



Malibu Civic Center Wastewater Treatment Facility

Fourth Quarter 2017 Baseline Groundwater + Surface Water Monitoring Report



Rincon Consultants Inc.
January 2018

Submitted to:

City of Malibu
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January 29, 2018
Project 15-01587

Craig George
Environmental Sustainability Department Director
Building Official
City of Malibu
23825 Stuart Ranch Road
Malibu, CA 90401

Subject: Fourth Quarter 2017 Baseline Groundwater and Surface Water Monitoring Report, Malibu Civic Center Wastewater Treatment Facility - City of Malibu, California

Dear Mr. George:

Rincon Consultants, Inc. has prepared the Fourth Quarter 2017 Baseline Groundwater and Surface Water Monitoring Report for the Malibu Civic Center Wastewater Treatment Facility located in Malibu, California. The objective of the study is to develop baseline groundwater and surface water quality conditions prior to the operation of the Wastewater Treatment Facility. Once the Wastewater Treatment Facility is operating, the baseline water quality conditions will be used to identify any potential impacts as a result of land disposal of treated wastewater via injection and landscape irrigation or percolation on the receiving water aquifers, Santa Monica Bay, Malibu Creek, and Malibu Lagoon. Current construction timelines estimate that the treatment plan will be operational by June 2018.

Please contact us with any questions you may have regarding the results of the Fourth Quarter 2017 Baseline Groundwater and Surface Water Monitoring Report.

Sincerely,
RINCON CONSULTANTS, INC.

A handwritten signature in black ink, appearing to read "K. Brtalik".

Kiernan Brtalik, CPSWQ, QSP/D
Environmental Scientist



Torin Snyder, PG, CHG, TOR, QSD/P
Principal

"I certify under penalty of law that this document, including all attachments and supplemental information, was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment."

Executed on the 30th day of January at 2018



Signature

Environmental Sustainability Dir.
Title



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1.0 INTRODUCTION

This report presents the results of the Fourth Quarter 2017 Baseline Groundwater and Surface Water Monitoring event for the Malibu Civic Center Wastewater Treatment Facility located in the City of Malibu, California (Figure 1). The objective of the work program is to implement and manage a basin-wide groundwater and surface water monitoring and reporting program. The monitoring program has been designed to identify potential impacts as a result of land disposal of treated wastewater via injection and landscape irrigation or percolation on the receiving water quality of the local groundwater aquifers, Santa Monica Bay, Malibu Creek, and Malibu Lagoon.

This report was prepared by Rincon Consultants, Inc. (Rincon) and presents the geologic and hydrogeologic setting, groundwater elevations and gradient, surface water sampling methodologies, water quality data results, and our conclusions.

2.0 BACKGROUND

On-site wastewater disposal systems (OWDS) have allegedly contributed to the non-point source pollution of Malibu Creek and Lagoon located in the Civic Center Area of the City of Malibu. As a result of regulatory actions taken by the Los Angeles Regional Water Quality Control Board (LARWQCB) and the State Water Resources Control Board (SWRCB) to prohibit discharges from OWDS in the Civic Center area, the City of Malibu has designed and begun constructing a new wastewater treatment facility.

To establish baseline groundwater and surface water quality conditions prior to operation and discharge of treated wastewater, the LARWQCB requires basin-wide, baseline groundwater and surface water monitoring. The water quality monitoring program is driven by several factors:

- Timelines established through regulatory action
- Proposed programs to fulfill anticipated future regulatory requirements associated with the development of the Civic Center Wastewater Treatment Facility (CCWTF)
- The distribution of Title 22 Recycled Water in the Prohibition area
- Protection of the Malibu Valley Groundwater Basin, Malibu Creek, Malibu Lagoon, and the near shore environment of Santa Monica Bay.

At this time, the basin-wide monitoring program consists of five water quality monitoring tasks that occur in the Civic Center area of the City of Malibu. All five monitoring tasks have been designed to build upon one another to provide a comprehensive basin-wide groundwater and surface water monitoring program. Below is a general description of each task and a discussion of key objectives.

– *Task 1 – Baseline Groundwater and Surface Water Quality Monitoring of the Civic Center Area*

The baseline groundwater and surface water quality monitoring task involves monitoring groundwater in nine shallow and deep groundwater wells and monitoring surface water quality at ten locations. The objective of this task's monitoring is to develop baseline, ambient



shallow and deep groundwater and surface water conditions prior to the implementation of the CCWTF, as required by the Monitoring and Reporting Program (MRP) No. CI 10042, issued by the LARWQCB (LARWQCB 2015).

– *Task II – Long-Term Monitoring of Groundwater and Surface Water Quality Monitoring of the Civic Center Area*

The long-term groundwater and surface water quality monitoring task involves monitoring groundwater in nine shallow and deep groundwater wells and monitoring surface water quality at ten locations. The objective of long-term monitoring is to identify impacts that land disposal of recycled water, via injection and landscape irrigation or percolation, will have on the water quality of the receiving groundwater aquifers, Santa Monica Bay, Malibu Creek, and Malibu Lagoon. The nine groundwater monitoring wells and ten surface water sampling locations identified in Task II will be sampled on a quarterly basis once CCWTF operations commence. This sampling is required by the MRP No. CI 10042, issued by the LARWQCB (LARWQCB 2015).

– *Task III – Salt and Nutrient Management Plan Monitoring Program*

The Salt and Nutrient Management Plan (SNMP) monitoring program branches off from the baseline and long-term groundwater and surface water monitoring programs described above (Tasks I and II). Task III involves performing semi-annual groundwater monitoring at 16 groundwater monitoring wells (mix of shallow and deep) located in the Civic Center area of the City and in a small area in the unincorporated portion of Los Angeles County. The objective of the SNMP is to monitor potential impacts that recycled water, introduced through irrigation and injection, will have on the Malibu Groundwater Basin. The SNMP will also provide data to assess the various phases of the CCWTF implementation during the time that the collection system and treatment plant connections increase, and as OWDS-related discharges cease (RMC Water 2015a).

– *Task IV – Memorandum of Understanding Compliance Monitoring*

Compliance with the Memorandum of Understanding (MOU) the City has with the LARWQCB corresponds with baseline and long term groundwater and surface water monitoring programs described in Tasks I through III above. Task IV involves performing semi-annual monitoring at 14 groundwater wells located in the City's Civic Center area. The objective of the MOU is to monitor for potential impacts to the Shallow Alluvium as a result of CCTWF implementation (LARWQCB 2014).

– *Task V – Civic Center Groundwater Elevation Monitoring Program*

The groundwater elevation monitoring program has been designed to appraise the groundwater elevations in the Malibu Groundwater Basin and in Winter Canyon. The objective of this task is to provide a better understanding of the groundwater elevation conditions in the Civic Center Area, including elevation trends related to precipitation, tidal, and lagoon influences (LARWQCB 2015).



3.0 GEOLOGIC AND HYDROGEOLOGIC SETTING

3.1 HYDROLOGY

The project lies in the Los Angeles hydrologic region, as defined by the LARWQCB. The Los Angeles hydrologic region encompasses all coastal drainages flowing to the Pacific Ocean between Rincon Point and the eastern Los Angeles County line. The study area covers two watersheds: the Malibu Creek and Winter Canyon Creek watersheds. The majority of the study area addressed in this report is located within the 109-square-mile Malibu Creek watershed, which is the second largest watershed draining to the Santa Monica Bay. The Malibu Creek watershed contains mostly undeveloped mountain areas, large-acreage residential properties, and many natural stream reaches (Los Angeles RWQCB 2011). Malibu Lagoon is located at the terminus of the Malibu Creek watershed. Malibu Lagoon is a brackish estuary of approximately 13 acres. However, it is one of only two remaining coastal marshes in Los Angeles County.

3.2 GEOLOGY

The study area is located within the Santa Monica Mountains in the northwestern corner of the Los Angeles basin. The study area lies at the juncture of the Peninsular Ranges geomorphic province, consisting of a northwest-oriented structural grain, and the Transverse Ranges geomorphic province, which features a predominantly east-west-oriented structural grain.

The 45-mile-long Santa Monica Mountains range is part of the southernmost portion of the western Transverse Ranges province. It forms an east-west range of low mountains along the southern California Coast from the Oxnard Plain to Los Angeles. The Santa Monica Mountain range is characterized by long, south draining canyons on its south flank and short, north draining canyons on its north flank. The Malibu Canyon and Winter Canyon are two significant canyons within the study area that drain to the south.

3.3 HYDROGEOLOGY

The Malibu Valley Groundwater Basin (DWR groundwater basin no. 4-22) is a small alluvial basin, approximately 613 acres in size. The groundwater basin is bounded by the Pacific Ocean on the south, and by the Santa Monica Mountains, composed of non-water-bearing Tertiary age rocks to the north, east, and west.

Water bearing geologic formations in the Malibu Valley Groundwater Basin are comprised of Holocene alluvium, consisting of clays, silts, sands, and gravels, overlying impermeable bedrock. The unconsolidated alluvium in the Civic Center area by Malibu Creek and other small drainages is estimated to range in thickness from a thin layer near the valley walls to around 175 feet in the central part of the main body of the alluvium. The alluvium can be subdivided into three categories or zones: 1) a shallow zone of permeable alluvial sediments, 2) underlain by a sequence of fine-grained estuarine deposits, and 3) an underlying coarse-grained stratum commonly referred to as the "Civic Center Gravels" (GeoSoils 1989, Leighton 1994, ECI 200, Ambrose and Orme 2000, Fugro West, Inc. 2005, Geosyntec Consultants 2007). Depth to groundwater in the alluvium is typically 5 to 13 feet below grade and is deeper in the upland canyon areas.



4.0 ACTIVITIES COMPLETED DURING THE FOURTH QUARTER OF 2017

The following activities were completed during the Fourth Quarter of 2017:

- Rincon measured depth to water in groundwater monitoring wells on October 16, 2017, November 15, 2017, and December 22, 2017. (Task V)
- Rincon collected and analyzed surface water samples for WDR/MRP compliance on December 28, 2017. (Task I)

5.0 GROUNDWATER ELEVATIONS AND GRADIENTS

Rincon mobilized to 46 groundwater monitoring wells to measure the depth to water using an electronic water level indicator on October 16, 2017, November 15, 2017, and December 22, 2017 (Table 1 and Appendix A). Of the 46 groundwater monitoring wells, two of the wells were unable to be located (MBCMW-5 and MBCMW-6). In addition, one well was inaccessible due to lagoon restoration activities. Lastly, one well was reported as dry for all three monitoring events (SMBRP-15B). Therefore, groundwater elevations could not be calculated in four groundwater wells.

5.1 SHALLOW ZONE

The groundwater elevations ranged from 2.88 feet above mean sea level (amsl) in groundwater monitoring well MCWP-MW10 to 22.59 feet amsl in groundwater monitoring well SMBRP-8 (Table 1). Groundwater elevations remained relatively constant during the Fourth Quarter of 2017 when comparing monthly groundwater elevations between October and December 2017. Groundwater elevation decreased a maximum of 3.1 feet amsl in groundwater monitoring well CCPE and increased a maximum 0.63 feet amsl in groundwater monitoring well CCW-4. Groundwater elevations decreased a minimum of 0.01 feet amsl in groundwater monitoring wells SMBRP-7B. Groundwater elevations increased a minimum of 0.06 feet amsl in groundwater monitoring wells SMBRP-10C. The predominant direction of groundwater flow ranged from southeast to south, towards the coastline. Elevation data and flow direction are depicted in Figures 3 through 5.

The shallow groundwater gradient was 0.0043 feet/foot, 0.0044 feet/foot, and 0.0041 feet/foot (calculated using groundwater monitoring wells SMBRP-9, SMBRP-12, and SMBRP-2) during the October, November, and December monitoring events, respectively.

5.2 DEEP ZONE

The groundwater elevations ranged from 4.09 feet amsl in groundwater monitoring well MCWP-MW07D to 10.6 feet amsl in groundwater monitoring well MCWP-MW09 (Table 1). Groundwater elevation decreased a maximum of 1.92 feet amsl in groundwater monitoring well MCWP-MW07D and increased a maximum 1.63 feet amsl in groundwater monitoring well MCWP-MW02 when comparing monthly groundwater elevations between October and December 2017.



5.3 WINTER CANYON

The groundwater elevations ranged from 9.7 feet amsl in groundwater monitoring well SMBRP-11 to 53.56 feet amsl in groundwater monitoring well LAMW-5S (Table 1). Groundwater elevation decreased a maximum of 1.43 feet amsl in groundwater monitoring well LAMW-5S and decreased a minimum 0.14 feet amsl in groundwater monitoring well SMBRP-11 when comparing monthly groundwater elevations between October and December 2017.

6.0 WATER QUALITY SAMPLING AND ANALYSIS

6.1 SURFACE WATER SAMPLING METHODOLOGY

On December 28, 2017 a total of ten surface water samples were collected. Six surface water samples were collected from the Malibu Lagoon and Creek and four ocean water samples were collected from the near shore area along Malibu Road. Surface water samples from nearshore were collected from each location at a depth of approximately 3-6 inches (ankle deep). Surface water samples from Malibu Lagoon and Creek were collected from each location at a depth of approximately twelve inches below the surface of the water. All surface water samples were collected up-current of the sampling person's body to minimize the potential for contaminating the surface water sample with bacteria that may originate from field personnel. Surface water samples were collected directly into lab-supplied containers when possible, or into a field sampling container and then transferred into preserved and non-preserved containers supplied by Fruit Growers Laboratory, Inc. (FGL) located in Santa Paula, California. The containers were capped, labeled, placed in Ziploc bags, and stored on ice in a cooler pending delivery to FGL. The surface water samples were analyzed for total and fecal coliform, total dissolved solids (TDS), phosphorous, nitrate (as nitrogen), nitrite (as nitrogen), ammonia, organic nitrogen, and total Kjeldahl nitrogen (TKN). All surface water monitoring locations and corresponding laboratory analyses are shown in the Surface Water Analyses Matrix (Table 2).

6.2 SURFACE WATER ANALYTICAL LABORATORY ANALYSES

The surface water samples collected during the Fourth Quarter 2017 sampling event were analyzed by FGL. The laboratory analytical results for the Fourth Quarter monitoring event included the constituents listed in Table 3. Laboratory reports are included as Appendix B of this report.

6.2.1 Total Coliform

During the Fourth Quarter 2017 monitoring event, total coliform concentrations in the near shore surface water ranged from 2 Most Probable Number per 100 milliliters (MPN/100 mL) at N-001 to 31 MPN/100 mL at N-002. An average concentration of 16.75 MPN/100 mL was calculated for all samples collected during the Fourth Quarter 2017 monitoring event. Total coliform concentrations in the surface water of Malibu Lagoon and Creek ranged from 240



MPN/100 mL at L-002 to greater than 1600 MPN/100 mL at L-003 and L-005 with an average concentration of 1083.33 MPN/100 mL.¹

6.2.2 Fecal Coliform

During the Fourth Quarter 2017 monitoring event fecal coliform concentrations in the near shore surface water ranged from less than 1.8 MPN/100 mL at N-001 to 17 MPN/100 mL at N-002 and N-004 with an average concentration of 12.23 MPN/100 mL.² Fecal coliform concentrations in the Malibu Lagoon and Creek surface water ranged from 13 MPN/100 mL at L-003 to greater than 1,600 MPN/100 mL at L-005 with an average concentration of 342.67 MPN/100 mL.

6.2.3 Nitrogen

6.2.3.1 Nitrate as Nitrogen

Nitrate as nitrogen concentrations in all surface water samples collected at the near shore sampling locations were 0.07 milligrams per liter (mg/L), which is below the analytical practical quantification limit (reporting limit), but above the method detection limit (MDL).³

Nitrate as nitrogen concentrations in surface water samples collected at Malibu Lagoon and Creek sampling locations ranged from 0.08 milligrams per liter (mg/L) at L-003 and L-004 (below the analytical reporting limit, but above the MDL) to 0.7 mg/L at L-001 and L-005.

6.2.3.2 Other Forms of Nitrogen

All nitrite as nitrogen concentrations in surface water samples collected at the near shore and Malibu Lagoon and Creek sampling locations were detected below the reporting limit of 0.1 mg/L. Three Malibu Lagoon and Creek sampling locations (L-003, L-004, and L-006) and one near shore location (N-003) were not detected above the MDL of 0.01 mg/L.

Ammonia (NH₃⁺) is the primary form of nitrogen in OWDS effluent, and it is converted to nitrate during the leaching process through the vadose zone (Figure 6). All ammonia concentrations in surface water samples collected at the near shore and the Malibu Lagoon and Creek sampling locations during the Fourth Quarter 2017 monitoring event were not detected above the MDL of 0.07 mg/L.

TKN concentrations in surface water samples collected at the near shore sampling locations during the Fourth Quarter 2017 monitoring event were not detected above the MDL of 0.32 mg/L. One Malibu Creek and Lagoon sampling location was reported above the MDL (L-003) and two were reported above the reporting limit (L-005 and L-006).

¹ The upper detection limit value was used for results that exceeded the upper limit to calculate the average total coliform concentration.

² For fecal coliform results that were below the laboratory practical quantitation limit (PQL), a value of half the PQL was used to calculate average.

³ The MDL is a lab calculation, defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The MDL is determined from analysis of a sample in a given matrix containing the analyte.



Organic nitrogen concentrations in surface water samples collected at the near shore sampling locations during the Fourth Quarter 2017 monitoring event were not detected above the MDL of 0.07 mg/L. One Malibu Creek and Lagoon sampling location was reported below the reporting limit, but above the MDL (L-003). In addition, concentrations for organic nitrogen were reported at 0.703 mg/L and 4.27 mg/L for Malibu Creek and Lagoon sampling locations L-005 and L-006, respectively.

6.2.4 Total Phosphorous

Total phosphorus concentrations in surface water samples collected at the near shore sampling locations during the Fourth Quarter 2017 sampling event were not detected above the MDL (0.02 mg/L) at three sampling locations (N-001, N-002, and N-003). One near shore sampling location was reported below the reporting limit, but above the MDL (N-004). Total phosphorus was not detected in two of the Malibu Lagoon and Creek sampling locations (L-003 and L-004). Total phosphorous at the remaining Malibu Lagoon and Creek sampling locations ranged from 0.0562 mg/L at L-002 to 0.333 mg/L at L-006.

6.2.5 Analytical Laboratory Quality Assurance and Quality Control

FGL performed Quality Assurance and Quality Control (QA/QC) measures including the recovery of surrogates. FGL followed all QA procedures per method requirements. Any exceedances are indicated in the Case Narrative of the analytical laboratory report. The Data Qualifier Flag (DQF) column of the analytical reports also has the QC flags; definitions for the QC flags are below the analytical tables.

7.0 SCHEDULED ACTIVITIES FOR THE FIRST QUARTER OF 2018

The following activities will be completed during the First Quarter of 2018:

- Prepare and submit the Fourth Quarter 2017 Groundwater and Surface Water Monitoring Report to the LARWQCB.
- Rincon will collect and analyze surface water samples for MRP compliance (Task I).
- Rincon will measure depth to water in the groundwater monitoring wells in January, February, and March (Task V).

8.0 SUMMARY OF MONITORING ACTIVITIES

In general, groundwater elevations decreased in most shallow groundwater monitoring wells located in close proximity to Malibu Creek and Lagoon during the fourth quarter of 2017. Deep groundwater monitoring well elevations remained relatively stable between October and November 2017, but decreased between November and December 2017. At Winter Canyon, well ID LAMW-5S experienced a gradual decline through the fourth quarter, while well ID SMBRP-11 remained relatively static. Shallow groundwater generally flows southeast to south, towards the coastline.



When comparing coliform bacteria results from the Fourth Quarter 2017 surface water monitoring event to past quarters, no trend was observed. Instead, a general variation was observed at both near shore surface water and Malibu Lagoon and Creek surface water sampling locations.

Nitrate as nitrogen concentrations in all surface water samples collected at the near shore sampling locations were 0.07 milligrams per liter (mg/L), which is below the analytical practical quantitation limit (reporting limit), but above the MDL.

Nitrate as nitrogen concentrations in surface water samples collected at Malibu Lagoon and Creek sampling locations ranged from 0.08 milligrams per liter (mg/L) at L-003 and L-004 (below the analytical reporting limit, but above the MDL) to 0.7 mg/L at L-001 and L-005.

Overall, the Fourth Quarter 2017 surface water monitoring event generally demonstrated consistent results to those observed in past events.

9.0 LIMITATIONS

This report has been prepared for and is intended for the exclusive use of the City of Malibu. The contents of this report should not be relied upon by any other party without the written consent of Rincon Consultants, Inc.

Our conclusions regarding the site are based on observations of existing site conditions, our interpretation of site usage information, and the results of a limited subsurface sampling and chemical testing program. The concentrations of contaminants measured at any given location may not be representative of conditions at other locations intermediate to the locations sampled. Furthermore, conditions may change at any particular location as a function of time in response to natural conditions, chemical reactions, and other events. Conclusions regarding the condition of the site do not represent a warranty that all areas within the site are similar to those sampled.



10.0 REFERENCES

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- Los Angeles Regional Water Quality Control Board. 2015. Waste Discharge Requirements / Water Recycling Requirements for Malibu Civic Center Wastewater Treatment Facility - Phase I & II.
- RMC Water. 2015a. Draft Salt Nutrient and Management Plan Malibu Valley Groundwater Basin.
- RMC Water. 2015b. Draft Groundwater Management Plan Malibu Valley Groundwater Basin.



