sulfate EPA300.0 mg/L 88 1 250 6/26/2015 MW	pH (Laboratory)	SM4500-H+B	pH (H)	7.5	0.1		6/25/2015	LRH
QC Anion Sum x 100 Calculation % 100% 7/7/2015 LJ QC Anion-Cation Balance Calculation % -1 7/7/2015 LJ QC Cation Sum x 100 Calculation % 97% 7/6/2015 TC QC Ratio TDS/SEC Calculation 0.65 7/2/2015 HM Selenium, Total EPA200.8 μg/L 5 2 50 7/2/2015 SM Silica as SiO2, Total EPA200.7 mg/L 31 0.5 7/1/2015 MW Sodium EPA200.7 mg/L 52 0.5 7/1/2015 MW Specific Conductance (E.C) SM2510B μmhos/cm 610 1 900 6/30/2015 LJ Strontium, Total EPA200.8 μg/L 256 5 7/2/2015 SM Sulfate EPA300.0 mg/L 88 1 250 6/26/2015 MW Total Diss. Solids SM2540C mg/L 394 10 500 6/30/2015 H	Phosphorus, Total	HACH 8190	mg/L	0.08	0.03		7/17/2015	LRH
QC Anion-Cation Balance Calculation % -1 7/7/2015 LJ QC Cation Sum x 100 Calculation % 97% 7/6/2015 TC QC Ratio TDS/SEC Calculation 0.65 7/2/2015 HM Selenium, Total EPA200.8 μg/L 5 2 50 7/2/2015 SM Silica as SiO2, Total EPA200.7 mg/L 31 0.5 7/1/2015 MW Sodium EPA200.7 mg/L 52 0.5 7/1/2015 MW Specific Conductance (E.C) SM2510B μmhos/cm 610 1 900 6/30/2015 LJ Strontium, Total EPA200.8 μg/L 256 5 7/2/2015 SM Sulfate EPA300.0 mg/L 88 1 250 6/26/2015 MW TOC SM5310C mg/L 1.3 0.2 7/2/2015 MW Total Diss. Solids SM2540C mg/L 394 10 500 6/30/2015 <	Potassium	EPA200.7	mg/L	3.7	0.5		7/1/2015	MW
QC Cation Sum x 100 Calculation % 97% 7/6/2015 TC QC Ratio TDS/SEC Calculation 0.65 7/2/2015 HM Selenium, Total EPA200.8 μg/L 5 2 50 7/2/2015 SM Silica as SiO2, Total EPA200.7 mg/L 31 0.5 7/1/2015 MW Sodium EPA200.7 mg/L 52 0.5 7/1/2015 MW Specific Conductance (E.C) SM2510B μmhos/cm 610 1 900 6/30/2015 LJ Strontium, Total EPA200.8 μg/L 256 5 7/2/2015 SM Sulfate EPA300.0 mg/L 88 1 250 6/26/2015 MW TOC SM5310C mg/L 1.3 0.2 7/2/2015 MW Total Diss. Solids SM2540C mg/L 394 10 500 6/30/2015 HM Total Radium 226 EPA903.0 pCi/L 0.514 ± 0.243 E <td< td=""><td>QC Anion Sum x 100</td><td>Calculation</td><td>%</td><td>100%</td><td></td><td></td><td>7/7/2015</td><td>LJ</td></td<>	QC Anion Sum x 100	Calculation	%	100%			7/7/2015	LJ
QC Ratio TDS/SEC Calculation 0.65 7/2/2015 HM Selenium, Total EPA200.8 μg/L 5 2 50 7/2/2015 SM Silica as SiO2, Total EPA200.7 mg/L 31 0.5 7/1/2015 MW Sodium EPA200.7 mg/L 52 0.5 7/1/2015 MW Specific Conductance (E.C) SM2510B μmhos/cm 610 1 900 6/30/2015 LJ Strontium, Total EPA200.8 μg/L 256 5 7/2/2015 SM Sulfate EPA300.0 mg/L 88 1 250 6/26/2015 MW TOC SM5310C mg/L 1.3 0.2 7/2/2015 MW Total Diss. Solids SM2540C mg/L 394 10 500 6/30/2015 HM Total Radium 226 EPA903.0 pCi/L 0.514 ± 0.243 E 3 7/17/2015 FGL Trihalomethanes EPA524.2 μg/L 44<	QC Anion-Cation Balance	Calculation	%	-1			7/7/2015	LJ
Selenium, Total EPA200.8 μg/L 5 2 50 7/2/2015 SM Silica as SiO2, Total EPA200.7 mg/L 31 0.5 7/1/2015 MW Sodium EPA200.7 mg/L 52 0.5 7/1/2015 MW Specific Conductance (E.C) SM2510B μmhos/cm 610 1 900 6/30/2015 LJ Strontium, Total EPA200.8 μg/L 256 5 7/2/2015 SM Sulfate EPA300.0 mg/L 88 1 250 6/26/2015 MW TOC SM5310C mg/L 1.3 0.2 7/2/2015 MW Total Diss. Solids SM2540C mg/L 394 10 500 6/30/2015 HM Total Nitrogen Calculation mg/L Not Detected 0.5 7/7/2015 HM Total Radium 226 EPA903.0 pCi/L 0.514 ± 0.243 E 3 3 7/17/2015 FGL Trihalomethanes	QC Cation Sum x 100	Calculation	%	97%			7/6/2015	TC
Silica as SiO2, Total EPA200.7 mg/L 31 0.5 7/1/2015 MW Sodium EPA200.7 mg/L 52 0.5 7/1/2015 MW Specific Conductance (E.C) SM2510B μmhos/cm 610 1 900 6/30/2015 LJ Strontium, Total EPA200.8 μg/L 256 5 7/2/2015 SM Sulfate EPA300.0 mg/L 88 1 250 6/26/2015 MW TOC SM5310C mg/L 1.3 0.2 7/2/2015 MW Total Diss. Solids SM2540C mg/L 394 10 500 6/30/2015 HM Total Nitrogen Calculation mg/L Not Detected 0.5 7/7/2015 HM Total Radium 226 EPA903.0 pCi/L 0.514 ± 0.243 E 3 7/17/2015 FGL Trihalomethanes EPA524.2 μg/L 44 E 80 6/30/2015 SM Vanadium, Total	QC Ratio TDS/SEC	Calculation		0.65			7/2/2015	НМ
Sodium EPA200.7 mg/L 52 0.5 7/1/2015 MW Specific Conductance (E.C) SM2510B μmhos/cm 610 1 900 6/30/2015 LJ Strontium, Total EPA200.8 μg/L 256 5 7/2/2015 SM Sulfate EPA300.0 mg/L 88 1 250 6/26/2015 MW TOC SM5310C mg/L 1.3 0.2 7/2/2015 MW Total Diss. Solids SM2540C mg/L 394 10 500 6/30/2015 HM Total Nitrogen Calculation mg/L Not Detected 0.5 7/7/2015 HM Total Radium 226 EPA903.0 pCi/L 0.514 ± 0.243 E 3 7/17/2015 FGL Trihalomethanes EPA524.2 μg/L 44 E 80 6/30/2015 BSK Uranium by ICP/MS EPA200.8 μg/L Not Detected 5 1000 7/2/2015 SM	Selenium, Total	EPA200.8	μg/L	5	2	50	7/2/2015	SM
Specific Conductance (E.C) SM2510B μmhos/cm 610 1 900 6/30/2015 LJ Strontium, Total EPA200.8 μg/L 256 5 7/2/2015 SM Sulfate EPA300.0 mg/L 88 1 250 6/26/2015 MW TOC SM5310C mg/L 1.3 0.2 7/2/2015 MW Total Diss. Solids SM2540C mg/L 394 10 500 6/30/2015 HM Total Nitrogen Calculation mg/L Not Detected 0.5 7/7/2015 HM Total Radium 226 EPA903.0 pCi/L 0.514 ± 0.243 E 3 7/17/2015 FGL Trihalomethanes EPA524.2 μg/L 44 E 80 6/30/2015 BSK Uranium by ICP/MS EPA200.8 μg/L Not Detected 5 1000 7/2/2015 SM	Silica as SiO2, Total	EPA200.7	mg/L	31	0.5		7/1/2015	MW
Strontium, Total EPA200.8 μg/L 256 5 7/2/2015 SM Sulfate EPA300.0 mg/L 88 1 250 6/26/2015 MW TOC SM5310C mg/L 1.3 0.2 7/2/2015 MW Total Diss. Solids SM2540C mg/L 394 10 500 6/30/2015 HM Total Nitrogen Calculation mg/L Not Detected 0.5 7/7/2015 HM Total Radium 226 EPA903.0 pCi/L 0.514 ± 0.243 E 3 7/17/2015 FGL Trihalomethanes EPA524.2 μg/L 44 E 80 6/30/2015 BSK Uranium by ICP/MS EPA200.8 μg/L 1 1 30 7/2/2015 SM Vanadium, Total EPA200.8 μg/L Not Detected 5 1000 7/2/2015 SM	Sodium	EPA200.7	mg/L	52	0.5		7/1/2015	MW
Sulfate EPA300.0 mg/L 88 1 250 6/26/2015 MW TOC SM5310C mg/L 1.3 0.2 7/2/2015 MW Total Diss. Solids SM2540C mg/L 394 10 500 6/30/2015 HM Total Nitrogen Calculation mg/L Not Detected 0.5 7/7/2015 HM Total Radium 226 EPA903.0 pCi/L 0.514 ± 0.243 E 3 7/17/2015 FGL Trihalomethanes EPA524.2 µg/L 44 E 80 6/30/2015 BSK Uranium by ICP/MS EPA200.8 µg/L 1 1 30 7/2/2015 SM Vanadium, Total EPA200.8 µg/L Not Detected 5 1000 7/2/2015 SM	Specific Conductance (E.C)	SM2510B	µmhos/cm	610	1	900	6/30/2015	LJ
TOC SM5310C mg/L 1.3 0.2 7/2/2015 MW Total Diss. Solids SM2540C mg/L 394 10 500 6/30/2015 HM Total Nitrogen Calculation mg/L Not Detected 0.5 7/7/2015 HM Total Radium 226 EPA903.0 pCi/L 0.514 ± 0.243 E 3 7/17/2015 FGL Trihalomethanes EPA524.2 μg/L 44 E 80 6/30/2015 BSK Uranium by ICP/MS EPA200.8 μg/L 1 1 30 7/2/2015 SM Vanadium, Total EPA200.8 μg/L Not Detected 5 1000 7/2/2015 SM	Strontium, Total	EPA200.8	μg/L	256	5		7/2/2015	SM
Total Diss. Solids SM2540C mg/L 394 10 500 6/30/2015 HM Total Nitrogen Calculation mg/L Not Detected 0.5 7/7/2015 HM Total Radium 226 EPA903.0 pCi/L 0.514 ± 0.243 E 3 7/17/2015 FGL Trihalomethanes EPA524.2 μg/L 44 E 80 6/30/2015 BSK Uranium by ICP/MS EPA200.8 μg/L 1 1 30 7/2/2015 SM Vanadium, Total EPA200.8 μg/L Not Detected 5 1000 7/2/2015 SM	Sulfate	EPA300.0	mg/L	88	1	250	6/26/2015	MW
Total Nitrogen Calculation mg/L Not Detected 0.5 7/7/2015 HM Total Radium 226 EPA903.0 pCi/L 0.514 ± 0.243 E 3 7/17/2015 FGL Trihalomethanes EPA524.2 μg/L 44 E 80 6/30/2015 BSK Uranium by ICP/MS EPA200.8 μg/L 1 1 30 7/2/2015 SM Vanadium, Total EPA200.8 μg/L Not Detected 5 1000 7/2/2015 SM	TOC	SM5310C	mg/L	1.3	0.2		7/2/2015	MW
Total Radium 226 EPA903.0 pCi/L 0.514 ± 0.243 E 3 7/17/2015 FGL Trihalomethanes EPA524.2 μg/L 44 E 80 6/30/2015 BSK Uranium by ICP/MS EPA200.8 μg/L 1 1 30 7/2/2015 SM Vanadium, Total EPA200.8 μg/L Not Detected 5 1000 7/2/2015 SM	Total Diss. Solids	SM2540C	mg/L	394	10	500	6/30/2015	НМ
Trihalomethanes EPA524.2 μg/L 44 E 80 6/30/2015 BSK Uranium by ICP/MS EPA200.8 μg/L 1 1 30 7/2/2015 SM Vanadium, Total EPA200.8 μg/L Not Detected 5 1000 7/2/2015 SM	Total Nitrogen	Calculation	mg/L	Not Detected	0.5		7/7/2015	НМ
Uranium by ICP/MS EPA200.8 μg/L 1 1 30 7/2/2015 SM Vanadium, Total EPA200.8 μg/L Not Detected 5 1000 7/2/2015 SM	Total Radium 226	EPA903.0	pCi/L	0.514 ± 0.243 E		3	7/17/2015	FGL
Vanadium, Total EPA200.8 μg/L Not Detected 5 1000 7/2/2015 SM	Trihalomethanes	EPA524.2	μg/L	44 E		80	6/30/2015	BSK
To the state of th	Uranium by ICP/MS	EPA200.8	μg/L	1	1	30	7/2/2015	SM
Zinc, Total EPA200.8 μg/L Not Detected 20 5000 7/2/2015 SM	Vanadium, Total	EPA200.8	μg/L	Not Detected	5	1000	7/2/2015	SM
	Zinc, Total	EPA200.8	μg/L	Not Detected	20	5000	7/2/2015	SM

Sample Comments:

Report Approved by:

David Holland, Laboratory Director

mg/L: Milligrams per liter (=ppm)

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H = Analyzed ouside of hold time

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D = Method deviates from standard method due to insufficient sample for MS/MSD



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ELAP Certification Number: 2385

Tuesday, July 21, 2015

Lab Number: AB32317

Collection Date/Time: 6/25/2015 9:30 Sample Collector: LEAR J

Submittal Date/Time: 6/25/2015 11:25 Sample ID Coliform Designation:

Makalinity, Total (as CaCO3) SM2320B mg/L 172 2 7/7/2015 LRH	Sample Description: SMS(D)									
Altuminum, Total	Analyte	Method	Unit	Result Qual	PQL	MCL	Date Analyzed	Analyst:		
Ammonia-N SM4500NH3 D mg/L Not Detected 0.05 6/30/2015 TC Arsenic, Total EPA200.8 μg/L 6 1 10 7/2/2015 SM Barium, Total EPA200.8 μg/L 34 10 1000 7/2/2015 SM Barium, Total EPA200.7 mg/L 210 10 7/7/2015 LJ Baron EPA200.7 mg/L 0.06 0.05 7/1/2015 MW Bromide EPA300.0 mg/L 0.2 0.1 6/26/2015 MW Bromide EPA300.0 mg/L 0.2 0.1 6/26/2015 MW Bromide EPA200.7 mg/L 56 0.5 7/1/2015 MW Carbonate as CaCO3 SM2320B mg/L Not Detected 10 7/7/2015 LJ Chloride EPA300.0 mg/L Not Detected 10 7/7/2015 LJ Chloride EPA300.0 mg/L Not Detected 10 7/7/2015 LJ Chloride EPA300.0 mg/L 1.2 0.2 7/2/2015 MW DOC mg/L 3.17 ± 1.29 E 15 7/13/2015 FGL Delaloacetic Acids EPA552 μg/L 6.9 E 60 7/1/2015 BSK Delaloacetic Acids EPA552 μg/L 6.9 E 60 7/1/2015 BSK DOC EPA200.7 μg/L Not Detected 10 300 7/1/2015 MW DOC DOC mg/L 13 0.5 7/1/2015 MW DOC DOC mg/L 13 0.5 7/1/2015 MW DOC DOC Mg/L Not Detected 10 300 7/1/2015 MW DOC DOC Mg/L Not Detected 10 300 7/1/2015 MW DOC DOC Mg/L Not Detected 10 50 7/1/2015 MW DOC DOC Mg/L 13 0.5 7/1/2015 MW DOC DOC Mg/L 14 0.5 0.5 7/1/2015 MW DOC DOC Mg/L 16 0.5 0.1 10 6/26/2015 MW DOC DOC Mg/L 16 0.5 0.1 10 6/26/2015 MW DOC DOC Mg/L 16 0.5 0.1 10 6/26/2015 MW DOC DOC Mg/L 10 0.1 10 6/26/2015 MW DOC DOC Mg/	Alkalinity, Total (as CaCO3)	SM2320B	mg/L	172	2		7/7/2015	LRH		
Arsenic, Total EPA200.8 μg/L 6 1 10 7/2/2015 SM 3arium, Total EPA200.8 μg/L 34 10 1000 7/2/2015 SM 3cicarbonate (as HCO3-) SM2320B mg/L 210 10 7/7/2015 LJ 3coron EPA200.7 mg/L 0.06 0.05 7/1/2015 MW 3coron EPA200.7 mg/L 0.06 0.05 7/1/2015 MW 3coron EPA200.7 mg/L 0.06 0.05 7/1/2015 MW 3coron EPA200.7 mg/L 56 0.5 7/1/2015 MW 3coron EPA200.7 mg/L 55 0.5 7/1/2015 MW 3coron EPA200.7 mg/L 55 0.5 7/1/2015 MW 3coron EPA200.7 mg/L 55 1 250 6/26/2015 LJ 3coron EPA300.0 mg/L 55 1 250 6/26/2015 LJ 3coron EPA300.0 mg/L 55 1 250 6/26/2015 MW 3coron EPA300.0 mg/L 55 1 250 6/26/2015 MW 3coron EPA300.0 mg/L 1.2 0.2 7/2/2015 MW 3coron EPA300.0 mg/L 0.2 0.1 2.0 6/26/2015 MW 3coron EPA300.0 mg/L 0.2 0.1 2.0 6/26/2015 MW 3coron EPA300.0 pc//L 3.17 ± 1.29 E 15 7/1/3/2015 FGL 4aloacetic Acids EPA552 μg/L 6.9 E 60 7/1/2015 BSK 3coron EPA200.7 μg/L Not Detected 10 300 7/1/2015 MW 3coron EPA200.7 μg/L Not Detected 10 300 7/1/2015 MW 3coron EPA200.7 μg/L Not Detected 10 300 7/1/2015 MW 3coron EPA200.7 μg/L Not Detected 10 300 7/1/2015 MW 3coron EPA200.7 μg/L Not Detected 10 300 7/1/2015 MW 3coron EPA200.7 μg/L Not Detected 10 300 7/1/2015 MW 3coron EPA200.7 μg/L Not Detected 10 300 7/1/2015 MW 3coron EPA200.7 μg/L Not Detected 10 300 7/1/2015 MW 3coron EPA200.7 μg/L Not Detected 10 50 7/1/2015 MW 3coron EPA200.7 μg/L Not Detected 10 50 7/1/2015 MW 3coron EPA200.7 μg/L Not Detected 10 50 7/1/2015 MW 3coron EPA200.7 μg/L Not Detected 10 50 7/1/2015 MW 3coron EPA200.8 μg/L 19 1 7/2/2015 SM 3coron EPA200.8 μg/L 16 0.5 2 7/2/2015 SM 3coron EPA200.0 mg/L Not Detected 10 10 7/2/2015 SM 3coron EPA200.0 mg/L Not Detected 10 10 7/2/2015 SM 3coron EPA200.0 mg/L Not Detected 10 10 7/2/2015 SM 3coron EPA200.0 mg/L Not Detected	Aluminum, Total	EPA200.8	μg/L	Not Detected	10	1000	7/2/2015	SM		
Barium, Total EPA200.8 µg/L 34 10 1000 7/2/2015 SM	Ammonia-N	SM4500NH3 D	mg/L	Not Detected	0.05		6/30/2015	TC		
Silicarbonate (as HCO3-) SM2320B mg/L 210 10 7/7/2015 LJ	Arsenic, Total	EPA200.8	μg/L	6	1	10	7/2/2015	SM		
Boron EPA200.7 mg/L 0.06 0.05 7/1/2015 MW	Barium, Total	EPA200.8	μg/L	34	10	1000	7/2/2015	SM		
Page	Bicarbonate (as HCO3-)	SM2320B	mg/L	210	10		7/7/2015	LJ		
Calcium EPA200.7 mg/L 56 0.5 7/1/2015 MW	Boron	EPA200.7	mg/L	0.06	0.05		7/1/2015	MW		
Carbonate as CaCO3 SM2320B mg/L Not Detected 10 7/7/2015 LJ Chloramines SM4500-CI G mg/L Not Detected 0.05 6/25/2015 LJ Chloride EPA300.0 mg/L 55 1 250 6/26/2015 MW DOC mg/L 1.2 0.2 7/2/2015 MW POC mg/L 1.2 0.2 7/2/2015 MW POC mg/L 0.2 0.1 2.0 6/26/2015 MW POCO mg/L 0.2 0.1 2.0 6/26/2015 MW POCO mg/L 0.2 0.1 0.1	Bromide	EPA300.0	mg/L	0.2	0.1		6/26/2015	MW		
Chloramines SM4500-CI G mg/L Not Detected 0.05 6/25/2015 LJ Chloride EPA300.0 mg/L 55 1 250 6/26/2015 MW DOC mg/L 1.2 0.2 7/2/2015 MW Fluoride EPA300.0 mg/L 0.2 0.1 2.0 6/26/2015 MW Gross Alpha EPA300.0 pCi/L 3.17 ± 1.29 E 15 7/13/2015 FGL Haloacetic Acids EPA552 µg/L 6.9 E 60 7/1/2015 BSK ron EPA200.7 µg/L Not Detected 10 300 7/1/2015 MW Kjehldahl Nitrogen SM4500-NH3 B,C. mg/L Not Detected 10 300 7/1/2015 MW Kjehldahl Nitrogen SM4500-NH3 B,C. mg/L Not Detected 0.5 7/7/2015 TC Lithium EPA200.7 µg/L 19 1 7/2/2015 SM Magnesium EPA200.7 </td <td>Calcium</td> <td>EPA200.7</td> <td>mg/L</td> <td>56</td> <td>0.5</td> <td></td> <td>7/1/2015</td> <td>MW</td>	Calcium	EPA200.7	mg/L	56	0.5		7/1/2015	MW		
Chloride	Carbonate as CaCO3	SM2320B	mg/L	Not Detected	10		7/7/2015	LJ		
DOC	Chloramines	SM4500-CI G	mg/L	Not Detected	0.05		6/25/2015	LJ		
Filtoride	Chloride	EPA300.0	mg/L	55	1	250	6/26/2015	MW		
Gross Alpha EPA900.0 pCi/L 3.17 ± 1.29 E 15 7/13/2015 FGL Haloacetic Acids EPA552 μg/L 6.9 E 60 7/1/2015 BSK ron EPA200.7 μg/L Not Detected 10 300 7/1/2015 MW ron, Dissolved EPA200.7 μg/L Not Detected 10 300 7/1/2015 MW Kjehldahl Nitrogen SM4500-NH3 B,C. mg/L Not Detected 0.5 7/7/2015 TC Lithium EPA200.8 μg/L 19 1 7/2/2015 SM Magnesium EPA200.8 μg/L 13 0.5 7/1/2015 MW Manganese, Dissolved EPA200.7 μg/L Not Detected 10 50 7/1/2015 MW Mercury, Total EPA200.7 μg/L Not Detected 10 50 7/1/2015 MW Methane EPA174/175 μg/L 0.80 E 0.1 7/1/2015 SM	DOC		mg/L	1.2	0.2		7/2/2015	MW		
Haloacetic Acids EPA552 μg/L 6.9 E 60 7/1/2015 BSK	Fluoride	EPA300.0	mg/L	0.2	0.1	2.0	6/26/2015	MW		
FPA200.7 μg/L Not Detected 10 300 7/1/2015 MW	Gross Alpha	EPA900.0	pCi/L	3.17 ± 1.29 E		15	7/13/2015	FGL		
From Dissolved FPA200.7 μg/L Not Detected 10 300 7/1/2015 MW	Haloacetic Acids	EPA552	μg/L	6.9 E		60	7/1/2015	BSK		
Kjehldahl Nitrogen SM4500-NH3 B,C. mg/L Not Detected 0.5 7/7/2015 TC Lithium EPA200.8 μg/L 19 1 7/2/2015 SM Magnesium EPA200.7 mg/L 13 0.5 7/1/2015 MW Manganese, Dissolved EPA200.7 μg/L Not Detected 10 50 7/1/2015 MW Manganese, Total EPA200.7 μg/L Not Detected 10 50 7/1/2015 MW Mercury, Total EPA200.8 μg/L 1.6 0.5 2 7/2/2015 SM Methane EPA174/175 μg/L 0.80 E 0.1 7/1/2015 MCCAM Molybdenum, Total EPA200.8 μg/L 10 1 1000 7/2/2015 SM Nickel, Total EPA200.8 μg/L Not Detected 10 100 7/2/2015 SM Nitrate as NO3 EPA300.0 mg/L Not Detected 1 45 6/26/2015 MW	Iron	EPA200.7	μg/L	Not Detected	10	300	7/1/2015	MW		
Lithium EPA200.8 µg/L 19 1 7/2/2015 SM Magnesium EPA200.7 mg/L 13 0.5 7/1/2015 MW Manganese, Dissolved EPA200.7 µg/L Not Detected 10 50 7/1/2015 MW Manganese, Total EPA200.7 µg/L Not Detected 10 50 7/1/2015 MW Mercury, Total EPA200.8 µg/L 1.6 0.5 2 7/2/2015 SM Methane EPA174/175 µg/L 0.80 E 0.1 7/1/2015 MCCAM Molybdenum, Total EPA200.8 µg/L 10 1 1000 7/2/2015 SM Nickel, Total EPA200.8 µg/L Not Detected 10 100 7/2/2015 SM Nitrate as NO3 EPA300.0 mg/L Not Detected 10 100 7/2/2015 SM Nitrate as NO3-N EPA300.0 mg/L Not Detected 1 10 100 7/2/2015 MW Nitrate+Nitrite as N EPA300.0 mg/L 0.1 0.1 10 6/26/2015 MW	Iron, Dissolved	EPA200.7	μg/L	Not Detected	10	300	7/1/2015	MW		
Magnesium EPA200.7 mg/L 13 0.5 7/1/2015 MW Manganese, Dissolved EPA200.7 μg/L Not Detected 10 50 7/1/2015 MW Manganese, Total EPA200.7 μg/L Not Detected 10 50 7/1/2015 MW Mercury, Total EPA200.8 μg/L 1.6 0.5 2 7/2/2015 SM Methane EPA174/175 μg/L 0.80 E 0.1 7/1/2015 MCCAM Molybdenum, Total EPA200.8 μg/L 10 1 1000 7/2/2015 SM Nickel, Total EPA200.8 μg/L Not Detected 10 100 7/2/2015 SM Nitrate as NO3 EPA300.0 mg/L Not Detected 1 45 6/26/2015 MW Nitrate+Nitrite as N EPA300.0 mg/L 0.1 0.1 6/26/2015 MW	Kjehldahl Nitrogen	SM4500-NH3 B,C.	mg/L	Not Detected	0.5		7/7/2015	TC		
Manganese, Dissolved EPA200.7 μg/L Not Detected 10 50 7/1/2015 MW Manganese, Total EPA200.7 μg/L Not Detected 10 50 7/1/2015 MW Mercury, Total EPA200.8 μg/L 1.6 0.5 2 7/2/2015 SM Methane EPA174/175 μg/L 0.80 E 0.1 7/1/2015 MCCAM Molybdenum, Total EPA200.8 μg/L 10 1 1000 7/2/2015 SM Nickel, Total EPA200.8 μg/L Not Detected 10 100 7/2/2015 SM Nitrate as NO3 EPA300.0 mg/L Not Detected 1 45 6/26/2015 MW Nitrate +Nitrite as N EPA300.0 mg/L 0.1 0.1 6/26/2015 MW	Lithium	EPA200.8	μg/L	19	1		7/2/2015	SM		
Manganese, Total EPA200.7 μg/L Not Detected 10 50 7/1/2015 MW Mercury, Total EPA200.8 μg/L 1.6 0.5 2 7/2/2015 SM Methane EPA174/175 μg/L 0.80 E 0.1 7/1/2015 MCCAM Molybdenum, Total EPA200.8 μg/L 10 1 1000 7/2/2015 SM Nickel, Total EPA200.8 μg/L Not Detected 10 100 7/2/2015 SM Nitrate as NO3 EPA300.0 mg/L Not Detected 1 45 6/26/2015 MW Nitrate as NO3-N EPA300.0 mg/L 0.1 0.1 10 6/26/2015 MW Nitrate+Nitrite as N EPA300.0 mg/L 0.5 0.1 6/26/2015 MW	Magnesium	EPA200.7	mg/L	13	0.5		7/1/2015	MW		
Mercury, Total EPA200.8 μg/L 1.6 0.5 2 7/2/2015 SM Methane EPA174/175 μg/L 0.80 E 0.1 7/1/2015 MCCAM Molybdenum, Total EPA200.8 μg/L 10 1 1000 7/2/2015 SM Nickel, Total EPA200.8 μg/L Not Detected 10 100 7/2/2015 SM Nitrate as NO3 EPA300.0 mg/L Not Detected 1 45 6/26/2015 MW Nitrate as NO3-N EPA300.0 mg/L 0.1 0.1 10 6/26/2015 MW Nitrate+Nitrite as N EPA300.0 mg/L 0.5 0.1 6/26/2015 MW	Manganese, Dissolved	EPA200.7	μg/L	Not Detected	10	50	7/1/2015	MW		
Methane EPA174/175 μg/L 0.80 E 0.1 7/1/2015 MCCAM Molybdenum, Total EPA200.8 μg/L 10 1 1000 7/2/2015 SM Nickel, Total EPA200.8 μg/L Not Detected 10 100 7/2/2015 SM Nitrate as NO3 EPA300.0 mg/L Not Detected 1 45 6/26/2015 MW Nitrate as NO3-N EPA300.0 mg/L 0.1 0.1 10 6/26/2015 MW Nitrate+Nitrite as N EPA300.0 mg/L 0.5 0.1 6/26/2015 MW	Manganese, Total	EPA200.7	μg/L	Not Detected	10	50	7/1/2015	MW		
Molybdenum, Total EPA200.8 μg/L 10 1 1000 7/2/2015 SM Nickel, Total EPA200.8 μg/L Not Detected 10 100 7/2/2015 SM Nitrate as NO3 EPA300.0 mg/L Not Detected 1 45 6/26/2015 MW Nitrate as NO3-N EPA300.0 mg/L 0.1 0.1 10 6/26/2015 MW Nitrate+Nitrite as N EPA300.0 mg/L 0.5 0.1 6/26/2015 MW	Mercury, Total	EPA200.8	μg/L	1.6	0.5	2	7/2/2015	SM		
Nickel, Total EPA200.8 μg/L Not Detected 10 100 7/2/2015 SM Nitrate as NO3 EPA300.0 mg/L Not Detected 1 45 6/26/2015 MW Nitrate as NO3-N EPA300.0 mg/L 0.1 0.1 10 6/26/2015 MW Nitrate+Nitrite as N EPA300.0 mg/L 0.5 0.1 6/26/2015 MW	Methane	EPA174/175	μg/L	0.80 E	0.1		7/1/2015	MCCAM		
Nitrate as NO3 EPA300.0 mg/L Not Detected 1 45 6/26/2015 MW Nitrate as NO3-N EPA300.0 mg/L 0.1 0.1 10 6/26/2015 MW Nitrate+Nitrite as N EPA300.0 mg/L 0.5 0.1 6/26/2015 MW	Molybdenum, Total	EPA200.8	μg/L	10	1	1000	7/2/2015	SM		
Nitrate as NO3-N EPA300.0 mg/L 0.1 0.1 10 6/26/2015 MW Nitrate+Nitrite as N EPA300.0 mg/L 0.5 0.1 6/26/2015 MW	Nickel, Total	EPA200.8	μg/L	Not Detected	10	100	7/2/2015	SM		
Nitrate+Nitrite as N EPA300.0 mg/L 0.5 0.1 6/26/2015 MW	Nitrate as NO3	EPA300.0	mg/L	Not Detected	1	45	6/26/2015	MW		
	Nitrate as NO3-N	EPA300.0	mg/L	0.1	0.1	10	6/26/2015	MW		
Nitrite as NO2-N EPA300.0 mg/L 0.4 0.1 1.0 6/26/2015 MW	Nitrate+Nitrite as N	EPA300.0	mg/L	0.5	0.1		6/26/2015	MW		
	Nitrite as NO2-N	EPA300.0	mg/L	0.4	0.1	1.0	6/26/2015	MW		

mg/L: Milligrams per liter (=ppm)

ug/L : Micrograms per liter (=ppb)

PQL : Practical Quantitation Limit

H = Analyzed ouside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

D = Method deviates from standard method due to insufficient sample for MS/MSD



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ELAP Certification Number: 2385

