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2019 SECOND SEMIANNUAL and ANNUAL GROUNDWATER QUALITY MONITORING REPORT

Genesis Solar Energy Project

Riverside County, California

COC S&W-20

December 23, 2019

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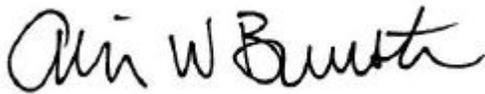
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2019 SECOND SEMIANNUAL AND ANNUAL GROUNDWATER QUALITY MONITORING REPORT

RIVERSIDE COUNTY, CALIFORNIA

PROFESSIONAL STATEMENT

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Arlin W. Brewster

Professional Geologist 9207

December 23, 2019

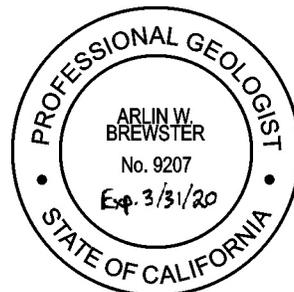


Table of Contents

1.0 INTRODUCTION	1
1.1 Background	1
1.2 Geographic Setting	1
1.3 Hydrogeologic Setting	2
1.4 Monitoring Program Objectives.....	3
2.0 GROUNDWATER MONITORING PROGRAM	4
2.1 Monitoring Well Network	4
2.2 Groundwater Quality Monitoring Activities	4
3.0 FIELD METHODS	5
3.1 Manual Water Level Measurements	5
3.2 Electronic Water Level Measurements.....	5
3.3 Groundwater Sampling	5
3.4 Equipment Decontamination.....	6
3.5 Collection of Groundwater Samples	6
3.6 Laboratory Analytical	7
3.7 Sample Handling	7
3.8 Quality Assurance / Quality Control	7
4.0 RESULTS OF LABORATORY ANALYSES	8
4.1 General Inorganic Chemical Analysis	8
4.2 Organic Chemical Analysis	9
4.3 Stable Isotope Analysis	9
4.4 Statistical Analysis	10
4.5 Quality Assurance/Quality Control	11
5.0 ANNUAL SUMMARY	12
6.0 CONCLUSIONS.....	13
7.0 REFERENCES	14

LIST OF FIGURES

Figure 1	Project Location
Figure 2	Hydrogeologic Setting
Figure 3	Groundwater Monitoring Area and Well Locations
Figure 4	Bouse Formation Groundwater Elevation Contour Map

LIST OF TABLES

Table 1	Inventory of Wells in the Groundwater Monitoring Area
Table 2	Groundwater Level Measurements
Table 3	Most Recent Groundwater Quality Monitoring Data
Table 4	Summary of Laboratory Analytical Results
Table 5	Available Historical Analytical Data for Additional Wells in the Chuckwalla Valley Groundwater Basin Within 10 Miles of the Site

LIST OF APPENDICES

Appendix A	Field Data Sheets
Appendix B	Charts 1 - 29
Appendix C	Mann-Kendall Trend Analysis
Appendix D	Laboratory Reports

1.0 INTRODUCTION

Northstar Environmental Remediation (Northstar) has prepared this 2019 Second Semiannual and Annual Groundwater Quality Monitoring Report on behalf of Genesis Solar, LLC (Genesis). This report details groundwater quality monitoring performed in December 2019 at the Genesis Solar Energy Project (GSEP) and provides an annual summary. The GSEP lies roughly 25 miles west of the city of Blythe, California in eastern Riverside County on lands managed by the Bureau of Land Management (BLM) (**Figure 1**). The GSEP consist of two independent concentrated solar electric generating facilities with a nominal net electric output of 125 megawatts (MW) each (a total net electrical output of 250 MW).

Northstar conducts groundwater quality monitoring in accordance with Condition of Certification Soil & Water 20 (COC S&W-20) as presented in the California Energy Commission (CEC) Final Decision document dated October 12, 2010 (CEC, 2010). The COC S&W-20 requires compliance with Waste Discharge Requirements (WDR) and Monitoring and Reporting Program (MRP) Board Order No. R7-2013-0005, issued by the California Regional Water Quality Control Board, Colorado River Basin Region (CRWQCB).

1.1 Background

Genesis filed an updated Plan of Development (POD) for the GSEP to the BLM in September 2010 (Genesis Solar, LLC, 2010), and an Application for Certification (AFC) to the California Energy Commission (CEC) in August 2009 (Genesis Solar, LLC, 2009). The CEC issued its Final Decision on the GSEP on October 12, 2010 (CEC, 2010). The BLM issued the Final Environmental Impact Statement (FEIS) for the GSEP for public comment on August 27, 2010. The Final Decision and the FEIS adopted COC S&W-20 to monitor groundwater quality within a 10-mile radius of the GSEP.

GSEP uses dry cooling technology and relies on groundwater as a water source during operation. Three groundwater production wells were installed within the GSEP site boundary between July and October, 2011. These production wells are permitted to pump groundwater at an average rate of 202 acre-feet per year (afy) (up to 1,348 afy during construction).

Two evaporation ponds, licensed as Class II Surface Impoundments, located between Solar Fields 1 and 2 accept wastewater generated during operation of the GSEP. Three detection monitoring wells (DM-1, DM-2, and DM-3) were installed, per the Final Decision, along the west, east, and south perimeter of the evaporation ponds in February 2012. Groundwater samples were collected for four quarterly events prior to GSEP operation to establish baseline conditions. Semiannual sampling will be conducted to comply with the requirements of COC S&W-6 and the WDR and MRP documents.

1.2 Geographic Setting

The GSEP is located between the communities of Blythe and Desert Center, California (**Figure 1**). Land use is predominantly open space and conservation and wilderness areas occupied by a community of low creosote and bursage vegetation. Chuckwalla and Ironwood State Prisons are located roughly 6 miles to the southeast.

The GSEP lies on a broad, relatively flat topography sloping north to south at elevations between 400 and 370 feet above mean sea level (amsl). The surface is underlain by alluvial deposits derived from the Palen Mountains to the north-northwest, and the McCoy Mountains to the northeast (**Figure 1**).

The deposits immediately adjacent the mountains have formed alluvial fans from multiple identifiable sources. The multiple fan surfaces have coalesced into a single bajada surface that wraps around each of these mountain fronts. Between the bajada surfaces lies a broad valley-axial drainage that extends southward between the mountains and drains to the Ford Dry Lake playa, located about 1 mile south of the GSEP facility (DWR, 1963).

Climatic data collected from Weather Station Blythe Riverside Airport (33.61°N, -114.71°W, at an elevation of about 387 feet amsl) indicate that the average maximum temperature in the airport vicinity is approximately 87.8°F (31.0°C). Average rainfall is reported to be approximately 3.83 inches (97.3 mm). These data were received from National Oceanic and Atmospheric Administration (NOAA) National Centers for Environmental Information 1981-2010 Normals.

1.3 Hydrogeologic Setting

The GSEP lies within the Chuckwalla Valley Groundwater Basin (Chuckwalla Basin) which has a surface area of approximately 940 mi² (2,435 km²) underlying Chuckwalla Valley. It is bounded up gradient by three groundwater basins including the eastern part of the Orocopia Valley and Pinto Valley Groundwater Basins and the southern part of the Cadiz Valley Groundwater Basin; and, down gradient by the Palo Verde Mesa Groundwater Basin (Palo Verde Basin) (U.S. Bureau of Reclamation, 1972). Groundwater occurs at depths of about 80 to 130 feet below ground surface (bgs), and flow direction is southeast to eastward from the Chuckwalla Basin into the Palo Verde Basin (**Figure 2**).

Sources of groundwater recharge to the Chuckwalla Basin include precipitation, inflow from the Orocopia Valley and Pinto Valley Groundwater Basins, and return flows from agricultural sources and treated wastewater effluent. Groundwater is the only available water resource in Chuckwalla Valley, with extraction to meet local demand the primary source of groundwater outflow. Other minor sources of outflow include underflow to the Palo Verde Basin and evapotranspiration in portions of Palen Dry Lake (where shallow groundwater is present).

Calculations of the Chuckwalla Basin groundwater budget before GSEP operations indicate a stable surplus of 2,600 afy (CEC, 2010). Current operational demand, based on calendar year 2018 extraction data, is approximately 114 afy.

The region of the Chuckwalla Basin occupied by the GSEP and associated groundwater monitoring wells is underlain by four geological units. The shallowest unit is the unconsolidated Holocene-aged Alluvium, consisting of geologically recent lake, river, and wind deposits (DWR, 1963). Beneath the alluvium is the unconsolidated Pleistocene-aged Pinto Formation consisting of coarse alluvial fan deposits (known as fanglomerate), interspersed with clays and basalt (DWR, 1963). Beneath the Pinto Formation lies the unconsolidated to partially consolidated Pliocene-aged Bouse Formation, consisting of coarse alluvium and fanglomerate deposits (Wilson and Owen-Joyce, 1994). The Bouse Formation is underlain by bedrock consisting of metamorphic rocks and intrusive igneous basalts (DWR, 1963).

Groundwater in the GSEP monitoring region occurs in two aquifers: the shallower Alluvium aquifer, extending to a maximum approximate depth of 250 feet bgs; and, the deeper Bouse Formation aquifer, extending between approximately 250 to 6,500 feet bgs (Wilson and Owen-Joyce, 1994). The Pinto Formation exists only on the eastern fringe of the Chuckwalla Basin and is not encountered by the GSEP monitoring wells. Monitoring data indicate a downward vertical hydraulic gradient of groundwater flow from the Alluvium to the Bouse Formation aquifer.

Based on recent monitoring data, the depth to groundwater in the Bouse Formation ranges from approximately 86.70 feet bgs (300.70 feet amsl) in TW-1, located upgradient of the site, to 136.75 feet bgs (255.35 feet amsl) in Well 23a, located downgradient of the site. Perched water exists at the Chuckwalla State Prison but is unlikely to occur within the GSEP boundaries as there is no irrigation.

1.4 Monitoring Program Objectives

Northstar performs groundwater quality monitoring in accordance with COC S&W-20 as described in the CEC's Final Decision. Monitoring is completed semiannually during the Second and Fourth Quarter of each year. The primary objectives of groundwater quality monitoring are:

- to identify potential changes in the existing water quality of the water supply resulting from GSEP pumping in compliance with COC S&W-20;
- to establish groundwater quality data within a 10-mile radius of the GSEP; and,
- to provide a mechanism for early warning to help avoid, minimize, or mitigate significant impacts to groundwater quality.

2.0 GROUNDWATER MONITORING PROGRAM

2.1 Monitoring Well Network

The following provides a summary of the monitoring well network for the GSEP required under COC S&W-20. Well locations are illustrated in **Figure 3** and summarized in **Table 1**.

- Offsite wells installed for the project include deep test wells TW-1 and TW-2, shallow observation well OBS-1, and buried-transducer well OBS-2 (currently inoperative).
- Existing and functional offsite wells located within two miles of the GSEP and project right-of-way include CalTrans water supply well 23a and Sempra Energy wells 24-1, 24-2, and 24-3.
- Well 14, a water supply well located along Chuckwalla Valley Road south of I-10, was added to the program at the request of CEC staff.
- Three groundwater extraction wells, PW-0, PW-1, and PW-2, were installed on the GSEP facility to provide water for construction and operations. Currently, PW-0 pumps water intermittently; PW-1 is sealed with a metal plate; and PW-2 pumps regularly. All three wells are equipped with pressure transducers and totalizers are installed on PW-0 and PW-2.
- Three groundwater monitoring wells, DM-1, DM-2, and DM-3, were installed adjacent the evaporation ponds and serve to monitor the surrounding groundwater for signs of releases.
- Other water wells within 10 miles of GSEP for which water level data are available from the National Water Information System (NWIS) database maintained by the U.S. Geological Survey (USGS). Data reported for these wells has been inconsistent but is used for general groundwater contouring if data exists within the most recent year.

2.2 Groundwater Quality Monitoring Activities

Groundwater quality monitoring includes the following scope of work:

- Field staff collect groundwater level measurements in the monitoring well network;
- Purging and sampling of wells;
- Analysis of the groundwater samples for general minerals, major anions and cations, deuterium and oxygen-18, oil & grease, heat transfer fluid, and general parameters;
- Compilation of water level and water quality data for wells located in the Chuckwalla Basin within 10 miles of the GSEP for which data is available from public sources;
- Evaluation of water quality data, including appropriate statistical and graphical methods;
- Evaluation of stable isotope data for potential water sources; and,
- Evaluation of water level data and preparation of a potentiometric surface map.

3.0 FIELD METHODS

Northstar performed groundwater quality monitoring at the GSEP on December 5 and 6, 2019. A description of the field methods used is provided below.

3.1 Manual Water Level Measurements

Northstar measured depth to groundwater in each well using a Solinst interface probe (Solinst) as quickly as practical to best represent the potentiometric surface across the GSEP at a given time. Field staff recorded depth to water to the nearest hundredth (0.01) foot below a surveyed measuring mark located on the north side of the top of casing (toc) on a groundwater level measurement form (**Appendix A**).

Table 2 provides a summary of current and historical groundwater level measurements and calculated groundwater elevations for wells included in the monitoring well network, and additional wells in the Chuckwalla Basin located within 10 miles of the GSEP. Groundwater elevation contours and flow direction are illustrated in **Figure 4**. Hydrographs are included in the *Groundwater Level Monitoring Report* produced by Northstar.

3.2 Electronic Water Level Measurements

In past monitoring events, field staff used a Geokon Model 800 data logger to retrieve groundwater level data from an array of four Geokon Model 4500S vibrating wire pressure transducers installed in OBS-2 (**Table 2**). The transducers were placed at depths of 270, 315, 370, and 400 feet below ground surface. Data from the transducers became irretrievable in 2014 due to calibration issues and are currently not monitored.

Solinst Levellogger pressure transducers are currently installed in OBS-1 and TW-1. The transducers record the feet of water above the sensor at 6-hour intervals. In addition, a Solinst Barologger installed in Well OBS-1 above the water table records changes in barometric pressure. Using Solinst software, the Levellogger data is calibrated to the manual groundwater elevation measurements and adjusted for changes in barometric pressure using the Barologger data. Data is used to assess seasonal and diurnal trends in the shallower Alluvium aquifer (OBS-1) and the deeper Bouse Formation aquifer (TW-1). Transducer data is currently collected and kept on file for reference.

3.3 Groundwater Sampling

Northstar collected groundwater samples from offsite monitoring wells 23a, TW-1, TW-2, and OBS-1 using disposable bailers. Field data sheets are included in **Appendix A**.

Detection monitoring wells DM-1, DM-2, and DM-3 are each equipped with a dedicated 1.66-inch diameter Geotech® submersible bladder pump with water intakes set at the middle of wetted screen (approximately 115 feet btoc). Field staff collected samples from these wells using the low-flow purging method in accordance with the guidelines established in the EPA document *Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures* (Puls and Barcelona, 1996). Field data sheets are included in **Appendix A**.

Groundwater extraction wells PW-0 and PW-2 are equipped with dedicated water production pumps. Pumps may intermittently be turned online or offline depending on the needs of the facility. Northstar coordinates with GSEP staff to turn on these pumps when necessary to collect groundwater samples. Field data sheets are included in **Appendix A**.

Field staff measured groundwater parameters with a Horiba U-52 field instrument equipped with a flow-through cell (Horiba). Staff calibrated the Horiba at the beginning of each day and decontaminated the instrument prior to use and between wells. Measurements of field parameters (pH, electrical conductivity (EC), temperature, turbidity, and oxidation-reduction potential (ORP)) were taken periodically and at the time of sampling as part of the low flow purge method of sampling. An equipment blank was not collected from the instrument because it is disconnected prior to sampling.

Staff purged each detection monitoring well until water quality parameters stabilized over three successive readings (+/- 0.2 for pH, +/- 10% for EC, ORP and turbidity). Northstar staff recorded the sampling methods, volume of water purged, pumping rate, field parameter measurements, and observations of water turbidity and odor on the groundwater sampling field form (**Appendix A**).

Groundwater purged from the GSEP wells was temporarily contained in a sealed container and then disposed in the evaporation ponds as directed in the MRP. The measured field parameters documented at the end of purging are included in **Table 3**.

3.4 Equipment Decontamination

Northstar decontaminated reusable/non-dedicated equipment (e.g., water level probe and flow-through cell) before use at each well. Decontamination of reusable equipment consisted of washing with a laboratory-grade non-phosphate detergent (Liquinox, Alconox, or equivalent) and potable water solution followed by a double rinse with demineralized water.

3.5 Collection of Groundwater Samples

Groundwater samples were collected using standard field procedures. The sampler wore new nitrile gloves while collecting groundwater samples. Samples were collected directly from the pump discharge tube, extraction well sampling port, or sampling bailer into laboratory-prepared bottles. Where directed by the laboratory, samples were passed through a new, disposable 0.45 micrometer filter utilizing a peristaltic pump. The purpose of the filter is to remove particulates larger than 0.45 micrometers before being placed in bottles. Prior to sampling, the tubing is disconnected from the flow-through cell and the flow rate reduced as low as feasible to minimize volatilization.

3.6 Laboratory Analytical

Laboratory samples are submitted to SunStar Laboratories, Inc. (SunStar) of Lake Forest, California. SunStar subcontracts the heat transfer fluid analysis to TestAmerica Laboratories, Inc. (TestAmerica) of Irvine, California. They also subcontract the oxygen-18 and deuterium stable isotope analyses to Isotech Laboratories, Inc. of Champaign, Illinois. All laboratories are state and federally certified and analyze the samples by the following methods, as detailed in the Final Decision, WDR, and MRP documents:

- Chloride, Sulfate, and Nitrate by EPA Method 300.0;
- Mercury by Standard Method 7470A;
- Total Dissolved Solids by Standard Method 2540C;
- pH by Standard Method 4500H;
- Specific Conductance by Standard Method 2510B;
- Heat Transfer Fluid (HTF) by EPA Method 8015B;
- Heavy Metals by EPA Method 200.7 and 200.8;
- Oil & Grease by EPA Method 1664A; and,
- Oxygen-18 and Deuterium by Isotope Geochemistry.

3.7 Sample Handling

Field staff labeled sample containers before sampling and placed them into an ice cooled chest immediately after sample collection. Glass bottles were sealed in protective packing sleeves for transport. Exposure to dust, direct sunlight, high temperature, adverse weather conditions and possible cross-contamination were avoided.

Standard chain of custody (COC) protocols were followed for the groundwater samples. Northstar delivered the samples under proper chain of custody protocol to SunStar which signed as receiver of the samples. SunStar sent the subcontract samples under proper COC protocols.

3.8 Quality Assurance / Quality Control

The laboratory conducted standard Quality Assurance/Quality Control (QA/QC) to assure analytical accuracy and precision. This included preparation and analysis of method blanks, surrogate spikes, matrix spike/matrix spike duplicate (MS/MSD) pairs and laboratory control samples (LCS).

Northstar collects a duplicate sample once per sampling event from a single well and submits it to the laboratory without identifiers including date and time. During this event, a duplicate sample was collected from well PW-2. Analytical results for the duplicate sample are included in **Table 4** immediately below the regular sample for this well.

A set of quality control blank samples (including a field and trip blank) was collected and put on hold at the laboratory pending analysis of the groundwater samples. The field blank bottle set is filled with demineralized water and set adjacent to the work area with the lids off during the work day and is intended to screen out constituents in ambient air. The trip blank bottle set is prepared at the laboratory and is sealed throughout the groundwater sampling event. It is stored inside the sample coolers and is intended to screen out constituents in the coolers. The quality control blank samples are only analyzed if there is anomalous data present for the groundwater sampling results.

4.0 RESULTS OF LABORATORY ANALYSES

All laboratory analytical reports for this reporting period are included in **Appendix D**. Results are tabulated for the monitoring network in **Table 4** and for wells outside the monitoring network (but still within the Chuckwalla Groundwater Basin) in **Table 5**.

4.1 General Inorganic Chemical Analysis

This section presents results of inorganic chemical analyses (major cations and anions, mineral constituents, and general parameters) performed on groundwater samples collected in the monitoring well network. Time series plots for each inorganic constituent are included as Charts 1 to 24 in **Appendix B**. Remarks about each chart are as follows:

- Chart 1: **Chloride** – Concentrations have increased compared to the previous monitoring event and are higher than most historical results. A similar increase in chloride was noted at the same time of year in 2018.
- Chart 2: **Sulfate** – Concentrations have increased compared to the previous monitoring event and are higher than most historical results. A similar increase in chloride was noted at the same time of year in 2018.
- Chart 3: **Nitrate** – Appears in low concentrations mostly in shallow monitoring wells, including upgradient OBS-1. Where detected, concentrations generally increased compared to the previous monitoring event.
- Chart 4: **Calcium** - Concentrations are generally the same or lower than baseline results.
- Chart 5: **Copper** – Occurs in only a few wells at low concentrations. There are no apparent trends.
- Chart 6: **Sodium** – Concentrations are generally the same or lower than baseline results.
- Chart 7: **Potassium** – Concentrations decreased since the previous monitoring event and are now similar to baseline conditions.
- Chart 8: **Iron** – Was not detected above the reporting limit during this monitoring event.
- Chart 9: **Magnesium** - Concentrations are generally the same or lower than baseline results.
- Chart 10: **Antimony** – There have been no detections to date.
- Chart 11: **Arsenic** – Were either below reporting limits or detected near baseline concentrations during this reporting period.
- Chart 12: **Barium** – Detected at baseline concentrations during this monitoring period.
- Chart 13: **Cadmium** – There have been no detections to date.
- Chart 14: **Chromium** (Total) – There have only been three detections to date – one in DM-1 (fourth quarter 2017) and two in DM-2 (fourth quarter 2017 and second quarter 2018).
- Chart 15: **Cobalt** – There have been no detections to date.
- Chart 16: **Lead** – There have only been two detections to date – one in TW-1 (fourth quarter 2017) and in 23a (second quarter 2016).
- Chart 17: **Manganese** – Occurs in very low concentrations in most wells but punctuated by two larger detections in 23a (fourth quarter 2010) and TW-1 (second quarter 2016).
- Chart 18: **Nickel** – There have only been three detections to date at very low concentrations – one in DM-3 (second quarter 2014), PW-2 (fourth quarter 2017), and 23a (second quarter 2019).
- Chart 19: **Selenium** – Occurs sporadically in several wells but has appeared more consistently in shallow upgradient well OBS-1. There are no apparent trends.

- Chart 20: **Zinc** – Occurs only in well 23a from fourth quarter 2014, but in several other wells since fourth quarter 2017, a result of lower detection limits.
- Chart 21: **Mercury** – Has occurred only once at a very low concentration in well DM-1 (second quarter 2015).
- Chart 22: **Total Dissolved Solids** – Concentrations are near baseline conditions in this reporting period.
- Chart 23: **Specific Conductance** - Concentrations are near baseline conditions in this reporting period.
- Chart 24: **pH** – Concentrations are near baseline conditions in this reporting period.

4.2 Organic Chemical Analysis

This section presents results of organic chemical analyses (oil & grease and heat transfer fluid) performed on groundwater samples collected in the monitoring well network. Time series plots for each organic constituent are included as Charts 25 and 26 in **Appendix B**. Remarks about each chart are as follows:

- Chart 25: **Oil & Grease** – Appears only sporadically in wells TW-2, OBS-1, PW-0, and PW-2. There are no apparent trends.
- Chart 26: **Heat Transfer Fluid** – There have been no detections to date.

4.3 Stable Isotope Analysis

Oxygen-18 and deuterium are naturally occurring stable isotopes of oxygen and hydrogen that occur at varying concentrations in all water. Concentrations of these heavier isotopes varies in precipitation depending on latitude, elevation and climate (Froehlich and Yurtsever, 1995; Izbicki, Martin and Michel, 1995; Kendall and Coplen, 2001). Precipitation falling at higher elevations, higher latitudes, or cooler climates tend to be depleted in these heavier isotopes. The isotope depletion relative to Vienna Standard Mean Ocean Water (VSMOW) is expressed in delta notation as parts per thousand (‰). The ratio of oxygen-18 to deuterium has been well established around the world as falling on a straight line called the Global Meteoric Water Line (GMWL). This relationship between oxygen-18 and deuterium is useful for determining the source and history of a water sample. Departures from the GMWL can occur due to evaporation, which tends to leave the remaining water enriched in heavier isotopes (less depleted), due to mixing with waters from other origins, or due to chemical reactions with surrounding materials or the atmosphere (Domenico and Schwartz, 1998).

Table 4 provides the oxygen-18 and deuterium content of the water samples collected to date. A time series plot of the stable isotopes are presented in Chart 27 and 28, and a graph of the oxygen-18 and deuterium relative to the GMWL is presented as Chart 29 in **Appendix B**. The data indicates several environmental conditions, as follows:

- Groundwater in the shallow Alluvium aquifer is less depleted than the deeper Bouse Formation aquifer, indicating that it is closer to the point of origin of groundwater recharge (ie, it is recharged by precipitation that occurs locally).
- Both aquifers are more depleted downgradient, indicating they are closer to the source of precipitation or groundwater recharge upgradient.
- Upgradient groundwater in both aquifers display a greater depletion compared to the GMWL, indicating that the groundwater is becoming more enriched in oxygen-18 and deuterium in the downgradient direction, which may be a function of evapotranspiration.

The 2019 second semiannual monitoring event show results that are consistent with historical data.

4.4 Statistical Analysis

In addition to the graphical representation of concentration trends, the results were analyzed using the Mann-Kendall (M-K), non-parametric statistical test to evaluate trends as directed in COC S&W-20, Part E. The M-K test compares the most recent round of groundwater data with the results of historical rounds. The statistical analysis tests whether the trend in the data set is increasing, decreasing, or stable/has no determined trend. The M-K test typically requires a minimum data set of between 4 to 10 values, and M-K tests performed on data sets within this range may not necessarily yield reliable results. The M-K test results are also subject to seasonal variations when there is a limited data set.

For this reporting period, the Mann-Kendall statistical analysis was applied to wells 23a, TW-1, TW-2, OBS-1, DM-1, DM-2, DM-3, PW-0, PW-1, and PW-2. A summary of the results is included in **Appendix C**. The analysis was run for arsenic, barium, calcium, chloride, selenium, sulfate, specific conductance, and total dissolved solids for each well and trend direction is reported at the 95% confidence interval. Additional constituents that are projected to be present in the wastewater discharge in the evaporation ponds, as identified in the WDR (CRWQCB, 2013b), either lack sufficient data to be statistically analyzed (chromium, copper, lead, mercury, nickel, and zinc) or have not been detected above reporting limits to date (antimony, cadmium, and cobalt). The M-K statistical analysis will be applied to these constituents once enough data points are available. Below is a summary of the M-K statistical analysis for this reporting period:

- TW-1: No increasing trends identified.
- TW-2: An increasing trend was identified only for chloride.
- OBS-1: No increasing trends identified.
- 23a: No increasing trends identified.
- DM-1: No increasing trends identified.
- DM-2: An increasing trend was identified only for chloride.
- DM-3: An increasing trend was identified only for calcium.
- PW-2: No increasing trends identified.

4.5 Quality Assurance/Quality Control

As documented in the attached laboratory reports (**Appendix D**), groundwater samples collected from network wells during the reporting period were received by the laboratory in good condition, within the temperature limits required, and analyzed within the required holding times using the specified methods (with the exception of pH, which has a 15-minute hold time).

None of the analytes were detected in the laboratory method blank samples except for antimony and lead in batch 9120919 (which included all samples). These analytes were not detected in the affected samples.

Matrix spike/matrix spike duplicate (MS/MSD) and laboratory control sample (LCS) recoveries for each method and analytical batch were within the laboratory's established control limits for the final report, with the following exceptions:

- The MS and/or MSD did not pass for almost all metals except copper and magnesium in batch 9120919 due to matrix interference, but the LCS was within acceptable criteria.
- The MS and/or MSD did not pass for arsenic, barium, cadmium, chromium, and lead in batch 9120930 due to matrix interference, but the LCS was within acceptable criteria.
- The MS and/or MSD did not pass for sodium in batch 9121936 due to matrix interference, but the LCS was within acceptable criteria.
- The % recovery did not pass for chloride and sulfate for batch 9120634 due to matrix interference, but the LCS was within acceptable criteria.

5.0 ANNUAL SUMMARY

Groundwater analytical data for calendar year 2019 are generally consistent with historical analytical data, including seasonal increases of chloride and sulfate in the fourth quarter of the year. This is likely related to an increase in precipitation at this time of year.

Well PW-2 was the only water production well consistently utilized during the calendar year, as PW-0 remains on standby and was turned on only intermittently for testing, maintenance, and sampling, and PW-1 is sealed indefinitely. The Mann-Kendall test for trends typically requires a minimum data set of between 4 to 10 values collected at regular intervals throughout the year to encompass seasonal changes. Currently, all wells but PW-0 and PW-1 have a data set large enough to perform the M-K test.

The following is a list of the analytes that have displayed increasing trends during the 2019 calendar year:

- TW-2 displayed an increasing trend for chloride only in the fourth quarter of 2019.
- DM-2 displayed an increasing trend for chloride only in the fourth quarter of 2019.
- DM-3 displayed an increasing trend for calcium in both the second and fourth quarters of 2019.

No additional analytes were added to the Mann-Kendall analysis this year.

The stable isotope analysis returned results within the normal range through the entire 2019 calendar year.

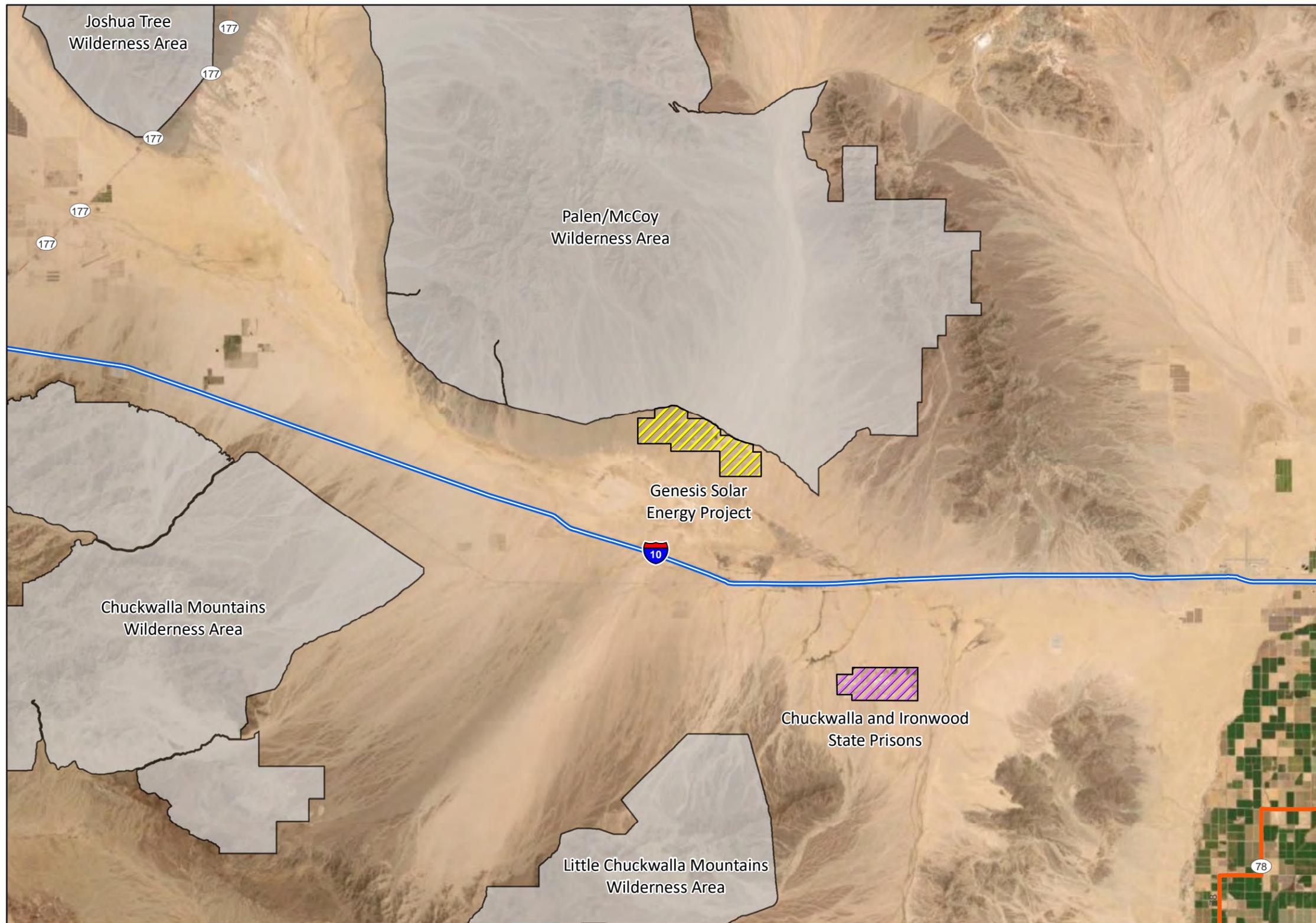
6.0 CONCLUSIONS

Based on the available data, it does not appear the GSEP has negatively impacted the groundwater quality in the Chuckwalla Basin or within a 10-mile radius of the GSEP facility to date. All available groundwater quality data is generally stable and consistent with historical data.