Tables

Table 1
Groundwater Elevations

Shallow Groundwater Monitoring Wells				
Well ID	Date	TOC Elevation (ft)	Depth to Water (ft bTOC)	Groundwater Elevation
C-1	8/24/2015	11.47	N/A	-
C-1	9/21/2015	11.47	N/A	-
C-1	10/20/2015	11.47	N/A	-
C-1	11/16/2015	11.47	5.07	6.40
C-1	12/14/2015	11.47	4.12	7.35
C-1	1/14/2016	11.47	6.65	4.82
C-1	2/16/2016	11.47	6.65	4.82
C-1	3/14/2016	11.47	6.80	4.67
C-1	4/25/2016	11.47	5.72	5.75
C-1	5/16/2016	11.47	4.59	6.88
C-1	6/17/2016	11.47	4.72	6.75
C-1	7/20/2016	11.47	5.32	6.15
C-1	8/20/2016	11.47	5.42	6.05
C-1	9/19/2016	11.47	5.47	6.00
C-1	10/21/2016	11.47	5.64	5.83
C-1	11/18/2016	11.47	4.71	6.76
C-1	12/19/2016	11.47	6.75	4.72
C-1	1/17/2017	11.47	6.89	4.58
C-1	2/24/2017	11.47	7.28	4.19
C-1	3/27/2017	11.47	6.66	4.81
C-1	4/17/2017	11.47	7.32	4.15
C-1	5/22/2017	11.47	6.74	4.73
C-1	6/20/2017	11.47	4.49	6.98
C-1	7/28/2017	11.47	4.51	6.96
C-1	8/25/2017	11.47	4.61	6.86
C-1	9/11/2017	11.47	4.96	6.51
C-1	10/16/2017	11.47	5.13	6.34
C-1	11/15/2017	11.47	5.32	6.15
C-1	12/11/2017	11.47	7.7	3.77
C-2	8/24/2015	11.19	5.11	6.08
C-2	9/21/2015	11.19	4.92	6.27
C-2	10/20/2015	11.19	5.18	6.01
C-2	11/16/2015	11.19	4.96	6.23
C-2	12/14/2015	11.19	3.93	7.26
C-2	1/14/2016	11.19	6.44	4.75
C-2	2/16/2016	11.19	6.34	4.85
C-2	3/14/2016	11.19	6.50	4.69
C-2	4/25/2016	11.19	5.54	5.65
C-2	5/16/2016	11.19	4.49	6.70
C-2	6/17/2016	11.19	4.62	6.57
C-2	7/20/2016	11.19	5.16	6.03
C-2	8/20/2016	11.19	5.25	5.94
C-2	9/19/2016	11.19	5.21	5.98
C-2	10/21/2016	11.19	5.46	5.73
C-2	11/18/2016	11.19	4.48	6.71
C-2	12/19/2016	11.19	6.74	4.45
C-2	1/17/2017	11.19	6.51	4.68
C-2	2/24/2017	11.19	6.84	4.35
C-2	3/27/2017	11.19	6.55	4.64
C-2	4/17/2017	11.19	7.05	4.14
C-2	5/22/2017	11.19	6.54	4.65
C-2	6/20/2017	11.19	3.81	7.38
C-2	7/28/2017	11.19	4.37	6.82
C-2	8/25/2017	11.19	4.57	6.62
C-2	9/11/2017	11.19	4.86	6.33
C-2	10/16/2017	11.19	4.95	6.24
C-2	11/15/2017	11.19	5.04	6.15
C-2	12/11/2017	11.19	7.46	3.73

Table 1
Groundwater Elevations

Shallow Groundwater Monitoring Wells				
Well ID	Date	TOC Elevation (ft)	Depth to Water (ft bTOC)	Groundwater Elevation
CCPE	8/24/2015	12.94	5.76	7.18
CCPE	9/21/2015	12.94	5.61	7.33
CCPE	10/20/2015	12.94	5.87	7.07
CCPE	11/16/2015	12.94	5.79	7.15
CCPE	12/14/2015	12.94	4.52	8.42
CCPE	1/14/2016	12.94	7.95	4.99
CCPE	2/16/2016	12.94	8.27	4.67
CCPE	3/14/2016	12.94	8.35	4.59
CCPE	4/25/2016	12.94	7.13	5.81
CCPE	5/16/2016	12.94	5.72	7.22
CCPE	6/17/2016	12.94	6.54	6.40
CCPE	7/20/2016	12.94	6.09	6.85
CCPE	8/20/2016	12.94	6.43	6.51
CCPE	9/19/2016	12.94	6.80	6.14
CCPE	10/21/2016	12.94	6.67	6.27
CCPE	11/18/2016	12.94	5.61	7.33
CCPE	12/19/2016	12.94	11.63	1.31
CCPE	1/17/2017	12.94	8.38	4.56
CCPE	2/24/2017	12.94	8.67	4.27
CCPE	3/27/2017	12.94	8.21	4.73
CCPE	4/17/2017	12.94	8.9	4.04
CCPE	5/22/2017	12.94	8.25	4.69
CCPE	6/20/2017	12.94	5.73	7.21
CCPE	7/28/2017	12.94	5.47	7.47
CCPE	8/25/2017	12.94	5.68	7.26
CCPE	9/11/2017	12.94	6.00	6.94
CCPE	10/16/2017	12.94	5.6	7.34
CCPE	11/15/2017	12.94	5.82	7.12
CCPE	12/11/2017	12.94	8.7	4.24
CCPNE	8/24/2015	13.68	6.44	7.24
CCPNE	9/21/2015	13.68	6.27	7.41
CCPNE	10/20/2015	13.68	6.54	7.14
CCPNE	11/16/2015	13.68	6.74	6.94
CCPNE	12/14/2015	13.68	5.28	8.40
CCPNE	1/14/2016	13.68	8.51	5.17
CCPNE	2/16/2016	13.68	8.65	5.03
CCPNE	3/14/2016	13.68	8.65	5.03
CCPNE	4/25/2016	13.68	7.79	5.89
CCPNE	5/16/2016	13.68	6.39	7.29
CCPNE	6/17/2016	13.68	5.83	7.85
CCPNE	7/20/2016	13.68	6.79	6.89
CCPNE	8/20/2016	13.68	7.16	6.52
CCPNE	9/19/2016	13.68	7.52	6.16
CCPNE	10/21/2016	13.68	7.4	6.28
CCPNE	11/18/2016	13.68	6.32	7.36
CCPNE	12/19/2016	13.68	8.82	4.86
CCPNE	1/17/2017	13.68	8.66	5.02
CCPNE	2/24/2017	13.68	8.8	4.88
CCPNE	3/27/2017	13.68	9.37	4.31
CCPNE	4/17/2017	13.68	9.16	4.52
CCPNE	5/22/2017	13.68	8.97	4.71
CCPNE	6/20/2017	13.68	6.63	7.05
CCPNE	7/28/2017	13.68	6.26	7.42
CCPNE	8/25/2017	13.68	6.51	7.17
CCPNE	9/11/2017	13.68	6.81	6.87
CCPNE	10/16/2017	13.68	6.58	7.10
CCPNE	11/15/2017	13.68	6.52	7.16
CCPNE	12/11/2017	13.68	9.14	4.54

Table 1
Groundwater Elevations

Shallow Groundwater Monitoring Wells				
Well ID	Date	TOC Elevation (ft)	Depth to Water (ft bTOC)	Groundwater Elevation
CCPSW	8/24/2015	13.67	6.29	7.38
CCPSW	9/21/2015	13.67	6.09	7.58
CCPSW	10/20/2015	13.67	6.35	7.32
CCPSW	11/16/2015	13.67	6.24	7.43
CCPSW	12/14/2015	13.67	5.27	8.40
CCPSW	1/14/2016	13.67	8.22	5.45
CCPSW	2/16/2016	13.67	8.11	5.56
CCPSW	3/14/2016	13.67	8.05	5.62
CCPSW	4/25/2016	13.67	7.50	6.17
CCPSW	5/16/2016	13.67	6.18	7.49
CCPSW	6/17/2016	13.67	6.26	7.41
CCPSW	7/20/2016	13.67	6.60	7.07
CCPSW	8/20/2016	13.67	6.92	6.75
CCPSW	9/19/2016	13.67	7.28	6.39
CCPSW	10/21/2016	13.67	7.17	6.50
CCPSW	11/18/2016	13.67	6.22	7.45
CCPSW	12/19/2016	13.67	8.34	5.33
CCPSW	1/17/2017	13.67	8.03	5.64
CCPSW	2/24/2017	13.67	8.27	5.40
CCPSW	3/27/2017	13.67	9.32	4.35
CCPSW	4/17/2017	13.67	8.64	5.03
CCPSW	5/22/2017	13.67	8.86	4.81
CCPSW	6/20/2017	13.67	6.59	7.08
CCPSW	7/28/2017	13.67	6.17	7.50
CCPSW	8/25/2017	13.67	6.47	7.20
CCPSW	9/11/2017	13.67	6.76	6.91
CCPSW	10/16/2017	13.67	6.38	7.29
CCPSW	11/15/2017	13.67	6.36	7.31
CCPSW	12/11/2017	13.67	8.65	5.02
CCW-4	8/24/2015	15.77	6.50	9.27
CCW-4	9/21/2015	15.77	6.71	9.06
CCW-4	10/20/2015	15.77	6.90	8.87
CCW-4	11/16/2015	15.77	7.02	8.75
CCW-4	12/14/2015	15.77	7.05	8.72
CCW-4	1/14/2016	15.77	6.19	9.58
CCW-4	2/16/2016	15.77	6.17	9.60
CCW-4	3/14/2016	15.77	5.72	10.05
CCW-4	4/25/2016	15.77	5.28	10.49
CCW-4	5/16/2016	15.77	6.45	9.32
CCW-4	6/17/2016	15.77	6.70	9.07
CCW-4	7/20/2016	15.77	7.07	8.70
CCW-4	8/20/2016	15.77	7.33	8.44
CCW-4	9/19/2016	15.77	7.56	8.21
CCW-4	10/21/2016	15.77	7.68	8.09
CCW-4	11/18/2016	15.77	7.84	7.93
CCW-4	12/19/2016	15.77	7.09	8.68
CCW-4	1/17/2017	15.77	4.97	10.80
CCW-4	2/24/2017	15.77	2.04	13.73
CCW-4	3/27/2017	15.77	2.92	12.85
CCW-4	4/17/2017	15.77	5.3	10.47
CCW-4	5/22/2017	15.77	5.72	10.05
CCW-4	6/20/2017	15.77	6.27	9.50
CCW-4	7/28/2017	15.77	7.30	8.47
CCW-4	8/25/2017	15.77	7.74	8.03
CCW-4	9/11/2017	15.77	7.76	8.01
CCW-4	10/16/2017	15.77	6.99	8.78
CCW-4	11/15/2017	15.77	6.43	9.34
CCW-4	12/11/2017	15.77	6.36	9.41

Table 1
Groundwater Elevations

Shallow Groundwater Monitoring Wells				
Well ID	Date	TOC Elevation (ft)	Depth to Water (ft bTOC)	Groundwater Elevation
GH6-M1	8/24/2015	-	28.92	-
GH6-M1	9/21/2015	-	29.11	-
GH6-M1	10/20/2015	-	29.24	-
GH6-M1	11/16/2015	-	29.32	-
GH6-M1	12/14/2015	-	29.43	-
GH6-M1	1/14/2016	-	29.43	-
GH6-M1	2/16/2016	-	29.56	-
GH6-M1	3/14/2016	-	29.44	-
GH6-M1	4/25/2016	-	29.46	-
GH6-M1	5/16/2016	-	29.35	-
GH6-M1	6/17/2016	-	29.20	-
GH6-M1	7/20/2016	-	29.49	-
GH6-M1	8/20/2016	-	29.58	-
GH6-M1	9/19/2016	-	29.69	-
GH6-M1	10/21/2016	-	29.85	-
GH6-M1	11/18/2016	-	29.95	-
GH6-M1	12/19/2016	-	30.05	-
GH6-M1	1/17/2017	-	29.9	-
GH6-M1	2/24/2017	-	28.74	-
GH6-M1	3/27/2017	-	27.63	-
GH6-M1	4/17/2017	-	26.91	-
GH6-M1	5/22/2017	-	26.16	-
GH6-M1	6/20/2017	-	26.13	-
GH6-M1	7/28/2017	-	26.36	-
GH6-M1	8/25/2017	-	26.61	-
GH6-M1	9/11/2017	-	26.81	-
GH6-M1	10/16/2017	-	27.13	-
GH6-M1	11/15/2017	-	27.3	-
GH6-M1	12/11/2017	-	27.51	-
GH8-M3	8/24/2015	-	28.37	-
GH8-M3	9/21/2015	-	28.54	-
GH8-M3	10/20/2015	-	28.69	-
GH8-M3	11/16/2015	-	28.75	-
GH8-M3	12/14/2015	-	28.78	-
GH8-M3	1/14/2016	-	28.92	-
GH8-M3	2/16/2016	-	28.96	-
GH8-M3	3/14/2016	-	28.79	-
GH8-M3	4/25/2016	-	28.78	-
GH8-M3	5/16/2016	-	28.63	-
GH8-M3	6/17/2016	-	28.67	-
GH8-M3	7/20/2016	-	28.90	-
GH8-M3	8/20/2016	-	29.08	-
GH8-M3	9/19/2016	-	29.19	-
GH8-M3	10/21/2016	-	29.36	-
GH8-M3	11/18/2016	-	29.36	-
GH8-M3	12/19/2016	-	29.44	-
GH8-M3	1/17/2017	-	29.27	-
GH8-M3	2/24/2017	-	27.8	-
GH8-M3	3/27/2017	-	26.22	-
GH8-M3	4/17/2017	-	25.44	-
GH8-M3	5/22/2017	-	25.13	-
GH8-M3	6/20/2017	-	25.38	-
GH8-M3	7/28/2017	-	25.84	-
GH8-M3	8/25/2017	-	26.13	-
GH8-M3	9/11/2017	-	26.33	-
GH8-M3	10/16/2017	-	26.63	-
GH8-M3	11/15/2017	-	26.77	-
GH8-M3	12/11/2017	-	27.13	-

Table 1
Groundwater Elevations

Shallow Groundwater Monitoring Wells				
Well ID	Date	TOC Elevation (ft)	Depth to Water (ft bTOC)	Groundwater Elevation
GH9-M4	8/24/2015	-	30.31	-
GH9-M4	9/21/2015	-	30.54	-
GH9-M4	10/20/2015	-	30.66	-
GH9-M4	11/16/2015	-	30.75	-
GH9-M4	12/14/2015	-	30.86	-
GH9-M4	1/14/2016	-	34.54	-
GH9-M4	2/16/2016	-	31.12	-
GH9-M4	3/14/2016	-	31.07	-
GH9-M4	4/25/2016	-	34.32	-
GH9-M4	5/16/2016	-	32.80	-
GH9-M4	6/17/2016	-	30.56	-
GH9-M4	7/20/2016	-	30.90	-
GH9-M4	8/20/2016	-	31.09	-
GH9-M4	9/19/2016	-	31.18	-
GH9-M4	10/21/2016	-	31.29	-
GH9-M4	11/18/2016	-	30.87	-
GH9-M4	12/19/2016	-	31.11	-
GH9-M4	1/17/2017	-	30.79	-
GH9-M4	2/24/2017	-	30.53	-
GH9-M4	3/27/2017	-	24.94	-
GH9-M4	4/17/2017	-	24.79	-
GH9-M4	5/22/2017	-	29.08	-
GH9-M4	6/20/2017	-	26.3	-
GH9-M4	7/28/2017	-	27.14	-
GH9-M4	8/25/2017	-	27.57	-
GH9-M4	9/11/2017	-	27.67	-
GH9-M4	10/16/2017	-	27.92	-
GH9-M4	11/15/2017	-	28.27	-
GH9-M4	12/11/2017	-	28.7	-
M6-1	8/24/2015	-	6.61	-
M6-1	9/21/2015	-	6.43	-
M6-1	10/20/2015	-	6.72	-
M6-1	11/16/2015	-	6.68	-
M6-1	12/14/2015	-	6.35	-
M6-1	1/14/2016	-	6.63	-
M6-1	2/16/2016	-	7.03	-
M6-1	3/14/2016	-	6.45	-
M6-1	4/25/2016	-	7.15	-
M6-1	5/16/2016	-	6.85	-
M6-1	6/17/2016	-	7.04	-
M6-1	7/20/2016	-	7.34	-
M6-1	8/20/2016	-	7.61	-
M6-1	9/19/2016	-	7.87	-
M6-1	10/21/2016	-	7.83	-
M6-1	11/18/2016	-	7.19	-
M6-1	12/19/2016	-	7.26	-
M6-1	1/17/2017	-	5.81	-
M6-1	2/24/2017	-	4.96	-
M6-1	3/27/2017	-	7.17	-
M6-1	4/17/2017	-	6.77	-
M6-1	5/22/2017	-	7.74	-
M6-1	6/20/2017	-	7.14	-
M6-1	7/28/2017	-	6.97	-
M6-1	8/25/2017	-	7.14	-
M6-1	9/11/2017	-	7.18	-
M6-1	10/16/2017	-	6.71	-
M6-1	11/15/2017	-	6.57	-
M6-1	12/11/2017	-	7.2	-

Table 1
Groundwater Elevations

Shallow Groundwater Monitoring Wells				
Well ID	Date	TOC Elevation (ft)	Depth to Water (ft bTOC)	Groundwater Elevation
M6-2	8/24/2015	-	5.76	-
M6-2	9/21/2015	-	5.75	-
M6-2	10/20/2015	-	6.08	-
M6-2	11/16/2015	-	6.17	-
M6-2	12/14/2015	-	6.12	-
M6-2	1/14/2016	-	4.69	-
M6-2	2/16/2016	-	5.46	-
M6-2	3/14/2016	-	4.27	-
M6-2	4/25/2016	-	5.51	-
M6-2	5/16/2016	-	5.74	-
M6-2	6/17/2016	-	5.94	-
M6-2	7/20/2016	-	6.21	-
M6-2	8/20/2016	-	6.42	-
M6-2	9/19/2016	-	6.61	-
M6-2	10/21/2016	-	6.82	-
M6-2	11/18/2016	-	6.96	-
M6-2	12/19/2016	-	5.93	-
M6-2	1/17/2017	-	3.05	-
M6-2	2/24/2017	-	1.75	-
M6-2	3/27/2017	-	3.87	-
M6-2	4/17/2017	-	4.8	-
M6-2	5/22/2017	-	5.98	-
M6-2	6/20/2017	-	6.45	-
M6-2	7/28/2017	-	6.55	-
M6-2	8/25/2017	-	6.58	-
M6-2	9/11/2017	-	6.30	-
M6-2	10/16/2017	-	5.45	-
M6-2	11/15/2017	-	5.27	-
M6-2	12/11/2017	-	4.41	-
M7-1	8/24/2015	-	8.09	-
M7-1	9/21/2015	-	8.12	-
M7-1	10/20/2015	-	8.40	-
M7-1	11/16/2015	-	8.48	-
M7-1	12/14/2015	-	8.30	-
M7-1	1/14/2016	-	8.04	-
M7-1	2/16/2016	-	8.36	-
M7-1	3/14/2016	-	7.83	-
M7-1	4/25/2016	-	8.46	-
M7-1	5/16/2016	-	8.17	-
M7-1	6/17/2016	-	8.22	-
M7-1	7/20/2016	-	8.54	-
M7-1	8/20/2016	-	8.74	-
M7-1	9/19/2016	-	8.88	-
M7-1	10/21/2016	-	9.01	-
M7-1	11/18/2016	-	8.98	-
M7-1	12/19/2016	-	8.68	-
M7-1	1/17/2017	-	6.94	-
M7-1	2/24/2017	-	5.13	-
M7-1	3/27/2017	-	6.71	-
M7-1	4/17/2017	-	7.52	-
M7-1	5/22/2017	-	8.28	-
M7-1	6/20/2017	-	8.22	-
M7-1	7/28/2017	-	8.37	-
M7-1	8/25/2017	-	8.61	-
M7-1	9/11/2017	-	8.76	-
M7-1	10/16/2017	-	8.14	-
M7-1	11/15/2017	-	7.95	-
M7-1	12/11/2017	-	8.25	-