Tuesday, July 21, 2015

Lab Number: AB32317

Collection Date/Time: 6/25/2015 9:30 Sample Collector: LEAR J

Submittal Date/Time: 6/25/2015 Sample ID 11:25 Coliform Designation:

P-Phosphate-P EPA300.0 mg/L Not Detected 0.1 6/26/2015 MW SH (Laboratory) SM4500-H+B pH (H) 7.6 0.1 6/25/2015 LRH Phosphorus, Total HACH 8190 mg/L 0.10 0.03 7/17/2015 LRH Potassium EPA200.7 mg/L 3.0 0.5 7/1/2015 MW DC Anion Sum x 100 Calculation % 101% 7/17/2015 LJ DC Anion-Cation Balance Calculation % 35% 7/1/2015 LJ DC Cation Sum x 100 Calculation % 95% 7/6/2015 TC DC Cation Sum x 100 Calculation % 95% 7/6/2015 TC DC Cation Sum x 100 Calculation % 95% 7/6/2015 TC DC Ratio TDS/SEC Calculation 0.61 7/2/2015 HM Selenium, Total EPA200.8 µg/L 4 2 50 7/2/2015 SM Selenium, Total EPA200.7 mg/L 27 0.5 7/1/2015 MW Sodium EPA200.7 mg/L 53 0.5 7/1/2015 MW Specific Conductance (E.C) SM2510B µmhos/cm 656 1 900 6/30/2015 LJ Strontium, Total EPA200.8 µg/L 383 5 7/2/2015 SM Sulfate EPA300.0 mg/L 380 1 250 6/26/2015 MW TOTAL EPA300.0 mg/L 30 7/1/2015 EPA300.0 mg/L 30 7/1/2015 HM TOTAL EPA300.0 pCi/L 0.244 ± 0.176 E 3 7/17/2015 FGL Trihalomethanes EPA524.2 µg/L 63 E 80 6/30/2015 BSK Janiam by ICP/MS EPA200.8 µg/L 3 1 30 7/2/2015 SM Janiam by ICP/MS EPA200.8 µg/L 3 1 30 7/2/2015 SM Janiam by ICP/MS EPA200.8 µg/L 3 1 30 7/2/2015 SM Janiam by ICP/MS EPA200.8 µg/L 3 1 30 7/2/2015 SM Janiam by ICP/MS EPA200.8 µg/L 3 1 30 7/2/2015 SM Janiam by ICP/MS EPA200.8 µg/L 3 1 30 7/2/2015 SM Janiam by ICP/MS EPA200.8 µg/L 3 1 30 7/2/2015 SM Janiam by ICP/MS EPA200.8 µg/L 3 1 30 7/2/2015 SM Janiam by ICP/MS EPA200.8 µg/L 3 1 30 7/2/2015 SM			Sample I	Description: SMS(D)				
SH (Laboratory) SM4500-H+B pH (H) 7.6 0.1 6/25/2015 LRH Phosphorus, Total HACH 8190 mg/L 0.10 0.03 7/17/2015 LRH Potassium EPA200.7 mg/L 3.0 0.5 7/1/2015 MW DC Anion Sum x 100 Calculation % 101% 7/7/2015 LJ DC Cation Sum x 100 Calculation % 95% 7/6/2015 TC DC Cation Sum x 100 Calculation % 95% 7/6/2015 TC DC Cation Sum x 100 Calculation % 95% 7/6/2015 TC DC Cation Sum x 100 Calculation % 95% 7/6/2015 TC DC Cation Sum x 100 Calculation % 95% 7/6/2015 TC DC Cation Sum x 100 Calculation 95% 7/6/2015 TC DC Cation Sum x 100 Calculation 95% 7/6/2015 MW Silica as SiO2, Total EPA200.8 µg/L 4 2	Analyte	Method	Unit	Result Qual	PQL	MCL	Date Analyzed	Analyst:
Phosphorus, Total HACH 8190 mg/L 0.10 0.03 7/17/2015 LRH Potassium EPA200.7 mg/L 3.0 0.5 7/1/2015 MW QC Anion Sum x 100 Calculation % 101% 7/7/2015 LJ QC Anion-Cation Balance Calculation % -3 7/17/2015 LJ QC Cation Sum x 100 Calculation % 95% 7/6/2015 TC QC Ratio TDS/SEC Calculation 0.61 7/2/2015 HM Selenium, Total EPA200.8 μg/L 4 2 50 7/2/2015 SM Silica as SiO2, Total EPA200.7 mg/L 27 0.5 7/1/2015 MW Sodium EPA200.7 mg/L 53 0.5 7/1/2015 MW Specific Conductance (E.C) SM2510B μmhos/cm 656 1 900 6/30/2015 LJ Strontium, Total EPA200.8 μg/L 383 5 7/2/2015 SM	o-Phosphate-P	EPA300.0	mg/L	Not Detected	0.1		6/26/2015	MW
Potassium EPA200.7 mg/L 3.0 0.5 7/1/2015 MW QC Anion Sum x 100 Calculation % 101% 7/7/2015 LJ QC Anion-Cation Balance Calculation % -3 7/6/2015 LJ QC Cation Sum x 100 Calculation % 95% 7/6/2015 TC QC Ratio TDS/SEC Calculation 0.61 7/2/2015 HM Selenium, Total EPA200.8 μg/L 4 2 50 7/2/2015 SM Silica as SiO2, Total EPA200.7 mg/L 27 0.5 7/1/2015 MW Sodium EPA200.7 mg/L 53 0.5 7/1/2015 MW Specific Conductance (E.C) SM2510B μmhos/cm 656 1 900 6/30/2015 LJ Strontium, Total EPA200.8 μg/L 383 5 7/2/2015 SM Sulfate EPA300.0 mg/L 80 1 250 6/26/2015 MW	pH (Laboratory)	SM4500-H+B	pH (H)	7.6	0.1		6/25/2015	LRH
DC Anion Sum x 100 Calculation % 101% 7/7/2015 LJ DC Anion-Cation Balance Calculation % -3 7/7/2015 LJ DC Cation Sum x 100 Calculation % 95% 7/6/2015 TC DC Ratio TDS/SEC Calculation 0.61 7/2/2015 HM Selenium, Total EPA200.8 μg/L 4 2 50 7/2/2015 SM Silica as SiO2, Total EPA200.7 mg/L 27 0.5 7/1/2015 MW Sodium EPA200.7 mg/L 53 0.5 7/1/2015 MW Specific Conductance (E.C) SM2510B μmhos/cm 656 1 900 6/30/2015 LJ Strontium, Total EPA200.8 μg/L 383 5 7/2/2015 SM Sulfate EPA300.0 mg/L 80 1 250 6/26/2015 MW Total Diss. Solids SM2540C mg/L 397 10 500 6/30/2015 H	Phosphorus, Total	HACH 8190	mg/L	0.10	0.03		7/17/2015	LRH
OC Anion-Cation Balance Calculation % -3 7/7/2015 LJ OC Cation Sum x 100 Calculation % 95% 7/6/2015 TC OC Ratio TDS/SEC Calculation 0.61 7/2/2015 HM Selenium, Total EPA200.8 μg/L 4 2 50 7/2/2015 SM Silica as SiO2, Total EPA200.7 mg/L 27 0.5 7/1/2015 MW Sodium EPA200.7 mg/L 53 0.5 7/1/2015 MW Specific Conductance (E.C) SM2510B μmhos/cm 656 1 900 6/30/2015 LJ Strontium, Total EPA200.8 μg/L 383 5 7/2/2015 SM Sulfate EPA300.0 mg/L 80 1 250 6/26/2015 MW FOC SM5310C mg/L 1.2 0.2 7/2/2015 MW Total Diss. Solids SM2540C mg/L 397 10 500 6/30/2015 <	Potassium	EPA200.7	mg/L	3.0	0.5		7/1/2015	MW
OC Cation Sum x 100 Calculation % 95% 7/6/2015 TC OC Ratio TDS/SEC Calculation 0.61 7/2/2015 HM Selenium, Total EPA200.8 μg/L 4 2 50 7/2/2015 SM Silica as SiO2, Total EPA200.7 mg/L 27 0.5 7/1/2015 MW Sodium EPA200.7 mg/L 53 0.5 7/1/2015 MW Specific Conductance (E.C) SM2510B μmhos/cm 656 1 900 6/30/2015 LJ Strontium, Total EPA200.8 μg/L 383 5 7/2/2015 SM Sulfate EPA300.0 mg/L 80 1 250 6/26/2015 MW TOC SM5310C mg/L 1.2 0.2 7/2/2015 MW Total Diss. Solids SM2540C mg/L 397 10 500 6/30/2015 HM Total Nitrogen Calculation mg/L 0.5 7/7/2015 HM	QC Anion Sum x 100	Calculation	%	101%			7/7/2015	LJ
QC Ratio TDS/SEC Calculation 0.61 7/2/2015 HM Selenium, Total EPA200.8 μg/L 4 2 50 7/2/2015 SM Silica as SiO2, Total EPA200.7 mg/L 27 0.5 7/1/2015 MW Sodium EPA200.7 mg/L 53 0.5 7/1/2015 MW Specific Conductance (E.C) SM2510B μmhos/cm 656 1 900 6/30/2015 LJ Strontium, Total EPA200.8 μg/L 383 5 7/2/2015 SM Sulfate EPA300.0 mg/L 80 1 250 6/26/2015 MW TOC SM5310C mg/L 1.2 0.2 7/2/2015 MW Total Diss. Solids SM2540C mg/L 397 10 500 6/30/2015 HM Total Radium 226 EPA903.0 pCi/L 0.244 ± 0.176 E 3 7/17/2015 FGL Trihalomethanes EPA524.2 μg/L 63<	QC Anion-Cation Balance	Calculation	%	-3			7/7/2015	LJ
Selenium, Total EPA200.8 μg/L 4 2 50 7/2/2015 SM Silica as SiO2, Total EPA200.7 mg/L 27 0.5 7/1/2015 MW Sodium EPA200.7 mg/L 53 0.5 7/1/2015 MW Specific Conductance (E.C) SM2510B μmhos/cm 656 1 900 6/30/2015 LJ Strontium, Total EPA200.8 μg/L 383 5 7/2/2015 SM Sulfate EPA300.0 mg/L 80 1 250 6/26/2015 MW STOC SM5310C mg/L 1.2 0.2 7/2/2015 MW STOTAL Diss. Solids SM2540C mg/L 397 10 500 6/30/2015 HM STOTAL Solids SM2540C mg/L 397 10 500 6/30/2015 HM STOTAL Solids SM2540C mg/L 397 10 500 6/30/2015 HM STOTAL Solids SM2540C mg/L 397 10 500 6/30/2015 HM STOTAL Solids SM2540C mg/L 397 10 500 6/30/2015 HM STOTAL Solids SM2540C mg/L 397 10 500 6/30/2015 HM STOTAL Solids SM2540C mg/L 397 10 500 6/30/2015 HM STOTAL SOLIDATION SO	QC Cation Sum x 100	Calculation	%	95%			7/6/2015	TC
Silica as SiO2, Total EPA200.7 mg/L 27 0.5 7/1/2015 MW Sodium EPA200.7 mg/L 53 0.5 7/1/2015 MW Specific Conductance (E.C) SM2510B μmhos/cm 656 1 900 6/30/2015 LJ Strontium, Total EPA200.8 μg/L 383 5 7/2/2015 SM Sulfate EPA300.0 mg/L 80 1 250 6/26/2015 MW TOC SM5310C mg/L 1.2 0.2 7/2/2015 MW Total Diss. Solids SM2540C mg/L 397 10 500 6/30/2015 HM Total Nitrogen Calculation mg/L 0.5 0.5 7/7/2015 HM Total Radium 226 EPA903.0 pCi/L 0.244 ± 0.176 E 3 7/17/2015 FGL Trihalomethanes EPA524.2 μg/L 63 E 80 6/30/2015 BSK Uranium by ICP/MS EPA200.8 μg/L 3 1 30 7/2/2015 SM	QC Ratio TDS/SEC	Calculation		0.61			7/2/2015	HM
Sodium EPA200.7 mg/L 53 0.5 7/1/2015 MW Specific Conductance (E.C) SM2510B μmhos/cm 656 1 900 6/30/2015 LJ Strontium, Total EPA200.8 μg/L 383 5 7/2/2015 SM Sulfate EPA300.0 mg/L 80 1 250 6/26/2015 MW FOC SM5310C mg/L 1.2 0.2 7/2/2015 MW Fotal Diss. Solids SM2540C mg/L 397 10 500 6/30/2015 HM Fotal Nitrogen Calculation mg/L 0.5 0.5 7/7/2015 HM Fotal Radium 226 EPA903.0 pCi/L 0.244 ± 0.176 E 3 7/17/2015 FGL Trihalomethanes EPA524.2 μg/L 63 E 80 6/30/2015 BSK Jranium by ICP/MS EPA200.8 μg/L 3 1 30 7/2/2015 SM Anadium, Total	Selenium, Total	EPA200.8	μg/L	4	2	50	7/2/2015	SM
Specific Conductance (E.C) SM2510B μmhos/cm 656 1 900 6/30/2015 LJ Strontium, Total EPA200.8 μg/L 383 5 7/2/2015 SM Sulfate EPA300.0 mg/L 80 1 250 6/26/2015 MW FOC SM5310C mg/L 1.2 0.2 7/2/2015 MW Fotal Diss. Solids SM2540C mg/L 397 10 500 6/30/2015 HM Fotal Nitrogen Calculation mg/L 0.5 0.5 7/7/2015 HM Fotal Radium 226 EPA903.0 pCi/L 0.244 ± 0.176 E 3 7/17/2015 FGL Frihalomethanes EPA524.2 μg/L 63 E 80 6/30/2015 BSK Jranium by ICP/MS EPA200.8 μg/L 3 1 30 7/2/2015 SM Anadium, Total EPA200.8 μg/L Not Detected 5 1000 7/2/2015 SM	Silica as SiO2, Total	EPA200.7	mg/L	27	0.5		7/1/2015	MW
Strontium, Total EPA200.8 μg/L 383 5 7/2/2015 SM Sulfate EPA300.0 mg/L 80 1 250 6/26/2015 MW FOC SM5310C mg/L 1.2 0.2 7/2/2015 MW Total Diss. Solids SM2540C mg/L 397 10 500 6/30/2015 HM Total Nitrogen Calculation mg/L 0.5 0.5 7/7/2015 HM Total Radium 226 EPA903.0 pCi/L 0.244 ± 0.176 E 3 7/17/2015 FGL Trihalomethanes EPA524.2 μg/L 63 E 80 6/30/2015 BSK Uranium by ICP/MS EPA200.8 μg/L 3 1 30 7/2/2015 SM /anadium, Total EPA200.8 μg/L Not Detected 5 1000 7/2/2015 SM	Sodium	EPA200.7	mg/L	53	0.5		7/1/2015	MW
Sulfate EPA300.0 mg/L 80 1 250 6/26/2015 MW FOC SM5310C mg/L 1.2 0.2 7/2/2015 MW Fotal Diss. Solids SM2540C mg/L 397 10 500 6/30/2015 HM Fotal Nitrogen Calculation mg/L 0.5 0.5 7/7/2015 HM Fotal Radium 226 EPA903.0 pCi/L 0.244 ± 0.176 E 3 7/17/2015 FGL Frihalomethanes EPA524.2 µg/L 63 E 80 6/30/2015 BSK Uranium by ICP/MS EPA200.8 µg/L 3 1 30 7/2/2015 SM /anadium, Total EPA200.8 µg/L Not Detected 5 1000 7/2/2015 SM	Specific Conductance (E.C)	SM2510B	µmhos/cm	656	1	900	6/30/2015	LJ
FOC SM5310C mg/L 1.2 0.2 7/2/2015 MW Total Diss. Solids SM2540C mg/L 397 10 500 6/30/2015 HM Total Nitrogen Calculation mg/L 0.5 0.5 7/7/2015 HM Total Radium 226 EPA903.0 pCi/L 0.244 ± 0.176 E 3 7/17/2015 FGL Trihalomethanes EPA524.2 μg/L 63 E 80 6/30/2015 BSK Uranium by ICP/MS EPA200.8 μg/L 3 1 30 7/2/2015 SM /anadium, Total EPA200.8 μg/L Not Detected 5 1000 7/2/2015 SM	Strontium, Total	EPA200.8	μg/L	383	5		7/2/2015	SM
Total Diss. Solids SM2540C mg/L 397 10 500 6/30/2015 HM Total Nitrogen Calculation mg/L 0.5 0.5 7/7/2015 HM Total Radium 226 EPA903.0 pCi/L 0.244 ± 0.176 E 3 7/17/2015 FGL Trihalomethanes EPA524.2 μg/L 63 E 80 6/30/2015 BSK Uranium by ICP/MS EPA200.8 μg/L 3 1 30 7/2/2015 SM /anadium, Total EPA200.8 μg/L Not Detected 5 1000 7/2/2015 SM	Sulfate	EPA300.0	mg/L	80	1	250	6/26/2015	MW
Total Nitrogen Calculation mg/L 0.5 0.5 7/7/2015 HM Total Radium 226 EPA903.0 pCi/L 0.244 ± 0.176 E 3 7/17/2015 FGL Trihalomethanes EPA524.2 μg/L 63 E 80 6/30/2015 BSK Jranium by ICP/MS EPA200.8 μg/L 3 1 30 7/2/2015 SM /anadium, Total EPA200.8 μg/L Not Detected 5 1000 7/2/2015 SM	TOC	SM5310C	mg/L	1.2	0.2		7/2/2015	MW
Fotal Radium 226 EPA903.0 pCi/L 0.244 ± 0.176 E 3 7/17/2015 FGL Trihalomethanes EPA524.2 μg/L 63 E 80 6/30/2015 BSK Jranium by ICP/MS EPA200.8 μg/L 3 1 30 7/2/2015 SM /anadium, Total EPA200.8 μg/L Not Detected 5 1000 7/2/2015 SM	Total Diss. Solids	SM2540C	mg/L	397	10	500	6/30/2015	HM
Frihalomethanes EPA524.2 μg/L 63 E 80 6/30/2015 BSK Jranium by ICP/MS EPA200.8 μg/L 3 1 30 7/2/2015 SM /anadium, Total EPA200.8 μg/L Not Detected 5 1000 7/2/2015 SM	Total Nitrogen	Calculation	mg/L	0.5	0.5		7/7/2015	HM
Jranium by ICP/MS EPA200.8 μg/L 3 1 30 7/2/2015 SM /anadium, Total EPA200.8 μg/L Not Detected 5 1000 7/2/2015 SM	Total Radium 226	EPA903.0	pCi/L	0.244 ± 0.176 E		3	7/17/2015	FGL
/anadium, Total EPA200.8 μg/L Not Detected 5 1000 7/2/2015 SM	Trihalomethanes	EPA524.2	μg/L	63 E		80	6/30/2015	BSK
	Uranium by ICP/MS	EPA200.8	μg/L	3	1	30	7/2/2015	SM
Zinc, Total EPA200.8 µg/L Not Detected 20 5000 7/2/2015 SM	Vanadium, Total	EPA200.8	μg/L	Not Detected	5	1000	7/2/2015	SM
	Zinc, Total	EPA200.8	μg/L	Not Detected	20	5000	7/2/2015	SM

Sample Comments:

Report Approved by:

David Holland, Laboratory Director

mg/L: Milligrams per liter (=ppm)

ug/L: Micrograms per liter (=ppb)

PQL: Practical Quantitation Limit

H = Analyzed ouside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

D = Method deviates from standard method due to insufficient sample for MS/MSD



4 Justin Court Suite D, Monterey, CA 93940 831.375.MBAS www.MBASinc.com

ELAP Certification Number: 2385

Tuesday, July 21, 2015

Lab Number: AB32318

Collection Date/Time: 6/25/2015 10:30 Sample Collector: LEAR J

Submittal Date/Time: 6/25/2015 11:25 Sample ID Coliform Designation:

Sample Description: ASR3 Test									
Analyte	Method	Unit	Result Qual	PQL	MCL	Date Analyzed	Analyst:		
Alkalinity, Total (as CaCO3)	SM2320B	mg/L	166	2		7/7/2015	LRH		
Aluminum, Total	EPA200.8	μg/L	Not Detected	10	1000	7/2/2015	SM		
Ammonia-N	SM4500NH3 D	mg/L	Not Detected	0.05		6/30/2015	TC		
Arsenic, Total	EPA200.8	μg/L	4	1	10	7/2/2015	SM		
Barium, Total	EPA200.8	μg/L	75	10	1000	7/2/2015	SM		
Bicarbonate (as HCO3-)	SM2320B	mg/L	203	10		7/7/2015	LJ		
Boron	EPA200.7	mg/L	0.05	0.05		7/1/2015	MW		
Bromide	EPA300.0	mg/L	0.2	0.1		6/26/2015	MW		
Calcium	EPA200.7	mg/L	50	0.5		7/1/2015	MW		
Carbonate as CaCO3	SM2320B	mg/L	Not Detected	10		7/7/2015	LJ		
Chloramines	SM4500-CI G	mg/L	Not Detected	0.05		6/25/2015	LJ		
Chloride	EPA300.0	mg/L	55	1	250	6/26/2015	MW		
OOC		mg/L	1.4	0.2		7/2/2015	MW		
Fluoride	EPA300.0	mg/L	0.3	0.1	2.0	6/26/2015	MW		
Gross Alpha	EPA900.0	pCi/L	1.33 ± 1.52 E		15	7/13/2015	FGL		
Haloacetic Acids	EPA552	μg/L	8.7 E		60	7/1/2015	BSK		
ron	EPA200.7	μg/L	156	10	300	7/1/2015	MW		
ron, Dissolved	EPA200.7	μg/L	Not Detected	10	300	7/1/2015	MW		
Kjehldahl Nitrogen	SM4500-NH3 B,C.	mg/L	Not Detected	0.5		7/7/2015	TC		
Lithium	EPA200.8	μg/L	18	1		7/2/2015	SM		
Magnesium	EPA200.7	mg/L	17	0.5		7/1/2015	MW		
Manganese, Dissolved	EPA200.7	μg/L	21	10	50	7/1/2015	MW		
Manganese, Total	EPA200.7	μg/L	22	10	50	7/1/2015	MW		
Mercury, Total	EPA200.8	μg/L	1.1	0.5	2	7/2/2015	SM		
Methane	EPA174/175	μg/L	1.1 E	0.1		7/1/2015	MCCAM		
Molybdenum, Total	EPA200.8	μg/L	20	1	1000	7/2/2015	SM		
Nickel, Total	EPA200.8	μg/L	11	10	100	7/2/2015	SM		
Nitrate as NO3	EPA300.0	mg/L	Not Detected	1	45	6/26/2015	MW		
Nitrate as NO3-N	EPA300.0	mg/L	0.1	0.1	10	6/26/2015	MW		
Nitrate+Nitrite as N	EPA300.0	mg/L	0.5	0.1		6/26/2015	MW		
Nitrite as NO2-N	EPA300.0	mg/L	0.4	0.1	1.0	6/26/2015	MW		

mg/L: Milligrams per liter (=ppm)

ug/L : Micrograms per liter (=ppb)

PQL : Practical Quantitation Limit

H = Analyzed ouside of hold time E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

D = Method deviates from standard method due to insufficient sample for MS/MSD



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ELAP Certification Number: 2385

Tuesday, July 21, 2015

Lab Number: AB32318

Collection Date/Time: 6/25/2015 10:30 Sample Collector: LEAR J

Submittal Date/Time: 6/25/2015 11:25 Sample ID Coliform Designation:

o-Phosphate-P EPA300.0 mg/L 0.2 0.1 6/26/2015 MW pH (Laboratory) SM4500-H+B pH (H) 7.4 0.1 6/25/2015 LRH Phosphorus, Total HACH 8190 mg/L 0.21 0.03 7/17/2015 LRH Potassium EPA200.7 mg/L 3.2 0.5 7/1/2015 MW QC Anion Sum x 100 Calculation % 102% 7/7/2015 LJ QC Anion-Cation Balance Calculation % 97% 7/6/2015 LJ QC Cation Sum x 100 Calculation % 97% 7/6/2015 TC QC Ratio TDS/SEC Calculation 0.60 7/2/2015 HM Selenium, Total EPA200.8 μg/L 4 2 50 7/2/2015 SM Silica as SiO2, Total EPA200.7 mg/L 27 0.5 7/1/2015 MW Sodium EPA200.7 mg/L 52 0.5 7/1/2015 MW Strontium, Total			Sample De	escription: ASR3 Te	est			
pH (Laboratory) SM4500-H+B pH (H) 7.4 0.1 6/25/2015 LRH Phosphorus, Total HACH 8190 mg/L 0.21 0.03 7/17/2015 LRH Potassium EPA200.7 mg/L 3.2 0.5 7/1/2015 MW QC Anion Sum x 100 Calculation % -3 7/7/2015 LJ QC Anion-Cation Balance Calculation % -3 7/7/2015 LJ QC Cation Sum x 100 Calculation % 97% 7/6/2015 TC QC Ratio TDS/SEC Calculation % 97% 7/6/2015 TC QC Ratio TDS/SEC Calculation 0.60 7/2/2015 HM Selenium, Total EPA200.8 μg/L 4 2 50 7/2/2015 SM Silica as SiO2, Total EPA200.7 mg/L 27 0.5 7/1/2015 MW Specific Conductance (E.C) SM2510B μmhos/cm 645 1 900 6/30/2015 LJ	Analyte	Method	Unit	Result Qual	PQL	MCL	Date Analyzed	Analyst:
Phosphorus, Total HACH 8190 mg/L 0.21 0.03 7/17/2015 LRH Potassium EPA200.7 mg/L 3.2 0.5 7/1/2015 MW QC Anion Sum x 100 Calculation % 102% 7/7/2015 LJ QC Anion-Cation Balance Calculation % 97% 7/6/2015 TC QC Cation Sum x 100 Calculation % 97% 7/6/2015 TC QC Ratio TDS/SEC Calculation 0.60 7/2/2015 HM Selenium, Total EPA200.8 μg/L 4 2 50 7/2/2015 SM Silica as SiO2, Total EPA200.7 mg/L 27 0.5 7/1/2015 MW Sodium EPA200.7 mg/L 52 0.5 7/1/2015 MW Specific Conductance (E.C) SM2510B μmhos/cm 645 1 900 6/30/2015 LJ Strontium, Total EPA200.8 μg/L 281 5 7/2/2015 SM	o-Phosphate-P	EPA300.0	mg/L	0.2	0.1		6/26/2015	MW
Potassium EPA200.7 mg/L 3.2 0.5 7/1/2015 MW QC Anion Sum x 100 Calculation % 102% 7/7/2015 LJ QC Anion-Cation Balance Calculation % -3 7/7/2015 LJ QC Cation Sum x 100 Calculation % 97% 7/6/2015 TC QC Ratio TDS/SEC Calculation 0.60 7/2/2015 HM Selenium, Total EPA200.8 μg/L 4 2 50 7/2/2015 SM Silica as SiO2, Total EPA200.7 mg/L 27 0.5 7/1/2015 MW Sodium EPA200.7 mg/L 52 0.5 7/1/2015 MW Specific Conductance (E.C) SM2510B μmhos/cm 645 1 900 6/30/2015 LJ Strontium, Total EPA200.8 μg/L 281 5 7/2/2015 SM Sulfate EPA300.0 mg/L 82 1 250 6/26/2015 MW	pH (Laboratory)	SM4500-H+B	pH (H)	7.4	0.1		6/25/2015	LRH
QC Anion Sum x 100 Calculation % 102% 7/7/2015 LJ QC Anion-Cation Balance Calculation % -3 7/7/2015 LJ QC Cation Sum x 100 Calculation % 97% 7/6/2015 TC QC Ratio TDS/SEC Calculation 0.60 7/2/2015 HM Selenium, Total EPA200.8 μg/L 4 2 50 7/2/2015 SM Silica as SiO2, Total EPA200.7 mg/L 27 0.5 7/1/2015 MW Sodium EPA200.7 mg/L 52 0.5 7/1/2015 MW Specific Conductance (E.C) SM2510B μmhos/cm 645 1 900 6/30/2015 LJ Strontium, Total EPA200.8 μg/L 281 5 7/2/2015 SM Sulfate EPA300.0 mg/L 82 1 250 6/26/2015 MW Total Diss. Solids SM2540C mg/L 388 10 500 6/30/2015 H	Phosphorus, Total	HACH 8190	mg/L	0.21	0.03		7/17/2015	LRH
QC Anion-Cation Balance Calculation % -3 7/7/2015 LJ QC Cation Sum x 100 Calculation % 97% 7/6/2015 TC QC Ratio TDS/SEC Calculation 0.60 7/2/2015 HM Selenium, Total EPA200.8 μg/L 4 2 50 7/2/2015 SM Silica as SiO2, Total EPA200.7 mg/L 27 0.5 7/1/2015 MW Sodium EPA200.7 mg/L 52 0.5 7/1/2015 MW Specific Conductance (E.C) SM2510B μmhos/cm 645 1 900 6/30/2015 LJ Strontium, Total EPA200.8 μg/L 281 5 7/2/2015 SM Sulfate EPA300.0 mg/L 82 1 250 6/26/2015 MW Total Diss. Solids SM2540C mg/L 1.2 0.2 7/2/2015 MW Total Nitrogen Calculation mg/L 0.5 0.5 7/7/2015 HM<	Potassium	EPA200.7	mg/L	3.2	0.5		7/1/2015	MW
QC Cation Sum x 100 Calculation % 97% 7/6/2015 TC QC Ratio TDS/SEC Calculation 0.60 7/2/2015 HM Selenium, Total EPA200.8 µg/L 4 2 50 7/2/2015 SM Silica as SiO2, Total EPA200.7 mg/L 27 0.5 7/1/2015 MW Sodium EPA200.7 mg/L 52 0.5 7/1/2015 MW Specific Conductance (E.C) SM2510B µmhos/cm 645 1 900 6/30/2015 LJ Strontium, Total EPA200.8 µg/L 281 5 7/2/2015 SM Sulfate EPA300.0 mg/L 82 1 250 6/26/2015 MW TOC SM5310C mg/L 1.2 0.2 7/2/2015 MW Total Diss. Solids SM2540C mg/L 388 10 500 6/30/2015 HM Total Radium 226 EPA903.0 pCi/L 0.081 ± 0.119 E	QC Anion Sum x 100	Calculation	%	102%			7/7/2015	LJ
QC Ratio TDS/SEC Calculation 0.60 7/2/2015 HM Selenium, Total EPA200.8 μg/L 4 2 50 7/2/2015 SM Silica as SiO2, Total EPA200.7 mg/L 27 0.5 7/1/2015 MW Sodium EPA200.7 mg/L 52 0.5 7/1/2015 MW Specific Conductance (E.C) SM2510B μmhos/cm 645 1 900 6/30/2015 LJ Strontium, Total EPA200.8 μg/L 281 5 7/2/2015 SM Sulfate EPA300.0 mg/L 82 1 250 6/26/2015 MW TOC SM5310C mg/L 1.2 0.2 7/2/2015 MW Total Diss. Solids SM2540C mg/L 388 10 500 6/30/2015 HM Total Nitrogen Calculation mg/L 0.5 0.5 7/7/2015 HM Total Radium 226 EPA903.0 pCi/L 0.081 ± 0.119 E <	QC Anion-Cation Balance	Calculation	%	-3			7/7/2015	LJ
Selenium, Total EPA200.8 μg/L 4 2 50 7/2/2015 SM Silica as SiO2, Total EPA200.7 mg/L 27 0.5 7/1/2015 MW Sodium EPA200.7 mg/L 52 0.5 7/1/2015 MW Specific Conductance (E.C) SM2510B μmhos/cm 645 1 900 6/30/2015 LJ Strontium, Total EPA200.8 μg/L 281 5 7/2/2015 SM Sulfate EPA300.0 mg/L 82 1 250 6/26/2015 MW TOC SM5310C mg/L 1.2 0.2 7/2/2015 MW Total Diss. Solids SM2540C mg/L 388 10 500 6/30/2015 HM Total Nitrogen Calculation mg/L 0.5 0.5 7/7/2015 HM Total Radium 226 EPA903.0 pCi/L 0.081 ± 0.119 E 3 7/17/2015 FGL Trihalomethanes EPA200.8 <td>QC Cation Sum x 100</td> <td>Calculation</td> <td>%</td> <td>97%</td> <td></td> <td></td> <td>7/6/2015</td> <td>TC</td>	QC Cation Sum x 100	Calculation	%	97%			7/6/2015	TC
Silica as SiO2, Total EPA200.7 mg/L 27 0.5 7/1/2015 MW Sodium EPA200.7 mg/L 52 0.5 7/1/2015 MW Specific Conductance (E.C) SM2510B μmhos/cm 645 1 900 6/30/2015 LJ Strontium, Total EPA200.8 μg/L 281 5 7/2/2015 SM Sulfate EPA300.0 mg/L 82 1 250 6/26/2015 MW TOC SM5310C mg/L 1.2 0.2 7/2/2015 MW Total Diss. Solids SM2540C mg/L 388 10 500 6/30/2015 HM Total Nitrogen Calculation mg/L 0.5 0.5 7/7/2015 HM Total Radium 226 EPA903.0 pCi/L 0.081 ± 0.119 E 3 7/17/2015 FGL Trihalomethanes EPA524.2 μg/L 71 E 80 6/30/2015 SM Vanadium, Total EPA200.8<	QC Ratio TDS/SEC	Calculation		0.60			7/2/2015	НМ
Sodium EPA200.7 mg/L 52 0.5 7/1/2015 MW Specific Conductance (E.C) SM2510B μmhos/cm 645 1 900 6/30/2015 LJ Strontium, Total EPA200.8 μg/L 281 5 7/2/2015 SM Sulfate EPA300.0 mg/L 82 1 250 6/26/2015 MW TOC SM5310C mg/L 1.2 0.2 7/2/2015 MW Total Diss. Solids SM2540C mg/L 388 10 500 6/30/2015 HM Total Nitrogen Calculation mg/L 0.5 0.5 7/7/2015 HM Total Radium 226 EPA903.0 pCi/L 0.081 ± 0.119 E 3 7/17/2015 FGL Trihalomethanes EPA524.2 μg/L 71 E 80 6/30/2015 BSK Uranium by ICP/MS EPA200.8 μg/L Not Detected 5 1000 7/2/2015 SM	Selenium, Total	EPA200.8	μg/L	4	2	50	7/2/2015	SM
Specific Conductance (E.C) SM2510B μmhos/cm 645 1 900 6/30/2015 LJ Strontium, Total EPA200.8 μg/L 281 5 7/2/2015 SM Sulfate EPA300.0 mg/L 82 1 250 6/26/2015 MW TOC SM5310C mg/L 1.2 0.2 7/2/2015 MW Total Diss. Solids SM2540C mg/L 388 10 500 6/30/2015 HM Total Nitrogen Calculation mg/L 0.5 0.5 7/7/2015 HM Total Radium 226 EPA903.0 pCi/L 0.081 ± 0.119 E 3 7/17/2015 FGL Trihalomethanes EPA524.2 μg/L 71 E 80 6/30/2015 BSK Uranium by ICP/MS EPA200.8 μg/L 2 1 30 7/2/2015 SM Vanadium, Total EPA200.8 μg/L Not Detected 5 1000 7/2/2015 SM	Silica as SiO2, Total	EPA200.7	mg/L	27	0.5		7/1/2015	MW
Strontium, Total EPA200.8 μg/L 281 5 7/2/2015 SM Sulfate EPA300.0 mg/L 82 1 250 6/26/2015 MW TOC SM5310C mg/L 1.2 0.2 7/2/2015 MW Total Diss. Solids SM2540C mg/L 388 10 500 6/30/2015 HM Total Nitrogen Calculation mg/L 0.5 0.5 7/77/2015 HM Total Radium 226 EPA903.0 pCi/L 0.081 ± 0.119 E 3 7/17/2015 FGL Trihalomethanes EPA524.2 μg/L 71 E 80 6/30/2015 BSK Uranium by ICP/MS EPA200.8 μg/L 2 1 30 7/2/2015 SM Vanadium, Total EPA200.8 μg/L Not Detected 5 1000 7/2/2015 SM	Sodium	EPA200.7	mg/L	52	0.5		7/1/2015	MW
Sulfate EPA300.0 mg/L 82 1 250 6/26/2015 MW TOC SM5310C mg/L 1.2 0.2 7/2/2015 MW Total Diss. Solids SM2540C mg/L 388 10 500 6/30/2015 HM Total Nitrogen Calculation mg/L 0.5 0.5 7/7/2015 HM Total Radium 226 EPA903.0 pCi/L 0.081 ± 0.119 E 3 7/17/2015 FGL Trihalomethanes EPA524.2 μg/L 71 E 80 6/30/2015 BSK Uranium by ICP/MS EPA200.8 μg/L 2 1 30 7/2/2015 SM Vanadium, Total EPA200.8 μg/L Not Detected 5 1000 7/2/2015 SM	Specific Conductance (E.C)	SM2510B	µmhos/cm	645	1	900	6/30/2015	LJ
TOC SM5310C mg/L 1.2 0.2 7/2/2015 MW Total Diss. Solids SM2540C mg/L 388 10 500 6/30/2015 HM Total Nitrogen Calculation mg/L 0.5 0.5 7/7/2015 HM Total Radium 226 EPA903.0 pCi/L 0.081 ± 0.119 E 3 7/17/2015 FGL Trihalomethanes EPA524.2 μg/L 71 E 80 6/30/2015 BSK Uranium by ICP/MS EPA200.8 μg/L 2 1 30 7/2/2015 SM Vanadium, Total EPA200.8 μg/L Not Detected 5 1000 7/2/2015 SM	Strontium, Total	EPA200.8	μg/L	281	5		7/2/2015	SM
Total Diss. Solids SM2540C mg/L 388 10 500 6/30/2015 HM Total Nitrogen Calculation mg/L 0.5 0.5 7/7/2015 HM Total Radium 226 EPA903.0 pCi/L 0.081 ± 0.119 E 3 7/17/2015 FGL Trihalomethanes EPA524.2 μg/L 71 E 80 6/30/2015 BSK Uranium by ICP/MS EPA200.8 μg/L 2 1 30 7/2/2015 SM Vanadium, Total EPA200.8 μg/L Not Detected 5 1000 7/2/2015 SM	Sulfate	EPA300.0	mg/L	82	1	250	6/26/2015	MW
Total Nitrogen Calculation mg/L 0.5 0.5 7/7/2015 HM Total Radium 226 EPA903.0 pCi/L 0.081 ± 0.119 E 3 7/17/2015 FGL Trihalomethanes EPA524.2 μg/L 71 E 80 6/30/2015 BSK Uranium by ICP/MS EPA200.8 μg/L 2 1 30 7/2/2015 SM Vanadium, Total EPA200.8 μg/L Not Detected 5 1000 7/2/2015 SM	TOC	SM5310C	mg/L	1.2	0.2		7/2/2015	MW
Total Radium 226 EPA903.0 pCi/L 0.081 ± 0.119 E 3 7/17/2015 FGL Trihalomethanes EPA524.2 μg/L 71 E 80 6/30/2015 BSK Uranium by ICP/MS EPA200.8 μg/L 2 1 30 7/2/2015 SM Vanadium, Total EPA200.8 μg/L Not Detected 5 1000 7/2/2015 SM	Total Diss. Solids	SM2540C	mg/L	388	10	500	6/30/2015	HM
Trihalomethanes EPA524.2 μg/L 71 E 80 6/30/2015 BSK Uranium by ICP/MS EPA200.8 μg/L 2 1 30 7/2/2015 SM Vanadium, Total EPA200.8 μg/L Not Detected 5 1000 7/2/2015 SM	Total Nitrogen	Calculation	mg/L	0.5	0.5		7/7/2015	HM
Uranium by ICP/MS EPA200.8 μg/L 2 1 30 7/2/2015 SM Vanadium, Total EPA200.8 μg/L Not Detected 5 1000 7/2/2015 SM	Total Radium 226	EPA903.0	pCi/L	0.081 ± 0.119 E		3	7/17/2015	FGL
Vanadium, Total EPA200.8 μg/L Not Detected 5 1000 7/2/2015 SM	Trihalomethanes	EPA524.2	μg/L	71 E		80	6/30/2015	BSK
P. C.	Uranium by ICP/MS	EPA200.8	μg/L	2	1	30	7/2/2015	SM
Zinc Total FPA200.8 ug/l 227 20 5000 7/2/2015 SM	Vanadium, Total	EPA200.8	μg/L	Not Detected	5	1000	7/2/2015	SM
217 200.0 pg/L 221 20 0000 172/2010 011	Zinc, Total	EPA200.8	μg/L	227	20	5000	7/2/2015	SM