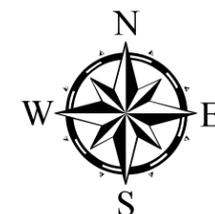
7.0 REFERENCES

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FIGURES



-  GSEP Footprint
-  Prisons
-  Wilderness Area



★ Site Location

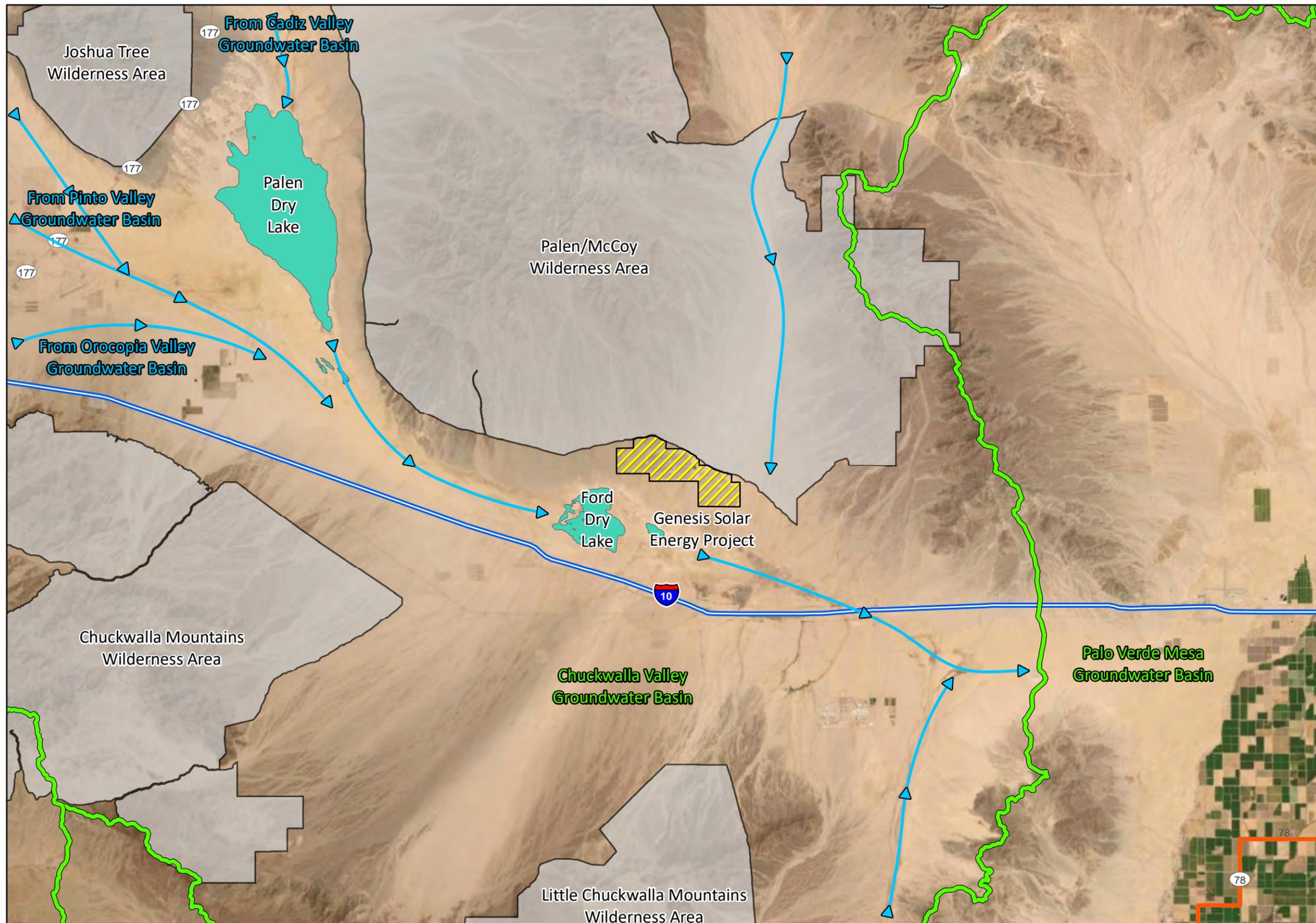


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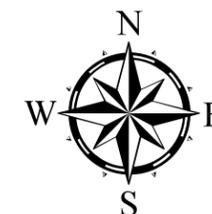
Project Number:
196-004-06

Genesis Solar Energy Project
11995 Wiley's Well Road
Blythe, California 92225

Figure 1
Site Vicinity Map



-  GSEP Footprint
-  Watershed Boundary
-  Lake
-  Wilderness Area
-  Water Flow Direction



★ Site Location

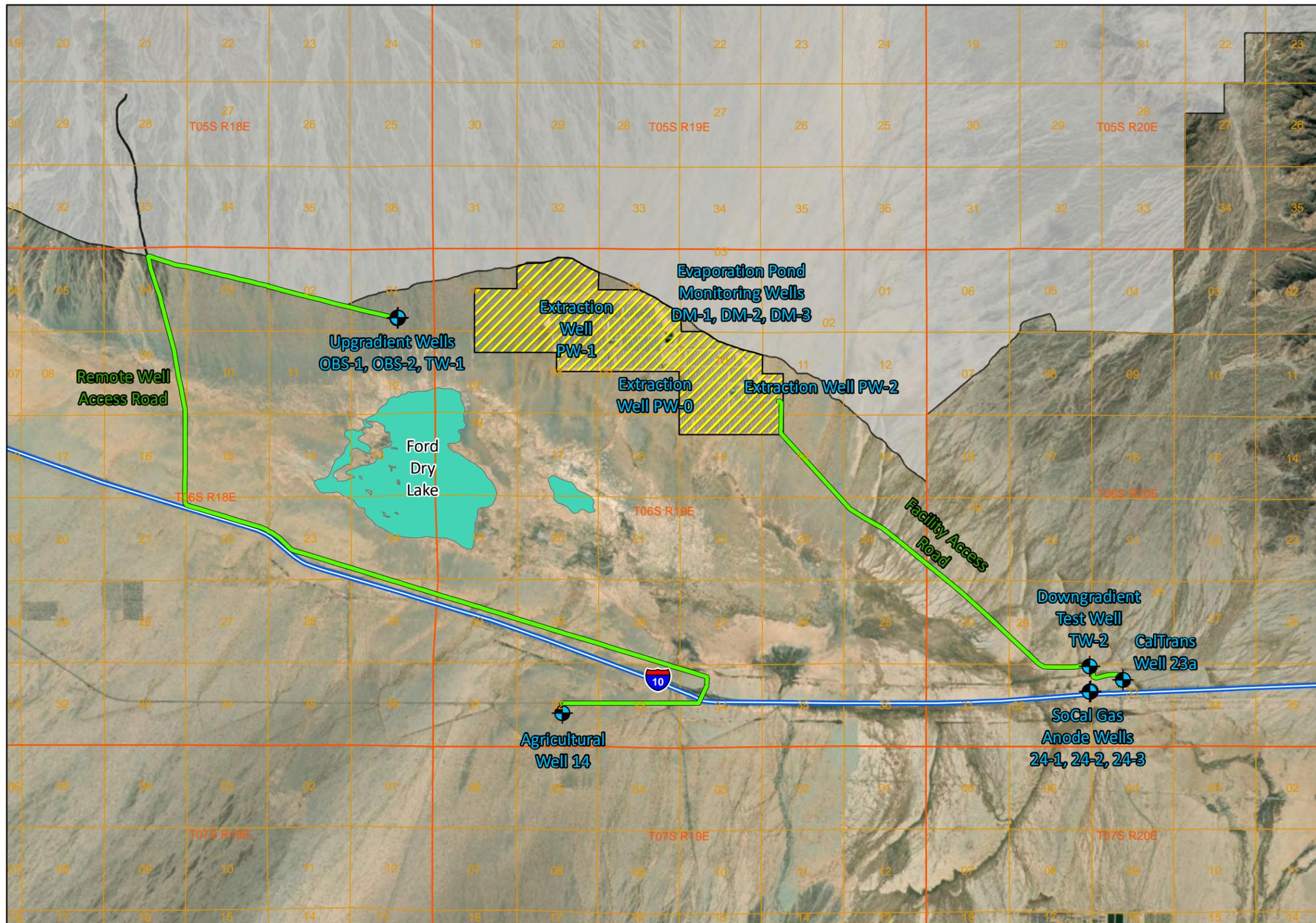


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Figure 2
 Hydrogeologic Setting

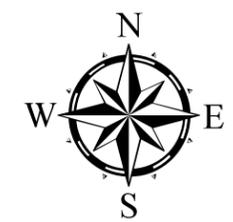
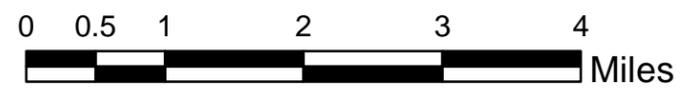


★ Site Location



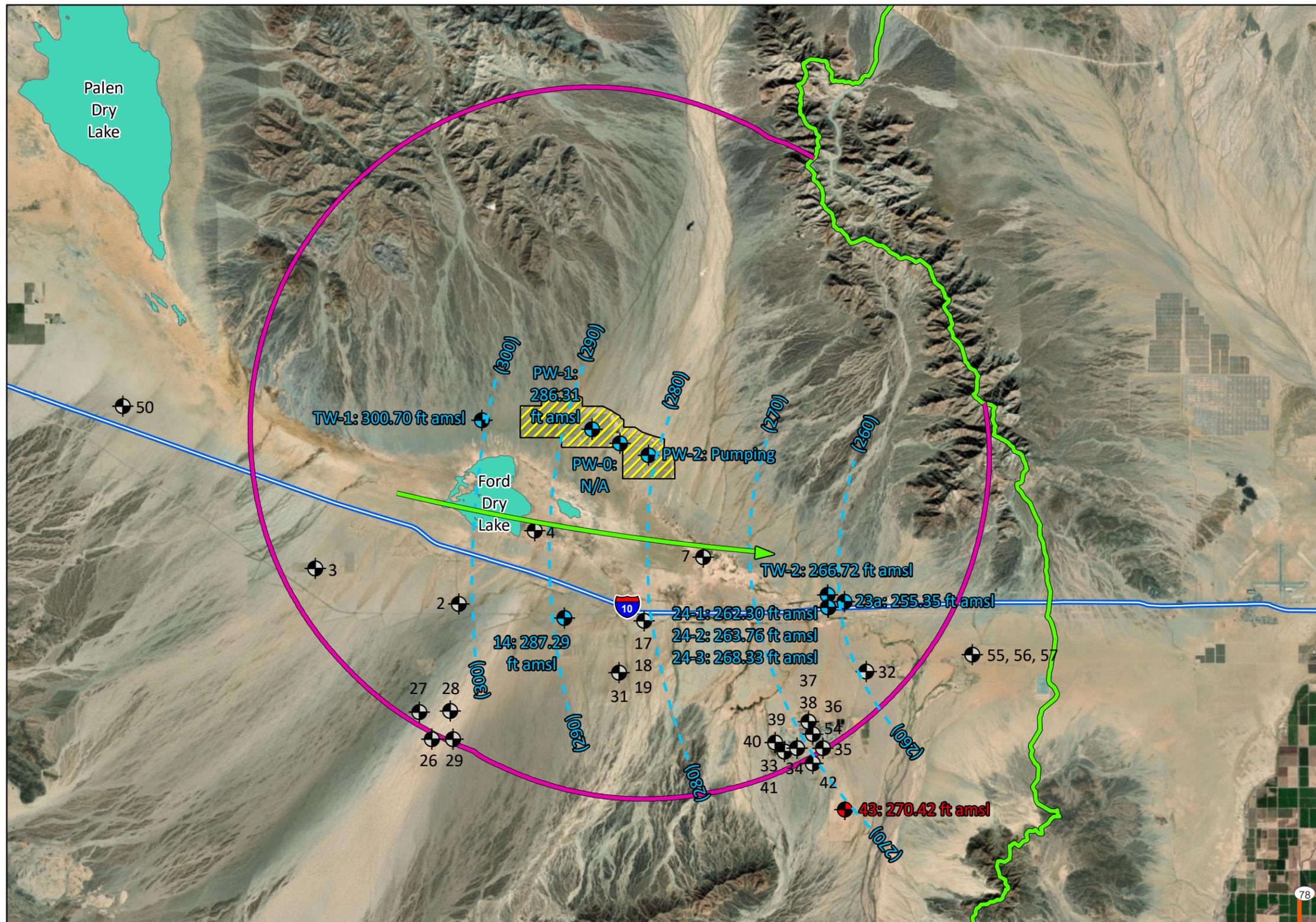
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-  GSEP Footprint
-  Active Monitoring Wells
-  Lake
-  Wilderness Area
-  Access Road

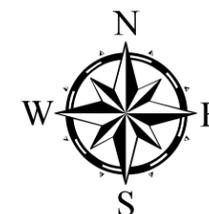


Genesis Solar Energy Project
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 Blythe, California 92225

Figure 3
 Groundwater Monitoring Area
 and Well Locations



-  Active Monitoring Wells
-  NWIS Active Wells
-  NWIS Inactive Wells
-  Groundwater Elevation Contour
-  Groundwater Gradient Direction
-  10 Mile Boundary
-  Watershed Boundary
-  GSEP Footprint





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Figure 4
 Bouse Formation Groundwater
 Elevation Contour Map

TABLES

TABLE 1
INVENTORY OF WELLS IN THE GROUNDWATER MONITORING AREA
 Genesis Solar Energy Project, Riverside County, California

Well ID	State Well Number	Other Name	Owner	Installation Date	Use/Status	Well Casing Diameter (inches)	Approximate Ground Surface Elevation (feet amsl)	Top Of Casing Elevation (feet amsl)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Geologic Unit
WELLS INCLUDED IN THE GROUNDWATER MONITORING PROGRAM											
OBS-1 ¹	--	Shallow Observation Well 1	Genesis Solar, LLC	5/9/2009	Monitoring / Active	5	385.857	388.3	160	100 to 150	Alluvium
OBS-2-270 ^{1,2}	--	Nested Observation Well 2	Genesis Solar, LLC	7/2/2009	Buried Transducer / Active	--	385.617	388.14	270	265 to 275	Bouse Formation
OBS-2-315 ^{1,2}	--	Nested Observation Well 2	Genesis Solar, LLC	7/2/2009	Buried Transducer / Active	--	385.617	388.14	315	304 to 327	Bouse Formation
OBS-2-370 ^{1,2}	--	Nested Observation Well 2	Genesis Solar, LLC	7/2/2009	Buried Transducer / Active	--	385.617	388.14	370	359 to 374	Bouse Formation
OBS-2-400 ^{1,2}	--	Nested Observation Well 2	Genesis Solar, LLC	7/2/2009	Buried Transducer / Active	--	385.617	388.14	400	387 to 418	Bouse Formation
TW-1 ¹	--	Test Well 1	Genesis Solar, LLC	5/22/2009	Monitoring / Active	5	385.91	387.4	565	340 to 564	Bouse Formation
TW-2 ¹	--	Test Well 2	Genesis Solar, LLC	12/9/2009	Monitoring and Dust Control / Active	5	390.003	393.47	1,841	793-873, 1042-1123, 1439-1601, 1739-1820	Bouse Formation / Fanglomerate
PW-0	--	Production Well 0	Genesis Solar, LLC	7/9/2011	Production Well	10	--	--	1,251	882-1002, 1226-1251	Bouse Formation / Fanglomerate
PW-1	--	Production Well 1	Genesis Solar, LLC	8/14/2011	Production Well	10	--	--	1,360	930-950, 990-1000, 1040-1100, 1120-1140, 1160-1200, 1260-1360	Bouse Formation / Fanglomerate
PW-2	--	Production Well 2	Genesis Solar, LLC	9/15/2011	Production Well	10	--	--	1,125	770-930, 980-1120	Bouse Formation
DM-1	--	Detection Monitoring Well 1	Genesis Solar, LLC	2/22/2012	Monitoring / Active	4	--	391.49	120	100 to 120	Alluvium
DM-2	--	Detection Monitoring Well 2	Genesis Solar, LLC	2/21/2012	Monitoring / Active	4	--	391.32	120	100 to 120	Alluvium
DM-3	--	Detection Monitoring Well 3	Genesis Solar, LLC	2/20/2012	Monitoring / Active	4	--	388.34	120	100 to 120	Alluvium
14 ^{1,3}	6S/19E-32	--	Lorne Froats (AZCA Drilling)	5/1/1991	Domestic/ Irrigation/ Dust Control	12 to 10	393.548	388.14	982 (obstructed at 450)	890 to 940	Fanglomerate
23a ^{1,4}	6S/20E-33C1	CalTrans Well @ WWRS	CalTrans	Unknown	Water Supply / Inactive	8	397.28	392.1	1,825	1800-1825	Fanglomerate
24-1 ^{1,5}	6S/20E-33	SCG Anode Well	So Cal Gas	4/29/1989	Anode / Inactive	2	389.3	389.4	435	235 to 435	Alluvium/Bouse Formation
24-2 ⁵	6S/20E-33	SCG Anode Well	So Cal Gas	Unknown	Anode / Inactive	1	389.09	388.86	Obstructed at 373 feet	235 to 435	Alluvium/Bouse Formation
24-3 ⁵	6S/20E-33	SCG Anode Well	So Cal Gas	Unknown	Anode / Inactive	1	388.2	392.04	Unknown	--	Alluvium/Bouse Formation
ADDITIONAL WELLS IN THE CHUCKWALLA VALLEY GROUNDWATER BASIN WITHIN 10 MILES OF THE SITE FOR WHICH MONITORING DATA IS AVAILABLE											
2	6S/18E-36E1	--	CA Jojoba Research and Development	12/18/1981	Irrigation	10 to 6	424	--	940	250 to 290 770 to 810	Alluvium/Bouse Formation
3	6S/18E-29	Siddall Well	Agra Energy Corp.	2/26/1982	Irrigation	20 to 8	498	--	957	560 to 940	Bouse Formation
4	6S/19E-1911	--	--	--	Unused	12	354	--	--	--	--
9	6S/19E-28R1	--	--	--	Unused	--	354	--	--	--	--
15	6S/19E-32K1	--	--	--	--	12.5	390.2	--	Obstructed at 526 feet	--	Bouse Formation
16	6S/19E-32K2	--	--	--	--	10.5	390	--	Obstructed at 297 feet	--	Bouse Formation
22	6S/20E-33L1	--	--	--	Unknown / Destroyed	--	--	--	--	--	Bouse Formation
23	6S/20E-33C1	--	--	--	Unknown / Destroyed	10	392	--	400	--	--
26	7S/18E-14F1	--	U.S. AgriResearch and Development	12/26/1982	Irrigation	16 to 10	562.58	--	1,000 (obstructed at 952 feet)	410 to 630 750 to 770 810 to 870	Alluvium/Bouse Formation
27	7S/18E-11N1	--	--	--	Unused	16	555	--	486.4	--	Bouse Formation
28	7S/18E-11R1	--	--	--	Unused	16	520	--	779.4	--	Bouse Formation
29	7S/18E-14H1	--	U.S. AgriResearch and Development	1/16/1983	Irrigation	10	545.91	--	985 (obstructed at 950 feet)	420 to 460, 500 to 520, 540 to 580, 620-820, 840-990	Bouse Formation
31	7S/19E-4R1	Teaque Well	--	--	Unused	12	423.89	--	242.2	--	Alluvium
32	7S/20E-4R1	Vada McBride	--	--	Unused	16	418	--	315.7	--	Bouse Formation
33	7S/20E-16M1	--	CA Department of Corrections	--	--	30 to 16	456.02	--	1,200	690 to 1190	Bouse Formation/ Fanglomerate
34	7S/20E-17L1	WP-4	CA Department of Corrections	9/8/1992	Public Water Supply	24	458.3	--	1,200	690 to 1190	Bouse Formation/ Fanglomerate
35	7S/20E-17K1	--	CA Department of Corrections	12/20/1989	--	30 to 16	456.48	--	1,200	690 to 1190	Bouse Formation/ Fanglomerate
36 ⁶	7S/20E-17G1	--	CA Department of Corrections	12/30/1987	Industrial	30 to 16 to 10	443.5	--	1,200	690 to 1190	Bouse Formation/ Fanglomerate
37 ⁶	7S/20E-17C1	78, North Well	CA Department of Corrections	7/28/1981	Irrigation	14-10	433.09	--	1,050	750 to 1,050	Bouse Formation/ Fanglomerate
39	7S/20E-18H1	--	CA Department of Corrections	--	--	--	442.9	--	1,139	--	Bouse Formation/ Fanglomerate
40	7S/20E-18K1	WP-6	CA Department of Corrections	11/4/1992	Public Water Supply	15 to 10	449.4	--	1,200	690 to 1,200	Bouse Formation/ Fanglomerate
41	7S/20E-18R1	WP-5	CA Department of Corrections	10/24/1992	Public Water Supply	13.5 to 10	453.6	--	1,160	--	Fanglomerate
42	7S/20E-20B1	79 / Observation Well 3	--	6/4/1905	Irrigation	16 to 12	470	--	1,100	738 to 1,100	Bouse Formation/ Fanglomerate
43	7S/20E-28C1	7S/20E-28F1/80	Jojoba Inc.	3/15/1982	Irrigation	10 to 8	505.6	--	830	510 to 600 and 680 to 780	Bouse Formation
44	7S/20E-28C2	--	Jojoba Southwest	11/30/1989	Irrigation	16 to 12	505.3	--	1,100	700 to 1,100	Bouse Formation/ Fanglomerate
47	8S/20E-10N2	60	--	1984	--	4	621	--	872	500 to 580, 620 to 640, 710 to 850	Bouse Formation
50	6S/17E-3M1	--	--	--	--	--	566	--	818	--	Bouse Formation
54	8S/20E-28N1	--	--	--	--	--	654.5	--	500	--	Bouse Formation
55	7S/20E-1M1	CWV1#1	USGS	1/23/2012	Exploratory	2	415.4	--	993	973 to 993	Bouse Formation
56	7S/20E-1M2	CWV1#2	USGS	1/23/2012	Exploratory	2	415.4	--	505	485 to 505	Pinto Formation
57	7S/20E-1M3	CWV1#3	USGS	1/23/2012	Exploratory	2	415.4	--	230	210 to 230	Alluvium

TABLE 1
INVENTORY OF WELLS IN THE GROUNDWATER MONITORING AREA
 Genesis Solar Energy Project, Riverside County, California

Well ID	State Well Number	Other Name	Owner	Installation Date	Use/Status	Well Casing Diameter (inches)	Approximate Ground Surface Elevation (feet amsl)	Top Of Casing Elevation (feet amsl)	Well Depth (feet bgs)	Screened Interval (feet bgs)	Geologic Unit
ADDITIONAL WELLS IN THE CHUCKWALLA VALLEY GROUNDWATER BASIN WITHIN 10 MILES OF THE SITE FOR WHICH MONITORING DATA ARE NOT AVAILABLE											
1	5S/20E-16M1	McCoy Spring and DWR-17	--	--	Unused	--	889	--	--	--	--
5	6S/19E-25P1	--	--	--	Unknown / Destroyed	10	360	--	85.7	--	Alluvium
6	6S/19E-25R1	--	--	--	Unknown / Destroyed	10	360	--	61.9	--	Alluvium
7	6S/19E-25	Boreholes 1A, 1B, 1C	USGS	1978	Exploratory Borehole / Abandoned	--	358	--	--	--	--
8	6S/19E-26Z1	--	--	--	Unknown / Destroyed	--	--	--	--	--	--
10	6S/19E-29E1	--	--	--	Destroyed / Collapsed	6	377	--	Obstructed at 19.7	--	--
11	6S/19E-30H1	--	--	--	Destroyed	6	370	--	28.7	--	Alluvium
12	6S/19E-31Z1	--	--	--	Destroyed	--	--	--	--	--	--
13	6S/19E-32	--	Jacado Agri Corp.	6/27/1982	Destroyed	22 to 18 to 12	392	--	732	307 to 327 365 to 732	Bouse Formation
17	6S/19E-33A1	Hopkins Well and DWR-33X1	--	1911	Destroyed	12 to 8	361	--	1,200 (obstructed at 267 feet)	1,175 to 1,200	Fanglomerate
18	6S/19E-34	--	So Cal Gas	4/29/1989	Anode	1	368	--	400	200 to 400	Alluvium/Bouse
19	6S/19E-34	--	So Cal Gas	7/15/1981	Other	--	369	--	274	0 to 274	Alluvium/Bouse
20	6S/19E-36A1	--	--	--	Destroyed	10	365	--	64.8	--	Alluvium
21	6S/20E-30Z1	Ford Well	--	--	Stock / Destroyed	10	--	--	--	--	--
25	6S/20E-33	--	So Cal Gas	7/20/1981	Monitoring / Presumed Destroyed	1	397	--	278	0 to 278	Alluvium/Bouse Formation
30	7S/18E-14H1	--	--	--	Destroyed	6	546	--	123.9	--	Alluvium
38	7/20E-17C2	Observation Well 1	CA Department of Corrections	6/20/1986	Monitoring / Presumed Destroyed	1 1/4	433	--	1,040	795 to 815 and 995 to 1,015	Bouse Formation / Fanglomerate
45	7S/20E-28	--	Chuckwalla Jojoba inc Great American Securities	6/6/1989	Test Hole/Abandoned	--	505	--	825	--	--
46	7S/20E-27L1	--	--	--	Destroyed	8	517	--	53.6	--	Alluvium

Notes:

-- = information not available or unknown

amsl = above mean sea level

bgs = below ground surface

1. Wells were surveyed on February 8 & 9, 2011. Ground surface elevation survey measurement taken at top of concrete pad.

2. Nested pressure transducer buried in place.

3. Well is obstructed at 450 feet and therefore not suitable for groundwater quality monitoring. Used for groundwater level monitoring only.

4. Well completion and screened interval determined by video log performed on 11/09/2010

5. Anode well completed with Coke Breeze and not considered to be suitable for water quality sampling and used for groundwater level monitoring program only.

6. No access port for groundwater level monitoring; used for groundwater quality monitoring only.

TABLE 2
GROUNDWATER LEVEL MEASUREMENTS
 Genesis Solar Energy Project, Riverside County, California

Well ID	Date	Source	Top of Casing Elevation (feet amsl) ¹	Depth to Water (feet below TOC)	Groundwater Elevation (feet amsl)	Difference from Baseline (feet)	Comments / Use
WELLS INCLUDED IN THE GROUNDWATER LEVEL MONITORING PROGRAM							
TW-1	5/23/2009	WorleyParsons	387.40	89.75	297.65	N/A	Monitoring
TW-1	11/10/2010	WorleyParsons	387.40	86.65	300.75	0.00	Baseline
TW-1	2/8/2011	WorleyParsons	387.40	86.67	300.73	-0.02	Monitoring
TW-1	6/8/2011	WorleyParsons	387.40	86.58	300.82	0.07	Monitoring
TW-1	9/25/2011	WorleyParsons	387.40	86.48	300.92	0.17	Monitoring
TW-1	12/13/2011	WorleyParsons	387.40	86.25	301.15	0.40	Monitoring
TW-1	2/21/2012	WorleyParsons	387.40	86.58	300.82	0.07	Monitoring
TW-1	5/23/2012	WorleyParsons	387.40	86.43	300.97	0.22	Monitoring
TW-1	7/26/2012	WorleyParsons	387.40	86.47	300.93	0.18	Monitoring
TW-1	10/23/2012	WorleyParsons	387.40	86.43	300.97	0.22	Monitoring
TW-1	3/29/2013	WorleyParsons	387.40	86.46	300.94	0.19	Monitoring
TW-1	6/20/2013	WorleyParsons	387.40	86.43	300.97	0.22	Monitoring
TW-1	8/13/2013	WorleyParsons	387.40	86.43	300.97	0.22	Monitoring
TW-1	11/14/2013	WorleyParsons	387.40	86.53	300.87	0.12	Monitoring
TW-1	2/26/2014	WorleyParsons	387.40	86.49	300.91	0.16	Monitoring
TW-1	5/20/2014	Northstar	387.40	86.47	300.93	0.18	Monitoring
TW-1	8/8/2014	Northstar	387.40	86.46	300.94	0.19	Monitoring
TW-1	12/4/2014	Northstar	387.40	86.50	300.90	0.15	Monitoring
TW-1	3/26/2015	Northstar	387.40	86.56	300.84	0.09	Monitoring
TW-1	6/11/2015	Northstar	387.40	86.50	300.90	0.15	Monitoring
TW-1	12/10/2015	Northstar	387.40	86.56	300.84	0.09	Monitoring
TW-1	6/2/2016	Northstar	387.40	86.58	300.82	0.07	Monitoring
TW-1	11/30/2016	Northstar	387.40	86.70	300.70	-0.05	Monitoring
TW-1	6/1/2017	Northstar	387.40	86.60	300.80	0.05	Monitoring
TW-1	12/5/2017	Northstar	387.40	86.70	300.70	-0.05	Monitoring
TW-1	6/1/2018	Northstar	387.40	86.61	300.79	0.04	Monitoring
TW-1	12/4/2018	Northstar	387.40	86.75	300.65	-0.10	Monitoring
TW-1	6/13/2019	Northstar	387.40	86.70	300.70	-0.05	Monitoring
TW-1	12/5/2019	Northstar	387.40	86.70	300.70	-0.05	Monitoring
TW-2	1/5/2010	WorleyParsons	393.47	132.37	261.10	N/A	Monitoring
TW-2	11/9/2010	WorleyParsons	393.47	127.09	266.38	0.00	Baseline
TW-2	1/19/2011	WorleyParsons	393.47	125.68	267.79	1.41	Monitoring
TW-2	2/8/2011	WorleyParsons	393.47	Pumping		N/A	Pumping
TW-2	6/9/2011	WorleyParsons	393.47	126.46	267.01	0.63	Monitoring
TW-2	9/26/2011	WorleyParsons	393.47	128.04	265.43	-0.95	Monitoring
TW-2	12/14/2011	WorleyParsons	393.47	127.75	265.72	-0.66	Monitoring
TW-2	2/21/2012	WorleyParsons	393.47	127.85	265.62	-0.76	Monitoring
TW-2	5/24/2012	WorleyParsons	393.47	127.88	265.59	-0.79	Monitoring
TW-2	7/26/2012	WorleyParsons	393.47	128.09	265.38	-1.00	Monitoring
TW-2	10/23/2012	WorleyParsons	393.47	127.87	265.60	-0.78	Monitoring
TW-2	3/28/2013	WorleyParsons	393.47	127.22	266.25	-0.13	Monitoring
TW-2	6/20/2013	WorleyParsons	393.47	127.52	265.95	-0.43	Monitoring
TW-2	8/13/2013	WorleyParsons	393.47	127.88	265.59	-0.79	Monitoring
TW-2	11/12/2013	WorleyParsons	393.47	128.07	265.40	-0.98	Monitoring
TW-2	2/26/2014	WorleyParsons	393.47	127.00	266.47	0.09	Monitoring
TW-2	5/20/2014	Northstar	393.47	127.18	266.29	-0.09	Monitoring
TW-2	8/8/2014	Northstar	393.47	127.40	266.07	-0.31	Monitoring
TW-2	12/4/2014	Northstar	393.47	127.22	266.25	-0.13	Monitoring
TW-2	3/26/2015	Northstar	393.47	127.08	266.39	0.01	Monitoring
TW-2	6/11/2015	Northstar	393.47	127.00	266.47	0.09	Monitoring
TW-2	12/10/2015	Northstar	393.47	126.71	266.76	0.38	Monitoring
TW-2	6/2/2016	Northstar	393.47	126.60	266.87	0.49	Monitoring
TW-2	11/30/2016	Northstar	393.47	126.86	266.61	0.23	Monitoring
TW-2	6/1/2017	Northstar	393.47	126.60	266.87	0.49	Monitoring
TW-2	12/5/2017	Northstar	393.47	126.75	266.72	0.34	Monitoring
TW-2	6/1/2018	Northstar	393.47	126.78	266.69	0.31	Monitoring
TW-2	12/4/2018	Northstar	393.47	127.38	266.09	-0.29	Monitoring
TW-2	6/14/2019	Northstar	393.47	127.05	266.42	0.04	Monitoring
TW-2	12/5/2019	Northstar	393.47	126.75	266.72	0.34	Monitoring
OBS-1	5/25/2009	WorleyParsons	388.30	79.22	309.08	N/A	Monitoring
OBS-1	11/10/2010	WorleyParsons	388.30	77.67	310.63	0.00	Baseline
OBS-1	2/8/2011	WorleyParsons	388.30	77.98	310.32	-0.31	Monitoring
OBS-1	6/8/2011	WorleyParsons	388.30	77.99	310.31	-0.32	Monitoring
OBS-1	9/25/2011	WorleyParsons	388.30	78.08	310.22	-0.41	Monitoring
OBS-1	12/13/2011	WorleyParsons	388.30	78.29	310.01	-0.62	Monitoring
OBS-1	2/21/2012	WorleyParsons	388.30	78.17	310.13	-0.50	Monitoring
OBS-1	5/23/2012	WorleyParsons	388.30	78.14	310.16	-0.47	Monitoring
OBS-1	7/26/2012	WorleyParsons	388.30	78.15	310.15	-0.48	Monitoring
OBS-1	10/23/2012	WorleyParsons	388.30	78.09	310.21	-0.42	Monitoring
OBS-1	3/29/2013	WorleyParsons	388.30	78.06	310.24	-0.39	Monitoring

TABLE 2
GROUNDWATER LEVEL MEASUREMENTS
 Genesis Solar Energy Project, Riverside County, California

Well ID	Date	Source	Top of Casing Elevation (feet amsl) ¹	Depth to Water (feet below TOC)	Groundwater Elevation (feet amsl)	Difference from Baseline (feet)	Comments / Use
OBS-1	6/20/2013	WorleyParsons	388.30	78.05	310.25	-0.38	Monitoring
OBS-1	8/13/2013	WorleyParsons	388.30	78.07	310.23	-0.40	Monitoring
OBS-1	11/14/2013	WorleyParsons	388.30	78.15	310.15	-0.48	Monitoring
OBS-1	2/26/2014	WorleyParsons	388.30	78.12	310.18	-0.45	Monitoring
OBS-1	5/20/2014	Northstar	388.30	78.06	310.24	-0.39	Monitoring
OBS-1	8/8/2014	Northstar	388.30	78.05	310.25	-0.38	Monitoring
OBS-1	12/4/2014	Northstar	388.30	78.10	310.20	-0.43	Monitoring
OBS-1	3/26/2015	Northstar	388.30	78.15	310.15	-0.48	Monitoring
OBS-1	6/11/2015	Northstar	388.30	78.10	310.20	-0.43	Monitoring
OBS-1	12/10/2015	Northstar	388.30	78.20	310.10	-0.53	Monitoring
OBS-1	6/2/2016	Northstar	388.30	78.14	310.16	-0.47	Monitoring
OBS-1	11/30/2016	Northstar	388.30	78.20	310.10	-0.53	Monitoring
OBS-1	6/1/2017	Northstar	388.30	78.13	310.17	-0.46	Monitoring
OBS-1	12/5/2017	Northstar	388.30	78.18	310.12	-0.51	Monitoring
OBS-1	6/1/2018	Northstar	388.30	78.10	310.20	-0.43	Monitoring
OBS-1	12/4/2018	Northstar	388.30	78.18	310.12	-0.51	Monitoring
OBS-1	6/13/2019	Northstar	388.30	78.12	310.18	-0.45	Monitoring
OBS-1	12/5/2019	Northstar	388.30	78.10	310.20	-0.43	Monitoring
OBS-2-270 ⁶	7/9/2009	WorleyParsons	388.14	78.75	309.39	N/A	Monitoring
OBS-2-270 ⁶	11/10/2010	WorleyParsons	388.14	80.56	307.58	0.00	Baseline
OBS-2-270 ⁶	2/8/2011	WorleyParsons	388.14	80.61	307.53	-0.05	Monitoring
OBS-2-270 ⁶	2/8/2011	WorleyParsons	388.14	80.68	307.46	-0.12	Monitoring
OBS-2-270 ⁶	9/25/2011	WorleyParsons	388.14	80.77	307.37	-0.21	Monitoring
OBS-2-270 ⁶	12/14/2011	WorleyParsons	388.14	NM ²		N/A	Monitoring
OBS-2-270 ⁶	2/21/2012	WorleyParsons	388.14	80.47	307.67	0.09	Monitoring
OBS-2-270 ⁶	5/25/2012	WorleyParsons	388.14	81.28	306.86	-0.72	Monitoring
OBS-2-270 ⁶	7/26/2012	WorleyParsons	388.14	81.00	307.14	-0.44	Monitoring
OBS-2-270 ⁶	10/23/2012	WorleyParsons	388.14	81.01	307.13	-0.45	Monitoring
OBS-2-270 ⁶	3/29/2013	WorleyParsons	388.14	80.99	307.15	-0.43	Monitoring
OBS-2-270 ⁶	6/20/2013	WorleyParsons	388.14	NM ²		N/A	Monitoring
OBS-2-270 ⁶	8/13/2013	WorleyParsons	388.14	NM ²		N/A	Monitoring
OBS-2-270 ⁶	11/12/2013	WorleyParsons	388.14	81.24	306.90	-0.68	Monitoring
OBS-2-270 ⁶	2/26/2014	WorleyParsons	388.14	81.48	306.66	-0.92	Monitoring
OBS-2-315 ⁶	7/9/2009	WorleyParsons	388.14	80.89	307.25	N/A	Monitoring
OBS-2-315 ⁶	11/10/2010	WorleyParsons	388.14	82.51	305.63	0.00	Baseline
OBS-2-315 ⁶	2/8/2011	WorleyParsons	388.14	82.61	305.53	-0.10	Monitoring
OBS-2-315 ⁶	2/8/2011	WorleyParsons	388.14	82.83	305.31	-0.32	Monitoring
OBS-2-315 ⁶	9/25/2011	WorleyParsons	388.14	83.03	305.11	-0.52	Monitoring
OBS-2-315 ⁶	12/14/2011	WorleyParsons	388.14	NM ²		N/A	Monitoring
OBS-2-315 ⁶	2/21/2012	WorleyParsons	388.14	82.81	305.33	-0.30	Monitoring
OBS-2-315 ⁶	5/25/2012	WorleyParsons	388.14	NM ²		N/A	Monitoring
OBS-2-315 ⁶	7/26/2012	WorleyParsons	388.14	83.38	304.76	-0.87	Monitoring
OBS-2-315 ⁶	10/23/2012	WorleyParsons	388.14	83.43	304.71	-0.92	Monitoring
OBS-2-315 ⁶	3/29/2013	WorleyParsons	388.14	83.45	304.69	-0.94	Monitoring
OBS-2-315 ⁶	6/20/2013	WorleyParsons	388.14	NM ²		N/A	Monitoring
OBS-2-315 ⁶	8/13/2013	WorleyParsons	388.14	NM ²		N/A	Monitoring
OBS-2-315 ⁶	11/12/2013	WorleyParsons	388.14	83.74	304.40	-1.23	Monitoring
OBS-2-315 ⁶	2/26/2014	WorleyParsons	388.14	83.96	304.18	-1.45	Monitoring
OBS-2-370 ⁶	7/9/2009	WorleyParsons	388.14	82.46	305.68	N/A	Monitoring
OBS-2-370 ⁶	11/10/2010	WorleyParsons	388.14	84.60	303.54	0.00	Baseline
OBS-2-370 ⁶	2/8/2011	WorleyParsons	388.14	85.01	303.13	-0.41	Monitoring
OBS-2-370 ⁶	9/25/2011	WorleyParsons	388.14	85.24	302.90	-0.64	Monitoring
OBS-2-370 ⁶	12/14/2011	WorleyParsons	388.14	NM ²		N/A	Monitoring
OBS-2-370 ⁶	2/21/2012	WorleyParsons	388.14	85.05	303.09	-0.45	Monitoring
OBS-2-370 ⁶	5/25/2012	WorleyParsons	388.14	85.84	302.30	-1.24	Monitoring
OBS-2-370 ⁶	7/26/2012	WorleyParsons	388.14	85.64	302.50	-1.04	Monitoring
OBS-2-370 ⁶	10/23/2012	WorleyParsons	388.14	85.70	302.44	-1.10	Monitoring
OBS-2-370 ⁶	3/29/2013	WorleyParsons	388.14	85.75	302.39	-1.15	Monitoring
OBS-2-370 ⁶	6/20/2013	WorleyParsons	388.14	NM ²		N/A	Monitoring
OBS-2-370 ⁶	8/13/2013	WorleyParsons	388.14	NM ²		N/A	Monitoring
OBS-2-370 ⁶	11/12/2013	WorleyParsons	388.14	86.05	302.09	-1.45	Monitoring
OBS-2-370 ⁶	2/26/2014	WorleyParsons	388.14	86.27	301.87	-1.67	Monitoring
OBS-2-400 ⁶	7/9/2009	WorleyParsons	388.14	86.26	301.88	N/A	Monitoring
OBS-2-400 ⁶	11/10/2010	WorleyParsons	388.14	87.34	300.80	0.00	Baseline

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GROUNDWATER LEVEL MEASUREMENTS
 Genesis Solar Energy Project, Riverside County, California

Well ID	Date	Source	Top of Casing Elevation (feet amsl) ¹	Depth to Water (feet below TOC)	Groundwater Elevation (feet amsl)	Difference from Baseline (feet)	Comments / Use
OBS-2-400 ⁶	2/8/2011	WorleyParsons	388.14	87.41	300.73	-0.07	Monitoring
OBS-2-400 ⁶	2/8/2011	WorleyParsons	388.14	87.57	300.57	-0.23	Monitoring
OBS-2-400 ⁶	9/25/2011	WorleyParsons	388.14	87.73	300.41	-0.39	Monitoring
OBS-2-400 ⁶	12/14/2011	WorleyParsons	388.14	NM ²		N/A	Monitoring
OBS-2-400 ⁶	2/21/2012	WorleyParsons	388.14	87.47	300.67	-0.13	Monitoring
OBS-2-400 ⁶	5/25/2012	WorleyParsons	388.14	88.20	299.94	-0.86	Monitoring
OBS-2-400 ⁶	7/26/2012	WorleyParsons	388.14	87.96	300.18	-0.62	Monitoring
OBS-2-400 ⁶	10/23/2012	WorleyParsons	388.14	87.97	300.17	-0.63	Monitoring
OBS-2-400 ⁶	3/29/2013	WorleyParsons	388.14	88.20	299.94	-0.86	Monitoring
OBS-2-400 ⁶	6/20/2013	WorleyParsons	388.14	NM ²		N/A	Monitoring
OBS-2-400 ⁶	8/13/2013	WorleyParsons	388.14	NM ²		N/A	Monitoring
OBS-2-400 ⁶	11/12/2013	WorleyParsons	388.14	88.12	300.02	-0.78	Monitoring
OBS-2-400 ⁶	2/26/2014	WorleyParsons	388.14	88.31	299.83	-0.97	Monitoring
14	6/8/2011	WorleyParsons	388.14	100.98	287.16	0.00	Baseline
14	9/26/2011	WorleyParsons	388.14	100.65	287.49	0.33	Monitoring
14	12/14/2011	WorleyParsons	388.14	100.87	287.27	0.11	Monitoring
14	2/21/2012	WorleyParsons	388.14	100.85	287.29	0.13	Monitoring
14	5/24/2012	WorleyParsons	388.14	100.70	287.44	0.28	Monitoring
14	7/26/2012	WorleyParsons	388.14	100.72	287.42	0.26	Monitoring
14	10/23/2012	WorleyParsons	388.14	100.66	287.48	0.32	Monitoring
14	3/28/2013	WorleyParsons	388.14	100.49	287.65	0.49	Monitoring
14	6/20/2013	WorleyParsons	388.14	100.46	287.68	0.52	Monitoring
14	8/13/2013	WorleyParsons	388.14	100.46	287.68	0.52	Monitoring
14	11/12/2013	WorleyParsons	388.14	NM ⁴		N/A	Monitoring
14	2/26/2014	WorleyParsons	388.14	100.39	287.75	0.59	Monitoring
14	5/20/2014	Northstar	388.14	100.35	287.79	0.63	Monitoring
14	8/8/2014	Northstar	388.14	100.26	287.88	0.72	Monitoring
14	12/4/2014	Northstar	388.14	100.25	287.89	0.73	Monitoring
14	3/26/2015	Northstar	388.14	100.25	287.89	0.73	Monitoring
14	6/11/2015	Northstar	388.14	100.15	287.99	0.83	Monitoring
14	12/10/2015	Northstar	388.14	100.12	288.02	0.86	Monitoring
14	6/2/2016	Northstar	388.14	100.08	288.06	0.90	Monitoring
14	11/30/2016	Northstar	388.14	100.10	288.04	0.88	Monitoring
14	6/2/2017	Northstar	388.14	100.13	288.01	0.85	Monitoring
14 ⁸	12/5/2017	Northstar	388.14	128.75		N/A	Monitoring
14	6/1/2018	Northstar	388.14	100.60	287.54	0.38	Monitoring
14	12/4/2018	Northstar	388.14	100.52	287.62	0.46	Monitoring
14	6/13/2019	Northstar	388.14	100.20	287.94	0.78	Monitoring
14	12/5/2019	Northstar	388.14	100.85	287.29	0.13	Monitoring
23a	11/11/2010	WorleyParsons	392.10	138.05	254.05	0.00	Baseline
23a	2/8/2011	WorleyParsons	392.10	137.12	254.98	0.93	Monitoring
23a	6/7/2011	WorleyParsons	392.10	137.58	254.52	0.47	Monitoring
23a	9/26/2011	WorleyParsons	392.10	138.01	254.09	0.04	Monitoring
23a	12/14/2011	WorleyParsons	392.10	138.88	253.22	-0.83	Monitoring
23a	2/22/2012	WorleyParsons	392.10	137.70	254.40	0.35	Monitoring
23a	5/24/2012	WorleyParsons	392.10	137.74	254.36	0.31	Monitoring
23a	7/26/2012	WorleyParsons	392.10	137.76	254.34	0.29	Monitoring
23a	10/23/2012	WorleyParsons	392.10	137.94	254.16	0.11	Monitoring
23a	3/28/2013	WorleyParsons	392.10	137.27	254.83	0.78	Monitoring
23a	6/20/2013	WorleyParsons	392.10	137.77	254.33	0.28	Monitoring
23a	8/13/2013	WorleyParsons	392.10	137.81	254.29	0.24	Monitoring
23a	11/12/2013	WorleyParsons	392.10	138.01	254.09	0.04	Monitoring
23a	2/25/2014	WorleyParsons	392.10	136.90	255.20	1.15	Monitoring
23a	5/20/2014	Northstar	392.10	137.15	254.95	0.90	Monitoring
23a	8/8/2014	Northstar	392.10	137.31	254.79	0.74	Monitoring
23a	12/4/2014	Northstar	392.10	137.18	254.92	0.87	Monitoring
23a	3/26/2015	Northstar	392.10	NM ⁷		N/A	Monitoring
23a	6/11/2015	Northstar	392.10	NM ⁷		N/A	Monitoring
23a	12/10/2015	Northstar	392.10	136.60	255.50	1.45	Monitoring
23a	6/2/2016	Northstar	392.10	136.55	255.55	1.50	Monitoring
23a	11/30/2016	Northstar	392.10	136.75	255.35	1.30	Monitoring
23a	6/1/2017	Northstar	392.10	136.40	255.70	1.65	Monitoring
23a	12/5/2017	Northstar	392.10	136.70	255.40	1.35	Monitoring
23a	6/1/2018	Northstar	392.10	136.60	255.50	1.45	Monitoring
23a	12/4/2018	Northstar	392.10	NM ⁷		N/A	Monitoring
23a	6/14/2019	Northstar	392.10	136.60	255.50	1.45	Monitoring
23a	12/5/2019	Northstar	392.10	136.75	255.35	1.30	Monitoring
24-1	2/8/2011	WorleyParsons	389.40	123.66	265.74	N/A	Monitoring