Table 1
Groundwater Elevations

Shallow Groundwater Monitoring Wells				
Well ID	Date	TOC Elevation (ft)	Depth to Water (ft bTOC)	Groundwater Elevation
M7-2	8/24/2015	-	7.78	-
M7-2	9/21/2015	-	7.91	-
M7-2	10/20/2015	-	8.15	-
M7-2	11/16/2015	-	8.27	-
M7-2	12/14/2015	-	8.28	-
M7-2	1/14/2016	-	7.34	-
M7-2	2/16/2016	-	7.74	-
M7-2	3/14/2016	-	7.03	-
M7-2	4/25/2016	-	7.84	-
M7-2	5/16/2016	-	7.70	-
M7-2	6/17/2016	-	7.77	-
M7-2	7/20/2016	-	8.05	-
M7-2	8/20/2016	-	8.26	-
M7-2	9/19/2016	-	8.42	-
M7-2	10/21/2016	-	8.64	-
M7-2	11/18/2016	-	8.88	-
M7-2	12/19/2016	-	8.21	-
M7-2	1/17/2017	-	5.91	-
M7-2	2/24/2017	-	3.56	-
M7-2	3/27/2017	-	5.29	-
M7-2	4/17/2017	-	6.88	-
M7-2	5/22/2017	-	7.73	-
M7-2	6/20/2017	-	8.07	-
M7-2	7/28/2017	-	8.28	-
M7-2	8/25/2017	-	8.58	-
M7-2	9/11/2017	-	7.45	-
M7-2	10/16/2017	-	7.64	-
M7-2	11/15/2017	-	7.58	-
M7-2	12/11/2017	-	7.68	-
MBCM7-7	8/24/2015	16.64	11.26	5.38
MBCM7-7	9/21/2015	16.64	10.94	5.70
MBCM7-7	10/20/2015	16.64	11.09	5.55
MBCM7-7	11/16/2015	16.64	11.11	5.53
MBCM7-7	12/14/2015	16.64	10.27	6.37
MBCM7-7	1/14/2016	16.64	11.39	5.25
MBCM7-7	2/16/2016	16.64	11.75	4.89
MBCM7-7	3/14/2016	16.64	11.55	5.09
MBCM7-7	4/25/2016	16.64	11.44	5.20
MBCM7-7	5/16/2016	16.64	11.22	5.42
MBCM7-7	6/17/2016	16.64	11.71	4.93
MBCM7-7	7/20/2016	16.64	12.12	4.52
MBCM7-7	8/20/2016	16.64	12.27	4.37
MBCM7-7	9/19/2016	16.64	12.65	3.99
MBCM7-7	10/21/2016	16.64	12.32	4.32
MBCM7-7	11/18/2016	16.64	10.31	6.33
MBCM7-7	12/19/2016	16.64	11.65	4.99
MBCM7-7	1/17/2017	16.64	11.29	5.35
MBCM7-7	2/24/2017	16.64	10.96	5.68
MBCM7-7	3/27/2017	16.64	12.84	3.80
MBCM7-7	4/17/2017	16.64	11.89	4.75
MBCM7-7	5/22/2017	16.64	12.56	4.08
MBCM7-7	6/20/2017	16.64	11.57	5.07
MBCM7-7	7/28/2017	16.64	11.35	5.29
MBCM7-7	8/25/2017	16.64	11.61	5.03
MBCM7-7	9/11/2017	16.64	9.28	7.36
MBCM7-7	10/16/2017	16.64	11.28	5.36
MBCM7-7	11/15/2017	16.64	11.12	5.52
MBCM7-7	12/11/2017	16.64	12.03	4.61

Table 1
Groundwater Elevations

Shallow Groundwater Monitoring Wells				
Well ID	Date	TOC Elevation (ft)	Depth to Water (ft bTOC)	Groundwater Elevation
MBCMW-8	8/24/2015	16.53	9.11	7.42
MBCMW-8	9/21/2015	16.53	9.13	7.40
MBCMW-8	10/20/2015	16.53	9.44	7.09
MBCMW-8	11/16/2015	16.53	9.58	6.95
MBCMW-8	12/14/2015	16.53	9.59	6.94
MBCMW-8	1/14/2016	16.53	8.05	8.48
MBCMW-8	2/16/2016	16.53	8.66	7.87
MBCMW-8	3/14/2016	16.53	7.36	9.17
MBCMW-8	4/25/2016	16.53	8.54	7.99
MBCMW-8	5/16/2016	16.53	8.89	7.64
MBCMW-8	6/17/2016	16.53	9.16	7.37
MBCMW-8	7/20/2016	16.53	9.46	7.07
MBCMW-8	8/20/2016	16.53	9.73	6.80
MBCMW-8	9/19/2016	16.53	9.99	6.54
MBCMW-8	10/21/2016	16.53	10.02	6.51
MBCMW-8	11/18/2016	16.53	10.11	6.42
MBCMW-8	12/19/2016	16.53	9.61	6.92
MBCMW-8	1/17/2017	16.53	7.03	9.50
MBCMW-8	2/24/2017	16.53	4.41	12.12
MBCMW-8	3/27/2017	16.53	6.13	10.40
MBCMW-8	4/17/2017	16.53	7.45	9.08
MBCMW-8	5/22/2017	16.53	7.89	8.64
MBCMW-8	6/20/2017	16.53	8.82	7.71
MBCMW-8	7/28/2017	16.53	9.57	6.96
MBCMW-8	8/25/2017	16.53	9.76	6.77
MBCMW-8	9/11/2017	16.53	10.03	6.50
MBCMW-8	10/16/2017	16.53	8.07	8.46
MBCMW-8	11/15/2017	16.53	7.84	8.69
MBCMW-8	12/11/2017	16.53	8.51	8.02
MBCMW-9	8/24/2015	17.71	8.70	9.01
MBCMW-9	9/21/2015	17.71	8.83	8.88
MBCMW-9	10/20/2015	17.71	9.00	8.71
MBCMW-9	11/16/2015	17.71	9.09	8.62
MBCMW-9	12/14/2015	17.71	9.09	8.62
MBCMW-9	1/14/2016	17.71	8.30	9.41
MBCMW-9	2/16/2016	17.71	8.06	9.65
MBCMW-9	3/14/2016	17.71	7.83	9.88
MBCMW-9	4/25/2016	17.71	8.21	9.50
MBCMW-9	5/16/2016	17.71	8.40	9.31
MBCMW-9	6/17/2016	17.71	8.64	9.07
MBCMW-9	7/20/2016	17.71	8.78	8.93
MBCMW-9	8/20/2016	17.71	8.80	8.91
MBCMW-9	9/19/2016	17.71	8.80	8.91
MBCMW-9	10/21/2016	17.71	9.29	8.42
MBCMW-9	11/18/2016	17.71	9.15	8.56
MBCMW-9	12/19/2016	17.71	8.75	8.96
MBCMW-9	1/17/2017	17.71	8.06	9.65
MBCMW-9	2/24/2017	17.71	5.11	12.60
MBCMW-9	3/27/2017	17.71	5.44	12.27
MBCMW-9	4/17/2017	17.71	5.99	11.72
MBCMW-9	5/22/2017	17.71	6.28	11.43
MBCMW-9	6/20/2017	17.71	6.76	10.95
MBCMW-9	7/28/2017	17.71	7.98	9.73
MBCMW-9	8/25/2017	17.71	8.31	9.40
MBCMW-9	9/11/2017	17.71	8.67	9.04
MBCMW-9	10/16/2017	17.71	7.83	9.88
MBCMW-9	11/15/2017	17.71	7.5	10.21
MBCMW-9	12/11/2017	17.71	7.73	9.98

Table 1
Groundwater Elevations

Shallow Groundwater Monitoring Wells				
Well ID	Date	TOC Elevation (ft)	Depth to Water (ft bTOC)	Groundwater Elevation
MBCMw-10	8/24/2015	17.74	8.63	9.11
MBCMw-10	9/21/2015	17.74	8.20	9.54
MBCMw-10	10/20/2015	17.74	8.40	9.34
MBCMw-10	11/16/2015	17.74	8.35	9.39
MBCMw-10	12/14/2015	17.74	7.34	10.40
MBCMw-10	1/14/2016	17.74	8.82	8.92
MBCMw-10	2/16/2016	17.74	9.34	8.40
MBCMw-10	3/14/2016	17.74	8.97	8.77
MBCMw-10	4/25/2016	17.74	9.22	8.52
MBCMw-10	5/16/2016	17.74	8.75	8.99
MBCMw-10	6/17/2016	17.74	8.58	9.16
MBCMw-10	7/20/2016	17.74	9.29	8.45
MBCMw-10	8/20/2016	17.74	9.52	8.22
MBCMw-10	9/19/2016	17.74	9.85	7.89
MBCMw-10	10/21/2016	17.74	9.67	8.07
MBCMw-10	11/18/2016	17.74	8.31	9.43
MBCMw-10	12/19/2016	17.74	8.97	8.77
MBCMw-10	1/17/2017	17.74	8.67	9.07
MBCMw-10	2/24/2017	17.74	8.55	9.19
MBCMw-10	3/27/2017	17.74	10.12	7.62
MBCMw-10	4/17/2017	17.74	9.43	8.31
MBCMw-10	5/22/2017	17.74	10.07	7.67
MBCMw-10	6/20/2017	17.74	8.87	8.87
MBCMw-10	7/28/2017	17.74	8.84	8.90
MBCMw-10	8/25/2017	17.74	8.92	8.82
MBCMw-10	9/11/2017	17.74	8.41	9.33
MBCMw-10	10/16/2017	17.74	8.38	9.36
MBCMw-10	11/15/2017	17.74	8.36	9.38
MBCMw-10	12/11/2017	17.74	9.7	8.04
MCWP-MW04S	8/24/2015	15.29	7.55	7.74
MCWP-MW04S	9/21/2015	15.29	7.67	7.62
MCWP-MW04S	10/20/2015	15.29	7.85	7.44
MCWP-MW04S	11/16/2015	15.29	7.99	7.30
MCWP-MW04S	12/14/2015	15.29	8.06	7.23
MCWP-MW04S	1/14/2016	15.29	6.48	8.81
MCWP-MW04S	2/16/2016	15.29	7.08	8.21
MCWP-MW04S	3/14/2016	15.29	5.92	9.37
MCWP-MW04S	4/25/2016	15.29	7.10	8.19
MCWP-MW04S	5/16/2016	15.29	7.36	7.93
MCWP-MW04S	6/17/2016	15.29	7.64	7.65
MCWP-MW04S	7/20/2016	15.29	7.95	7.34
MCWP-MW04S	8/20/2016	15.29	8.18	7.11
MCWP-MW04S	9/19/2016	15.29	8.35	6.94
MCWP-MW04S	10/21/2016	15.29	8.88	6.41
MCWP-MW04S	11/18/2016	15.29	8.4	6.89
MCWP-MW04S	12/19/2016	15.29	8.67	6.62
MCWP-MW04S	1/17/2017	15.29	6.62	8.67
MCWP-MW04S	2/24/2017	15.29	3.34	11.95
MCWP-MW04S	3/27/2017	15.29	5.2	10.09
MCWP-MW04S	4/17/2017	15.29	6.19	9.10
MCWP-MW04S	5/22/2017	15.29	6.73	8.56
MCWP-MW04S	6/20/2017	15.29	7.41	7.88
MCWP-MW04S	7/28/2017	15.29	7.91	7.38
MCWP-MW04S	8/25/2017	15.29	8.08	7.21
MCWP-MW04S	9/11/2017	15.29	7.87	7.42
MCWP-MW04S	10/16/2017	15.29	6.74	8.55
MCWP-MW04S	11/15/2017	15.29	6.71	8.58
MCWP-MW04S	12/11/2017	15.29	7.15	8.14

Table 1
Groundwater Elevations

Shallow Groundwater Monitoring Wells				
Well ID	Date	TOC Elevation (ft)	Depth to Water (ft bTOC)	Groundwater Elevation
MCWP-MW07S	8/24/2015	13.72	6.76	6.96
MCWP-MW07S	9/21/2015	13.72	7.13	6.59
MCWP-MW07S	10/20/2015	13.72	6.44	7.28
MCWP-MW07S	11/16/2015	13.72	6.74	6.98
MCWP-MW07S	12/14/2015	13.72	6.56	7.16
MCWP-MW07S	1/14/2016	13.72	6.19	7.53
MCWP-MW07S	2/16/2016	13.72	6.75	6.97
MCWP-MW07S	3/14/2016	13.72	5.85	7.87
MCWP-MW07S	4/25/2016	13.72	6.49	7.23
MCWP-MW07S	5/16/2016	13.72	6.73	6.99
MCWP-MW07S	6/17/2016	13.72	N/A	-
MCWP-MW07S	7/20/2016	13.72	6.18	7.54
MCWP-MW07S	8/20/2016	13.72	6.25	7.47
MCWP-MW07S	9/19/2016	13.72	6.48	7.24
MCWP-MW07S	10/21/2016	13.72	6.61	7.11
MCWP-MW07S	11/18/2016	13.72	6.7	7.02
MCWP-MW07S	12/19/2016	13.72	6.67	7.05
MCWP-MW07S	1/17/2017	13.72	6.11	7.61
MCWP-MW07S	2/24/2017	13.72	N/A	-
MCWP-MW07S	3/27/2017	13.72	N/A	-
MCWP-MW07S	4/17/2017	13.72	N/A	-
MCWP-MW07S	5/22/2017	13.72	N/A	-
MCWP-MW07S	6/20/2017	13.72	N/A	-
MCWP-MW07S	7/28/2017	13.72	5.79	7.93
MCWP-MW07S	8/25/2017	13.72	6.09	7.63
MCWP-MW07S	9/11/2017	13.72	6.02	7.70
MCWP-MW07S	10/16/2017	13.72	6.04	7.68
MCWP-MW07S	11/15/2017	13.72	6.5	7.22
MCWP-MW07S	12/11/2017	13.72	5.73	7.99
MCWP-MW08	8/24/2015	12.21	7.64	4.57
MCWP-MW08	9/21/2015	12.21	7.42	4.79
MCWP-MW08	10/20/2015	12.21	7.61	4.60
MCWP-MW08	11/16/2015	12.21	7.40	4.81
MCWP-MW08	12/14/2015	12.21	6.62	5.59
MCWP-MW08	1/14/2016	12.21	8.46	3.75
MCWP-MW08	2/16/2016	12.21	8.27	3.94
MCWP-MW08	3/14/2016	12.21	7.96	4.25
MCWP-MW08	4/25/2016	12.21	7.83	4.38
MCWP-MW08	5/16/2016	12.21	6.87	5.34
MCWP-MW08	6/17/2016	12.21	6.97	5.24
MCWP-MW08	7/20/2016	12.21	7.76	4.45
MCWP-MW08	8/20/2016	12.21	7.77	4.44
MCWP-MW08	9/19/2016	12.21	7.74	4.47
MCWP-MW08	10/21/2016	12.21	8.00	4.21
MCWP-MW08	11/18/2016	12.21	7.27	4.94
MCWP-MW08	12/19/2016	12.21	8.57	3.64
MCWP-MW08	1/17/2017	12.21	8.00	4.21
MCWP-MW08	2/24/2017	12.21	8.77	3.44
MCWP-MW08	3/27/2017	12.21	8.81	3.40
MCWP-MW08	4/17/2017	12.21	8.74	3.47
MCWP-MW08	5/22/2017	12.21	9.04	3.17
MCWP-MW08	6/20/2017	12.21	7.47	4.74
MCWP-MW08	7/28/2017	12.21	7.21	5.00
MCWP-MW08	8/25/2017	12.21	7.40	4.81
MCWP-MW08	9/11/2017	12.21	7.68	4.53
MCWP-MW08	10/16/2017	12.21	7.72	4.49
MCWP-MW08	11/15/2017	12.21	7.78	4.43
MCWP-MW08	12/11/2017	12.21	9.02	3.19

Table 1
Groundwater Elevations

Shallow Groundwater Monitoring Wells				
Well ID	Date	TOC Elevation (ft)	Depth to Water (ft bTOC)	Groundwater Elevation
MCWP-MW10	8/24/2015	11.11	5.70	5.41
MCWP-MW10	9/21/2015	11.11	5.55	5.56
MCWP-MW10	10/20/2015	11.11	5.81	5.30
MCWP-MW10	11/16/2015	11.11	5.74	5.37
MCWP-MW10	12/14/2015	11.11	4.59	6.52
MCWP-MW10	1/14/2016	11.11	8.09	3.02
MCWP-MW10	2/16/2016	11.11	7.98	3.13
MCWP-MW10	3/14/2016	11.11	8.04	3.07
MCWP-MW10	4/25/2016	11.11	7.07	4.04
MCWP-MW10	5/16/2016	11.11	5.63	5.48
MCWP-MW10	6/17/2016	11.11	5.73	5.38
MCWP-MW10	7/20/2016	11.11	6.02	5.09
MCWP-MW10	8/20/2016	11.11	6.34	4.77
MCWP-MW10	9/19/2016	11.11	6.70	4.41
MCWP-MW10	10/21/2016	11.11	6.61	4.50
MCWP-MW10	11/18/2016	11.11	5.57	5.54
MCWP-MW10	12/19/2016	11.11	N/A	-
MCWP-MW10	1/17/2017	11.11	8.11	3.00
MCWP-MW10	2/24/2017	11.11	8.45	2.66
MCWP-MW10	3/27/2017	11.11	8.7	2.41
MCWP-MW10	4/17/2017	11.11	8.58	2.53
MCWP-MW10	5/22/2017	11.11	8.26	2.85
MCWP-MW10	6/20/2017	11.11	5.7	5.41
MCWP-MW10	7/28/2017	11.11	5.43	5.68
MCWP-MW10	8/25/2017	11.11	5.64	5.47
MCWP-MW10	9/11/2017	11.11	6.10	5.01
MCWP-MW10	10/16/2017	11.11	5.88	5.23
MCWP-MW10	11/15/2017	11.11	5.83	5.28
MCWP-MW10	12/11/2017	11.11	8.23	2.88
P-4	8/24/2015	12.16	4.58	7.58
P-4	9/21/2015	12.16	4.47	7.69
P-4	10/20/2015	12.16	4.71	7.45
P-4	11/16/2015	12.16	4.65	7.51
P-4	12/14/2015	12.16	3.52	8.64
P-4	1/14/2016	12.16	6.93	5.23
P-4	2/16/2016	12.16	6.88	5.28
P-4	3/14/2016	12.16	6.92	5.24
P-4	4/25/2016	12.16	6.00	6.16
P-4	5/16/2016	12.16	4.57	7.59
P-4	6/17/2016	12.16	4.68	7.48
P-4	7/20/2016	12.16	4.95	7.21
P-4	8/20/2016	12.16	5.27	6.89
P-4	9/19/2016	12.16	5.63	6.53
P-4	10/21/2016	12.16	5.55	6.61
P-4	11/18/2016	12.16	4.51	7.65
P-4	12/19/2016	12.16	7.17	4.99
P-4	1/17/2017	12.16	6.98	5.18
P-4	2/24/2017	12.16	7.12	5.04
P-4	3/27/2017	12.16	7.71	4.45
P-4	4/17/2017	12.16	7.48	4.68
P-4	5/22/2017	12.16	7.22	4.94
P-4	6/20/2017	12.16	4.72	7.44
P-4	7/28/2017	12.16	4.35	7.81
P-4	8/25/2017	12.16	4.61	7.55
P-4	9/11/2017	12.16	4.94	7.22
P-4	10/16/2017	12.16	4.75	7.41
P-4	11/15/2017	12.16	4.74	7.42
P-4	12/11/2017	12.16	7.53	4.63

Table 1
Groundwater Elevations

Shallow Groundwater Monitoring Wells				
Well ID	Date	TOC Elevation (ft)	Depth to Water (ft bTOC)	Groundwater Elevation
P-9	8/24/2015	12.17	5.07	7.10
P-9	9/21/2015	12.17	4.90	7.27
P-9	10/20/2015	12.17	5.18	6.99
P-9	11/16/2015	12.17	5.08	7.09
P-9	12/14/2015	12.17	3.92	8.25
P-9	1/14/2016	12.17	7.49	4.68
P-9	2/16/2016	12.17	7.53	4.64
P-9	3/14/2016	12.17	7.66	4.51
P-9	4/25/2016	12.17	6.49	5.68
P-9	5/16/2016	12.17	5.02	7.15
P-9	6/17/2016	12.17	5.09	7.08
P-9	7/20/2016	12.17	5.34	6.83
P-9	8/20/2016	12.17	5.70	6.47
P-9	9/19/2016	12.17	6.06	6.11
P-9	10/21/2016	12.17	6.01	6.16
P-9	11/18/2016	12.17	4.91	7.26
P-9	12/19/2016	12.17	7.81	4.36
P-9	1/17/2017	12.17	7.68	4.49
P-9	2/24/2017	12.17	7.82	4.35
P-9	3/27/2017	12.17	8.00	4.17
P-9	4/17/2017	12.17	8.16	4.01
P-9	5/22/2017	12.17	7.59	4.58
P-9	6/20/2017	12.17	5.03	7.14
P-9	7/28/2017	12.17	4.77	7.40
P-9	8/25/2017	12.17	4.95	7.22
P-9	9/11/2017	12.17	5.37	6.80
P-9	10/16/2017	12.17	5.24	6.93
P-9	11/15/2017	12.17	5.2	6.97
P-9	12/11/2017	12.17	8.26	3.91
SMBRP-2	8/24/2015	13.13	6.04	7.09
SMBRP-2	9/21/2015	13.13	5.91	7.22
SMBRP-2	10/20/2015	13.13	6.16	6.97
SMBRP-2	11/16/2015	13.13	6.09	7.04
SMBRP-2	12/14/2015	13.13	4.84	8.29
SMBRP-2	1/14/2016	13.13	8.80	4.33
SMBRP-2	2/16/2016	13.13	8.54	4.59
SMBRP-2	3/14/2016	13.13	8.58	4.55
SMBRP-2	4/25/2016	13.13	7.59	5.54
SMBRP-2	5/16/2016	13.13	6.07	7.06
SMBRP-2	6/17/2016	13.13	6.14	6.99
SMBRP-2	7/20/2016	13.13	6.36	6.77
SMBRP-2	8/20/2016	13.13	6.73	6.40
SMBRP-2	9/19/2016	13.13	7.11	6.02
SMBRP-2	10/21/2016	13.13	6.98	6.15
SMBRP-2	11/18/2016	13.13	5.94	7.19
SMBRP-2	12/19/2016	13.13	8.87	4.26
SMBRP-2	1/17/2017	13.13	8.64	4.49
SMBRP-2	2/24/2017	13.13	8.94	4.19
SMBRP-2	3/27/2017	13.13	9.25	3.88
SMBRP-2	4/17/2017	13.13	9.15	3.98
SMBRP-2	5/22/2017	13.13	8.68	4.45
SMBRP-2	6/20/2017	13.13	5.78	7.35
SMBRP-2	7/28/2017	13.13	5.58	7.55
SMBRP-2	8/25/2017	13.13	5.74	7.39
SMBRP-2	9/11/2017	13.13	6.17	6.96
SMBRP-2	10/16/2017	13.13	6.22	6.91
SMBRP-2	11/15/2017	13.13	6.13	7.00
SMBRP-2	12/11/2017	13.13	9.22	3.91