Sample Comments:

Report Approved by:

David Holland, Laboratory Director

mg/L: Milligrams per liter (=ppm)

ug/L : Micrograms per liter (=ppb)

PQL : Practical Quantitation Limit

H = Analyzed ouside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

External Laboratory Report attacrime

D = Method deviates from standard method due to insufficient sample for MS/MSD



BSK Associates Fresno 1414 Stanislaus St Fresno, CA93706 559-497-2888 (Main) 559-485-6935 (FAX)

A5F2369 7/08/2015

Invoice: A514058

David Holland Monterey Bay Analytical 4 Justin Court Suite D Monterey, CA 93940

RE: Report for A5F2369 MPWMD

Dear David Holland,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 6/26/2015. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2009 TNI Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

If additional clarification of any information is required, please contact your Project Manager, John Montierth, at (800) 877-8310 or (559) 497-2888 x201.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

John Montierth, Project Manager



Accredited in Accordance with NELAP ORELAP #4021

QA-RP-0001-10 Final.rpt



Case Narrative

Project and Report Details Invoice Details

Client: Monterey Bay Analytical Invoice To: Monterey Bay Analytical

Report To: David Holland Invoice Attn: David Holland

Project #: - Project PO#: -

Received: 6/26/2015 - 10:00 **Report Due:** 7/13/2015

Sample Receipt Conditions

Cooler: Default Cooler Containers Intact

Temperature on Receipt °C: 4.3

COC/Labels Agree

Received On Wet Ice

Received On Wet Ice Received On Blue Ice

Packing Material - Bubble Wrap

Packing Material - Foam

Sample(s) were received in temperature range.

Initial receipt at BSK-FAL

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

FINAL.RPT

Mason Weidner

Report Distribution

Recipient(s) Report Format CC:

David Holland FINAL.RPT

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^{***}None applied***



Sample ID: A5F2369-01 **Sampled By:** Jonathan Lear

Sample Date - Time: 06/24/15 - 10:00

Matrix

Matrix: Ground Water

Sample Description: ASR2 Test // AB32315

Sample Type: Grab

BSK Associates Fresno Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	27	0.50	ug/L	1	A507175	06/29/15	06/30/15	
Bromoform	EPA 524.2	2.1	0.50	ug/L	1	A507175	06/29/15	06/30/15	
Chloroform	EPA 524.2	52	0.50	ug/L	1	A507175	06/29/15	06/30/15	
Dibromochloromethane	EPA 524.2	14	0.50	ug/L	1	A507175	06/29/15	06/30/15	
Surrogate: Bromofluorobenzene	EPA 524.2	105 %	Acceptable	range:	70-130 %				
Total Trihalomethanes, EPA 524.2		95	0.50	ug/L					
Haloacetic Acids by GC-ECD, G	GC-MS								
Dibromoacetic Acid (DBAA)	EPA 552.3	ND	1.0	ug/L	1	A507222	06/30/15	07/01/15	
Dichloroacetic Acid (DCAA)	EPA 552.3	1.1	1.0	ug/L	1	A507222	06/30/15	07/01/15	
Monobromoacetic Acid (MBAA)	EPA 552.3	ND	1.0	ug/L	1	A507222	06/30/15	07/01/15	
Monochloroacetic Acid (MCAA)	EPA 552.3	ND	2.0	ug/L	1	A507222	06/30/15	07/01/15	
Trichloroacetic Acid (TCAA)	EPA 552.3	ND	1.0	ug/L	1	A507222	06/30/15	07/01/15	
Surrogate: 2-Bromobutanoic Acid	EPA 552.3	106 %	Acceptable	range:	70-130 %				
Total Haloacetic Acids, EPA 552.3		ND	2.0	ug/L					



Sample ID: A5F2369-02

Sample Date - Time: 06/24/15 - 11:30 Matrix: Ground Water

Sampled By: Jonathan Lear

Sample Description: MW-1 // AB32316

Sample Type: Grab

BSK Associates Fresno Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	10	0.50	ug/L	1	A507175	06/29/15	06/30/15	
Bromoform	EPA 524.2	0.72	0.50	ug/L	1	A507175	06/29/15	06/30/15	
Chloroform	EPA 524.2	29	0.50	ug/L	1	A507175	06/29/15	06/30/15	
Dibromochloromethane	EPA 524.2	4.5	0.50	ug/L	1	A507175	06/29/15	06/30/15	
Surrogate: Bromofluorobenzene	EPA 524.2	105 %	Acceptable	e range: T	70-130 %				
Total Trihalomethanes, EPA 524.2		44	0.50	ug/L					
Haloacetic Acids by GC-ECD, G	C-MS								
Dibromoacetic Acid (DBAA)	EPA 552.3	ND	1.0	ug/L	1	A507222	06/30/15	07/01/15	
Dichloroacetic Acid (DCAA)	EPA 552.3	ND	1.0	ug/L	1	A507222	06/30/15	07/01/15	
Monobromoacetic Acid (MBAA)	EPA 552.3	ND	1.0	ug/L	1	A507222	06/30/15	07/01/15	
Monochloroacetic Acid (MCAA)	EPA 552.3	ND	2.0	ug/L	1	A507222	06/30/15	07/01/15	
Trichloroacetic Acid (TCAA)	EPA 552.3	ND	1.0	ug/L	1	A507222	06/30/15	07/01/15	
Surrogate: 2-Bromobutanoic Acid	EPA 552.3	107 %	Acceptable	e range: 7	70-130 %				
Total Haloacetic Acids, EPA 552.3		ND	2.0	ug/L					



Sample ID: A5F2369-03 Sampled By: Jonathan Lear

Sample Description: SMS (D) // AB32317

Sample Date - Time: 06/25/15 - 09:30

Matrix: Ground Water

Sample Type: Grab

BSK Associates Fresno Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	18	0.50	ug/L	1	A507175	06/29/15	06/30/15	
Bromoform	EPA 524.2	1.7	0.50	ug/L	1	A507175	06/29/15	06/30/15	
Chloroform	EPA 524.2	33	0.50	ug/L	1	A507175	06/29/15	06/30/15	
Dibromochloromethane	EPA 524.2	10	0.50	ug/L	1	A507175	06/29/15	06/30/15	
Surrogate: Bromofluorobenzene	EPA 524.2	112 %	Acceptable	range: 70	0-130 %				
Total Trihalomethanes, EPA 524.2		63	0.50	ug/L					
Haloacetic Acids by GC-ECD, G	C-MS								
Dibromoacetic Acid (DBAA)	EPA 552.3	ND	1.0	ug/L	1	A507222	06/30/15	07/01/15	
Dichloroacetic Acid (DCAA)	EPA 552.3	2.3	1.0	ug/L	1	A507222	06/30/15	07/01/15	
Monobromoacetic Acid (MBAA)	EPA 552.3	ND	1.0	ug/L	1	A507222	06/30/15	07/01/15	
Monochloroacetic Acid (MCAA)	EPA 552.3	ND	2.0	ug/L	1	A507222	06/30/15	07/01/15	
Trichloroacetic Acid (TCAA)	EPA 552.3	4.6	1.0	ug/L	1	A507222	06/30/15	07/01/15	
Surrogate: 2-Bromobutanoic Acid	EPA 552.3	106 %	Acceptable	range: 70	0-130 %				
Total Haloacetic Acids, EPA 552.3		6.9	2.0	ug/L					



Sample ID: A5F2369-04 **Sampled By:** Jonathan Lear

Sample Date - Time: 06/25/15 - 10:30

. Matriy:

Matrix: Ground Water

Sample Description: ASR3 Test // AB32318

Sample Type: Grab

BSK Associates Fresno Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	20	0.50	ug/L	1	A507175	06/29/15	06/30/15	
Bromoform	EPA 524.2	1.7	0.50	ug/L	1	A507175	06/29/15	06/30/15	
Chloroform	EPA 524.2	38	0.50	ug/L	1	A507175	06/29/15	06/30/15	
Dibromochloromethane	EPA 524.2	11	0.50	ug/L	1	A507175	06/29/15	06/30/15	
Surrogate: Bromofluorobenzene	EPA 524.2	103 %	Acceptable	range: 7	70-130 %				
Total Trihalomethanes, EPA 524.2		71	0.50	ug/L					
Haloacetic Acids by GC-ECD, G	C-MS								
Dibromoacetic Acid (DBAA)	EPA 552.3	ND	1.0	ug/L	1	A507222	06/30/15	07/01/15	
Dichloroacetic Acid (DCAA)	EPA 552.3	3.8	1.0	ug/L	1	A507222	06/30/15	07/01/15	
Monobromoacetic Acid (MBAA)	EPA 552.3	ND	1.0	ug/L	1	A507222	06/30/15	07/01/15	
Monochloroacetic Acid (MCAA)	EPA 552.3	ND	2.0	ug/L	1	A507222	06/30/15	07/01/15	
Trichloroacetic Acid (TCAA)	EPA 552.3	4.9	1.0	ug/L	1	A507222	06/30/15	07/01/15	
Surrogate: 2-Bromobutanoic Acid	EPA 552.3	104 %	Acceptable	range: 7	70-130 %				
Total Haloacetic Acids, EPA 552.3		8.7	2.0	ug/L					

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BSK Associates Fresno Organics Quality Control Report

				Spike	Source		%REC		RPD	Date		
Analyte	Result	RL	Units	Level	Result	%REC	Limits	RPD	Limit	Analyzed	Qual	
		EPA 52	24.2 - Q	uality Co	ntrol							
Batch: A507175										Prepared	06/29	201
Prep Method: no prep-volatiles										Α	nalyst:	JG
Blank (A507175-BLK1)												
Bromodichloromethane	ND	0.50	ug/L							06/29/15		
Bromoform	ND	0.50	ug/L							06/29/15		
Chloroform	ND	0.50	ug/L							06/29/15		
Dibromochloromethane	ND	0.50	ug/L							06/29/15		
Surrogate: Bromofluorobenzene	52		_	50		103	70-130			06/29/15		
Blank Spike (A507175-BS1)												
Bromodichloromethane	11	0.50	ug/L	10		105	70-130			06/29/15		
Bromoform	12	0.50	ug/L	10		121	70-130			06/29/15		
Chloroform	10	0.50	ug/L	10		101	70-130			06/29/15		
Dibromochloromethane	11	0.50	ug/L	10		112	70-130			06/29/15		
Surrogate: Bromofluorobenzene	54		Ü	50		108	70-130			06/29/15		
Blank Spike Dup (A507175-BSD1)												
Bromodichloromethane	10	0.50	ug/L	10		105	70-130	0	30	06/29/15		
Bromoform	11	0.50	ug/L	10		114	70-130	6	30	06/29/15		
Chloroform	10	0.50	ug/L	10		104	70-130	2	30	06/29/15		
Dibromochloromethane	11	0.50	ug/L	10		109	70-130	3	30	06/29/15		
Surrogate: Bromofluorobenzene	54		3	50		109	70-130			06/29/15		
Matrix Spike (A507175-MS1), Source:	A5F2197-01											
Bromodichloromethane	11	0.50	ug/L	10	ND	113	70-130			06/30/15		
Bromoform	12	0.50	ug/L	10	ND	120	70-130			06/30/15		
Chloroform	11	0.50	ug/L	10	ND	112	70-130			06/30/15		
Dibromochloromethane	12	0.50	ug/L	10	ND	116	70-130			06/30/15		
Surrogate: Bromofluorobenzene	55	0.00	~g/=	50		109	70-130			06/30/15		
		EPA 5	52.3 - Q	uality Co	ntrol							
Batch: A507222				•						Prepared	06/30	201
Prep Method: EPA 552.3										Ar	nalyst:	MTI
Blank (A507222-BLK1)												
Dibromoacetic Acid (DBAA)	ND	1.0	ug/L							06/30/15		
Dichloroacetic Acid (DCAA)	ND	1.0	ug/L							06/30/15		
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L							06/30/15		
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L							06/30/15		
Trichloroacetic Acid (TCAA)	ND	1.0	ug/L							06/30/15		
Surrogate: 2-Bromobutanoic Acid	26		J	25		102	70-130			06/30/15		
Blank Spike (A507222-BS1)												
Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10		107	70-130			06/30/15		
Dichloroacetic Acid (DCAA)	11	1.0	ug/L	10		109	70-130			06/30/15		
Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10		109	70-130			06/30/15		
Monochloroacetic Acid (MCAA)	22	2.0	ug/L	20		110	70-130			06/30/15		
Trichloroacetic Acid (TCAA)	11	1.0	ug/L	10		107	70-130			06/30/15		
A5F2369 FINAL 07082015 1259												
Printed: 07/08/2015												
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BSK Associates Fresno Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual
		EPA 5	52.3 - Q	uality Co	ntrol						
Batch: A507222										Prepared:	06/30/2015
Prep Method: EPA 552.3										Ar	nalyst: MTM
Blank Spike (A507222-BS1)											
Surrogate: 2-Bromobutanoic Acid	26			25		104	70-130			06/30/15	
Blank Spike Dup (A507222-BSD1)											
Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10		113	70-130	5	30	07/01/15	
Dichloroacetic Acid (DCAA)	11	1.0	ug/L	10		111	70-130	2	30	07/01/15	
Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10		111	70-130	1	30	07/01/15	
Monochloroacetic Acid (MCAA)	22	2.0	ug/L	20		108	70-130	2	30	07/01/15	
Trichloroacetic Acid (TCAA)	11	1.0	ug/L	10		110	70-130	3	30	07/01/15	
Surrogate: 2-Bromobutanoic Acid	27			25		106	70-130			07/01/15	
Matrix Spike (A507222-MS1), Source	: A5F2316-01										
Dibromoacetic Acid (DBAA)	11	1.0	ug/L	10	ND	104	70-130			06/30/15	
Dichloroacetic Acid (DCAA)	12	1.0	ug/L	10	ND	108	70-130			06/30/15	
Monobromoacetic Acid (MBAA)	11	1.0	ug/L	10	ND	106	70-130			06/30/15	
Monochloroacetic Acid (MCAA)	21	2.0	ug/L	20	ND	106	70-130			06/30/15	
Trichloroacetic Acid (TCAA)	11	1.0	ug/L	10	ND	106	70-130			06/30/15	
Surrogate: 2-Bromobutanoic Acid	24			25		98	70-130			06/30/15	

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Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- · Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- · Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- · RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.
- The MCLs provided in this report (if applicable) represent the primary MCLs for that analyte.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
μg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
μg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable	MCL:	Maximum Contaminant Limit		

Please see the individual Subcontract Lab's report for applicable certifications.

BSK is not accredited under the NELAC program for the following parameters:

NA

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

Fresno

State of California - ELAP	1180	State of Hawaii	4021
State of Nevada	CA000792015-1	State of Oregon - NELAC	4021
EPA - UCMR3	CA00079	State of Washington	C997-15

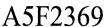
Sacramento

State of California - ELAP 2435

Vancouver

State of Oregon - NELAC WA100008 State of Washington C824-14a









06262015

Monte6227

Turnaround:

Standard

Due Date:

7/13/2015



Monterey Bay Analytical





Printed: 6/26/2013 1.32

Associates Engineera Laboratories

Monterey Bay Analytical Services

Company/Client Name*:

*Required Fields

Report Attention*: Mason Weidner-Holland

Invoice To*: David Holland

Phone*: 831-375-6227

Fax: 831-641-0734

(559) 497-2888 · Fax (559) 497-2893 1414 Stanislaus St., Fresno, CA 93706

www.bskassociates.com

Turnaround Time Request Standard - 10 business days Rush (Surcharge may apply) Date needed:

A5F2369

06/26/2015
10

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Monterey Bay Analytical Services Additional Davic	Additional cc's: David Holland		PO#:			E-mail*	mwei	dner@)mbas	sinc.co	m, dh	olland	E-mail: mweidner@mbasinc.com, dholland@mbasin	Sin
Address*: 4 Justin Court, Suite D	city*: Monterey			State*: CA	zip*: 93940									
Project: MPWMD	Project #:		How	would you like to receiv	How would you like to receive your completed results?									
Reporting Options:	Regulatory C	Regulatory Carbon Copies		Regulatory Compliance	1									
Trace (J-Flag) Swamp EDD Type:	SWRCB (Drinking Water)	ng Water)		DT to California SV	EDT to California SWRCB (Drinking Water)									
Sampler Name (Printed/Signature)*:	Merced Co Madera Co	Fresno Co	Fresno Co Tulare Co	System Number*:										
Jonathan Lear	Other:			Geotracker #:		5	Λĺ							
Matrix Types: SW=Surface Water BW=Bottled Water GW=Ground Water WW=Waste Water STW=Storm Water DW=Drinking Water SO=Solid	Water WW=Waste W	/ater_STW=Storm	Water DW=D	rinking Water SO=9		A٤	٦N							
# Sample Description*	Sampled* Date Tim	Time Ma	Matrix* C	Comments / Station Code / WTRAX	de / WTRAX	HA	TTI							
1. ASR2 Test	6/24/15	0	GW AB3	AB32315		X	X							
2. MW-1	6/24/15	1130 G	GW AB3	AB32316		X	X							
3. SMS(D)	6/25/15	0930 G	GW AB32317	2317		X	X							
4. ASR3 Test	6/25/15	1030 G	GW AB3:	AB32318		X	X							
	_			/										
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						/								
X)	MBAS	6/2	6/25/15 1600		Received by: (Signature and Printed Name)						Company			
Relinquished by: (Signature and Printed Name)	Company	Date	Time	Received by: (Sig	Received by: (Signature and Printed Name)			,			Company			
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MATTER S		MA .		Date:			Amount:			PIA#			1	
Shipping Method: ONTRAGE UPS GSO V	WALK-IN FI	FED EX Courier:	ier:			Custody Chilling I	Custody Seal: YKN Chilling Process Begyn: YN	equin >	z ×	L.		Ü,	-	
						2	Tocess of	1		•			-	

Sample Integrity

A5F2369 Monte6227 06/26/2015 10

BSK Bottlés:/ Yes No Page Were correct containers and preservatives Was temperature within range? No NA No NA Yes received for the tests requested? Chemistry ≤ 6°C Micro < 10°C Info Were there bubbles in the VOA vials? If samples were taken today, is there evidence ĺΑ No Yes (Volatiles Only) that chilling has begun? Was a sufficient amount of sample received? Yes No Did all bottles arrive unbroken and intact? Do samples have a hold time <72 hours? Yes Nο Did all bottle labels agree with COC? Was PM notified of discrepancies? Was sodium thiosulfate added to CN sample(s) NΑ No Yes By/Time: until chlorine was no longer present? 250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V) Checks Passed? Bacti Na₂S₂O₃ None (P)White Cap Cr6 (P) Br. Green Label NH4OH(NH4)2SO4 DW Cl, pH > 8 N Cr6 (P) Pink Label NH4OH(NH4)2SO4 pH 9.3-9.7 Υ Ν Cr6 (P) Pink Label NH4OH(NH4)2SO4 7199 N pH 9.0-9.5 ***24 HOUR HOLD TIME** means preservation/chlorine checks are either N/A or are performed in the HNO₃ (P) Red Cap Yellow Cap/Label N pH < 2 Υ H_2SO_4 (P) or (AG) NaOH (P) Green Cap CI, pH >10 Ν pH > 9 Υ N NaOH + ZnAc (P) Dissolved Oxygen 300ml (g) None (AG) 608/8081/8082, 625, 632/8321, 8151, 8270 Received HCI (AG)^{Lt. Blue Label} O&G, Diesel Na₂O₃S+HCl (AG)^{Lt Pink Label} 525 Na₂S₂O₃ 1 Liter (Brown P) 549 Bottles Na₂S₂O₃ (AG)^{Blue Label} 547,515,548,THM,524 Na₂S₂O₃ (CG) Blue Label 504, 505 Na₂S₂O₃ + MCAA (CG)^{Orange Label} 531 2 > Hq Y N NH₄CI (AG)^{Purple Label} 552 UEDA (AG) Brown Label DBPs HCL (CG) 524.2,BTEX,Gas, MTBE, 8260/624 Buffer pH 4 (CG) None (CG) H₃PO₄ (CG)^{Salmon Label} Other: Asbestos 1Liter Plastic w/ Foil Low Level Hg / Metals Double Baggie Bottled Water Clear Glass Jar: 250 / 500 / 1 Liter Soil Tube Brass / Steel / Plastic Tedlar Bag / Plastic Bag Preservative Date/Time/Initials Container Preservative Date/Time/Initials Container Split S P S P S P Comments

Labeled by: <u> 2000</u> @ 13:12

Labels checked by:

100 195/

USH Paged by:

Page 12 of 12

July 21, 2015

Monterey Bay Analytical Services Lab ID : SP 1507364 4 Justin Court Customer : 2-19144

Monterey, CA 93940

Laboratory Report

Introduction: This report package contains total of 7 pages divided into 3 sections:

Case Narrative (2 pages) : An overview of the work performed at FGL.

Sample Results (4 pages): Results for each sample submitted.

Quality Control (1 page): Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab ID#	Matrix
ASR2 Test	06/24/2015	07/02/2015	SP 1507364-001	GW
MW-1	06/24/2015	07/02/2015	SP 1507364-002	GW
SMS(D)	06/25/2015	07/02/2015	SP 1507364-003	GW
ASR3 Test	06/25/2015	07/02/2015	SP 1507364-004	GW

Sampling and Receipt Information: All samples were received in acceptable condition and within temperature requirements, unless noted on the Condition Upon Receipt (CUR) form. All samples arrived at 3 °C. All samples were prepared and analyzed within the method specified hold time. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Radio QC

900.0	07/13/2015:210315 All analysis quality controls are within established criteria
	07/13/2015:210317 All analysis quality controls are within established criteria
	07/13/2015:210319 All analysis quality controls are within established criteria
	07/10/2015:207958 All preparation quality controls are within established criteria
903.0	07/17/2015:210542 All analysis quality controls are within established criteria
	07/11/2015:208010 All preparation quality controls are within established criteria

July 21, 2015Lab ID: SP 1507364Monterey Bay Analytical ServicesCustomer: 2-19144

Certification:: I certify that this data package is in compliance with ELAP standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

KD:DMB

Approved By Kelly A. Dunnahoo, B.S.

July 21, 2015 Lab ID : SP 1507364-001

Customer ID : 2-19144

Monterey Bay Analytical Services

4 Justin Court Sampled On : June 24, 2015-10:00

Monterey, CA 93940 Sampled By : Jonathan Lear

Received On : July 2, 2015-11:20

: Ground Water Matrix

Description : ASR2 Test **Project** : MPWMD

Sample Result - Radio

Constituent	Result ± Error	MDA	Units	MCL/AL	Sample Preparation		Sample Analysis	
Constituent	Result ± Effor	MDA UIIIS WCL		WICL/AL	Method	Date/ID	Method	Date/ID
Radio Chemistry P:1'5								
Gross Alpha	0.273 ± 1.08	1.59	pCi/L		900.0	07/10/15-08:30 2P1507958	900.0	07/13/15-15:00 2A1510315
Total Alpha Radium (226)	0.054 ± 0.106	0.470	pCi/L		903.0	07/11/15-11:00 2P1508010	903.0	07/17/15-10:40 2A1510542

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: HNO3 pH < 2 * PQL adjusted for dilution.

MDA = Minimum Detectable Activity (Calculated at the 95% confidence level) = Data utilized by DHS to determine matrix interference. MCL / AL = Maximum Contamination Level / Action Level. Alpha's Action Level of 5 pCi/L is based on the Assigned Value (AV). AV = Assigned Value(Gross Alpha Result + (0.84 x Error)). CCR Section 64442: Drinking Water Compliance Note: Do the following If Gross Alpha's (AV) exceeds 5 pCi/L run Uranium. If Gross Alpha's (AV) minus Uranium exceeds 5 pCi/L run Radium 226.

Drinking Water Compliance:

Gross Alpha (AV) minus Uranium is less than or equal to 15 pCi/L Uranium is less than or equal to 20 pCi/L

Radium 226 + Radium 228 is less than or equal to 5 pCi/L

July 21, 2015 Lab ID : SP 1507364-002

Customer ID : 2-19144

Monterey Bay Analytical Services

4 Justin Court Sampled On : June 24, 2015-11:30

Monterey, CA 93940 Sampled By : Jonathan Lear

Received On : July 2, 2015-11:20

: Ground Water Matrix

Description : MW-1 **Project** : MPWMD

Sample Result - Radio

Constituent	Result ± Error	MDA	Units	MCL/AL	Sample Preparation		Sample Analysis	
Constituent	Result ± Effor	WIDA UIIIS WICI		WICL/AL	Method	Date/ID	Method	Date/ID
Radio Chemistry P:1'5								
Gross Alpha	2.81 ± 1.27	1.15	pCi/L		900.0	07/10/15-08:30 2P1507958	900.0	07/13/15-15:00 2A1510317
Total Alpha Radium (226)	0.514 ± 0.243	0.470	pCi/L		903.0	07/11/15-11:00 2P1508010	903.0	07/17/15-11:00 2A1510542

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: HNO3 pH < 2 * PQL adjusted for dilution.