TABLE 2
GROUNDWATER LEVEL MEASUREMENTS
 Genesis Solar Energy Project, Riverside County, California

Well ID	Date	Source	Top of Casing Elevation (feet amsl) ¹	Depth to Water (feet below TOC)	Groundwater Elevation (feet amsl)	Difference from Baseline (feet)	Comments / Use
24-1	6/8/2011	WorleyParsons	389.40	126.71	262.69	0.00	Baseline
24-1	9/26/2011	WorleyParsons	389.40	127.15	262.25	-0.44	Monitoring
24-1	12/13/2011	WorleyParsons	389.40	126.98	262.42	-0.27	Monitoring
24-1	2/22/2012	WorleyParsons	389.40	127.20	262.20	-0.49	Monitoring
24-1	5/23/2012	WorleyParsons	389.40	127.14	262.26	-0.43	Monitoring
24-1	7/26/2012	WorleyParsons	389.40	127.31	262.09	-0.60	Monitoring
24-1	10/23/2012	WorleyParsons	389.40	127.21	262.19	-0.50	Monitoring
24-1	3/28/2013	WorleyParsons	389.40	126.73	262.67	-0.02	Monitoring
24-1	6/19/2013	WorleyParsons	389.40	127.95	261.45	-1.24	Monitoring
24-1	8/14/2013	WorleyParsons	389.40	127.18	262.22	-0.47	Monitoring
24-1	11/13/2013	WorleyParsons	389.40	127.31	262.09	-0.60	Monitoring
24-1	2/25/2014	WorleyParsons	389.40	125.70	263.70	1.01	Monitoring
24-1	5/22/2014	Northstar	389.40	126.84	262.56	-0.13	Monitoring
24-1	8/8/2014	Northstar	389.40	126.91	262.49	-0.20	Monitoring
24-1	12/5/2014	Northstar	389.40	126.91	262.49	-0.20	Monitoring
24-1	3/26/2015	Northstar	389.40	127.10	262.30	-0.39	Monitoring
24-1	6/11/2015	Northstar	389.40	127.02	262.38	-0.31	Monitoring
24-1	12/11/2015	Northstar	389.40	126.80	262.60	-0.09	Monitoring
24-1	6/3/2016	Northstar	389.40	126.79	262.61	-0.08	Monitoring
24-1	11/30/2016	Northstar	389.40	126.93	262.47	-0.22	Monitoring
24-1	6/2/2017	Northstar	389.40	126.88	262.52	-0.17	Monitoring
24-1	12/5/2017	Northstar	389.40	126.95	262.45	-0.24	Monitoring
24-1	6/1/2018	Northstar	389.40	126.91	262.49	-0.20	Monitoring
24-1	12/4/2018	Northstar	389.40	127.36	262.04	-0.65	Monitoring
24-1	6/13/2019	Northstar	389.40	127.27	262.13	-0.56	Monitoring
24-1	12/5/2019	Northstar	389.40	127.10	262.30	-0.39	Monitoring
24-2	2/8/2011	WorleyParsons	388.86	124.91	263.95	0.00	Baseline
24-2	10/23/2011	WorleyParsons	388.86	125.69	263.17	-0.78	Monitoring
24-2	6/19/2013	WorleyParsons	388.86	125.40	263.46	-0.49	Monitoring
24-2	8/14/2013	WorleyParsons	388.86	126.60	262.26	-1.69	Monitoring
24-2	5/22/2014	Northstar	388.86	125.82	263.04	-0.91	Monitoring
24-2	8/8/2014	Northstar	388.86	125.33	263.53	-0.42	Monitoring
24-2	12/5/2014	Northstar	388.86	125.95	262.91	-1.04	Monitoring
24-2	3/26/2015	Northstar	388.86	125.20	263.66	-0.29	Monitoring
24-2	6/11/2015	Northstar	388.86	125.15	263.71	-0.24	Monitoring
24-2	12/11/2015	Northstar	388.86	124.90	263.96	0.01	Monitoring
24-2	6/3/2016	Northstar	388.86	124.90	263.96	0.01	Monitoring
24-2	11/30/2016	Northstar	388.86	125.08	263.78	-0.17	Monitoring
24-2	6/2/2017	Northstar	388.86	125.00	263.86	-0.09	Monitoring
24-2	12/5/2017	Northstar	388.86	125.05	263.81	-0.14	Monitoring
24-2	6/1/2018	Northstar	388.86	125.00	263.86	-0.09	Monitoring
24-2	12/4/2018	Northstar	388.86	125.45	263.41	-0.54	Monitoring
24-2	6/13/2019	Northstar	388.86	125.35	263.51	-0.44	Monitoring
24-2	12/5/2019	Northstar	388.86	125.10	263.76	-0.19	Monitoring
24-3	2/8/2011	WorleyParsons	392.04	126.45	265.59	N/A	Monitoring
24-3	10/23/2011	WorleyParsons	392.04	124.48	267.56	0.00	Baseline
24-3	6/19/2013	WorleyParsons	392.04	124.15	267.89	0.33	Monitoring
24-3	8/14/2013	WorleyParsons	392.04	124.44	267.60	0.04	Monitoring
24-3	5/22/2014	Northstar	392.04	124.00	268.04	0.48	Monitoring
24-3	8/8/2014	Northstar	392.04	124.07	267.97	0.41	Monitoring
24-3	12/5/2014	Northstar	392.04	124.05	267.99	0.43	Monitoring
24-3	3/26/2015	Northstar	392.04	123.90	268.14	0.58	Monitoring
24-3	6/11/2015	Northstar	392.04	123.85	268.19	0.63	Monitoring
24-3	12/11/2015	Northstar	392.04	123.55	268.49	0.93	Monitoring
24-3	6/3/2016	Northstar	392.04	123.48	268.56	1.00	Monitoring
24-3	11/30/2016	Northstar	392.04	123.65	268.39	0.83	Monitoring
24-3	6/2/2017	Northstar	392.04	123.55	268.49	0.93	Monitoring
24-3	12/5/2017	Northstar	392.04	123.65	268.39	0.83	Monitoring
24-3	6/1/2018	Northstar	392.04	123.57	268.47	0.91	Monitoring
24-3	12/4/2018	Northstar	392.04	124.08	267.96	0.40	Monitoring
24-3	6/13/2019	Northstar	392.04	123.95	268.09	0.53	Monitoring
24-3	12/5/2019	Northstar	392.04	123.71	268.33	0.77	Monitoring
PW-0	12/14/2011	WorleyParsons	385.64	NM ³		N/A	Production/Monitoring
PW-0	2/23/2012	WorleyParsons	385.64	NM ³		N/A	Production/Monitoring
PW-0	5/23/2012	WorleyParsons	385.64	NM ³		N/A	Production/Monitoring
PW-0	7/26/2012	WorleyParsons	385.64	NM ³		N/A	Production/Monitoring
PW-0	10/23/2012	WorleyParsons	385.64	Pumping		N/A	Production/Monitoring
PW-0	3/28/2013	WorleyParsons	385.64	67.71	317.93	N/A	Production/Monitoring
PW-0	6/19/2013	WorleyParsons	385.64	Pumping		N/A	Production/Monitoring
PW-0	8/13/2013	WorleyParsons	385.64	100.49	285.15	N/A	Production/Monitoring

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 Genesis Solar Energy Project, Riverside County, California

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PW-0	11/13/2013	WorleyParsons	385.64	118.10	267.54	N/A	Production/Monitoring
PW-0	2/26/2014	WorleyParsons	385.64	98.46	287.18	N/A	Production/Monitoring
PW-0	5/20/2014	Northstar	385.64	99.60	286.04	N/A	Production/Monitoring
PW-0	8/8/2014	Northstar	385.64	99.06	286.58	N/A	Production/Monitoring
PW-0	12/4/2014	Northstar	385.64	99.65	285.99	N/A	Production/Monitoring
PW-0	3/26/2015	Northstar	385.64	99.62	286.02	N/A	Production/Monitoring
PW-0	6/11/2015	Northstar	385.64	98.00	287.64	N/A	Production/Monitoring
PW-0	12/10/2015	Northstar	385.64	99.55	286.09	N/A	Production/Monitoring
PW-0	6/3/2016	Northstar	385.64	99.78	285.86	N/A	Production/Monitoring
PW-0	11/30/2016	Northstar	385.64	99.50	286.14	N/A	Production/Monitoring
PW-0	6/1/2017	Northstar	385.64	99.32	286.32	N/A	Production/Monitoring
PW-0	12/5/2017	Northstar	385.64	98.00	287.64	N/A	Production/Monitoring
PW-0	5/30/2018	Northstar	385.64	99.27	286.37	N/A	Production/Monitoring
PW-0	12/4/2018	Northstar	385.64	NM ⁹		N/A	Production/Monitoring
PW-0	6/13/2019	Northstar	385.64	NM ⁹		N/A	Production/Monitoring
PW-0	12/5/2019	Northstar	385.64	NM ⁹		N/A	Production/Monitoring
PW-1	12/14/2011	WorleyParsons	384.43	Pumping		N/A	Production/Monitoring
PW-1	2/23/2012	WorleyParsons	384.43	100.84	283.59	N/A	Production/Monitoring
PW-1	5/23/2012	WorleyParsons	384.43	Pumping		N/A	Production/Monitoring
PW-1	7/26/2012	WorleyParsons	384.43	101.09		N/A	Production/Monitoring
PW-1	10/23/2012	WorleyParsons	384.43	100.89	283.54	N/A	Production/Monitoring
PW-1	3/28/2013	WorleyParsons	384.43	100.60	283.83	N/A	Production/Monitoring
PW-1	6/19/2013	WorleyParsons	384.43	Pumping		N/A	Production/Monitoring
PW-1	8/13/2013	WorleyParsons	384.43	109.35	275.08	N/A	Production/Monitoring
PW-1	11/13/2013	WorleyParsons	384.43	99.89	284.54	N/A	Production/Monitoring
PW-1	2/26/2014	WorleyParsons	384.43	98.49	285.94	N/A	Production/Monitoring
PW-1	5/20/2014	Northstar	384.43	NM ⁵		N/A	Production/Monitoring
PW-1	8/8/2014	Northstar	384.43	NM ⁵		N/A	Production/Monitoring
PW-1	12/4/2014	Northstar	384.43	NM ⁵		N/A	Production/Monitoring
PW-1	3/26/2015	Northstar	384.43	NM ⁵		N/A	Production/Monitoring
PW-1	6/11/2015	Northstar	384.43	NM ⁵		N/A	Production/Monitoring
PW-1	12/10/2015	Northstar	384.43	NM ⁵		N/A	Production/Monitoring
PW-1	6/2/2016	Northstar	384.43	NM ⁵		N/A	Production/Monitoring
PW-1	11/30/2016	Northstar	384.43	NM ⁵		N/A	Production/Monitoring
PW-1	6/1/2017	Northstar	384.43	98.20	286.23	N/A	Production/Monitoring
PW-1	12/5/2017	Northstar	384.43	98.30	286.13	N/A	Production/Monitoring
PW-1	5/30/2018	Northstar	384.43	98.24	286.19	N/A	Production/Monitoring
PW-1	12/4/2018	Northstar	384.43	98.78	285.65	N/A	Production/Monitoring
PW-1	6/13/2019	Northstar	384.43	98.55	285.88	N/A	Production/Monitoring
PW-1	12/5/2019	Northstar	384.43	98.12	286.31	N/A	Production/Monitoring
PW-2	12/14/2011	WorleyParsons	385.15	Pumping		N/A	Production/Monitoring
PW-2	2/23/2012	WorleyParsons	385.15	Pumping		N/A	Production/Monitoring
PW-2	5/23/2012	WorleyParsons	385.15	Pumping		N/A	Production/Monitoring
PW-2	7/26/2012	WorleyParsons	385.15	101.30	283.85	N/A	Production/Monitoring
PW-2	10/23/2012	WorleyParsons	385.15	Pumping		N/A	Production/Monitoring
PW-2	3/28/2013	WorleyParsons	385.15	Pumping		N/A	Production/Monitoring
PW-2	6/19/2013	WorleyParsons	385.15	Pumping		N/A	Production/Monitoring
PW-2	8/13/2013	WorleyParsons	385.15	101.75	283.40	N/A	Production/Monitoring
PW-2	11/12/2013	WorleyParsons	385.15	102.69	282.46	N/A	Production/Monitoring
PW-2	2/26/2014	WorleyParsons	385.15	100.52	284.63	N/A	Production/Monitoring
PW-2	5/20/2014	Northstar	385.15	Pumping		N/A	Production/Monitoring
PW-2	8/8/2014	Northstar	385.15	Pumping		N/A	Production/Monitoring
PW-2	12/4/2014	Northstar	385.15	Pumping		N/A	Production/Monitoring
PW-2	3/26/2015	Northstar	385.15	Pumping		N/A	Production/Monitoring
PW-2	6/11/2015	Northstar	385.15	Pumping		N/A	Production/Monitoring
PW-2	12/10/2015	Northstar	385.15	Pumping		N/A	Production/Monitoring
PW-2	6/2/2016	Northstar	385.15	Pumping		N/A	Production/Monitoring
PW-2	11/30/2016	Northstar	385.15	Pumping		N/A	Production/Monitoring
PW-2	6/1/2017	Northstar	385.15	Pumping		N/A	Production/Monitoring
PW-2	12/5/2017	Northstar	385.15	Pumping		N/A	Production/Monitoring
PW-2	5/30/2018	Northstar	385.15	105.69	279.46	N/A	Production/Monitoring
PW-2	12/4/2018	Northstar	385.15	NM ⁹		N/A	Production/Monitoring
PW-2	6/13/2019	Northstar	385.15	NM ⁹		N/A	Production/Monitoring
PW-2	12/5/2019	Northstar	385.15	NM ⁹		N/A	Production/Monitoring
DM-1	2/27/2012	WorleyParsons	391.49	106.63	284.86	N/A	Monitoring
DM-1	5/24/2012	WorleyParsons	391.49	107.11	284.38	0.00	Baseline
DM-1	7/26/2012	WorleyParsons	391.49	107.10	284.39	0.01	Monitoring
DM-1	11/14/2012	WorleyParsons	391.49	108.15	283.34	-1.04	Monitoring

TABLE 2
GROUNDWATER LEVEL MEASUREMENTS
 Genesis Solar Energy Project, Riverside County, California

Well ID	Date	Source	Top of Casing Elevation (feet amsl) ¹	Depth to Water (feet below TOC)	Groundwater Elevation (feet amsl)	Difference from Baseline (feet)	Comments / Use
DM-1	3/29/2013	WorleyParsons	391.49	107.34	284.15	-0.23	Monitoring
DM-1	6/19/2013	WorleyParsons	391.49	107.19	284.30	-0.08	Monitoring
DM-1	8/13/2013	WorleyParsons	391.49	107.07	284.42	0.04	Monitoring
DM-1	11/12/2013	WorleyParsons	391.49	107.22	284.27	-0.11	Monitoring
DM-1	2/26/2014	WorleyParsons	391.49	107.13	284.36	-0.02	Monitoring
DM-1	5/22/2014	Northstar	391.49	107.05	284.44	0.06	Monitoring
DM-1	8/8/2014	Northstar	391.49	107.11	284.38	0.00	Monitoring
DM-1	12/4/2014	Northstar	391.49	107.03	284.46	0.08	Monitoring
DM-1	3/26/2015	Northstar	391.49	107.22	284.27	-0.11	Monitoring
DM-1	6/11/2015	Northstar	391.49	107.01	284.48	0.10	Monitoring
DM-1	12/10/2015	Northstar	391.49	106.98	284.51	0.13	Monitoring
DM-1	6/2/2016	Northstar	391.49	107.18	284.31	-0.07	Monitoring
DM-1	11/30/2016	Northstar	391.49	107.27	284.22	-0.16	Monitoring
DM-1	6/1/2017	Northstar	391.49	107.12	284.37	-0.01	Monitoring
DM-1	12/5/2017	Northstar	391.49	107.38	284.11	-0.27	Monitoring
DM-1	5/30/2018	Northstar	391.49	107.10	284.39	0.01	Monitoring
DM-1	12/4/2018	Northstar	391.49	107.45	284.04	-0.34	Monitoring
DM-1	6/14/2019	Northstar	391.49	107.18	284.31	-0.07	Monitoring
DM-1	12/5/2019	Northstar	391.49	107.42	284.07	-0.31	Monitoring
DM-2	2/27/2012	WorleyParsons	391.32	106.92	284.40	N/A	Monitoring
DM-2	5/24/2012	WorleyParsons	391.32	107.37	283.95	0.00	Baseline
DM-2	7/26/2012	WorleyParsons	391.32	107.33	283.99	0.04	Monitoring
DM-2	11/14/2012	WorleyParsons	391.32	108.33	282.99	-0.96	Monitoring
DM-2	3/29/2013	WorleyParsons	391.32	107.59	283.73	-0.22	Monitoring
DM-2	6/19/2013	WorleyParsons	391.32	107.41	283.91	-0.04	Monitoring
DM-2	8/13/2013	WorleyParsons	391.32	107.31	284.01	0.06	Monitoring
DM-2	11/12/2013	WorleyParsons	391.32	107.63	283.69	-0.26	Monitoring
DM-2	2/26/2014	WorleyParsons	391.32	107.40	283.92	-0.03	Monitoring
DM-2	5/22/2014	Northstar	391.32	107.28	284.04	0.09	Monitoring
DM-2	8/8/2014	Northstar	391.32	107.28	284.04	0.09	Monitoring
DM-2	12/4/2014	Northstar	391.32	107.43	283.89	-0.06	Monitoring
DM-2	3/26/2015	Northstar	391.32	107.61	283.71	-0.24	Monitoring
DM-2	6/11/2015	Northstar	391.32	107.40	283.92	-0.03	Monitoring
DM-2	12/10/2015	Northstar	391.32	107.30	284.02	0.07	Monitoring
DM-2	6/2/2016	Northstar	391.32	107.38	283.94	-0.01	Monitoring
DM-2	11/30/2016	Northstar	391.32	107.52	283.80	-0.15	Monitoring
DM-2	6/1/2017	Northstar	391.32	107.47	283.85	-0.10	Monitoring
DM-2	12/5/2017	Northstar	391.32	107.78	283.54	-0.41	Monitoring
DM-2	5/30/2018	Northstar	391.32	107.45	283.87	-0.08	Monitoring
DM-2	12/4/2018	Northstar	391.32	107.80	283.52	-0.43	Monitoring
DM-2	6/14/2019	Northstar	391.32	107.55	283.77	-0.18	Monitoring
DM-2	12/5/2019	Northstar	391.32	107.72	283.60	-0.35	Monitoring
DM-3	2/27/2012	WorleyParsons	388.34	103.85	284.49	N/A	Monitoring
DM-3	5/24/2012	WorleyParsons	388.34	104.35	283.99	0.00	Baseline
DM-3	7/26/2012	WorleyParsons	388.34	104.28	284.06	0.07	Monitoring
DM-3	11/14/2012	WorleyParsons	388.34	105.25	283.09	-0.90	Monitoring
DM-3	3/29/2013	WorleyParsons	388.34	104.35	283.99	0.00	Monitoring
DM-3	6/19/2013	WorleyParsons	388.34	104.20	284.14	0.15	Monitoring
DM-3	8/13/2013	WorleyParsons	388.34	104.31	284.03	0.04	Monitoring
DM-3	11/12/2013	WorleyParsons	388.34	104.43	283.91	-0.08	Monitoring
DM-3	2/26/2014	WorleyParsons	388.34	104.31	284.03	0.04	Monitoring
DM-3	5/22/2014	Northstar	388.34	104.20	284.14	0.15	Monitoring
DM-3	8/8/2014	Northstar	388.34	104.21	284.13	0.14	Monitoring
DM-3	12/4/2014	Northstar	388.34	104.39	283.95	-0.04	Monitoring
DM-3	3/26/2015	Northstar	388.34	104.59	283.75	-0.24	Monitoring
DM-3	6/12/2015	Northstar	388.34	104.18	284.16	0.17	Monitoring
DM-3	12/11/2015	Northstar	388.34	103.96	284.38	0.39	Monitoring
DM-3	6/3/2016	Northstar	388.34	104.38	283.96	-0.03	Monitoring
DM-3	12/2/2016	Northstar	388.34	104.28	284.06	0.07	Monitoring
DM-3	6/1/2017	Northstar	388.34	104.25	284.09	0.10	Monitoring
DM-3	12/5/2017	Northstar	388.34	104.62	283.72	-0.27	Monitoring
DM-3	5/30/2018	Northstar	388.34	104.27	284.07	0.08	Monitoring
DM-3	12/4/2018	Northstar	388.34	104.68	283.66	-0.33	Monitoring
DM-3	6/14/2019	Northstar	388.34	104.38	283.96	-0.03	Monitoring
DM-3	12/6/2019	Northstar	388.34	104.66	283.68	-0.31	Monitoring
ADDITIONAL WELLS IN THE CHUCKWALLA VALLEY GROUNDWATER BASIN WITHIN 10 MILES OF THE SITE FOR WHICH GROUNDWATER LEVEL DATA IS AVAILABLE							
2	5/19/1961	DWR, 1963	424	140.00	284.00	N/A	Irrigation
3	2/26/1982	DWRWell Records	498	180.00	318.00	N/A	Irrigation
4	7/24/1961	DWR, 1963	354	60.05	293.95	N/A	Unused
9	9/16/1990	USGS-NWIS	354	81.36	272.64	N/A	Unknown

TABLE 2
GROUNDWATER LEVEL MEASUREMENTS
 Genesis Solar Energy Project, Riverside County, California

Well ID	Date	Source	Top of Casing Elevation (feet amsl) ¹	Depth to Water (feet below TOC)	Groundwater Elevation (feet amsl)	Difference from Baseline (feet)	Comments / Use
9	9/24/1990	USGS-NWIS	354	81.56	272.44	N/A	Unknown
9	2/13/1992	USGS-NWIS	354	81.20	272.80	N/A	Unknown
15	2/17/1992	USGS-NWIS	390.2	104.36	285.84	N/A	Unknown
15	3/15/2000	USGS-NWIS	390.2	97.36	292.84	N/A	Unknown
15	9/23/2009	WorleyParsons	390.2	97.00	293.20	N/A	Unknown
16	2/17/1992	USGS-NWIS	390	110.39	279.61	N/A	Unknown
16	9/23/2009	WorleyParsons	390	103.00	287.00	N/A	Unknown
22	2/4/2002	USGS-NWIS	387.6	125.29	262.31	N/A	Unknown
23	9/26/1990	USGS-NWIS	392.1	134.10	258.00	N/A	Unknown
23	2/10/1992	USGS-NWIS	392.1	134.80	257.30	N/A	Unknown
26	12/26/1982	USGS-NWIS	562.6	300.00	262.60	N/A	Irrigation
26	2/13/1992	USGS-NWIS	562.6	270.28	292.32	N/A	Irrigation
26	3/15/2000	USGS-NWIS	562.6	269.85	292.75	N/A	Irrigation
26	9/23/2009	WorleyParsons	562.6	282.00	280.60	N/A	Irrigation
27	6/19/1961	DWR, 1963	555	258.83	296.17	N/A	Unused
28	6/19/1961	DWR, 1963	520	21.65	498.35	N/A	Unused
29	1/16/1983	USGS-NWIS	545.9	270.00	275.90	N/A	Irrigation
29	2/13/1992	USGS-NWIS	545.9	257.61	288.29	N/A	Irrigation
29	3/15/2000	USGS-NWIS	545.9	257.22	288.68	N/A	Irrigation
29	9/23/2009	WorleyParsons	545.9	250.00	295.90	N/A	Irrigation
29	4/28/2011	USGS-NWIS	545.9	257.83	288.07	N/A	Irrigation
31	9/16/1990	USGS-NWIS	423.9	144.25	279.65	N/A	Unused
31	3/29/2000	USGS-NWIS	423.9	144.41	279.49	N/A	Unused
32	6/12/1961	USGS-NWIS	418	151.83	266.17	N/A	Unused
32	10/10/1961	USGS-NWIS	418	151.09	266.91	N/A	Unused
32	11/8/1961	USGS-NWIS	418	151.03	266.97	N/A	Unused
32	1/10/1962	USGS-NWIS	418	151.04	266.96	N/A	Unused
32	3/8/1962	USGS-NWIS	418	150.89	267.11	N/A	Unused
32	4/9/1962	USGS-NWIS	418	150.73	267.27	N/A	Unused
32	5/7/1962	USGS-NWIS	418	150.83	267.17	N/A	Unused
32	10/31/1962	USGS-NWIS	418	150.90	267.10	N/A	Unused
32	3/13/1963	USGS-NWIS	418	150.84	267.16	N/A	Unused
32	10/31/1963	USGS-NWIS	418	150.91	267.09	N/A	Unused
32	3/19/1964	USGS-NWIS	418	150.77	267.23	N/A	Unused
32	11/25/1964	USGS-NWIS	418	151.13	266.87	N/A	Unused
32	3/18/1965	USGS-NWIS	418	151.21	266.79	N/A	Unused
32	11/18/1965	USGS-NWIS	418	151.40	266.60	N/A	Unused
32	3/2/1966	USGS-NWIS	418	150.66	267.34	N/A	Unused
32	10/27/1966	USGS-NWIS	418	150.89	267.11	N/A	Unused
32	3/16/1967	USGS-NWIS	418	150.92	267.08	N/A	Unused
32	10/25/1967	USGS-NWIS	418	150.86	267.14	N/A	Unused
32	10/23/1969	USGS-NWIS	418	150.89	267.11	N/A	Unused
32	4/30/1970	USGS-NWIS	418	150.95	267.05	N/A	Unused
33	1987	USGS-NWIS	457.5	202.25	255.25	N/A	Unknown
33	9/17/1990	USGS-NWIS	457.5	205.62	251.88	N/A	Unknown
33	2/10/1992	USGS-NWIS	457.5	206.70	250.80	N/A	Unknown
33	2/11/1992	USGS-NWIS	457.5	206.27	251.23	N/A	Unknown
34	10/8/1992	USGS-NWIS	458.3	213.00	245.30	N/A	Public Water Supply
35	12/1987	USGS-NWIS	456.5	205.00	251.50	N/A	Unknown
35	2/10/1992	USGS-NWIS	456.5	200.50	256.00	N/A	Unknown
35	2/11/1992	USGS-NWIS	456.5	199.07	257.43	N/A	Unknown
35	2/11/1992	USGS-NWIS	456.5	199.60	256.90	N/A	Unknown
36	12/1987	USGS-NWIS	443.5	203.00	240.50	N/A	Public Water Supply
36	9/17/1990	USGS-NWIS	443.5	189.05	254.45	N/A	Public Water Supply
36	2/10/1992	USGS-NWIS	443.5	187.70	255.80	N/A	Public Water Supply
36	2/10/1992	USGS-NWIS	443.5	186.20	257.30	N/A	Public Water Supply
36	3/16/2000	USGS-NWIS	443.5	199.24	244.26	N/A	Public Water Supply
37	7/1/1981	Kennedy/Jenks/Chilton	433.09	163.00	270.09	N/A	Irrigation (abandoned)
37	2/11/1992	USGS-NWIS	433.09	174.47	258.62	N/A	Irrigation (abandoned)
39	4/5/1961	USGS-NWIS	442.9	168.37	274.53	N/A	Irrigation
39	4/30/1970	USGS-NWIS	442.9	171.81	271.09	N/A	Irrigation
39	7/31/1979	USGS-NWIS	442.9	173.48	269.42	N/A	Irrigation
39	7/24/1980	USGS-NWIS	442.9	169.06	273.84	N/A	Irrigation
39	1/23/1981	USGS-NWIS	442.9	169.22	273.68	N/A	Irrigation
39	9/23/1981	USGS-NWIS	442.9	169.23	273.67	N/A	Irrigation
39	3/3/1982	USGS-NWIS	442.9	170.26	272.64	N/A	Irrigation
39	1/28/1983	USGS-NWIS	442.9	170.54	272.36	N/A	Irrigation
39	7/31/1984	USGS-NWIS	442.9	170.65	272.25	N/A	Irrigation
39	2/27/1985	USGS-NWIS	442.9	171.10	271.80	N/A	Irrigation
39	6/12/1985	USGS-NWIS	442.9	172.90	270.00	N/A	Irrigation
39	2/9/1992	USGS-NWIS	442.9	183.46	259.44	N/A	Irrigation
40	10/30/1992	USGS-NWIS	449.4	193.00	256.40	N/A	Public Water Supply
41	10/19/1992	USGS-NWIS	453.6	202.00	251.60	N/A	Public Water Supply

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 Genesis Solar Energy Project, Riverside County, California

Well ID	Date	Source	Top of Casing Elevation (feet amsl) ¹	Depth to Water (feet below TOC)	Groundwater Elevation (feet amsl)	Difference from Baseline (feet)	Comments / Use
42	1/1/1982	Kennedy/Jenks/Chilton	470	197.00	273.00	N/A	Irrigation
43	3/15/1982	USGS-NWIS	505.6	248.00	257.60	N/A	Irrigation
43	2/13/1992	USGS-NWIS	505.6	232.35	273.25	N/A	Irrigation
43	3/29/2000	USGS-NWIS	505.6	234.50	271.10	N/A	Baseline
43	10/5/2000	USGS-NWIS	505.6	234.84	270.76	N/A	Irrigation
43	1/10/2001	USGS-NWIS	505.6	234.89	270.71	N/A	Irrigation
43	2/23/2001	USGS-NWIS	505.6	234.45	271.15	N/A	Irrigation
43	4/16/2001	USGS-NWIS	505.6	234.82	270.78	N/A	Irrigation
43	4/16/2001	USGS-NWIS	505.6	234.82	270.78	N/A	Irrigation
43	7/10/2001	USGS-NWIS	505.6	235.40	270.20	N/A	Irrigation
43	11/7/2001	USGS-NWIS	505.6	235.66	269.94	N/A	Irrigation
43	11/7/2001	USGS-NWIS	505.6	235.69	269.91	N/A	Irrigation
43	4/3/2002	USGS-NWIS	505.6	234.69	270.91	N/A	Irrigation
43	4/3/2002	USGS-NWIS	505.6	234.69	270.91	N/A	Irrigation
43	10/2/2002	USGS-NWIS	505.6	236.04	269.56	N/A	Irrigation
43	10/2/2002	USGS-NWIS	505.6	236.16	269.44	N/A	Irrigation
43	6/3/2003	USGS-NWIS	505.6	235.59	270.01	N/A	Irrigation
43	6/3/2003	USGS-NWIS	505.6	235.61	269.99	N/A	Irrigation
43	11/5/2003	USGS-NWIS	505.6	236.46	269.14	N/A	Irrigation
43	11/5/2003	USGS-NWIS	505.6	236.45	269.15	N/A	Irrigation
43	3/2/2004	USGS-NWIS	505.6	235.65	269.95	N/A	Irrigation
43	3/2/2004	USGS-NWIS	505.6	235.63	269.97	N/A	Irrigation
43	8/4/2004	USGS-NWIS	505.6	235.85	269.75	N/A	Irrigation
43	12/8/2004	USGS-NWIS	505.6	235.78	269.82	N/A	Irrigation
43	4/15/2005	USGS-NWIS	505.6	235.28	270.32	N/A	Irrigation
43	8/31/2005	USGS-NWIS	505.6	235.89	269.71	N/A	Irrigation
43	8/31/2005	USGS-NWIS	505.6	235.84	269.76	N/A	Irrigation
43	2/14/2006	USGS-NWIS	505.6	235.78	269.82	N/A	Irrigation
43	2/14/2006	USGS-NWIS	505.6	235.79	269.81	N/A	Irrigation
43	5/5/2006	USGS-NWIS	505.6	236.38	269.22	N/A	Irrigation
43	5/5/2006	USGS-NWIS	505.6	236.39	269.21	N/A	Irrigation
43	8/10/2006	USGS-NWIS	505.6	236.66	268.94	N/A	Irrigation
43	8/10/2006	USGS-NWIS	505.6	236.66	268.94	N/A	Irrigation
43	12/8/2006	USGS-NWIS	505.6	236.57	269.03	N/A	Irrigation
43	12/8/2006	USGS-NWIS	505.6	236.57	269.03	N/A	Irrigation
43	2/7/2007	USGS-NWIS	505.6	236.16	269.44	N/A	Irrigation
43	2/7/2007	USGS-NWIS	505.6	236.16	269.44	N/A	Irrigation
43	5/17/2007	USGS-NWIS	505.6	236.55	269.05	N/A	Irrigation
43	5/17/2007	USGS-NWIS	505.6	236.56	269.04	N/A	Irrigation
43	9/5/2007	USGS-NWIS	505.6	236.91	268.69	N/A	Irrigation
43	9/5/2007	USGS-NWIS	505.6	236.91	268.69	N/A	Irrigation
43	9/5/2007	USGS-NWIS	505.6	236.91	268.69	N/A	Irrigation
43	12/13/2007	USGS-NWIS	505.6	236.55	269.05	N/A	Irrigation
43	12/13/2007	USGS-NWIS	505.6	236.54	269.06	N/A	Irrigation
43	3/19/2008	USGS-NWIS	505.6	235.65	269.95	N/A	Irrigation
43	3/19/2008	USGS-NWIS	505.6	235.64	269.96	N/A	Irrigation
43	3/19/2008	USGS-NWIS	505.6	235.67	269.93	N/A	Irrigation
43	6/25/2008	USGS-NWIS	505.6	235.62	269.98	N/A	Irrigation
43	6/25/2008	USGS-NWIS	505.6	235.60	270.00	N/A	Irrigation
43	9/24/2008	USGS-NWIS	505.6	235.73	269.87	N/A	Irrigation
43	9/24/2008	USGS-NWIS	505.6	235.73	269.87	N/A	Irrigation
43	9/24/2008	USGS-NWIS	505.6	235.72	269.88	N/A	Irrigation
43	1/14/2009	USGS-NWIS	505.6	235.25	270.35	N/A	Irrigation
43	1/14/2009	USGS-NWIS	505.6	235.26	270.34	N/A	Irrigation
43	4/16/2009	USGS-NWIS	505.6	235.28	270.32	N/A	Irrigation
43	4/16/2009	USGS-NWIS	505.6	235.29	270.31	N/A	Irrigation
43	7/30/2009	USGS-NWIS	505.6	235.80	269.80	N/A	Irrigation
43	7/30/2009	USGS-NWIS	505.6	235.79	269.81	N/A	Irrigation
43	10/29/2009	USGS-NWIS	505.6	235.61	269.99	N/A	Irrigation
43	10/29/2009	USGS-NWIS	505.6	235.60	270.00	N/A	Irrigation
43	1/20/2010	USGS-NWIS	505.6	235.98	269.62	N/A	Irrigation
43	1/20/2010	USGS-NWIS	505.6	235.99	269.61	N/A	Irrigation
43	4/23/2010	USGS-NWIS	505.6	235.26	270.34	N/A	Irrigation
43	4/23/2010	USGS-NWIS	505.6	235.26	270.34	N/A	Irrigation
43	7/22/2010	USGS-NWIS	505.6	235.67	269.93	N/A	Irrigation
43	11/4/2010	USGS-NWIS	505.6	235.71	269.89	N/A	Irrigation
43	11/4/2010	USGS-NWIS	505.6	235.73	269.87	N/A	Irrigation
43	1/13/2011	USGS-NWIS	505.6	235.27	270.33	N/A	Irrigation
43	4/28/2011	USGS-NWIS	505.6	235.12	270.48	N/A	Irrigation
43	10/18/2011	USGS-NWIS	505.6	235.48	270.12	N/A	Irrigation
43	5/9/2012	USGS-NWIS	505.6	235.25	270.35	N/A	Irrigation
43	5/11/2012	USGS-NWIS	505.6	235.24	270.36	N/A	Irrigation
43	10/5/2012	USGS-NWIS	505.6	235.65	269.95	N/A	Irrigation

TABLE 2
GROUNDWATER LEVEL MEASUREMENTS
 Genesis Solar Energy Project, Riverside County, California