Table 1
Groundwater Elevations

Shallow Groundwater Monitoring Wells				
Well ID	Date	TOC Elevation (ft)	Depth to Water (ft bTOC)	Groundwater Elevation
SMBRP-6	8/24/2015	26.88	16.49	10.39
SMBRP-6	9/21/2015	26.88	15.95	10.93
SMBRP-6	10/20/2015	26.88	16.66	10.22
SMBRP-6	11/16/2015	26.88	16.47	10.41
SMBRP-6	12/14/2015	26.88	14.78	12.10
SMBRP-6	1/14/2016	26.88	14.68	12.20
SMBRP-6	2/16/2016	26.88	15.22	11.66
SMBRP-6	3/14/2016	26.88	14.43	12.45
SMBRP-6	4/25/2016	26.88	16.60	10.28
SMBRP-6	5/16/2016	26.88	16.81	10.07
SMBRP-6	6/17/2016	26.88	17.87	9.01
SMBRP-6	7/20/2016	26.88	18.52	8.36
SMBRP-6	8/20/2016	26.88	19.01	7.87
SMBRP-6	9/19/2016	26.88	19.61	7.27
SMBRP-6	10/21/2016	26.88	18.13	8.75
SMBRP-6	11/18/2016	26.88	16.12	10.76
SMBRP-6	12/19/2016	26.88	14.46	12.42
SMBRP-6	1/17/2017	26.88	14.14	12.74
SMBRP-6	2/24/2017	26.88	13.14	13.74
SMBRP-6	3/27/2017	26.88	15.01	11.87
SMBRP-6	4/17/2017	26.88	14.79	12.09
SMBRP-6	5/22/2017	26.88	15.44	11.44
SMBRP-6	6/20/2017	26.88	15.87	11.01
SMBRP-6	7/28/2017	26.88	16.32	10.56
SMBRP-6	8/25/2017	26.88	16.39	10.49
SMBRP-6	9/11/2017	26.88	16.48	10.40
SMBRP-6	10/16/2017	26.88	16.27	10.61
SMBRP-6	11/15/2017	26.88	16.4	10.48
SMBRP-6	12/11/2017	26.88	16.4	10.48
SMBRP-7B	8/24/2015	18.99	10.69	8.30
SMBRP-7B	9/21/2015	18.99	10.62	8.37
SMBRP-7B	10/20/2015	18.99	10.77	8.22
SMBRP-7B	11/16/2015	18.99	10.78	8.21
SMBRP-7B	12/14/2015	18.99	10.60	8.39
SMBRP-7B	1/14/2016	18.99	10.83	8.16
SMBRP-7B	2/16/2016	18.99	11.08	7.91
SMBRP-7B	3/14/2016	18.99	10.84	8.15
SMBRP-7B	4/25/2016	18.99	11.23	7.76
SMBRP-7B	5/16/2016	18.99	11.04	7.95
SMBRP-7B	6/17/2016	18.99	11.08	7.91
SMBRP-7B	7/20/2016	18.99	11.31	7.68
SMBRP-7B	8/20/2016	18.99	11.54	7.45
SMBRP-7B	9/19/2016	18.99	11.68	7.31
SMBRP-7B	10/21/2016	18.99	11.81	7.18
SMBRP-7B	11/18/2016	18.99	11.49	7.50
SMBRP-7B	12/19/2016	18.99	11.33	7.66
SMBRP-7B	1/17/2017	18.99	10.18	8.81
SMBRP-7B	2/24/2017	18.99	8.13	10.86
SMBRP-7B	3/27/2017	18.99	9.68	9.31
SMBRP-7B	4/17/2017	18.99	9.90	9.09
SMBRP-7B	5/22/2017	18.99	10.51	8.48
SMBRP-7B	6/20/2017	18.99	10.71	8.28
SMBRP-7B	7/28/2017	18.99	10.99	8.00
SMBRP-7B	8/25/2017	18.99	11.66	7.33
SMBRP-7B	9/11/2017	18.99	11.86	7.13
SMBRP-7B	10/16/2017	18.99	11.12	7.87
SMBRP-7B	11/15/2017	18.99	10.77	8.22
SMBRP-7B	12/11/2017	18.99	11.11	7.88

Table 1
Groundwater Elevations

Shallow Groundwater Monitoring Wells				
Well ID	Date	TOC Elevation (ft)	Depth to Water (ft bTOC)	Groundwater Elevation
SMBRP-8 (EC-RC-MW01)	8/24/2015	48.69	28.74	19.95
SMBRP-8 (EC-RC-MW01)	9/21/2015	48.69	29.02	19.67
SMBRP-8 (EC-RC-MW01)	10/20/2015	48.69	28.76	19.93
SMBRP-8 (EC-RC-MW01)	11/16/2015	48.69	29.38	19.31
SMBRP-8 (EC-RC-MW01)	12/14/2015	48.69	29.32	19.37
SMBRP-8 (EC-RC-MW01)	1/14/2016	48.69	28.93	19.76
SMBRP-8 (EC-RC-MW01)	2/16/2016	48.69	29.18	19.51
SMBRP-8 (EC-RC-MW01)	3/14/2016	48.69	28.76	19.93
SMBRP-8 (EC-RC-MW01)	4/25/2016	48.69	29.40	19.29
SMBRP-8 (EC-RC-MW01)	5/16/2016	48.69	29.18	19.51
SMBRP-8 (EC-RC-MW01)	6/17/2016	48.69	29.38	19.31
SMBRP-8 (EC-RC-MW01)	7/20/2016	48.69	29.73	18.96
SMBRP-8 (EC-RC-MW01)	8/20/2016	48.69	30.02	18.67
SMBRP-8 (EC-RC-MW01)	9/19/2016	48.69	30.64	18.05
SMBRP-8 (EC-RC-MW01)	10/21/2016	48.69	31.02	17.67
SMBRP-8 (EC-RC-MW01)	11/18/2016	48.69	31.16	17.53
SMBRP-8 (EC-RC-MW01)	12/19/2016	48.69	30.83	17.86
SMBRP-8 (EC-RC-MW01)	1/17/2017	48.69	29.49	19.20
SMBRP-8 (EC-RC-MW01)	2/24/2017	48.69	26.78	21.91
SMBRP-8 (EC-RC-MW01)	3/27/2017	48.69	25.21	23.48
SMBRP-8 (EC-RC-MW01)	4/17/2017	48.69	24.34	24.35
SMBRP-8 (EC-RC-MW01)	5/22/2017	48.69	23.31	25.38
SMBRP-8 (EC-RC-MW01)	6/20/2017	48.69	23.54	25.15
SMBRP-8 (EC-RC-MW01)	7/28/2017	48.69	24.25	24.44
SMBRP-8 (EC-RC-MW01)	8/25/2017	48.69	24.98	23.71
SMBRP-8 (EC-RC-MW01)	9/11/2017	48.69	25.30	23.39
SMBRP-8 (EC-RC-MW01)	10/16/2017	48.69	26.1	22.59
SMBRP-8 (EC-RC-MW01)	11/15/2017	48.69	26.56	22.13
SMBRP-8 (EC-RC-MW01)	12/11/2017	48.69	27.02	21.67
SMBRP-9	8/24/2015	50.32	38.24	12.08
SMBRP-9	9/21/2015	50.32	38.46	11.86
SMBRP-9	10/20/2015	50.32	38.62	11.70
SMBRP-9	11/16/2015	50.32	N/A	-
SMBRP-9	12/14/2015	50.32	38.86	11.46
SMBRP-9	1/14/2016	50.32	38.95	11.37
SMBRP-9	2/16/2016	50.32	39.03	11.29
SMBRP-9	3/14/2016	50.32	38.97	11.35
SMBRP-9	4/25/2016	50.32	38.82	11.50
SMBRP-9	5/16/2016	50.32	38.82	11.50
SMBRP-9	6/17/2016	50.32	38.86	11.46
SMBRP-9	7/20/2016	50.32	39.06	11.26
SMBRP-9	8/20/2016	50.32	39.17	11.15
SMBRP-9	9/19/2016	50.32	39.33	10.99
SMBRP-9	10/21/2016	50.32	39.55	10.77
SMBRP-9	11/18/2016	50.32	39.67	10.65
SMBRP-9	12/19/2016	50.32	39.79	10.53
SMBRP-9	1/17/2017	50.32	39.82	10.50
SMBRP-9	2/24/2017	50.32	38.75	11.57
SMBRP-9	3/27/2017	50.32	37.59	12.73
SMBRP-9	4/17/2017	50.32	36.88	13.44
SMBRP-9	5/22/2017	50.32	35.82	14.50
SMBRP-9	6/20/2017	50.32	35.41	14.91
SMBRP-9	7/28/2017	50.32	35.13	15.19
SMBRP-9	8/25/2017	50.32	35.18	15.14
SMBRP-9	9/11/2017	50.32	35.48	14.84
SMBRP-9	10/16/2017	50.32	35.86	14.46
SMBRP-9	11/15/2017	50.32	36.24	14.08
SMBRP-9	12/11/2017	50.32	36.48	13.84

Table 1
Groundwater Elevations

Shallow Groundwater Monitoring Wells				
Well ID	Date	TOC Elevation (ft)	Depth to Water (ft bTOC)	Groundwater Elevation
SMBRP-10C	8/24/2015	16.25	7.37	8.88
SMBRP-10C	9/21/2015	16.25	7.64	8.61
SMBRP-10C	10/20/2015	16.25	7.96	8.29
SMBRP-10C	11/16/2015	16.25	8.16	8.09
SMBRP-10C	12/14/2015	16.25	8.06	8.19
SMBRP-10C	1/14/2016	16.25	6.11	10.14
SMBRP-10C	2/16/2016	16.25	6.57	9.68
SMBRP-10C	3/14/2016	16.25	4.80	11.45
SMBRP-10C	4/25/2016	16.25	6.59	9.66
SMBRP-10C	5/16/2016	16.25	6.86	9.39
SMBRP-10C	6/17/2016	16.25	6.90	9.35
SMBRP-10C	7/20/2016	16.25	7.72	8.53
SMBRP-10C	8/20/2016	16.25	8.12	8.13
SMBRP-10C	9/19/2016	16.25	8.54	7.71
SMBRP-10C	10/21/2016	16.25	8.78	7.47
SMBRP-10C	11/18/2016	16.25	8.89	7.36
SMBRP-10C	12/19/2016	16.25	7.95	8.30
SMBRP-10C	1/17/2017	16.25	2.72	13.53
SMBRP-10C	2/24/2017	16.25	0.99	15.26
SMBRP-10C	3/27/2017	16.25	2.06	14.19
SMBRP-10C	4/17/2017	16.25	3.97	12.28
SMBRP-10C	5/22/2017	16.25	5.52	10.73
SMBRP-10C	6/20/2017	16.25	6.22	10.03
SMBRP-10C	7/28/2017	16.25	6.89	9.36
SMBRP-10C	8/25/2017	16.25	7.28	8.97
SMBRP-10C	9/11/2017	16.25	7.51	8.74
SMBRP-10C	10/16/2017	16.25	7.37	8.88
SMBRP-10C	11/15/2017	16.25	7.38	8.87
SMBRP-10C	12/11/2017	16.25	7.43	8.82
SMBRP-12	8/24/2015	12.62	7.52	5.10
SMBRP-12	9/21/2015	12.62	6.91	5.71
SMBRP-12	10/20/2015	12.62	6.72	5.90
SMBRP-12	11/16/2015	12.62	6.75	5.87
SMBRP-12	12/14/2015	12.62	6.42	6.20
SMBRP-12	1/14/2016	12.62	6.95	5.67
SMBRP-12	2/16/2016	12.62	6.85	5.77
SMBRP-12	3/14/2016	12.62	6.09	6.53
SMBRP-12	4/25/2016	12.62	6.76	5.86
SMBRP-12	5/16/2016	12.62	6.40	6.22
SMBRP-12	6/17/2016	12.62	5.39	7.23
SMBRP-12	7/20/2016	12.62	6.05	6.57
SMBRP-12	8/20/2016	12.62	6.85	5.77
SMBRP-12	9/19/2016	12.62	6.44	6.18
SMBRP-12	10/21/2016	12.62	8.09	4.53
SMBRP-12	11/18/2016	12.62	6.52	6.10
SMBRP-12	12/19/2016	12.62	7.16	5.46
SMBRP-12	1/17/2017	12.62	6.48	6.14
SMBRP-12	2/24/2017	12.62	7.61	5.01
SMBRP-12	3/27/2017	12.62	6.96	5.66
SMBRP-12	4/17/2017	12.62	7.29	5.33
SMBRP-12	5/22/2017	12.62	7.63	4.99
SMBRP-12	6/20/2017	12.62	7.19	5.43
SMBRP-12	7/28/2017	12.62	6.68	5.94
SMBRP-12	8/25/2017	12.62	6.76	5.86
SMBRP-12	9/11/2017	12.62	7.02	5.60
SMBRP-12	10/16/2017	12.62	6.88	5.74
SMBRP-12	11/15/2017	12.62	7.08	5.54
SMBRP-12	12/11/2017	12.62	7.17	5.45

Table 1
Groundwater Elevations

Shallow Groundwater Monitoring Wells				
Well ID	Date	TOC Elevation (ft)	Depth to Water (ft bTOC)	Groundwater Elevation
SMBRP-13	8/24/2015	13.58	8.32	5.26
SMBRP-13	9/21/2015	13.58	7.98	5.60
SMBRP-13	10/20/2015	13.58	8.20	5.38
SMBRP-13	11/16/2015	13.58	7.87	5.71
SMBRP-13	12/14/2015	13.58	6.85	6.73
SMBRP-13	1/14/2016	13.58	8.24	5.34
SMBRP-13	2/16/2016	13.58	8.00	5.58
SMBRP-13	3/14/2016	13.58	7.61	5.97
SMBRP-13	4/25/2016	13.58	7.66	5.92
SMBRP-13	5/16/2016	13.58	6.92	6.66
SMBRP-13	6/17/2016	13.58	7.52	6.06
SMBRP-13	7/20/2016	13.58	8.30	5.28
SMBRP-13	8/20/2016	13.58	8.03	5.55
SMBRP-13	9/19/2016	13.58	7.45	6.13
SMBRP-13	10/21/2016	13.58	8.33	5.25
SMBRP-13	11/18/2016	13.58	7.14	6.44
SMBRP-13	12/19/2016	13.58	8.34	5.24
SMBRP-13	1/17/2017	13.58	7.48	6.10
SMBRP-13	2/24/2017	13.58	9.32	4.26
SMBRP-13	3/27/2017	13.58	7.83	5.75
SMBRP-13	4/17/2017	13.58	8.55	5.03
SMBRP-13	5/22/2017	13.58	8.81	4.77
SMBRP-13	6/20/2017	13.58	7.78	5.80
SMBRP-13	7/28/2017	13.58	8.01	5.57
SMBRP-13	8/25/2017	13.58	8.04	5.54
SMBRP-13	9/11/2017	13.58	8.42	5.16
SMBRP-13	10/16/2017	13.58	8.05	5.53
SMBRP-13	11/15/2017	13.58	8.2	5.38
SMBRP-13	12/11/2017	13.58	9	4.58
SMBRP-15B	8/24/2015	16.77	dry	-
SMBRP-15B	9/21/2015	16.77	dry	-
SMBRP-15B	10/20/2015	16.77	dry	-
SMBRP-15B	11/16/2015	16.77	dry	-
SMBRP-15B	12/14/2015	16.77	dry	-
SMBRP-15B	1/14/2016	16.77	dry	-
SMBRP-15B	2/16/2016	16.77	dry	-
SMBRP-15B	3/14/2016	16.77	dry	-
SMBRP-15B	4/25/2016	16.77	dry	-
SMBRP-15B	5/16/2016	16.77	dry	-
SMBRP-15B	6/17/2016	16.77	dry	-
SMBRP-15B	7/20/2016	16.77	dry	-
SMBRP-15B	8/20/2016	16.77	dry	-
SMBRP-15B	9/19/2016	16.77	dry	-
SMBRP-15B	10/21/2016	16.77	dry	-
SMBRP-15B	11/18/2016	16.77	dry	-
SMBRP-15B	12/19/2016	16.77	dry	-
SMBRP-15B	1/17/2017	16.77	dry	-
SMBRP-15B	2/24/2017	16.77	dry	-
SMBRP-15B	3/27/2017	16.77	dry	-
SMBRP-15B	4/17/2017	16.77	dry	-
SMBRP-15B	5/22/2017	16.77	dry	-
SMBRP-15B	6/20/2017	16.77	dry	-
SMBRP-15B	7/28/2017	16.77	dry	-
SMBRP-15B	8/25/2017	16.77	dry	-
SMBRP-15B	9/11/2017	16.77	dry	-
SMBRP-15B	10/16/2017	16.77	dry	-
SMBRP-15B	11/15/2017	16.77	dry	-
SMBRP-15B	12/11/2017	16.77	dry	-

Table 1
Groundwater Elevations

Shallow Groundwater Monitoring Wells				
Well ID	Date	TOC Elevation (ft)	Depth to Water (ft bTOC)	Groundwater Elevation
SMBRP-16	8/24/2015	14.50	4.95	9.55
SMBRP-16	9/21/2015	14.50	4.96	9.54
SMBRP-16	10/20/2015	14.50	5.34	9.16
SMBRP-16	11/16/2015	14.50	5.55	8.95
SMBRP-16	12/14/2015	14.50	5.59	8.91
SMBRP-16	1/14/2016	14.50	3.79	10.71
SMBRP-16	2/16/2016	14.50	4.60	9.90
SMBRP-16	3/14/2016	14.50	5.27	9.23
SMBRP-16	4/25/2016	14.50	4.65	9.85
SMBRP-16	5/16/2016	14.50	4.92	9.58
SMBRP-16	6/17/2016	14.50	5.15	9.35
SMBRP-16	7/20/2016	14.50	5.49	9.01
SMBRP-16	8/20/2016	14.50	5.72	8.78
SMBRP-16	9/19/2016	14.50	5.92	8.58
SMBRP-16	10/21/2016	14.50	6.18	8.32
SMBRP-16	11/18/2016	14.50	6.02	8.48
SMBRP-16	12/19/2016	14.50	5.23	9.27
SMBRP-16	1/17/2017	14.50	2.54	11.96
SMBRP-16	2/24/2017	14.50	0.51	13.99
SMBRP-16	3/27/2017	14.50	2.61	11.89
SMBRP-16	4/17/2017	14.50	4.28	10.22
SMBRP-16	5/22/2017	14.50	N/A	-
SMBRP-16	6/20/2017	14.50	N/A	-
SMBRP-16	7/28/2017	14.50	6.42	8.08
SMBRP-16	8/25/2017	14.50	6.63	7.87
SMBRP-16	9/11/2017	14.50	6.51	7.99
SMBRP-16	10/16/2017	14.50	4.84	9.66
SMBRP-16	11/15/2017	14.50	4.47	10.03
SMBRP-16	12/11/2017	14.50	4.8	9.70

Notes:

N/A: well not accessible

'-': no data available

TOC elevation referenced to NAVD88

TOC: top of well casing

ft bTOC: feet below top of well casing

Table 1
Groundwater Elevations

Deep Groundwater Monitoring Wells				
Well ID	Date	TOC Elevation (ft)	Depth to Water (ft bTOC)	Groundwater Elevation
MCWP-MW01	8/24/2015	17.90	10.22	7.68
MCWP-MW01	9/21/2015	17.90	9.71	8.19
MCWP-MW01	10/20/2015	17.90	10.00	7.90
MCWP-MW01	11/16/2015	17.90	9.91	7.99
MCWP-MW01	12/14/2015	17.90	9.23	8.67
MCWP-MW01	1/14/2016	17.90	10.45	7.45
MCWP-MW01	2/16/2016	17.90	11.02	6.88
MCWP-MW01	3/14/2016	17.90	10.53	7.37
MCWP-MW01	4/25/2016	17.90	10.89	7.01
MCWP-MW01	5/16/2016	17.90	10.70	7.20
MCWP-MW01	6/17/2016	17.90	10.75	7.15
MCWP-MW01	7/20/2016	17.90	11.09	6.81
MCWP-MW01	8/20/2016	17.90	11.30	6.60
MCWP-MW01	9/19/2016	17.90	11.13	6.77
MCWP-MW01	10/21/2016	17.90	11.19	6.71
MCWP-MW01	11/18/2016	17.90	9.94	7.96
MCWP-MW01	12/19/2016	17.90	10.56	7.34
MCWP-MW01	1/17/2017	17.90	10.17	7.73
MCWP-MW01	2/24/2017	17.90	10.68	7.22
MCWP-MW01	3/27/2017	17.90	11.47	6.43
MCWP-MW01	4/17/2017	17.90	11.33	6.57
MCWP-MW01	5/22/2017	17.90	11.83	6.07
MCWP-MW01	6/20/2017	17.90	10.47	7.43
MCWP-MW01	7/28/2017	17.90	10.45	7.45
MCWP-MW01	8/25/2017	17.90	10.29	7.61
MCWP-MW01	9/11/2017	17.90	10.60	7.30
MCWP-MW01	10/16/2017	17.90	10.06	7.84
MCWP-MW01	11/15/2017	17.90	9.99	7.91
MCWP-MW01	12/11/2017	17.90	11.57	6.33