MDA = Minimum Detectable Activity (Calculated at the 95% confidence level) = Data utilized by DHS to determine matrix interference. MCL / AL = Maximum Contamination Level / Action Level. Alpha's Action Level of 5 pCi/L is based on the Assigned Value (AV). AV = Assigned Value(Gross Alpha Result + (0.84 x Error)). CCR Section 64442: Drinking Water Compliance Note: Do the following If Gross Alpha's (AV) exceeds 5 pCi/L run Uranium. If Gross Alpha's (AV) minus Uranium exceeds 5 pCi/L run Radium 226.

Drinking Water Compliance:

Gross Alpha (AV) minus Uranium is less than or equal to 15 pCi/L Uranium is less than or equal to 20 pCi/L

Radium 226 + Radium 228 is less than or equal to 5 pCi/L

July 21, 2015 Lab ID : SP 1507364-003

Customer ID : 2-19144

Monterey Bay Analytical Services

4 Justin Court Sampled On : June 25, 2015-09:30

Monterey, CA 93940 Sampled By : Jonathan Lear

> Received On : July 2, 2015-11:20 : Ground Water Matrix

Description : SMS(D) **Project** : MPWMD

Sample Result - Radio

Constituent	Result ± Error	MDA	Units	MCL/AL Sam		Preparation	Sample Analysis	
Constituent	Result ± Effor	MDA Units MCI		WICL/AL	Method	Date/ID	Method	Date/ID
Radio Chemistry P:1'5								
Gross Alpha	3.17 ± 1.29	1.13	pCi/L		900.0	07/10/15-08:30 2P1507958	900.0	07/13/15-13:00 2A1510319
Total Alpha Radium (226)	0.244 ± 0.176	0.470	pCi/L		903.0	07/11/15-11:00 2P1508010	903.0	07/17/15-11:20 2A1510542

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: HNO3 pH < 2 * PQL adjusted for dilution.

MDA = Minimum Detectable Activity (Calculated at the 95% confidence level) = Data utilized by DHS to determine matrix interference. MCL / AL = Maximum Contamination Level / Action Level. Alpha's Action Level of 5 pCi/L is based on the Assigned Value (AV). AV = Assigned Value(Gross Alpha Result + (0.84 x Error)). CCR Section 64442: Drinking Water Compliance Note: Do the following If Gross Alpha's (AV) exceeds 5 pCi/L run Uranium. If Gross Alpha's (AV) minus Uranium exceeds 5 pCi/L run Radium 226.

Drinking Water Compliance:

Gross Alpha (AV) minus Uranium is less than or equal to 15 pCi/L Uranium is less than or equal to 20 pCi/L

Radium 226 + Radium 228 is less than or equal to 5 pCi/L

Lab ID : SP 1507364-004

Customer ID : 2-19144

Monterey Bay Analytical Services

4 Justin Court Sampled On : June 25, 2015-10:30

Monterey, CA 93940 Sampled By : Jonathan Lear

Received On : July 2, 2015-11:20

: Ground Water Matrix

Description : ASR3 Test **Project** : MPWMD

July 21, 2015

Sample Result - Radio

Constituent	Result ± Error	MDA	Units	MCL/AL Sample Prep		Preparation	Sampl	e Analysis
Constituent	Result ± Effor	WIDA UIIIIS WICE		WICL/AL	Method	Date/ID	Method	Date/ID
Radio Chemistry P:1'5								
Gross Alpha	1.33 ± 1.52	1.67	pCi/L		900.0	07/10/15-08:30 2P1507958	900.0	07/13/15-16:00 2A1510315
Total Alpha Radium (226)	0.081 ± 0.119	0.470	pCi/L		903.0	07/11/15-11:00 2P1508010	903.0	07/17/15-11:40 2A1510542

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: HNO3 pH < 2 * PQL adjusted for dilution.

MDA = Minimum Detectable Activity (Calculated at the 95% confidence level) = Data utilized by DHS to determine matrix interference. MCL / AL = Maximum Contamination Level / Action Level. Alpha's Action Level of 5 pCi/L is based on the Assigned Value (AV). AV = Assigned Value(Gross Alpha Result + (0.84 x Error)). CCR Section 64442: Drinking Water Compliance Note: Do the following If Gross Alpha's (AV) exceeds 5 pCi/L run Uranium. If Gross Alpha's (AV) minus Uranium exceeds 5 pCi/L run Radium 226.

Drinking Water Compliance:

Gross Alpha (AV) minus Uranium is less than or equal to 15 pCi/L Uranium is less than or equal to 20 pCi/L

Radium 226 + Radium 228 is less than or equal to 5 pCi/L

July 21, 2015 Lab ID : SP 1507364 **Monterey Bay Analytical Services** : 2-19144 Customer

Quality Control - Radio

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Radio								
Alpha	900.0	07/13/15:210315caa	CCV	cpm	8902	40.7 %	38 - 46	
			CCB	cpm		0.1200	0.14	
	900.0	07/13/15:210317caa	CCV	cpm	8902	40.4 %	37 - 45	
			CCB	cpm		0.100	0.18	ì
	900.0	07/13/15:210319caa	CCV	cpm	8902	41.1 %	37 - 45	
			CCB	cpm		0.100	0.18	ì
Gross Alpha	900.0	07/10/15:207958lalo	Blank	pCi/L		0.02	3	
-			LCS	pCi/L	178.7	101 %	75-125	
			MS	pCi/L	178.7	137 %	60-140	
		(CC 1582283-001)	MSD	pCi/L	178.7	129 %	60-140	
			MSRPD	pCi/L	178.7	5.3%	≤30	
Alpha	903.0	07/17/15:210542caa	CCV	cpm	8899	40.5 %	37 - 45	
			CCB	cpm		0.100	0.19	
Total Alpha Radium (226)	903.0	07/11/15:208010caa	RgBlk	pCi/L		-0.01	2	
			LCS	pCi/L	21.59	74.7 %	52-107	
			BS	pCi/L	21.59	65.1 %	43-111	
			BSD	pCi/L	21.59	65.0 %	43-111	
	1		BSRPD	pCi/L	21.59	0.09%	≤35.5	

CCV : Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.

CCB : Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.

Blank : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.

RgBlk : Method Reagent Blank - Prepared to correct for any reagent contributions to sample result.

LCS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.

: Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample MS matrix affects analyte recovery.

: Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyted. The recoveries MSD

are an indication of how that sample matrix affects analyte recovery.

: Blank Spikes - A blank is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not BS

affecting analyte recovery.

: Blank Spike Duplicate of BS/BSD pair - A blank duplicate is spiked with a known amount of analyte. It is prepared to verify that BSD

the preparation process is not affecting analyte recovery.

: MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation MSRPD

: BS/BSD Relative Percent Difference (RPD) - The BS relative percent difference is an indication of precision for the preparation BSRPD

and analysis.

DQO : Data Quality Objective - This is the criteria against which the quality control data is compared.

ENVIRONMENTAL

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	Analytical Chemis	ste														AMDAY	VALEST.	N RGAJA	CASUD	H (A)
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Coma	ा Person: David Holland			용		Š	ā		줐	<u> </u>	8 %	Ě	108						1	
Projec	n Name: MPWMD			0	go	붎	2		l∺	<u>ت</u>	R 9	یّا	100 %	•					1	
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Տեուր	Ling Fee: Pickup I	ies:		Type: Composite(C) Grab(G	Number of Containers	Consiners: (G)Glass (P)Plastic(V)VOA (MT)Metal Tuba	able (NP)	(SW)Surfacewater (MW)MonitoringWall (GW)GroundWater (TB)TravelBank (WW)WasteWater (DW)Drinking Water	(S)Soil(SLG)Sludge (SLD)Solid (O)Oil	BacT: (Sys) System (Src)Source (W) Waste	BacT: Routine(ROUT) Repeat(RPT) Other(OTH) Replace(RPL)	(LT)Leaf Tissue (PET)Petiole Tissue (PRD)Produce	Preservative: (1)NaOH+ZnAc (2)NaOH,(3)HCL,(4)H2SO4(5)HNO3, (6)Na2S203,(7)Other							
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qmz2 muK	Location Description	Date Sampled	Time Sampled	卜	Ž	β₹	E	822	® \(\mathcal{P}\)	@ 2	Q O	25	1000	S S	Ra226					
	ASR2 Test	6/24/15	1000	G	1	Р	Р	GW						Х	Х					
	MW-1	6/24/15	1130	G	1	Р	Р	GW		,				Х	X					
	SMS(D)	6/25/15	0930	G	1	Р	Р	GW						Х	Х					
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Corporate Offices & Laboratory
P.O. Sox 272 / 853 Corporation street
Santa Paula. CA 93081-0272
TEL: 805/392-2000
FAX: 805/392-3000
FAX: 805/3525-4172
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FGL Environmental Doc ID: 2D0900157_SOP_17.DOC

Revision Date: 10/09/14 Page: 1 of 1

Condition Upon Receipt (Attach to COC)

Sample Receipt at SP:								
1. Number of ice chests/packages rec	eived:	1						
2. Shipper tracking numbers	D10010805644	4849						
3. Were samples received in a chilled Temps:	condition?	3	/	/	/	/	/	/
4. Surface water (SWTR) bact sample should be flagged unless the time s							hether ic	ed or not,
5. Do the number of bottles received a COC?	gree with the	Yes	No	N/A				
6. Verify sample date, time, sampler		Yes	No	N/A				
7. Were the samples received intact? bottles, leaks, etc.)	(i.e. no broken	Yes	No					
8. Were sample custody seals intact?		Yes	No	N/A]			
Sample Verification, Labeling and D	Distribution:							
Were all requested analyses unders acceptable?	stood and	Yes	No					
2. Did bottle labels correspond with the	e client's ID's?	Yes	No					
3. Were all bottles requiring sample pr properly preserved? [Exception: Oil & Grease, VOA and O		Yes	No	N/A	FGL			
4. VOAs checked for Headspace?		Yes	No	N/A]			
5. Were all analyses within holding tim reciept?	es at time of	Yes	No		•			
6. Have rush or project due dates bee accepted?	n checked and	Yes	No	N/A				
Include a copy of the COC for lab deliv	very. (Bacti. Ino	rganics a	and Ra	dio)				
Sample Receipt, Login and Verification	• ,	•		Reviewe Approv		awn Peck	Title: S	ly signed by Shawn Peck sample Receiving 07/06/2015-13:40:18
Discrepency Documentation: Any items above which are "No" or do	not meet speci	fications	(i.e. te	mps) mu	st be reso	lved.		
1. Person Contacted:		Ph	one N	umber:				
Initiated By:		Da	ite:	_				
Problem:								
Resolution:								
2. Person Contacted:		Ph	one N	umber:				
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Problem:								
Resolution:						(2019	144)	
				Мо	nterey	Bay An	alytica	I Services

SP 1507364



McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1506B48

Report Created for: Monterey Bay Analytical

> 4 Justin Court, Suite D Monterey, CA 93940

Project Contact:

David Holland

Project P.O.:

Project Name: MPWMD

Project Received: 06/26/2015

Analytical Report reviewed & approved for release on 07/06/2015 by:

Angela Rydelius,

Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.



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Glossary of Terms & Qualifier Definitions

Client: Monterey Bay Analytical

Project: MPWMD **WorkOrder:** 1506B48

Glossary Abbreviation

95% Interval 95% Confident Interval

DF Dilution Factor

DI WET (DISTLC) Waste Extraction Test using DI water

DISS Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)

DUP Duplicate

EDL Estimated Detection Limit

ITEF International Toxicity Equivalence Factor

LCS Laboratory Control Sample

MB Method Blank

MB % Rec % Recovery of Surrogate in Method Blank, if applicable

MDL Method Detection Limit

ML Minimum Level of Quantitation

MS Matrix Spike

MSD Matrix Spike Duplicate

N/A Not Applicable

ND Not detected at or above the indicated MDL or RL

NR Data Not Reported due to matrix interference or insufficient sample amount.

PF Prep Factor

RD Relative Difference

RL Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)

RPD Relative Percent Deviation
RRT Relative Retention Time

SPK Val Spike Value

SPKRef Val Spike Reference Value

SPLP Synthetic Precipitation Leachate Procedure
TCLP Toxicity Characteristic Leachate Procedure

TEQ Toxicity Equivalents

WET (STLC) Waste Extraction Test (Soluble Threshold Limit Concentration)

Analytical Report

Client: Monterey Bay Analytical

 Project:
 MPWMD

 Date Received:
 6/26/15 13:28

 Date Prepared:
 7/1/15

WorkOrder: 1506B48

Extraction Method: RSK175 **Analytical Method:** RSK175

Unit: $\mu g/L$

Light Gases

	8		
Client ID	Lab ID Matrix	Date Collected Instrument	Batch ID
ASR2 Test	1506B48-001A Water	06/24/2015 10:00 GC26	107118
Analytes	Result	<u>RL</u> <u>DF</u>	Date Analyzed
Methane	0.54	0.10 1	07/01/2015 15:22

Analyst(s): KBO

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW-1	1506B48-002A	Water	06/24/2015 11:30	GC26	107118
<u>Analytes</u>	Result		<u>RL</u> <u>DF</u>		Date Analyzed
Methane	3.0		0.10 1		07/01/2015 15:40

Analyst(s): KBO

Client ID	Lab ID	Matrix	Date Collected	l Instrument	Batch ID
SMS (D)	1506B48-003A	Water	06/24/2015 09:30	GC26	107118
Analytes	<u>Result</u>		<u>RL</u> <u>DF</u>		Date Analyzed
Methane	0.80		0.10 1		07/01/2015 16:23

Analyst(s): KBO

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
ASR3 Test	1506B48-004A	Water	06/24/2015 10:30	GC26	107118
<u>Analytes</u>	Result		<u>RL</u> <u>DF</u>		Date Analyzed
Methane	1.1		0.10 1		07/01/2015 16:39

Analyst(s): KBO

Quality Control Report

Client: Monterey Bay Analytical WorkOrder: 1506B48 **Date Prepared:** 7/1/15 **BatchID:** 107118 **Date Analyzed:** 7/1/15 **Extraction Method: RSK175 Instrument:** GC26 **Analytical Method:** RSK175 **Matrix:** Air Unit: $\mu L/L$

Project: MPWMD **Sample ID:** MB/LCS-107118

	QC Sumn	nary Report for R	SK175				
Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Methane	ND	10.1	0.50	10	-	101	70-130

McCampbell Analytical, Inc.

1534 Willow Pass Rd

CHAIN-OF-CUSTODY RECORD

Pittsburg, CA 94565 (925) 252-9262	5-1701				V	Vork(Order: 1	1506B48	3	Cli	ientCo	de: ME	BAS				
		☐ WaterTrax	WriteOn	EDF	E	Excel		EQuIS	✓	Email		HardCo	ору	ThirdPa	arty	J-fla	ıg
Report to: David Holland Monterey Bay Analytica 4 Justin Court, Suite D Monterey, CA 93940 831-375-6227 FAX		Email: m cc/3rd Party: PO: ProjectNo: M		asinc.com; Dholla	nd@m		Monter 4 Justi	nts Paya rey Bay / n Court, rey, CA 9	Analyti Suite	D			Date .	ested TAT: Received: Printed:	:	5 d 06/26/2 07/06/2	
Lab ID	Client ID		Matrix	Collection Date	Hold	1	2	3	Red	quested 5	d Tests	(See leg	end be	elow)	10	11	12
1506B48-001	ASR2 Test		Water	6/24/2015 10:00		Α											
1506B48-002	MW-1		Water	6/24/2015 11:30		Α											-
1506B48-003	SMS (D)		Water	6/24/2015 9:30		Α											
1506B48-004	ASR3 Test		Water	6/24/2015 10:30		Α											1

Test Legend:

1	RSK175_W	2	3	4	5	
6		7	8	9	10	
г						

Prepared by: Maria Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days). Hazardous samples will be returned to client or disposed of at client expense.



McCampbell Analytical, Inc.

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1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com

WORK ORDER SUMMARY

Client Name:	MONTEREY BAY ANALYTICAL	QC Level: LEVEL 2	Work Order: 1506B48
Project:	MPWMD	Client Contact: David Holland	Date Received: 6/26/2015

Comments: Contact's Email: mweidner@mbasinc.com; Dholland@mbasinc.com

		WaterTrax	☐WriteOn ☐E	DF Excel	Fax ⊌ Email	HardC	opyThirdPart	у 🗀	J-flag	
Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De- chlorinated	Collection Date & Time	TAT	Sediment Content	Hold SubOut
1506B48-001A	ASR2 Test	Water	RSK175 <methane_4></methane_4>	3	VOA w/ HCl		6/24/2015 10:00	5 days	Trace	
1506B48-002A	MW-1	Water	RSK175 <methane_4></methane_4>	3	VOA w/ HCl		6/24/2015 11:30	5 days	None	
1506B48-003A	SMS (D)	Water	RSK175 <methane_4></methane_4>	3	VOA w/ HCl		6/24/2015 9:30	5 days	None	
1506B48-004A	ASR3 Test	Water	RSK175 <methane_4></methane_4>	3	VOA w/ HCl		6/24/2015 10:30	5 days	Trace	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

1506848

McCAMPBELL ANALYTICAL, INC. CHAIN OF CUSTODY RECORD 1534 WILLOW PASS ROAD TURN AROUND TIME PITTSBURG, CA 94565-1701 RUSH 24 HR 72 HR 5 DAY 48 HR Website: www.mccampbell.com Email: main@mccampbell.com □ PDF □ Excel ☐ GeoTracker EDF ☐ Write On (DW) Telephone: (877) 252-9262 Fax: (925) 252-9269 Report To: David Holland Bill To: **Analysis Request** Other Comments Company: Monterey Bay Analytical Services EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners Fotal Petroleum Oil & Grease (1664 / 5520 E/B&F) Filter 8015) 4 Justin Ct. Suite D Samples Monterey, Ca 93940 E-Mail: mweidner@mbasinc.com MTBE / BTEX & TPH as Gas (602 / 8021 + CAM 17 Metals (200.7 / 200.8 / 6010 / 6020) for Metals LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020) Tele: (831) 375 - 6227 Fax: (831) 641-0734 MTBE / BTEX ONLY (EPA 602 / 8021) analysis: Fotal Petroleum Hydrocarbons (418.1) EPA 502.2 / 601 / 8010 / 8021 (HVOCs) EPA 515 / 8151 (Acidic Cl Herbicides) EPA 8270 SIM / 8310 (PAHs / PNAs) Project #: Project Name: Yes / No EPA 505/ 608 / 8081 (CI Pesticides) TPH as Diesel / Motor Oil (8015) Lead (200.7 / 200.8 / 6010 / 6020) Project Location: MPWMD EPA 525.2 / 625 / 8270 (SVOCs) EPA 507 / 8141 (NP Pesticides) EPA 524.2 / 624 / 8260 (VOCs) Sampler Signature: Jonathan Lear METHOD SAMPLING MATRIX Type Containers PRESERVED # Containers LOCATION/ SAMPLE ID **Field Point** Methane Sludge Water Name Date Time HNO3 Other Other HCL ICE Air 6/24/15 XX AB32315 G X X ASR2 Test 1000 3 6/24/15 X XX X AB32316 MW-1 1130 3 G 6/25/15 X XX X AB32317 SMS(D) 0930 3 G 6/25/15 X X AB32318 ASR3Test 1030 G XX GOOD CONDITION COMMENTS: Relinquished By: Date: Time: Received By: David Holland/ 6/25/15 1600 HEAD SPACE ABSENT Relinquished By: Time: Received By: DECHLORINATED IN LAB Date: Mua 2 0245 084 APPROPRIATE CONTAINERS PRESERVED IN LAB Relinquished By: Received By: Date: Time: VOAS O&G METALS OTHER

PRESERVATION

pH<2

Sample Receipt Checklist

Client Name:	Monterey Bay Anal	ytical			Date and	Time Received:	6/26/2015 1:28:14 PM
Project Name:	MPWMD				LogIn Rev	iewed by:	Maria Venegas
WorkOrder №:	1506B48	Matrix: Water			Carrier:	<u>OnTrac</u>	
		Chain of C	ustody	/ (COC) I	<u>nformation</u>		
Chain of custody	present?		Yes	✓	No 🗌		
Chain of custody	signed when relinqu	shed and received?	Yes	✓	No 🗌		
Chain of custody	agrees with sample	labels?	Yes	✓	No 🗌		
Sample IDs note	d by Client on COC?		Yes	✓	No 🗌		
Date and Time of	f collection noted by	Client on COC?	Yes	✓	No 🗌		
Sampler's name	noted on COC?		Yes	✓	No 🗌		
		<u>Sampl</u>	e Rece	eipt Infori	mation		
Custody seals int	tact on shipping conta	ainer/cooler?	Yes		No 🗌		NA 🗸
Shipping containe	er/cooler in good con	dition?	Yes	✓	No 🗌		
Samples in prope	er containers/bottles?		Yes	✓	No 🗌		
Sample containe	rs intact?		Yes	✓	No 🗌		
Sufficient sample	e volume for indicated	I test?	Yes	✓	No 🗌		
		Sample Preservation	on and	Hold Tin	ne (HT) Info	rmation	
All samples recei	ived within holding tin	ne?	Yes	•	No 🗌		
Sample/Temp Bla	ank temperature			Temp:	5.6°C		NA 🗌
Water - VOA vial	s have zero headspa	ce / no bubbles?	Yes		No 🗌		NA 🗹
Sample labels ch	necked for correct pre	eservation?	Yes	•	No 🗌		
pH acceptable up	oon receipt (Metal: <2	2; 522: <4; 218.7: >8)?	Yes		No 🗌		NA 🗹
Samples Receive	ed on Ice?		Yes	✓	No 🗌		
		(Ice Type	e: WE	TICE))		
UCMR3 Samples Total Chlorine	-	e upon receipt for EPA 522?	Yes		No 🗌		NA 🗹
Free Chlorine t 300.1, 537, 539		e upon receipt for EPA 218.7,	Yes		No 🗌		NA ✓
* NOTE: If the "N	lo" box is checked, s	ee comments below.					
Comments:							



MPWMD Joe Oliver P.O. Box 85 Monterey, CA 93442-0085

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David Holland, Laboratory Director

ELAP Certification Number: 2385

T = Temperature Exceedance

Page 1 of 1 Monday, July 20, 2015

Lab Number: AB33179

H = Analyzed ouside of hold time

Collection Date/Time: 7/15/2015 10:20 Sample Collector: LEAR J

Submittal Date/Time: 7/15/2015 14:15 Sample ID Coliform Designation:

Sample Description: ASR1 Test										
Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:		
Mercury	EPA200.8	μg/L	0.74	Е		2	7/17/2015	MCCAM		
Mercury by EPA 245.2	EPA245.2	μg/L	0.88	Е	0.20	2	7/17/2015	MCCAM		

Sample Comments:

Report Approved by:

mg/L: Milligrams per liter ug/L: Micrograms per liter PQL: Practical Quantitation Limit MCL: Maximum Contamination Level

E = Analysis performed by External Laboratory; See Report attachments.



McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1507594

Report Created for: Monterey Bay Analytical

4 Justin Court, Suite D Monterey, CA 93940

Project Contact:

David Holland

Project P.O.:

Project Name: MPWMD

Project Received: 07/16/2015

Analytical Report reviewed & approved for release on 07/20/2015 by:

Angela Rydelius,

Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.



Glossary of Terms & Qualifier Definitions

Client: Monterey Bay Analytical

Project: MPWMD **WorkOrder:** 1507594

Glossary Abbreviation

95% Interval 95% Confident Interval

DF Dilution Factor

DI WET (DISTLC) Waste Extraction Test using DI water

DISS Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)

DUP Duplicate

EDL Estimated Detection Limit

ITEF International Toxicity Equivalence Factor

LCS Laboratory Control Sample

MB Method Blank

MB % Rec % Recovery of Surrogate in Method Blank, if applicable

MDL Method Detection Limit

ML Minimum Level of Quantitation

MS Matrix Spike

MSD Matrix Spike Duplicate

N/A Not Applicable

ND Not detected at or above the indicated MDL or RL

NR Data Not Reported due to matrix interference or insufficient sample amount.

PF Prep Factor

RD Relative Difference

RL Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)

RPD Relative Percent Deviation
RRT Relative Retention Time

SPK Val Spike Value

SPKRef Val Spike Reference Value

SPLP Synthetic Precipitation Leachate Procedure
TCLP Toxicity Characteristic Leachate Procedure

TEQ Toxicity Equivalents

WET (STLC) Waste Extraction Test (Soluble Threshold Limit Concentration)

Analytical Report

Client:Monterey Bay AnalyticalWorkOrder:1507594Project:MPWMDExtraction Method:E200.8Date Received:7/16/15 10:57Analytical Method:E200.8

Date Prepared: 7/16/15 **Unit:** $\mu g/L$

Mercury

		<u>, </u>	
Client ID	Lab ID Matri	x Date Collected Instrument	Batch ID
ASR1 Test	1507594-001A Water	07/15/2015 10:20 ICP-MS1	107688
<u>Analytes</u>	Result	<u>RL</u> <u>DF</u>	Date Analyzed
Mercury	0.74	0.025 1	07/17/2015 17:24
<u>Surrogates</u>	<u>REC (%)</u>	<u>Limits</u>	
Terbium	95	70-130	07/17/2015 17:24
Analyst(s): DVH			

Analytical Report

Client:Monterey Bay AnalyticalWorkOrder:1507594Project:MPWMDExtraction Method:E245.2Date Received:7/16/15 10:57Analytical Method:E245.2Date Prepared:7/16/15Unit:µg/L

Mercury by Cold Vapor Atomic Absorption

Client ID	Lab ID	Matrix	Date Collec	cted Instrument	Batch ID
ASR1 Test	1507594-001A	Water	07/15/2015 1	0:20 AA1	107740
<u>Analytes</u>	Result		<u>RL</u> D	<u>F</u>	Date Analyzed
Mercury	0.88		0.20	1	07/17/2015 11:52

Analyst(s): BBO

Quality Control Report

Client: Monterey Bay Analytical

Date Prepared: 7/15/15Date Analyzed: 7/16/15Instrument: ICP-MS1Matrix: Water

Project: MPWMD

WorkOrder: 1507594

BatchID: 107688

Extraction Method: E200.8 **Analytical Method:** E200.8

Unit: $\mu g/L$

Sample ID: MB/LCS-107688

1507544-001AMS/MSD

QC Summary Report for Mercury										
Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits			
Mercury	ND	1.19	0.025	1.25	-	95	85-115			
Surrogate Recovery										
Terbium	754	733		750	100	98	70-130			

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Mercury	NR	NR	1.25	ND<0.50	NR	NR	70-130	NR	20
Surrogate Recovery Terbium	868	1050	750		116	140	70-130	18.9	20

Quality Control Report

Client: Monterey Bay Analytical

Date Prepared: 7/16/15 **Date Analyzed:** 7/17/15 **Instrument:** AA1

Matrix: Water
Project: MPWMD

WorkOrder: 1507594

BatchID: 107740 **Extraction Method:** E245.2

Analytical Method: E245.2

Unit: $\mu g/L$

Sample ID: MB/LCS-107740

1507594-001AMS/MSD

QC Summary Report for Mercury

Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Mercury	ND	2.13	0.20	2	-	106	80-120

Analyte	MS Result	MSD Result	SPK Val	SPKRef Val	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD Limit
Mercury	2.84	2.95	2	0.8830	98	103	80-120	3.87	20

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CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 1507594 ClientCode: MBAS

	WaterTrax	WriteOn	EDF	Excel	EQuIS	✓ Email	HardCopy	ThirdParty	J-flag
Report to:				В	ill to:		Req	uested TAT:	2 days
David Holland	Email: m	nweidner@mbas	sinc.com; Dholl	and@mbas	Accounts Paya	ble			
Monterey Bay Analytical	cc/3rd Party:				Monterey Bay A	Analytical			
4 Justin Court, Suite D	PO:				4 Justin Court,	Suite D	Dat	e Received:	07/16/2015
Monterey, CA 93940	ProjectNo: N	1PWMD			Monterey, CA 9	3940	Dat	07/20/2015	
831-375-6227 FAX: 831-641-0734									

				Requested Tests (See legend below)											
Lab ID	Client ID	Matrix	Collection Date Hold	1	2	3	4	5	6	7	8	9	10	11	12
1507594-001	ASR1 Test	Water	7/15/2015 10:20	Α	Α										

Test Legend:

1	HG_W	2	HGMS_W	3		4	ţ	3
6		7		8	9	9	1	0
11		12]				

Prepared by: Maria Venegas

Comments: 2 Day TAT

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).

Hazardous samples will be returned to client or disposed of at client expense.