Well ID	Date	Source	Top of Casing Elevation (feet amsl) ¹	Depth to Water (feet below TOC)	Groundwater Elevation (feet amsl)	Difference from Baseline (feet)	Comments / Use
43	2/12/2013	USGS-NWIS	505.6	235.36	270.24	N/A	Irrigation
43	8/29/2013	USGS-NWIS	505.6	235.62	269.98	N/A	Irrigation
43	11/21/2013	USGS-NWIS	505.6	235.36	270.24	N/A	Irrigation
43	5/7/2014	USGS-NWIS	505.6	235.08	270.52	N/A	Irrigation
43	12/19/2014	USGS-NWIS	505.6	235.35	270.25	N/A	Irrigation
43	4/7/2015	USGS-NWIS	505.6	235.17	270.43	N/A	Irrigation
43	9/2/2015	USGS-NWIS	505.6	235.12	270.48	N/A	Irrigation
43	1/26/2016	USGS-NWIS	505.6	234.89	270.71	N/A	Irrigation
43	3/23/2016	USGS-NWIS	505.6	234.76	270.84	N/A	Irrigation
43	6/15/2016	USGS-NWIS	505.6	234.74	270.86	N/A	Irrigation
43	10/19/2016	USGS-NWIS	505.6	234.94	270.66	N/A	Irrigation
43	1/24/2017	USGS-NWIS	505.6	234.63	270.97	N/A	Irrigation
43	5/23/2017	USGS-NWIS	505.6	234.67	270.93	N/A	Irrigation
43	8/22/2017	USGS-NWIS	505.6	235.13	270.47	N/A	Irrigation
43	12/5/2017	USGS-NWIS	505.6	234.99	270.61	N/A	Irrigation
43	3/14/2018	USGS-NWIS	505.6	234.59	271.01	N/A	Irrigation
43	5/29/2018	USGS-NWIS	505.6	234.83	270.77	N/A	Irrigation
43	9/4/2018	USGS-NWIS	505.6	235.27	270.33	N/A	Irrigation
43	11/14/2018	USGS-NWIS	505.6	235.54	270.06	N/A	Irrigation
43	3/18/2019	USGS-NWIS	505.6	235.21	270.39	N/A	Irrigation
43	6/12/2019	USGS-NWIS	505.6	235.60	270.00	N/A	Irrigation
43	8/21/2019	USGS-NWIS	505.6	235.36	270.24	N/A	Irrigation
43	11/6/2019	USGS-NWIS	505.6	235.18	270.42	N/A	Irrigation
44	11/29/1989	USGS-NWIS	505.3	234.00	271.30	N/A	Irrigation
47	2/14/1984	USGS-NWIS	580.90	300.00	280.90	N/A	Unknown
47	9/28/1990	USGS-NWIS	580.90	299.61	281.29	N/A	Unknown
47	2/9/1992	USGS-NWIS	580.90	299.69	281.21	N/A	Unknown
47	3/30/2000	USGS-NWIS	580.90	300.05	280.85	N/A	Unknown
50	4/7/1961	USGS-NWIS	566	189.85	376.15	N/A	Unknown
50	4/20/1961	USGS-NWIS	566	189.98	376.02	N/A	Unknown
54	5/1/1985	USGS-NWIS	654.5	360.00	294.50	N/A	Unknown
54	9/28/1990	USGS-NWIS	654.5	369.19	285.31	N/A	Unknown
54	2/10/1992	USGS-NWIS	654.5	369.15	285.35	N/A	Unknown
54	3/30/2000	USGS-NWIS	654.5	369.08	285.42	N/A	Unknown
55	1/23/2012	USGS-NWIS	415.4	162.60	252.80	N/A	Exploratory
55	5/9/2012	USGS-NWIS	415.4	162.57	252.83	N/A	Exploratory
55	9/2/2015	USGS-NWIS	415.4	161.88	253.52	N/A	Exploratory
55	1/26/2016	USGS-NWIS	415.4	161.42	253.98	N/A	Exploratory
55	3/23/2016	USGS-NWIS	415.4	161.43	253.97	N/A	Exploratory
55	6/15/2016	USGS-NWIS	415.4	161.37	254.03	N/A	Exploratory
55	10/19/2016	USGS-NWIS	415.4	161.63	253.77	N/A	Exploratory
55	1/24/2017	USGS-NWIS	415.4	161.31	254.09	N/A	Exploratory
55	5/23/2017	USGS-NWIS	415.4	161.37	254.03	N/A	Exploratory
55	8/22/2017	USGS-NWIS	415.4	161.89	253.51	N/A	Exploratory
56	1/23/2012	USGS-NWIS	415.4	159.69	255.71	N/A	Exploratory
56	5/9/2012	USGS-NWIS	415.4	159.89	255.51	N/A	Exploratory
56	1/26/2016	USGS-NWIS	415.4	159.71	255.69	N/A	Exploratory
56	3/23/2016	USGS-NWIS	415.4	159.63	255.77	N/A	Exploratory
56	6/15/2016	USGS-NWIS	415.4	159.58	255.82	N/A	Exploratory
56	10/19/2016	USGS-NWIS	415.4	159.57	255.83	N/A	Exploratory
56	1/24/2017	USGS-NWIS	415.4	159.57	255.83	N/A	Exploratory
56	5/23/2017	USGS-NWIS	415.4	159.38	256.02	N/A	Exploratory
56	8/22/2017	USGS-NWIS	415.4	159.53	255.87	N/A	Exploratory
57	1/23/2012	USGS-NWIS	415.4	154.20	261.20	N/A	Exploratory
57	5/9/2012	USGS-NWIS	415.4	154.28	261.12	N/A	Exploratory
57	9/2/2015	USGS-NWIS	415.4	153.39	262.01	N/A	Exploratory
57	3/23/2016	USGS-NWIS	415.4	153.29	262.11	N/A	Exploratory
57	6/15/2016	USGS-NWIS	415.4	153.15	262.25	N/A	Exploratory
57	10/19/2016	USGS-NWIS	415.4	153.08	262.32	N/A	Exploratory
57	1/24/2017	USGS-NWIS	415.4	153.12	262.28	N/A	Exploratory
57	5/23/2017	USGS-NWIS	415.4	152.78	262.62	N/A	Exploratory
57	8/22/2017	USGS-NWIS	415.4	152.73	262.67	N/A	Exploratory

Notes:

amsl = above mean sea level

TOC = top of casing

1. Wells were surveyed on February 8 & 9, 2011. Top of Casing elevation for all other wells are approximate.
2. No data was collected due to equipment or software malfunction
3. Sounding tube is blocked with concrete

TABLE 2
GROUNDWATER LEVEL MEASUREMENTS
 Genesis Solar Energy Project, Riverside County, California

Well ID	Date	Source	Top of Casing Elevation (feet amsl) ¹	Depth to Water (feet below TOC)	Groundwater Elevation (feet amsl)	Difference from Baseline (feet)	Comments / Use
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- 4. Well not accessible - Unknown lock on well
- 5. Well not accessible - Steel plate welded over well
- 6. Due to loss of configuration file and calibration data following the 1st Quarter 2014 monitoring event, the OBS-2 buried transducers are no longer accessible.
- 7. Well not accessible - Access agreement issue
- 8. Well pumped by others on 10/10/17 at 250-300 gpm; water level at time of monitoring was 128.75 ft bgs / 259.39 ft amsl.
- 9. Sounding port obstructed

TABLE 3
MOST RECENT GROUNDWATER QUALITY MONITORING DATA
 Genesis Solar Energy Project, Riverside, California

Well ID	Date	Groundwater Purging			Field Parameters					
		Rate of Groundwater Discharge (mL/min)	Purging Method	Total Volume Purged (mL)	pH	Conductivity (mS/cm)	Turbidity (NTU)	D.O. (mg/L)	Temperature (°C)	ORP (mV)
23a	12/5/2019	N/A	Bailer	5,750	8.36	2.68	-	3.08	27.50	-48
OBS-1	12/5/2019	N/A	Bailer	5,750	8.22	21.9	-	3.21	26.40	-67
TW-1	12/5/2019	N/A	Bailer	5,750	9.94	12.9	-	4.60	24.60	-276
TW-2	12/5/2019	N/A	Bailer	5,750	9.42	5.16	-	1.32	30.35	-313
PW-0	12/5/2019	N/A	Production Pump	N/A ²	8.32	5.93	-	1.46	31.25	-140
PW-1	12/5/2019	N/A	N/A	N/A ¹	-	-	-	-	-	-
PW-2	12/5/2019	N/A	Production Pump	N/A ²	8.26	3.43	-	2.97	39.94	-61
DM-1	12/5/2019	188	Bladder Pump	2,820	7.84	16.3	-	3.31	26.71	-59
DM-2	12/5/2019	120	Bladder Pump	2,400	7.82	16.6	-	0.85	26.31	-62
DM-3	12/6/2019	121	Bladder Pump	1,815	7.90	15.8	-	1.56	22.73	-79

NOTES:

mL = milliLiters

mL/min = milliLiters per minute

mS/cm = milliSiemens per centimeter

NTU = Nephelometric Turbidity Units

DO = Dissolved Oxygen

mg/L = milligrams per Liter

°C = degrees Celsius

mV = milliVolts

N/A = Not Applicable or Not Available

-- = Not Measured

1. Not sampled - well not accessible

2. Well was sampled during continuous production pumping and therefore purging was not necessary.

TABLE 4
SUMMARY OF LABORATORY ANALYTICAL RESULTS
 Genesis Solar Energy Project

Well ID	Date Sampled	Sampling Method	Chloride (mg/L)	Sulfate (SO4) (mg/L)	Nitrate (NO3)-N (mg/L)	Calcium (mg/L)	Copper (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Iron (mg/L)	Magnesium (mg/L)	Antimony (ug/L)	Arsenic (ug/L)	Barium (ug/L)	Cadmium (ug/L)	Chromium (Total) (ug/L)	Cobalt (ug/L)	Lead (ug/L)	Manganese (ug/L)	Nickel (ug/L)	Selenium (ug/L)	Zinc (ug/L)	Mercury (ug/L)	Total Dissolved Solids (mg/L)	Specific Conductance (us/cm)	pH (std. Units)	Oil & Grease / HEM (mg/L)	HTF [†] (mg/L)	Deuterium (% relative to VSMOW)	Oxygen-18 (% relative to VSMOW)
TW-1	6/5/2009	Low Flow	5,600	1,500	<0.25	160	<0.010	4,500	30	1.4	38	-	-	-	-	-	-	-	65	-	-	-	-	9,500	19,000	7.9	-	-	-	-
TW-1	7/9/2009	Low Flow	5,300	1,400	-	-	<0.010	4,000	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10,000	19,000	7.9	-	-	-	-
TW-1	7/13/2009	Low Flow	6,400	1,800	-	-	<0.010	3,600	24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9,500	18,000	7.9	-	-	-	-
TW-1	7/16/2009	Low Flow	4,700	1,200	<0.25	-	<0.010	3,600	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8,900	18,000	7.8	-	-	-	-
TW-1	11/10/2010	Low Flow	6,200	1,600	<0.25	170	<0.010	4,000	23	1.7	35	-	-	-	-	-	-	-	79	-	-	-	-	11,000	18,000	8.0	-	-	-69.90	-8.61
TW-1	11/10/2010	Low Flow	6,100	1,600	<0.25	170	<0.010	4,100	22	1.6	34	-	-	-	-	-	-	-	77	-	-	-	-	9,900	18,000	8.0	-	-	-69.30	-8.56
TW-1	6/8/2011	Low Flow	5,100	1,600	<0.25	170	<0.010	3,300	24	5.1	30	-	-	-	-	-	-	-	73	-	-	-	-	10,000	20,000	8.0	-	-	-67.00	-8.24
TW-1	12/13/2011	Low Flow	3,900	1,300	<1.1	82	<0.010	3,400	23	9.5	25	-	-	-	-	-	-	-	-	-	-	-	-	9,100	9,800	9.0	-	-	-63.70	-8.2
TW-1	12/13/2011	Hydrasleeve	3,900	1,300	<1.1	75	0.0052	3,100	21	30	24	-	-	-	-	-	-	-	-	-	-	-	-	9,200	15,000	9.0	-	-	-64.20	-8.2
TW-1	5/23/2012	Hydrasleeve	4,400	1,700	<2.2	81	<0.010	3,000	20	<0.040	21	-	-	-	-	-	-	-	-	-	-	-	-	8,800	17,000	9.2	-	-	-66.30	-8.2
TW-1	10/23/2012	Hydrasleeve	4,100	1,700	<2.2	71	<0.010	3,100	19	<0.040	23	-	-	-	-	-	-	-	-	-	-	-	-	9,000	15,000	9.2	-	-	-66.00	-8.0
TW-1	5/20/2014	Hydrasleeve	3,900	1,400	-	81	<0.010	3,000	20	0.29	12	<10	2.5 ^j	17	<5.0	<10	<5.0	<5.0	9.6	2.9 ^j	<10	<100	<0.20	8,900	15,000	9.7	<4.7	-	-63.74	-7.83
TW-1	12/4/2014	Hydrasleeve	3,900	1,200	<2.2	86	<0.050	3,200	21	0.057 ^j	11	<10	3.8 ^j	17	<5.0	<10	<5.0	<5.0	8.6	4.4 ^j	<10	<100	<0.20	8,500	15,000	9.9	<4.7	<0.095	-65.20	-8.12
TW-1	6/11/2015	Hydrasleeve	4,100	1,400	<2.2	73	<0.10	3,000	19	<0.40	8.5	<10	4.2 ^j	17	<5.0	<10	<5.0	<5.0	6.6	<10	<10	<100	<0.20	8,800	15,000	9.9	<4.7	<0.10	-62.50	-8.18
TW-1	12/10/2015	Hydrasleeve	4,200	1,500	<5.5	82	<0.010	3,000	21	<0.040	7.6	4.3 ^j	4.2 ^j	22	<5.0	<10	<5.0	<5.0	5.2	3.4 ^j	2.8 ^j	<100	<0.20	9,400	16,000	9.9	1.7 ^j	<0.094	-63.40	-8.08
TW-1	6/2/2016	Hydrasleeve	3,600	1,300	6.5	71	<0.10	3,000	17	51	11	<2.0	<0.10	6.0	16	<1.0	<2.0	<1.0	310	<2.0	1.0 ^j	11 ^j	<0.20	8,500	18,000	9.6	<4.8	<0.094	-63.67	-8.11
TW-1	11/30/2016	Hydrasleeve	4,000	1,400	<5.5	72	<0.010	3,000	21	0.51	5.9	<10	3.1 ^j	13	<5.0	<10	<5.0	<5.0	8.4	<10	9.0 ^j	<100	<0.20	8,600	13,000	9.6	<4.7	<0.095	-64.00	-8.04
TW-1	6/1/2017	Hydrasleeve	3,600	1,300	<5.5	79	<0.010	3,400	20	<1.0	6.1	<10	8.2	15	<5.0	<10	<5.0	<5.0	<5.0	4.0 ^j	92	<100	<0.20	8,700	12,000	9.7	<5.2	<0.095	-63.50	-7.97
TW-1	12/5/2017	Hydrasleeve	3,510	1,130	<0.500	80	<0.025	1,000	33	0.43 ^j	6.4	<1.0	13	14	<1.0	<1.0	<1.0	2.5	-	<1.0	<1.0	<1.0	<0.50	7,800	13,900	10	<5.0	<0.10	-62.35	-8.38
TW-1	6/1/2018	Bailer	4,130	1,390	<10	74	0.11 ^j	3,100	53	<10	5.0	<0.50	6.0	5.9	<0.50	<0.50	<0.50	<0.50	-	<0.50	<5.0	<5.0	<0.50	9,300	14,000	10	1.70 ^j	<0.12	-62.80	-7.93
TW-1	12/4/2018	Bailer	6,910	2,400	<0.500	89	<0.5	4,800	35	<20	<10	<10	20	15	<10	<10	<10	<10	-	<10	<10	<10	<0.50	8,100	13,900	10	<5.0	<0.099	-63.50	-7.97
TW-1	6/13/2019	Bailer	4,070	1,230	<0.500	75	<0.005	3,700	57	1.8	3.4	<10	<10	<10	<10	<10	<10	<10	-	<10	<10	-	<0.50	6,800	14,200	11	<5.0	<0.10	-63.60	-7.97
TW-1	12/5/2019	Bailer	7,300	2,490	<0.500	77	0.007	5,100	24	0.025 ^j	6.0	<5.0	<5.0	12	<5.0	0.30 ^j	<5.0	<5.0	-	<5.0	<5.0	47	<0.50	7,900	14,100	9.7	<5.0	<0.11	-61.30	-7.64
TW-2	1/8/2010	Low Flow	1,500	460	<0.25	98	<0.010	860	18	<0.3	1.9	-	-	-	-	-	-	-	80	-	-	-	-	3,100	5,500	8.2	-	-	-	-
TW-2	1/8/2010	Low Flow	1,400	500	<0.25	100	<0.010	1,000	18	0.5	3.8	-	-	-	-	-	-	-	93	-	-	-	-	3,000	5,500	8.0	-	-	-	-
TW-2	1/21/2010	Low Flow	1,500	500	<0.25	120	<0.010	1,000	21	0.73	3.4	-	-	-	-	-	-	-	95	-	-	-	-	3,100	5,400	8.0	-	-	-	-
TW-2	11/9/2010	Low Flow	1,500	520	<0.25	110	<0.010	1,000	19	2.9	4.2	-	-	-	-	-	-	-	140	-	-	-	-	3,300	5,800	8.4	-	-	-78.50	-10.13
TW-2	6/7/2011	Low Flow	1,600	520	<0.25	120	<0.010	870	20	0.38	3.1	-	-	-	-	-	-	-	94	-	-	-	-	3,200	5,700	8.1	-	-	-79.50	-10.25
TW-2	6/7/2011	Low Flow	1,500	510	<0.25	120	<0.010	880	20	0.42	3.1	-	-	-	-	-	-	-	95	-	-	-	-	3,100	5,500	8.0	-	-	-78.30	-10.14
TW-2	12/14/2011	Hydrasleeve	1,500	460	<0.55	100	0.0076	1,100	23	24	4.1	-	-	-	-	-	-	-	-	-	-	-	-	3,400	4,100	8.3	-	-	-76.00	-10.2
TW-2	5/24/2012	Hydrasleeve	1,400	500	<1.1	78	<0.010	1,000	19	<0.040	1.5	-	-	-	-	-	-	-	-	-	-	-	-	3,000	6,200	8.8	-	-	-77.80	-10.2
TW-2	10/23/2012	Hydrasleeve	1,400	500	<1.1	96	<0.010	870	21	<0.040	3.1	-	-	-	-	-	-	-	-	-	-	-	-	3,500	5,500	8.6	-	-	-78.00	-10.1
TW-2	5/20/2014	Hydrasleeve	1,600	430	-	64	<0.010	1,000	22	0.022 ^j	0.093	<2.0	2.9	30	<1.0	<2.0	<1.0	<1.0	4.1	0.91 ^j	<2.0	<20	<0.20	3,300	5,700	9.9	<4.7	-	-76.18	-10.17
TW-2	12/4/2014	Hydrasleeve	1,500	420	<1.1	67	<0.020	1,000	21	0.041 ^j	0.11	<2.0	4.4	36	<1.0	<2.0	<1.0	<1.0	3.4	1.8 ^j	<2.0	2.9 ^j	<0.20	2,900	5,800	9.7	<4.7	<0.096	-77.20	-10.12
TW-2	6/11/2015	Hydrasleeve	1,700	490	<0.55	69	<0.10	1,100	23	<0.40	<0.20	<2.0	5.8	35	<1.0	<2.0	<1.0	<1.0	2.8	0.68 ^j	<2.0	<20	<0.20	3,200	5,900	9.9	1.6 ^j	<0.10	-75.00	-10.16
TW-2	12/10/2015	Hydrasleeve	1,600	430	<1.1	72	<0.010	1,000	20	0.030 ^j	0.13	<10	6.9	41	<5.0	<10	<5.0	<5.0	7.8	<10	4.0 ^j	<100	<0.20	3,900	5,900	9.8	<5.0	<0.095	-75.60	-10.15
TW-2	6/2/2016	Hydrasleeve	1,300	350	0.88	71	<0.10	1,100	20	<0.40	0.22	<2.0	4.4	38	<1.0	<2.0	<1.0	<1.0	7.6	<2.0	1.9 ^j	<20	<0.20	2,900	5,600	9.5	<4.7	<0.095	-75.11	-10.15
TW-2	11/30/2016	Hydrasleeve	850	450	<0.55	74	<0.010	1,000	23	0.12	0.39	<10	6.0	39	<5.0	<10	<5.0	<5.0	8.7	<10	45	<100	<0.20	3,200	5,500	9.3	<4.7	<0.097	-76.10	-10.01
TW-2	6/1/2017	Hydrasleeve	1,600	430	<1.1	82	<0.050	1,100	23	<0.50	0.28	<10	9.1	42	<5.0	<10	<5.0	<5.0	5.5	<10	270	<100	<0.20	3,200	5,400	9.4	<5.4	<0.096	-75.80	-10.01
TW-2	12/5/2017	Hydrasleeve	1,180	315	<0.50	82	<0.025	370	30	1.7	<0.50	<0.50	5.3	34	<0.50	<0.50	<0.50	<1.0	-	<0.50	<0.50	100	<0.50	3,200	5,490	9.6	6.5	<0.10	-73.97	-10.38
TW-2	6/1/2018	Bailer	1,540	439	<5.0	83	0.089 ^j	650	44	5.4 ^j	<5.0	<0.50	6.3	23	<0.50	<0.50	<0.50	<0.50	-	<5.0	<5.0	76	<0.50	2,800	5,590	9.6	<5.0	<0.11	-75.40	-10.00
TW-2	12/4/2018	Bailer	1,930	454	<0.500	87	<0.5	1,200	30	<20	<10	<10	11	40	<10	<10	<10	<10	-	<10	<10	39	<0.50	2,600	5,540	10	<5.0	<0.10	-75.90	-10.05
TW-2	6/14/2019	Bailer	1,560	430	<0.500	95	<0.005	1,300	54	0.23	0.42	<10	<10	<10	<10	<10	<10	<10	-	<10	<10	-	<0.50	6,400	5,640	10	<5.0	<0.10	-76.70	-10.11
TW-2	12/5/2019	Bailer	2,750	686	<0.500	91	0.004																							

TABLE 4
SUMMARY OF LABORATORY ANALYTICAL RESULTS
 Genesis Solar Energy Project

		Sampling	Chloride (mg/L)	Sulfate (SO4) (mg/L)	Nitrate (NO3)-N (mg/L)	Calcium (mg/L)	Copper (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Iron (mg/L)	Magnesium (mg/L)	Antimony (ug/L)	Arsenic (ug/L)	Barium (ug/L)	Cadmium (ug/L)	Chromium (Total) (ug/L)	Cobalt (ug/L)	Lead (ug/L)	Manganese (ug/L)	Nickel (ug/L)	Selenium (ug/L)	Zinc (ug/L)	Mercury (ug/L)	Total Dissolved Solids (mg/L)	Specific Conductance (us/cm)	pH (std. Units)	Oil & Grease / HEM (mg/L)	HTF [†] (mg/L)	Deuterium (% relative to VSMOW)	Oxygen-18 (% relative to VSMOW)
Well 36	12/14/2011	Spigot	240	210	0.082	12	<0.010	290	2.3	0.034	0.65	-	-	-	-	-	-	-	-	-	-	-	870	1,300	8.6	-	-	-74.60	-9.8	
Well 23a	11/11/2010	Hydrasleeve	620	470	<0.25	29	0.4	520	11	13	1.5	-	-	-	-	-	-	500	-	-	-	-	1,700	2,900	8.3	-	-	-76.00	-10.24	
Well 23a	6/7/2011	Hydrasleeve	480	400	<0.25	26	0.012	440	9	1.9	<0.50	-	-	-	-	-	-	78	-	-	-	-	1,500	2,500	8.4	-	-	-77.70	-10.40	
Well 23a	12/14/2011	Hydrasleeve	510	400	<0.22	24	0.016	550	11.0	3.8	0.47	-	-	-	-	-	-	-	-	-	-	-	1,600	2,400	8.2	-	-	-75.00	-10.30	
Well 23a	5/24/2012	Hydrasleeve	410	410	<0.22	25	<0.010	420	11.0	0.071	0.29	-	-	-	-	-	-	-	-	-	-	-	1,500	2,500	8.3	-	-	-76.20	-10.40	
Well 23a	10/23/2012	Hydrasleeve	440	440	<0.22	19	<0.010	420	8.7	0.059	3.0	-	-	-	-	-	-	-	-	-	-	-	1,400	2,400	8.3	-	-	-77.60	-10.40	
Well 23a	5/20/2014	Hydrasleeve	570	490	-	24	<0.010	540	10	0.042	0.51	<10	<5.0	20	<5.0	<10	<5.0	<5.0	7.2	<10	<10	100 ^B	<0.20	1,600	2,800	8.1	<4.7	-	-74.05	-10.33
Well 23a	12/4/2014	Hydrasleeve	480	370	<0.22	24	<0.010	520	10	0.011 ^J	0.51	<10	<5.0	20	<5.0	<10	<5.0	<5.0	5.6	<10	<10	100	<0.20	1,500	2,900	8.2	<4.7	<0.095	-76.40	-10.31
Well 23a	12/10/2015	Hydrasleeve	520	430	<0.22	22	<0.010	490	9.2	0.015 ^J	0.60	<4.0	1.6 ^J	21	<2.0	<4.0	<2.0	<2.0	8.6	<4.0	1.9 ^J	96	<0.20	1,600	2,800	8.1	<5.1	<0.095	-74.30	-10.09
Well 23a	6/2/2016	Hydrasleeve	480	380	<0.11	20	<0.010	550	11	0.42	0.55	<2.0	1.2	16	<1.0	<2.0	<1.0	4.0	41	0.69 ^J	0.98 ^J	270	<0.20	1,600	3,100	8.4	<4.7	<0.094	-73.73	-10.25
Well 23a	11/30/2016	Hydrasleeve	490	430	<0.22	21	<0.010	490	10	<0.040	0.47	<10	<5.0	19	<5.0	<10	<5.0	<5.0	5.6	<10	5.0 ^J	74 ^J	<0.20	1,500	2,600	8.1	<4.7	<0.095	-76.40	-10.18
Well 23a	6/1/2017	Hydrasleeve	430	400	<0.22	23	<0.010	580	12	0.31	0.68	<10	<5.0	20	<5.0	<10	<5.0	3.2 ^J	45	<10	<10	340	<0.20	1,500	2,700	8.2	<5.1	<0.096	-75.30	-10.20
Well 23a	12/5/2017	Hydrasleeve	466	389	<0.50	19	<0.005	670	13	0.060 ^J	0.52	<0.50	1.2	17	<0.50	<0.50	<0.50	<0.50	-	<0.50	<0.50	76	<0.50	1,300	2,550	8.3	1.40 ^J	<0.10	-74.35	-10.47
Well 23a	6/1/2018	Bailer	491	415	<0.50	22	<0.082 ^J	760	19	<10	<5	<0.50	<5.0	13	<0.50	<0.50	<0.50	<0.50	-	<0.50	<0.50	56	<0.50	1,300	2,640	8.4	<5.0	<0.11	-73.60	-10.12
Well 23a	6/14/2019	Bailer	473	405	<0.50	24	0.005	630	25	0.63	0.68	<10	<10	<10	<10	<10	<10	<10	-	12	<10	-	<0.50	1,400	2,630	7.5	<5.0	<0.10	-74.80	-10.22
Well 23a	12/5/2019	Bailer	667	492	<0.02	22	0.003 ^J	570	0.41	<0.20	0.50	<5.0	<5.0	20	<5.0	0.30 ^J	<5.0	<5.0	-	<5.0	1.4 ^J	480	<0.50	1,400	2,570	8.3	<5.0	<0.10	-75.50	-10.24
DM-1	5/24/2012	Low Flow	4,600	2,000	3.9	250	<0.10	3,800	23.0	<0.40	56	-	-	-	-	-	-	-	-	-	-	-	12,000	16,000	7.8	-	-	-65.10	-8.8	
DM-1	10/24/2012	Low Flow	5,400	2,300	<1.1	210	<0.010	3,200	20.0	<0.040	58	-	-	-	-	-	-	11	-	-	-	-	11,000	18,000	7.8	-	-	-72.10	-8.6	
DM-1	5/22/2014	Low Flow	5,300	2,000	-	240	<0.010	3,700	22	<0.040	54	<10	6.2	52	<5.0	<10	<5.0	<5.0	2.5 ^J	4.6 ^J	3.0 ^J	<100	<0.20	11,000	19,000	7.8	<5.0	-	-68.50	-8.51
DM-1	5/22/2014 ¹	Low Flow	5,200	2,000	-	230	<0.010	3,600	22	<0.040	53	<10	5.6	50	<5.0	<10	<5.0	<5.0	<5.0	3.9 ^J	3.1 ^J	<100	<0.20	11,000	19,000	7.7	<5.3	-	-69.47	-8.74
DM-1	12/4/2014	Low Flow	4,800	1,700	2.9	230	<0.050	3,600	21	<0.20	57	<10	7.7	50	<5.0	<10	<5.0	<5.0	9.2 ^J	<10	25 ^J	0.15 ^J	11,000	19,000	7.9	<4.7	<0.094	-72.10	-8.75	
DM-1	6/11/2015	Low Flow	4,600	2,000	3.7 ^J	230	<0.10	3,600	21	<0.40	52	<10	3.8 ^J	36	<5.0	2.9 ^J	<5.0	<5.0	3.6 ^J	6.3 ^J	3.6 ^J	<100	0.26	10,000	19,000	7.8	<4.7	<0.10	-69.20	-8.47
DM-1	12/10/2015	Low Flow	5,300	2,100	4.9 ^J	260	<0.010	3,700	22	<0.040	57	<10	5.6	38	<5.0	<10	<5.0	<5.0	<5.0	<10	5.2 ^J	<100	<0.20	12,000	19,000	7.8	<5.0	<0.094	-70.30	-8.57
DM-1	6/2/2016	Low Flow	4,700	1,800	7.8	230	<0.10	3,800	18	<0.40	57	<2.0	5.1	31	<1.0	1.9 ^J	<1.0	<1.0	0.99 ^J	1.1 ^J	3.3	2.5 ^J	<0.20	11,000	20,000	7.9	<4.7	<0.094	-69.87	-8.83
DM-1	11/30/2016	Low Flow	5,200	2,000	<5.5	230	<0.010	3,700	23	<0.040	59	<20	6.7 ^J	31	<10	<20	<10	<10	<10	<10	13 ^J	<200	<0.20	11,000	17,000	7.8	<4.7	<0.093	-70.70	-8.68
DM-1	6/1/2017	Low Flow	4,600	1,900	4.2 ^J	250	<0.10	4,100	21	<1.0	62	<10	4.8 ^J	28	<5.0	5.9 ^J	<5.0	<5.0	<5.0	7.6 ^J	6.9 ^J	<100	<0.20	11,000	16,000	7.9	<5.1	<0.094	-70.30	-8.57
DM-1	12/5/2017	Low Flow	7,130	2,770	12.8	230	0.025	1,100	30	<1.0	59	<1.0	6.2	28	<2.5	3.1	<2.5	<2.5	-	<2.5	5.1	6.6	<0.50	10,000	17,200	7.8	<5.0	<0.10	-69.14	-8.90
DM-1	5/30/2018	Low Flow	5,190	2,030	14.7	270	0.096 ^J	5,200	63	0.78 ^J	64	<0.50	5.0	30	<0.50	<5.0	<0.50	<0.50	-	<5.0	5.9	9.5	<0.50	11,000	17,300	7.9	<5.0	<0.10	-71.10	-8.57
DM-1	12/4/2018	Low Flow	8,180	3,280	9.00	260	<0.5	4,800	33	<20	68	<10	10	31	<10	<10	<10	<10	-	<10	<10	<10	<0.50	11,000	17,400	7.7	<5.0	<0.10	-70.10	-8.55
DM-1	6/14/2019	Low Flow	5,040	1,930	8.76	280	0.006	4,800	65	0.35	63	<10	<10	<10	<10	<10	<10	<10	-	<10	<10	-	<0.50	9,600	17,700	7.2	<5.0	<0.10	-70.40	-8.58
DM-1	12/5/2019	Low Flow	7,460	2,150 ^J	16.3	250	0.004 ^J	4,200	32	<0.20	67	<5.0	0.80 ^J	32	<5.0	2.1 ^J	<5.0	<5.0	-	<5.0	0.80 ^J	47	<0.50	11,000	17,600	7.7	<5.0	<0.10	-70.10	-8.55
DM-2	5/24/2012	Low Flow	4,500	2,000	2.9	290	<0.10	3,500	25.0	<0.40	59	-	-	-	-	-	-	-	-	-	-	-	13,000	16,000	7.8	-	-	-71.70	-8.8	
DM-2	10/23/2012	Low Flow	4,800	2,000	<1.1	470	<0.010	2,600	27.0	<0.040	54	-	-	-	-	-	-	110	-	-	-	-	9,900	16,000	7.7	-	-	-70.90	-8.9	
DM-2	5/22/2014	Low Flow	5,100	2,000	-	320	<0.020	3,500	23	0.022 ^J	54	<10	4.7 ^J	97	<5.0	<10	<5.0	<5.0	59	4.1 ^J	3.3 ^J	<100	<0.20	11,000	18,000	7.8	<5.1	-	-69.95	-8.72
DM-2	12/4/2014	Low Flow	4,400	1,600	3.0	300	<0.050	3,100	20	0.082 ^J	55	<10	5.7	140	<5.0	<10	<5.0	<5.0	90	8.4 ^J	<10	<100	<0.20	9,900	17,000	7.9	<4.7	<0.095	-68.90	-8.42
DM-2	6/11/2015	Low Flow	4,500	2,000	3.8 ^J	290	<0.10	3,500	22	<0.40	55	<10	4.1 ^J	110	<5.0	2.9 ^J	<5.0	<5.0	40	4.9 ^J	<10	<100	<0.20	9,600	18,000	7.9	<4.7	<0.10	-68.20	-8.52
DM-2	12/10/2015	Low Flow	5,400	2,200	<5.5	290	<0.010	3,600	21	0.062	61	<10	5.9	85	<5.0	<10	<5.0	<5.0	88	<10	5.5 ^J	<100	<0.20	12,000	18,000	7.9	<5.0	<0.096	-69.40	-8.43
DM-2	6/2/2016	Low Flow	4,800	1,900	8.0	280	<0.10	3,800	20	0.27 ^J	60	0.51 ^J	4.7	62	<1.0	1.5 ^J	<1.0	<1.0	62	1.1 ^J	3.5	<20	<0.20	12,000	22,000	8.0	<4.9	<0.097	-69.53	-8.63
DM-2	11/30/2016	Low Flow	5,300	2,200	2.8 ^J	290	<0.010	4,200	28	<0.040	61	<20	5.9 ^J	56	<10	<20	<10	<10	40	<20	18 ^J	<200	<0.20	11,000	17,000	7.8	<4.7	<0.097	-70.20	-8.37
DM-2	6/1/2017	Low Flow	4,800	1,900	3.1 ^J	280	<0.10	4,100	21	<1.0	62	<10	4.4 ^J	52	<5.0	<10	<5.0	<5.0	17	5.2 ^J	5.6 ^J	<100	<0.20	12,000	16,000	7.9	<5.2	<0.097	-70.10	-8.51
DM-2	12/5/2017	Low Flow	4,930	1,960	13.4	250	<0.025	1,400	34	<1.0	62	<10	5.5	69	<2.5	3.7	<2.5	<2.5	-	<2.5	5.7	4.5	<0.50	11,000	17,200	7.8	<5.0	<0.10	-67.66	-8.63
DM-2	5/30/2018	Low Flow	6,000	2,280	17.5	300	0.11 ^J	4,800	68	<10	67	<5.0	5.1	51	<0.50															