Table 1
Groundwater Elevations

Deep Groundwater Monitoring Wells				
Well ID	Date	TOC Elevation (ft)	Depth to Water (ft bTOC)	Groundwater Elevation
MCWP-MW02	8/24/2015	18.06	10.39	7.67
MCWP-MW02	9/21/2015	18.06	9.92	8.14
MCWP-MW02	10/20/2015	18.06	10.25	7.81
MCWP-MW02	11/16/2015	18.06	10.16	7.90
MCWP-MW02	12/14/2015	18.06	9.14	8.92
MCWP-MW02	1/14/2016	18.06	10.68	7.38
MCWP-MW02	2/16/2016	18.06	11.13	6.93
MCWP-MW02	3/14/2016	18.06	10.72	7.34
MCWP-MW02	4/25/2016	18.06	11.08	6.98
MCWP-MW02	5/16/2016	18.06	10.55	7.51
MCWP-MW02	6/17/2016	18.06	10.82	7.24
MCWP-MW02	7/20/2016	18.06	11.10	6.96
MCWP-MW02	8/20/2016	18.06	11.35	6.71
MCWP-MW02	9/19/2016	18.06	11.59	6.47
MCWP-MW02	10/21/2016	18.06	11.41	6.65
MCWP-MW02	11/18/2016	18.06	10.16	7.90
MCWP-MW02	12/19/2016	18.06	10.82	7.24
MCWP-MW02	1/17/2017	18.06	10.44	7.62
MCWP-MW02	2/24/2017	18.06	10.68	7.38
MCWP-MW02	3/27/2017	18.06	11.96	6.10
MCWP-MW02	4/17/2017	18.06	11.35	6.71
MCWP-MW02	5/22/2017	18.06	12.03	6.03
MCWP-MW02	6/20/2017	18.06	10.74	7.32
MCWP-MW02	7/28/2017	18.06	10.56	7.50
MCWP-MW02	8/25/2017	18.06	10.62	7.44
MCWP-MW02	9/11/2017	18.06	10.79	7.27
MCWP-MW02	10/16/2017	18.06	10.28	7.78
MCWP-MW02	11/15/2017	18.06	10.49	7.57
MCWP-MW02	12/11/2017	18.06	8.65	9.41

Table 1
Groundwater Elevations

Deep Groundwater Monitoring Wells				
Well ID	Date	TOC Elevation (ft)	Depth to Water (ft bTOC)	Groundwater Elevation
MCWP-MW03	9/21/2015	15.31	7.52	7.79
MCWP-MW03	10/20/2015	15.31	7.78	7.53
MCWP-MW03	11/16/2015	15.31	7.34	7.97
MCWP-MW03	12/14/2015	15.31	6.75	8.56
MCWP-MW03	1/14/2016	15.31	8.38	6.93
MCWP-MW03	2/16/2016	15.31	8.43	6.88
MCWP-MW03	3/14/2016	15.31	8.05	7.26
MCWP-MW03	4/25/2016	15.31	8.63	6.68
MCWP-MW03	5/16/2016	15.31	8.35	6.96
MCWP-MW03	6/17/2016	15.31	8.50	6.81
MCWP-MW03	7/20/2016	15.31	8.30	7.01
MCWP-MW03	8/20/2016	15.31	8.87	6.44
MCWP-MW03	9/19/2016	15.31	8.23	7.08
MCWP-MW03	10/21/2016	15.31	8.94	6.37
MCWP-MW03	11/18/2016	15.31	7.64	7.67
MCWP-MW03	12/19/2016	15.31	8.09	7.22
MCWP-MW03	1/17/2017	15.31	7.63	7.68
MCWP-MW03	2/24/2017	15.31	N/A	-
MCWP-MW03	3/27/2017	15.31	N/A	-
MCWP-MW03	4/17/2017	15.31	N/A	-
MCWP-MW03	5/22/2017	15.31	N/A	-
MCWP-MW03	6/20/2017	15.31	N/A	-
MCWP-MW03	7/28/2017	15.31	8.02	7.29
MCWP-MW03	8/25/2017	15.31	7.58	7.73
MCWP-MW03	9/11/2017	15.31	7.92	7.39
MCWP-MW03	10/16/2017	15.31	7.39	7.92
MCWP-MW03	11/15/2017	15.31	7.7	7.61
MCWP-MW03	12/11/2017	15.31	9.25	6.06

Table 1
Groundwater Elevations

Deep Groundwater Monitoring Wells				
Well ID	Date	TOC Elevation (ft)	Depth to Water (ft bTOC)	Groundwater Elevation
MCWP-MW04D	8/24/2015	15.43	9.35	6.08
MCWP-MW04D	9/21/2015	15.43	8.84	6.59
MCWP-MW04D	10/20/2015	15.43	9.16	6.27
MCWP-MW04D	11/16/2015	15.43	9.13	6.30
MCWP-MW04D	12/14/2015	15.43	8.39	7.04
MCWP-MW04D	1/14/2016	15.43	9.59	5.84
MCWP-MW04D	2/16/2016	15.43	10.24	5.19
MCWP-MW04D	3/14/2016	15.43	9.69	5.74
MCWP-MW04D	4/25/2016	15.43	10.07	5.36
MCWP-MW04D	5/16/2016	15.43	9.83	5.60
MCWP-MW04D	6/17/2016	15.43	9.97	5.46
MCWP-MW04D	7/20/2016	15.43	10.22	5.21
MCWP-MW04D	8/20/2016	15.43	10.33	5.10
MCWP-MW04D	9/19/2016	15.43	10.32	5.11
MCWP-MW04D	10/21/2016	15.43	10.4	5.03
MCWP-MW04D	11/18/2016	15.43	9.12	6.31
MCWP-MW04D	12/19/2016	15.43	9.68	5.75
MCWP-MW04D	1/17/2017	15.43	9.34	6.09
MCWP-MW04D	2/24/2017	15.43	9.83	5.60
MCWP-MW04D	3/27/2017	15.43	10.61	4.82
MCWP-MW04D	4/17/2017	15.43	10.51	4.92
MCWP-MW04D	5/22/2017	15.43	10.99	4.44
MCWP-MW04D	6/20/2017	15.43	9.62	5.81
MCWP-MW04D	7/28/2017	15.43	9.62	5.81
MCWP-MW04D	8/25/2017	15.43	9.46	5.97
MCWP-MW04D	9/11/2017	15.43	9.72	5.71
MCWP-MW04D	10/16/2017	15.43	9.24	6.19
MCWP-MW04D	11/15/2017	15.43	9.13	6.30
MCWP-MW04D	12/11/2017	15.43	10.78	4.65

Table 1
Groundwater Elevations

Deep Groundwater Monitoring Wells				
Well ID	Date	TOC Elevation (ft)	Depth to Water (ft bTOC)	Groundwater Elevation
MCWP-MW05	8/24/2015	13.92	7.62	6.30
MCWP-MW05	9/21/2015	13.92	7.30	6.62
MCWP-MW05	10/20/2015	13.92	7.47	6.45
MCWP-MW05	11/16/2015	13.92	7.42	6.50
MCWP-MW05	12/14/2015	13.92	6.39	7.53
MCWP-MW05	1/14/2016	13.92	7.82	6.10
MCWP-MW05	2/16/2016	13.92	8.37	5.55
MCWP-MW05	3/14/2016	13.92	7.96	5.96
MCWP-MW05	4/25/2016	13.92	8.27	5.65
MCWP-MW05	5/16/2016	13.92	7.78	6.14
MCWP-MW05	6/17/2016	13.92	8.05	5.87
MCWP-MW05	7/20/2016	13.92	8.41	5.51
MCWP-MW05	8/20/2016	13.92	8.69	5.23
MCWP-MW05	9/19/2016	13.92	8.98	4.94
MCWP-MW05	10/21/2016	13.92	N/A	-
MCWP-MW05	11/18/2016	13.92	N/A	-
MCWP-MW05	12/19/2016	13.92	N/A	-
MCWP-MW05	1/17/2017	13.92	N/A	-
MCWP-MW05	2/24/2017	13.92	N/A	-
MCWP-MW05	3/27/2017	13.92	8.39	5.53
MCWP-MW05	4/17/2017	13.92	8.48	5.44
MCWP-MW05	5/22/2017	13.92	N/A	-
MCWP-MW05	6/20/2017	13.92	N/A	-
MCWP-MW05	7/28/2017	13.92	N/A	-
MCWP-MW05	8/25/2017	13.92	N/A	-
MCWP-MW05	9/11/2017	13.92	8.15	5.77
MCWP-MW05	10/16/2017	13.92	7.48	6.44
MCWP-MW05	11/15/2017	13.92	7.41	6.51
MCWP-MW05	12/11/2017	13.92	8.78	5.14

Table 1
Groundwater Elevations

Deep Groundwater Monitoring Wells				
Well ID	Date	TOC Elevation (ft)	Depth to Water (ft bTOC)	Groundwater Elevation
MCWP-MW06	8/24/2015	16.05	9.87	6.18
MCWP-MW06	9/21/2015	16.05	9.40	6.65
MCWP-MW06	10/20/2015	16.05	9.71	6.34
MCWP-MW06	11/16/2015	16.05	9.61	6.44
MCWP-MW06	12/14/2015	16.05	8.64	7.41
MCWP-MW06	1/14/2016	16.05	10.12	5.93
MCWP-MW06	2/16/2016	16.05	10.58	5.47
MCWP-MW06	3/14/2016	16.05	10.14	5.91
MCWP-MW06	4/25/2016	16.05	10.49	5.56
MCWP-MW06	5/16/2016	16.05	10.06	5.99
MCWP-MW06	6/17/2016	16.05	10.27	5.78
MCWP-MW06	7/20/2016	16.05	10.60	5.45
MCWP-MW06	8/20/2016	16.05	10.86	5.19
MCWP-MW06	9/19/2016	16.05	11.07	4.98
MCWP-MW06	10/21/2016	16.05	10.9	5.15
MCWP-MW06	11/18/2016	16.05	9.62	6.43
MCWP-MW06	12/19/2016	16.05	10.2	5.85
MCWP-MW06	1/17/2017	16.05	9.87	6.18
MCWP-MW06	2/24/2017	16.05	10.05	6.00
MCWP-MW06	3/27/2017	16.05	11.41	4.64
MCWP-MW06	4/17/2017	16.05	10.81	5.24
MCWP-MW06	5/22/2017	16.05	11.43	4.62
MCWP-MW06	6/20/2017	16.05	10.16	5.89
MCWP-MW06	7/28/2017	16.05	10.03	6.02
MCWP-MW06	8/25/2017	16.05	10.06	5.99
MCWP-MW06	9/11/2017	16.05	10.41	5.64
MCWP-MW06	10/16/2017	16.05	9.72	6.33
MCWP-MW06	11/15/2017	16.05	9.91	6.14
MCWP-MW06	12/11/2017	16.05	11.1	4.95

Table 1
Groundwater Elevations

Deep Groundwater Monitoring Wells				
Well ID	Date	TOC Elevation (ft)	Depth to Water (ft bTOC)	Groundwater Elevation
MCWP-MW07D	8/24/2015	13.21	7.51	5.70
MCWP-MW07D	9/21/2015	13.21	7.44	5.77
MCWP-MW07D	10/20/2015	13.21	7.67	5.54
MCWP-MW07D	11/16/2015	13.21	7.27	5.94
MCWP-MW07D	12/14/2015	13.21	6.59	6.62
MCWP-MW07D	1/14/2016	13.21	8.32	4.89
MCWP-MW07D	2/16/2016	13.21	8.32	4.89
MCWP-MW07D	3/14/2016	13.21	7.92	5.29
MCWP-MW07D	4/25/2016	13.21	8.47	4.74
MCWP-MW07D	5/16/2016	13.21	8.26	4.95
MCWP-MW07D	6/17/2016	13.21	8.45	4.76
MCWP-MW07D	7/20/2016	13.21	8.18	5.03
MCWP-MW07D	8/20/2016	13.21	8.77	4.44
MCWP-MW07D	9/19/2016	13.21	8.12	5.09
MCWP-MW07D	10/21/2016	13.21	8.81	4.40
MCWP-MW07D	11/18/2016	13.21	7.54	5.67
MCWP-MW07D	12/19/2016	13.21	7.99	5.22
MCWP-MW07D	1/17/2017	13.21	7.52	5.69
MCWP-MW07D	2/24/2017	13.21	N/A	-
MCWP-MW07D	3/27/2017	13.21	N/A	-
MCWP-MW07D	4/17/2017	13.21	N/A	-
MCWP-MW07D	5/22/2017	13.21	N/A	-
MCWP-MW07D	6/20/2017	13.21	N/A	-
MCWP-MW07D	7/28/2017	13.21	7.91	5.30
MCWP-MW07D	8/25/2017	13.21	7.44	5.77
MCWP-MW07D	9/11/2017	13.21	7.91	5.30
MCWP-MW07D	10/16/2017	13.21	7.2	6.01
MCWP-MW07D	11/15/2017	13.21	7.54	5.67
MCWP-MW07D	12/11/2017	13.21	9.12	4.09

Table 1
Groundwater Elevations

Deep Groundwater Monitoring Wells				
Well ID	Date	TOC Elevation (ft)	Depth to Water (ft bTOC)	Groundwater Elevation
MCWP-MW09	8/24/2015	16.30	5.69	10.61
MCWP-MW09	9/21/2015	16.30	5.42	10.88
MCWP-MW09	10/20/2015	16.30	5.68	10.62
MCWP-MW09	11/16/2015	16.30	5.50	10.80
MCWP-MW09	12/14/2015	16.30	4.75	11.55
MCWP-MW09	1/14/2016	16.30	6.37	9.93
MCWP-MW09	2/16/2016	16.30	6.42	9.88
MCWP-MW09	3/14/2016	16.30	6.04	10.26
MCWP-MW09	4/25/2016	16.30	6.38	9.92
MCWP-MW09	5/16/2016	16.30	5.85	10.45
MCWP-MW09	6/17/2016	16.30	5.96	10.34
MCWP-MW09	7/20/2016	16.30	6.44	9.86
MCWP-MW09	8/20/2016	16.30	6.54	9.76
MCWP-MW09	9/19/2016	16.30	6.26	10.04
MCWP-MW09	10/21/2016	16.30	6.71	9.59
MCWP-MW09	11/18/2016	16.30	5.68	10.62
MCWP-MW09	12/19/2016	16.30	6.31	9.99
MCWP-MW09	1/17/2017	16.30	5.79	10.51
MCWP-MW09	2/24/2017	16.30	6.78	9.52
MCWP-MW09	3/27/2017	16.30	7.12	9.18
MCWP-MW09	4/17/2017	16.30	6.83	9.47
MCWP-MW09	5/22/2017	16.30	7.72	8.58
MCWP-MW09	6/20/2017	16.30	6.24	10.06
MCWP-MW09	7/28/2017	16.30	5.76	10.54
MCWP-MW09	8/25/2017	16.30	5.78	10.52
MCWP-MW09	9/11/2017	16.30	5.85	10.45
MCWP-MW09	10/16/2017	16.30	5.9	10.40
MCWP-MW09	11/15/2017	16.30	5.7	10.60
MCWP-MW09	12/11/2017	16.30	7.1	9.20

Notes:

N/A: well not accessible

'-': no data available

TOC elevation referenced to NAVD88

TOC: top of well casing

ft bTOC: feet below top of well casing

Table 1
Groundwater Elevations

Winter Canyon Groundwater Monitoring Wells				
Well ID	Date	TOC Elevation (ft)	Depth to Water (ft bTOC)	Groundwater Elevation
LAMW-5S	8/24/2015	104.55	53.71	50.84
LAMW-5S	9/21/2015	104.55	53.30	51.25
LAMW-5S	10/20/2015	104.55	53.74	50.81
LAMW-5S	11/16/2015	104.55	53.90	50.65
LAMW-5S	12/14/2015	104.55	53.54	51.01
LAMW-5S	1/14/2016	104.55	54.02	50.53
LAMW-5S	2/16/2016	104.55	53.69	50.86
LAMW-5S	3/14/2016	104.55	53.92	50.63
LAMW-5S	4/25/2016	104.55	53.88	50.67
LAMW-5S	5/16/2016	104.55	53.98	50.57
LAMW-5S	6/17/2016	104.55	53.97	50.58
LAMW-5S	7/20/2016	104.55	54.23	50.32
LAMW-5S	8/20/2016	104.55	54.42	50.13
LAMW-5S	9/19/2016	104.55	54.77	49.78
LAMW-5S	10/21/2016	104.55	55	49.55
LAMW-5S	11/18/2016	104.55	54.91	49.64
LAMW-5S	12/19/2016	104.55	53.83	50.72
LAMW-5S	1/17/2017	104.55	53.81	50.74
LAMW-5S	2/24/2017	104.55	50.54	54.01
LAMW-5S	3/27/2017	104.55	48.71	55.84
LAMW-5S	4/17/2017	104.55	48.24	56.31
LAMW-5S	5/22/2017	104.55	48.23	56.32
LAMW-5S	6/20/2017	104.55	48.39	56.16
LAMW-5S	7/28/2017	104.55	49.08	55.47
LAMW-5S	8/25/2017	104.55	49.77	54.78
LAMW-5S	9/11/2017	104.55	49.75	54.80
LAMW-5S	10/16/2017	104.55	50.99	53.56
LAMW-5S	11/15/2017	104.55	51.66	52.89
LAMW-5S	12/11/2017	104.55	52.42	52.13
SMBRP-11	8/24/2015	18.35	8.88	9.47
SMBRP-11	9/21/2015	18.35	8.70	9.65
SMBRP-11	10/20/2015	18.35	8.36	9.99
SMBRP-11	11/16/2015	18.35	8.64	9.71
SMBRP-11	12/14/2015	18.35	8.35	10.00
SMBRP-11	1/14/2016	18.35	8.00	10.35
SMBRP-11	2/16/2016	18.35	8.30	10.05
SMBRP-11	3/14/2016	18.35	7.89	10.46
SMBRP-11	4/25/2016	18.35	8.63	9.72
SMBRP-11	5/16/2016	18.35	8.62	9.73
SMBRP-11	6/17/2016	18.35	8.39	9.96
SMBRP-11	7/20/2016	18.35	8.00	10.35
SMBRP-11	8/20/2016	18.35	8.44	9.91
SMBRP-11	9/19/2016	18.35	8.56	9.79
SMBRP-11	10/21/2016	18.35	8.71	9.64
SMBRP-11	11/18/2016	18.35	8.47	9.88
SMBRP-11	12/19/2016	18.35	8.71	9.64
SMBRP-11	1/17/2017	18.35	7.81	10.54
SMBRP-11	2/24/2017	18.35	7.22	11.13
SMBRP-11	3/27/2017	18.35	7.97	10.38
SMBRP-11	4/17/2017	18.35	8.19	10.16
SMBRP-11	5/22/2017	18.35	8.45	9.90
SMBRP-11	6/20/2017	18.35	8.41	9.94
SMBRP-11	7/28/2017	18.35	8.25	10.10
SMBRP-11	8/25/2017	18.35	8.26	10.09
SMBRP-11	9/11/2017	18.35	8.50	9.85
SMBRP-11	10/16/2017	18.35	8.51	9.84
SMBRP-11	11/15/2017	18.35	8.57	9.78
SMBRP-11	12/11/2017	18.35	8.65	9.70

Notes:

N/A: well not accessible

'-': no data available

TOC elevation referenced to NAVD88

TOC: top of well casing

ft bTOC: feet below top of well casing

Table 2
 Baseline Surface Water Analysis Matrix
 Fourth Quarter 2017

Surface Water	Location									
<i>Laboratory Analysis</i>	N-001	N-002	N-003	N-004	L-001	L-002	L-003	L-004	L-005	L-006
Total and Fecal Coliform	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Nitrate as Nitrogen	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Nitrite as Nitrogen	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Ammonia Nitrogen	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Organic Nitrogen	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Kjeldahl Nitrogen	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Total Phosphorous	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

Notes:

- ✓: Laboratory analysis completed
- : Sampling & analysis not required

Table 3
Surface Water Analytical Results

Location	Monitoring Depth	Sample ID	Sample Date	Coliform Bacteria Analysis (MPN/100mL)		Inorganic Analysis (mg/L)					
				Total	Fecal	Nitrate Nitrogen	Nitrite Nitrogen	Nitrogen, Organic	Ammonia Nitrogen	Kjeldahl Nitrogen	Phosphorous, Total
Near Shore	Ankle Depth	N-001	9/25/2015	70	46	<0.1	<0.1	<0.5	<0.2	<0.5	1.760
			12/1/2015	<1.8	<1.8	<0.1	<0.1	<0.5	<0.2	<0.5	0.775
			3/18/2016	<1.8	<1.8	0.1	<0.1	0.937	<0.2	0.937	0.400
			6/16/2016	<1.8	<1.8	<0.1	<0.1	<0.5	<0.2	<0.5	0.658
			9/23/2016	<1.8	<1.8	<0.1	<0.1	<0.5	<0.2	<0.5	1.970
			12/20/2016	49	49	0.1	<0.1	<0.5	<0.2	<0.5	1.010
			3/31/2017	14	6.8	0.2	<0.1	<0.5	<0.2	<0.5	1.690
			6/19/2017	23	7.8	<0.1	<0.1	0.519	<0.2	0.596	2.060
			8/29/2017	23	<1.8	<0.1	<0.1	<0.5	<0.2	<0.5	2.100
		12/28/2017	2	<1.8	0.07	0.012	<0.5	<0.2	<0.5	<0.1	
		N-002	9/25/2015	13	13	<0.1	<0.1	<0.5	<0.2	<0.5	1.480
			12/1/2015	<1.8	<1.8	<0.1	<0.1	<0.5	<0.2	<0.5	1.380
			3/18/2016	<1.8	<1.8	0.1	<0.1	<0.5	<0.2	<0.5	1.420
			6/16/2016	<1.8	<1.8	<0.1	<0.1	<0.5	<0.2	<0.5	1.030
			9/23/2016	240	6.8	<0.1	<0.1	<0.5	<0.2	<0.5	1.300
			12/20/2016	<1.8	<1.8	0.1	<0.1	<0.5	<0.2	<0.5	1.350
			3/31/2017	13	<1.8	0.1	<0.1	<0.5	<0.2	<0.5	0.127
			6/19/2017	<1.8	<1.8	<0.1	<0.1	2.25	<0.2	2.25	2.030
			8/29/2017	7.8	<1.8	<0.1	<0.1	<0.5	<0.2	<0.5	2.140
		12/28/2017	31	17	0.07	0.012	<0.5	<0.2	<0.5	<0.1	
		N-003	9/25/2015	11	4	<0.1	<0.1	<0.5	<0.2	<0.5	0.347
			12/1/2015	14	14	<0.1	<0.1	<0.5	<0.2	<0.5	1.460
			3/18/2016	13	<1.8	0.1	<0.1	0.865	<0.2	0.865	<0.1
			6/16/2016	<1.8	<1.8	<0.1	<0.1	<0.5	<0.2	<0.5	<0.1
			9/23/2016	2	2	<0.1	<0.1	<0.5	<0.2	<0.5	1.460
			12/20/2016	79	79	0.1	<0.1	<0.5	<0.2	<0.5	1.310
			3/31/2017	350	33	0.1	<0.1	10.8	<0.2	10.8	0.467
			6/19/2017	7.8	<1.8	<0.1	<0.1	<0.5	<0.2	<0.5	0.474
			8/29/2017	7.8	2.0	<0.1	<0.1	<0.5	<0.2	<0.5	1.150
		12/28/2017	17	14.0	0.07	<0.1	<0.5	<0.2	<0.5	<0.1	
		N-004	9/25/2015	14	9.3	<0.1	<0.1	<0.5	<0.2	<0.5	0.288
			12/1/2015	2	<1.8	<0.1	<0.1	<0.5	<0.2	<0.5	1.010
			3/18/2016	2	<1.8	0.1	<0.1	<0.5	<0.2	<0.5	0.648
			6/16/2016	6.8	<1.8	<0.1	<0.1	<0.5	<0.2	<0.5	1.250
			9/23/2016	4.5	<1.8	<0.1	<0.1	<0.5	<0.2	<0.5	1.290
			12/20/2016	7.8	<1.8	<0.1	<0.1	<0.5	<0.2	<0.5	1.290
3/31/2017	6.8		2	<0.1	0.153	<0.5	<0.2	<0.5	1.870		
6/19/2017	7.8		7.8	<0.1	<0.1	0.647	<0.2	0.647	1.240		
8/29/2017	79		79	<0.1	<0.1	<0.5	<0.2	<0.5	<0.1		
12/28/2017	17	17	0.07	0.012	<0.5	<0.2	<0.5	0.044			

Table 3
Surface Water Analytical Results

Location	Monitoring Depth	Sample ID	Sample Date	Coliform Bacteria Analysis (MPN/100mL)		Inorganic Analysis (mg/L)					
				Total	Fecal	Nitrate Nitrogen	Nitrite Nitrogen	Nitrogen, Organic	Ammonia Nitrogen	Kjeldahl Nitrogen	Phosphorous, Total
Malibu Lagoon and Creek	1 foot BSW	L-001	9/25/2015	920	49	<0.1	<0.1	2.26	<0.2	2.26	0.558
			12/1/2015	350	33	<0.1	<0.1	0.837	<0.2	0.837	0.218
			3/18/2016	350	23	0.3	<0.1	1.99	<0.2	1.99	0.635
			6/16/2016	350	4.5	<0.1	<0.1	0.696	<0.2	0.696	0.178
			9/23/2016	540	79	<0.1	<0.1	1.04	<0.2	1.04	0.153
			12/20/2016	1600	49	3.2	<0.1	<0.5	<0.2	<0.5	0.934
			3/31/2017	540	<1.8	1.5	<0.1	1.84	<0.2	1.84	0.577
			6/19/2017	350	49	0.6	<0.1	0.617	<0.2	0.617	0.387
			8/29/2017	>1,600	130	0.2	<0.1	0.834	<0.2	0.834	0.156
		12/28/2017	1600	70	0.7	0.017	<0.5	<0.2	<0.5	0.174	
		L-002	9/25/2015	920	49	<0.1	<0.1	1.83	<0.2	1.83	0.404
			12/1/2015	540	33	<0.1	<0.1	0.591	<0.2	0.591	0.226
			3/18/2016	280	49	0.6	<0.1	0.852	<0.2	0.852	0.379
			6/16/2016	33	2	<0.1	<0.1	0.964	<0.2	0.964	<0.1
			9/23/2016	14	4.5	0.1	<0.1	0.77	<0.2	0.77	<0.1
			12/20/2016	1600	240	1.6	<0.1	<0.5	<0.2	<0.5	0.621
			3/31/2017	130	33	1.5	<0.1	<0.5	<0.2	<0.5	0.464
			6/19/2017	540	33	0.2	<0.1	<0.5	<0.2	0.604	0.459
			8/29/2017	>1,600	7.8	<0.1	<0.1	1.21	<0.2	1.21	0.161
		12/28/2017	240	33	0.2	0.015	<0.5	<0.2	<0.5	0.056	
		L-003	9/25/2015	540	70	<0.1	<0.1	2.35	<0.2	2.35	0.379
			12/1/2015	240	17	<0.1	<0.1	<0.5	<0.2	<0.5	0.213
			3/18/2016	240	23	0.6	<0.1	1.03	<0.2	1.03	0.397
			6/16/2016	79	4	<0.1	<0.1	<0.5	<0.2	<0.5	0.139
			9/23/2016	23	4.5	<0.1	<0.1	1.21	<0.2	1.21	<0.1
			12/20/2016	220	31	2.7	<0.1	<0.5	<0.2	<0.5	0.984
			3/31/2017	70	23	1.2	<0.1	0.511	<0.2	0.511	0.446
			6/19/2017	220	17	<0.1	<0.1	0.714	<0.2	0.714	1.690
			8/29/2017	>1,600	33	<0.1	<0.1	0.898	<0.2	0.898	0.186
		12/28/2017	>1,600	13	0.08	<0.1	0.393	<0.2	0.393	<0.1	
		L-004	9/25/2015	170	23	<0.1	<0.1	2.67	<0.2	2.67	0.266
			12/1/2015	170	130	<0.1	<0.1	0.583	<0.2	0.583	0.200
			3/18/2016	350	170	0.5	<0.1	0.798	<0.2	0.798	0.350
			6/16/2016	49	2	<0.1	<0.1	0.667	<0.2	0.667	0.114
			9/23/2016	17	4.5	<0.1	<0.1	0.627	<0.2	0.627	<0.1
			12/20/2016	540	79	2.4	<0.1	<0.5	<0.2	<0.5	0.833
3/31/2017	540		170	0.4	<0.1	1.67	<0.2	1.67	0.394		
6/19/2017	540		350	<0.1	<0.1	1.06	<0.2	1.06	0.477		
8/29/2017	>1,600		49	<0.1	<0.1	0.653	<0.2	0.653	0.151		
12/28/2017	540	170	0.08	<0.1	<0.5	<0.2	<0.5	<0.1			

Table 3
Surface Water Analytical Results

Location	Monitoring Depth	Sample ID	Sample Date	Coliform Bacteria Analysis (MPN/100mL)		Inorganic Analysis (mg/L)					
				Total	Fecal	Nitrate Nitrogen	Nitrite Nitrogen	Nitrogen, Organic	Ammonia Nitrogen	Kjeldahl Nitrogen	Phosphorous, Total
Malibu Lagoon and Creek	1 foot BSW	L-005	9/25/2015	350	49	<0.1	<0.1	3.8	<0.2	3.8	0.372
			12/1/2015	350	49	<0.1	<0.1	<0.5	<0.2	<0.5	0.123
			3/18/2016	540	350	1.6	<0.1	1.37	<0.2	1.37	0.661
			6/16/2016	26	6.8	<0.1	<0.1	1.16	<0.2	1.16	0.133
			9/23/2016	7.8	7.8	<0.1	<0.1	<0.5	<0.2	0.53	<0.1
			12/20/2016	350	49	2.5	<0.1	<0.5	<0.2	<0.5	0.865
			3/31/2017	170	22	0.2	<0.1	<0.5	<0.2	<0.5	0.104
			6/19/2017	240	240	<0.1	<0.1	0.976	<0.2	0.976	0.902
			8/29/2017	920	70	<0.1	<0.1	1.22	<0.2	1.22	0.135
		12/28/2017	>1,600	>1,600	0.7	0.018	0.703	<0.2	0.703	0.191	
		L-006	9/25/2015	170	170	<0.1	<0.1	3.59	<0.2	3.67	0.320
			12/1/2015	350	49	<0.1	<0.1	<0.5	<0.2	<0.5	0.168
			3/18/2016	920	130	0.4	<0.1	1.46	<0.2	1.46	0.366
			6/16/2016	17	7.8	<0.1	<0.1	1.18	<0.2	1.18	0.172
			9/23/2016	7.8	7.8	<0.1	<0.1	1.24	<0.2	1.24	<0.1
			12/20/2016	130	14	0.3	<0.1	<0.5	<0.2	<0.5	0.287
			3/31/2017	540	11	<0.1	<0.1	13.6	<0.2	13.6	3.500
			6/19/2017	33	7.8	<0.1	<0.1	1.12	<0.2	1.12	0.714
8/29/2017	1,600		26	<0.1	<0.1	1.76	<0.2	1.76	0.110		
12/28/2017	920	170	0.07	<0.1	4.27	<0.2	4.27	0.333			

Notes:

mg/L: milligrams per liter

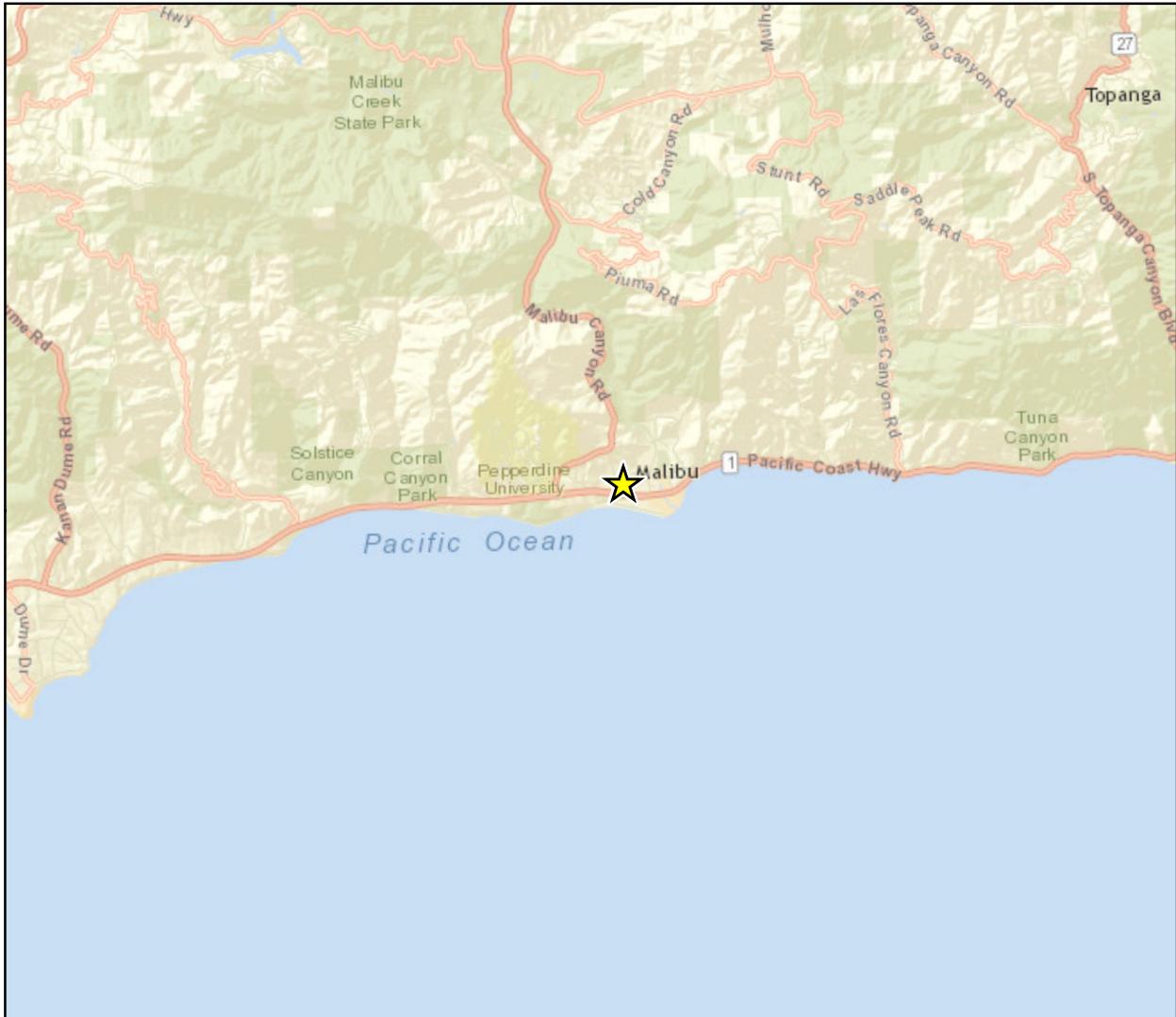
MPN/100mL: Most Probable Number per 100 milliliters

BSW: below surface water

<: not detected above the Practical Quantitation Limit (PQL)

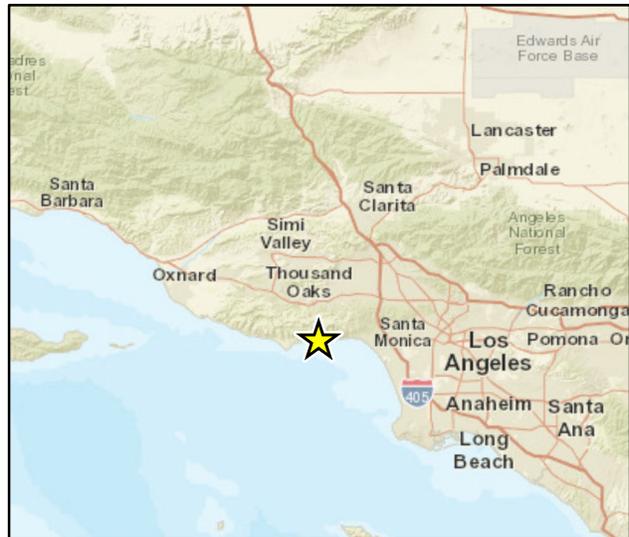
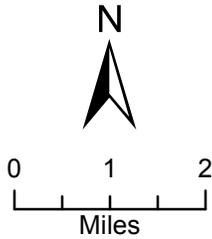
>: detected above the PQL

Figures



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★ Project Location



Vicinity Map

Figure 1



Imagery provided by Google and its licensors © 2018.

Site Map - Civic Center Area

Figure 2
 Rincon Consultants Inc.

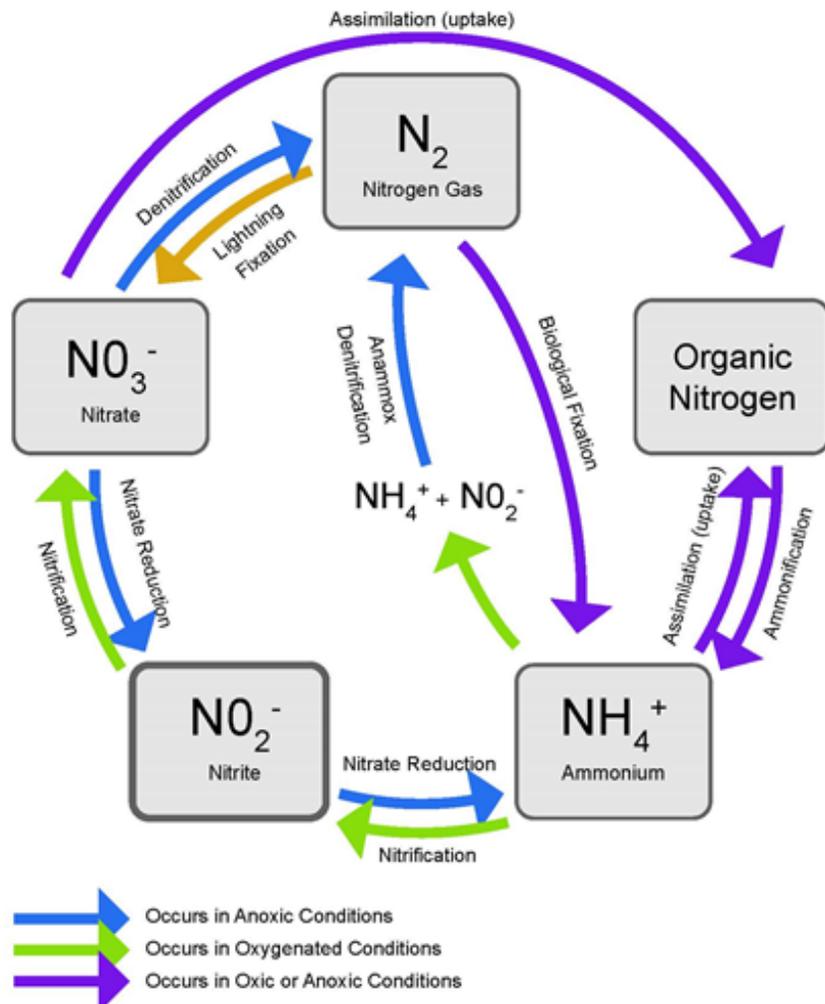


Figure 6

Appendix A

Groundwater and Surface Water Field Sheets

10-16-17

Legend

- Monthly Transducer Well
- Monthly
- Other Well



Set cones here
 TY-MW-1
 MCWP-MW07 (92)
 MCWP-MW03
 MCWP-MW07D
 SMBRP-11
 MCWP-MW08

0 500 Feet

earthforensics, inc.