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WORK ORDER SUMMARY

Client Name	: MONTEREY	BAY ANALYTICA	L		QC Level:	LEVEL 2				Work	Corder:	1507594
Project:	MPWMD				Client Contact:	David Hol	land			Date R	eceived:	7/16/2015
Comments:	2 Day TAT			Contact's Email: mweidner@mbasinc.com; Dholland@mbasinc.com								
		☐WaterTrax	WriteOn	EDF	Excel	Fax	∠ Email	HardCo	ppyThirdPart	tyJ	-flag	
Lab ID	Client ID	Matrix	Test Name		Containe /Composi		& Preservative	De- chlorinated	Collection Date & Time	TAT	Sediment Content	Hold SubOu
1507594-001A	ASR1 Test	Water	E200.8 (Mercury)	<u>'</u>)	1	250mL	HDPE w/ HNO3		7/15/2015 10:20	2 days	None	
			E245.2 (Mercury)	·)						2 days	None	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD PITTSBURG, CA 94565-1701

Website: www.mccampbell.com Email: main@mccampbell.com

Telephone: (877) 252-9262

Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

72 HR 5 DAY

TURN AROUND TIME

RUSH

24 HR

48 HR

72 HR

5 DAY

DECEL Write On (DW)

Report To: David	i Holland		В	ill To	:													A	nal	ysis	Rec	ues	t						Other		Comments
Company: Mont		tical Serv	ices								-					6				ers											Filter
	tin Ct. Suite D										1		8015)			B&I				ngen											Samples
Mont	erey, Ca 93940		E-M	ail: n	weid	ner(@mt	pasii	ıc.c	om			+			20 E/				Cor						20)	(0;				for Metals
Tele: (831) 375 -	6227				831)		0734						Gas (602 / 8021	1		155	=	Cs)		lors		(Sa			s)	09/	/ 602				analysis:
Project #:			P	rojec	t Nan	ne:							502 /	1		1664	(418	NO	(sa)	Aroc		sicid			PNA	0109	2010	6			Yes / No
Project Location	: MPWMD												1) 58		8015	ase (Suoc	E E	sticid	.Y; /	des)	Herl	Cs)	OCs)	Hs/I	0.8	8/	6020			11.00
Sampler Signatu	re: Jonathan Le	ar				_							2	9	Oiio	Gre	carl	/ 802	1 Pes	ONI	stici	CCI	(vo	(SV	(PA)	/ 200	/ 200	10/	12.1	8.00	1
		SAMP	LING		ers	I	MATRIX		PRE	ETH SEF				lotor	S IIC	Hydro	8010) 18	CB's	NP Pe	Acidi	8260	8270	8310	200.7	200.7	.8 / 60	A 24	A 20		
SAMPLE ID	LOCATION/ Field Point Name	Date	Time	# Containers	Type Containers	Water	Soil	Sludge	Other	ICE	HCL	HNO ₃	Other MTBE / RTFX &	S vala / agun	TPH as Diesel / Motor Oil (8015)	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 502.2 / 601 / 8010 / 8021 (HVOCs)	EPA 505/ 608 / 8081 (CI Pesticides)	EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)	LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	Lead (200.7 / 200.8 / 6010 / 6020)	Mercury by EPA 245.1	Mercury by EPA 200.8	
	ASR1 Test	7/15/15	1020	1	P	X		T		X	d	K	十																X	X	AB33179
Relinquished By: David Holland Relinquished By: Relinquished By:	en Q	Date: 7/15/15 Date: 7/16/15 Date:	Time: 1600 Time: 1030	Rec	eived E	By:	ca	1		6		ICE/r ² COMMENTS: GOOD CONDITION HEAD SPACE ABSENT DECHLORINATED IN LAB APPROPRIATE CONTAINERS PRESERVED IN LAB VOAS O&G METALS OTHER PRESERVATION PH<2						both													

Sample Receipt Checklist

Client Name.	Monterey Bay An	aiyticai			Date and 1	ine Received.	7/16/2015 10:57:38 AIVI
Project Name:	MPWMD				LogIn Revie	ewed by:	Maria Venegas
WorkOrder №:	1507594	Matrix: Water			Carrier:	Golden State C	<u>Overnight</u>
		Chain of C	ustod	(COC)	<u>Information</u>		
Chain of custody	present?		Yes	✓	No 🗌		
Chain of custody	signed when relinq	uished and received?	Yes	✓	No 🗌		
Chain of custody	agrees with sample	e labels?	Yes	✓	No 🗌		
Sample IDs note	d by Client on COC	?	Yes	✓	No \square		
Date and Time of	f collection noted by	Client on COC?	Yes	✓	No 🗌		
Sampler's name	noted on COC?		Yes	✓	No 🗆		
		<u>Sampl</u>	e Rece	eipt Info	<u>rmation</u>		
Custody seals int	tact on shipping cor	tainer/cooler?	Yes		No 🗌		NA 🗸
Shipping containe	er/cooler in good co	ondition?	Yes	✓	No 🗌		
Samples in prope	er containers/bottles	s?	Yes	✓	No 🗌		
Sample containe	rs intact?		Yes	✓	No 🗌		
Sufficient sample	e volume for indicate	ed test?	Yes	•	No 🗌		
		Sample Preservation	on and	Hold Ti	me (HT) Infor	rmation	
All samples recei	ived within holding t	ime?	Yes	•	No 🗌		
Sample/Temp Bla	ank temperature			Temp	o: 2°C		NA 🗆
Water - VOA vial	s have zero headsp	pace / no bubbles?	Yes		No 🗌		NA 🗹
Sample labels ch	necked for correct p	reservation?	Yes	✓	No 🗌		
pH acceptable up	oon receipt (Metal:	<2; 522: <4; 218.7: >8)?	Yes	•	No 🗌		NA 🗆
Samples Receive	ed on Ice?		Yes	•	No 🗌		
		(Ice Type	e: WE	TICE)		
UCMR3 Samples		ole upon receipt for EPA 522?	Yes		No 🗌		NA 🗸
		•					NA 🗸
300.1, 537, 539		le upon receipt for EPA 218.7,	Yes		No 🗌		NA 🗸
* NOTE: If the "N	lo" box is checked,	see comments below.					
Comments:							



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www.MBASinc.com **ELAP Certification Number: 2385**

Thursday, August 13, 2015 Page 1 of 2

Lab Number: AB33421

Collection Date/Time: 7/23/2015 Sample Collector: LINDBERG T 13:15

Submittal Date/Time: 7/23/2015 16:15 Sample ID Coliform Designation:

Sample Description: PCA-E (D)									
Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:	
Alkalinity, Total (as CaCO3)	SM2320B	mg/L	163		2		7/31/2015	LRH	
Aluminum, Total	EPA200.8	μg/L	Not Detected		10	1000	7/30/2015	SM	
Ammonia-N	SM4500NH3 D	mg/L	Not Detected		0.05		7/24/2015	TC	
Arsenic, Total	EPA200.8	μg/L	7		1	10	7/30/2015	SM	
Barium, Total	EPA200.8	μg/L	68		10	1000	7/30/2015	SM	
Bicarbonate (as HCO3-)	SM2320B	mg/L	199		10		7/31/2015	TC	
Boron	EPA200.7	mg/L	0.08		0.05		8/4/2015	MW	
Bromide	EPA300.0	mg/L	0.3		0.1		7/24/2015	НМ	
Calcium	EPA200.7	mg/L	43		0.5		8/4/2015	MW	
Carbonate as CaCO3	SM2320B	mg/L	Not Detected		10		7/31/2015	TC	
Chloramines	SM4500-CI G	mg/L	Not Detected		0.05		7/23/2015	DH	
Chloride	EPA300.0	mg/L	82		1	250	7/24/2015	НМ	
DOC		mg/L	0.8		0.2		7/28/2015	MW	
Fluoride	EPA300.0	mg/L	0.3		0.1	2.0	7/24/2015	НМ	
Gross Alpha	EPA900.0	pCi/L	2.04 ± 1.86	E		15	8/10/2015	FGL	
Haloacetic Acids	EPA552	μg/L	Not Detected	E		60	8/6/2015	BSK	
Iron	EPA200.7	μg/L	Not Detected		10	300	8/4/2015	MW	
Iron, Dissolved	EPA200.7	μg/L	Not Detected		10	300	8/4/2015	MW	
Kjehldahl Nitrogen	SM4500-NH3 B,	mg/L	Not Detected		0.5		8/3/2015	TC	
Lithium	EPA200.8	μg/L	34		1		7/30/2015	SM	
Magnesium	EPA200.7	mg/L	8.0		0.5		8/4/2015	MW	
Manganese, Dissolved	EPA200.7	μg/L	Not Detected		10	50	8/4/2015	MW	
Manganese, Total	EPA200.7	μg/L	Not Detected		10	50	8/4/2015	MW	
Mercury, Total	EPA200.8	μg/L	Not Detected		0.5	2	7/30/2015	SM	
Methane	EPA174/175	μg/L	0.21	E	0.1		7/29/2015	MCCAM	
Molybdenum, Total	EPA200.8	μg/L	11		1	1000	7/30/2015	SM	
Nickel, Total	EPA200.8	μg/L	Not Detected		10	100	7/30/2015	SM	
Nitrate as NO3	EPA300.0	mg/L	Not Detected		1	45	7/24/2015	НМ	
Nitrate as NO3-N	EPA300.0	mg/L	0.1		0.1	10	7/24/2015	НМ	
Nitrate+Nitrite as N	EPA300.0	mg/L	0.4		0.1		7/24/2015	НМ	
Nitrite as NO2-N	EPA300.0	mg/L	0.3		0.1	1.0	7/24/2015	НМ	
o-Phosphate-P	EPA300.0	mg/L	Not Detected		0.1		7/24/2015	НМ	

mg/L: Milligrams per liter ug/L: Micrograms per liter PQL : Practical Quantitation Limit MCL: Maximum Contamination Level H = Analyzed ouside of hold time E = Analysis performed by External Laboratory; See Report attachments. T = Temperature Exceedance Lab Number: AB33421

Collection Date/Time: 7/23/2015 13:15 Sample Collector: LINDBERG T

Submittal Date/Time: 7/23/2015 16:15 Sample ID Coliform Designation:

Sample Description: PCA-E (D)										
Analyte	Method	Unit	Result	Qual	PQL	MCL	Date Analyzed	Analyst:		
pH (Laboratory)	SM4500-H+B	pH (H)	7.5		0.1		7/23/2015	НМ		
Phosphorus, Total	HACH 8190	mg/L	0.05		0.03		7/27/2015	LRH		
Potassium	EPA200.7	mg/L	3.5		0.5		8/4/2015	MW		
QC Anion Sum x 100	Calculation	%	97%				7/31/2015	TC		
QC Anion-Cation Balance	Calculation	%	2				8/6/2015	MW		
QC Cation Sum x 100	Calculation	%	101%				8/6/2015	MW		
QC Ratio TDS/SEC	Calculation		0.63				7/30/2015	НМ		
Selenium, Total	EPA200.8	μg/L	Not Detected		2	50	7/30/2015	SM		
Silica as SiO2, Total	EPA200.7	mg/L	47		0.5		8/4/2015	MW		
Sodium	EPA200.7	mg/L	80		0.5		8/4/2015	MW		
Specific Conductance (E.C)	SM2510B	µmhos/cm	628		1	900	7/28/2015	НМ		
Strontium, Total	EPA200.8	μg/L	228		5		7/30/2015	SM		
Sulfate	EPA300.0	mg/L	24		1	250	7/24/2015	НМ		
TOC	SM5310C	mg/L	0.6		0.2		7/28/2015	MW		
Total Diss. Solids	SM2540C	mg/L	394		10	500	7/28/2015	НМ		
Total Nitrogen	Calculation	mg/L	Not Detected		0.5		8/3/2015	НМ		
Total Radium 226	EPA903.0	pCi/L	0.150 ± 0.227	Е		3	8/8/2015	FGL		
Trihalomethanes	EPA524.2	μg/L	Not Detected	E		80	7/31/2015	BSK		
Uranium by ICP/MS	EPA200.8	μg/L	Not Detected		1	30	7/30/2015	SM		
Vanadium, Total	EPA200.8	μg/L	Not Detected		5	1000	7/30/2015	SM		
Zinc, Total	EPA200.8	μg/L	Not Detected		20	5000	7/30/2015	SM		

Sample Comments:

Report Approved by:

David Holland, Laboratory Director



BSK Associates Fresno 1414 Stanislaus St Fresno, CA93706 559-497-2888 (Main) 559-485-6935 (FAX)

A5G2657 8/11/2015

Invoice: A516690

David Holland Monterey Bay Analytical 4 Justin Court Suite D Monterey, CA 93940

RE: Report for A5G2657 MPWMD

Dear David Holland,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 7/29/2015. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2009 TNI Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

If additional clarification of any information is required, please contact your Project Manager, John Montierth, at (800) 877-8310 or (559) 497-2888 x201.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

John Montierth, Project Manager



Accredited in Accordance with NELAP ORELAP #4021



Case Narrative

Project and Report Details Invoice Details

Client: Monterey Bay Analytical Invoice To: Monterey Bay Analytical

Report To: David Holland Invoice Attn: David Holland

Project #: MPWMD Project PO#: -

Report Due: 8/12/2015

Received:

Sample Receipt Conditions

7/29/2015 - 11:58

Cooler: Default Cooler Containers Intact

Temperature on Receipt °C: 1.4

COC/Labels Agree

Received On Wet Ice Received On Blue Ice

Packing Material - Bubble Wrap

Packing Material - Paper

Sample(s) were received in temperature range.

Initial receipt at BSK-FAL

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

MS1.0 Matrix spike recoveries exceed control limits.

Report Distribution

Recipient(s)	Report Format	CC:
David Holland	FINAL.RPT	
Mason Weidner	FINAL.RPT	





MPWMDMPWMD

Certificate of Analysis

Sample ID: A5G2657-01 **Sampled By:** T Lindberg

Sample Description: PCA-E (D) // AB33421

Sample Date - Time: 07/23/15 - 13:15

Matrix: Ground Water

Sample Type: Grab

BSK Associates Fresno Organics

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	ND	0.50	ug/L	1	A508656	07/31/15	07/31/15	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A508656	07/31/15	07/31/15	
Chloroform	EPA 524.2	ND	0.50	ug/L	1	A508656	07/31/15	07/31/15	
Dibromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A508656	07/31/15	07/31/15	
Surrogate: Bromofluorobenzene	EPA 524.2	92 %	Acceptable	range:	70-130 %				
Total Trihalomethanes, EPA 524.2		ND	0.50	ug/L					
Haloacetic Acids by GC-ECD, G	GC-MS								
Dibromoacetic Acid (DBAA)	EPA 552.3	ND	1.0	ug/L	1	A508696	08/03/15	08/06/15	
Dichloroacetic Acid (DCAA)	EPA 552.3	ND	1.0	ug/L	1	A508696	08/03/15	08/06/15	
Monobromoacetic Acid (MBAA)	EPA 552.3	ND	1.0	ug/L	1	A508696	08/03/15	08/06/15	
Monochloroacetic Acid (MCAA)	EPA 552.3	ND	2.0	ug/L	1	A508696	08/03/15	08/06/15	
Trichloroacetic Acid (TCAA)	EPA 552.3	ND	1.0	ug/L	1	A508696	08/03/15	08/06/15	
Surrogate: 2-Bromobutanoic Acid	EPA 552.3	103 %	Acceptable	range:	70-130 %				
Total Haloacetic Acids, EPA 552.3		ND	2.0	ug/L					

QA-RP-0001-10 Final.rpt



BSK Associates Fresno Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Date Analyzed	Qual	
		EPA 5	24.2 - Q	uality Co	ntrol							
Batch: A508656										Prepared	I: 07/31	/201
Prep Method: no prep-volatiles											Analyst:	
Blank (A508656-BLK1)												
Bromodichloromethane	ND	0.50	ug/L							07/31/15		
Bromoform	ND	0.50	ug/L							07/31/15		
Chloroform	ND	0.50	ug/L							07/31/15		
Dibromochloromethane	ND	0.50	ug/L							07/31/15		
Surrogate: Bromofluorobenzene	51	-	3/-	50		103	70-130			07/31/15		
Blank Spike (A508656-BS1)												
Bromodichloromethane	10	0.50	ug/L	10		101	70-130			07/31/15		
Bromoform	10	0.50	ug/L	10		100	70-130			07/31/15		
Chloroform	11	0.50	ug/L	10		112	70-130			07/31/15		
Dibromochloromethane	10	0.50	ug/L	10		101	70-130			07/31/15		
Surrogate: Bromofluorobenzene	51	0.00		50		102	70-130			07/31/15		
Blank Spike Dup (A508656-BSD1)												
Bromodichloromethane	9.2	0.50	ug/L	10		92	70-130	10	30	07/31/15		
Bromoform	8.8	0.50	ug/L	10		88	70-130	13	30	07/31/15		
Chloroform	10	0.50	ug/L	10		101	70-130	11	30	07/31/15		
Dibromochloromethane	9.2	0.50	ug/L	10		92	70-130	9	30	07/31/15		
Surrogate: Bromofluorobenzene	50		9-	50		101	70-130			07/31/15		
Matrix Spike (A508656-MS1), Source:	Δ5G2712-01											
Bromodichloromethane	4.2	0.50	ug/L	10	ND	42	70-130			07/31/15	MC10	1 04
Bromoform	3.9	0.50	ug/L	10	ND	39	70-130			07/31/15		
Chloroform	4.7	0.50	ug/L	10	ND	47	70-130			07/31/15		
Dibromochloromethane	4.2	0.50	ug/L	10	ND	42	70-130			07/31/15		
Surrogate: Bromofluorobenzene	51	0.00	~g, _	50		103	70-130			07/31/15		
		EPA 5	52.3 - Q	uality Co	ntrol							
Batch: A508696				•						Prepared	I: 08/03	/201
Prep Method: EPA 552.3										А	nalyst:	MTN
Blank (A508696-BLK1)												
Dibromoacetic Acid (DBAA)	ND	1.0	ug/L							08/05/15		
Dichloroacetic Acid (DCAA)	ND	1.0	ug/L							08/05/15		
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L							08/05/15		
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L							08/05/15		
Trichloroacetic Acid (TCAA)	ND	1.0	ug/L							08/05/15		
Surrogate: 2-Bromobutanoic Acid	24			25		95	70-130			08/05/15		
Blank Spike (A508696-BS1)												
Dibromoacetic Acid (DBAA)	9.0	1.0	ug/L	10		90	70-130			08/05/15		
Dichloroacetic Acid (DCAA)	11	1.0	ug/L	10		113	70-130			08/05/15		
Monobromoacetic Acid (MBAA)	9.3	1.0	ug/L	10		93	70-130			08/05/15		
Monochloroacetic Acid (MCAA)	20	2.0	ug/L	20		99	70-130			08/05/15		
Trichloroacetic Acid (TCAA)	10	1.0	ug/L	10		101	70-130			08/05/15		
A5G2657 FINAL 08112015 1228												
Printed: 08/11/2015											4	-1.0
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BSK Associates Fresno Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Date Analyzed	Qual
Analyte	Result					-/orceo	Lilling	-KI D	Linnt	Analyzeu	- Gran
		EPA 5	52.3 - Q	uality Co	ntroi						
Batch: A508696										Prepared	08/03/2015
Prep Method: EPA 552.3										Ar	nalyst: MTM
Blank Spike (A508696-BS1)											
Surrogate: 2-Bromobutanoic Acid	25			25		99	70-130			08/05/15	
Blank Spike Dup (A508696-BSD1)											
Dibromoacetic Acid (DBAA)	9.6	1.0	ug/L	10		96	70-130	7	30	08/06/15	
Dichloroacetic Acid (DCAA)	11	1.0	ug/L	10		111	70-130	2	30	08/06/15	
Monobromoacetic Acid (MBAA)	9.4	1.0	ug/L	10		94	70-130	2	30	08/06/15	
Monochloroacetic Acid (MCAA)	20	2.0	ug/L	20		98	70-130	1	30	08/06/15	
Trichloroacetic Acid (TCAA)	10	1.0	ug/L	10		104	70-130	3	30	08/06/15	
Surrogate: 2-Bromobutanoic Acid	26			25		105	70-130			08/06/15	
Matrix Spike (A508696-MS1), Source	: A5G2425-03										
Dibromoacetic Acid (DBAA)	10	1.0	ug/L	10	ND	96	70-130			08/05/15	
Dichloroacetic Acid (DCAA)	16	1.0	ug/L	10	4.5	111	70-130			08/05/15	
Monobromoacetic Acid (MBAA)	9.5	1.0	ug/L	10	ND	95	70-130			08/05/15	
Monochloroacetic Acid (MCAA)	20	2.0	ug/L	20	ND	100	70-130			08/05/15	
Trichloroacetic Acid (TCAA)	20	1.0	ug/L	10	9.7	106	70-130			08/05/15	
Surrogate: 2-Bromobutanoic Acid	25			25		102	70-130			08/05/15	



Certificate of Analysis

Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- · Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- (1) Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals.
- · Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.
- The MCLs provided in this report (if applicable) represent the primary MCLs for that analyte.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
μg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
μg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable	MCL:	Maximum Contaminant Limit		

Please see the individual Subcontract Lab's report for applicable certifications.

BSK is not accredited under the NELAC program for the following parameters:

NA

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

F	res	sn	o
		911	v

State of California - ELAP	1180	State of Hawaii	4021
State of Nevada	CA000792016-1	State of Oregon - NELAC	4021
EPA - LICMR3	CA00079	State of Washington	C997-15

Sacramento

State of California - ELAP 2435

Vancouver

State of Oregon - NELAC WA100008 State of Washington C824-14a







07292015

Monte6227

Turnaround: Standard

Due Date: 8/12/2015



Monterey Bay Analytical





Printed: 7/29/2015 3:53:52PM

Page 7 of 9

Associates Engineer Laboratories

1414 Stanislaus St., Fresno, CA 93706

Turnaround Time Request

A5G2657 Monte6227

07/29/2015 of 8

sing	@mbasinc.com, dholland@mbasin	_{E-mail*:} mweidner@n	PO#	David Holland	Vices
	831-641-0734	Phone*: 831-375-6227	Invoice To*: David Holland	Report Attention*: Mason Weidner-Holland	•
	WWW. W. T. T. W. W. W. W. T. T. W. W. W. W. T. T. W.	A COMPANION OF THE PARTY OF THE		Temp:	*Required Fields
		ga anno gaggaran	Date needed:		
Pa			Rush (Surcharge may apply)	es.com	www.bskassociates.com
ge 8			X Standard - 10 business days	[≃] ax (559) 497-2893	(559) 497-2888 · Fax (559) 497-2893

C		1-0-	Dr	D. C.
company/Cient Name:	Mason Weidner-Holland	David Holland	831-375-6227	831-641-0734
Monterey Bay Analytical Services	Additional cc's: David Holland	PO#:	_{E-mail*:} mweidner@mba	_{E-mair} mweidner@mbasinc.com, dholland@mbasin
Address*: 4 Justin Court, Suite D	city*: Monterey	State*: zip*: CA 93940		
MPWMD	Project #:	How would you like to receive your completed results?" X E-Mail Fax Mail		
Reporting Options:	Regulatory Carbon Copies	Regulatory Compliance		
nted/Signature)*:	Merced Co Fresno Co	System Number*:		
T. Lindberg	Other:	Geotracker #:		
	Matrix Types: SW=Surface Water BW=Bottled Water GW=Ground Water WW=Waste Water STW=Storm Water	DW=Drinking Water SO=Soid		
Sample Description*	Date Time Matrix*	Comments / Station Code / WTRAX	TT	
1. CA-E (D)		AB33421	×	
	(
$\cap \mathcal{D}$.				
Palinquished by: (Signature and Printed Name) D. Holland	MBAS 7/28/15	Time Received by: (Signature and Printed Name)		Company
Relinquished by: (Signature and Printed Name)	Company Date	Time Received by: (Signature and Printed Name)		Company
teceived for Lab by: (Signature and Printed Name)		Time Payment Received at Delivery:		Check
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Snipping Method: ONT Bo UPS GSO Sooling Method: Wet Blue None	WALK-IN FED EX Counter		Chilling Process Begun (V)N	Tager Back
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A5G2657

07/29/2015

10

Monte6227

Sample Integrity

	Was temperature within ange? Chemistry ≤ 6°C Micro < 10°C	Yes	No NA	Were o	corrected for	t container the tests r	rs and presequested?	ervatives	Yes	No NA
coc Into	If samples were taken today, is there evidence	Yes	No (NA	Were (Volati	here l	bubbles in	the VOA vi	als?	Yes	No 🕰
=	that chilling has begun? Did all bottles arrive unbroken and intact?	(V68)	No	Was a	suffic	ient amou	nt of sampl	e received?	Yes	- No
วี ∤	Did all bottle labels agree with COC?	Ces	No No	Do sai	nples	have a ho	id time <72	hours?	Yes	(No
ی ا	Was sodium thiosulfate added to CN sample(s	yes	No (NA	Was F	M not	tified of dis	crepancies y/Time:	?	Yes	No NA
-	until chlorine was no longer present? 250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)	Checks	Passed?	1	T					
-				1						
	Bacti Na ₂ S ₂ O ₃ None (P) ^{White Cap}	_								
	Cr6 (P) Br. Green Label NH4OH(NH4)2SO4 DW	Cl, pH >	8 Y N							
	Cr6 (P) Pink Label NH4OH(NH4)2SO4 WW	pH 9.3-9.								
a	Cr6 (P) Pink Label NH40H(NH4)2S04 7199	11000	5 Y N				/			
<u>6</u>	***24 HOUR HOLD TIME***	pH 9.0-9.	או ו כ				/			
in the lab	HNO ₃ (P) Red Cap		_			/				
i þe	H ₂ SO ₄ (P) or (AG) Yellow Cap/Label	pH < 2	Y N			1				
performed	NaOH (P) Green Cap	Cl, pH >1				1	2 A S S S S S S S S S S S S S S S S S S			
erfc						1				
are p	NaOH + ZnAc (P)	pH > 9	TN			-1				
or a	Dissolved Oxygen 300ml (g)					$-\downarrow$				
	None (AG) 608/8081/8082, 625, 632/8321.									
ع ا	8151, 8270 HCI (AG) ^{Lt. Blue Label} O&G, Diesel	_								
either N/A	HCI (AG) O&G, Diesei									
are e	Na ₂ O ₃ S+HCl (AG) ^{Lt Pink Label} 525			_			+ -		1	
Sa	Na ₂ S ₂ O ₃ 1 Liter (Brown P) 549	_	_		1		$+-\lambda$	+ A	$+\mathcal{I}-$	
DOLLIES NECELVEU ine checks are either N	Na ₂ S ₂ O ₃ (AG) ^{Blue Label} 547,515,548,THM,524			15	V _		1		1	
ਤ ਨੂੰ ਹ	Na ₂ S ₂ O ₃ (CG) Blue Label 504, 505		_					+=-/-	Lan 1	1
bo preservation/chlorine	Na ₂ S ₂ O ₃ + MCAA (CG) ^{Orange Label} 531	pH < 3	Y N					111	11	-
/ch	NH ₄ CI (AG) ^{Purple Label} 552	_	_	1	A					
tion	EDA (AG) ^{Brown Label} DBPs				100					
e Na	HCL (CG) 524.2,BTEX,Gas, MTBE, 8260/624	_	_				$\top I$			
res	Buffer pH 4 (CG)									
aus										
mea	None (CG)						1			
<u>∸</u> ז'	1131 04 (00)					100				
اړ	Other: Asbestos 1Liter Plastic w/ Foil	<u> </u>								
	Low Level Hg / Metals Double Baggie	 _								
	Bottled Water		_							
	Clear Glass Jar: 250 / 500 / 1 Liter	_								
	Soil Tube Brass / Steel / Plastic	-	_							
	Tedlar Bag / Plastic Bag					<u></u>		an intition	Data	ime/Initia
	Container Preservative	Date/Tim	ne/Initials		C	ontainer	Pres	ervative	Date/1	mie/iiiila
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Comments										
Ē										
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August 12, 2015

Monterey Bay Analytical Services Lab ID : SP 1508388 4 Justin Court Customer : 2-19144

Monterey, CA 93940

Laboratory Report

Introduction: This report package contains total of 4 pages divided into 3 sections:

Case Narrative (2 pages): An overview of the work performed at FGL.

(1 page): Results for each sample submitted. Sample Results

Quality Control (1 page): Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab ID#	Matrix
PCA-E (D)	07/23/2015	07/29/2015	SP 1508388-001	GW

Sampling and Receipt Information: All samples were received in acceptable condition and within temperature requirements, unless noted on the Condition Upon Receipt (CUR) form. All samples arrived at room temperature. All samples were prepared and analyzed within the method specified hold time. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Radio QC

900.0	08/10/2015:211796 All analysis quality controls are within established criteria
	08/07/2015:209143 All preparation quality controls are within established criteria
903.0	08/08/2015:211714 All analysis quality controls are within established criteria
	08/03/2015:208861 All preparation quality controls are within established criteria

August 12, 2015 Lab ID : SP 1508388

Monterey Bay Analytical Services Customer : 2-19144

Certification:: I certify that this data package is in compliance with ELAP standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

KD:DMB

Approved By Kelly A. Dunnahoo, B.S.

Analytical Chemists

August 12, 2015 Lab ID : SP 1508388-001

Customer ID : 2-19144 **Monterey Bay Analytical Services**

4 Justin Court Sampled On : July 23, 2015-13:15

Monterey, CA 93940 Sampled By : T. Lindberg

> Received On : July 29, 2015-11:15 : Ground Water Matrix

Description : PCA-E (D) **Project** : MPWMD

Sample Result - Radio

Constituent	Result ± Error	MDA	Units	MCL/AL	Sample	Preparation	Sampl	e Analysis
Constituent	Result ± Ellor	MIDI	Omts	WICE/ILL	Method	Date/ID	Method	Date/ID
Radio Chemistry ^P								
Gross Alpha	2.04 ± 1.86	1.85	pCi/L		900.0	08/07/15-08:15 2P1509143	900.0	08/10/15-11:00 2A1511796
Total Alpha Radium (226)	0.150 ± 0.227	0.470	pCi/L		903.0	08/03/15-18:30 2P1508861	903.0	08/08/15-09:40 2A1511714

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A * PQL adjusted for dilution.

MDA = Minimum Detectable Activity (Calculated at the 95% confidence level) = Data utilized by DHS to determine matrix interference. MCL / AL = Maximum Contamination Level / Action Level. Alpha's Action Level of 5 pCi/L is based on the Assigned Value (AV). AV = Assigned Value(Gross Alpha Result + (0.84 x Error)). CCR Section 64442: Drinking Water Compliance Note: Do the following If Gross Alpha's (AV) exceeds 5 pCi/L run Uranium. If Gross Alpha's (AV) minus Uranium exceeds 5 pCi/L run Radium 226.

Drinking Water Compliance:

Gross Alpha (AV) minus Uranium is less than or equal to 15 pCi/L Uranium is less than or equal to 20 pCi/L

Radium 226 + Radium 228 is less than or equal to 5 pCi/L

Note: Samples are held for 3-6 months prior to disposal.

August 12, 2015 Lab ID : SP 1508388 **Monterey Bay Analytical Services** : 2-19144 Customer

Quality Control - Radio

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Radio								
Alpha	900.0	08/10/15:211796caa	CCV CCB	cpm cpm	8880	40.6 % 0.100	38 - 46 0.14	
Gross Alpha	900.0	08/07/15:209143elc (SP 1508433-001)	Blank LCS MS MSD MSRPD	pCi/L pCi/L pCi/L pCi/L pCi/L	180.6 180.6 180.6 180.6	1.52 92.5 % 100 % 98.9 % 1.1%	3 75-125 60-140 60-140 ≤30	
Alpha	903.0	08/08/15:211714caa	CCV CCB	cpm cpm	8882	40.9 % 0.100	37 - 45 0.19	
Total Alpha Radium (226)	903.0	08/03/15:208861emv	RgBlk LCS BS BSD BSRPD	pCi/L pCi/L pCi/L pCi/L pCi/L	21.59 21.59 21.59 21.59	0.08 76.4 % 72.2 % 102 % 34.6%	2 52-107 43-111 43-111 ≤35.5	
CCB : Continuing C	Calibration Blank -	ation - Analyzed to verify Analyzed to verify the	instrument b	aseline is wit	hin criteria.		_	

Blank : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.

RgBlk : Method Reagent Blank - Prepared to correct for any reagent contributions to sample result.

LČS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.

: Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample MS matrix affects analyte recovery.

: Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyted. The recoveries MSD

are an indication of how that sample matrix affects analyte recovery.

: Blank Spikes - A blank is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not

affecting analyte recovery. : Blank Spike Duplicate of BS/BSD pair - A blank duplicate is spiked with a known amount of analyte. It is prepared to verify that

the preparation process is not affecting analyte recovery.

: MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation

and analysis. : BS/BSD Relative Percent Difference (RPD) - The BS relative percent difference is an indication of precision for the preparation BSRPD

and analysis.

DQO : Data Quality Objective - This is the criteria against which the quality control data is compared.

BS

BSD

MSRPD

ENVIRONMENTAL

Analytical Chemists

www.FGLinc.com

CHAIN OF CUSTODY

AMD ANALDSIN REQUEST DON'T MENT

Cleret, Konteror Bay Analytical Services Inc. Address: 4 Justin Court Ste D Monteroy, CA 89340 Prote: 831-375-6227 12x 831-641-0734 Contact Protein David Holland Protein Davi										TEST DE	SCRIPTO	M - Sw	Reverse six	& for Conta	iner, Pre	errative a	nd Samplin	ը յոնտությ	ku		\Box
Address: 4 Justin Court Ste D Monterey, CA 93940 From: 831-375-6227 12x 831-641-0734 Contact Person: David Holland Process Name: MPVMMD Process Name: MPVMD Pr	Client:	Monterey Bay Analytical Service	es Inc.		T												I		Ī	1	1
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Corporate Offices a Laboratory P.O. Sux 272 / 853 Corporation street santa Paula. CA 93051-0272 Tell: 885/392-2000 FAX: 805/392-4172 CA NELAP Certification No. 01110CA CA ELAP Certification No. 1573 Office a Laboratory 2500 stagement Road atociton. CA 95215 Tel.: 209/942-0182 FAX: 208/942-0423 CA 5LAP Certification No. 1563 Office & Laboratory 563 ©. Lindo Avenue Chito. CA 95936 TRL: 5307343-3818 FAX: 5307343-3807 CA GLAP Certification No. 1562 FigLD OFFICE Visala.Calfornia Tel: (559)734-9473 Mobile: (559)737-2399 FAX: (559)734-9435

19)737-2399 734-6435 Subject: RE: AB33421 - Project: MPWMD (PCA-E) (D)

From: Mason Weidner-Holland <mweidner@mbasinc.com>

Date: 07/29/2015 14:08

To: 'Shawn Peck' <shawnp@fglinc.com>

CC: David Holland dholland@mbasinc.com

Shawn,

This is not for regulatory purposes, thanks for checking though

Have a great day!

Mason Weidner
Monterey Bay Analytical Services
4 Justin Court, Suite D
Monterey, Ca 93940
(831) 375-MBAS (6227)
(831) 641-0734 (Fax)

www.MBASinc.com
MWeidner@MBASinc.com

----Original Message----

From: Shawn Peck [mailto:shawnp@fglinc.com]
Sent: Wednesday, July 29, 2015 12:28 PM

To: MBAS

Subject: AB33421 - Project: MPWMD (PCA-E) (D)

Hello,

Today we received a sample for Gross Alpha and Ra226 for the above project. Does this need the state EDT reporting? If so, could you please provide the system

number?

Thanks, Shawn Peck Sample Receiving

This email is free from viruses and malware because avast! Antivirus protection is active.

https://www.avast.com/antivirus

FGL Environmental Doc ID: 2D0900157_SOP_17.DOC

Revision Date: 10/09/14 Page: 1 of 1

Condition Upon Receipt (Attach to COC)

Sample Receipt at SP:							
1. Number of ice chests/packages received:	1						
2. Shipper tracking numbers 528742441							
3. Were samples received in a chilled condition? Temps:	RRT	/	/	/	/	/	/
4. Surface water (SWTR) bact samples: A sample th should be flagged unless the time since sample co		•	•		•	whether ic	ed or not,
5. Do the number of bottles received agree with the COC?	Yes	No	N/A				
6. Verify sample date, time, sampler	Yes	No	N/A				
7. Were the samples received intact? (i.e. no broken bottles, leaks, etc.)	Yes	No					
8. Were sample custody seals intact?	Yes	No	N/A				
Sample Verification, Labeling and Distribution:							
Were all requested analyses understood and acceptable?	Yes	No					
2. Did bottle labels correspond with the client's ID's?	Yes	No					
3. Were all bottles requiring sample preservation properly preserved? [Exception: Oil & Grease, VOA and CrVI verified in lab]	Yes	No	N/A	FGL			
4. VOAs checked for Headspace?	Yes	No	N/A				
5. Were all analyses within holding times at time of reciept?	Yes	No					
6. Have rush or project due dates been checked and accepted?	Yes	No	N/A				
Include a copy of the COC for lab delivery. (Bacti. Inc	organics a	and Ra	dio)				
Sample Receipt, Login and Verification completed b	•		Reviewed Approved		Shawn Pe	CK 💷 Title:	lly signed by Shawn Peck Sample Receiving 07/29/2015-14:37:15
Discrepency Documentation:		<i>(</i> : ,		. 1			
Any items above which are "No" or do not meet spec		,	• /	t be re	solved.		
1. Person Contacted:			umber:				
Initiated By: Problem:	Da	ate:	_				
Problem.							
Resolution:							
2. Person Contacted:	Ph	one N	umber:				
Initiated By:		ate:					
Problem:							
Resolution:					(20	19144)	

Monterey Bay Analytical Services SP 1508388



McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1507B68

Report Created for: Monterey Bay Analytical

> 4 Justin Court, Suite D Monterey, CA 93940

Project Contact:

David Holland

Project P.O.:

Project Name: MPWMD

Project Received: 07/29/2015

Analytical Report reviewed & approved for release on 08/04/2015 by:

Angela Rydelius,

Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.