TABLE 4
SUMMARY OF LABORATORY ANALYTICAL RESULTS
 Genesis Solar Energy Project

		Sampling	Chloride (mg/L)	Sulfate (SO4) (mg/L)	Nitrate (NO3)-N (mg/L)	Calcium (mg/L)	Copper (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Iron (mg/L)	Magnesium (mg/L)	Antimony (ug/L)	Arsenic (ug/L)	Barium (ug/L)	Cadmium (ug/L)	Chromium (Total) (ug/L)	Cobalt (ug/L)	Lead (ug/L)	Manganese (ug/L)	Nickel (ug/L)	Selenium (ug/L)	Zinc (ug/L)	Mercury (ug/L)	Total Dissolved Solids (mg/L)	Specific Conductance (us/cm)	pH (std. Units)	Oil & Grease / HEM (mg/L)	HTF [†] (mg/L)	Deuterium (% relative to VSMOW)	Oxygen-18 (% relative to VSMOW)
PW-1	12/14/2011	Spigot	1,300	470	<0.55	100	<0.010	1,100	7	0.11	6.9	-	-	-	-	-	-	-	-	-	-	-	-	3,000	3,800	8.0	-	-	-78.10	-10.3
PW-1	5/23/2012	Spigot	1,100	510	<0.55	92	<0.010	850	8.2	<0.040	6.8	-	-	-	-	-	-	-	-	-	-	-	-	2,100	5,100	8.1	-	-	-79.60	-10.40
PW-1	10/23/2012	Spigot	1,300	540	<1.1	90	<0.010	850	8.2	0.018 ^j	7.5	-	-	-	-	-	-	-	-	-	-	-	-	3,200	5,000	8.0	-	-	-79.10	-10.20
PW-2	12/14/2011	Spigot	890	440	<0.22	63	0.0062	740	6.7	1.7	6.1	-	-	-	-	-	-	-	-	-	-	-	-	2,200	2,900	8.1	-	-	-77.70	-10.4
PW-2	5/23/2012	Spigot	810	450	<0.55	53	<0.010	700	5.5	<0.040	4.7	-	-	-	-	-	-	-	-	-	-	-	-	2,200	4,100	8.1	-	-	-79.60	-10.40
PW-2	10/23/2012	Spigot	880	530	<0.55	48	<0.010	560	5.0	<0.040	4.8	-	-	-	-	-	-	-	-	-	-	-	-	2,300	3,800	8.0	-	-	-80.00	-10.30
PW-2	5/20/2014	Spigot	570	290	-	50	<0.010	700	5.1	0.030 ^j	4.1	<10	27	39	<5.0	<10	<5.0	<5.0	19	<10	<10	<100	<0.20	2,100	3,800	8.2	1.5 ^j	-	-76.65	-10.08
PW-2	12/4/2014	Spigot	900	440	<0.55	52	<0.010	670	5.6	0.075	4.3	<10	28	40	<5.0	<10	<5.0	<5.0	22	<10	<10	<100	<0.20	2,100	3,900	8.1	<4.7	<0.095	-79.40	-10.44
PW-2	12/4/2014 ¹	Spigot	840	440	<0.55	52	<0.010	670	5.7	0.072	4.4	<10	28	38	<5.0	<10	<5.0	<5.0	23	2.7 ^j	<10	<100	<0.20	2,100	3,900	8.1	<4.8	<0.096	-80.20	-10.39
PW-2	6/11/2015	Spigot	800	420	<0.22	49	<0.10	710	5.6	0.12 ^j	4.0	<10	28	39	<5.0	<10	<5.0	<5.0	19	<10	<10	<100	<0.20	2,200	4,000	8.1	16	<0.10	-76.70	-10.41
PW-2	6/11/2015 ¹	Spigot	790	420	<0.22	49	<0.10	710	8.4	0.22 ^j	4.2	<10	28	38	<5.0	<10	<5.0	<5.0	18	<10	<10	<100	<0.20	2,200	4,000	8.1	<4.8	<0.10	-76.90	-10.55
PW-2	12/10/2015	Spigot	910	450	<0.22	59	<0.010	770	5.6	0.16	4.1	<4.0	30	43	<2.0	<4.0	<2.0	<2.0	23	<4.0	<4.0	<40	<0.20	2,100	3,800	8.1	<5.1	<0.098	-77.70	-10.28
PW-2	12/10/2015 ¹	Spigot	910	480	<0.55	53	<0.010	700	6.5	0.079	4.1	<4.0	29	41	<2.0	<4.0	<2.0	<2.0	25	<4.0	<4.0	<40	<0.20	2,200	3,800	8.1	4.1 ^j	<0.095	-77.20	-10.21
PW-2	6/2/2016	Spigot	830	390	0.46	51	<0.010	680	5.1	0.10	4.1	<2.0	26	43	<1.0	<2.0	<1.0	<1.0	20	<2.0	0.63 ^j	<20	<0.20	2,200	4,100	8.1	<4.8	<0.096	-77.30	-10.38
PW-2	6/2/2016 ¹	Spigot	820	380	0.37	51	<0.010	680	5.1	0.12	4.1	<2.0	26	42	<1.0	<2.0	<1.0	<1.0	21	0.87 ^j	<2.0	<20	<0.20	2,200	4,100	8.1	<4.8	<0.096	-77.46	-10.44
PW-2	11/30/2016	Spigot	750	410	<0.22	49	<0.010	650	5.4	0.049	4.3	<10	29	40	<5.0	<10	<5.0	<5.0	19	<10	3.4 ^j	<100	<0.20	2,100	3,600	8.0	<4.8	<0.095	-78.00	-10.21
PW-2	11/30/2016 ¹	Spigot	860	450	<0.22	49	<0.010	680	5.6	0.050	4.4	<10	29	39	<5.0	<10	<5.0	<5.0	18	<10	2.7 ^j	<100	<0.20	2,100	3,700	7.9	<4.7	<0.095	-78.50	-10.30
PW-2	6/1/2017	Spigot	800	440	<0.55	56	<0.010	750	5.6	0.085 ^j	4.5	<10	27	38	<5.0	<10	<5.0	<5.0	19	<10	6.7 ^j	<100	<0.20	2,100	3,500	8.1	1.7 ^j	<0.098	-77.70	-10.21
PW-2	6/1/2017 ¹	Spigot	820	430	<0.55	54	<0.010	740	5.5	0.084 ^j	4.5	<10	28	39	<5.0	<10	<5.0	<5.0	20	<10	<10	<100	<0.20	2,100	3,700	8.0	<5.4	<0.096	-77.90	-10.26
PW-2	12/5/2017	Spigot	812	415	<0.50	54	<0.025	270	7.9	0.076 ^j	4.8	<0.50	28	39	<0.50	<0.50	<0.50	<0.50	-	<0.50	0.51	4.5	<0.50	2,000	3,570	7.9	<5.0	<0.10	-76.11	-10.50
PW-2	12/5/2017 ¹	Spigot	739	375	<0.50	56	<0.025	410	8.1	0.11 ^j	5.1	<0.50	29	38	<0.50	<0.50	<0.50	<0.50	-	2.0	0.61	7.0	<0.50	2,000	3,590	8.1	2.11	<0.10	-75.80	-10.48
PW-2	6/1/2018	Spigot	865	449	<2.50	51	0.099 ^j	1000	9.8	<10	4.1 ^j	<0.50	19	14	<0.50	<0.50	<0.50	<0.50	-	<0.50	<5.0	<5.0	<0.50	2,000	3,620	8.5	<5.00	<0.11	-77.70	-10.22
PW-2	6/1/2018 ¹	Spigot	857	445	<2.50	54	0.11 ^j	1100	10	<10	4.2 ^j	<0.50	12	7.3	<0.50	<0.50	<0.50	<0.50	-	<0.50	<5.0	<5.0	<0.50	2,000	3,630	8.2	<5.00	<0.11	-78.20	-10.26
PW-2	12/4/2018	Spigot	895	454	<0.500	55	<0.5	690	11	<20	<10	<10	34	41	<10	<10	<10	<10	-	<10	<10	<10	<0.50	1,900	3,580	8.1	<5.00	<0.11	-77.90	-10.24
PW-2	12/4/2018 ¹	Spigot	998	454	<0.500	72	<0.5	950	12	<20	<10	<10	33	44	<10	<10	<10	<10	-	<10	<10	<10	<0.50	1,800	3,580	8.1	15.4	<0.10	-77.80	-10.24
PW-2	6/13/2019	Spigot	860	431	<0.500	62	<0.005	780	13	<0.20	5.0	<10	<10	<10	<10	<10	<10	<10	-	<10	<10	-	<0.50	2,300	3,600	7.4	<5.00	<0.11	-78.20	-10.26
PW-2	6/13/2019 ¹	Spigot	820	436	<0.500	64	<0.005	800	13	<0.20	5.2	<10	<10	<10	<10	<10	<10	<10	-	<10	<10	-	<0.50	2,600	3,630	7.9	<5.00	<0.11	-78.20	-10.25
PW-2	12/5/2019	Spigot	1,300	515	<0.500	52	0.003 ^j	800	6.5	0.039 ^j	4.7	<5.0	25	43	<5.0	1.2 ^j	<5.0	<5.0	-	<5.0	<5.0	50	<0.50	2,100	3,610	8.1	<5.00	<0.10	-77.80	-10.22
PW-2	12/5/2019 ¹	Spigot	1,370	584	<0.500	52	0.002 ^j	820	7.9	0.150 ^j	4.5	<5.0	26	42	<5.0	0.30 ^j	<5.0	<5.0	-	<5.0	<5.0	46	<0.50	1,600	3,600	8.1	<5.00	<0.10	-78.30	-10.22

NOTES:
 mg/L = milligrams per liter
 ug/L = micrograms per liter
 uS/cm = microsiemens per centimeter
 ‰ = parts per thousand
 VSMOW = Vienna Standard Mean Ocean Water
 < = not detected at or above the indicated reporting limit
 - = information is unknown / not applicable / not analyzed
 B - Compound was detected in the laboratory equipment blank.
 J - Result is less than the reporting limit but greater than or equal to the method detection limit, thus the concentration is an approximate value.
 † - Heat Transfer Fluid (HTF) is characterized by the analytes 1,1'-oxybis-benzene and 1,1'-biphenyl.
 1 - Duplicate sample

TABLE 5
AVAILABLE HISTORICAL ANALYTICAL DATA FOR ADDITIONAL WELLS IN CHUCKWALLA VALLEY GROUNDWATER BASIN WITHIN 10 MILES OF THE SITE
Genesis Solar Energy Project, Riverside, California

Well ID	Date Sampled	Data Source	Sample Depth (ft amsl)	Fluoride (mg/L)	Chloride (mg/L)	Sulfate (SO4) (mg/L)	Sodium (mg/L)	Silica (Total) (mg/L)	Potassium (mg/L)	Magnesium (mg/L)	Calcium (mg/L)	Total Hardness (as CaCO3) (mg/L)	Total Dissolved Solids (mg/L)
1	5/19/1961	DWR, 1963	--	--	656	--	--	--	--	--	--	--	1,760
3	4/20/2009	Azca Drilling and Pump	560 to 940	--	--	--	--	--	--	--	--	--	910
	9/3/2009	WorleyParsons	560 to 940	--	--	--	--	--	--	--	--	--	970
5	10/10/1961	DWR, 1963	--to 85.7	--	1,770	--	--	--	--	--	--	--	5,730
14	6/25/1991	DWR Well Records	890 to 940	--	--	--	--	--	--	--	--	--	2,400
	7/29/2009	WorleyParsons	--	--	3,400	--	--	--	--	--	--	--	6,600
15	9/16/2009	WorleyParsons	200.0	--	--	--	--	--	--	--	--	--	19,000
			500.0	--	--	--	--	--	--	--	--	--	26,000
16	9/16/2009	WorleyParsons	247.00	--	--	--	--	--	--	--	--	--	3,100
17	1959	DWR, 1963	1,175 to 1,200	--	986	--	--	--	--	--	--	--	2,150
	9/17/2009	WorleyParsons	247	--	--	--	--	--	--	--	--	--	20,000
21	10/17/1917	DWR, 1963	--	--	865	--	--	--	--	--	--	--	3,820
23	4/19/1979	NWIS	--	6.3	950	450	800	38	16	0.6	67	170	2,350
26	9/16/2009	WorleyParsons	760.00	--	--	--	--	--	--	--	--	--	1,100
27	10/10/1961	DWR, 1963	-- to 486.4	--	718	--	--	--	--	--	--	--	2,210
28	10/10/1961	DWR, 1963	-- to 779.4	--	273	--	--	--	--	--	--	--	1,470
29	9/16/2009	WorleyParsons	720	--	--	--	--	--	--	--	--	--	1,100
31	10/10/1961	DWR, 1963	-- to 242.2	--	734	--	--	--	--	--	--	--	2,560
32	10/10/1961	DWR, 1963	-- to 315.7	--	3,250	--	--	--	--	--	--	--	8,150
37	6/4/1990	Engineering-Science, 1990	750 to 1,050	--	214	--	--	--	--	--	--	--	752
38	6/20/1986	Woodward-Clyde Consultants, 1986	275 to 815	--	519	--	--	--	--	--	--	--	1,313
			835 to 1,015	--	267	--	--	--	--	--	--	--	719
39	1/1986 (TDS)	CH2M Hill and Boyle Engineering, 1995/DWR, 1963	853 to 1,083	--	216	--	--	--	--	--	--	--	786
	6/12/1961 (Chloride)												
42	5/1/1988 (TDS) 8/24/83 (Chloride)	CH2M Hill and Boyle Engineering, 1995/Woodward-Clyde	738 to 1,100	--	199	--	--	--	--	--	--	--	765
43	Jan-86	Kennedy/Jenks/Chilton, 1986	510 to 780	--	460	--	--	--	--	--	--	--	1,150
47	Jan-86	Woodward-Clyde Consultants, 1986	500 to 850	--	520	--	--	--	--	--	--	--	1,350
	1/4/1984		490	--	550	--	--	--	--	--	--	--	2,090
	1/5/1984		590	--	586	--	--	--	--	--	--	--	1,740
	2/7/1984		850	--	570	--	--	--	--	--	--	--	1,380
50	1959	DWR, 1963	-- to 818	--	131	--	--	--	--	--	--	--	

Notes:

amsl = above mean sea level

mg/L =milligrams per liter

-- = Information not available or not applicable

Sources:

DWR, 1963. Data on Water Wells and Springs in the Chuckwalla Valley Area. DWR Bulletin 91-7 .

Kennedy/Jenks/Chilton, 1986. Final Report Sampling and Analysis in the Wiley's Well Area. Dated March 19.

CH2M Hill and Boyle Engineering, 1995. Technical Memorandum, Water Treatment Plant Evaluation -Phase I. Dated March 30 .

Woodward-Clyde Consultants, 1986. Final Report, Groundwater Quality Investigation, Wiley Well Area. Dated March 13.

Engineering Science, 1990. Water and Wastewater Facilities Engineering Study, California State Prison -Chuckwalla Valley. Dated September.

APPENDIX A

FIELD DATA SHEETS



GROUNDWATER LEVEL MEASUREMENT FORM

Date: Dec 5-6, 2019	Site: Genesis Solar Energy Project	Project No: 196-004-06
Project: Groundwater Level Monitoring Program		PM: AWB
Measurement Method/Device: Solinst Interface Probe		Technicians: AWB/RCD

Weather: Overcast

Well No.	Date	TOC Reference Elevation (ft)	Depth to Water (ft)	Corrected Water Level Elevation (ft)	Comments
TW-1	12/5/2019	387.40	86.70	300.70	Solinst Levellogger Transducer
TW-2	12/5/2019	393.47	126.75	266.72	Manual Measurement
OBS-1	12/5/2019	388.30	78.10	310.20	Solinst Levellogger Transducer
OBS-2-270	N/A	388.14	N/A	N/A	Buried Transducer Cable
OBS-2-315	N/A	388.14	N/A	N/A	Buried Transducer Cable
OBS-2-370	N/A	388.14	N/A	N/A	Buried Transducer Cable
OBS-2-400	N/A	388.14	N/A	N/A	Buried Transducer Cable
14	12/5/2019	388.14	100.85	287.29	Manual Measurement
23a	12/5/2019	392.10	136.75	255.35	Manual Measurement
24-1	12/5/2019	389.40	127.10	262.30	Manual Measurement
24-2	12/5/2019	388.86	125.10	263.76	Manual Measurement
24-3	12/5/2019	392.04	123.71	268.33	Manual Measurement
PW-0	12/5/2019	385.64	N/A	N/A	Manual Measurement
PW-1	12/5/2019	384.43	98.12	286.31	Manual Measurement
PW-2	12/5/2019	385.15	N/A	N/A	Manual Measurement
DM-1	12/5/2019	391.49	107.42	284.07	Manual Measurement
DM-2	12/5/2019	391.32	107.72	283.60	Manual Measurement
DM-3	12/6/2019	388.34	104.66	283.68	Manual Measurement

Additional Notes:



GROUNDWATER SAMPLING FIELD FORM

Date: Dec 5, 2019	Site: Genesis Solar Energy Project	Project No: 196-004-06
Project: Groundwater Quality Monitoring Program		Project Manager: AWB
Technicians: RCD/AWB		Weather: Overcast
Sampling Method: Bailer Grab Sample		

Well No.	23a	Temp °C	pH	Conductivity (mS/cm)	Turbidity (NTUs)	ORP (mV)	DO (mg/L)
Casing Diameter (in.)	8.0	27.50	8.36	2.68	-	-48	3.08
Total Depth (ft btoc)	1,825						
Screen Interval (ft btoc)	1800 - 1825						
Depth to Water (ft btoc)	136.75						
Sample Date	12/5/2019						
Sample Time	10:00						

General Well Location: CalTrans Rest Stop at Wiley's Well Road (2 days notice to CalTrans required)

COMMENTS:

Well No.	OBS-1	Temp °C	pH	Conductivity (mS/cm)	Turbidity (NTUs)	ORP (mV)	DO (mg/L)
Casing Diameter (in.)	5.0	26.40	8.22	21.9	-	-67	3.21
Total Depth (ft btoc)	160						
Screen Interval (ft btoc)	100 - 150						
Depth to Water (ft btoc)	78.10						
Sample Date	12/5/2019						
Sample Time	8:45						

General Well Location: Approximately 1 mile west of property boundary; access via Ford Dry Lake service road

COMMENTS:

Well No.	TW-1	Temp °C	pH	Conductivity (mS/cm)	Turbidity (NTUs)	ORP (mV)	DO (mg/L)
Casing Diameter (in.)	5.0	24.60	9.94	12.87	-	-276	4.60
Total Depth (ft btoc)	565						
Screen Interval (ft btoc)	340 - 564						
Depth to Water (ft btoc)	86.70						
Sample Date	12/5/2019						
Sample Time	9:00						

General Well Location: Approximately 1 mile west of property boundary; access via Ford Dry Lake service road

COMMENTS:

Well No.	TW-2	Temp °C	pH	Conductivity (mS/cm)	Turbidity (NTUs)	ORP (mV)	DO (mg/L)
Casing Diameter (in.)	5.0	30.35	9.42	5.16	-	-313	1.32
Total Depth (ft btoc)	1,841						
Screen Interval (ft btoc)	Multiple						
Depth to Water (ft btoc)	126.75						
Sample Date	12/5/2019						
Sample Time	10:20						

General Well Location: NE corner of Section 32 (Township 7S, Range 20E); near bend in site access road

COMMENTS:



GROUNDWATER SAMPLING FIELD FORM

Date: Dec 5, 2019 Site: Genesis Solar Energy Project Project No: 196-004-06

Project: Groundwater Quality Monitoring Program Project Manager: AWB

Technicians: RCD/AWB Weather: Overcast

Sampling Method: Production Well Effluent Grab Sample

Well No.	PW-0	Temp °C	pH	Conductivity (mS/cm)	Turbidity (NTUs)	ORP (mV)	DO (mg/L)
Casing Diameter (in.)	10.0	31.25	8.32	5.93	-	-140	1.46
Total Depth (ft btoc)	1,251						
Screen Interval (ft btoc)	Multiple						
Depth to Water (ft btoc)	N/A						
Sample Date	12/5/2019						
Sample Time	11:40						

General Well Location: Between Solar Field #1 and #2, near main road

COMMENTS:

Well No.	PW-1	Temp °C	pH	Conductivity (mS/cm)	Turbidity (NTUs)	ORP (mV)	DO (mg/L)
Casing Diameter (in.)	10.0	-	-	-	-	-	-
Total Depth (ft btoc)	1,360						
Screen Interval (ft btoc)	Multiple						
Depth to Water (ft btoc)	98.12						
Sample Date	12/5/2019						
Sample Time	N/A						

General Well Location: NE corner of Solar Field 1 cooling/processing facility, between Block 6 & Block 7

COMMENTS: Not sampled - no access

Well No.	PW-2	Temp °C	pH	Conductivity (mS/cm)	Turbidity (NTUs)	ORP (mV)	DO (mg/L)
Casing Diameter (in.)	10.0	39.94	8.26	3.43	-	-61	2.97
Total Depth (ft btoc)	1,125						
Screen Interval (ft btoc)	Multiple						
Depth to Water (ft btoc)	N/A						
Sample Date	12/5/2019						
Sample Time	12:45						

General Well Location: NW corner of Solar Field 2 cooling/processing facility, between Block 7 & Block 8

COMMENTS:

Well No.		Temp °C	pH	Conductivity (mS/cm)	Turbidity (NTUs)	ORP (mV)	DO (mg/L)
Casing Diameter (in.)							
Total Depth (ft btoc)							
Screen Interval (ft btoc)							
Depth to Water (ft btoc)							
Sample Date							
Sample Time							

General Well Location:

COMMENTS:



GROUNDWATER SAMPLING FIELD FORM

Date: Dec 5-6, 2019	Site: Genesis Solar Energy Project	Project No: 196-004-06
Project: Groundwater Quality Monitoring Program		Project Manager: AWB
Technicians: RCD/AWB		Weather: Overcast
Sampling Method: Low-Flow Sampling with Submersible Pump (EPA 2017 Protocols)		

Well No.	DM-1	Time (5 Min Int)	Water Level (ft btoc)	Temp °C (3%)	pH (+/- 0.1)	Cond (mS/cm) (3%)	Turbidity (NTUs) (10%)	ORP (mV) (+/- 10)	DO (mg/L) (10%)
Casing Diameter (in.)	4.0	13:20	107.45	25.28	7.94	16.34	-	-58	3.66
Total Depth (ft btoc)	120	13:25	107.45	26.65	7.83	16.29	-	-59	3.25
Screen Interval (ft btoc)	100 - 120	13:30	107.45	26.69	7.85	16.33	-	-59	3.29
Depth to Water (ft btoc)	107.42	13:35	107.45	26.71	7.85	16.34	-	-59	3.31
Depth of Inlet (ft btoc)	115.00								
Discharge Time (sec)	25								
Fill Time (sec)	15								
Cycles per Minute	1.5								
Volume per Cycle (mL)	125								
Pump Rate (mL/min)	188								
Volume Purged (mL)	2,820								
Sample Time	13:36								

Purge Volume Calculation: Total must exceed tubing volume (1,204 mL) plus drawdown volume (2,460 mL/foot) = **1,278 mL**

COMMENTS: Sampled 12/5/19

Well No.	DM-2	Time (5 Min Int)	Water Level (ft btoc)	Temp °C (3%)	pH (+/- 0.1)	Cond (mS/cm) (3%)	Turbidity (NTUs) (10%)	ORP (mV) (+/- 10)	DO (mg/L) (10%)
Casing Diameter (in.)	4.0	14:40	108.00	25.78	7.91	16.16	-	-65	2.67
Total Depth (ft btoc)	120	14:45	108.17	26.30	7.84	16.60	-	-62	0.90
Screen Interval (ft btoc)	100 - 120	14:50	108.19	26.31	7.83	16.62	-	-62	0.89
Depth to Water (ft btoc)	107.72	14:55	108.20	26.30	7.82	16.60	-	-62	0.86
Depth of Inlet (ft btoc)	115.00	15:00	108.20	26.31	7.82	16.60	-	-62	0.85
Discharge Time (sec)	27								
Fill Time (sec)	40								
Cycles per Minute	0.9								
Volume per Cycle (mL)	125								
Pump Rate (mL/min)	120								
Volume Purged (mL)	2,400								
Sample Time	15:00								

Purge Volume Calculation: Total must exceed tubing volume (1,204 mL) plus drawdown volume (2,460 mL/foot) = **2,385 mL**

COMMENTS: Sampled 12/5/19

Well No.	DM-3	Time (5 Min Int)	Water Level (ft btoc)	Temp °C (3%)	pH (+/- 0.1)	Cond (mS/cm) (3%)	Turbidity (NTUs) (10%)	ORP (mV) (+/- 10)	DO (mg/L) (10%)
Casing Diameter (in.)	4.0	6:40	104.68	18.91	7.87	15.95	-	-69	3.37
Total Depth (ft btoc)	120	6:45	104.68	22.70	7.88	15.80	-	-79	1.55
Screen Interval (ft btoc)	100 - 120	6:50	104.68	22.72	7.89	15.82	-	-79	1.54
Depth to Water (ft btoc)	104.66	6:55	104.68	22.73	7.90	15.83	-	-79	1.56
Depth of Inlet (ft btoc)	115.00								
Discharge Time (sec)	27								
Fill Time (sec)	35								
Cycles per Minute	0.97								
Volume per Cycle (mL)	125								
Pump Rate (mL/min)	121								
Volume Purged (mL)	1,815								
Sample Time	6:55								

Purge Volume Calculation: Total must exceed tubing volume (1,204 mL) plus drawdown volume (2,460 mL/foot) = **1,254**

COMMENTS: Sampled 12/6/19

APPENDIX B

CHARTS 1 - 29

Chart 4: Calcium

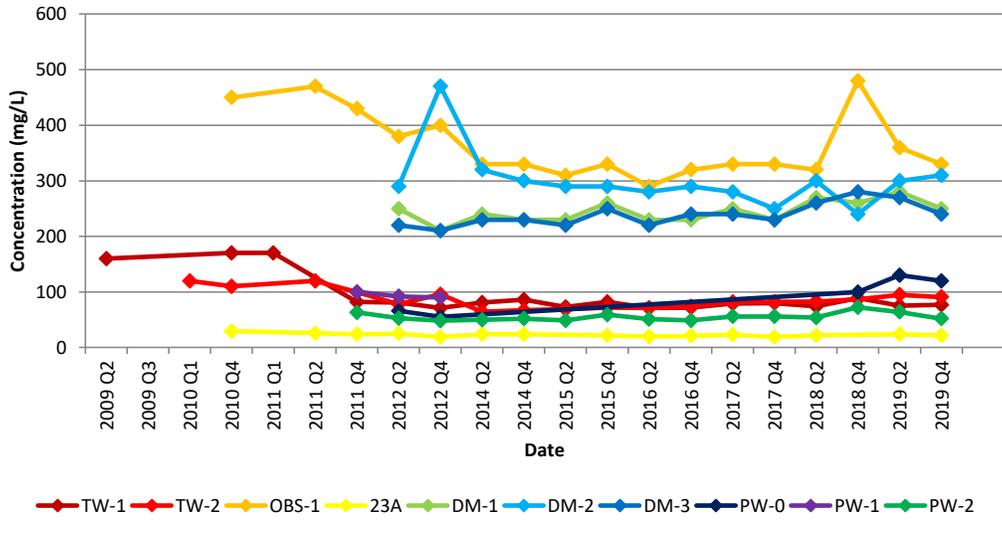


Chart 5: Copper

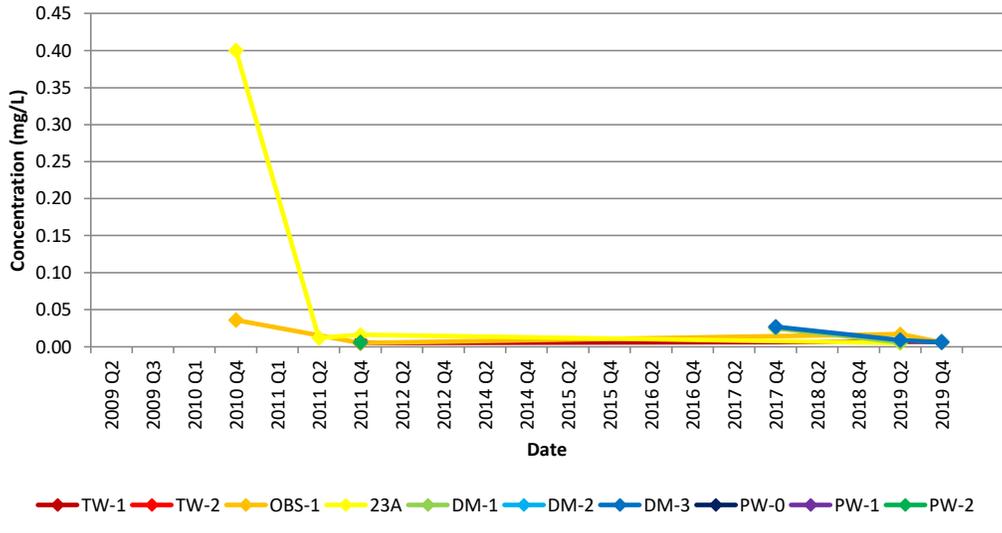


Chart 6: Sodium

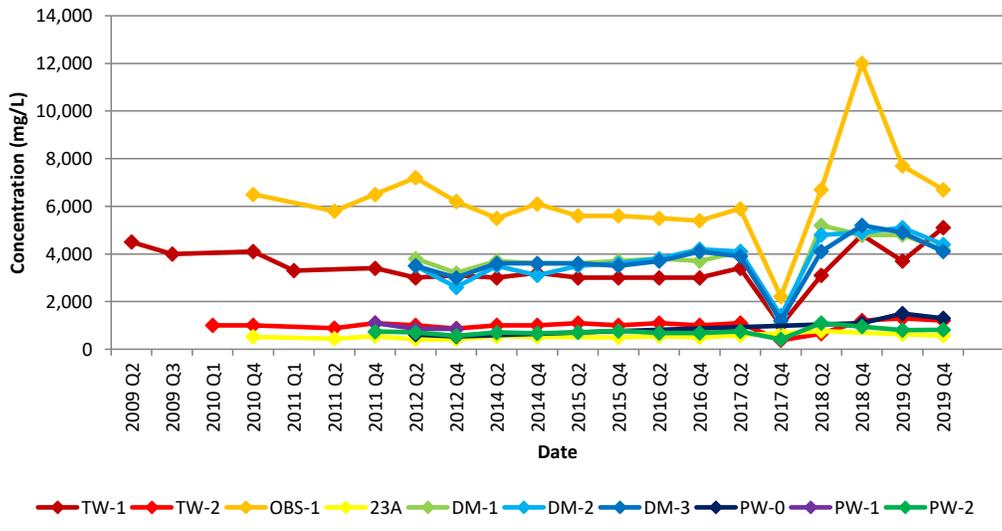


Chart 7: Potassium

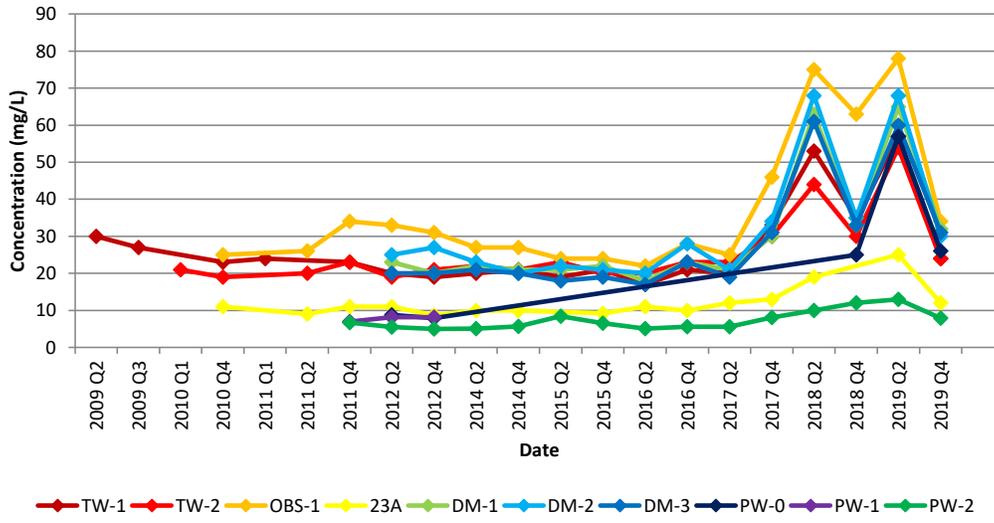


Chart 8: Iron

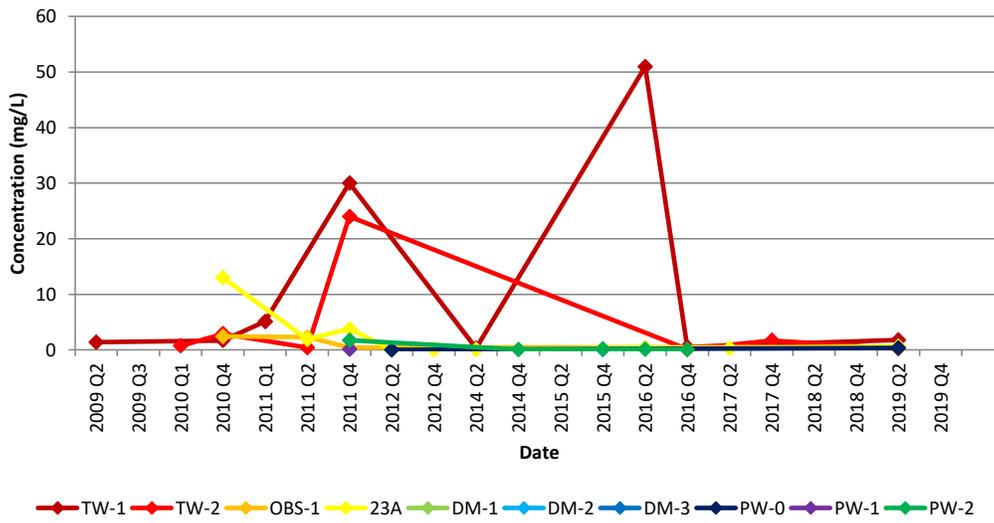


Chart 9: Magnesium

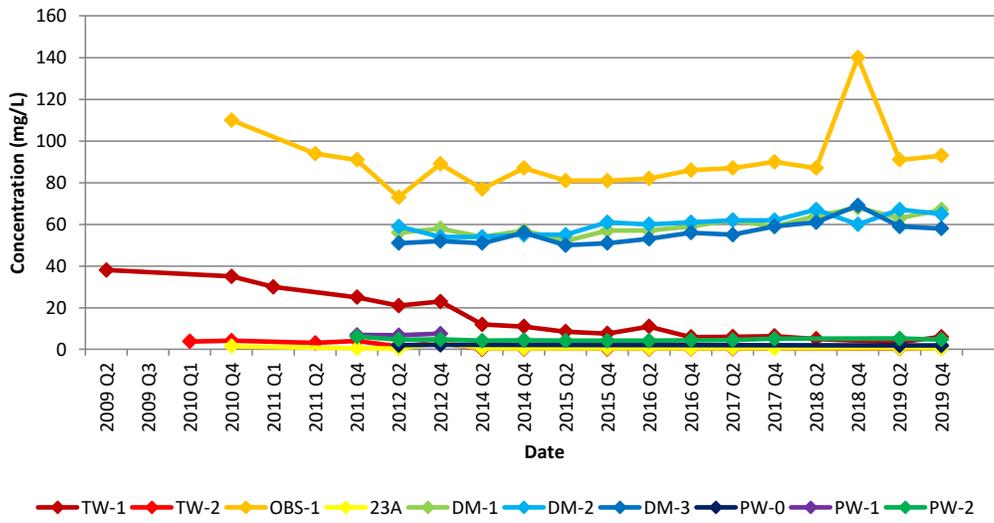


Chart 19: Selenium

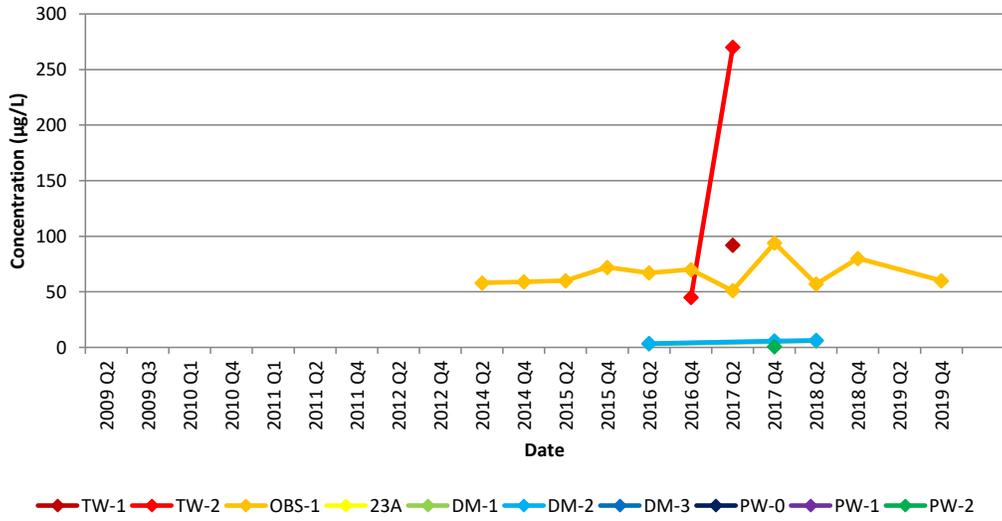


Chart 20: Zinc

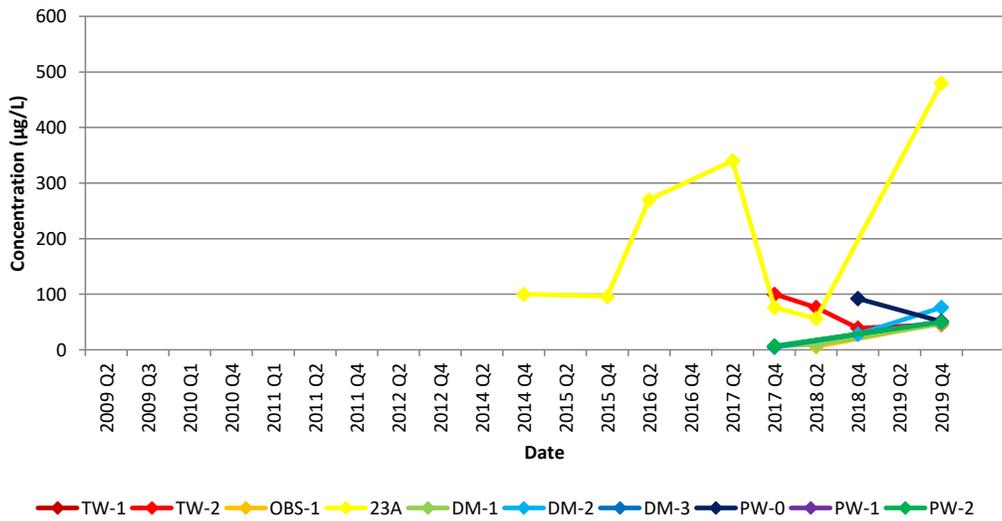


Chart 21: Mercury

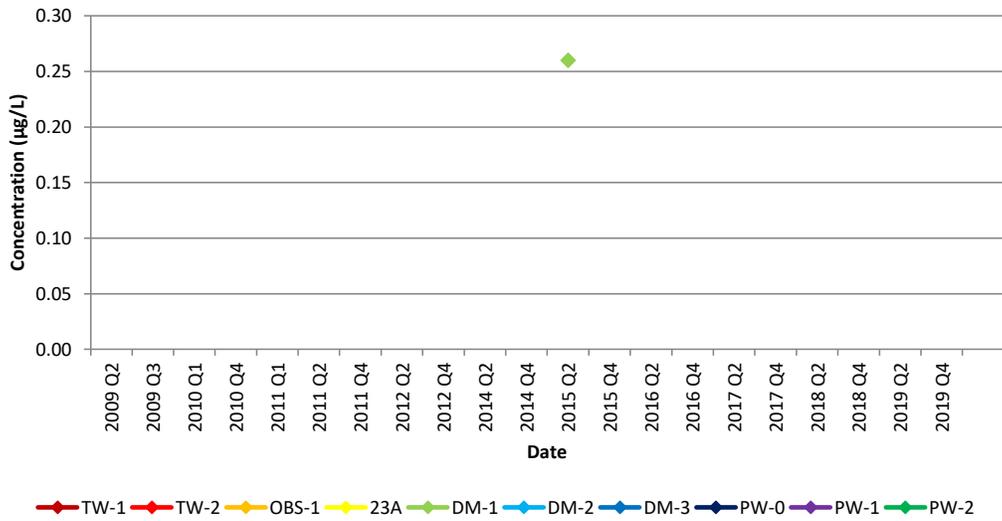


Chart 27: Deuterium

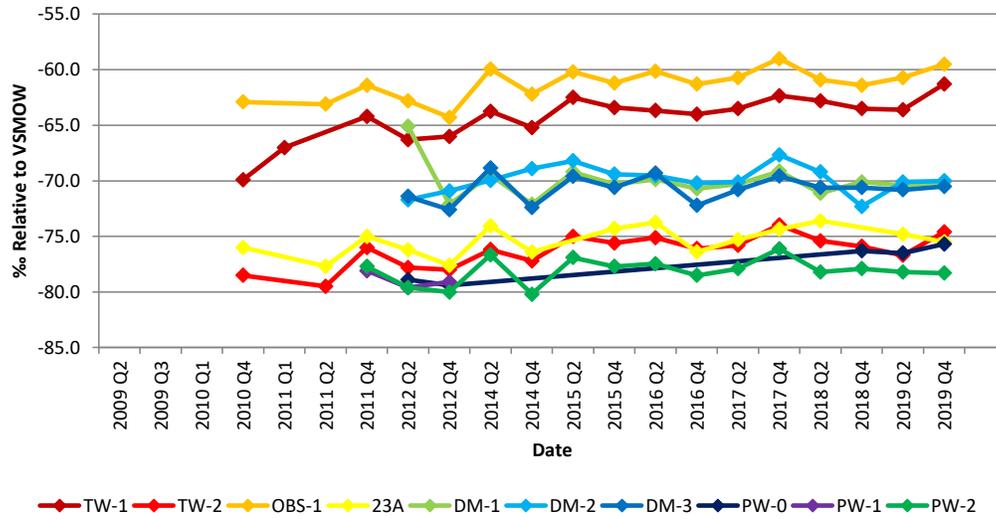


Chart 28: Oxygen-18

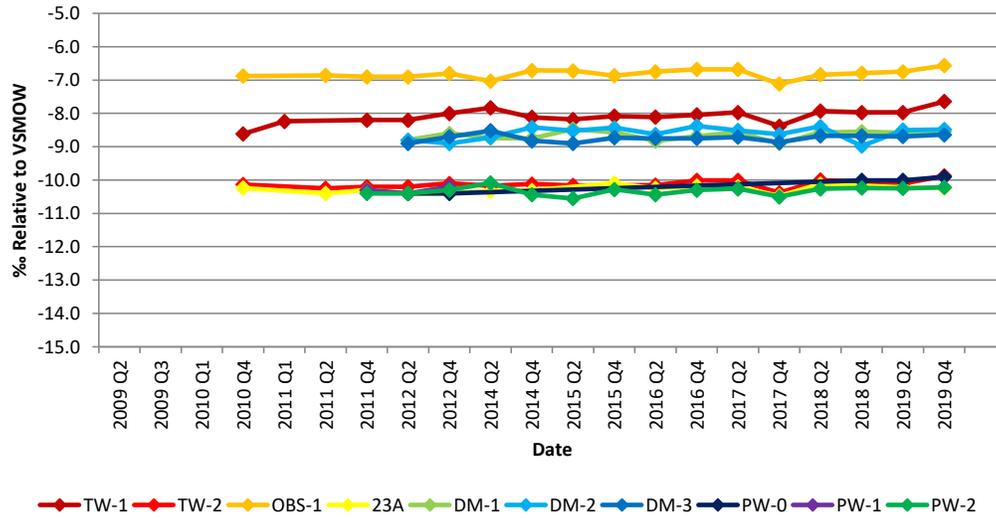
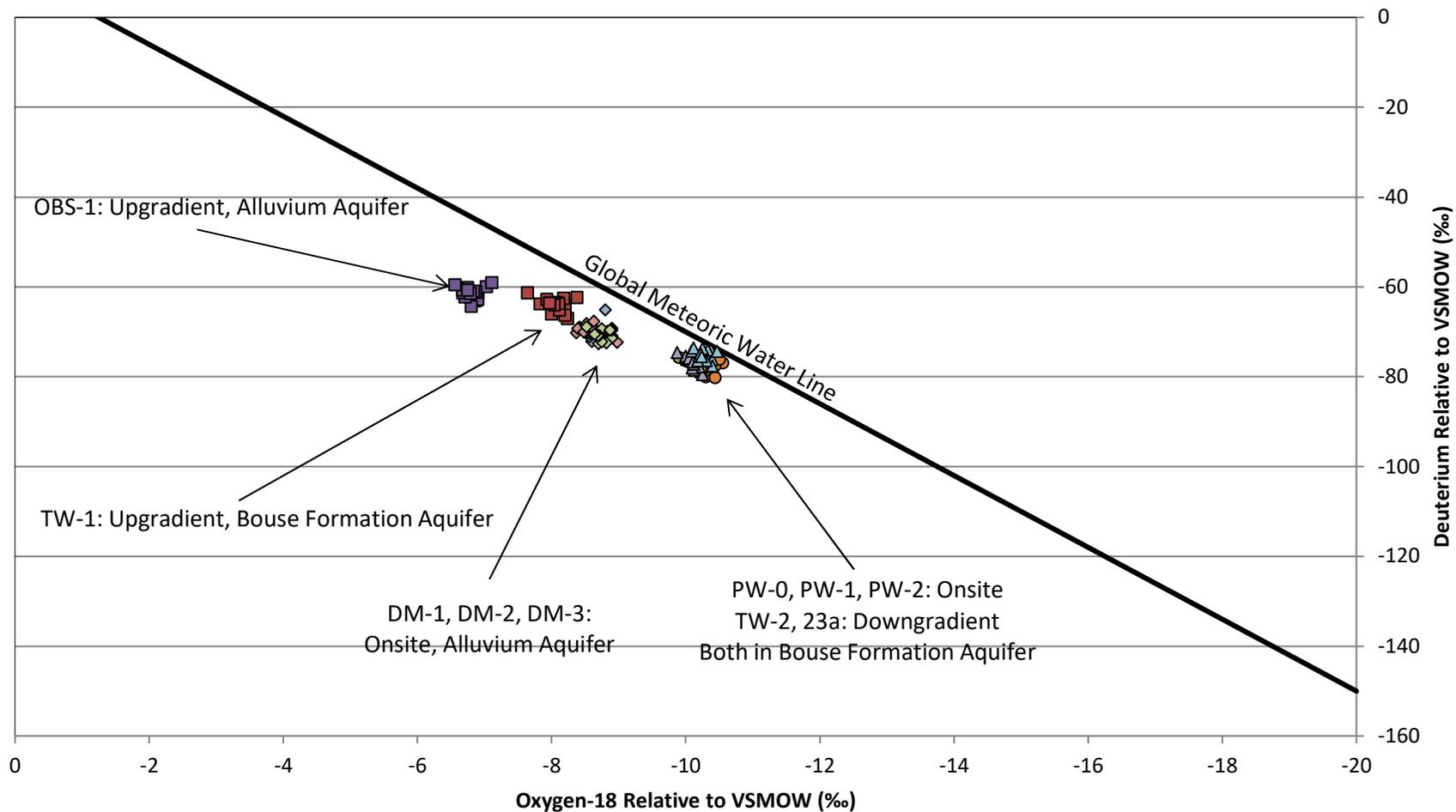