MONTHLY GROUNDWATER WELLS
 Civic Center Area
 Malibu, CA

Date: 5/1/2016	Project Number: 2012.150	Page: 1
Project Name: MCWP		

XX

Table 1

Groundwater Monitoring Well Construction

Well ID	Total Well Depth (ft bTOC)	Well Diameter (in)	TOC Elevation (ft amsl)	Depth to Water 10/16/2017	Time (10/16/2017)	Time (9/11/2017)	Depth to Water 8/24/2015 (ft bTOC)
1 SMBRP-9	45	2	50.32	35.86	07:20 AM	7:32 AM	38.24
2 SMBRP-8 (EG-RC)	60	4		26.10	07:23 AM	7:39 AM	28.74
3 SMBRP-16	25	2	14.5	4.84	7:47 AM	7:47 AM	4.95
4 MBCMW-7	52.5	2	16.635	11.28	7:51 AM	7:51 AM	11.26
5 MBCMW-8	10	2	16.53	8.07	07:49 AM	7:53 AM	9.11
6 CCW-4		1	15.765	6.99	8:04 AM	7:56 AM	6.5
7 SMBRP-7b	45	2	18.985	11.12	7:54 AM	8:04 AM	10.69
8 MCWP-MW05	158	4		7.48	8:18 AM	8:08 AM	7.62
9 MBCMW-10	53	2	17.74	8.36	8:15 AM	8:14 AM	8.63
10 MBCMW-9	10	2	17.71	7.83	8:12 AM	8:15 AM	8.7
* 11 SMBRP-6	25	2	26.875	16.27	8:38 AM	8:27 AM	16.49
12 SMBRP-2	25	2	13.131	6.22	8:49 AM	8:39 AM	6.04
13 MCWP-MW10	60	2		5.88	9:02 AM	8:54 AM	5.7
14 C-2	14.5	2	11.19	4.95	9:10 AM	9:11 AM	5.11
15 C-1	14.5	n/a	11.47	5.13	9:12 AM	9:16 AM	n/a
16 P-4	12.5	4	12.155	4.75	9:27 AM	9:29 AM	4.58
17 P-9	14.3	4	12.165	5.24	9:29 AM	9:32 AM	5.07
18 CCPE	20	2	12.935	5.60	9:31 AM	9:36 AM	5.76
19 CCPNE		2	13.675	6.58	9:35 AM	9:39 AM	6.44
20 CCPSW		2	13.67	6.38	9:41 AM	9:44 AM	6.29
21 MCWP-MW06	153	2		9.72	9:46 AM	10:01 AM	9.87
22 MCWP-MW02	145	6	18.06	10.28	9:47 AM	10:05 AM	10.39
23 MCWP-MW01	148	6		10.06	9:55 AM	10:15 AM	10.22
24 MCWP-MW04D	148	4		9.24	9:54 AM	10:18 AM	9.35
25 MCWP-MW04S	20	4		6.74	9:53 AM	10:21 AM	7.55
26 SMBRP-10C	25	2	16.25	7.37	10:45 AM	10:27 AM	7.37
27 LAMW-5S	20	4	104.55	50.99	10:50 AM	10:36 AM	53.71
28 MCWP-MW07D	134	2		7.20	07:33 AM	10:52 AM	7.51

29	MCWP-MW03	134	6		7.39	07:35 AM	10:58 AM	7.65
30	SMBRP-11	20	2	18.35	8.51	0731	11:00 AM	8.88
31	M7-2 (S) (19.25')	25	2		7.64	10:05 AM	11:22 AM	7.78
32	M7-1 (D) (37.02')	40	2		8.14	10:07 AM	11:25 AM	8.09
33	GH9-M4	45	2		27.92	10:23 AM	11:40 AM	30.31
34	GH8-M3	40	2		26.63	10:25 AM	11:43 AM	28.37
35	GH6-M1	35	2		27.13	10:27 AM	11:52 AM	28.92
36	M6-2	20	2		6.71 5.45	10:32 AM	11:57 AM	5.76
37	M6-1	45	2		6.71	10:33 AM	12:00 PM	6.61
38	SMBRP-13	20	2	13.58	8.05	11:13 AM	12:16 PM	8.32
39	MCWP-MW08	77	2		7.72	11:11 AM	12:19 PM	7.64
40	MCWP-MW09	95	2	16.3	5.90 5.90	11:08 AM	12:24 PM	7.52
41	SMBRP-12	25	2	12.615	6.88	11:10 AM	12:26 PM	5.69
42	MCWP-MW07S	20	2		6.04	07:37 AM	3:15 PM	6.76
43	Lagoon	n/a			---	---	--	n/a
44	MBCMW-5	19.4	n/a	29.03	---	---	--	n/a
45	MBCMW-6	64.26	n/a	29.02	---	---	--	n/a
46	SMBRP-15b	25	1	16.765	Dry --- depth to bottom 8.12'	---	dry	dry, recorded depth

Table 1
Groundwater Monitoring Well Construction Details

Well ID	Total Well Depth (ft bTOC)	Well Diameter (in)	TOC Elevation (ft amsl)	Depth to Water 11/15/2017	Time	Depth to Water 8/24/2015 (ft bTOC)
1 C-1	14.5	n/a	11.47	5.32	1210	n/a
2 C-2	14.5	2	11.19	5.04	1215	5.11
3 CCPE	20	2	12.935	5.82	1055	5.76
4 CCPNE		2	13.675	6.52	1049	6.44
5 CCPSW		2	13.67	6.36	1110	6.29
6 CCW-4		1	15.765	6.43	0802	6.5
7 GH6-M1	35	2		27.30	1020	28.92
8 GH8-M3	40	2		26.77	1018	28.37
9 GH9-M4	45	2		28.27	1015	30.31
10 Lagoon		n/a		—	—	n/a
11 LAMW-5S	20	4	104.55	51.66	0845	53.71
12 M6-1	45	2		6.57	1025	6.61
13 M6-2	20	2		5.27	1027	5.76
14 M7-1	40	2		7.95	1034	8.09
15 M7-2	25	2		7.58	1033	7.78
16 MBCMW-5	19.4	n/a	29.03	—	—	n/a
17 MBCMW-6	64.26	n/a	29.02	—	—	n/a
18 MBCMW-7	52.5	2	16.635	11.12	0753	11.26
19 MBCMW-8	10	2	16.53	7.84	0750	9.11
20 MBCMW-9	10	2	17.71	7.50	0824	8.7
21 MBCMW-10	53	2	17.74	8.36	0822	8.63
22 MCWP-MW01	148	6		9.99	0857	10.22
23 MCWP-MW02	145	6	18.06	10.49	1117	10.39
24 MCWP-MW03	134	6		7.70	0910	7.65
25 MCWP-MW04D	148	4		9.13	0855	9.35
26 MCWP-MW04S	20	4		6.71	0853	7.55
27 MCWP-MW05	158	4		7.41	0829	7.62

28	MCWP-MW06	153	2		9.91	1118	9.87
29	MCWP-MW07D	134	2		7.54	0911	7.51
30	MCWP-MW07S	20	2		6.50	0913	6.76
31	MCWP-MW08	77	2		7.78	0943	7.64
32	MCWP-MW09	95	2	16.3	5.70	0938	7.52
33	MCWP-MW10	60	2		5.83	1202	5.7
34	P-4	12.5	4	12.155	4.74	1100	4.58
35	P-9	14.3	4	12.165	5.20	1104	5.07
36	SMBRP-2	25	2	13.131	6.13	1145	6.04
37	SMBRP-6	25	2	26.875	16.40	1135	16.49
38	SMBRP-7b	45	2	18.985	10.77	0810	10.69
39	SMBRP-8 (EG-RC MW01)	60	4		26.56	0735	28.74
40	SMBRP-9	45	2	50.32	36.24	0728	38.24
41	SMBRP-10C	25	2	16.25	7.38	0834	7.37
42	SMBRP-11	20	2	18.35	8.57	0917	8.88
43	SMBRP-12	25	2	12.615	7.08	0936	5.69
44	SMBRP-13	20	2	13.58	8.20	0940	8.32
45	SMBRP-15b	25	1	16.765	DRY (TD=7.62)	0924	dry, recorded depth
46	SMBRP-16	25	2	14.5	4.47	0740	4.95

Table 1
Groundwater Monitoring Well Construction

	Well ID	Total Well Depth (ft bTOC)	Well Diameter (in)	TOC Elevation (ft amsl)	Depth to Water 12/11/2017	Time	Depth to Water 8/24/2015 (ft bTOC)
1	C-1	14.5	n/a	11.47	7.70	1225	n/a
2	C-2	14.5	2	11.19	7.46	1230	5.11
3	CCPE	20	2	12.935	9.70	1045	5.76
4	CCPNE		2	13.675	9.14	1049	6.44
5	CCPSW		2	13.67	9.65	1054	6.29
6	CCW-4		1	15.765	6.36	0911	6.5
7	GH6-M1	35	2		27.51	0948	28.92
8	GH8-M3	40	2		27.13	0951	28.37
9	GH9-M4	45	2		28.70	0953	30.31
10	Lagoon		n/a		—		n/a
11	LAMW-5S	20	4	104.55	52.42	0841	53.71
12	M6-1	45	2		7.20	1000	6.61
13	M6-2	20	2		4.41	1002	5.76
14	M7-1	40	2		8.25	0934	8.09
15	M7-2	25	2		7.68	0935	7.78
16	MBCMW-5	19.4	n/a	29.03	—	—	n/a
17	MBCMW-6	64.26	n/a	29.02	—	—	n/a
18	MBCMW-7	52.5	2	16.635	12.03	0855	11.26
19	MBCMW-8	10	2	16.53	8.51	0851	9.11
20	MBCMW-9	10	2	17.71	7.73	0916	8.7
21	MBCMW-10	53	2	17.74	9.70	0914	8.63
22	MCWP-MW01	148	6		11.57	1115	10.22
23	MCWP-MW02	145	6	18.06	8.65	1106	10.39
24	MCWP-MW03	134	6		9.25	1030	7.65
25	MCWP-MW04D	148	4		10.78	1113	9.35
26	MCWP-MW04S	20	4		7.15	1112	7.55
27	MCWP-MW05	158	4		8.78	0920	7.62

28	MCWP-MW06	153	2		11.10	1104	9.87
29	MCWP-MW07D	134	2		9.12	1133	7.51
30	MCWP-MW07S	20	2		5.73	1134	6.76
31	MCWP-MW08	77	2		9.02	1152	7.64
32	MCWP-MW09	95	2	16.3	7.10	1146	7.52
33	MCWP-MW10	60	2		8.23	1245	5.7
34	P-4	12.5	4	12.155	7.53	1032	4.58
35	P-9	14.3	4	12.165	8.26	1040	5.07
36	SMBRP-2	25	2	13.131	9.22	1030	6.04
37	SMBRP-6	25	2	26.875	16.40	1019	16.49
38	SMBRP-7b	45	2	18.985	11.11	0924	10.69
39	SMBRP-8 (EG-RC)	60	4		27.02	0929	28.74
40	SMBRP-9	45	2	50.32	36.48	0820	38.24
41	SMBRP-10C	25	2	16.25	7.43	0934	7.37
42	SMBRP-11	20	2	18.35	8.65	1135	8.88
43	SMBRP-12	25	2	12.615	7.17	1147	5.69
44	SMBRP-13	20	2	13.58	9.00	1153	8.32
45	SMBRP-15b	25	1	16.765	DRY TD = 7.65	1201	dry, recorded depth 8.77
46	SMBRP-16	25	2	14.5	4.80	0900	4.95

Appendix B

Analytical Laboratory Reports

January 8, 2018

Rincon Consultants, Inc.
 Attn: Torin Snyder
 180 N. Ashwood Ave.
 Ventura, CA 93003

SP 1715972:1-10 COLIFORM BACTERIA ANALYSIS
 Customer ID : 2-25173

System Number :
 Project Name : Malibu WWTP - Surface Water Monitoring

Sample Handling Information

ID	Sample Number	Sample Description	Sample Type/Reason	Sampled By	Employed By	Sampled	Started	Finished
1	SP 1715972-001	N-001	Source-Other	Jaime McClain	Not Available	12/28/2017 11:00	12/28/2017 15:08 lm	12/31/2017 lm
2	SP 1715972-002	N-002	Source-Other	Jaime McClain	Not Available	12/28/2017 10:35	12/28/2017 15:10 lm	12/30/2017 lm
3	SP 1715972-003	N-003	Source-Other	Jaime McClain	Not Available	12/28/2017 10:00	12/28/2017 15:12 lm	12/31/2017 lm
4	SP 1715972-004	N-004	Source-Other	Jaime McClain	Not Available	12/28/2017 11:53	12/28/2017 15:14 lm	12/31/2017 lm
5	SP 1715972-005	L-001	Source-Other	Jaime McClain	Not Available	12/28/2017 12:27	12/28/2017 15:16 lm	12/31/2017 lm
6	SP 1715972-006	L-002	Source-Other	Jaime McClain	Not Available	12/28/2017 13:20	12/28/2017 15:18 lm	12/31/2017 lm
7	SP 1715972-007	L-003	Source-Other	Jaime McClain	Not Available	12/28/2017 12:48	12/28/2017 15:20 lm	12/31/2017 lm
8	SP 1715972-008	L-004	Source-Other	Jaime McClain	Not Available	12/28/2017 09:45	12/28/2017 15:22 lm	12/30/2017 lm
9	SP 1715972-009	L-005	Source-Other	Jaime McClain	Not Available	12/28/2017 11:20	12/28/2017 15:24 lm	12/30/2017 lm
10	SP 1715972-010	L-006	Source-Other	Jaime McClain	Not Available	12/28/2017 09:50	12/28/2017 15:26 lm	12/31/2017 lm

Analytical Results

ID	Sample Description	Chlorine Total/Free	Temp °C	Method	Units	Total	Fecal	E. Coli	Person Notified ‡	Date ‡ Notified	Time ‡ Notified	Foot Note
1	N-001	---	---	SM 9221B	MPN/100ml	2	< 1.8	---	N/R			
2	N-002	---	---	SM 9221B	MPN/100ml	31	17	---	N/R			
3	N-003	---	---	SM 9221B	MPN/100ml	17	14	---	N/R			
4	N-004	---	---	SM 9221B	MPN/100ml	17	17	---	N/R			
5	L-001	---	---	SM 9221B	MPN/100ml	1600	70	---	N/R			
6	L-002	---	---	SM 9221B	MPN/100ml	240	33	---	N/R			
7	L-003	---	---	SM 9221B	MPN/100ml	> 1600	13	---	N/R			
8	L-004	---	---	SM 9221B	MPN/100ml	540	170	---	N/R			
9	L-005	---	---	SM 9221B	MPN/100ml	> 1600	> 1600	---	N/R			
10	L-006	---	---	SM 9221B	MPN/100ml	920	170	---	N/R			

N/R Not Required. MPN Most Probable Number A/P Absence/Presence

‡ Client Notification details.

Analyses were performed using Standard Methods 22nd edition. If you have any questions regarding your results, please call.

Reviewed and
 Approved By

Raquel R. Harvey



Digitally signed by Raquel R. Harvey
 Title: Tech Director Microbiology
 Date: 2018-01-09

January 22, 2018

Rincon Consultants, Inc.
 Attn: Torin Snyder
 180 N. Ashwood Ave.
 Ventura, CA 93003

Lab ID : SP 1715972
 Customer : 2-25173

Laboratory Report

Introduction: This report package contains total of 14 pages divided into 3 sections:

Case Narrative (2 pages) : An overview of the work performed at FGL.
 Sample Results (10 pages) : Results for each sample submitted.
 Quality Control (2 pages) : 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
N-001	12/28/2017	12/28/2017	SP 1715972-001	SW
N-002	12/28/2017	12/28/2017	SP 1715972-002	SW
N-003	12/28/2017	12/28/2017	SP 1715972-003	SW
N-004	12/28/2017	12/28/2017	SP 1715972-004	SW
L-001	12/28/2017	12/28/2017	SP 1715972-005	SW
L-002	12/28/2017	12/28/2017	SP 1715972-006	SW
L-003	12/28/2017	12/28/2017	SP 1715972-007	SW
L-004	12/28/2017	12/28/2017	SP 1715972-008	SW
L-005	12/28/2017	12/28/2017	SP 1715972-009	SW
L-006	12/28/2017	12/28/2017	SP 1715972-010	SW

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:

Inorganic - Wet Chemistry QC

351.2	01/03/2018:200069 All preparation quality controls are within established criteria.
	01/10/2018:200335 All preparation quality controls are within established criteria, except: The following note applies to Nitrogen, Total Kjeldahl: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery. The following note applies to Nitrogen, Total Kjeldahl: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.

January 22, 2018
Rincon Consultants, Inc.

Lab ID : SP 1715972
 Customer : 2-25173

Inorganic - Wet Chemistry QC

351.2	01/11/2018:200377 All preparation quality controls are within established criteria.
4500NH3G	12/29/2017:219378 All analysis quality controls are within established criteria.
	12/29/2017:215435 All preparation quality controls are within established criteria.
4500NO2F	12/28/2017:215426 All preparation quality controls are within established criteria.
4500NO3F	12/28/2017:219388 All analysis quality controls are within established criteria.
	12/28/2017:219391 All analysis quality controls are within established criteria.
	12/28/2017:215424 All preparation quality controls are within established criteria.
4500-P B	01/07/2018:200230 All preparation quality controls are within established criteria.
	01/13/2018:200475 All preparation quality controls are within established criteria.
	01/18/2018:200687 All preparation quality controls are within established criteria.
4500PE	01/07/2018:200273 All analysis quality controls are within established criteria.
	01/13/2018:200537 All analysis quality controls are within established criteria.
	01/19/2018:200833 All analysis quality controls are within established criteria.
EPA351.2	01/04/2018:200152 All analysis quality controls are within established criteria.
	01/10/2018:200420 All analysis quality controls are within established criteria.
	01/12/2018:200485 All analysis 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.**



Digitally signed by Kelly A. Dunnahoo, B.S.
 Title: Laboratory Director
 Date: 2018-01-22

January 22, 2018

Lab ID : SP 1715972-001
 Customer ID : 2-25173

Rincon Consultants, Inc.

Attn: Torin Snyder
 180 N. Ashwood Ave.
 Ventura, CA 93003

Sampled On : December 28, 2017-11:00
 Sampled By : Jaime McClain
 Received On : December 28, 2017-14:47
 Matrix : Surface Water

Description : N-001
 Project : Malibu WWTP - Surface Water Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Wet Chemistry												
Nitrate Nitrogen	0.0700	0.1	0.032	mg/L	1	J	4500NO3F	215424	12/28/17 15:00	4500NO3F	219391-FI207	12/28/17-16:07JDD
Nitrite Nitrogen	0.0120	0.1	0.011	mg/L	1	J	4500NO2F	215426	12/28/17 15:00	4500NO3F	219388-FI207	12/28/17-16:05JDD
Nitrogen, Organic	ND	0.5	0.072	mg/L	1	UI	4500NH3G	215435	12/29/17 03:00	4500NH3G	219378-FI207	12/29/17-06:32AMB
Ammonia Nitrogen	ND	0.2	0.072	mg/L	1	U	4500NH3G	215435	12/29/17 03:00	4500NH3G	219378-FI207	12/29/17-06:32AMB
Kjeldahl Nitrogen	ND	0.5	0.32	mg/L	1	UI	351.2	200335	01/10/18 04:00	EPA351.2	200420-FI206	01/10/18-09:27AMB
Phosphorus, Total	ND	0.1	0.020	mg/L	1	U	4500-P B	200687	01/18/18 16:53	4500PE	200833-UV205	01/19/18-12:17MCA

DQF Flags Definition:

- I The MS/MSD did not meet QC criteria.
- U Constituent results were non-detect.
- J Reported value is estimated; detected at a concentration below the PQL and above the laboratory MDL.

ND=Non-Detected. PQL=Practical Quantitation Limit.

January 22, 2018

Lab ID : SP 1715972-002

Customer ID : 2-25173

Rincon Consultants, Inc.

Attn: Torin Snyder
 180 N. Ashwood Ave.
 Ventura, CA 93003

Sampled On : December 28, 2017-10:35

Sampled By : Jaime McClain

Received On : December 28, 2017-14:47

Matrix : Surface Water

Description : N-002

Project : Malibu WWTP - Surface Water Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Wet Chemistry												
Nitrate Nitrogen	0.0700	0.1	0.032	mg/L	1	J	4500NO3F	215424	12/28/17 15:00	4500NO3F	219391-FI207	12/28/17-16:09JDD
Nitrite Nitrogen	0.0120	0.1	0.011	mg/L	1	J	4500NO2F	215426	12/28/17 15:00	4500NO3F	219388-FI207	12/28/17-16:07JDD
Nitrogen, Organic	ND	0.5	0.072	mg/L	1	UI	4500NH3G	215435	12/29/17 03:00	4500NH3G	219378-FI207	12/29/17-05:48AMB
Ammonia Nitrogen	ND	0.2	0.072	mg/L	1	U	4500NH3G	215435	12/29/17 03:00	4500NH3G	219378-FI207	12/29/17-05:48AMB
Kjeldahl Nitrogen	ND	0.5	0.32	mg/L	1	UI	351.2	200335	01/10/18 04:00	EPA351.2	200420-FI206	01/10/18-09:28AMB
Phosphorus, Total	ND	0.1	0.020	mg/L	1	U	4500-P B	200230	01/07/18 10:00	4500PE	200273-UV205	01/07/18-13:45MCA
DQF Flags Definition:												
I The MS/MSD did not meet QC criteria.												
U Constituent results were non-detect.												
J Reported value is estimated; detected at a concentration below the PQL and above the laboratory MDL.												

ND=Non-Detected. PQL=Practical Quantitation Limit.

January 22, 2018

Lab ID : SP 1715972-003

Customer ID : 2-25173

Rincon Consultants, Inc.

Attn: Torin Snyder
 180 N. Ashwood Ave.
 Ventura, CA 93003

Sampled On : December 28, 2017-10:00

Sampled By : Jaime McClain

Received On : December 28, 2017-14:47

Matrix : Surface Water

Description : N-003

Project : Malibu WWTP - Surface Water Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Wet Chemistry												
Nitrate Nitrogen	0.0700	0.1	0.032	mg/L	1	J	4500NO3F	215424	12/28/17 15:00	4500NO3F	219391-FI207	12/28/17-16:11JDD
Nitrite Nitrogen	ND	0.1	0.011	mg/L	1	U	4500NO2F	215426	12/28/17 15:00	4500NO3F	219388-FI207	12/28/17-16:09JDD
Nitrogen, Organic	ND	0.5	0.072	mg/L	1	U	4500NH3G	215435	12/29/17 03:00	4500NH3G	219378-FI207	12/29/17-06:21AMB
Ammonia Nitrogen	ND	0.2	0.072	mg/L	1	U	4500NH3G	215435	12/29/17 03:00	4500NH3G	219378-FI207	12/29/17-06:21AMB
Kjeldahl Nitrogen	ND	0.5	0.32	mg/L	1	U	351.2	200069	01/03/18 08:00	EPA351.2	200152-FI206	01/04/18-09:05JDD
Phosphorus, Total	ND	0.1	0.020	mg/L	1	U	4500-P B	200475	01/13/18 10:30	4500PE	200537-UV205	01/13/18-14:08MCA
DQF Flags Definition:												
U Constituent results were non-detect.												
J Reported value is estimated; detected at a concentration below the PQL and above the laboratory MDL.												