Glossary of Terms & Qualifier Definitions

Client: Monterey Bay Analytical

Project: MPWMD **WorkOrder:** 1507B68

Glossary Abbreviation

95% Interval 95% Confident Interval

DF Dilution Factor

DI WET (DISTLC) Waste Extraction Test using DI water

DISS Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)

DUP Duplicate

EDL Estimated Detection Limit

ITEF International Toxicity Equivalence Factor

LCS Laboratory Control Sample

MB Method Blank

MB % Rec % Recovery of Surrogate in Method Blank, if applicable

MDL Method Detection Limit

ML Minimum Level of Quantitation

MS Matrix Spike

MSD Matrix Spike Duplicate

N/A Not Applicable

ND Not detected at or above the indicated MDL or RL

NR Data Not Reported due to matrix interference or insufficient sample amount.

PF Prep Factor

RD Relative Difference

RL Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)

RPD Relative Percent Deviation
RRT Relative Retention Time

SPK Val Spike Value

SPKRef Val Spike Reference Value

SPLP Synthetic Precipitation Leachate Procedure
TCLP Toxicity Characteristic Leachate Procedure

TEQ Toxicity Equivalents

WET (STLC) Waste Extraction Test (Soluble Threshold Limit Concentration)

Analytical Report

Client:Monterey Bay AnalyticalWorkOrder:1507B68Date Received:7/29/15 12:09Extraction Method:RSK175Date Prepared:7/29/15Analytical Method:RSK175Project:MPWMDUnit:μg/L

Light Gases

Client ID	Lab ID Matri	x Date Collected Instrument	Batch ID
PCA-E (D)	1507B68-001A Water	07/23/2015 10:00 GC26	108286
<u>Analytes</u>	Result	<u>RL</u> <u>DF</u>	<u>Date Analyzed</u>
Methane	0.21	0.10 1	07/29/2015 13:14

Analyst(s): AK

Quality Control Report

Client:Monterey Bay AnalyticalWorkOrder:1507B68Date Prepared:7/29/15BatchID:108286Date Analyzed:7/29/15Extraction Method:RSK175Instrument:GC26Analytical Method:RSK175

 $\begin{tabular}{lll} \textbf{Matrix:} & Water & \textbf{Unit:} & \mu g/L \end{tabular}$

Project: MPWMD **Sample ID:** MB/LCS-108286

	QC Sum	mary Report	for RSK175				
Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits
Ethane	ND	10.5	0.20	10	-	105	70-130
Ethylene	ND	7.21	0.30	10	-	72	70-130
Methane	ND	9.47	0.10	10	-	95	70-130

McCampbell Analytical, Inc.

1534 Willow Pass Rd Pittsburg, CA 94565-1701 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

Page 1 of

WorkOrder: 1507B68 ClientCode: MBAS

(925) 252-92	262				•	, 0111	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	100.20	.0	0.		, ac. 1,12	D11 0				
		WaterTrax	WriteOn	EDF	E	Excel		EQuIS	✓	Email	[HardC	Сору	ThirdF	² arty	☐J-fla	ıg
Report to: David Holland Monterey Bay Ar 4 Justin Court, S Monterey, CA 93 831-375-6227	uite D	Email: n cc/3rd Party: PO: ProjectNo: N	_	asinc.com; Dhollar	nd@m		Monte 4 Just	nts Pay rey Bay in Court rey, CA	Analyt t, Suite	D			Date 1	sted TAT Received Printed:	d:	5 days; 07/29/2 07/29/2	2015
									Re	queste	d Tests	(See le	gend be	low)			
Lab ID	Client ID		Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12
1507B68-001	PCA-E (D)		Water	7/23/2015 10:00		Α								T	T	T	Т
Test Legend:																	
1 RSK175				3				4					ţ	5			
6	7			8				9					1	0			
11	12											P	repare	ed by: N	Maria	Venega	ıs

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).

Hazardous samples will be returned to client or disposed of at client expense.



Client Name: MONTEREY BAY ANALYTICAL

McCampbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com

WORK ORDER SUMMARY

OC Level: I EVEL 2

Cheme i vame.	MONTERE	Dill invite i ilei	L		QC Ecreii		'			*****	· Oluci.	130700	
Project:	MPWMD				Client Contact:	David Ho	lland			Date R	eceived:	7/29/2015	
Comments:					Contact's Email:	mweidner	@mbasinc.com;	Dholland@n	nbasinc.com				
		☐WaterTrax	WriteOn	EDF	Excel	Fax	✓ Email	HardCo	ppy	/J	-flag		
Lab ID	Client ID	Matrix	Test Name		Containe /Composi		e & Preservative	De- chlorinated	Collection Date & Time	TAT	Sediment Content	Hold SubC	ut
1507B68-001A	PCA-E (D)	Water	RSK175 <m< th=""><th>ethane_4></th><th>3</th><th>,</th><th>VOA w/ HCl</th><th></th><th>7/23/2015 10:00</th><th>5 days</th><th>None</th><th></th><th></th></m<>	ethane_4>	3	,	VOA w/ HCl		7/23/2015 10:00	5 days	None		

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

Work Order: 1507B68

1507B68

McCAMPBELL ANALYTICAL, INC. CHAIN OF CUSTODY RECORD 1534 WILLOW PASS ROAD TURN AROUND TIME PITTSBURG, CA 94565-1701 RUSH 24 HR 48 HR 72 HR 5 DAY Website: www.mccampbell.com Email: main@mccampbell.com ☐ GeoTracker EDF ☐ PDF ☐ Excel ☐ Write On (DW) Telephone: (877) 252-9262 Fax: (925) 252-9269 Report To: David Holland Bill To: **Analysis Request** Other Comments Company: Monterey Bay Analytical Services EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners Total Petroleum Oil & Grease (1664 / 5520 E/B&F) 8015) Filter 4 Justin Ct. Suite D Samples Monterey, Ca 93940 E-Mail: mweidner@mbasinc.com Gas (602 / 8021 + CAM 17 Metals (200.7 / 200.8 / 6010 / 6020) for Metals LUFF 5 Metals (200.7 / 200.8 / 6010 / 6020) Tele: (831) 375 - 6227 Fax: (831) 641-0734 MTBE / BTEX ONLY (EPA 602 / 8021) EPA 502.2 / 601 / 8010 / 8021 (HVOCs) analysis: Total Petroleum Hydrocarbons (418.1) EPA 515 / 8151 (Acidic CI Herbicides) EPA 8270 SIM / 8310 (PAHs / PNAs) Project #: **Project Name:** Yes / No TPH as Diesel / Motor Oil (8015) Lead (200.7 / 200.8 / 6010 / 6020) Project Location: MPWMD EPA 507 / 8141 (NP Pesticides) EPA 525.2 / 625 / 8270 (SVOCs) EPA 524.2 / 624 / 8260 (VOCs) Sampler Signature: T. Lindberg METHOD SAMPLING MATRIX Type Containers PRESERVED # Containers LOCATION/ SAMPLE ID Field Point Methane Sludge Water Name Time HNO3 Other Date Other HCL ICE Soil PCA-E (D) 1000 3 G X XX X AB33421 Relinquished By: ICE/t° 2. Date: Time: Received By: COMMENTS: David Holland/ GOOD CONDITION 7/28/15 1600 HEAD SPACE ABSENT Relinquished By: Received By: Time: DECHLORINATED IN LAB APPROPRIATE CONTAINERS PRESERVED IN LAB Relinquished By: Date: Time: Received By: VOAS O&G METALS OTHER PRESERVATION pH<2

Sample Receipt Checklist

Cilent Name.	Monterey Bay Ar	lalytical			Date and 1	ime Received.	7/29/2015 12:09:36 PW
Project Name:	MPWMD				LogIn Revi	ewed by:	Maria Venegas
WorkOrder №:	1507B68	Matrix: Water			Carrier:	Golden State (<u>Overnight</u>
		Chain of C	ustod	v (COC)	Information		
Chain of custody	present?		Yes	•	No 🗌		
Chain of custody	signed when reline	quished and received?	Yes	✓	No 🗌		
Chain of custody	agrees with samp	e labels?	Yes	✓	No 🗌		
Sample IDs noted	d by Client on COC	??	Yes	✓	No 🗌		
Date and Time of	f collection noted b	y Client on COC?	Yes	✓	No 🗌		
Sampler's name i	noted on COC?		Yes	✓	No 🗌		
		<u>Sampl</u>	e Rece	eipt Info	rmation		
Custody seals into	tact on shipping co	ntainer/cooler?	Yes		No 🗌		NA 🗸
Shipping containe	er/cooler in good c	ondition?	Yes	✓	No 🗌		
Samples in prope	er containers/bottle	s?	Yes	•	No 🗌		
Sample container	rs intact?		Yes	•	No 🗌		
Sufficient sample	volume for indicat	ed test?	Yes	✓	No 🗌		
		Sample Preservation	on and	Hold T	ime (HT) Info	<u>rmation</u>	
All samples recei	ived within holding	time?	Yes	✓	No 🗌		
Sample/Temp Bla	ank temperature			Temp	o: 3°C		NA 🗌
Water - VOA vials	s have zero heads	pace / no bubbles?	Yes	✓	No 🗌		NA \square
Sample labels ch	ecked for correct p	preservation?	Yes	✓	No 🗌		
pH acceptable up	oon receipt (Metal:	<2; 522: <4; 218.7: >8)?	Yes		No 🗌		NA 🗹
Samples Receive	ed on Ice?		Yes	✓	No 🗌		
		(Ice Type	∌: WE	T/BLU)		
UCMR3 Samples Total Chlorine t	_	ble upon receipt for EPA 522?	Yes		No 🗌		NA 🔽
	ested and accepta	ble upon receipt for EPA 218.7,	Yes		No 🗌		NA 🗹
* NOTE: If the "N	lo" box is checked,	see comments below.					
Comments:		:======:					



4 Justin Court Suite D, Monterey, CA 93940 831.375.MBAS www.MBASinc.com

ELAP Certification Number: 2385

Thursday, October 15, 2015

Lab Number: AB35797

Collection Date/Time: 9/22/2015 11:45 Sample Collector: LEAR J

Submittal Date/Time: 9/23/2015 13:10 Sample ID Coliform Designation:

		Sam	ple Description: ASR1				
Analyte	Method	Unit	Result Qual	PQL	MCL	Date Analyzed	Analyst:
Alkalinity, Total (as CaCO3)	SM2320B	mg/L	237	10		9/28/2015	LRH
Aluminum, Total	EPA200.8	μg/L	Not Detected	10	1000	10/6/2015	SM
Ammonia-N	SM4500NH3 D	mg/L	0.19	0.05		10/5/2015	MW
Arsenic, Total	EPA200.8	μg/L	1	1	10	10/6/2015	SM
Barium, Total	EPA200.8	μg/L	84	10	1000	10/6/2015	SM
Bicarbonate (as HCO3-)	SM2320B	mg/L	289	10		9/30/2015	SM
Boron	EPA200.7	mg/L	0.13	0.05		10/2/2015	MW
Bromide	EPA300.0	mg/L	0.4	0.1		9/24/2015	НМ
Calcium	EPA200.7	mg/L	96	0.5		10/2/2015	MW
Carbonate as CaCO3	SM2320B	mg/L	Not Detected	10		9/30/2015	SM
Chloramines	SM4500-CI G	mg/L	Not Detected	0.05		9/23/2015	LJ
Chloride	EPA300.0	mg/L	141	1	250	9/24/2015	НМ
DOC		mg/L	1.5	0.2		9/28/2015	MW
Fluoride	EPA300.0	mg/L	0.3	0.1	2.0	9/24/2015	НМ
Gross Alpha	EPA900.0	pCi/L	4.70 ± 2.00 E		15	10/5/2015	FGL
Haloacetic Acids	EPA552	μg/L	Not Detected E		60	10/2/2015	BSK
Iron	EPA200.7	μg/L	59	10	300	10/2/2015	MW
Iron, Dissolved	EPA200.7	μg/L	10	10	300	10/2/2015	MW
Kjehldahl Nitrogen	SM4500-NH3 B,C.	mg/L	Not Detected	0.5		9/29/2015	LRH
Lithium	EPA200.8	μg/L	41	1		10/6/2015	SM
Magnesium	EPA200.7	mg/L	23	0.5		10/2/2015	MW
Manganese, Dissolved	EPA200.7	μg/L	20	10	50	10/2/2015	MW
Manganese, Total	EPA200.7	μg/L	20	10	50	10/2/2015	MW
Mercury, Total	EPA200.8	μg/L	1	0.5	2	10/6/2015	SM
Methane	EPA174/175	μg/L	0.40 E	0.1		10/5/2015	MCCAM
Molybdenum, Total	EPA200.8	μg/L	10	1	1000	10/6/2015	SM
Nickel, Total	EPA200.8	μg/L	Not Detected	10	100	10/6/2015	SM
Nitrate as NO3	EPA300.0	mg/L	Not Detected	1	45	9/24/2015	НМ
Nitrate as NO3-N	EPA300.0	mg/L	Not Detected	0.1	10	9/24/2015	НМ
Nitrate+Nitrite as N	EPA300.0	mg/L	0.4	0.1		9/24/2015	НМ
Nitrite as NO2-N	EPA300.0	mg/L	0.3	0.1	1.0	9/24/2015	НМ

mg/L: Milligrams per liter (=ppm)

ug/L : Micrograms per liter (=ppb)

PQL: Practical Quantitation Limit

H = Analyzed ouside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

xiemai Laboratory Neport attachment

D = Method deviates from standard method due to insufficient sample for MS/MSD



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ELAP Certification Number: 2385

Thursday, October 15, 2015

Lab Number: AB35797

Collection Date/Time: 9/22/2015 Sample Collector: LEAR J 11:45

Submittal Date/Time: 9/23/2015 Sample ID 13:10 Coliform Designation:

				-							
	Sample Description: ASR1										
Analyte	Method	Unit	Result Qual	PQL	MCL	Date Analyzed	Analyst:				
o-Phosphate-P	EPA300.0	mg/L	0.2	0.1		9/24/2015	НМ				
pH (Laboratory)	SM4500-H+B	pH (H)	7.1	0.1		9/23/2015	НМ				
Phosphorus, Total	HACH 8190	mg/L	0.17	0.03		9/30/2015	LRH				
Potassium	EPA200.7	mg/L	5.7	0.5		10/2/2015	MW				
QC Anion Sum x 100	Calculation	%	98%			9/30/2015	SM				
QC Anion-Cation Balance	Calculation	%	0			10/5/2015	MW				
QC Cation Sum x 100	Calculation	%	98%			10/5/2015	MW				
QC Ratio TDS/SEC	Calculation		0.59			9/28/2015	HM				
Selenium, Total	EPA200.8	μg/L	2	2	50	10/6/2015	SM				
Silica as SiO2, Total	EPA200.7	mg/L	42	0.5		10/2/2015	MW				
Sodium	EPA200.7	mg/L	101	0.5		10/2/2015	MW				
Specific Conductance (E.C)	SM2510B	µmhos/cm	1141	1	900	9/23/2015	LJ				
Strontium, Total	EPA200.8	μg/L	472	5		10/6/2015	SM				
Sulfate	EPA300.0	mg/L	118	1	250	9/24/2015	HM				
TOC	SM5310C	mg/L	1.3	0.2		9/28/2015	MW				
Total Diss. Solids	SM2540C	mg/L	677	10	500	9/23/2015	HM				
Total Nitrogen	Calculation	mg/L	Not Detected	0.5		10/1/2015	HM				
Total Radium 226	EPA903.0	pCi/L	1.28 ± 0.338 E		3	10/5/2015	FGL				
Trihalomethanes	EPA524.2	μg/L	0.59 E		80	9/28/2015	BSK				
Uranium by ICP/MS	EPA200.8	μg/L	1	1	30	10/6/2015	SM				
Vanadium, Total	EPA200.8	μg/L	Not Detected	5	1000	10/6/2015	SM				
Zinc, Total	EPA200.8	μg/L	118	20	5000	10/6/2015	SM				

Sample Comments:

Report Approved by:

David Holland, Laboratory Director

mg/L: Milligrams per liter (=ppm)

ug/L: Micrograms per liter (=ppb)

PQL: Practical Quantitation Limit

H = Analyzed ouside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

D = Method deviates from standard method due to insufficient sample for MS/MSD



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ELAP Certification Number: 2385

Thursday, October 15, 2015

Lab Number: AB35798

Collection Date/Time: 9/22/2015 11:45 Sample Collector: LEAR J

Submittal Date/Time: 9/23/2015 13:10 Sample ID Coliform Designation:

Sample Description: ASR2									
Analyte	Method	Unit	Result Qual	PQL	MCL	Date Analyzed	Analyst:		
Alkalinity, Total (as CaCO3)	SM2320B	mg/L	225	10		9/28/2015	LRH		
Aluminum, Total	EPA200.8	μg/L	Not Detected	10	1000	10/6/2015	SM		
Ammonia-N	SM4500NH3 D	mg/L	Not Detected	0.05		10/5/2015	MW		
Arsenic, Total	EPA200.8	μg/L	1	1	10	10/6/2015	SM		
Barium, Total	EPA200.8	μg/L	108	10	1000	10/6/2015	SM		
Bicarbonate (as HCO3-)	SM2320B	mg/L	275	10		9/30/2015	SM		
Boron	EPA200.7	mg/L	0.09	0.05		10/2/2015	MW		
Bromide	EPA300.0	mg/L	0.3	0.1		9/24/2015	НМ		
Calcium	EPA200.7	mg/L	72	0.5		10/2/2015	MW		
Carbonate as CaCO3	SM2320B	mg/L	Not Detected	10		9/30/2015	SM		
Chloramines	SM4500-CI G	mg/L	Not Detected	0.05		9/23/2015	LJ		
Chloride	EPA300.0	mg/L	110	1	250	9/24/2015	НМ		
DOC		mg/L	1.2	0.2		9/28/2015	MW		
Fluoride	EPA300.0	mg/L	0.3	0.1	2.0	9/24/2015	HM		
Gross Alpha	EPA900.0	pCi/L	1.16 ± 0.760 E		15	10/5/2015	FGL		
Haloacetic Acids	EPA552	μg/L	Not Detected E		60	10/2/2015	BSK		
Iron	EPA200.7	μg/L	145	10	300	10/2/2015	MW		
Iron, Dissolved	EPA200.7	μg/L	Not Detected	10	300	10/2/2015	MW		
Kjehldahl Nitrogen	SM4500-NH3 B,C.	mg/L	Not Detected	0.5		9/29/2015	LRH		
Lithium	EPA200.8	μg/L	31	1		10/6/2015	SM		
Magnesium	EPA200.7	mg/L	22	0.5		10/2/2015	MW		
Manganese, Dissolved	EPA200.7	μg/L	Not Detected	10	50	10/2/2015	MW		
Manganese, Total	EPA200.7	μg/L	Not Detected	10	50	10/2/2015	MW		
Mercury, Total	EPA200.8	μg/L	2	0.5	2	10/6/2015	SM		
Methane	EPA174/175	μg/L	0.23 E	0.1		10/5/2015	MCCAM		
Molybdenum, Total	EPA200.8	μg/L	10	1	1000	10/6/2015	SM		
Nickel, Total	EPA200.8	μg/L	Not Detected	10	100	10/6/2015	SM		
Nitrate as NO3	EPA300.0	mg/L	Not Detected	1	45	9/24/2015	НМ		
Nitrate as NO3-N	EPA300.0	mg/L	Not Detected	0.1	10	9/24/2015	НМ		
Nitrate+Nitrite as N	EPA300.0	mg/L	0.4	0.1		9/24/2015	НМ		
Nitrite as NO2-N	EPA300.0	mg/L	0.3	0.1	1.0	9/24/2015	HM		

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ELAP Certification Number: 2385

Thursday, October 15, 2015

Lab Number: AB35798

Collection Date/Time: 9/22/2015 11:45 Sample Collector: LEAR J

Submittal Date/Time: 9/23/2015 Sample ID 13:10 Coliform Designation:

	2.2 .2	2 a ipi 0 i 2								
Sample Description: ASR2										
Analyte	Method	Unit	Result Qual	PQL	MCL	Date Analyzed	Analyst:			
o-Phosphate-P	EPA300.0	mg/L	0.1	0.1		9/24/2015	HM			
pH (Laboratory)	SM4500-H+B	pH (H)	7.3	0.1		9/23/2015	НМ			
Phosphorus, Total	HACH 8190	mg/L	0.27	0.03		9/30/2015	LRH			
Potassium	EPA200.7	mg/L	4.6	0.5		10/2/2015	MW			
QC Anion Sum x 100	Calculation	%	96%			9/30/2015	SM			
QC Anion-Cation Balance	Calculation	%	0			10/5/2015	MW			
QC Cation Sum x 100	Calculation	%	96%			10/5/2015	MW			
QC Ratio TDS/SEC	Calculation		0.57			9/28/2015	НМ			
Selenium, Total	EPA200.8	μg/L	2	2	50	10/6/2015	SM			
Silica as SiO2, Total	EPA200.7	mg/L	37	0.5		10/2/2015	MW			
Sodium	EPA200.7	mg/L	82	0.5		10/2/2015	MW			
Specific Conductance (E.C)	SM2510B	µmhos/cm	950	1	900	9/23/2015	LJ			
Strontium, Total	EPA200.8	μg/L	386	5		10/6/2015	SM			
Sulfate	EPA300.0	mg/L	74	1	250	9/24/2015	НМ			
TOC	SM5310C	mg/L	1.3	0.2		9/28/2015	MW			
Total Diss. Solids	SM2540C	mg/L	540	10	500	9/23/2015	НМ			
Total Nitrogen	Calculation	mg/L	Not Detected	0.5		10/1/2015	НМ			
Total Radium 226	EPA903.0	pCi/L	0.189 ± 0.160 E		3	10/5/2015	FGL			
Trihalomethanes	EPA524.2	μg/L	13 E		80	9/28/2015	BSK			
Uranium by ICP/MS	EPA200.8	μg/L	1	1	30	10/6/2015	SM			
Vanadium, Total	EPA200.8	μg/L	Not Detected	5	1000	10/6/2015	SM			
Zinc, Total	EPA200.8	μg/L	396	20	5000	10/6/2015	SM			

Sample Comments:

Report Approved by:

David Holland, Laboratory Director

mg/L: Milligrams per liter (=ppm)

ug/L: Micrograms per liter (=ppb)

PQL: Practical Quantitation Limit

H = Analyzed ouside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

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ELAP Certification Number: 2385

Thursday, October 15, 2015

Lab Number: AB35799

Collection Date/Time: 9/23/2015 10:30 Sample Collector: LEAR J

Submittal Date/Time: 9/23/2015 13:10 Sample ID Coliform Designation:

		Sam	ple Description: ASR3				
Analyte	Method	Unit	Result Qual	PQL	MCL	Date Analyzed	Analyst:
Alkalinity, Total (as CaCO3)	SM2320B	mg/L	200	10		9/28/2015	LRH
Aluminum, Total	EPA200.8	μg/L	Not Detected	10	1000	10/6/2015	SM
Ammonia-N	SM4500NH3 D	mg/L	0.06	0.05		10/5/2015	MW
Arsenic, Total	EPA200.8	μg/L	5	1	10	10/6/2015	SM
Barium, Total	EPA200.8	μg/L	85	10	1000	10/6/2015	SM
Bicarbonate (as HCO3-)	SM2320B	mg/L	244	10		9/30/2015	SM
Boron	EPA200.7	mg/L	0.08	0.05		10/2/2015	MW
Bromide	EPA300.0	mg/L	0.2	0.1		9/24/2015	HM
Calcium	EPA200.7	mg/L	61	0.5		10/2/2015	MW
Carbonate as CaCO3	SM2320B	mg/L	Not Detected	10		9/30/2015	SM
Chloramines	SM4500-CI G	mg/L	Not Detected	0.05		9/23/2015	LJ
Chloride	EPA300.0	mg/L	79	1	250	9/24/2015	HM
DOC		mg/L	1.3	0.2		9/28/2015	MW
Fluoride	EPA300.0	mg/L	0.3	0.1	2.0	9/24/2015	HM
Gross Alpha	EPA900.0	pCi/L	3.11 ± 1.41 E		15	10/5/2015	FGL
Haloacetic Acids	EPA552	μg/L	3.2 E		60	10/2/2015	BSK
Iron	EPA200.7	μg/L	116	10	300	10/2/2015	MW
Iron, Dissolved	EPA200.7	μg/L	Not Detected	10	300	10/2/2015	MW
Kjehldahl Nitrogen	SM4500-NH3 B,C.	mg/L	Not Detected	0.5		10/6/2015	LRH
Lithium	EPA200.8	μg/L	27	1		10/6/2015	SM
Magnesium	EPA200.7	mg/L	18	0.5		10/2/2015	MW
Manganese, Dissolved	EPA200.7	μg/L	12	10	50	10/2/2015	MW
Manganese, Total	EPA200.7	μg/L	12	10	50	10/2/2015	MW
Mercury, Total	EPA200.8	μg/L	1	0.5	2	10/6/2015	SM
Methane	EPA174/175	μg/L	0.22 E	0.1		10/5/2015	MCCAM
Molybdenum, Total	EPA200.8	μg/L	9	1	1000	10/6/2015	SM
Nickel, Total	EPA200.8	μg/L	Not Detected	10	100	10/6/2015	SM
Nitrate as NO3	EPA300.0	mg/L	Not Detected	1	45	9/24/2015	HM
Nitrate as NO3-N	EPA300.0	mg/L	0.1	0.1	10	9/24/2015	НМ
Nitrate+Nitrite as N	EPA300.0	mg/L	0.4	0.1		9/24/2015	НМ
Nitrite as NO2-N	EPA300.0	mg/L	0.3	0.1	1.0	9/24/2015	НМ

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Thursday, October 15, 2015

Lab Number: AB35799

Collection Date/Time: 9/23/2015 10:30 Sample Collector: LEAR J

Submittal Date/Time: 9/23/2015 13:10 Sample ID Coliform Designation:

Sample Description: ASR3										
Analyte	Method	Unit	Result Qual	PQL	MCL	Date Analyzed	Analyst:			
o-Phosphate-P	EPA300.0	mg/L	Not Detected	0.1		9/24/2015	HM			
pH (Laboratory)	SM4500-H+B	pH (H)	7.3	0.1		9/23/2015	НМ			
Phosphorus, Total	HACH 8190	mg/L	0.21	0.03		9/30/2015	LRH			
Potassium	EPA200.7	mg/L	4.0	0.5		10/2/2015	MW			
QC Anion Sum x 100	Calculation	%	97%			9/30/2015	SM			
QC Anion-Cation Balance	Calculation	%	0			10/5/2015	MW			
QC Cation Sum x 100	Calculation	%	96%			10/5/2015	MW			
QC Ratio TDS/SEC	Calculation		0.59			9/28/2015	НМ			
Selenium, Total	EPA200.8	μg/L	2	2	50	10/6/2015	SM			
Silica as SiO2, Total	EPA200.7	mg/L	33	0.5		10/2/2015	MW			
Sodium	EPA200.7	mg/L	73	0.5		10/2/2015	MW			
Specific Conductance (E.C)	SM2510B	µmhos/cm	810	1	900	9/23/2015	LJ			
Strontium, Total	EPA200.8	μg/L	330	5		10/6/2015	SM			
Sulfate	EPA300.0	mg/L	79	1	250	9/24/2015	HM			
TOC	SM5310C	mg/L	1.3	0.2		9/28/2015	MW			
Total Diss. Solids	SM2540C	mg/L	477	10	500	9/23/2015	HM			
Total Nitrogen	Calculation	mg/L	Not Detected	0.5		10/8/2015	НМ			
Total Radium 226	EPA903.0	pCi/L	0.288 ± 0.181 E		3	10/6/2015	FGL			
Trihalomethanes	EPA524.2	μg/L	38 E		80	9/28/2015	BSK			
Uranium by ICP/MS	EPA200.8	μg/L	2	1	30	10/6/2015	SM			
Vanadium, Total	EPA200.8	μg/L	Not Detected	5	1000	10/6/2015	SM			
Zinc, Total	EPA200.8	μg/L	194	20	5000	10/6/2015	SM			

Sample Comments:

Report Approved by:

David Holland, Laboratory Director

mg/L: Milligrams per liter (=ppm)

ug/L : Micrograms per liter (=ppb)

PQL : Practical Quantitation Limit

H = Analyzed ouside of hold time

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ELAP Certification Number: 2385

Thursday, October 15, 2015

Lab Number: AB35800

Collection Date/Time: 9/23/2015 11:00 Sample Collector: LEAR J

Submittal Date/Time: 9/23/2015 13:10 Sample ID Coliform Designation:

		Sam	ole Description: SMS (D)				
Analyte	Method	Unit	Result Qual	PQL	MCL	Date Analyzed	Analyst:
Alkalinity, Total (as CaCO3)	SM2320B	mg/L	260	10		9/28/2015	LRH
Aluminum, Total	EPA200.8	μg/L	19	10	1000	10/6/2015	SM
Ammonia-N	SM4500NH3 D	mg/L	0.06	0.05		10/5/2015	MW
Arsenic, Total	EPA200.8	μg/L	9	1	10	10/6/2015	SM
Barium, Total	EPA200.8	μg/L	65	10	1000	10/6/2015	SM
Bicarbonate (as HCO3-)	SM2320B	mg/L	317	10		9/30/2015	SM
Boron	EPA200.7	mg/L	0.10	0.05		10/2/2015	MW
Bromide	EPA300.0	mg/L	0.3	0.1		9/24/2015	HM
Calcium	EPA200.7	mg/L	84	0.5		10/2/2015	MW
Carbonate as CaCO3	SM2320B	mg/L	Not Detected	10		9/30/2015	SM
Chloramines	SM4500-CI G	mg/L	Not Detected	0.05		9/23/2015	LJ
Chloride	EPA300.0	mg/L	124	1	250	9/24/2015	HM
DOC		mg/L	1.2	0.2		9/28/2015	MW
Fluoride	EPA300.0	mg/L	0.3	0.1	2.0	9/24/2015	HM
Gross Alpha	EPA900.0	pCi/L	1.24 ± 1.42 E		15	10/5/2015	FGL
Haloacetic Acids	EPA552	μg/L	Not Detected E		60	10/2/2015	BSK
Iron	EPA200.7	μg/L	32	10	300	10/2/2015	MW
Iron, Dissolved	EPA200.7	μg/L	Not Detected	10	300	10/2/2015	MW
Kjehldahl Nitrogen	SM4500-NH3 B,C.	mg/L	Not Detected	0.5		10/6/2015	LRH
Lithium	EPA200.8	μg/L	41	1		10/6/2015	SM
Magnesium	EPA200.7	mg/L	19	0.5		10/2/2015	MW
Manganese, Dissolved	EPA200.7	μg/L	14	10	50	10/2/2015	MW
Manganese, Total	EPA200.7	μg/L	14	10	50	10/2/2015	MW
Mercury, Total	EPA200.8	μg/L	1	0.5	2	10/6/2015	SM
Methane	EPA174/175	μg/L	0.27 E	0.1		10/5/2015	MCCAM
Molybdenum, Total	EPA200.8	μg/L	8	1	1000	10/6/2015	SM
Nickel, Total	EPA200.8	μg/L	Not Detected	10	100	10/6/2015	SM
Nitrate as NO3	EPA300.0	mg/L	Not Detected	1	45	9/24/2015	HM
Nitrate as NO3-N	EPA300.0	mg/L	Not Detected	0.1	10	9/24/2015	НМ
Nitrate+Nitrite as N	EPA300.0	mg/L	0.4	0.1		9/24/2015	НМ
Nitrite as NO2-N	EPA300.0	mg/L	0.3	0.1	1.0	9/24/2015	НМ

mg/L: Milligrams per liter (=ppm)

ug/L : Micrograms per liter (=ppb)

PQL : Practical Quantitation Limit

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E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

T = Temperature Exceedance

D = Method deviates from standard method due to insufficient sample for MS/MSD



MPWMD Joe Oliver P.O. Box 85 Monterey, CA 93442-0085 831.375.MBAS

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Thursday, October 15, 2015

Lab Number: AB35800

Collection Date/Time: 9/23/2015 11:00 Sample Collector: LEAR J

Submittal Date/Time: 9/23/2015 Sample ID 13:10 Coliform Designation:

Sample Description: SMS (D)									
Analyte	Method	Unit	Result Qual	PQL	MCL	Date Analyzed	Analyst:		
o-Phosphate-P	EPA300.0	mg/L	Not Detected	0.1		9/24/2015	HM		
pH (Laboratory)	SM4500-H+B	pH (H)	7.3	0.1		9/23/2015	НМ		
Phosphorus, Total	HACH 8190	mg/L	0.13	0.03		9/30/2015	LRH		
Potassium	EPA200.7	mg/L	4.7	0.5		10/2/2015	MW		
QC Anion Sum x 100	Calculation	%	99%			9/30/2015	SM		
QC Anion-Cation Balance	Calculation	%	0			10/5/2015	MW		
QC Cation Sum x 100	Calculation	%	98%			10/5/2015	MW		
QC Ratio TDS/SEC	Calculation		0.59			9/28/2015	НМ		
Selenium, Total	EPA200.8	μg/L	Not Detected	2	50	10/6/2015	SM		
Silica as SiO2, Total	EPA200.7	mg/L	43	0.5		10/2/2015	MW		
Sodium	EPA200.7	mg/L	98	0.5		10/2/2015	MW		
Specific Conductance (E.C)	SM2510B	µmhos/cm	1032	1	900	9/23/2015	LJ		
Strontium, Total	EPA200.8	μg/L	552	5		10/6/2015	SM		
Sulfate	EPA300.0	mg/L	73	1	250	9/24/2015	НМ		
TOC	SM5310C	mg/L	1.2	0.2		9/28/2015	MW		
Total Diss. Solids	SM2540C	mg/L	611	10	500	9/23/2015	НМ		
Total Nitrogen	Calculation	mg/L	Not Detected	0.5		10/8/2015	HM		
Total Radium 226	EPA903.0	pCi/L	0.268 ± 0.176 E		3	10/6/2015	FGL		
Trihalomethanes	EPA524.2	μg/L	3.3 E		80	9/28/2015	BSK		
Uranium by ICP/MS	EPA200.8	μg/L	2	1	30	10/6/2015	SM		
Vanadium, Total	EPA200.8	μg/L	Not Detected	5	1000	10/6/2015	SM		
Zinc, Total	EPA200.8	μg/L	Not Detected	20	5000	10/6/2015	SM		

Sample Comments:

Report Approved by:

David Holland, Laboratory Director

mg/L: Milligrams per liter (=ppm)

ug/L: Micrograms per liter (=ppb)

PQL: Practical Quantitation Limit

H = Analyzed ouside of hold time

E = Analysis performed by External Laboratory; See External Laboratory Report attachments.