Chart 29: Deuterium vs. Oxygen-18 Concentrations Relative to Vienna Standard Mean Oceanic Water



Global Meteoric Water Line
 TW-1
 OBS-1
 PW-0
 PW-1
 PW-2
 DM-1
 DM-2
 DM-3
 TW-2
 23a

APPENDIX C

MANN-KENDALL TREND ANALYSIS

Appendix C
2019 Second Semiannual Summary of Mann-Kendall Test for Trend
Genesis Solar Energy Project, Blythe, CA

Well ID	Constituent	Minimum	Maximum	Mean	Kendall Tau Value	2-Sided p-Value	Trend Direction at 95% Confidence Interval
TW-1	Arsenic	N/A	N/A	N/A	N/A	N/A	No New Data
	Barium	5.9	22	14.9	-0.623	0.011498	Decreasing Trend
	Calcium	71	170	93	-0.325	0.068247	No Statistical Trend
	Chloride	3,510	7,300	4,706	-0.275	0.089997	No Statistical Trend
	Selenium	N/A	N/A	N/A	N/A	N/A	No New Data
	Specific Conductivity	12,000	20,000	15,862	-0.608	0.0002154	Decreasing Trend
	Sulfate	1,130	2,490	1,521	-0.113	0.50328	No Statistical Trend
Total Dissolved Solids	6,800	10,000	8,862	-0.612	0.000137	Decreasing Trend	
TW-2	Arsenic	N/A	N/A	N/A	N/A	N/A	No New Data
	Barium	23	46	36.72727	0.309	0.21291	No Statistical Trend
	Calcium	64	120	87	-0.118	0.50544	No Statistical Trend
	Chloride	850	2,750	1,553	0.173	0.33695	Increasing Trend
	Selenium	N/A	N/A	N/A	N/A	N/A	No New Data
	Specific Conductivity	4,100	6,200	5,571	-0.036	0.86049	No Statistical Trend
	Sulfate	315	686	464	-0.341	0.05164	No Statistical Trend
Total Dissolved Solids	2,600	6,400	3,332	-0.110	0.54647	No Statistical Trend	
OBS-1	Arsenic	N/A	N/A	N/A	N/A	N/A	No New Data
	Barium	7.8	17	13.3	0.177	0.51960	No Statistical Trend
	Calcium	290	480	364	-0.313	0.09934	No Statistical Trend
	Chloride	5,200	9,710	6,440	-0.252	0.17330	No Statistical Trend
	Selenium	51	94	66.2	0.220	0.39036	No Statistical Trend
	Specific Conductivity	21,000	36,000	27,431	-0.316	0.08941	No Statistical Trend
	Sulfate	4,800	9,400	6,186	-0.281	0.12683	No Statistical Trend
Total Dissolved Solids	11,000	21,000	17,824	-0.600	0.00166	Decreasing Trend	
23a	Arsenic	N/A	N/A	N/A	N/A	N/A	No New Data
	Barium	13	21	18.4	-0.304	0.32418	No Statistical Trend
	Calcium	19	29	22.9	-0.431	0.03458	Decreasing Trend
	Chloride	410	667	502	-0.019	0.96035	No Statistical Trend
	Selenium	N/A	N/A	N/A	N/A	N/A	No New Data
	Specific Conductivity	2,400	3,100	2,666	0.029	0.92077	No Statistical Trend
	Sulfate	370	490	416	-0.146	0.50824	No Statistical Trend
Total Dissolved Solids	1,300	1,700	1,493	-0.498	0.01803	Decreasing Trend	
DM-1	Arsenic	N/A	N/A	N/A	N/A	N/A	No New Data
	Barium	28	52	35.2	-0.510	0.04004	Decreasing Trend
	Calcium	210	280	244	0.394	0.07019	No Statistical Trend
	Chloride	4,600	8,180	5,536	0.236	0.27019	No Statistical Trend
	Selenium	N/A	N/A	N/A	N/A	N/A	No New Data
	Specific Conductivity	16,000	20,000	17,871	-0.046	0.86763	No Statistical Trend
	Sulfate	1,700	3,280	2,139	0.133	0.57674	No Statistical Trend
Total Dissolved Solids	9,600	12,000	10,900	-0.360	0.12108	No Statistical Trend	
DM-2	Arsenic	N/A	N/A	N/A	N/A	N/A	No New Data
	Barium	50	140	75.4	-0.709	0.00309	Decreasing Trend
	Calcium	240	470	301	-0.245	0.26380	No Statistical Trend
	Chloride	4,400	7,680	5,196	0.506	0.01528	Increasing Trend
	Selenium	N/A	N/A	N/A	N/A	N/A	No New Data
	Specific Conductivity	13,000	22,000	17,157	0.000	1.00000	No Statistical Trend
	Sulfate	1,600	2,280	1,992	0.054	0.85184	No Statistical Trend
Total Dissolved Solids	7,100	13,000	10,550	-0.301	0.16400	No Statistical Trend	
DM-3	Arsenic	11	20	15.0	0.000	1.00000	No Statistical Trend
	Barium	15	34	18.9	-0.0813	0.80479	No Statistical Trend
	Calcium	210	280	239	0.579	0.00638	Increasing Trend
	Chloride	4,400	9,760	5,467	0.291	0.16919	No Statistical Trend
	Selenium	N/A	N/A	N/A	N/A	N/A	No New Data
	Specific Conductivity	16,000	20,000	17,557	-0.208	0.34345	No Statistical Trend
	Sulfate	1,800	2,840	2,276	0.339	0.10932	No Statistical Trend
Total Dissolved Solids	9,300	13,000	10,986	-0.186	0.42656	No Statistical Trend	
PW-0	Arsenic	N/A	N/A	N/A	N/A	N/A	Not Enough Data
	Barium	N/A	N/A	N/A	N/A	N/A	Not Enough Data
	Calcium	N/A	N/A	N/A	N/A	N/A	Not Enough Data
	Chloride	N/A	N/A	N/A	N/A	N/A	Not Enough Data
	Selenium	N/A	N/A	N/A	N/A	N/A	Not Enough Data
	Specific Conductivity	N/A	N/A	N/A	N/A	N/A	Not Enough Data
	Sulfate	N/A	N/A	N/A	N/A	N/A	Not Enough Data
Total Dissolved Solids	N/A	N/A	N/A	N/A	N/A	Not Enough Data	
PW-1	Arsenic	N/A	N/A	N/A	N/A	N/A	Not Enough Data
	Barium	N/A	N/A	N/A	N/A	N/A	Not Enough Data
	Calcium	N/A	N/A	N/A	N/A	N/A	Not Enough Data
	Chloride	N/A	N/A	N/A	N/A	N/A	Not Enough Data
	Selenium	N/A	N/A	N/A	N/A	N/A	Not Enough Data
	Specific Conductivity	N/A	N/A	N/A	N/A	N/A	Not Enough Data
	Sulfate	N/A	N/A	N/A	N/A	N/A	Not Enough Data
Total Dissolved Solids	N/A	N/A	N/A	N/A	N/A	Not Enough Data	
PW-2	Arsenic	12	34	26.7	-0.0944	0.75208	No Statistical Trend
	Barium	7.3	44	37.7	0.0381	0.93686	No Statistical Trend
	Calcium	48	72	54.4	0.284	0.16239	No Statistical Trend
	Chloride	570	998	1,300	0.191	0.34649	No Statistical Trend
	Selenium	N/A	N/A	N/A	N/A	N/A	No New Data
	Specific Conductivity	2,900	4,100	3,699	-0.256	0.21130	No Statistical Trend
	Sulfate	290	530	434	0.106	0.61983	No Statistical Trend
Total Dissolved Solids	1,600	2,300	2,093	-0.513	0.01393	Decreasing Trend	

N/A - Not Applicable; not enough data to calculate trend or no new data for the reporting period

APPENDIX D

LABORATORY REPORTS



25712 Commercentre Drive
Lake Forest, California 92630
949.297.5020 Phone
949.297.5027 Fax

26 December 2019

Arlin Brewster
Northstar Environmental Remediation
26225 Enterprise Court
Lake Forest, CA 92630
RE: Genesis Solar Groundwater

Enclosed are the results of analyses for samples received by the laboratory on 12/06/19 11:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jeff Lee
Project Manager

Northstar Environmental Remediation
26225 Enterprise Court
Lake Forest CA, 92630

Project: Genesis Solar Groundwater
Project Number: 196-004-06
Project Manager: Arlin Brewster

Reported:
12/26/19 08:20

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
23a	T194199-01	Water	12/05/19 10:00	12/06/19 11:15
OBS-1	T194199-02	Water	12/05/19 08:45	12/06/19 11:15
TW-1	T194199-03	Water	12/05/19 09:00	12/06/19 11:15
TW-2	T194199-04	Water	12/05/19 10:20	12/06/19 11:15
PW-0	T194199-05	Water	12/05/19 11:40	12/06/19 11:15
PW-2	T194199-06	Water	12/05/19 12:45	12/06/19 11:15
DM-1	T194199-07	Water	12/05/19 13:36	12/06/19 11:15
DM-2	T194199-08	Water	12/05/19 15:00	12/06/19 11:15
DM-3	T194199-09	Water	12/05/19 06:55	12/06/19 11:15
DUP	T194199-10	Water	12/06/19 00:00	12/06/19 11:15

Metals analysis for EPA 200.8 and 200.7 were filtered in the laboratory prior to analysis. The results are reported as dissolved metals. JL 12/17/19

SunStar Laboratories, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jeff Lee, Project Manager

Northstar Environmental Remediation
26225 Enterprise Court
Lake Forest CA, 92630

Project: Genesis Solar Groundwater
Project Number: 196-004-06
Project Manager: Arlin Brewster

Reported:
12/26/19 08:20

DETECTIONS SUMMARY

Sample ID: 23a Laboratory ID: T194199-01

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	20	5.0		ug/l	200.8	FILT, R-07
Chromium	0.30	5.0		ug/l	200.8	FILT, R-07, J
Copper	3	5		ug/l	EPA 200.7	FILT, J
Selenium	1.4	5.0		ug/l	200.8	FILT, R-07, J
Zinc	480	5.0		ug/l	200.8	FILT, R-07
Calcium	22000	2500		ug/l	EPA 200.7	FILT
Potassium	410	100		ug/l	EPA 200.7	FILT
Magnesium	500	100		ug/l	EPA 200.7	FILT
Sodium	570000	2500		ug/l	EPA 200.7	FILT, RE-01
pH	8.3	0.10		pH Units	SM4500	O-09
Total Dissolved Solids	1400	55		mg/l	TDS by SM2540C	
Specific Conductance (EC)	2570	10.0		umhos/cm	SM2510b mod.	
Chloride	667	500		mg/l	EPA 300.0	
Sulfate as SO4	492	500		mg/l	EPA 300.0	R-01, J

Sample ID: OBS-1 Laboratory ID: T194199-02

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	15	5.0		ug/l	200.8	FILT, R-07
Chromium	0.10	5.0		ug/l	200.8	FILT, R-07, J
Copper	6	5		ug/l	EPA 200.7	FILT
Selenium	60	5.0		ug/l	200.8	FILT, R-07
Zinc	48	5.0		ug/l	200.8	FILT, R-07
Calcium	330000	40000		ug/l	EPA 200.7	FILT, RE-01
Potassium	34000	100		ug/l	EPA 200.7	FILT
Magnesium	93000	100		ug/l	EPA 200.7	FILT
Total Dissolved Solids	15000	55		mg/l	TDS by SM2540C	
pH	7.7	0.10		pH Units	SM4500	O-09
Specific Conductance (EC)	23900	10.0		umhos/cm	SM2510b mod.	
Chloride	9710	5000		mg/l	EPA 300.0	
Sulfate as SO4	8020	5000		mg/l	EPA 300.0	
Nitrate as NO3	9.79	0.500		mg/l	EPA 300.0	

SunStar Laboratories, Inc.



Jeff Lee, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Northstar Environmental Remediation
 26225 Enterprise Court
 Lake Forest CA, 92630

Project: Genesis Solar Groundwater
 Project Number: 196-004-06
 Project Manager: Arlin Brewster

Reported:
 12/26/19 08:20

Sample ID: OBS-1

Laboratory ID: T194199-02RE1

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Sodium	6700000	30000		ug/l	EPA 200.7	FILT, RE-01

Sample ID: TW-1

Laboratory ID: T194199-03

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	12	5.0		ug/l	200.8	FILT, R-07
Chromium	0.30	5.0		ug/l	200.8	FILT, R-07, J
Copper	7	5		ug/l	EPA 200.7	FILT
Zinc	47	5.0		ug/l	200.8	FILT, R-07
Calcium	77000	7500		ug/l	EPA 200.7	FILT, RE-01
Iron	25	200		ug/l	EPA 200.7	J, FILT
Potassium	24000	100		ug/l	EPA 200.7	FILT
Magnesium	6000	100		ug/l	EPA 200.7	FILT
Total Dissolved Solids	7900	55		mg/l	TDS by SM2540C	
pH	9.7	0.10		pH Units	SM4500	O-09
Specific Conductance (EC)	14100	10.0		umhos/cm	SM2510b mod.	
Chloride	7300	500		mg/l	EPA 300.0	
Sulfate as SO4	2490	500		mg/l	EPA 300.0	

Sample ID: TW-1

Laboratory ID: T194199-03RE1

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Sodium	5100000	30000		ug/l	EPA 200.7	FILT, RE-01

Sample ID: TW-2

Laboratory ID: T194199-04

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	46	5.0		ug/l	200.8	FILT, R-07
Chromium	0.20	5.0		ug/l	200.8	J, FILT, R-07
Copper	4	5		ug/l	EPA 200.7	J, FILT
Zinc	46	5.0		ug/l	200.8	FILT, R-07
Calcium	91000	10000		ug/l	EPA 200.7	FILT, RE-01
Iron	95	200		ug/l	EPA 200.7	J, FILT
Potassium	24000	100		ug/l	EPA 200.7	FILT

SunStar Laboratories, Inc.



The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Jeff Lee, Project Manager

Northstar Environmental Remediation
26225 Enterprise Court
Lake Forest CA, 92630

Project: Genesis Solar Groundwater
Project Number: 196-004-06
Project Manager: Arlin Brewster

Reported:
12/26/19 08:20

Sample ID: TW-2

Laboratory ID: T194199-04

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Magnesium	650	100		ug/l	EPA 200.7	FILT
Total Dissolved Solids	3100	55		mg/l	TDS by SM2540C	
pH	9.4	0.10		pH Units	SM4500	O-09
Specific Conductance (EC)	5580	10.0		umhos/cm	SM2510b mod.	
Chloride	2750	500		mg/l	EPA 300.0	
Sulfate as SO4	686	500		mg/l	EPA 300.0	

Sample ID: TW-2

Laboratory ID: T194199-04RE1

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Sodium	1200000	8000		ug/l	EPA 200.7	FILT, RE-01

Sample ID: PW-0

Laboratory ID: T194199-05

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Arsenic	42	5.0		ug/l	200.8	FILT, R-07
Barium	60	5.0		ug/l	200.8	FILT, R-07
Chromium	0.20	5.0		ug/l	200.8	J, FILT, R-07
Copper	4	5		ug/l	EPA 200.7	J, FILT
Zinc	51	5.0		ug/l	200.8	FILT, R-07
Calcium	120000	12000		ug/l	EPA 200.7	FILT, RE-01
Iron	120	200		ug/l	EPA 200.7	J, FILT
Magnesium	1800	100		ug/l	EPA 200.7	FILT
Potassium	26000	100		ug/l	EPA 200.7	FILT
pH	8.2	0.10		pH Units	SM4500	O-09
Total Dissolved Solids	3400	55		mg/l	TDS by SM2540C	
Specific Conductance (EC)	6290	10.0		umhos/cm	SM2510b mod.	
Fluoride	12.5	0.500		mg/l	EPA 300.0	
Chloride	3220	500		mg/l	EPA 300.0	
Sulfate as SO4	944	500		mg/l	EPA 300.0	

Sample ID: PW-0

Laboratory ID: T194199-05RE1

Analyte	Result	Reporting		Units	Method	Notes
		Limit				

SunStar Laboratories, Inc.



Jeff Lee, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Northstar Environmental Remediation
26225 Enterprise Court
Lake Forest CA, 92630

Project: Genesis Solar Groundwater
Project Number: 196-004-06
Project Manager: Arlin Brewster

Reported:
12/26/19 08:20

Sample ID: PW-0

Laboratory ID: T194199-05RE1

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Sodium	1300000	10000		ug/l	EPA 200.7	FILT, RE-01

Sample ID: PW-2

Laboratory ID: T194199-06

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Arsenic	25	5.0		ug/l	200.8	FILT, R-07
Barium	43	5.0		ug/l	200.8	FILT, R-07
Chromium	1.2	5.0		ug/l	200.8	J, FILT, R-07
Copper	3	5		ug/l	EPA 200.7	J, FILT
Zinc	50	5.0		ug/l	200.8	FILT, R-07
Calcium	52000	5000		ug/l	EPA 200.7	FILT, RE-01
Iron	39	200		ug/l	EPA 200.7	J, FILT
Magnesium	4700	100		ug/l	EPA 200.7	FILT
Potassium	6500	100		ug/l	EPA 200.7	FILT
Total Dissolved Solids	2100	55		mg/l	TDS by SM2540C	
pH	8.1	0.10		pH Units	SM4500	O-09
Specific Conductance (EC)	3610	10.0		umhos/cm	SM2510b mod.	
Fluoride	13.3	0.500		mg/l	EPA 300.0	
Chloride	1300	500		mg/l	EPA 300.0	
Sulfate as SO4	515	500		mg/l	EPA 300.0	

Sample ID: PW-2

Laboratory ID: T194199-06RE1

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Sodium	800000	5000		ug/l	EPA 200.7	FILT, RE-01

Sample ID: DM-1

Laboratory ID: T194199-07

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Arsenic	0.80	5.0		ug/l	200.8	J, FILT, R-07
Barium	32	5.0		ug/l	200.8	R-07, FILT
Chromium	2.1	5.0		ug/l	200.8	FILT, R-07, J
Copper	4	5		ug/l	EPA 200.7	J, FILT
Selenium	0.80	5.0		ug/l	200.8	J, FILT, R-07

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Jeff Lee, Project Manager

Northstar Environmental Remediation
26225 Enterprise Court
Lake Forest CA, 92630

Project: Genesis Solar Groundwater
Project Number: 196-004-06
Project Manager: Arlin Brewster

Reported:
12/26/19 08:20

Sample ID: DM-1

Laboratory ID: T194199-07

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Zinc	47	5.0		ug/l	200.8	FILT, R-07
Calcium	250000	30000		ug/l	EPA 200.7	FILT, RE-01
Magnesium	67000	100		ug/l	EPA 200.7	FILT
Potassium	32000	100		ug/l	EPA 200.7	FILT
Total Dissolved Solids	11000	55		mg/l	TDS by SM2540C	
pH	7.7	0.10		pH Units	SM4500	O-09
Specific Conductance (EC)	17600	10.0		umhos/cm	SM2510b mod.	
Chloride	7460	5000		mg/l	EPA 300.0	
Sulfate as SO4	2150	5000		mg/l	EPA 300.0	J, R-01
Nitrate as NO3	16.3	0.500		mg/l	EPA 300.0	

Sample ID: DM-1

Laboratory ID: T194199-07RE1

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Sodium	4200000	20000		ug/l	EPA 200.7	FILT, RE-01

Sample ID: DM-2

Laboratory ID: T194199-08

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	50	5.0		ug/l	200.8	FILT, R-07
Chromium	2.9	5.0		ug/l	200.8	J, FILT, R-07
Copper	7	5		ug/l	EPA 200.7	FILT
Selenium	3.2	5.0		ug/l	200.8	J, FILT, R-07
Zinc	76	5.0		ug/l	200.8	FILT, R-07
Calcium	310000	30000		ug/l	EPA 200.7	FILT, RE-01
Potassium	30000	100		ug/l	EPA 200.7	FILT
Magnesium	65000	100		ug/l	EPA 200.7	FILT
Total Dissolved Solids	10000	55		mg/l	TDS by SM2540C	
pH	7.6	0.10		pH Units	SM4500	O-09
Specific Conductance (EC)	17000	10.0		umhos/cm	SM2510b mod.	
Chloride	7680	5000		mg/l	EPA 300.0	
Sulfate as SO4	2330	5000		mg/l	EPA 300.0	J, R-01
Nitrate as NO3	21.2	0.500		mg/l	EPA 300.0	

SunStar Laboratories, Inc.



Jeff Lee, Project Manager

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Northstar Environmental Remediation
26225 Enterprise Court
Lake Forest CA, 92630

Project: Genesis Solar Groundwater
Project Number: 196-004-06
Project Manager: Arlin Brewster

Reported:
12/26/19 08:20

Sample ID: DM-2

Laboratory ID: T194199-08RE1

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Sodium	4400000	20000		ug/l	EPA 200.7	FILT, RE-01

Sample ID: DM-3

Laboratory ID: T194199-09

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Arsenic	11	5.0		ug/l	200.8	FILT, R-07
Barium	18	5.0		ug/l	200.8	FILT, R-07
Chromium	0.90	5.0		ug/l	200.8	J, FILT, R-07
Copper	6	5		ug/l	EPA 200.7	FILT
Selenium	0.40	5.0		ug/l	200.8	J, FILT, R-07
Zinc	51	5.0		ug/l	200.8	FILT, R-07
Calcium	240000	30000		ug/l	EPA 200.7	FILT, RE-01
Potassium	31000	100		ug/l	EPA 200.7	FILT
Magnesium	58000	100		ug/l	EPA 200.7	FILT
pH	7.7	0.10		pH Units	SM4500	O-09
Total Dissolved Solids	11000	55		mg/l	TDS by SM2540C	
Specific Conductance (EC)	17800	10.0		umhos/cm	SM2510b mod.	
Chloride	9760	500		mg/l	EPA 300.0	
Sulfate as SO4	4350	500		mg/l	EPA 300.0	
Nitrate as NO3	3.52	0.500		mg/l	EPA 300.0	

Sample ID: DM-3

Laboratory ID: T194199-09RE1

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Sodium	4100000	20000		ug/l	EPA 200.7	RE-01, FILT

Sample ID: DUP

Laboratory ID: T194199-10

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Arsenic	26	5.0		ug/l	200.8	FILT, R-07
Barium	42	5.0		ug/l	200.8	FILT, R-07
Chromium	0.30	5.0		ug/l	200.8	J, FILT, R-07
Copper	2	5		ug/l	EPA 200.7	J, FILT
Zinc	46	5.0		ug/l	200.8	FILT, R-07

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Jeff Lee, Project Manager

Northstar Environmental Remediation
 26225 Enterprise Court
 Lake Forest CA, 92630

Project: Genesis Solar Groundwater
 Project Number: 196-004-06
 Project Manager: Arlin Brewster

Reported:
 12/26/19 08:20

Sample ID: DUP

Laboratory ID: T194199-10

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Calcium	52000	5000		ug/l	EPA 200.7	FILT, RE-01
Iron	150	200		ug/l	EPA 200.7	J, FILT
Magnesium	4500	100		ug/l	EPA 200.7	FILT
Potassium	7900	100		ug/l	EPA 200.7	FILT
pH	8.1	0.10		pH Units	SM4500	O-09
Total Dissolved Solids	1600	55		mg/l	TDS by SM2540C	
Specific Conductance (EC)	3600	10.0		umhos/cm	SM2510b mod.	
Chloride	1370	500		mg/l	EPA 300.0	
Sulfate as SO4	584	500		mg/l	EPA 300.0	

Sample ID: DUP

Laboratory ID: T194199-10RE1

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Sodium	820000	5000		ug/l	EPA 200.7	FILT, RE-01

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Jeff Lee, Project Manager

Northstar Environmental Remediation
 26225 Enterprise Court
 Lake Forest CA, 92630

Project: Genesis Solar Groundwater
 Project Number: 196-004-06
 Project Manager: Arlin Brewster

Reported:
 12/26/19 08:20

23a

T194199-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 200 Series Methods

Copper	3	5	ug/l	1	9120919	12/09/19	12/16/19	EPA 200.7	FILT, J
Calcium	22000	2500	"	25	"	"	12/16/19	"	FILT
Iron	ND	200	"	1	"	"	"	"	FILT
Magnesium	500	100	"	"	"	"	"	"	FILT
Potassium	410	100	"	"	"	"	"	"	FILT
Sodium	570000	2500	"	25	"	"	12/16/19	"	FILT, RE-01
Antimony	ND	5.0	"	10	9120930	12/09/19	12/12/19	200.8	FILT, R-07
Arsenic	ND	5.0	"	"	"	"	"	"	FILT, R-07
Barium	20	5.0	"	"	"	"	"	"	FILT, R-07
Cadmium	ND	5.0	"	"	"	"	"	"	FILT, R-07
Chromium	0.30	5.0	"	"	"	"	"	"	FILT, R-07, J
Cobalt	ND	5.0	"	"	"	"	"	"	FILT, R-07
Lead	ND	5.0	"	"	"	"	"	"	FILT, R-07
Nickel	ND	5.0	"	"	"	"	"	"	FILT, R-07
Selenium	1.4	5.0	"	"	"	"	"	"	FILT, R-07, J
Zinc	480	5.0	"	"	"	"	"	"	FILT, R-07

Cold Vapor Extraction EPA 7470/7471

Mercury	ND	0.50	ug/l	1	9120929	12/09/19	12/11/19	EPA 7470A Water	
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Conventional Chemistry Parameters by APHA/EPA/ASTM Methods

Oil & Grease	ND	5.00	mg/l	1	9120617	12/06/19	12/11/19	EPA 1664B	
Specific Conductance (EC)	2570	10.0	umhos/cm	"	9120636	12/06/19	12/06/19	SM2510b mod.	
pH	8.3	0.10	pH Units	"	9120635	12/06/19	12/06/19	SM4500	O-09
Total Dissolved Solids	1400	55	mg/l	"	9120914	12/09/19	12/09/19	TDS by SM2540C	

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Jeff Lee, Project Manager



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Northstar Environmental Remediation 26225 Enterprise Court Lake Forest CA, 92630	Project: Genesis Solar Groundwater Project Number: 196-004-06 Project Manager: Arlin Brewster	Reported: 12/26/19 08:20
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23a
T194199-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Anions by EPA Method 300.0

Chloride	667	500	mg/l	100	9120634	12/06/19	12/10/19	EPA 300.0	
Sulfate as SO4	492	500	"	"	"	"	"	"	R-01, J
Nitrate as NO3	ND	0.500	"	1	"	"	12/06/19	"	

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Jeff Lee, Project Manager

Northstar Environmental Remediation
26225 Enterprise Court
Lake Forest CA, 92630

Project: Genesis Solar Groundwater
Project Number: 196-004-06
Project Manager: Arlin Brewster

Reported:
12/26/19 08:20

OBS-1
T194199-02 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 200 Series Methods

Copper	6	5	ug/l	1	9120919	12/09/19	12/16/19	EPA 200.7	FILT
Calcium	330000	40000	"	400	"	"	12/13/19	"	FILT, RE-01
Iron	ND	200	"	1	"	"	12/16/19	"	FILT
Magnesium	93000	100	"	"	"	"	"	"	FILT
Potassium	34000	100	"	"	"	"	"	"	FILT
Antimony	ND	5.0	"	10	9120930	12/09/19	12/12/19	200.8	FILT, R-07
Arsenic	ND	5.0	"	"	"	"	"	"	FILT, R-07
Barium	15	5.0	"	"	"	"	"	"	FILT, R-07
Cadmium	ND	5.0	"	"	"	"	"	"	FILT, R-07
Chromium	0.10	5.0	"	"	"	"	"	"	FILT, R-07, J
Cobalt	ND	5.0	"	"	"	"	"	"	FILT, R-07
Lead	ND	5.0	"	"	"	"	"	"	FILT, R-07
Nickel	ND	5.0	"	"	"	"	"	"	FILT, R-07
Selenium	60	5.0	"	"	"	"	"	"	FILT, R-07
Zinc	48	5.0	"	"	"	"	"	"	FILT, R-07

Cold Vapor Extraction EPA 7470/7471

Mercury	ND	0.50	ug/l	1	9120929	12/09/19	12/11/19	EPA 7470A Water	
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Conventional Chemistry Parameters by APHA/EPA/ASTM Methods

Oil & Grease	ND	5.00	mg/l	1	9120617	12/06/19	12/11/19	EPA 1664B	
Specific Conductance (EC)	23900	10.0	umhos/cm	"	9120636	12/06/19	12/06/19	SM2510b mod.	
pH	7.7	0.10	pH Units	"	9120635	12/06/19	12/06/19	SM4500	O-09
Total Dissolved Solids	15000	55	mg/l	"	9120914	12/09/19	12/09/19	TDS by SM2540C	

SunStar Laboratories, Inc.



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Jeff Lee, Project Manager

Northstar Environmental Remediation
26225 Enterprise Court
Lake Forest CA, 92630

Project: Genesis Solar Groundwater
Project Number: 196-004-06
Project Manager: Arlin Brewster

Reported:
12/26/19 08:20

OBS-1
T194199-02 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Anions by EPA Method 300.0

Chloride	9710	5000	mg/l	1000	9120634	12/06/19	12/10/19	EPA 300.0	
Sulfate as SO4	8020	5000	"	"	"	"	"	"	
Nitrate as NO3	9.79	0.500	"	1	"	"	12/06/19	"	

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Jeff Lee, Project Manager



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Northstar Environmental Remediation 26225 Enterprise Court Lake Forest CA, 92630	Project: Genesis Solar Groundwater Project Number: 196-004-06 Project Manager: Arlin Brewster	Reported: 12/26/19 08:20
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OBS-1
T194199-02RE1 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 200 Series Methods

Sodium	6700000	30000	ug/l	300	9121936	12/19/19	12/19/19	EPA 200.7	FILT, RE-01
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Jeff Lee, Project Manager

Northstar Environmental Remediation
26225 Enterprise Court
Lake Forest CA, 92630

Project: Genesis Solar Groundwater
Project Number: 196-004-06
Project Manager: Arlin Brewster

Reported:
12/26/19 08:20

TW-1

T194199-03 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 200 Series Methods

Copper	7	5	ug/l	1	9120919	12/09/19	12/16/19	EPA 200.7	FILT
Calcium	77000	7500	"	75	"	"	12/12/19	"	FILT, RE-01
Iron	25	200	"	1	"	"	12/16/19	"	J, FILT
Magnesium	6000	100	"	"	"	"	"	"	FILT
Potassium	24000	100	"	"	"	"	"	"	FILT
Antimony	ND	5.0	"	10	9120930	12/09/19	12/12/19	200.8	FILT, R-07
Arsenic	ND	5.0	"	"	"	"	"	"	FILT, R-07
Barium	12	5.0	"	"	"	"	"	"	FILT, R-07
Cadmium	ND	5.0	"	"	"	"	"	"	FILT, R-07
Chromium	0.30	5.0	"	"	"	"	"	"	FILT, R-07, J
Cobalt	ND	5.0	"	"	"	"	"	"	FILT, R-07
Lead	ND	5.0	"	"	"	"	"	"	FILT, R-07
Nickel	ND	5.0	"	"	"	"	"	"	FILT, R-07
Selenium	ND	5.0	"	"	"	"	"	"	FILT, R-07
Zinc	47	5.0	"	"	"	"	"	"	FILT, R-07

Cold Vapor Extraction EPA 7470/7471

Mercury	ND	0.50	ug/l	1	9120929	12/09/19	12/11/19	EPA 7470A Water	
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Conventional Chemistry Parameters by APHA/EPA/ASTM Methods

Oil & Grease	ND	5.00	mg/l	1	9120617	12/06/19	12/11/19	EPA 1664B	
Specific Conductance (EC)	14100	10.0	umhos/cm	"	9120636	12/06/19	12/06/19	SM2510b mod.	
pH	9.7	0.10	pH Units	"	9120635	12/06/19	12/06/19	SM4500	O-09
Total Dissolved Solids	7900	55	mg/l	"	9120914	12/09/19	12/09/19	TDS by SM2540C	

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Jeff Lee, Project Manager



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Northstar Environmental Remediation 26225 Enterprise Court Lake Forest CA, 92630	Project: Genesis Solar Groundwater Project Number: 196-004-06 Project Manager: Arlin Brewster	Reported: 12/26/19 08:20
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TW-1
T194199-03 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Anions by EPA Method 300.0

Chloride	7300	500	mg/l	100	9120634	12/06/19	12/10/19	EPA 300.0	
Sulfate as SO4	2490	500	"	"	"	"	"	"	
Nitrate as NO3	ND	0.500	"	1	"	"	12/06/19	"	

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Jeff Lee, Project Manager



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Northstar Environmental Remediation 26225 Enterprise Court Lake Forest CA, 92630	Project: Genesis Solar Groundwater Project Number: 196-004-06 Project Manager: Arlin Brewster	Reported: 12/26/19 08:20
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TW-1
T194199-03RE1 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 200 Series Methods

Sodium	5100000	30000	ug/l	300	9121936	12/19/19	12/19/19	EPA 200.7	FILT, RE-01
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Jeff Lee, Project Manager

Northstar Environmental Remediation
26225 Enterprise Court
Lake Forest CA, 92630

Project: Genesis Solar Groundwater
Project Number: 196-004-06
Project Manager: Arlin Brewster

Reported:
12/26/19 08:20

TW-2

T194199-04 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 200 Series Methods

Copper	4	5	ug/l	1	9120919	12/09/19	12/16/19	EPA 200.7	J, FILT
Calcium	91000	10000	"	100	"	"	12/13/19	"	FILT, RE-01
Iron	95	200	"	1	"	"	12/16/19	"	J, FILT
Potassium	24000	100	"	"	"	"	"	"	FILT
Magnesium	650	100	"	"	"	"	"	"	FILT
Antimony	ND	5.0	"	10	9120930	12/09/19	12/12/19	200.8	FILT, R-07
Arsenic	ND	5.0	"	"	"	"	"	"	FILT, R-07
Barium	46	5.0	"	"	"	"	"	"	FILT, R-07
Cadmium	ND	5.0	"	"	"	"	"	"	FILT, R-07
Chromium	0.20	5.0	"	"	"	"	"	"	J, FILT, R-07
Cobalt	ND	5.0	"	"	"	"	"	"	FILT, R-07
Lead	ND	5.0	"	"	"	"	"	"	FILT, R-07
Nickel	ND	5.0	"	"	"	"	"	"	FILT, R-07
Selenium	ND	5.0	"	"	"	"	"	"	FILT, R-07
Zinc	46	5.0	"	"	"	"	"	"	FILT, R-07

Cold Vapor Extraction EPA 7470/7471

Mercury	ND	0.50	ug/l	1	9120929	12/09/19	12/11/19	EPA 7470A Water	
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Conventional Chemistry Parameters by APHA/EPA/ASTM Methods

Oil & Grease	ND	5.00	mg/l	1	9120617	12/06/19	12/11/19	EPA 1664B	
Specific Conductance (EC)	5580	10.0	umhos/cm	"	9120636	12/06/19	12/06/19	SM2510b mod.	
pH	9.4	0.10	pH Units	"	9120635	12/06/19	12/06/19	SM4500	O-09
Total Dissolved Solids	3100	55	mg/l	"	9120914	12/09/19	12/09/19	TDS by SM2540C	

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Jeff Lee, Project Manager



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TW-2
T194199-04 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Anions by EPA Method 300.0

Chloride	2750	500	mg/l	100	9120634	12/06/19	12/10/19	EPA 300.0	
Sulfate as SO4	686	500	"	"	"	"	"	"	
Nitrate as NO3	ND	0.500	"	1	"	"	12/06/19	"	

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Jeff Lee, Project Manager



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TW-2
T194199-04RE1 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 200 Series Methods

Sodium	1200000	8000	ug/l	80	9121936	12/19/19	12/19/19	EPA 200.7	FILT, RE-01
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Jeff Lee, Project Manager

Northstar Environmental Remediation
26225 Enterprise Court
Lake Forest CA, 92630

Project: Genesis Solar Groundwater
Project Number: 196-004-06
Project Manager: Arlin Brewster

Reported:
12/26/19 08:20

PW-0

T194199-05 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 200 Series Methods

Copper	4	5	ug/l	1	9120919	12/09/19	12/16/19	EPA 200.7	J, FILT
Calcium	120000	12000	"	120	"	"	12/12/19	"	FILT, RE-01
Iron	120	200	"	1	"	"	12/16/19	"	J, FILT
Magnesium	1800	100	"	"	"	"	"	"	FILT
Potassium	26000	100	"	"	"	"	"	"	FILT
Antimony	ND	5.0	"	10	9120930	12/09/19	12/12/19	200.8	FILT, R-07
Arsenic	42	5.0	"	"	"	"	"	"	FILT, R-07
Barium	60	5.0	"	"	"	"	"	"	FILT, R-07
Cadmium	ND	5.0	"	"	"	"	"	"	FILT, R-07
Chromium	0.20	5.0	"	"	"	"	"	"	J, FILT, R-07
Cobalt	ND	5.0	"	"	"	"	"	"	FILT, R-07
Lead	ND	5.0	"	"	"	"	"	"	FILT, R-07
Nickel	ND	5.0	"	"	"	"	"	"	FILT, R-07
Selenium	ND	5.0	"	"	"	"	"	"	FILT, R-07
Zinc	51	5.0	"	"	"	"	"	"	FILT, R-07

Cold Vapor Extraction EPA 7470/7471

Mercury	ND	0.50	ug/l	1	9120929	12/09/19	12/11/19	EPA 7470A Water	
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Conventional Chemistry Parameters by APHA/EPA/ASTM Methods

Oil & Grease	ND	5.00	mg/l	1	9120617	12/06/19	12/11/19	EPA 1664B	
Specific Conductance (EC)	6290	10.0	umhos/cm	"	9120636	12/06/19	12/06/19	SM2510b mod.	
pH	8.2	0.10	pH Units	"	9120635	12/06/19	12/06/19	SM4500	O-09
Total Dissolved Solids	3400	55	mg/l	"	9120914	12/09/19	12/09/19	TDS by SM2540C	

SunStar Laboratories, Inc.