ND=Non-Detected. PQL=Practical Quantitation Limit.

January 22, 2018

Lab ID : SP 1715972-004

Customer ID : 2-25173

Rincon Consultants, Inc.

Attn: Torin Snyder
 180 N. Ashwood Ave.
 Ventura, CA 93003

Sampled On : December 28, 2017-11:53

Sampled By : Jaime McClain

Received On : December 28, 2017-14:47

Matrix : Surface Water

Description : N-004

Project : Malibu WWTP - Surface Water Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Wet Chemistry												
Nitrate Nitrogen	0.0700	0.1	0.032	mg/L	1	J	4500NO3F	215424	12/28/17 15:00	4500NO3F	219391-FI207	12/28/17-16:13JDD
Nitrite Nitrogen	0.0120	0.1	0.011	mg/L	1	J	4500NO2F	215426	12/28/17 15:00	4500NO3F	219388-FI207	12/28/17-16:11JDD
Nitrogen, Organic	ND	0.5	0.072	mg/L	1	U	4500NH3G	215435	12/29/17 03:00	4500NH3G	219378-FI207	12/29/17-06:18AMB
Ammonia Nitrogen	ND	0.2	0.072	mg/L	1	U	4500NH3G	215435	12/29/17 03:00	4500NH3G	219378-FI207	12/29/17-06:18AMB
Kjeldahl Nitrogen	ND	0.5	0.32	mg/L	1	U	351.2	200377	01/11/18 07:26	EPA351.2	200485-FI206	01/12/18-04:36AMB
Phosphorus, Total	0.0440	0.1	0.020	mg/L	1	J	4500-P B	200475	01/13/18 10:30	4500PE	200537-UV205	01/13/18-14:09MCA
DQF Flags Definition:												
U Constituent results were non-detect.												
J Reported value is estimated; detected at a concentration below the PQL and above the laboratory MDL.												

ND=Non-Detected. PQL=Practical Quantitation Limit.

January 22, 2018

Lab ID : SP 1715972-005

Customer ID : 2-25173

Rincon Consultants, Inc.

Attn: Torin Snyder
 180 N. Ashwood Ave.
 Ventura, CA 93003

Sampled On : December 28, 2017-12:27

Sampled By : Jaime McClain

Received On : December 28, 2017-14:47

Matrix : Surface Water

Description : L-001

Project : Malibu WWTP - Surface Water Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Wet Chemistry												
Nitrate Nitrogen	0.700	0.1	0.032	mg/L	1		4500NO3F	215424	12/28/17 15:00	4500NO3F	219391-FI207	12/28/17-16:15JDD
Nitrite Nitrogen	0.0170	0.1	0.011	mg/L	1	J	4500NO2F	215426	12/28/17 15:00	4500NO3F	219388-FI207	12/28/17-16:13JDD
Nitrogen, Organic	ND	0.5	0.072	mg/L	1	U	4500NH3G	215435	12/29/17 03:00	4500NH3G	219378-FI207	12/29/17-07:30AMB
Ammonia Nitrogen	ND	0.2	0.072	mg/L	1	U	4500NH3G	215435	12/29/17 03:00	4500NH3G	219378-FI207	12/29/17-07:30AMB
Kjeldahl Nitrogen	ND	0.5	0.32	mg/L	1	U	351.2	200069	01/03/18 08:00	EPA351.2	200152-FI206	01/04/18-09:07JDD
Phosphorus, Total	0.174	0.1	0.020	mg/L	1		4500-P B	200230	01/07/18 10:00	4500PE	200273-UV205	01/07/18-13:46MCA
DQF Flags Definition:												
U Constituent results were non-detect.												
J Reported value is estimated; detected at a concentration below the PQL and above the laboratory MDL.												

ND=Non-Detected. PQL=Practical Quantitation Limit.

January 22, 2018

Lab ID : SP 1715972-006

Customer ID : 2-25173

Rincon Consultants, Inc.

Attn: Torin Snyder
 180 N. Ashwood Ave.
 Ventura, CA 93003

Sampled On : December 28, 2017-13:20

Sampled By : Jaime McClain

Received On : December 28, 2017-14:47

Matrix : Surface Water

Description : L-002

Project : Malibu WWTP - Surface Water Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Wet Chemistry												
Nitrate Nitrogen	0.200	0.1	0.032	mg/L	1		4500NO3F	215424	12/28/17 15:00	4500NO3F	219391-FI207	12/28/17-16:17JDD
Nitrite Nitrogen	0.0150	0.1	0.011	mg/L	1	J	4500NO2F	215426	12/28/17 15:00	4500NO3F	219388-FI207	12/28/17-16:15JDD
Nitrogen, Organic	ND	0.5	0.072	mg/L	1	U	4500NH3G	215435	12/29/17 03:00	4500NH3G	219378-FI207	12/29/17-06:58AMB
Ammonia Nitrogen	ND	0.2	0.072	mg/L	1	U	4500NH3G	215435	12/29/17 03:00	4500NH3G	219378-FI207	12/29/17-06:58AMB
Kjeldahl Nitrogen	ND	0.5	0.32	mg/L	1	U	351.2	200069	01/03/18 08:00	EPA351.2	200152-FI206	01/04/18-09:08JDD
Phosphorus, Total	0.0562	0.1	0.020	mg/L	1	J	4500-P B	200230	01/07/18 10:00	4500PE	200273-UV205	01/07/18-13:47MCA
DQF Flags Definition:												
U Constituent results were non-detect.												
J Reported value is estimated; detected at a concentration below the PQL and above the laboratory MDL.												

ND=Non-Detected. PQL=Practical Quantitation Limit.

January 22, 2018

Lab ID : SP 1715972-007

Customer ID : 2-25173

Rincon Consultants, Inc.

Attn: Torin Snyder
 180 N. Ashwood Ave.
 Ventura, CA 93003

Sampled On : December 28, 2017-12:48

Sampled By : Jaime McClain

Received On : December 28, 2017-14:47

Matrix : Surface Water

Description : L-003

Project : Malibu WWTP - Surface Water Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Wet Chemistry												
Nitrate Nitrogen	0.0800	0.1	0.032	mg/L	1	J	4500NO3F	215424	12/28/17 15:00	4500NO3F	219391-FI207	12/28/17-16:20JDD
Nitrite Nitrogen	ND	0.1	0.011	mg/L	1	U	4500NO2F	215426	12/28/17 15:00	4500NO3F	219388-FI207	12/28/17-16:17JDD
Nitrogen, Organic	0.393	0.5	0.072	mg/L	1	UJ	4500NH3G	215435	12/29/17 03:00	4500NH3G	219378-FI207	12/29/17-06:30AMB
Ammonia Nitrogen	ND	0.2	0.072	mg/L	1	U	4500NH3G	215435	12/29/17 03:00	4500NH3G	219378-FI207	12/29/17-06:30AMB
Kjeldahl Nitrogen	0.393	0.5	0.32	mg/L	1	J	351.2	200069	01/03/18 08:00	EPA351.2	200152-FI206	01/04/18-09:09JDD
Phosphorus, Total	ND	0.1	0.020	mg/L	1	U	4500-P B	200230	01/07/18 10:00	4500PE	200273-UV205	01/07/18-13:48MCA
DQF Flags Definition:												
U Constituent results were non-detect.												
J Reported value is estimated; detected at a concentration below the PQL and above the laboratory MDL.												

ND=Non-Detected. PQL=Practical Quantitation Limit.



January 22, 2018

Rincon Consultants, Inc.

Attn: Torin Snyder
180 N. Ashwood Ave.
Ventura, CA 93003

Description : L-004
Project : Malibu WWTP - Surface Water Monitoring

Lab ID : SP 1715972-008

Customer ID : 2-25173

Sampled On : December 28, 2017-09:45

Sampled By : Jaime McClain

Received On : December 28, 2017-14:47

Matrix : Surface Water

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Wet Chemistry												
Nitrate Nitrogen	0.0800	0.1	0.032	mg/L	1	J	4500NO3F	215424	12/28/17 15:00	4500NO3F	219391-FI207	12/28/17-16:22JDD
Nitrite Nitrogen	ND	0.1	0.011	mg/L	1	U	4500NO2F	215426	12/28/17 15:00	4500NO3F	219388-FI207	12/28/17-16:19JDD
Nitrogen, Organic	ND	0.5	0.072	mg/L	1	U	4500NH3G	215435	12/29/17 03:00	4500NH3G	219378-FI207	12/29/17-06:04AMB
Ammonia Nitrogen	ND	0.2	0.072	mg/L	1	U	4500NH3G	215435	12/29/17 03:00	4500NH3G	219378-FI207	12/29/17-06:04AMB
Kjeldahl Nitrogen	ND	0.5	0.32	mg/L	1	U	351.2	200069	01/03/18 08:00	EPA351.2	200152-FI206	01/04/18-09:10JDD
Phosphorus, Total	ND	0.1	0.020	mg/L	1	U	4500-P B	200230	01/07/18 10:00	4500PE	200273-UV205	01/07/18-13:49MCA
DQF Flags Definition:												
U Constituent results were non-detect.												
J Reported value is estimated; detected at a concentration below the PQL and above the laboratory MDL.												

ND=Non-Detected. PQL=Practical Quantitation Limit.

January 22, 2018

Lab ID : SP 1715972-009

Customer ID : 2-25173

Rincon Consultants, Inc.

Attn: Torin Snyder
 180 N. Ashwood Ave.
 Ventura, CA 93003

Sampled On : December 28, 2017-11:20

Sampled By : Jaime McClain

Received On : December 28, 2017-14:47

Matrix : Surface Water

Description : L-005

Project : Malibu WWTP - Surface Water Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Wet Chemistry												
Nitrate Nitrogen	0.700	0.1	0.032	mg/L	1		4500NO3F	215424	12/28/17 15:00	4500NO3F	219391-FI207	12/28/17-16:24JDD
Nitrite Nitrogen	0.0180	0.1	0.011	mg/L	1	J	4500NO2F	215426	12/28/17 15:00	4500NO3F	219388-FI207	12/28/17-16:22JDD
Nitrogen, Organic	0.703	0.5	0.072	mg/L	1		4500NH3G	215435	12/29/17 03:00	4500NH3G	219378-FI207	12/29/17-06:23AMB
Ammonia Nitrogen	ND	0.2	0.072	mg/L	1	U	4500NH3G	215435	12/29/17 03:00	4500NH3G	219378-FI207	12/29/17-06:23AMB
Kjeldahl Nitrogen	0.703	0.5	0.32	mg/L	1		351.2	200069	01/03/18 08:00	EPA351.2	200152-FI206	01/04/18-09:11JDD
Phosphorus, Total	0.191	0.1	0.020	mg/L	1		4500-P B	200230	01/07/18 10:00	4500PE	200273-UV205	01/07/18-13:50MCA
DQF Flags Definition:												
U Constituent results were non-detect.												
J Reported value is estimated; detected at a concentration below the PQL and above the laboratory MDL.												

ND=Non-Detected. PQL=Practical Quantitation Limit.

January 22, 2018

Lab ID : SP 1715972-010

Customer ID : 2-25173

Rincon Consultants, Inc.

Attn: Torin Snyder
 180 N. Ashwood Ave.
 Ventura, CA 93003

Sampled On : December 28, 2017-09:50

Sampled By : Jaime McClain

Received On : December 28, 2017-14:47

Matrix : Surface Water

Description : L-006

Project : Malibu WWTP - Surface Water Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Wet Chemistry												
Nitrate Nitrogen	0.0700	0.1	0.032	mg/L	1	J	4500NO3F	215424	12/28/17 15:00	4500NO3F	219391-FI207	12/28/17-16:26JDD
Nitrite Nitrogen	ND	0.1	0.011	mg/L	1	U	4500NO2F	215426	12/28/17 15:00	4500NO3F	219388-FI207	12/28/17-16:24JDD
Nitrogen, Organic	4.27	0.5	0.072	mg/L	1		4500NH3G	215435	12/29/17 03:00	4500NH3G	219378-FI207	12/29/17-06:15AMB
Ammonia Nitrogen	ND	0.2	0.072	mg/L	1	U	4500NH3G	215435	12/29/17 03:00	4500NH3G	219378-FI207	12/29/17-06:15AMB
Kjeldahl Nitrogen	4.27	0.5	0.32	mg/L	1		351.2	200069	01/03/18 08:00	EPA351.2	200152-FI206	01/04/18-09:12JDD
Phosphorus, Total	0.333	0.1	0.020	mg/L	1		4500-P B	200230	01/07/18 10:00	4500PE	200273-UV205	01/07/18-13:51MCA
DQF Flags Definition:												
U Constituent results were non-detect.												
J Reported value is estimated; detected at a concentration below the PQL and above the laboratory MDL.												

ND=Non-Detected. PQL=Practical Quantitation Limit.

January 22, 2018
Rincon Consultants, Inc.

Lab ID : SP 1715972
 Customer : 2-25173

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem Nitrogen, Total Kjeldahl	351.2	01/03/18:200069jmg (SP 1715972-003)	Blank	mg/L		ND	<0.5	
			LCS	mg/L	12.00	88.3 %	73-124	
			MS	mg/L	12.00	92.9 %	54-136	
			MSD	mg/L	12.00	98.7 %	54-136	
	MSRPD	mg/L	12.00	6.2%	≤27			
	351.2	01/10/18:200335amb (CC 1785261-005)	Blank	mg/L		ND	<0.5	
			LCS	mg/L	12.00	97.5 %	73-124	
			MS	mg/L	12.00	69.1 %	54-136	435
			MSD	mg/L	12.00	43.0 %	54-136	435
	MSRPD	mg/L	12.00	44.1%	≤27			
	351.2	01/11/18:200377jmg (CH 1870121-001)	Blank	mg/L		ND	<0.5	
			LCS	mg/L	12.00	94.2 %	73-124	
MS			mg/L	12.00	90.8 %	54-136		
MSD			mg/L	12.00	94.1 %	54-136		
MSRPD	mg/L	12.00	3.7%	≤27				
Ammonia Nitrogen	4500NH3G	(SP 1715972-002) (SP 1715972-006)	MS	mg/L	2.000	93.8 %	70-130	
			MSD	mg/L	2.000	88.0 %	70-130	
			MSRPD	mg/L	2.000	6.3%	≤20	
			MS	mg/L	2.000	84.6 %	70-130	
			MSD	mg/L	2.000	86.6 %	70-130	
			MSRPD	mg/L	2.000	2.5%	≤20	
	4500NH3G	12/29/17:219378AMB	ICB	mg/L		0.000	0.1	
			ICV	mg/L	2.000	108 %	90-110	
			CCB	mg/L		0.000	0.1	
			CCV	mg/L	2.000	109 %	90-110	
			CCB	mg/L		0.000	0.1	
			CCV	mg/L	2.000	106 %	90-110	
CCB	mg/L		0.000	0.1				
CCV	mg/L	2.000	105 %	90-110				
CCB	mg/L		0.000	0.1				
CCV	mg/L	2.000	107 %	90-110				
Nitrite as Nitrogen	4500NO2F	(SP 1715972-001)	MS	mg/L	1.218	91.5 %	50-150	
			MSD	mg/L	1.218	91.6 %	50-150	
			MSRPD	mg/L	1.218	0.09%	≤30	
Nitrate + Nitrite as N	4500NO3F	(SP 1715972-001)	MS	mg/L	28.04	34.3 %	5-285	
			MSD	mg/L	28.04	34.2 %	5-285	
			MSRPD	mg/L	28.04	0.2%	≤30.4	
	4500NO3F	12/28/17:219391JDD	CCB	mg/L		0.074	0.1	
			CCV	mg/L	11.27	96.3 %	90-110	
			CCB	mg/L		0.077	0.1	
CCV	mg/L	11.27	96.1 %	90-110				
Nitrite as Nitrogen	4500NO3F	12/28/17:219388JDD	CCB	mg/L		0.00800	0.012	
			CCV	mg/L	1.218	98.8 %	90-110	
			CCB	mg/L		0.00800	0.012	
			CCV	mg/L	1.218	99.1 %	90-110	
Phosphorus	4500-P B	01/07/18:200230mca (STK1830046-001)	Blank	mg/L		ND	<0.1	
			LCS	mg/L	0.5000	90.5 %	90-116	
			MS	mg/L	0.2800	75.1 %	25-292	
			MSD	mg/L	0.2800	73.4 %	25-292	
			MSRPD	mg/L	0.2800	0.0049	≤0.1	
	4500-P B	01/13/18:200475mca (STK1830046-002)	Blank	mg/L		ND	<0.1	
			LCS	mg/L	0.5000	92.9 %	90-116	
			MS	mg/L	0.2800	93.4 %	25-292	
			MSD	mg/L	0.2800	88.2 %	25-292	
			MSRPD	mg/L	0.2800	0.015	≤0.1	

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem Phosphorus	4500-P B	01/18/18:200687mca (SP 1715972-001)	Blank	mg/L		ND	<0.1	
			LCS	mg/L	0.5000	91.9 %	90-116	
			MS	mg/L	0.2800	60.3 %	25-292	
			MSD	mg/L	0.2800	73.4 %	25-292	
			MSRPD	mg/L	0.2800	0.037	≤0.1	
Total Phosphorus	4500PE	01/07/18:200273MCA	CCB	mg/L		0.005	0.1	
			CCV	mg/L	0.5000	91.0 %	90-110	
			CCB	mg/L		0.01	0.1	
			CCV	mg/L	0.5000	94.9 %	90-110	
	4500PE	01/13/18:200537MCA	CCB	mg/L		-0.002	0.1	
			CCV	mg/L	0.5000	98.3 %	90-110	
			CCB	mg/L		-0.00004	0.1	
			CCV	mg/L	0.5000	94.4 %	90-110	
	4500PE	01/19/18:200833MCA	CCB	mg/L		0.005	0.1	
			CCV	mg/L	0.5000	91.4 %	90-110	
			CCB	mg/L		0.034	0.1	
			CCV	mg/L	0.5000	99.3 %	90-110	
Nitrogen, Total Kjeldahl	EPA351.2	01/04/18:200152JDD	CCB	mg/L		0.238	0.5	
			CCV	mg/L	5.000	92.0 %	90-110	
			CCB	mg/L		0.195	0.5	
			CCV	mg/L	5.000	103 %	90-110	
	EPA351.2	01/10/18:200420AMB	ICB	mg/L		0.000	0.5	
			ICV	mg/L	5.000	109 %	90-110	
			CCB	mg/L		0.000	0.5	
			CCV	mg/L	5.000	109 %	90-110	
	EPA351.2	01/12/18:200485AMB	ICB	mg/L		0.000	0.5	
			ICV	mg/L	5.000	97.0 %	90-110	
			CCB	mg/L		0.000	0.5	
			CCV	mg/L	5.000	96.8 %	90-110	
Definition								
ICV : Initial Calibration Verification - Analyzed to verify the instrument calibration is within criteria.								
ICB : Initial Calibration Blank - Analyzed to verify the instrument baseline is within criteria.								
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.								
LCS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.								
MS : Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.								
MSD : Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.								
MSRPD : MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.								
ND : Non-detect - Result was below the DQO listed for the analyte.								
DQO : Data Quality Objective - This is the criteria against which the quality control data is compared.								
Explanation								
435 : Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.								

Condition Upon Receipt (Attach to COC)

Sample Receipt at SP:

- 1. Number of ice chests/packages received: OTC
- 2. Shipper tracking numbers _____
- 3. Were samples received in a chilled condition?
Temps: ROI / 9 / _____ / _____ / _____ / _____ / _____
- 4. Surface water (SWTR) bact samples: A sample that has a temperature upon receipt of >10C, whether iced or not, should be flagged unless the time since sample collection has been less than two hours.
- 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:

- 1. 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? Yes No N/A FGL
[Exception: Oil & Grease, VOA and CrVI verified in lab]
- 4. VOAs checked for Headspace? Yes No N/A
- 5. Were all analyses within holding times at time of receipt? 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. Inorganics and Radio)

Sample Receipt, Login and Verification completed by: _____

Reviewed and
Approved By

Shawn Peck



Digitally signed by Shawn Peck
Title: Sample Receiving
Date: 12/28/2017-14:59:02

Discrepancy Documentation:

Any items above which are "No" or do not meet specifications (i.e. temps) must be resolved.

- 1. Person Contacted: _____ Phone Number: _____
Initiated By: _____ Date: _____
Problem: _____

Resolution: _____

- 2. Person Contacted: _____ Phone Number: _____
Initiated By: _____ Date: _____
Problem: _____

Resolution: _____

(2025173)
Rincon Consultants, Inc.
SP 1715972
SRP-12/28/2017-14:59:02