D = Method deviates from standard method due to insufficient sample for MS/MSD

T = Temperature Exceedance



MPWMD Joe Oliver P.O. Box 85 Monterey, CA 93442-0085 4 Justin Court Suite D, Monterey, CA 93940 831.375.MBAS www.MBASinc.com

ELAP Certification Number: 2385

Thursday, October 15, 2015

Lab Number: AB35801

Collection Date/Time: 9/23/2015 12:00 Sample Collector: LEAR J

Submittal Date/Time: 9/23/2015 13:10 Sample ID Coliform Designation:

Sample Description: MW1								
Analyte	Method	Unit	Result Qual	PQL	MCL	Date Analyzed	Analyst:	
Alkalinity, Total (as CaCO3)	SM2320B	mg/L	210	10		9/28/2015	LRH	
Aluminum, Total	EPA200.8	μg/L	Not Detected	10	1000	10/6/2015	SM	
Ammonia-N	SM4500NH3 D	mg/L	Not Detected	0.05		10/5/2015	MW	
Arsenic, Total	EPA200.8	μg/L	2	1	10	10/6/2015	SM	
Barium, Total	EPA200.8	μg/L	59	10	1000	10/6/2015	SM	
Bicarbonate (as HCO3-)	SM2320B	mg/L	256	10		9/30/2015	SM	
Boron	EPA200.7	mg/L	0.08	0.05		10/2/2015	MW	
Bromide	EPA300.0	mg/L	0.3	0.1		9/24/2015	НМ	
Calcium	EPA200.7	mg/L	81	0.5		10/2/2015	MW	
Carbonate as CaCO3	SM2320B	mg/L	Not Detected	10		9/30/2015	SM	
Chloramines	SM4500-CI G	mg/L	Not Detected	0.05		9/23/2015	LJ	
Chloride	EPA300.0	mg/L	110	1	250	9/24/2015	НМ	
DOC		mg/L	1.2	0.2		9/28/2015	MW	
Fluoride	EPA300.0	mg/L	0.3	0.1	2.0	9/24/2015	НМ	
Gross Alpha	EPA900.0	pCi/L	4.82 ± 1.81 E		15	10/5/2015	FGL	
Haloacetic Acids	EPA552	μg/L	Not Detected E		60	10/2/2015	BSK	
Iron	EPA200.7	μg/L	62	10	300	10/2/2015	MW	
Iron, Dissolved	EPA200.7	μg/L	Not Detected	10	300	10/2/2015	MW	
Kjehldahl Nitrogen	SM4500-NH3 B,C.	mg/L	Not Detected	0.5		10/6/2015	LRH	
Lithium	EPA200.8	μg/L	24	1		10/6/2015	SM	
Magnesium	EPA200.7	mg/L	22	0.5		10/2/2015	MW	
Manganese, Dissolved	EPA200.7	μg/L	14	10	50	10/2/2015	MW	
Manganese, Total	EPA200.7	μg/L	15	10	50	10/2/2015	MW	
Mercury, Total	EPA200.8	μg/L	Not Detected	0.5	2	10/6/2015	SM	
Methane	EPA174/175	μg/L	3.2 E	0.1		10/5/2015	MCCAM	
Molybdenum, Total	EPA200.8	μg/L	10	1	1000	10/6/2015	SM	
Nickel, Total	EPA200.8	μg/L	Not Detected	10	100	10/6/2015	SM	
Nitrate as NO3	EPA300.0	mg/L	Not Detected	1	45	9/24/2015	НМ	
Nitrate as NO3-N	EPA300.0	mg/L	0.1	0.1	10	9/24/2015	НМ	
Nitrate+Nitrite as N	EPA300.0	mg/L	0.4	0.1		9/24/2015	НМ	
Nitrite as NO2-N	EPA300.0	mg/L	0.3	0.1	1.0	9/24/2015	НМ	

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D = Method deviates from standard method due to insufficient sample for MS/MSD

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MPWMD Joe Oliver P.O. Box 85 Monterey, CA 93442-0085 4 Justin Court Suite D, Monterey, CA 93940 831.375.MBAS www.MBASinc.com

ELAP Certification Number: 2385

Thursday, October 15, 2015

Lab Number: AB35801

Collection Date/Time: 9/23/2015 12:00 Sample Collector: LEAR J

Submittal Date/Time: 9/23/2015 13:10 Sample ID Coliform Designation:

		Sample	Description: MW1				
Analyte	Method	Unit	Result Qual	PQL	MCL	Date Analyzed	Analyst:
o-Phosphate-P	EPA300.0	mg/L	Not Detected	0.1		9/24/2015	HM
pH (Laboratory)	SM4500-H+B	pH (H)	7.1	0.1		9/23/2015	НМ
Phosphorus, Total	HACH 8190	mg/L	0.08	0.03		9/30/2015	LRH
Potassium	EPA200.7	mg/L	4.6	0.5		10/2/2015	MW
QC Anion Sum x 100	Calculation	%	97%			9/30/2015	SM
QC Anion-Cation Balance	Calculation	%	2			10/5/2015	MW
QC Cation Sum x 100	Calculation	%	100%			10/5/2015	MW
QC Ratio TDS/SEC	Calculation		0.58			9/28/2015	HM
Selenium, Total	EPA200.8	μg/L	Not Detected	2	50	10/6/2015	SM
Silica as SiO2, Total	EPA200.7	mg/L	35	0.5		10/2/2015	MW
Sodium	EPA200.7	mg/L	78	0.5		10/2/2015	MW
Specific Conductance (E.C)	SM2510B	µmhos/cm	935	1	900	9/23/2015	LJ
Strontium, Total	EPA200.8	μg/L	402	5		10/6/2015	SM
Sulfate	EPA300.0	mg/L	83	1	250	9/24/2015	HM
TOC	SM5310C	mg/L	1.2	0.2		9/28/2015	MW
Total Diss. Solids	SM2540C	mg/L	540	10	500	9/23/2015	HM
Total Nitrogen	Calculation	mg/L	Not Detected	0.5		10/8/2015	HM
Total Radium 226	EPA903.0	pCi/L	0.762 ± 0.265 E		3	10/6/2015	FGL
Trihalomethanes	EPA524.2	μg/L	4.9 E		80	9/28/2015	BSK
Uranium by ICP/MS	EPA200.8	μg/L	2	1	30	10/6/2015	SM
Vanadium, Total	EPA200.8	μg/L	Not Detected	5	1000	10/6/2015	SM
Zinc, Total	EPA200.8	μg/L	Not Detected	20	5000	10/6/2015	SM

Sample Comments:

Report Approved by:

David Holland, Laboratory Director

mg/L: Milligrams per liter (=ppm)

ug/L : Micrograms per liter (=ppb)

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Atemai Laboratory Report attachment

D = Method deviates from standard method due to insufficient sample for MS/MSD

T = Temperature Exceedance



BSK Associates Fresno 1414 Stanislaus St Fresno, CA93706 559-497-2888 (Main) 559-485-6935 (FAX)

A5I2311 10/07/2015

Invoice: A521308

David Holland Monterey Bay Analytical 4 Justin Court Suite D Monterey, CA 93940

RE: Report for A5I2311 MPWMD

Dear David Holland,

Thank you for using BSK Associates for your analytical testing needs. In the following pages, you will find the test results for the samples submitted to our laboratory on 9/25/2015. The results have been approved for release by our Laboratory Director as indicated by the authorizing signature below.

The samples were analyzed for the test(s) indicated on the Chain of Custody (see attached) and the results relate only to the samples analyzed. BSK certifies that the testing was performed in accordance with the quality system requirements specified in the 2009 TNI Standard. Any deviations from this standard or from the method requirements for each test procedure performed will be annotated alongside the analytical result or noted in the Case Narrative. Unless otherwise noted, the sample results are reported on an "as received" basis.

If additional clarification of any information is required, please contact your Project Manager, John Montierth, at (800) 877-8310 or (559) 497-2888 x201.

Thanks again for using BSK Associates. We value your business and appreciate your loyalty.

Sincerely,

John Montierth, Project Manager



Accredited in Accordance with NELAP ORELAP #4021





Case Narrative

Project and Report Details

Client:

Report Due:

Invoice Details Monterey Bay Analytical Invoice To: Monterey Bay Analytical

Report To: David Holland Invoice Attn: David Holland

Project #: Project PO#: -

9/25/2015 - 10:00 Received:

Sample Receipt Conditions

10/09/2015

Containers Intact Cooler: Default Cooler COC/Labels Agree Temperature on Receipt °C: 3.9

Received On Wet Ice Received On Blue Ice

Packing Material - Bubble Wrap

Sample(s) were received in temperature range.

Initial receipt at BSK-FAL

Data Qualifiers

The following qualifiers have been applied to one or more analytical results:

MS1.0 Matrix spike recoveries exceed control limits.

Report Distribution

CC: Recipient(s) Report Format

David Holland FINAL.RPT Mason Weidner FINAL.RPT



Sample ID: A5I2311-01 **Sampled By:** Jonathan Lear

Sample Date - Time: 09/22/15 - 11:45 onathan Lear Matrix: Ground Water

Sample Description: ASR1 // AB35797 Sample Type: Grab

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	ND	0.50	ug/L	1	A511249	09/28/15	09/28/15	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A511249	09/28/15	09/28/15	
Chloroform	EPA 524.2	0.59	0.50	ug/L	1	A511249	09/28/15	09/28/15	
Dibromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A511249	09/28/15	09/28/15	
Surrogate: Bromofluorobenzene	EPA 524.2	120 %	Acceptable	range: 70	0-130 %				
Total Trihalomethanes, EPA 524.2		0.59	0.50	ug/L					
Haloacetic Acids by GC-ECD, G	GC-MS								
Dibromoacetic Acid (DBAA)	EPA 552.3	ND	1.0	ug/L	1	A511526	09/30/15	10/02/15	
Dichloroacetic Acid (DCAA)	EPA 552.3	ND	1.0	ug/L	1	A511526	09/30/15	10/02/15	
Monobromoacetic Acid (MBAA)	EPA 552.3	ND	1.0	ug/L	1	A511526	09/30/15	10/02/15	
Monochloroacetic Acid (MCAA)	EPA 552.3	ND	2.0	ug/L	1	A511526	09/30/15	10/02/15	
Trichloroacetic Acid (TCAA)	EPA 552.3	ND	1.0	ug/L	1	A511526	09/30/15	10/02/15	
Surrogate: 2-Bromobutanoic Acid	EPA 552.3	127 %	Acceptable	range: 70	0-130 %				
Total Haloacetic Acids, EPA 552.3		ND	2.0	ug/L					



Sample ID: A5I2311-02

Sample Date - Time: 09/22/15 - 11:45

Matrix: Ground Water

Sampled By: Jonathan Lear

Sample Type: Grab

Sample Description: ASR2 // AB35798

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	3.6	0.50	ug/L	1	A511249	09/28/15	09/28/15	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A511249	09/28/15	09/28/15	
Chloroform	EPA 524.2	7.4	0.50	ug/L	1	A511249	09/28/15	09/28/15	
Dibromochloromethane	EPA 524.2	2.0	0.50	ug/L	1	A511249	09/28/15	09/28/15	
Surrogate: Bromofluorobenzene	EPA 524.2	120 %	Acceptable	range: 70	0-130 %				
Total Trihalomethanes, EPA 524.2		13	0.50	ug/L					
Haloacetic Acids by GC-ECD, G	SC-MS								
Dibromoacetic Acid (DBAA)	EPA 552.3	ND	1.0	ug/L	1	A511526	09/30/15	10/02/15	
Dichloroacetic Acid (DCAA)	EPA 552.3	ND	1.0	ug/L	1	A511526	09/30/15	10/02/15	
Monobromoacetic Acid (MBAA)	EPA 552.3	ND	1.0	ug/L	1	A511526	09/30/15	10/02/15	
Monochloroacetic Acid (MCAA)	EPA 552.3	ND	2.0	ug/L	1	A511526	09/30/15	10/02/15	
Trichloroacetic Acid (TCAA)	EPA 552.3	ND	1.0	ug/L	1	A511526	09/30/15	10/02/15	
Surrogate: 2-Bromobutanoic Acid	EPA 552.3	123 %	Acceptable	range: 70	0-130 %				
Total Haloacetic Acids, EPA 552.3		ND	2.0	ug/L					



Sample ID: A5I2311-03

Sample Date - Time: 09/23/15 - 10:30

Sampled By: Jonathan Lear

Sample Type: Grab

Matrix: Ground Water

Sample Description: ASR3 // AB35799

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	11	0.50	ug/L	1	A511249	09/28/15	09/28/15	
Bromoform	EPA 524.2	1.0	0.50	ug/L	1	A511249	09/28/15	09/28/15	
Chloroform	EPA 524.2	19	0.50	ug/L	1	A511249	09/28/15	09/28/15	
Dibromochloromethane	EPA 524.2	6.5	0.50	ug/L	1	A511249	09/28/15	09/28/15	
Surrogate: Bromofluorobenzene	EPA 524.2	119 %	Acceptable	range: 70	0-130 %				
Total Trihalomethanes, EPA 524.2		38	0.50	ug/L					
Haloacetic Acids by GC-ECD, G	GC-MS								
Dibromoacetic Acid (DBAA)	EPA 552.3	ND	1.0	ug/L	1	A511526	09/30/15	10/02/15	
Dichloroacetic Acid (DCAA)	EPA 552.3	1.1	1.0	ug/L	1	A511526	09/30/15	10/02/15	
Monobromoacetic Acid (MBAA)	EPA 552.3	ND	1.0	ug/L	1	A511526	09/30/15	10/02/15	
Monochloroacetic Acid (MCAA)	EPA 552.3	ND	2.0	ug/L	1	A511526	09/30/15	10/02/15	
Trichloroacetic Acid (TCAA)	EPA 552.3	2.1	1.0	ug/L	1	A511526	09/30/15	10/02/15	
Surrogate: 2-Bromobutanoic Acid	EPA 552.3	125 %	Acceptable	range: 70	0-130 %				
Total Haloacetic Acids, EPA 552.3		3.2	2.0	ug/L					



Sample ID: A5I2311-04 Sampled By: Jonathan Lear

Sample Description: SMS(D) // AB35800

Sample Date - Time: 09/23/15 - 11:00

Matrix: Ground Water

Sample Type: Grab

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	0.69	0.50	ug/L	1	A511249	09/28/15	09/28/15	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A511249	09/28/15	09/28/15	
Chloroform	EPA 524.2	2.6	0.50	ug/L	1	A511249	09/28/15	09/28/15	
Dibromochloromethane	EPA 524.2	ND	0.50	ug/L	1	A511249	09/28/15	09/28/15	
Surrogate: Bromofluorobenzene	EPA 524.2	121 %	Acceptable	range: 70	0-130 %				
Total Trihalomethanes, EPA 524.2		3.3	0.50	ug/L					
Haloacetic Acids by GC-ECD, G	SC-MS								
Dibromoacetic Acid (DBAA)	EPA 552.3	ND	1.0	ug/L	1	A511526	09/30/15	10/02/15	
Dichloroacetic Acid (DCAA)	EPA 552.3	ND	1.0	ug/L	1	A511526	09/30/15	10/02/15	
Monobromoacetic Acid (MBAA)	EPA 552.3	ND	1.0	ug/L	1	A511526	09/30/15	10/02/15	
Monochloroacetic Acid (MCAA)	EPA 552.3	ND	2.0	ug/L	1	A511526	09/30/15	10/02/15	
Trichloroacetic Acid (TCAA)	EPA 552.3	ND	1.0	ug/L	1	A511526	09/30/15	10/02/15	
Surrogate: 2-Bromobutanoic Acid	EPA 552.3	127 %	Acceptable	range: 70	0-130 %				
Total Haloacetic Acids, EPA 552.3		ND	2.0	ug/L					



Sample ID: A5I2311-05

Sample Date - Time: 09/23/15 - 12:00

Sampled By: Jonathan Lear

Matrix: Ground Water **Sample Type:** Grab

Sample Description: MW1 // AB35801

Analyte	Method	Result	RL	Units	RL Mult	Batch	Prepared	Analyzed	Qual
Trihalomethanes by GC-MS									
Bromodichloromethane	EPA 524.2	0.95	0.50	ug/L	1	A511249	09/28/15	09/28/15	
Bromoform	EPA 524.2	ND	0.50	ug/L	1	A511249	09/28/15	09/28/15	
Chloroform	EPA 524.2	3.4	0.50	ug/L	1	A511249	09/28/15	09/28/15	
Dibromochloromethane	EPA 524.2	0.53	0.50	ug/L	1	A511249	09/28/15	09/28/15	
Surrogate: Bromofluorobenzene	EPA 524.2	120 %	Acceptable	range: 70	0-130 %				
Total Trihalomethanes, EPA 524.2		4.9	0.50	ug/L					
Haloacetic Acids by GC-ECD, G	GC-MS								
Dibromoacetic Acid (DBAA)	EPA 552.3	ND	1.0	ug/L	1	A511526	09/30/15	10/02/15	
Dichloroacetic Acid (DCAA)	EPA 552.3	ND	1.0	ug/L	1	A511526	09/30/15	10/02/15	
Monobromoacetic Acid (MBAA)	EPA 552.3	ND	1.0	ug/L	1	A511526	09/30/15	10/02/15	
Monochloroacetic Acid (MCAA)	EPA 552.3	ND	2.0	ug/L	1	A511526	09/30/15	10/02/15	
Trichloroacetic Acid (TCAA)	EPA 552.3	ND	1.0	ug/L	1	A511526	09/30/15	10/02/15	
Surrogate: 2-Bromobutanoic Acid	EPA 552.3	127 %	Acceptable	range: 70	0-130 %				
Total Haloacetic Acids, EPA 552.3		ND	2.0	ug/L					



BSK Associates Fresno Organics Quality Control Report

Analyte	Result	PI	Units	Spike Level	Source Result	%REC	%REC Limits	PPN	RPD Limit	Date Analyzed	Oual
Analyte	Result			uality Co		/8KEC	Lilling	KFD	Lillit	Allalyzeu	Quai
Batch: A511249		LFA 32	24.2 - Q	uanty Co	111101					Dropara	ed: 9/24/201
										•	
Prep Method: EPA 524.2										Α	nalyst: ANI
Blank (A511249-BLK1)											
Bromodichloromethane	ND	0.50	ug/L							09/28/15	
Bromoform	ND	0.50	ug/L							09/28/15	
Chloroform	ND	0.50	ug/L							09/28/15	
Dibromochloromethane	ND	0.50	ug/L							09/28/15	
Surrogate: Bromofluorobenzene	52			50		105	70-130			09/28/15	
Blank Spike (A511249-BS1)											
Bromodichloromethane	11	0.50	ug/L	10		107	70-130			09/28/15	
Bromoform	11	0.50	ug/L	10		107	70-130			09/28/15	
Chloroform	11	0.50	ug/L	10		109	70-130			09/28/15	
Dibromochloromethane	11	0.50	ug/L	10		108	70-130			09/28/15	
Surrogate: Bromofluorobenzene	59			50		117	70-130			09/28/15	
Blank Spike Dup (A511249-BSD1)											
Bromodichloromethane	11	0.50	ug/L	10		110	70-130	2	30	09/28/15	
Bromoform	11	0.50	ug/L	10		111	70-130	4	30	09/28/15	
Chloroform	11	0.50	ug/L	10		108	70-130	1	30	09/28/15	
Dibromochloromethane	11	0.50	ug/L	10		109	70-130	1	30	09/28/15	
Surrogate: Bromofluorobenzene	53		J	50		106	70-130			09/28/15	
Matrix Spike (A511249-MS1), Source:	A5I2227-01										
Bromodichloromethane	3.5	0.50	ug/L	10	ND	35	47-151			09/28/15	MS1.0 <i>Low</i>
Bromoform	3.5	0.50	ug/L	10	ND	35	29-162			09/28/15	
Chloroform	3.7	0.50	ug/L	10	ND	37	52-148				MS1.0 <i>Lov</i>
Dibromochloromethane	3.5	0.50	ug/L	10	ND	35	44-149				MS1.0 Low
Surrogate: Bromofluorobenzene	60		-9	50		119	70-130			09/28/15	
		EPA 5	52.3 - Q	uality Co	ntrol						
Batch: A511526				,						Prepare	ed: 9/30/201
Prep Method: EPA 552.3										Α	nalyst: MTI
Blank (A511526-BLK1)											
Dibromoacetic Acid (DBAA)	ND	1.0	ug/L							10/02/15	
Dichloroacetic Acid (DCAA)	ND	1.0	ug/L							10/02/15	
Monobromoacetic Acid (MBAA)	ND	1.0	ug/L							10/02/15	
Monochloroacetic Acid (MCAA)	ND	2.0	ug/L							10/02/15	
Trichloroacetic Acid (TCAA)	ND	1.0	ug/L							10/02/15	
Surrogate: 2-Bromobutanoic Acid	29			25		118	70-130			10/02/15	
Blank Spike (A511526-BS1)											
Dibromoacetic Acid (DBAA)	12	1.0	ug/L	10		123	70-130			10/02/15	
Dichloroacetic Acid (DCAA)	11	1.0	ug/L	10		106	70-130			10/02/15	
/lonobromoacetic Acid (MBAA)	10	1.0	ug/L	10		102	70-130			10/02/15	
Monochloroacetic Acid (MCAA)	20	2.0	ug/L	20		98	70-130			10/02/15	
richloroacetic Acid (TCAA)	11	1.0	ug/L	10		109	70-130			10/02/15	
A5I2311 FINAL 10072015 0943											
Printed: 10/7/2015											
QA-RP-0001-10 Final.rpt			RSK∆∈	sociates.	com —			_		Pa	ge 8 of 13

MPWMD



BSK Associates Fresno Organics Quality Control Report

Analyte	Result	RL	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Date Analyzed	Qual
				uality Co							
Batch: A511526										Prepare	d: 9/30/2015
Prep Method: EPA 552.3										•	nalyst: MTM
Blank Spike (A511526-BS1)											
Surrogate: 2-Bromobutanoic Acid	29			25		116	70-130			10/02/15	
Blank Spike Dup (A511526-BSD1)											
Dibromoacetic Acid (DBAA)	12	1.0	ug/L	10		123	70-130	1	30	10/02/15	
Dichloroacetic Acid (DCAA)	11	1.0	ug/L	10		108	70-130	2	30	10/02/15	
Monobromoacetic Acid (MBAA)	10	1.0	ug/L	10		102	70-130	0	30	10/02/15	
Monochloroacetic Acid (MCAA)	20	2.0	ug/L	20		101	70-130	3	30	10/02/15	
Trichloroacetic Acid (TCAA)	11	1.0	ug/L	10		110	70-130	1	30	10/02/15	
Surrogate: 2-Bromobutanoic Acid	29			25		118	70-130			10/02/15	
Matrix Spike (A511526-MS1), Source	: A5I2171-07										
Dibromoacetic Acid (DBAA)	13	1.0	ug/L	10	ND	124	70-130			10/02/15	
Dichloroacetic Acid (DCAA)	11	1.0	ug/L	10	ND	107	70-130			10/02/15	
Monobromoacetic Acid (MBAA)	10	1.0	ug/L	10	ND	103	70-130			10/02/15	
Monochloroacetic Acid (MCAA)	20	2.0	ug/L	20	ND	100	70-130			10/02/15	
Trichloroacetic Acid (TCAA)	11	1.0	ug/L	10	ND	110	70-130			10/02/15	
Surrogate: 2-Bromobutanoic Acid	29			25		116	70-130			10/02/15	



Notes:

- The Chain of Custody document and Sample Integrity Sheet are part of the analytical report.
- Any remaining sample(s) for testing will be disposed of according to BSK's sample retention policy unless other arrangements are made in advance.
- All positive results for EPA Methods 504.1 and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed.
- · Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.
- J-value is equivalent to DNQ (Detected, not quantified) which is a trace value. A trace value is an analyte detected between the MDL and the laboratory reporting limit. This result is of an unknown data quality and is only qualitative (estimated). Baseline noise, calibration curve extrapolation below the lowest calibrator, method blank detections, and integration artifacts can all produce apparent DNQ values, which contribute to the un-reliability of these values.
- · (1) Residual chlorine and pH analysis have a 15 minute holding time for both drinking and waste water samples as defined by the EPA and 40 CFR 136. Waste water and ground water (monitoring well) samples must be field filtered to meet the 15 minute holding time for dissolved metals
- · Summations of analytes (i.e. Total Trihalomethanes) may appear to add individual amounts incorrectly, due to rounding of analyte values occurring before or after the total value is calculated, as well as rounding of the total value.
- · RL Multiplier is the factor used to adjust the reporting limit (RL) due to variations in sample preparation procedures and dilutions required for matrix interferences.
- Due to the subjective nature of the Threshold Odor Method, all characterizations of the detected odor are the opinion of the panel of analysts. The characterizations can be found in Standard Methods 2170B Figure 2170:1.
- The MCLs provided in this report (if applicable) represent the primary MCLs for that analyte.

Definitions

mg/L:	Milligrams/Liter (ppm)	MDL:	Method Detection Limit	MDA95:	Min. Detected Activity
mg/Kg:	Milligrams/Kilogram (ppm)	RL:	Reporting Limit: DL x Dilution	MPN:	Most Probable Number
μg/L:	Micrograms/Liter (ppb)	ND:	None Detected at RL	CFU:	Colony Forming Unit
μg/Kg:	Micrograms/Kilogram (ppb)	pCi/L:	Picocuries per Liter	Absent:	Less than 1 CFU/100mLs
%:	Percent Recovered (surrogates)	RL Mult:	RL Multiplier	Present:	1 or more CFU/100mLs
NR:	Non-Reportable	MCL:	Maximum Contaminant Limit		

Please see the individual Subcontract Lab's report for applicable certifications.

BSK is not accredited under the NELAC program for the following parameters:

NA

Certifications: Please refer to our website for a copy of our Accredited Fields of Testing under each certification.

F	res	sn	o
		911	v

State of California - ELAP	1180	State of Hawaii	4021
State of Nevada	CA000792016-1	State of Oregon - NELAC	4021
FPA - UCMR3	CA00079	State of Washington	C997-15

Sacramento

State of California - ELAP 2435

Vancouver

State of Oregon - NELAC WA100008-007 State of Washington C824-14a

A5I2311 FINAL 10072015 0943

Printed: 10/7/2015

QA-RP-0001-10 Final.rpt







09252015

Monte6227

Turnaround: Standard

Due Date: 10/9/2015



Monterey Bay Analytical





Printed: 9/25/2015 4:30:37PM

Page 11 of 13

	14 4 Stanisiaus St., Fresno, CA 93706	4 93/00			Turnaround Time Request		uto .	A だてつつ 1 1	00/06/0016	3
スノス	(559) 497-2888 · Fax (559) 497-2893	-2893		\boxtimes	Standard - 10 business days		en iine	Monte 6227	03/23/2013	of 1
Associates	www.bskassociates.com				Rush (Surcharge may apply) Date needed:		eltek kirolog P e Maj pir - , ;			e 12
3	*Required Fields		Temp:	3,4			1			Pa
Company/Client Name*:		Report Attention*: Mason Weidner-Holland	land		Invoice To*: David Holland	Phone 831-	Phone*: 831-375-6227	27	Fax: 831-641-0734	
Monterey Bay Analytical Services	Ces Additional cc's: David Holland	olland				E-mail*	mweid	lner@mbasinc.	E-mail: mweidner@mbasinc.com, dholland@mbasing	sing
Address*: 4 Justin Court, Suite D	City*: Mo	Monterey			State*: Zip*: CA 93940			··········		
Project: MPWMD	Project #:	*			How would you like to receive your completed results?* X E-Mail Fax Mail	4				
ا ٦	7	Regulatory (Regulatory Carbon Copies	σ	Regulatory Compliance	.]				
Camples Name (Printed/Cinestro)*:	- 196c	SWROD (DIRKING Water))	Crotical Numbers,					
		Madera Co		Tulare Co	C) STOLL FRANCES .					
Jonathan Lear	SW=Surface Water RW=Rottled Water GW=Ground Wat	Other:	ater STW=S	_	DW=Drinking Water SO=Solid	 \5	M			
	Sample Description*	Sampled* Date Time Matrix*	Time			HA	TTF			
1. ASR1		9/22/15	1145	GW	AB35797	X	×			
2. ASR2		9/22/15	1145	GW	AB35798	\times	\times			
3. ASR3		9/23/15	1030	GW	AB35799	X	X			
4. SMS(D)		9/23/15	1100	GW	AB35800	X	×			
5. MW1		9/23/15	1200	GW	AB35801	×	×			
						ļ				
)									
Relinquished by: (Signature and Printed Name)	Company	2 4			Time Received by: (Signature and Printed Name)	ne)			Company	
D. Holland Ch. J.C. V	WIBAS	0		7	5)	
contraction by (Anglian contraction)	Company	13		Cara	mile material by (alguette and militar value)	١			Company	
Received for Lab by: (Signature and Printed Name)	ten			The She	Time Payment Received at Delivery:		Amount:	PIA#:	Check / C	Cash
ONTRAC	∪PS		FED EX	Courier:		Custody	Custody Seal: Y/		5	
Cooling Method: (Method) (Brue)	None				والمرمونين المراجع الم	Chilling	Chilling Process Begun: 80/ N		5	

Sample Integrity

Sa	mple Integrity	1	,					A
BSI	K Bottles: (es No P	age	of		V	## t		
	Was temperature within range?		lo NA		ct containers	and preservati	ves (es	No NA
9	Chemistry ≤ 6°C Micro < 10°C If samples were taken today, is there evidence		10 (A)			he VOA vials?	Yes	No 🐼
COC Info	that chilling has begun?	162		(Volatiles O		t of cample roos		
8	Did all bottles arrive unbroken and intact? Did all bottle labels agree with COC?	(res)	No No			t of sample rece time <72 hours		No No
O	Was sodium thiosulfate added to CN sample	(0)			otified of disc		Yes	No NA
	until chlorine was no longer present?	Tes	√o (A)	PM:	By/	Time:	1.00	-10
	250ml(A) 500ml(B) 1Liter(C) 40ml VOA(V)	Checks	Passed?	1-5			<u>_</u>	
	Bacti Na ₂ S ₂ O ₃			10000			$\mathcal{A} \vdash \!$	
	None (P) White Cap							
	Cr6 (P) Br. Green Label NH40H(NH4)2SO4 DW	Cl pH > 8	YN			/		
	Cr6 (P) Pink Label NH4OH(NH4)2SO4 WW	pH 9.3-9.7	Y N			\		
in the lab	Cr6 (P) Pink Eabel NH40H(NH4)2SO4 7199 ***24 HOUR HOLD TIME***	pH 9.0-9.5	YN	6 <u>6</u>	200 (1) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2			
ī.	HNO ₃ (P) ^{Red Cap}		-			\		
ned	H ₂ SO ₄ (P) or (AG) Yellow Cap/Label	pH < 2	Y N					
are performed	NaOH (P) Green Cap	CI, pH >10	Y N			JU -		
be o	NaOH + ZnAc (P)	pH > 9	YN					
rare	Dissolved Oxygen 300ml (g)	_	T -			9/25/15/		
'A or	None (AG) 608/8081/8082, 625, 632/8321							
کر ام و	8151, 8270 HCI (AG) ^{Lt. Blue Label} O&G, Diesel					-+		
<u>e</u>	Na ₂ O ₃ S+HCl (AG) ^{Lt Pink Label} 525	_						
are C								
양	Na ₂ S ₂ O ₃ 1 Liter (Brown P) 549 Na ₂ S ₂ O ₃ (AG) ^{Elue Label} 547,515,548.THM,524	_	_	7.1		-/-		
Bottles Received ne checks are either N	Diversity of the second of the		<u> </u>	3V		+		
Bottles Received servation/chlorine checks are either N/A	Na ₂ S ₂ O ₃ (CG) Blue Label 504, 505					/		
亨	Na ₂ S ₂ O ₃ + MCAA (CG) Orange Label 531	pH < 3	YN		+			
on/c	NH ₄ Cl (AG) ^{Purple Label} 552	<u> </u>	_	IA				
vati	EDA (AG) Brown Label DBPs	_	-					
ese	HCL (CG) 524.2,BTEX,Gas, MTBE, 8260/624							
s pr	Buffer pH 4 (CG)	_	_		/			
means	None (CG)	-						
Ē	H ₃ PO ₄ (CG) ^{Salmon Label}	 -	_					
ا	Other: Asbestos 1Liter Plastic w/ Foil							
	Low Level Hg / Metals Double Baggie	_	-					
	Bottled Water		_					
	Clear Glass Jar: 250 / 500 / 1 Liter		_					
	Soil Tube Brass / Steel / Plastic							
	Tedlar Bag / Plastic Bag Container Preservative	<u> </u>	nitials	1 7	ontainer	Preservativ	/e Date/⊤	<u> </u>
Split	S P	Date inter		S P				
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October 12, 2015

Lab ID : SP 1510697 **Monterey Bay Analytical Services** 4 Justin Court Customer : 2-19144

Monterey, CA 93940

Laboratory Report

Introduction: This report package contains total of 8 pages divided into 3 sections:

Case Narrative (2 pages): An overview of the work performed at FGL.