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Jeff Lee, Project Manager



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Northstar Environmental Remediation 26225 Enterprise Court Lake Forest CA, 92630	Project: Genesis Solar Groundwater Project Number: 196-004-06 Project Manager: Arlin Brewster	Reported: 12/26/19 08:20
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PW-0
T194199-05 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Anions by EPA Method 300.0

Fluoride	12.5	0.500	mg/l	1	9120634	12/06/19	12/06/19	EPA 300.0	
Chloride	3220	500	"	100	"	"	12/10/19	"	
Sulfate as SO4	944	500	"	"	"	"	"	"	
Nitrate as NO3	ND	0.500	"	1	"	"	12/06/19	"	

SunStar Laboratories, Inc.

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Northstar Environmental Remediation 26225 Enterprise Court Lake Forest CA, 92630	Project: Genesis Solar Groundwater Project Number: 196-004-06 Project Manager: Arlin Brewster	Reported: 12/26/19 08:20
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PW-0
T194199-05RE1 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 200 Series Methods

Sodium	1300000	10000	ug/l	100	9121936	12/19/19	12/19/19	EPA 200.7	FILT, RE-01
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Jeff Lee, Project Manager

Northstar Environmental Remediation
26225 Enterprise Court
Lake Forest CA, 92630

Project: Genesis Solar Groundwater
Project Number: 196-004-06
Project Manager: Arlin Brewster

Reported:
12/26/19 08:20

PW-2

T194199-06 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 200 Series Methods

Copper	3	5	ug/l	1	9120919	12/09/19	12/16/19	EPA 200.7	J, FILT
Calcium	52000	5000	"	50	"	"	12/11/19	"	FILT, RE-01
Iron	39	200	"	1	"	"	12/16/19	"	J, FILT
Magnesium	4700	100	"	"	"	"	"	"	FILT
Potassium	6500	100	"	"	"	"	"	"	FILT
Antimony	ND	5.0	"	10	9120930	12/09/19	12/12/19	200.8	R-07, FILT
Arsenic	25	5.0	"	"	"	"	"	"	FILT, R-07
Barium	43	5.0	"	"	"	"	"	"	FILT, R-07
Cadmium	ND	5.0	"	"	"	"	"	"	FILT, R-07
Chromium	1.2	5.0	"	"	"	"	"	"	J, FILT, R-07
Cobalt	ND	5.0	"	"	"	"	"	"	FILT, R-07
Lead	ND	5.0	"	"	"	"	"	"	FILT, R-07
Nickel	ND	5.0	"	"	"	"	"	"	R-07, FILT
Selenium	ND	5.0	"	"	"	"	"	"	FILT, R-07
Zinc	50	5.0	"	"	"	"	"	"	FILT, R-07

Cold Vapor Extraction EPA 7470/7471

Mercury	ND	0.50	ug/l	1	9120929	12/09/19	12/11/19	EPA 7470A Water	
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Conventional Chemistry Parameters by APHA/EPA/ASTM Methods

Oil & Grease	ND	5.00	mg/l	1	9120617	12/06/19	12/11/19	EPA 1664B	
Specific Conductance (EC)	3610	10.0	umhos/cm	"	9120636	12/06/19	12/06/19	SM2510b mod.	
pH	8.1	0.10	pH Units	"	9120635	12/06/19	12/06/19	SM4500	O-09
Total Dissolved Solids	2100	55	mg/l	"	9120914	12/09/19	12/09/19	TDS by SM2540C	

SunStar Laboratories, Inc.



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Jeff Lee, Project Manager



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Northstar Environmental Remediation 26225 Enterprise Court Lake Forest CA, 92630	Project: Genesis Solar Groundwater Project Number: 196-004-06 Project Manager: Arlin Brewster	Reported: 12/26/19 08:20
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PW-2
T194199-06 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Anions by EPA Method 300.0

Fluoride	13.3	0.500	mg/l	1	9120634	12/06/19	12/07/19	EPA 300.0	
Chloride	1300	500	"	100	"	"	12/10/19	"	
Sulfate as SO4	515	500	"	"	"	"	"	"	
Nitrate as NO3	ND	0.500	"	1	"	"	12/07/19	"	

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PW-2
T194199-06RE1 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 200 Series Methods

Sodium	800000	5000	ug/l	50	9121936	12/19/19	12/19/19	EPA 200.7	FILT, RE-01
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Jeff Lee, Project Manager

Northstar Environmental Remediation
26225 Enterprise Court
Lake Forest CA, 92630

Project: Genesis Solar Groundwater
Project Number: 196-004-06
Project Manager: Arlin Brewster

Reported:
12/26/19 08:20

**DM-1
T194199-07 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 200 Series Methods

Copper	4	5	ug/l	1	9120919	12/09/19	12/16/19	EPA 200.7	J, FILT
Calcium	250000	30000	"	300	"	"	12/13/19	"	FILT, RE-01
Iron	ND	200	"	1	"	"	12/16/19	"	FILT
Magnesium	67000	100	"	"	"	"	"	"	FILT
Potassium	32000	100	"	"	"	"	"	"	FILT
Antimony	ND	5.0	"	10	9120930	12/09/19	12/12/19	200.8	FILT, R-07
Arsenic	0.80	5.0	"	"	"	"	"	"	J, FILT, R-07
Barium	32	5.0	"	"	"	"	"	"	R-07, FILT
Cadmium	ND	5.0	"	"	"	"	"	"	FILT, R-07
Chromium	2.1	5.0	"	"	"	"	"	"	FILT, R-07, J
Cobalt	ND	5.0	"	"	"	"	"	"	FILT, R-07
Lead	ND	5.0	"	"	"	"	"	"	FILT, R-07
Nickel	ND	5.0	"	"	"	"	"	"	FILT, R-07
Selenium	0.80	5.0	"	"	"	"	"	"	J, FILT, R-07
Zinc	47	5.0	"	"	"	"	"	"	FILT, R-07

Cold Vapor Extraction EPA 7470/7471

Mercury	ND	0.50	ug/l	1	9120929	12/09/19	12/11/19	EPA 7470A Water	
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Conventional Chemistry Parameters by APHA/EPA/ASTM Methods

Oil & Grease	ND	5.00	mg/l	1	9120617	12/06/19	12/11/19	EPA 1664B	
Specific Conductance (EC)	17600	10.0	umhos/cm	"	9120636	12/06/19	12/06/19	SM2510b mod.	
pH	7.7	0.10	pH Units	"	9120635	12/06/19	12/06/19	SM4500	O-09
Total Dissolved Solids	11000	55	mg/l	"	9120914	12/09/19	12/09/19	TDS by SM2540C	

SunStar Laboratories, Inc.



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Jeff Lee, Project Manager



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Northstar Environmental Remediation 26225 Enterprise Court Lake Forest CA, 92630	Project: Genesis Solar Groundwater Project Number: 196-004-06 Project Manager: Arlin Brewster	Reported: 12/26/19 08:20
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DM-1
T194199-07 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Anions by EPA Method 300.0

Chloride	7460	5000	mg/l	1000	9120634	12/06/19	12/10/19	EPA 300.0	
Sulfate as SO4	2150	5000	"	"	"	"	"	"	J, R-01
Nitrate as NO3	16.3	0.500	"	1	"	"	12/07/19	"	

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Jeff Lee, Project Manager



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Northstar Environmental Remediation 26225 Enterprise Court Lake Forest CA, 92630	Project: Genesis Solar Groundwater Project Number: 196-004-06 Project Manager: Arlin Brewster	Reported: 12/26/19 08:20
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DM-1
T194199-07RE1 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 200 Series Methods

Sodium	4200000	20000	ug/l	200	9121936	12/19/19	12/19/19	EPA 200.7	FILT, RE-01
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SunStar Laboratories, Inc.

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Jeff Lee, Project Manager

Northstar Environmental Remediation
26225 Enterprise Court
Lake Forest CA, 92630

Project: Genesis Solar Groundwater
Project Number: 196-004-06
Project Manager: Arlin Brewster

Reported:
12/26/19 08:20

DM-2
T194199-08 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 200 Series Methods

Copper	7	5	ug/l	1	9120919	12/09/19	12/16/19	EPA 200.7	FILT
Calcium	310000	30000	"	300	"	"	12/13/19	"	FILT, RE-01
Iron	ND	200	"	1	"	"	12/16/19	"	FILT
Magnesium	65000	100	"	"	"	"	"	"	FILT
Potassium	30000	100	"	"	"	"	"	"	FILT
Antimony	ND	5.0	"	10	9120930	12/09/19	12/12/19	200.8	FILT, R-07
Arsenic	ND	5.0	"	"	"	"	"	"	FILT, R-07
Barium	50	5.0	"	"	"	"	"	"	FILT, R-07
Cadmium	ND	5.0	"	"	"	"	"	"	FILT, R-07
Chromium	2.9	5.0	"	"	"	"	"	"	J, FILT, R-07
Cobalt	ND	5.0	"	"	"	"	"	"	FILT, R-07
Lead	ND	5.0	"	"	"	"	"	"	FILT, R-07
Nickel	ND	5.0	"	"	"	"	"	"	R-07, FILT
Selenium	3.2	5.0	"	"	"	"	"	"	J, FILT, R-07
Zinc	76	5.0	"	"	"	"	"	"	FILT, R-07

Cold Vapor Extraction EPA 7470/7471

Mercury	ND	0.50	ug/l	1	9120929	12/09/19	12/11/19	EPA 7470A Water	
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Conventional Chemistry Parameters by APHA/EPA/ASTM Methods

Oil & Grease	ND	5.00	mg/l	1	9121028	12/06/19	12/12/19	EPA 1664B	
Specific Conductance (EC)	17000	10.0	umhos/cm	"	9120636	12/06/19	12/06/19	SM2510b mod.	
pH	7.6	0.10	pH Units	"	9120635	12/06/19	12/06/19	SM4500	O-09
Total Dissolved Solids	10000	55	mg/l	"	9120914	12/09/19	12/09/19	TDS by SM2540C	

SunStar Laboratories, Inc.



Jeff Lee, Project Manager

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DM-2
T194199-08 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Anions by EPA Method 300.0

Chloride	7680	5000	mg/l	1000	9120634	12/06/19	12/10/19	EPA 300.0	
Sulfate as SO4	2330	5000	"	"	"	"	"	"	J, R-01
Nitrate as NO3	21.2	0.500	"	1	"	"	12/07/19	"	

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager



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Northstar Environmental Remediation 26225 Enterprise Court Lake Forest CA, 92630	Project: Genesis Solar Groundwater Project Number: 196-004-06 Project Manager: Arlin Brewster	Reported: 12/26/19 08:20
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DM-2
T194199-08RE1 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 200 Series Methods

Sodium	4400000	20000	ug/l	200	9121936	12/19/19	12/19/19	EPA 200.7	FILT, RE-01
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Jeff Lee, Project Manager

Northstar Environmental Remediation
26225 Enterprise Court
Lake Forest CA, 92630

Project: Genesis Solar Groundwater
Project Number: 196-004-06
Project Manager: Arlin Brewster

Reported:
12/26/19 08:20

**DM-3
T194199-09 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 200 Series Methods

Copper	6	5	ug/l	1	9120919	12/09/19	12/16/19	EPA 200.7	FILT
Calcium	240000	30000	"	300	"	"	12/13/19	"	FILT, RE-01
Iron	ND	200	"	1	"	"	12/16/19	"	FILT
Magnesium	58000	100	"	"	"	"	"	"	FILT
Potassium	31000	100	"	"	"	"	"	"	FILT
Antimony	ND	5.0	"	10	9120930	12/09/19	12/12/19	200.8	FILT, R-07
Arsenic	11	5.0	"	"	"	"	"	"	FILT, R-07
Barium	18	5.0	"	"	"	"	"	"	FILT, R-07
Cadmium	ND	5.0	"	"	"	"	"	"	FILT, R-07
Chromium	0.90	5.0	"	"	"	"	"	"	J, FILT, R-07
Cobalt	ND	5.0	"	"	"	"	"	"	FILT, R-07
Lead	ND	5.0	"	"	"	"	"	"	FILT, R-07
Nickel	ND	5.0	"	"	"	"	"	"	FILT, R-07
Selenium	0.40	5.0	"	"	"	"	"	"	J, FILT, R-07
Zinc	51	5.0	"	"	"	"	"	"	FILT, R-07

Cold Vapor Extraction EPA 7470/7471

Mercury	ND	0.50	ug/l	1	9120929	12/09/19	12/11/19	EPA 7470A Water	
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Conventional Chemistry Parameters by APHA/EPA/ASTM Methods

Oil & Grease	ND	5.00	mg/l	1	9121028	12/06/19	12/12/19	EPA 1664B	
Specific Conductance (EC)	17800	10.0	umhos/cm	"	9120636	12/06/19	12/06/19	SM2510b mod.	
pH	7.7	0.10	pH Units	"	9120635	12/06/19	12/06/19	SM4500	O-09
Total Dissolved Solids	11000	55	mg/l	"	9120914	12/09/19	12/09/19	TDS by SM2540C	

SunStar Laboratories, Inc.



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Jeff Lee, Project Manager



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Northstar Environmental Remediation 26225 Enterprise Court Lake Forest CA, 92630	Project: Genesis Solar Groundwater Project Number: 196-004-06 Project Manager: Arlin Brewster	Reported: 12/26/19 08:20
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**DM-3
 T194199-09 (Water)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Anions by EPA Method 300.0

Chloride	9760	500	mg/l	100	9120634	12/06/19	12/10/19	EPA 300.0	
Sulfate as SO4	4350	500	"	"	"	"	"	"	
Nitrate as NO3	3.52	0.500	"	1	"	"	12/07/19	"	

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager



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Northstar Environmental Remediation 26225 Enterprise Court Lake Forest CA, 92630	Project: Genesis Solar Groundwater Project Number: 196-004-06 Project Manager: Arlin Brewster	Reported: 12/26/19 08:20
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DM-3
T194199-09RE1 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 200 Series Methods

Sodium	410000	20000	ug/l	200	9121936	12/19/19	12/19/19	EPA 200.7	RE-01, FILT
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SunStar Laboratories, Inc.

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Jeff Lee, Project Manager

Northstar Environmental Remediation
26225 Enterprise Court
Lake Forest CA, 92630

Project: Genesis Solar Groundwater
Project Number: 196-004-06
Project Manager: Arlin Brewster

Reported:
12/26/19 08:20

DUP

T194199-10 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 200 Series Methods

Copper	2	5	ug/l	1	9120919	12/09/19	12/10/19	EPA 200.7	J, FILT
Calcium	52000	5000	"	50	"	"	12/11/19	"	FILT, RE-01
Iron	150	200	"	1	"	"	12/16/19	"	J, FILT
Potassium	7900	100	"	"	"	"	"	"	FILT
Magnesium	4500	100	"	"	"	"	"	"	FILT
Antimony	ND	5.0	"	10	9120930	12/09/19	12/12/19	200.8	FILT, R-07
Arsenic	26	5.0	"	"	"	"	"	"	FILT, R-07
Barium	42	5.0	"	"	"	"	"	"	FILT, R-07
Cadmium	ND	5.0	"	"	"	"	"	"	FILT, R-07
Chromium	0.30	5.0	"	"	"	"	"	"	J, FILT, R-07
Cobalt	ND	5.0	"	"	"	"	"	"	FILT, R-07
Lead	ND	5.0	"	"	"	"	"	"	FILT, R-07
Nickel	ND	5.0	"	"	"	"	"	"	FILT, R-07
Selenium	ND	5.0	"	"	"	"	"	"	R-07, FILT
Zinc	46	5.0	"	"	"	"	"	"	FILT, R-07

Cold Vapor Extraction EPA 7470/7471

Mercury	ND	0.50	ug/l	1	9120929	12/09/19	12/11/19	EPA 7470A Water	
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Conventional Chemistry Parameters by APHA/EPA/ASTM Methods

Oil & Grease	ND	5.00	mg/l	1	9121028	12/06/19	12/12/19	EPA 1664B	
Specific Conductance (EC)	3600	10.0	umhos/cm	"	9120636	12/06/19	12/06/19	SM2510b mod.	
pH	8.1	0.10	pH Units	"	9120635	12/06/19	12/06/19	SM4500	O-09
Total Dissolved Solids	1600	55	mg/l	"	9120914	12/09/19	12/09/19	TDS by SM2540C	

SunStar Laboratories, Inc.



Jeff Lee, Project Manager

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25712 Commercentre Drive
 Lake Forest, California 92630
 949.297.5020 Phone
 949.297.5027 Fax

Northstar Environmental Remediation 26225 Enterprise Court Lake Forest CA, 92630	Project: Genesis Solar Groundwater Project Number: 196-004-06 Project Manager: Arlin Brewster	Reported: 12/26/19 08:20
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DUP
T194199-10 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Anions by EPA Method 300.0

Chloride	1370	500	mg/l	100	9120634	12/06/19	12/10/19	EPA 300.0	
Sulfate as SO4	584	500	"	"	"	"	"	"	
Nitrate as NO3	ND	0.500	"	1	"	"	12/07/19	"	

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager



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 949.297.5027 Fax

Northstar Environmental Remediation 26225 Enterprise Court Lake Forest CA, 92630	Project: Genesis Solar Groundwater Project Number: 196-004-06 Project Manager: Arlin Brewster	Reported: 12/26/19 08:20
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DUP
T194199-10RE1 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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SunStar Laboratories, Inc.

Metals by EPA 200 Series Methods

Sodium	820000	5000	ug/l	50	9121936	12/19/19	12/19/19	EPA 200.7	FILT, RE-01
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 949.297.5020 Phone
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Northstar Environmental Remediation 26225 Enterprise Court Lake Forest CA, 92630	Project: Genesis Solar Groundwater Project Number: 196-004-06 Project Manager: Arlin Brewster	Reported: 12/26/19 08:20
--	---	-----------------------------

Metals by EPA 200 Series Methods - Quality Control
SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 9120919 - EPA 3010A

Blank (9120919-BLK1)										Prepared: 12/09/19 Analyzed: 12/16/19
Antimony	9	5	ug/l							B-ND
Arsenic	ND	5	"							
Barium	ND	5	"							
Beryllium	ND	5	"							
Cadmium	0.9	5	"							J
Chromium	0.6	5	"							J
Cobalt	ND	5	"							
Copper	ND	5	"							
Lead	5	5	"							B-ND
Molybdenum	ND	5	"							
Nickel	3	5	"							J
Silver	ND	30	"							
Selenium	5	30	"							J
Thallium	ND	30	"							
Vanadium	1	30	"							J
Zinc	6	30	"							J
Aluminum	35	100	"							J
Calcium	ND	100	"							
Iron	ND	200	"							
Magnesium	ND	100	"							
Potassium	ND	100	"							

LCS (9120919-BS1)										Prepared: 12/09/19 Analyzed: 12/17/19
Arsenic	528	5	ug/l	500		106	85-115			
Barium	538	5	"	500		108	85-115			
Cadmium	541	5	"	500		108	85-115			
Chromium	536	5	"	500		107	85-115			
Cobalt	536	5	"	500		107	85-115			
Copper	538	5	"	500		108	85-115			
Lead	539	5	"	500		108	85-115			
Molybdenum	523	5	"	500		105	85-115			
Nickel	537	5	"	500		107	85-115			
Selenium	527	30	"	500		105	85-115			
Thallium	543	30	"	500		109	85-115			
Vanadium	532	30	"	500		106	85-115			
Zinc	541	30	"	500		108	85-115			

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager

Northstar Environmental Remediation
26225 Enterprise Court
Lake Forest CA, 92630

Project: Genesis Solar Groundwater
Project Number: 196-004-06
Project Manager: Arlin Brewster

Reported:
12/26/19 08:20

Metals by EPA 200 Series Methods - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 9120919 - EPA 3010A

LCS (9120919-BS1)

Prepared: 12/09/19 Analyzed: 12/16/19

Potassium	503	100	ug/l	500		101	85-115			
Magnesium	532	100	"	500		106	85-115			

Matrix Spike (9120919-MS1)

Source: T194199-01

Prepared: 12/09/19 Analyzed: 12/16/19

Arsenic	593	5	ug/l	500		119	70-130			QM-05
Barium	569	5	"	500		114	70-130			QM-05
Cadmium	575	5	"	500		115	70-130			QM-05
Chromium	547	5	"	500		109	70-130			QM-05
Cobalt	555	5	"	500		111	70-130			QM-05
Copper	588	5	"	500	3	117	70-130			
Lead	542	5	"	500		108	70-130			QM-05
Molybdenum	626	5	"	500		125	70-130			QM-05
Nickel	558	5	"	500		112	70-130			QM-05
Selenium	600	30	"	500		120	70-130			QM-05
Thallium	507	30	"	500		101	70-130			QM-05
Vanadium	583	30	"	500		117	70-130			QM-05
Zinc	1090	30	"	500		219	70-130			QM-05
Potassium	12200	100	"	500	409	NR	70-130			QM-05
Magnesium	942	100	"	500	500	88.5	70-130			

Matrix Spike Dup (9120919-MSD1)

Source: T194199-01

Prepared: 12/09/19 Analyzed: 12/16/19

Arsenic	568	5	ug/l	500		114	70-130	4.30	30	QM-05
Barium	559	5	"	500		112	70-130	1.76	30	QM-05
Cadmium	565	5	"	500		113	70-130	1.85	30	QM-05
Chromium	533	5	"	500		107	70-130	2.46	30	QM-05
Cobalt	540	5	"	500		108	70-130	2.71	30	QM-05
Copper	582	5	"	500	3	116	70-130	1.06	30	
Lead	527	5	"	500		105	70-130	2.77	30	QM-05
Molybdenum	612	5	"	500		122	70-130	2.20	30	QM-05
Nickel	549	5	"	500		110	70-130	1.70	30	QM-05
Selenium	578	30	"	500		116	70-130	3.67	30	QM-05
Thallium	486	30	"	500		97.2	70-130	4.22	30	QM-05
Vanadium	569	30	"	500		114	70-130	2.48	30	QM-05
Zinc	2070	30	"	500		414	70-130	61.6	30	QM-05
Potassium	12500	100	"	500	409	NR	70-130	2.26		QM-05
Magnesium	934	100	"	500	500	86.9	70-130	0.853		QM-05

SunStar Laboratories, Inc.



Jeff Lee, Project Manager

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Northstar Environmental Remediation
26225 Enterprise Court
Lake Forest CA, 92630

Project: Genesis Solar Groundwater
Project Number: 196-004-06
Project Manager: Arlin Brewster

Reported:
12/26/19 08:20

Metals by EPA 200 Series Methods - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 9120930 - EPA 3010A

Blank (9120930-BLK1)

Prepared: 12/09/19 Analyzed: 12/12/19

Antimony	ND	0.50	ug/l							
Arsenic	ND	0.50	"							
Barium	ND	0.50	"							
Cadmium	ND	0.50	"							
Chromium	0.0100	0.50	"							J
Cobalt	ND	0.50	"							
Lead	ND	0.50	"							
Nickel	ND	0.50	"							
Selenium	ND	0.50	"							
Zinc	0.110	0.50	"							J

LCS (9120930-BS1)

Prepared: 12/09/19 Analyzed: 12/12/19

Arsenic	55.8	0.50	ug/l	50.0		112	80-120			
Barium	58.8	0.50	"	50.0		118	80-120			
Cadmium	53.4	0.50	"	50.0		107	80-120			
Chromium	46.6	0.50	"	50.0		93.2	80-120			
Lead	53.8	0.50	"	50.0		108	80-120			

Matrix Spike (9120930-MS1)

Source: T194199-01

Prepared: 12/09/19 Analyzed: 12/12/19

Arsenic	45.0	5.0	ug/l	50.0	ND	90.0	75-125			R-07
Barium	66.9	5.0	"	50.0	19.9	94.0	75-125			QM-05, R-07
Cadmium	48.3	5.0	"	50.0	ND	96.6	75-125			R-07
Chromium	50.0	5.0	"	50.0	0.300	99.4	75-125			R-07
Lead	49.6	5.0	"	50.0	ND	99.2	75-125			R-07

Matrix Spike Dup (9120930-MSD1)

Source: T194199-01

Prepared: 12/09/19 Analyzed: 12/12/19

Arsenic	52.6	5.0	ug/l	50.0	ND	105	75-125	15.6	20	QM-05, R-07
Barium	76.8	5.0	"	50.0	19.9	114	75-125	13.8	20	QM-05, R-07
Cadmium	54.2	5.0	"	50.0	ND	108	75-125	11.5	20	QM-05, R-07
Chromium	55.8	5.0	"	50.0	0.300	111	75-125	11.0	20	QM-05, R-07
Lead	54.1	5.0	"	50.0	ND	108	75-125	8.68	20	QM-05, R-07

SunStar Laboratories, Inc.



Jeff Lee, Project Manager

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Northstar Environmental Remediation 26225 Enterprise Court Lake Forest CA, 92630	Project: Genesis Solar Groundwater Project Number: 196-004-06 Project Manager: Arlin Brewster	Reported: 12/26/19 08:20
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Metals by EPA 200 Series Methods - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 9121936 - EPA 3010A

Blank (9121936-BLK1)				Prepared & Analyzed: 12/19/19						
Sodium	64	100	ug/l							J
LCS (9121936-BS1)				Prepared & Analyzed: 12/19/19						
Sodium	3200	100	ug/l	2500		128	70-130			
Matrix Spike (9121936-MS1)				Source: T194199-01RE1		Prepared & Analyzed: 12/19/19				
Sodium	573000	2500	ug/l	2500	574000	NR	70-130			QM-05, RE-01
Matrix Spike Dup (9121936-MSD1)				Source: T194199-01RE1		Prepared & Analyzed: 12/19/19				
Sodium	587000	2500	ug/l	2500	574000	518	70-130	2.42		QM-05, RE-01

SunStar Laboratories, Inc.



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Jeff Lee, Project Manager

Northstar Environmental Remediation
26225 Enterprise Court
Lake Forest CA, 92630

Project: Genesis Solar Groundwater
Project Number: 196-004-06
Project Manager: Arlin Brewster

Reported:
12/26/19 08:20

Cold Vapor Extraction EPA 7470/7471 - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 9120929 - EPA 7470A Water

Blank (9120929-BLK1)

Prepared: 12/09/19 Analyzed: 12/11/19

Mercury	ND	0.50	ug/l							
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LCS (9120929-BS1)

Prepared: 12/09/19 Analyzed: 12/11/19

Mercury	5.05	0.50	ug/l	5.00		101	80-120			
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Matrix Spike (9120929-MS1)

Source: T194199-01

Prepared: 12/09/19 Analyzed: 12/11/19

Mercury	4.52	0.50	ug/l	5.00	0.0601	89.2	75-125			
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Matrix Spike Dup (9120929-MSD1)

Source: T194199-01

Prepared: 12/09/19 Analyzed: 12/11/19

Mercury	4.45	0.50	ug/l	5.00	0.0601	87.8	75-125	1.48	20	
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SunStar Laboratories, Inc.



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Jeff Lee, Project Manager

Northstar Environmental Remediation
26225 Enterprise Court
Lake Forest CA, 92630

Project: Genesis Solar Groundwater
Project Number: 196-004-06
Project Manager: Arlin Brewster

Reported:
12/26/19 08:20

Conventional Chemistry Parameters by APHA/EPA/ASTM Methods - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 9120617 - General Preparation

Blank (9120617-BLK1)

Prepared: 12/06/19 Analyzed: 12/11/19

Oil & Grease ND 5.00 mg/l

LCS (9120617-BS1)

Prepared: 12/06/19 Analyzed: 12/11/19

Oil & Grease 39.3 5.00 mg/l 40.0 98.2 83-101

LCS Dup (9120617-BSD1)

Prepared: 12/06/19 Analyzed: 12/11/19

Oil & Grease 40.4 5.00 mg/l 40.0 101 83-101 2.76 11

Batch 9120635 - General Preparation

Duplicate (9120635-DUP1)

Source: T194199-01

Prepared & Analyzed: 12/06/19

pH 8.35 0.10 pH Units 8.32 0.360 20 O-09

Batch 9120636 - General Preparation

Duplicate (9120636-DUP1)

Source: T194199-01

Prepared & Analyzed: 12/06/19

Specific Conductance (EC) 2580 10.0 umhos/cm 2570 0.388 15

Batch 9120914 - General Preparation

Blank (9120914-BLK1)

Prepared & Analyzed: 12/09/19

Total Dissolved Solids ND 55 mg/l

LCS (9120914-BS1)

Prepared & Analyzed: 12/09/19

Total Dissolved Solids 484 55 mg/l 500 96.8 80-120

SunStar Laboratories, Inc.



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Jeff Lee, Project Manager

Northstar Environmental Remediation 26225 Enterprise Court Lake Forest CA, 92630	Project: Genesis Solar Groundwater Project Number: 196-004-06 Project Manager: Arlin Brewster	Reported: 12/26/19 08:20
--	---	-----------------------------

Conventional Chemistry Parameters by APHA/EPA/ASTM Methods - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 9120914 - General Preparation

Duplicate (9120914-DUP1)	Source: T194199-01		Prepared & Analyzed: 12/09/19							
Total Dissolved Solids	1320	55	mg/l		1380			3.85	20	

Batch 9121028 - General Preparation

Blank (9121028-BLK1)	Prepared: 12/10/19 Analyzed: 12/12/19									
Oil & Grease	ND	5.00	mg/l							

LCS (9121028-BS1)	Prepared: 12/10/19 Analyzed: 12/12/19									
Oil & Grease	38.1	5.00	mg/l	40.0		95.2	83-101			

LCS Dup (9121028-BSD1)	Prepared: 12/10/19 Analyzed: 12/12/19									
Oil & Grease	37.3	5.00	mg/l	40.0		93.2	83-101	2.12	11	

SunStar Laboratories, Inc.



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Jeff Lee, Project Manager

Northstar Environmental Remediation
26225 Enterprise Court
Lake Forest CA, 92630

Project: Genesis Solar Groundwater
Project Number: 196-004-06
Project Manager: Arlin Brewster

Reported:
12/26/19 08:20

Anions by EPA Method 300.0 - Quality Control

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 9120634 - General Preparation

Blank (9120634-BLK1)

Prepared & Analyzed: 12/06/19

Chloride	ND	5.00	mg/l							
Sulfate as SO4	0.895	5.00	"							J
Nitrate as NO3	ND	0.500	"							

LCS (9120634-BS1)

Prepared & Analyzed: 12/06/19

Chloride	29.6	5.00	mg/l	25.0		118	75-125			
Sulfate as SO4	24.3	5.00	"	25.0		97.3	75-125			
Nitrate as NO3	24.0	0.500	"	25.0		96.2	75-125			

Matrix Spike (9120634-MS1)

Source: T194199-01

Prepared: 12/06/19 Analyzed: 12/10/19

Chloride	665	500	mg/l	25.0	667	NR	75-125			QM-01
Sulfate as SO4	503	500	"	25.0	492	45.2	75-125			QM-01
Nitrate as NO3	23.7	0.500	"	25.0	ND	94.8	75-125			

Matrix Spike Dup (9120634-MSD1)

Source: T194199-01

Prepared: 12/06/19 Analyzed: 12/10/19

Chloride	664	500	mg/l	25.0	667	NR	75-125	0.0150	20	QM-01
Sulfate as SO4	500	500	"	25.0	492	34.4	75-125	0.538	20	QM-01
Nitrate as NO3	23.8	0.500	"	25.0	ND	95.0	75-125	0.202	20	

SunStar Laboratories, Inc.



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Jeff Lee, Project Manager

Northstar Environmental Remediation
26225 Enterprise Court
Lake Forest CA, 92630

Project: Genesis Solar Groundwater
Project Number: 196-004-06
Project Manager: Arlin Brewster

Reported:
12/26/19 08:20

Notes and Definitions

- RE-01 Sample contained analytes with concentrations above calibration limits and was rerun at a dilution.
- R-07 Reporting limit for this compound(s) has been raised to account for dilution necessary due to high levels of interfering compound(s) and/or matrix affect.
- R-01 The Reporting Limit has been raised to account for dilution necessary due to matrix interference.
- QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to possible matrix interference. The LCS was within acceptance criteria. The data is acceptable as no negative impact on data is expected.
- QM-01 The % recovery is outside of established control limits due to matrix interference and/or sample dilution due to matrix effect. The batch was accepted based on acceptable LCS recovery.
- O-09 The sample was analyzed outside the EPA recommended holding time of 24 hours.
- J Detected but below the Standard Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
- FILT The sample was filtered prior to analysis.
- B-ND The analyte is found in the method blank at a level greater than the reporting limit but the associated samples are ND. There is no impact on data.
- DET Analyte DETECTED
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- dry Sample results reported on a dry weight basis
- RPD Relative Percent Difference

SunStar Laboratories, Inc.



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Jeff Lee, Project Manager

SAMPLE RECEIVING REVIEW SHEET

Batch/Work Order #: T194199

Client Name: Northstar Environmental Remediation Project: Genesis Solar Groundwater

Delivered by: **Client** **SunStar Courier** **GSO** **FedEx** **Other**

If Courier, Received by: _____ Date/Time Courier Received: _____

Lab Received by: Sunny Date/Time Lab Received: 12-6-19 11:15

Total number of coolers received: 3 Thermometer ID: SC-1 Calibration due : 6/27/20

Temperature:	Cooler #1	1.7	°C +/- the CF (+ 1.2°C) =	2.9	°C corrected temperature
Temperature:	Cooler #2	2.5	°C +/- the CF (+ 1.2°C) =	3.7	°C corrected temperature
Temperature:	Cooler #3	2.9	°C +/- the CF (+ 1.2°C) =	4.1	°C corrected temperature
Temperature criteria = ≤ 6°C (no frozen containers)			Within criteria?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If NO:					
Samples received on ice?		<input type="checkbox"/> Yes		<input type="checkbox"/> No → Complete Non-Conformance Sheet	
If on ice, samples received same day collected?		<input type="checkbox"/> Yes → Acceptable		<input type="checkbox"/> No → Complete Non-Conformance Sheet	

Custody seals intact on cooler/sample Yes No* **N/A**

Sample containers intact **Yes** **No***

Sample labels match Chain of Custody IDs **Yes** **No***

Total number of containers received match COC **Yes** **No***

Proper containers received for analyses requested on COC **Yes** **No***

Proper preservative indicated on COC/containers for analyses requested **Yes** **No*** **N/A**

Complete shipment received in good condition with correct temperatures, containers, labels, volumes preservatives and within method specified holding times **Yes** **No***

* Complete Non-Conformance Receiving Sheet if checked Cooler/Sample Review - Initials and date: DM 12-6-19

Comments:



Lab #: 744855 Job #: 43654 IS-101168 Co. Job#:
Sample Name: T194199-1 Co. Lab#:
Company: SunStar Laboratories, Inc
API/Well:
Container: 250ml Plastic Bottle
Field/Site Name: T194199
Location:
Formation/Depth:
Sampling Point:
Date Sampled: 12/05/2019 10:00 Date Received: 12/12/2019 Date Reported: 12/19/2019

δ D of water ----- -75.5 ‰ relative to VSMOW
 δ ¹⁸O of water ----- -10.24 ‰ relative to VSMOW
Tritium content of water ----- na
 δ ¹³C of DIC ----- na
¹⁴C content of DIC ----- na
 δ ¹⁵N of nitrate ----- na
 δ ¹⁸O of nitrate ----- na
 δ ³⁴S of sulfate ----- na
 δ ¹⁸O of sulfate ----- na
Vacuum Distilled? * ----- No

Remarks:

nd = not detected. na = not analyzed.