Sample Results (5 pages): Results for each sample submitted.

Quality Control (1 page): Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab ID#	Matrix
ASR1	09/22/2015	09/25/2015	SP 1510697-001	GW
ASR2	09/22/2015	09/25/2015	SP 1510697-002	GW
ASR3	09/23/2015	09/25/2015	SP 1510697-003	GW
SMS(D)	09/23/2015	09/25/2015	SP 1510697-004	GW
MW1	09/23/2015	09/25/2015	SP 1510697-005	GW

Sampling and Receipt Information: All samples were received in acceptable condition and within temperature requirements, unless noted on the Condition Upon Receipt (CUR) form. All samples arrived on ice. All samples were prepared and analyzed within the method specified hold time. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Radio QC

900.0	10/05/2015:214617 All analysis quality controls are within established criteria.
	10/05/2015:214618 All analysis quality controls are within established criteria.
	10/05/2015:214619 All analysis quality controls are within established criteria.
	10/02/2015:211454 All preparation quality controls are within established criteria, except: The following note applies to Gross Alpha: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.
	The following note applies to Gross Alpha: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.

October 12, 2015 Lab ID

Monterey Bay Analytical Services Customer

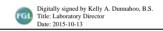
Radio QC

903.0	10/05/2015:214589 All analysis quality controls are within established criteria.
	10/06/2015:214589 All analysis quality controls are within established criteria.
	09/26/2015:211216 All preparation quality controls are within established criteria.

Certification:: I certify that this data package is in compliance with ELAP standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

KD:DMB

Approved By Kelly A. Dunnahoo, B.S.



: SP 1510697

: 2-19144

Analytical Chemists

October 12, 2015 Lab ID : SP 1510697-001

Customer ID : 2-19144

Monterey Bay Analytical Services

4 Justin Court Sampled On : September 22, 2015-11:45

: Jonathan Lear Monterey, CA 93940 Sampled By

Received On: September 25, 2015-13:30

: Ground Water Matrix

Description : ASR1 **Project** : MPWMD

Sample Result - Radio

Constituent	Result ± Error	MDA	Units	MCL/AL	Sample	Preparation	Sampl	e Analysis
Constituent	Result ± Effor	MDA	Omts	WICL/AL	Method	Date/ID	Method	Date/ID
Radio Chemistry ^{P:1}								
Gross Alpha	4.70 ± 2.00	1.57	pCi/L		900.0	10/02/15-06:15 2P1511454	900.0	10/05/15-12:00 2A1514617
Total Alpha Radium (226)	1.28 ± 0.338	0.418	pCi/L		903.0	09/26/15-12:00 2P1511216	903.0	10/05/15-13:20 2A1514589

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A * PQL adjusted for dilution.

MDA = Minimum Detectable Activity (Calculated at the 95% confidence level) = Data utilized by DHS to determine matrix interference. MCL / AL = Maximum Contamination Level / Action Level. Alpha's Action Level of 5 pCi/L is based on the Assigned Value (AV). AV = Assigned Value(Gross Alpha Result + (0.84 x Error)). CCR Section 64442: Drinking Water Compliance Note: Do the following If Gross Alpha's (AV) exceeds 5 pCi/L run Uranium. If Gross Alpha's (AV) minus Uranium exceeds 5 pCi/L run Radium 226.

Drinking Water Compliance:

Gross Alpha (AV) minus Uranium is less than or equal to 15 pCi/L Uranium is less than or equal to 20 pCi/L

Radium 226 + Radium 228 is less than or equal to 5 pCi/L

Analytical Chemists

October 12, 2015 Lab ID : SP 1510697-002

Customer ID : 2-19144

Monterey Bay Analytical Services

4 Justin Court Sampled On : September 22, 2015-11:45

: Jonathan Lear Monterey, CA 93940 Sampled By

Received On: September 25, 2015-13:30

: Ground Water Matrix

Description : ASR2 **Project** : MPWMD

Sample Result - Radio

Constituent	Result ± Error	MDA	Units	MCL/AL	Sample	Preparation	Sampl	e Analysis
Constituent	Result ± Ellor	MDA	Omts	WICL/AL	Method	Date/ID	Method	Date/ID
Radio Chemistry ^{P:1}								
Gross Alpha	1.16 ± 0.760	0.930	pCi/L		900.0	10/02/15-06:15 2P1511454	900.0	10/05/15-14:00 2A1514618
Total Alpha Radium (226)	0.189 ± 0.160	0.418	pCi/L		903.0	09/26/15-12:00 2P1511216	903.0	10/05/15-13:40 2A1514589

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A * PQL adjusted for dilution.

MDA = Minimum Detectable Activity (Calculated at the 95% confidence level) = Data utilized by DHS to determine matrix interference. MCL / AL = Maximum Contamination Level / Action Level. Alpha's Action Level of 5 pCi/L is based on the Assigned Value (AV). AV = Assigned Value(Gross Alpha Result + (0.84 x Error)). CCR Section 64442: Drinking Water Compliance Note: Do the following If Gross Alpha's (AV) exceeds 5 pCi/L run Uranium. If Gross Alpha's (AV) minus Uranium exceeds 5 pCi/L run Radium 226.

Drinking Water Compliance:

Gross Alpha (AV) minus Uranium is less than or equal to 15 pCi/L Uranium is less than or equal to 20 pCi/L

Radium 226 + Radium 228 is less than or equal to 5 pCi/L

October 12, 2015 Lab ID : SP 1510697-003

Customer ID : 2-19144

Monterey Bay Analytical Services

4 Justin Court Sampled On : September 23, 2015-10:30

: Jonathan Lear Monterey, CA 93940 Sampled By

Received On: September 25, 2015-13:30

: Ground Water Matrix

Description : ASR3 **Project** : MPWMD

Sample Result - Radio

Constituent	Result ± Error	MDA	Units	MCL/AL	Sample	Preparation	Sampl	e Analysis
Constituent	Result ± Effor	MDA	Omts	WICL/AL	Method	Date/ID	Method	Date/ID
Radio Chemistry ^{P:1}								
Gross Alpha	3.11 ± 1.41	1.22	pCi/L		900.0	10/02/15-06:15 2P1511454	900.0	10/05/15-13:00 2A1514619
Total Alpha Radium (226)	0.288 ± 0.181	0.418	pCi/L		903.0	09/26/15-12:00 2P1511216	903.0	10/06/15-07:00 2A1514589

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A * PQL adjusted for dilution.

MDA = Minimum Detectable Activity (Calculated at the 95% confidence level) = Data utilized by DHS to determine matrix interference. MCL / AL = Maximum Contamination Level / Action Level. Alpha's Action Level of 5 pCi/L is based on the Assigned Value (AV). AV = Assigned Value(Gross Alpha Result + (0.84 x Error)). CCR Section 64442: Drinking Water Compliance Note: Do the following If Gross Alpha's (AV) exceeds 5 pCi/L run Uranium. If Gross Alpha's (AV) minus Uranium exceeds 5 pCi/L run Radium 226.

Drinking Water Compliance:

Gross Alpha (AV) minus Uranium is less than or equal to 15 pCi/L Uranium is less than or equal to 20 pCi/L

Radium 226 + Radium 228 is less than or equal to 5 pCi/L

October 12, 2015 Lab ID : SP 1510697-004

Customer ID : 2-19144

Monterey Bay Analytical Services

4 Justin Court Sampled On : September 23, 2015-11:00

: Jonathan Lear Monterey, CA 93940 Sampled By

Received On: September 25, 2015-13:30

: Ground Water Matrix

Description : SMS(D) **Project** : MPWMD

Sample Result - Radio

Constituent	Result ± Error	MDA	Units	MCL/AL	Sample	Preparation	Sampl	e Analysis
Constituent	Result ± Effor	MDA	Omts	WICL/AL	Method	Date/ID	Method	Date/ID
Radio Chemistry ^{P:1}								
Gross Alpha	1.24 ± 1.42	1.56	pCi/L		900.0	10/02/15-06:15 2P1511454	900.0	10/05/15-14:00 2A1514617
Total Alpha Radium (226)	0.268 ± 0.176	0.418	pCi/L		903.0	09/26/15-12:00 2P1511216	903.0	10/06/15-07:20 2A1514589

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A * PQL adjusted for dilution.

MDA = Minimum Detectable Activity (Calculated at the 95% confidence level) = Data utilized by DHS to determine matrix interference. MCL / AL = Maximum Contamination Level / Action Level. Alpha's Action Level of 5 pCi/L is based on the Assigned Value (AV). AV = Assigned Value(Gross Alpha Result + (0.84 x Error)). CCR Section 64442: Drinking Water Compliance Note: Do the following If Gross Alpha's (AV) exceeds 5 pCi/L run Uranium. If Gross Alpha's (AV) minus Uranium exceeds 5 pCi/L run Radium 226.

Drinking Water Compliance:

Gross Alpha (AV) minus Uranium is less than or equal to 15 pCi/L Uranium is less than or equal to 20 pCi/L

Radium 226 + Radium 228 is less than or equal to 5 pCi/L

October 12, 2015 Lab ID : SP 1510697-005

Customer ID : 2-19144

Monterey Bay Analytical Services

4 Justin Court Sampled On : September 23, 2015-12:00

: Jonathan Lear Monterey, CA 93940 Sampled By

Received On: September 25, 2015-13:30

: Ground Water Matrix

Description : MW1 **Project** : MPWMD

Sample Result - Radio

Constituent	Result ± Error	MDA	Units	MCL/AL	Sample	Preparation	Sampl	e Analysis
Constituent	Result ± Effor	MDA	Omts	WICL/AL	Method	Date/ID	Method	Date/ID
Radio Chemistry ^{P:1}								
Gross Alpha	4.82 ± 1.81	1.47	pCi/L		900.0	10/02/15-06:15 2P1511454	900.0	10/05/15-16:00 2A1514618
Total Alpha Radium (226)	0.762 ± 0.265	0.418	pCi/L		903.0	09/26/15-12:00 2P1511216	903.0	10/06/15-07:40 2A1514589

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A * PQL adjusted for dilution.

MDA = Minimum Detectable Activity (Calculated at the 95% confidence level) = Data utilized by DHS to determine matrix interference. MCL / AL = Maximum Contamination Level / Action Level. Alpha's Action Level of 5 pCi/L is based on the Assigned Value (AV). AV = Assigned Value(Gross Alpha Result + (0.84 x Error)). CCR Section 64442: Drinking Water Compliance Note: Do the following If Gross Alpha's (AV) exceeds 5 pCi/L run Uranium. If Gross Alpha's (AV) minus Uranium exceeds 5 pCi/L run Radium 226.

Drinking Water Compliance:

Gross Alpha (AV) minus Uranium is less than or equal to 15 pCi/L Uranium is less than or equal to 20 pCi/L

Radium 226 + Radium 228 is less than or equal to 5 pCi/L

October 12, 2015 Lab ID : SP 1510697 **Monterey Bay Analytical Services** : 2-19144 Customer

Quality Control - Radio

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Radio								
Alpha	900.0	10/05/15:214617caa	CCV CCB	cpm cpm	8838	40.8 % 0.100	38 - 46 0.14	l
	900.0	10/05/15:214618caa	CCV CCB	cpm cpm	8838	40.8 % 0.100	37 - 46 0.18	
	900.0	10/05/15:214619caa	CCV CCB	cpm cpm	8838	41.0 % 0.10	39 - 48 0.2	
Gross Alpha	900.0	10/02/15:211454elc	Blank LCS MS	pCi/L pCi/L pCi/L	180.6 180.6	0.32 116 % 243 %	3 75-125 60-140	435
		(SP 1510632-001)	MSD MSRPD	pCi/L pCi/L	180.6 180.6	173 % 33.4%	60-140 ≤30	435 435
Alpha	903.0	10/06/15:214589caa	CCV CCB	cpm cpm	8838	41.0 % 0.100	37 - 46 0.19	
Total Alpha Radium (226)	903.0	09/26/15:211216emv	RgBlk LCS BS	pCi/L pCi/L pCi/L	21.59 21.59	0.03 79.4 % 80.9 %	2 52-107 43-111	
			BSD BSRPD	pCi/L pCi/L	21.59 21.59	79.9 % 1.2%	43-111 ≤35.5	1

: Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.

Blank : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.

RgBlk : Method Reagent Blank - Prepared to correct for any reagent contributions to sample result.

LCS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.

: Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample MS matrix affects analyte recovery.

: Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyted. The recoveries MSD are an indication of how that sample matrix affects analyte recovery.

: Blank Spikes - A blank is spiked with a known amount of analyte. It is prepared to verify that the preparation process is not BS

affecting analyte recovery.

: Blank Spike Duplicate of BS/BSD pair - A blank duplicate is spiked with a known amount of analyte. It is prepared to verify that BSD

the preparation process is not affecting analyte recovery.

: MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation MSRPD

: BS/BSD Relative Percent Difference (RPD) - The BS relative percent difference is an indication of precision for the preparation **BSRPD**

and analysis.

DQO : Data Quality Objective - This is the criteria against which the quality control data is compared.

Explanation

: Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.

ENVIRONMENTAL

Analytical Chemists

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CHAIN OF CUSTODY

										Time:	Tine:	23.55 24.55 25.55 26.55
110										Date	Dane:	FIELD OFFICE Westla Cathornia 12: 659/734-9473 Noble: (559/734-643
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and Sampling										Relinquished	Received By	J
everyable	Ra226	×	×	×	×	×		1		T: me:	Time:	a
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ook for Co	Preservetive: (1)NaOH+ZnAc (2)NaOH,(3)HCL,(4)H2SO4(5)HNO3,									51438	9	LINGS Average Control of the Control
	easi Tissue (PET)Petiole Tissue (LT)/Leaf Tissue (PET)Petiolice									1	::	CARLES
ON - Sec	BacT: Routine(ROUT) Repeat(RPT) Other(OTH) Replace(RPL)									Relinquished	Reck)
TEST DESCRIPTION	BacT: (8ya) System (Src)Source (W) Waste		·							Time: 1600	Time	nd 1 No. 1563
TEST	(WW)WasteWeter (DW)Drinking Water (S)Soil(SLG)Sludge (SLD)Solid (O)Oil				_				i	Dale: 9/24/15) <u>sq</u>	aboratory coact Ro CA 95215 942-0182 942-0433
	(P)Potable (NP)Non-Potable (SW)SurfaceWater (MW)MonitoringWell (SW)SurfaceWater (TB)TravelBank	P GW	P GW	P GW	P GW	P GW						Office & L 2500 stag 2500 stag 2500 Tigh: 209 FAX: 209 CA (E.AP
	Containers: (G) Class (P) Plastic (V) VOA	۵	۵	۵	۵	Ь				Relinquistred David Holland	<u>A</u>	
	Type: Composite(C) Grab(G) Number of Containers	<u>1</u>	<u>1</u>	G 1	G -	G 1		H	-	Relinque dred	Received By	
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	nterey Bay Analytic Justin Court Ste Institute CA 939 Ins	ASR1	ASR2 (SMS(D)	MW1				Renurks: AB35797-AB35801		Corporate Offices & Laboratory P.O. bur Z72 / 853 Corporation Street Garba Paula. CA 93061-0272 TRL: 8857352-2000 FAX: 885735-4772 CA NELAP Cerdication No. 01110CA CA ELAP Cerdication No. 1573
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FGL Environmental Doc ID: 2D0900157_SOP_17.DOC

Revision Date: 10/09/14 Page: 1 of 1

Condition Upon Receipt (Attach to COC)

Sample Receipt at SP:							
1. Number of ice chests/packages received:	1						
2. Shipper tracking numbers —————							
3. Were samples received in a chilled condition? Temps:	RRT	/	/	/	/	/	/
4. Surface water (SWTR) bact samples: A sample the should be flagged unless the time since sample co		•		•		vhether ic	ed or not,
5. Do the number of bottles received agree with the COC?	Yes	No	N/A				
6. Verify sample date, time, sampler	Yes	No	N/A				
7. Were the samples received intact? (i.e. no broken bottles, leaks, etc.)	Yes	No					
8. Were sample custody seals intact?	Yes	No	N/A				
Sample Verification, Labeling and Distribution:							
Were all requested analyses understood and acceptable?	Yes	No					
2. Did bottle labels correspond with the client's ID's?	Yes	No					
3. Were all bottles requiring sample preservation properly preserved? [Exception: Oil & Grease, VOA and CrVI verified in lab]	Yes	No	N/A	FGL			
4. VOAs checked for Headspace?	Yes	No	N/A				
5. Were all analyses within holding times at time of reciept?	Yes	No		_			
6. Have rush or project due dates been checked and accepted?	Yes	No	N/A]			
Include a copy of the COC for lab delivery. (Bacti. Inc	organics a	and Ra	ndio)				
Sample Receipt, Login and Verification completed by	y:		Reviewed Approved		e Parson	Title: Sa	signed by Nicole Parson mple Receiving /25/2015-14:42:17
Discrepency Documentation: Any items above which are "No" or do not meet spec	ifications	(i.e. te	emps) mu	ıst be reso	lved.		
1. Person Contacted:	Pł	none N	umber:				
Initiated By:	Da	ate:					
Problem:							
Resolution:							
2. Person Contacted:	Pł	none N	umber:				
Initiated By:	D.	ate:					
Problem:							
Resolution:					(2019	9144)	
			Mo	onterey	•	•	l Services

SP 1510697 NMP-09/25/2015-14:42:17



McCampbell Analytical, Inc.

"When Quality Counts"

Analytical Report

WorkOrder: 1509A02

Report Created for: Monterey Bay Analytical

4 Justin Court, Suite D Monterey, CA 93940

Project Contact:

David Holland

Project P.O.:

Project Name: MPWMD

Project Received: 09/25/2015

Analytical Report reviewed & approved for release on 10/05/2015 by:

Angela Rydelius,

Laboratory Manager

The report shall not be reproduced except in full, without the written approval of the laboratory. The analytical results relate only to the items tested. Results reported conform to the most current NELAP standards, where applicable, unless otherwise stated in the case narrative.



Glossary of Terms & Qualifier Definitions

Client: Monterey Bay Analytical

Project: MPWMD **WorkOrder:** 1509A02

Glossary Abbreviation

95% Interval 95% Confident Interval

DF Dilution Factor

DI WET (DISTLC) Waste Extraction Test using DI water

DISS Dissolved (direct analysis of 0.45 µm filtered and acidified water sample)

DUP Duplicate

EDL Estimated Detection Limit

ITEF International Toxicity Equivalence Factor

LCS Laboratory Control Sample

MB Method Blank

MB % Rec % Recovery of Surrogate in Method Blank, if applicable

MDL Method Detection Limit

ML Minimum Level of Quantitation

MS Matrix Spike

MSD Matrix Spike Duplicate

N/A Not Applicable

ND Not detected at or above the indicated MDL or RL

NR Data Not Reported due to matrix interference or insufficient sample amount.

PF Prep Factor

RD Relative Difference

RL Reporting Limit (The RL is the lowest calibration standard in a multipoint calibration.)

RPD Relative Percent Deviation
RRT Relative Retention Time

SPK Val Spike Value

SPKRef Val Spike Reference Value

SPLP Synthetic Precipitation Leachate Procedure
TCLP Toxicity Characteristic Leachate Procedure

TEQ Toxicity Equivalents

WET (STLC) Waste Extraction Test (Soluble Threshold Limit Concentration)



Analytical Report

Client: Monterey Bay Analytical

Date Received: 9/25/15 11:50 **Date Prepared:** 10/5/15 **Project:** MPWMD **WorkOrder:** 1509A02

Extraction Method: RSK175 **Analytical Method:** RSK175

Unit: $\mu g/L$

•	•	1 4		
	.10	7ht	. (-	ases
_	416		·	ascs

Client ID	Lab ID	Matrix	Date Collecte	ed Instrument	Batch ID
ASR1	1509A02-001A	Water	09/22/2015 11:	45 GC26	111107
Analytes	Result		<u>RL</u> <u>DF</u>		Date Analyzed
Methane	0.40		0.10 1		10/05/2015 09:41

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Collecte	ed Instrument	Batch ID
ASR2	1509A02-002A	Water	09/23/2015 11:	45 GC26	111107
<u>Analytes</u>	Result		<u>RL</u> <u>DF</u>		Date Analyzed
Methane	0.23		0.10 1		10/05/2015 09:53

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
ASR3	1509A02-003A	Water	09/23/2015 10:30	GC26	111107
<u>Analytes</u>	<u>Result</u>		<u>RL</u> <u>DF</u>		Date Analyzed
Methane	0.22		0.10 1		10/05/2015 10:17

Analyst(s): AK

Client ID	Lab ID	Matrix	Date Co	llected Instrument	Batch ID
SMS(D)	S(D) 1509A02-004A Water 09/23/2015 11:00 GC26				
<u>Analytes</u>	<u>Result</u>		<u>RL</u>	<u>DF</u>	<u>Date Analyzed</u>
Methane	0.27		0.10	1	10/05/2015 10:30

Analyst(s): AK



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Analytical Report

Client:Monterey Bay AnalyticalWorkOrder:1509A02Date Received:9/25/15 11:50Extraction Method:RSK175Date Prepared:10/5/15Analytical Method:RSK175Project:MPWMDUnit:μg/L

3.2

		Light (Sases		
Client ID	Lab ID	Matrix	Date Collected	Instrument	Batch ID
MW1	1509A02-005A	Water	09/23/2015 12:00	GC26	111107
Analytes	Result		<u>RL</u> <u>DF</u>		<u>Date Analyzed</u>

0.10

1

Analyst(s): AK

Methane

10/05/2015 11:03

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Quality Control Report

Client:Monterey Bay AnalyticalWorkOrder:1509A02Date Prepared:10/5/15BatchID:111107Date Analyzed:10/5/15Extraction Method:RSK175Instrument:GC26Analytical Method:RSK175

 $\textbf{Matrix:} \qquad \text{Water} \qquad \qquad \textbf{Unit:} \qquad \qquad \mu g/L$

Project: MPWMD **Sample ID:** MB/LCS-111107

	QC Summary Report for RSK175											
Analyte	MB Result	LCS Result	RL	SPK Val	MB SS %REC	LCS %REC	LCS Limits					
Methane	ND	108	0.10	100	-	108	70-130					

McCampbell Analytical, Inc.

FAX: 831-641-0734

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831-375-6227

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Date Received:

☐ J-flag

09/25/2015

Report to: Bill to: Requested TAT: 5 days;

David Holland Email: mweidner@mbasinc.com; Dholland@mbas Accounts Payable

Monterey Bay Analytical cc/3rd Party: Monterey Bay Ana

Monterey Bay Analytical cc/3rd Party: Monterey Bay Analytical
4 Justin Court, Suite D PO: 4 Justin Court, Suite D

Monterey, CA 93940 ProjectNo: MPWMD Monterey, CA 93940 Date Printed: 09/25/2015

					Requested Tests (See legend below)											
Lab ID	Client ID	Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12
1509A02-001	ASR1	Water	9/22/2015 11:45		Α											
1509A02-002	ASR2	Water	9/23/2015 11:45		Α											
1509A02-003	ASR3	Water	9/23/2015 10:30		Α											
1509A02-004	SMS(D)	Water	9/23/2015 11:00		Α											
1509A02-005	MW1	Water	9/23/2015 12:00		Α											

Test Legend:

1 RSK175_W	2	3	4
5	6	7	8
9	10	11	12

Prepared by: Briana Cutino

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).

Hazardous samples will be returned to client or disposed of at client expense.



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WORK ORDER SUMMARY

Client Name:MONTEREY BAY ANALYTICALQC Level:LEVEL 2Work Order:1509A02Project:MPWMDClient Contact:David HollandDate Received:9/25/2015

Comments: Contact's Email: mweidner@mbasinc.com; Dholland@mbasinc.com

		WaterTrax	WriteOnEDF	Excel	Fax y Email	HardC	opyThirdPar	ty 🗀 .	J-flag
Lab ID	Client ID	Matrix	Test Name	Containers /Composites	Bottle & Preservative	De- chlorinated	Collection Date & Time	TAT	Sediment Hold SubOut Content
1509A02-001A	ASR1	Water	RSK175 <methane_4></methane_4>	3	VOA w/ HCl		9/22/2015 11:45	5 days	None
1509A02-002A	ASR2	Water	RSK175 <methane_4></methane_4>	3	VOA w/ HCl		9/23/2015 11:45	5 days	
1509A02-003A	ASR3	Water	RSK175 <methane_4></methane_4>	3	VOA w/ HCl		9/23/2015 10:30	5 days	
1509A02-004A	SMS(D)	Water	RSK175 <methane_4></methane_4>	3	VOA w/ HCl		9/23/2015 11:00	5 days	
1509A02-005A	MW1	Water	RSK175 <methane_4></methane_4>	3	VOA w/ HCl		9/23/2015 12:00	5 days	

NOTES: - STLC and TCLP extractions require 2 days to complete; therefore, all TATs begin after the extraction is completed (i.e., One-day TAT yields results in 3 days from sample submission).

- MAI assumes that all material present in the provided sampling container is considered part of the sample - MAI does not exclude any material from the sample prior to sample preparation unless requested in writing by the client.

1509402

McCAMPBELL ANALYTICAL, INC. CHAIN OF CUSTODY RECORD 1534 WILLOW PASS ROAD TURN AROUND TIME X PITTSBURG, CA 94565-1701 72 HR 5 DAY RUSH 24 HR 48 IIR Website: www.mccampbell.com Email: main@mccampbell.com ☐ GeoTracker EDF ☐ PDF ☐ Excel ☐ Write On (DW) Fax: (925) 252-9269 Telephone: (877) 252-9262 Report To: David Holland Bill To: **Analysis Request** Other Comments Company: Monterey Bay Analytical Services EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners Total Petroleum Oil & Grease (1664 / 5520 E/B&F) Filter 8015) 4 Justin Ct. Suite D Samples Monterey, Ca 93940 E-Mail: mweidner@mbasinc.com Gas (602 / 8021 + CAM 17 Metals (200.7 / 200.8 / 6010 / 6020) for Metals LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020) Tele: (831) 375 - 6227 Fax: (831) 641-0734 MTBE / BTEX ONLY (EPA 602 / 8021) analysis: Fotal Petroleum Hydrocarbons (418.1) EPA 502.2 / 601 / 8010 / 8021 (HVOCs) EPA 515 / 8151 (Acidic Cl Herbicides) EPA 8270 SIM / 8310 (PAHs / PNAs) Project #: Project Name: Yes / No EPA 505/ 608 / 8081 (Cl Pesticides) TPH as Diesel / Motor Oil (8015) Lead (200.7 / 200.8 / 6010 / 6020) Project Location: MPWMD EPA 525.2 / 625 / 8270 (SVOCs) EPA 507 / 8141 (NP Pesticides) EPA 524.2 / 624 / 8260 (VOCs) Sampler Signature: Jonathan Lear METHOD SAMPLING MATRIX Type Containers PRESERVED Containers LOCATION/ SAMPLE ID **Field Point** Sludge Methane Water Name Date Time Other HNO3 Other HCL ICE Soil ASR1 7/24/15 X XX X 1145 3 G AB35797 7/22/15 X XX X ASR2 1145 3 G AB35798 ASR3 7/23/15 3 X X AB35799 1030 G XX 7/23/15 3 SMS(D) 1100 G X X AB35800 XX X MW1 7/23/ 1200 3 G X XX AB35801 15 9/23/1 * Date changed per samples* Relinquished By: Received By: -ICE/t° Time: Date: David Holland 9/24/15 GOOD CONDITION 1600 HEAD SPACE ABSENT Relinquished By: Received By: Time: Date: DECHLORINATED IN LAB APPROPRIATE CONTAINERS PRESERVED IN LAB Relinquished By: Received By: Date: Time: VOAS O&G METALS OTHER

PRESERVATION

pH<2

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Sample Receipt Checklist

Client Name: Monterey Bay Analytical				Date and Time Received: 9/25/2015 11:50:54 AM		9/25/2015 11:50:54 AM	
Project Name: MPWMD				LogIn Reviewed by:		Briana Cutino	
WorkOrder №:	1509A02	Matrix: Water			Carrier:	<u>FedEx</u>	
		Chain of C	ustod	y (COC)	<u>Information</u>		
Chain of custody present?			Yes	✓	No 🗌		
Chain of custody signed when relinquished and received?			Yes	✓	No 🗌		
Chain of custody agrees with sample labels?			Yes	•	No 🗌		
Sample IDs noted by Client on COC?			Yes	✓	No 🗌		
Date and Time of collection noted by Client on COC?			Yes	✓	No 🗌		
Sampler's name noted on COC?			Yes	✓	No 🗌		
		<u>Sampl</u>	e Rece	eipt Info	rmation		
Custody seals intact on shipping container/cooler?					No 🗌		NA 🗹
Shipping container/cooler in good condition?			Yes	•	No 🗌		
Samples in proper containers/bottles?			Yes	✓	No 🗌		
Sample containers intact?			Yes	✓	No 🗌		
Sufficient sample volume for indicated test?			Yes	✓	No 🗌		
		Sample Preservation	on and	Hold Ti	me (HT) Info	rmation	
All samples received within holding time?				✓	No 🗌		
Sample/Temp Blank temperature				Temp	emp: 2.2°C		NA 🗌
Water - VOA vials have zero headspace / no bubbles?			Yes		No 🗌		NA 🗹
Sample labels checked for correct preservation?			Yes	✓	No 🗌		
pH acceptable upon receipt (Metal: <2; 522: <4; 218.7: >8)?			Yes		No 🗌		NA 🗹
Samples Received on Ice?			Yes	✓	No 🗌		
		(Ice Type	e: WE	T ICE)		
<u>UCMR3 Samples:</u> Total Chlorine tested and acceptable upon receipt for EPA 522?			Yes		No 🗌		NA 🗹
Free Chlorine tested and acceptable upon receipt for EPA 218.7, 300.1, 537, 539?					No 🗌		NA 🗸
* NOTE: If the "N	No" box is checked, s	see comments below.					
Comments:			:				