*Indicates if vacuum distillation was utilized for hydrogen and oxygen isotopic analysis of water



Lab #: 744856 Job #: 43654 IS-101168 Co. Job#:
Sample Name: T194199-2 Co. Lab#:
Company: SunStar Laboratories, Inc
API/Well:
Container: 250ml Plastic Bottle
Field/Site Name: T194199
Location:
Formation/Depth:
Sampling Point:
Date Sampled: 12/05/2019 8:45 Date Received: 12/12/2019 Date Reported: 12/19/2019

δD of water ----- -59.5 ‰ relative to VSMOW

$\delta^{18}O$ of water ----- -6.56 ‰ relative to VSMOW

Tritium content of water ----- na

$\delta^{13}C$ of DIC ----- na

^{14}C content of DIC ----- na

$\delta^{15}N$ of nitrate ----- na

$\delta^{18}O$ of nitrate ----- na

$\delta^{34}S$ of sulfate ----- na

$\delta^{18}O$ of sulfate ----- na

Vacuum Distilled? * ----- No

Remarks:

nd = not detected. na = not analyzed.

*Indicates if vacuum distillation was utilized for hydrogen and oxygen isotopic analysis of water



Lab #: 744857 Job #: 43654 IS-101168 Co. Job#:
Sample Name: T194199-3 Co. Lab#:
Company: SunStar Laboratories, Inc
API/Well:
Container: 250ml Plastic Bottle
Field/Site Name: T194199
Location:
Formation/Depth:
Sampling Point:
Date Sampled: 12/05/2019 9:00 Date Received: 12/12/2019 Date Reported: 12/19/2019

δD of water ----- -61.3 ‰ relative to VSMOW

$\delta^{18}O$ of water ----- -7.64 ‰ relative to VSMOW

Tritium content of water ----- na

$\delta^{13}C$ of DIC ----- na

^{14}C content of DIC ----- na

$\delta^{15}N$ of nitrate ----- na

$\delta^{18}O$ of nitrate ----- na

$\delta^{34}S$ of sulfate ----- na

$\delta^{18}O$ of sulfate ----- na

Vacuum Distilled? * ----- No

Remarks:

nd = not detected. na = not analyzed.

*Indicates if vacuum distillation was utilized for hydrogen and oxygen isotopic analysis of water

Lab #: 744858 Job #: 43654 IS-101168 Co. Job#:
Sample Name: T194199-4 Co. Lab#:
Company: SunStar Laboratories, Inc
API/Well:
Container: 250ml Plastic Bottle
Field/Site Name: T194199
Location:
Formation/Depth:
Sampling Point:
Date Sampled: 12/05/2019 10:20 Date Received: 12/12/2019 Date Reported: 12/19/2019

δD of water ----- -74.6 ‰ relative to VSMOW

$\delta^{18}O$ of water ----- -9.87 ‰ relative to VSMOW

Tritium content of water ----- na

$\delta^{13}C$ of DIC ----- na

^{14}C content of DIC ----- na

$\delta^{15}N$ of nitrate ----- na

$\delta^{18}O$ of nitrate ----- na

$\delta^{34}S$ of sulfate ----- na

$\delta^{18}O$ of sulfate ----- na

Vacuum Distilled? * ----- No

Remarks:

nd = not detected. na = not analyzed.

*Indicates if vacuum distillation was utilized for hydrogen and oxygen isotopic analysis of water



Lab #: 744859 Job #: 43654 IS-101168 Co. Job#:
Sample Name: T194199-5 Co. Lab#:
Company: SunStar Laboratories, Inc
API/Well:
Container: 250ml Plastic Bottle
Field/Site Name: T194199
Location:
Formation/Depth:
Sampling Point:
Date Sampled: 12/05/2019 11:40 Date Received: 12/12/2019 Date Reported: 12/19/2019

δD of water ----- -75.7 ‰ relative to VSMOW

$\delta^{18}O$ of water ----- -9.90 ‰ relative to VSMOW

Tritium content of water ----- na

$\delta^{13}C$ of DIC ----- na

^{14}C content of DIC ----- na

$\delta^{15}N$ of nitrate ----- na

$\delta^{18}O$ of nitrate ----- na

$\delta^{34}S$ of sulfate ----- na

$\delta^{18}O$ of sulfate ----- na

Vacuum Distilled? * ----- No

Remarks:

nd = not detected. na = not analyzed.

*Indicates if vacuum distillation was utilized for hydrogen and oxygen isotopic analysis of water



Lab #: 744860 Job #: 43654 IS-101168 Co. Job#:
Sample Name: T194199-6 Co. Lab#:
Company: SunStar Laboratories, Inc
API/Well:
Container: 250ml Plastic Bottle
Field/Site Name: T194199
Location:
Formation/Depth:
Sampling Point:
Date Sampled: 12/05/2019 12:45 Date Received: 12/12/2019 Date Reported: 12/19/2019

δ D of water ----- -77.8 ‰ relative to VSMOW
 δ ¹⁸O of water ----- -10.22 ‰ relative to VSMOW
Tritium content of water ----- na
 δ ¹³C of DIC ----- na
¹⁴C content of DIC ----- na
 δ ¹⁵N of nitrate ----- na
 δ ¹⁸O of nitrate ----- na
 δ ³⁴S of sulfate ----- na
 δ ¹⁸O of sulfate ----- na
Vacuum Distilled? * ----- No

Remarks:

nd = not detected. na = not analyzed.

*Indicates if vacuum distillation was utilized for hydrogen and oxygen isotopic analysis of water



Lab #: 744861 Job #: 43654 IS-101168 Co. Job#:
Sample Name: T194199-7 Co. Lab#:
Company: SunStar Laboratories, Inc
API/Well:
Container: 250ml Plastic Bottle
Field/Site Name: T194199
Location:
Formation/Depth:
Sampling Point:
Date Sampled: 12/05/2019 13:36 Date Received: 12/12/2019 Date Reported: 12/19/2019

δD of water ----- -70.1 ‰ relative to VSMOW

$\delta^{18}O$ of water ----- -8.55 ‰ relative to VSMOW

Tritium content of water ----- na

$\delta^{13}C$ of DIC ----- na

^{14}C content of DIC ----- na

$\delta^{15}N$ of nitrate ----- na

$\delta^{18}O$ of nitrate ----- na

$\delta^{34}S$ of sulfate ----- na

$\delta^{18}O$ of sulfate ----- na

Vacuum Distilled? * ----- No

Remarks:

nd = not detected. na = not analyzed.

*Indicates if vacuum distillation was utilized for hydrogen and oxygen isotopic analysis of water



Lab #: 744862 Job #: 43654 IS-101168 Co. Job#:
Sample Name: T194199-8 Co. Lab#:
Company: SunStar Laboratories, Inc
API/Well:
Container: 250ml Plastic Bottle
Field/Site Name: T194199
Location:
Formation/Depth:
Sampling Point:
Date Sampled: 12/05/2019 15:00 Date Received: 12/12/2019 Date Reported: 12/19/2019

δD of water ----- -70.0 ‰ relative to VSMOW

$\delta^{18}O$ of water ----- -8.48 ‰ relative to VSMOW

Tritium content of water ----- na

$\delta^{13}C$ of DIC ----- na

^{14}C content of DIC ----- na

$\delta^{15}N$ of nitrate ----- na

$\delta^{18}O$ of nitrate ----- na

$\delta^{34}S$ of sulfate ----- na

$\delta^{18}O$ of sulfate ----- na

Vacuum Distilled? * ----- No

Remarks:

nd = not detected. na = not analyzed.

*Indicates if vacuum distillation was utilized for hydrogen and oxygen isotopic analysis of water



Lab #: 744863 Job #: 43654 IS-101168 Co. Job#:
Sample Name: T194199-9 Co. Lab#:
Company: SunStar Laboratories, Inc
API/Well:
Container: 250ml Plastic Bottle
Field/Site Name: T194199
Location:
Formation/Depth:
Sampling Point:
Date Sampled: 12/05/2019 6:55 Date Received: 12/12/2019 Date Reported: 12/19/2019

δD of water ----- -70.5 ‰ relative to VSMOW

$\delta^{18}O$ of water ----- -8.64 ‰ relative to VSMOW

Tritium content of water ----- na

$\delta^{13}C$ of DIC ----- na

^{14}C content of DIC ----- na

$\delta^{15}N$ of nitrate ----- na

$\delta^{18}O$ of nitrate ----- na

$\delta^{34}S$ of sulfate ----- na

$\delta^{18}O$ of sulfate ----- na

Vacuum Distilled? * ----- No

Remarks:

nd = not detected. na = not analyzed.

*Indicates if vacuum distillation was utilized for hydrogen and oxygen isotopic analysis of water

Lab #: 744864 Job #: 43654 IS-101168 Co. Job#:
Sample Name: T194199-10 Co. Lab#:
Company: SunStar Laboratories, Inc
API/Well:
Container: 250ml Plastic Bottle
Field/Site Name: T194199
Location:
Formation/Depth:
Sampling Point:
Date Sampled: 12/06/2019 0:00 Date Received: 12/12/2019 Date Reported: 12/19/2019

δD of water ----- -78.3 ‰ relative to VSMOW

$\delta^{18}O$ of water ----- -10.22 ‰ relative to VSMOW

Tritium content of water ----- na

$\delta^{13}C$ of DIC ----- na

^{14}C content of DIC ----- na

$\delta^{15}N$ of nitrate ----- na

$\delta^{18}O$ of nitrate ----- na

$\delta^{34}S$ of sulfate ----- na

$\delta^{18}O$ of sulfate ----- na

Vacuum Distilled? * ----- No

Remarks:

nd = not detected. na = not analyzed.

*Indicates if vacuum distillation was utilized for hydrogen and oxygen isotopic analysis of water

ANALYTICAL REPORT

Eurofins TestAmerica, Irvine
17461 Derian Ave
Suite 100
Irvine, CA 92614-5817
Tel: (949)261-1022

Laboratory Job ID: 440-257052-1
Client Project/Site: T194199

For:
SunStar Laboratories Inc
25712 Commercentre Drive
Lake Forest, California 92630

Attn: Jeff Lee



Authorized for release by:
12/20/2019 11:28:32 AM

Danielle Roberts, Senior Project Manager
(949)260-3249
danielle.roberts@testamericainc.com

LINKS

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www.testamericainc.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Cover Page	1
Table of Contents	2
Sample Summary	3
Detection Summary	4
Client Sample Results	5
Surrogate Summary	7
Method Summary	8
Lab Chronicle	9
QC Sample Results	11
QC Association Summary	12
Definitions/Glossary	13
Certification Summary	14
Chain of Custody	15
Receipt Checklists	17



Sample Summary

Client: SunStar Laboratories Inc
Project/Site: T194199

Job ID: 440-257052-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
440-257052-1	T194199-1	Water	12/05/19 10:00	12/11/19 12:57	
440-257052-2	T194199-2	Water	12/05/19 08:45	12/11/19 12:57	
440-257052-3	T194199-3	Water	12/05/19 09:00	12/11/19 12:57	
440-257052-4	T194199-4	Water	12/05/19 10:20	12/11/19 12:57	
440-257052-5	T194199-5	Water	12/05/19 11:40	12/11/19 12:57	
440-257052-6	T194199-6	Water	12/05/19 12:45	12/11/19 12:57	
440-257052-7	T194199-7	Water	12/05/19 13:36	12/11/19 12:57	
440-257052-8	T194199-8	Water	12/05/19 15:00	12/11/19 12:57	
440-257052-9	T194199-9	Water	12/05/19 06:55	12/11/19 12:57	
440-257052-10	T194199-10	Water	12/06/19 00:00	12/11/19 12:57	

- 1
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- 10
- 11
- 12
- 13
- 14

Detection Summary

Client: SunStar Laboratories Inc
Project/Site: T194199

Job ID: 440-257052-1

Client Sample ID: T194199-1	Lab Sample ID: 440-257052-1
<input type="checkbox"/> No Detections.	
Client Sample ID: T194199-2	Lab Sample ID: 440-257052-2
<input type="checkbox"/> No Detections.	
Client Sample ID: T194199-3	Lab Sample ID: 440-257052-3
<input type="checkbox"/> No Detections.	
Client Sample ID: T194199-4	Lab Sample ID: 440-257052-4
<input type="checkbox"/> No Detections.	
Client Sample ID: T194199-5	Lab Sample ID: 440-257052-5
<input type="checkbox"/> No Detections.	
Client Sample ID: T194199-6	Lab Sample ID: 440-257052-6
<input type="checkbox"/> No Detections.	
Client Sample ID: T194199-7	Lab Sample ID: 440-257052-7
<input type="checkbox"/> No Detections.	
Client Sample ID: T194199-8	Lab Sample ID: 440-257052-8
<input type="checkbox"/> No Detections.	
Client Sample ID: T194199-9	Lab Sample ID: 440-257052-9
<input type="checkbox"/> No Detections.	
Client Sample ID: T194199-10	Lab Sample ID: 440-257052-10
<input type="checkbox"/> No Detections.	

- 1
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- 14

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Irvine

Client Sample Results

Client: SunStar Laboratories Inc
Project/Site: T194199

Job ID: 440-257052-1

Client Sample ID: T194199-1

Lab Sample ID: 440-257052-1

Date Collected: 12/05/19 10:00

Matrix: Water

Date Received: 12/11/19 12:57

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		0.10	0.020	mg/L		12/12/19 05:54	12/12/19 16:29	1
1,1'-Biphenyl	ND	*	0.10	0.020	mg/L		12/12/19 05:54	12/12/19 16:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane	68		45 - 120				12/12/19 05:54	12/12/19 16:29	1

Client Sample ID: T194199-2

Lab Sample ID: 440-257052-2

Date Collected: 12/05/19 08:45

Matrix: Water

Date Received: 12/11/19 12:57

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		0.10	0.020	mg/L		12/12/19 05:54	12/12/19 16:53	1
1,1'-Biphenyl	ND	*	0.10	0.020	mg/L		12/12/19 05:54	12/12/19 16:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane	66		45 - 120				12/12/19 05:54	12/12/19 16:53	1

Client Sample ID: T194199-3

Lab Sample ID: 440-257052-3

Date Collected: 12/05/19 09:00

Matrix: Water

Date Received: 12/11/19 12:57

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		0.11	0.021	mg/L		12/12/19 05:54	12/12/19 17:16	1
1,1'-Biphenyl	ND	*	0.11	0.021	mg/L		12/12/19 05:54	12/12/19 17:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane	64		45 - 120				12/12/19 05:54	12/12/19 17:16	1

Client Sample ID: T194199-4

Lab Sample ID: 440-257052-4

Date Collected: 12/05/19 10:20

Matrix: Water

Date Received: 12/11/19 12:57

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		0.10	0.020	mg/L		12/12/19 05:54	12/12/19 17:39	1
1,1'-Biphenyl	ND	*	0.10	0.020	mg/L		12/12/19 05:54	12/12/19 17:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane	65		45 - 120				12/12/19 05:54	12/12/19 17:39	1

Client Sample ID: T194199-5

Lab Sample ID: 440-257052-5

Date Collected: 12/05/19 11:40

Matrix: Water

Date Received: 12/11/19 12:57

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		0.10	0.020	mg/L		12/12/19 05:54	12/12/19 18:25	1
1,1'-Biphenyl	ND	*	0.10	0.020	mg/L		12/12/19 05:54	12/12/19 18:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane	76		45 - 120				12/12/19 05:54	12/12/19 18:25	1

Eurofins TestAmerica, Irvine

Client Sample Results

Client: SunStar Laboratories Inc
Project/Site: T194199

Job ID: 440-257052-1

Client Sample ID: T194199-6

Lab Sample ID: 440-257052-6

Date Collected: 12/05/19 12:45

Matrix: Water

Date Received: 12/11/19 12:57

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		0.10	0.021	mg/L		12/12/19 05:54	12/12/19 18:48	1
1,1'-Biphenyl	ND	*	0.10	0.021	mg/L		12/12/19 05:54	12/12/19 18:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane	59		45 - 120				12/12/19 05:54	12/12/19 18:48	1

Client Sample ID: T194199-7

Lab Sample ID: 440-257052-7

Date Collected: 12/05/19 13:36

Matrix: Water

Date Received: 12/11/19 12:57

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		0.10	0.020	mg/L		12/12/19 05:54	12/12/19 19:12	1
1,1'-Biphenyl	ND	*	0.10	0.020	mg/L		12/12/19 05:54	12/12/19 19:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane	52		45 - 120				12/12/19 05:54	12/12/19 19:12	1

Client Sample ID: T194199-8

Lab Sample ID: 440-257052-8

Date Collected: 12/05/19 15:00

Matrix: Water

Date Received: 12/11/19 12:57

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		0.10	0.020	mg/L		12/12/19 05:54	12/12/19 19:35	1
1,1'-Biphenyl	ND	*	0.10	0.020	mg/L		12/12/19 05:54	12/12/19 19:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane	81		45 - 120				12/12/19 05:54	12/12/19 19:35	1

Client Sample ID: T194199-9

Lab Sample ID: 440-257052-9

Date Collected: 12/05/19 06:55

Matrix: Water

Date Received: 12/11/19 12:57

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		0.10	0.021	mg/L		12/12/19 05:54	12/12/19 19:58	1
1,1'-Biphenyl	ND	*	0.10	0.021	mg/L		12/12/19 05:54	12/12/19 19:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane	86		45 - 120				12/12/19 05:54	12/12/19 19:58	1

Client Sample ID: T194199-10

Lab Sample ID: 440-257052-10

Date Collected: 12/06/19 00:00

Matrix: Water

Date Received: 12/11/19 12:57

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		0.10	0.021	mg/L		12/12/19 05:54	12/12/19 20:22	1
1,1'-Biphenyl	ND	*	0.10	0.021	mg/L		12/12/19 05:54	12/12/19 20:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane	79		45 - 120				12/12/19 05:54	12/12/19 20:22	1

Eurofins TestAmerica, Irvine

Surrogate Summary

Client: SunStar Laboratories Inc
Project/Site: T194199

Job ID: 440-257052-1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTCN1 (45-120)
440-257052-1	T194199-1	68
440-257052-2	T194199-2	66
440-257052-3	T194199-3	64
440-257052-4	T194199-4	65
440-257052-5	T194199-5	76
440-257052-6	T194199-6	59
440-257052-7	T194199-7	52
440-257052-8	T194199-8	81
440-257052-9	T194199-9	86
440-257052-10	T194199-10	79
LCS 440-585419/4-A	Lab Control Sample	65
LCSD 440-585419/5-A	Lab Control Sample Dup	83
MB 440-585419/1-A	Method Blank	84

Surrogate Legend

OTCN = n-Octacosane

Method Summary

Client: SunStar Laboratories Inc
Project/Site: T194199

Job ID: 440-257052-1

Method	Method Description	Protocol	Laboratory
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL IRV
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL IRV

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL IRV = Eurofins TestAmerica, Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022



Lab Chronicle

Client: SunStar Laboratories Inc
Project/Site: T194199

Job ID: 440-257052-1

Client Sample ID: T194199-1

Lab Sample ID: 440-257052-1

Date Collected: 12/05/19 10:00

Matrix: Water

Date Received: 12/11/19 12:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			985 mL	1 mL	585419	12/12/19 05:54	L1H	TAL IRV
Total/NA	Analysis	8015B		1			585505	12/12/19 16:29	MPD	TAL IRV

Client Sample ID: T194199-2

Lab Sample ID: 440-257052-2

Date Collected: 12/05/19 08:45

Matrix: Water

Date Received: 12/11/19 12:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			985 mL	1 mL	585419	12/12/19 05:54	L1H	TAL IRV
Total/NA	Analysis	8015B		1			585505	12/12/19 16:53	MPD	TAL IRV

Client Sample ID: T194199-3

Lab Sample ID: 440-257052-3

Date Collected: 12/05/19 09:00

Matrix: Water

Date Received: 12/11/19 12:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			950 mL	1 mL	585419	12/12/19 05:54	L1H	TAL IRV
Total/NA	Analysis	8015B		1			585505	12/12/19 17:16	MPD	TAL IRV

Client Sample ID: T194199-4

Lab Sample ID: 440-257052-4

Date Collected: 12/05/19 10:20

Matrix: Water

Date Received: 12/11/19 12:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			985 mL	1 mL	585419	12/12/19 05:54	L1H	TAL IRV
Total/NA	Analysis	8015B		1			585505	12/12/19 17:39	MPD	TAL IRV

Client Sample ID: T194199-5

Lab Sample ID: 440-257052-5

Date Collected: 12/05/19 11:40

Matrix: Water

Date Received: 12/11/19 12:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			985 mL	1 mL	585419	12/12/19 05:54	L1H	TAL IRV
Total/NA	Analysis	8015B		1			585505	12/12/19 18:25	MPD	TAL IRV

Client Sample ID: T194199-6

Lab Sample ID: 440-257052-6

Date Collected: 12/05/19 12:45

Matrix: Water

Date Received: 12/11/19 12:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			970 mL	1 mL	585419	12/12/19 05:54	L1H	TAL IRV
Total/NA	Analysis	8015B		1			585505	12/12/19 18:48	MPD	TAL IRV

Lab Chronicle

Client: SunStar Laboratories Inc
Project/Site: T194199

Job ID: 440-257052-1

Client Sample ID: T194199-7

Lab Sample ID: 440-257052-7

Date Collected: 12/05/19 13:36

Matrix: Water

Date Received: 12/11/19 12:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			995 mL	1 mL	585419	12/12/19 05:54	L1H	TAL IRV
Total/NA	Analysis	8015B		1			585505	12/12/19 19:12	MPD	TAL IRV

Client Sample ID: T194199-8

Lab Sample ID: 440-257052-8

Date Collected: 12/05/19 15:00

Matrix: Water

Date Received: 12/11/19 12:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			980 mL	1 mL	585419	12/12/19 05:54	L1H	TAL IRV
Total/NA	Analysis	8015B		1			585505	12/12/19 19:35	MPD	TAL IRV

Client Sample ID: T194199-9

Lab Sample ID: 440-257052-9

Date Collected: 12/05/19 06:55

Matrix: Water

Date Received: 12/11/19 12:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			965 mL	1 mL	585419	12/12/19 05:54	L1H	TAL IRV
Total/NA	Analysis	8015B		1			585505	12/12/19 19:58	MPD	TAL IRV

Client Sample ID: T194199-10

Lab Sample ID: 440-257052-10

Date Collected: 12/06/19 00:00

Matrix: Water

Date Received: 12/11/19 12:57

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			960 mL	1 mL	585419	12/12/19 05:54	L1H	TAL IRV
Total/NA	Analysis	8015B		1			585505	12/12/19 20:22	MPD	TAL IRV

Laboratory References:

TAL IRV = Eurofins TestAmerica, Irvine, 17461 Derian Ave, Suite 100, Irvine, CA 92614-5817, TEL (949)261-1022

QC Sample Results

Client: SunStar Laboratories Inc
Project/Site: T194199

Job ID: 440-257052-1

Method: 8015B - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 440-585419/1-A
Matrix: Water
Analysis Batch: 585505

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 585419

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac	
	Result	Qualifier									
Benzene, 1,1'-oxybis-	ND		0.10	0.020	mg/L		12/12/19 05:54	12/12/19 15:18		1	
1,1'-Biphenyl	ND		0.10	0.020	mg/L		12/12/19 05:54	12/12/19 15:18		1	
		MB	MB								
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed			Dil	Fac
<i>n</i> -Octacosane	84		45 - 120			12/12/19 05:54	12/12/19 15:18				1

Lab Sample ID: LCS 440-585419/4-A
Matrix: Water
Analysis Batch: 586489

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 585419

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	Limits			
		Result	Qualifier					%Rec.		
Benzene, 1,1'-oxybis-	0.100	0.0784	J	mg/L		78	50 - 115			
1,1'-Biphenyl	0.100	0.0565	J	mg/L		57	50 - 115			
		LCS	LCS							
Surrogate	%Recovery	Qualifier	Limits							
<i>n</i> -Octacosane	65		45 - 120							

Lab Sample ID: LCSD 440-585419/5-A
Matrix: Water
Analysis Batch: 585505

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 585419

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	Limits	RPD	RPD	Limit	
		Result	Qualifier								%Rec.
Benzene, 1,1'-oxybis-	0.100	0.0861	J	mg/L		86	50 - 115	9		30	
1,1'-Biphenyl	0.100	0.0802	J*	mg/L		80	50 - 115	35		30	
		LCSD	LCSD								
Surrogate	%Recovery	Qualifier	Limits								
<i>n</i> -Octacosane	83		45 - 120								

QC Association Summary

Client: SunStar Laboratories Inc
Project/Site: T194199

Job ID: 440-257052-1

GC Semi VOA

Prep Batch: 585419

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-257052-1	T194199-1	Total/NA	Water	3510C	
440-257052-2	T194199-2	Total/NA	Water	3510C	
440-257052-3	T194199-3	Total/NA	Water	3510C	
440-257052-4	T194199-4	Total/NA	Water	3510C	
440-257052-5	T194199-5	Total/NA	Water	3510C	
440-257052-6	T194199-6	Total/NA	Water	3510C	
440-257052-7	T194199-7	Total/NA	Water	3510C	
440-257052-8	T194199-8	Total/NA	Water	3510C	
440-257052-9	T194199-9	Total/NA	Water	3510C	
440-257052-10	T194199-10	Total/NA	Water	3510C	
MB 440-585419/1-A	Method Blank	Total/NA	Water	3510C	
LCS 440-585419/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 440-585419/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 585505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
440-257052-1	T194199-1	Total/NA	Water	8015B	585419
440-257052-2	T194199-2	Total/NA	Water	8015B	585419
440-257052-3	T194199-3	Total/NA	Water	8015B	585419
440-257052-4	T194199-4	Total/NA	Water	8015B	585419
440-257052-5	T194199-5	Total/NA	Water	8015B	585419
440-257052-6	T194199-6	Total/NA	Water	8015B	585419
440-257052-7	T194199-7	Total/NA	Water	8015B	585419
440-257052-8	T194199-8	Total/NA	Water	8015B	585419
440-257052-9	T194199-9	Total/NA	Water	8015B	585419
440-257052-10	T194199-10	Total/NA	Water	8015B	585419
MB 440-585419/1-A	Method Blank	Total/NA	Water	8015B	585419
LCSD 440-585419/5-A	Lab Control Sample Dup	Total/NA	Water	8015B	585419

Analysis Batch: 586489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 440-585419/4-A	Lab Control Sample	Total/NA	Water	8015B	585419

Definitions/Glossary

Client: SunStar Laboratories Inc
Project/Site: T194199

Job ID: 440-257052-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Accreditation/Certification Summary

Client: SunStar Laboratories Inc
Project/Site: T194199

Job ID: 440-257052-1

Laboratory: Eurofins TestAmerica, Irvine

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
California	State Program	CA ELAP 2706	06-30-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
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- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

SUBCONTRACT ORDER

SunStar Laboratories, Inc.

T194199

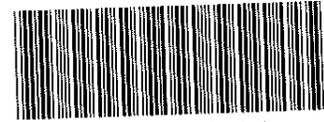
SENDING LABORATORY:

SunStar Laboratories, Inc.
25712 Commercentre Drive
Lake Forest, CA 92630
Phone: (949) 297-5020
Fax: (949) 297-5027
Project Manager: Jeff Lee

RECEIVING LABORATORY:

TestAmerica (Irvine) Laboratory
17461 Derian Ave, #100
Irvine, CA 92614
Phone: (949) 261-1022
Fax: N/A

JAL 12/18/19



440-257052 Chain of Custody

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: T194199-01	Water	Sampled: 12/05/19 10:00		
Misc Water Testing #1 <i>Containers Supplied.</i>	12/18/19 15:00	06/02/20 10:00		8015M - Therminol
Sample ID: T194199-02	Water	Sampled: 12/05/19 08:45		
Misc Water Testing #1 <i>Containers Supplied.</i>	12/18/19 15:00	06/02/20 08:45		8015M - Therminol
Sample ID: T194199-03	Water	Sampled: 12/05/19 09:00		
Misc Water Testing #1 <i>Containers Supplied.</i>	12/18/19 15:00	06/02/20 09:00		8015M - Therminol
Sample ID: T194199-04	Water	Sampled: 12/05/19 10:20		
Misc Water Testing #1 <i>Containers Supplied.</i>	12/18/19 15:00	06/02/20 10:20		8015M - Therminol
Sample ID: T194199-05	Water	Sampled: 12/05/19 11:40		
Misc Water Testing #1 <i>Containers Supplied.</i>	12/18/19 15:00	06/02/20 11:40		8015M - Therminol
Sample ID: T194199-06	Water	Sampled: 12/05/19 12:45		
Misc Water Testing #1 <i>Containers Supplied.</i>	12/18/19 15:00	06/02/20 12:45		8015M - Therminol

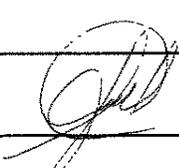
Released By	Date	Received By	Date
David Becker	12-11-2019 12:57		IR-45 4-4/4.1 12/11/19 12:57
Released By	Date	Received By	Date

SUBCONTRACT ORDER

SunStar Laboratories, Inc.

T194199

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: T194199-07	Water	Sampled:12/05/19 13:36		
Misc Water Testing #1	12/18/19 15:00	06/02/20 13:36		8015M - Therminol
<i>Containers Supplied:</i>				
Sample ID: T194199-08	Water	Sampled:12/05/19 15:00		
Misc Water Testing #1	12/18/19 15:00	06/02/20 15:00		8015M - Therminol
<i>Containers Supplied:</i>				
Sample ID: T194199-09	Water	Sampled:12/05/19 06:55		
Misc Water Testing #1	12/18/19 15:00	06/02/20 06:55		8015M - Therminol
<i>Containers Supplied:</i>				
Sample ID: T194199-10	Water	Sampled:12/06/19 00:00		
Misc Water Testing #1	12/18/19 15:00	06/03/20 00:00		8015M - Therminol
<i>Containers Supplied:</i>				

<i>David Becker</i>	12-11-2019	12:57		
Released By	Date		Received By	Date
				12/11/19 12:57
Released By	Date		Received By	Date



Login Sample Receipt Checklist

Client: SunStar Laboratories Inc

Job Number: 440-257052-1

Login Number: 257052

List Source: Eurofins TestAmerica, Irvine

List Number: 1

Creator: Lagunas, Jorge L

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	N/A	Not Present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	Refer to Job Narrative for details.
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

WORK ORDER

T194199

Client: Northstar Environmental Remediation
Project: Genesis Solar Groundwater

Project Manager: Jeff Lee
Project Number: 196-004-06

Report To:

Northstar Environmental Remediation
 Arlin Brewster
 26225 Enterprise Court
 Lake Forest, CA 92630

Date Due: 12/13/19 17:00 (5 day TAT)

Received By: Sunny Lounethone

Date Received: 12/06/19 11:15

Logged In By: Sunny Lounethone

Date Logged In: 12/06/19 15:18

Samples Received at: 3.7°C

Custody Seals No Received On Ice Yes
 Containers Intact Yes
 COC/Labels Agree Yes
 Preservation Confir Yes

Analysis	Due	TAT	Expires	Comments
T194199-01 23a [Water] Sampled 12/05/19 10:00 (GMT-08:00) Pacific Time (US &				
1664	12/13/19 15:00	5	01/02/20 10:00	Oil & Grease
200.7	12/13/19 15:00	5	06/02/20 10:00	Dissolved Ca, Cu, Na, K, Fe, Mg
200.8	12/13/19 15:00	5	06/02/20 10:00	Dissolved Sb, As, Ba, Cd, Cr, Co, Pb, Ni, Se, Zn
300.0 - F, Cl, Br, SO4	12/13/19 15:00	5	01/02/20 10:00	Chloride, Sulfate, Fluoride only
300.0 - NO2, NO3, PO4	12/13/19 15:00	5	12/07/19 10:00	Nitrate only
7470/71 Hg	12/13/19 15:00	5	03/04/20 10:00	
Conductivity	12/13/19 15:00	5	01/02/20 10:00	
pH water 9040	12/13/19 15:00	5	12/06/19 10:00	
TDS-160.1	12/13/19 15:00	5	12/12/19 10:00	

T194199-02 OBS-1 [Water] Sampled 12/05/19 08:45 (GMT-08:00) Pacific Time (US &				
1664	12/13/19 15:00	5	01/02/20 08:45	Oil & Grease
200.7	12/13/19 15:00	5	06/02/20 08:45	Dissolved Ca, Cu, Na, K, Fe, Mg
200.8	12/13/19 15:00	5	06/02/20 08:45	Dissolved Sb, As, Ba, Cd, Cr, Co, Pb, Ni, Se, Zn
300.0 - F, Cl, Br, SO4	12/13/19 15:00	5	01/02/20 08:45	Chloride, Sulfate, Fluoride only
300.0 - NO2, NO3, PO4	12/13/19 15:00	5	12/07/19 08:45	Nitrate only
7470/71 Hg	12/13/19 15:00	5	03/04/20 08:45	
Conductivity	12/13/19 15:00	5	01/02/20 08:45	
pH water 9040	12/13/19 15:00	5	12/06/19 08:45	
TDS-160.1	12/13/19 15:00	5	12/12/19 08:45	

WORK ORDER

T194199

Client: Northstar Environmental Remediation
Project: Genesis Solar Groundwater

Project Manager: Jeff Lee
Project Number: 196-004-06

Analysis	Due	TAT	Expires	Comments
T194199-03 TW-1 [Water] Sampled 12/05/19 09:00 (GMT-08:00) Pacific Time (US &				
1664	12/13/19 15:00	5	01/02/20 09:00	Oil & Grease
200.7	12/13/19 15:00	5	06/02/20 09:00	Dissolved Ca, Cu, Na, K, Fe, Mg
200.8	12/13/19 15:00	5	06/02/20 09:00	Dissolved Sb, As, Ba, Cd, Cr, Co, Pb, Ni, Se, Zn
300.0 - F, Cl, Br, SO4	12/13/19 15:00	5	01/02/20 09:00	Chloride, Sulfate, Fluoride only
300.0 - NO2, NO3, PO4	12/13/19 15:00	5	12/07/19 09:00	Nitrate only
7470/71 Hg	12/13/19 15:00	5	03/04/20 09:00	
Conductivity	12/13/19 15:00	5	01/02/20 09:00	
pH water 9040	12/13/19 15:00	5	12/06/19 09:00	
TDS-160.1	12/13/19 15:00	5	12/12/19 09:00	
T194199-04 TW-2 [Water] Sampled 12/05/19 10:20 (GMT-08:00) Pacific Time (US &				
1664	12/13/19 15:00	5	01/02/20 10:20	Oil & Grease
200.7	12/13/19 15:00	5	06/02/20 10:20	Dissolved Ca, Cu, Na, K, Fe, Mg
200.8	12/13/19 15:00	5	06/02/20 10:20	Dissolved Sb, As, Ba, Cd, Cr, Co, Pb, Ni, Se, Zn
300.0 - F, Cl, Br, SO4	12/13/19 15:00	5	01/02/20 10:20	Chloride, Sulfate, Fluoride only
300.0 - NO2, NO3, PO4	12/13/19 15:00	5	12/07/19 10:20	Nitrate only
7470/71 Hg	12/13/19 15:00	5	03/04/20 10:20	
Conductivity	12/13/19 15:00	5	01/02/20 10:20	
pH water 9040	12/13/19 15:00	5	12/06/19 10:20	
TDS-160.1	12/13/19 15:00	5	12/12/19 10:20	
T194199-05 PW-0 [Water] Sampled 12/05/19 11:40 (GMT-08:00) Pacific Time (US &				
1664	12/13/19 15:00	5	01/02/20 11:40	Oil & Grease
200.7	12/13/19 15:00	5	06/02/20 11:40	Dissolved Ca, Cu, Na, K, Fe, Mg
200.8	12/13/19 15:00	5	06/02/20 11:40	Dissolved Sb, As, Ba, Cd, Cr, Co, Pb, Ni, Se, Zn
300.0 - F, Cl, Br, SO4	12/13/19 15:00	5	01/02/20 11:40	Chloride, Sulfate, Fluoride only
300.0 - NO2, NO3, PO4	12/13/19 15:00	5	12/07/19 11:40	Nitrate only
7470/71 Hg	12/13/19 15:00	5	03/04/20 11:40	
Conductivity	12/13/19 15:00	5	01/02/20 11:40	
pH water 9040	12/13/19 15:00	5	12/06/19 11:40	
TDS-160.1	12/13/19 15:00	5	12/12/19 11:40	

WORK ORDER

T194199

Client: Northstar Environmental Remediation
Project: Genesis Solar Groundwater

Project Manager: Jeff Lee
Project Number: 196-004-06

Analysis	Due	TAT	Expires	Comments
T194199-06 PW-2 [Water] Sampled 12/05/19 12:45 (GMT-08:00) Pacific Time (US &				
1664	12/13/19 15:00	5	01/02/20 12:45	Oil & Grease
200.7	12/13/19 15:00	5	06/02/20 12:45	Dissolved Ca, Cu, Na, K, Fe, Mg
200.8	12/13/19 15:00	5	06/02/20 12:45	Dissolved Sb, As, Ba, Cd, Cr, Co, Pb, Ni, Se, Zn
300.0 - F, Cl, Br, SO4	12/13/19 15:00	5	01/02/20 12:45	Chloride, Sulfate, Fluoride only
300.0 - NO2, NO3, PO4	12/13/19 15:00	5	12/07/19 12:45	Nitrate only
7470/71 Hg	12/13/19 15:00	5	03/04/20 12:45	
Conductivity	12/13/19 15:00	5	01/02/20 12:45	
pH water 9040	12/13/19 15:00	5	12/06/19 12:45	
TDS-160.1	12/13/19 15:00	5	12/12/19 12:45	
T194199-07 DM-1 [Water] Sampled 12/05/19 13:36 (GMT-08:00) Pacific Time (US &				
1664	12/13/19 15:00	5	01/02/20 13:36	Oil & Grease
200.7	12/13/19 15:00	5	06/02/20 13:36	Dissolved Ca, Cu, Na, K, Fe, Mg
200.8	12/13/19 15:00	5	06/02/20 13:36	Dissolved Sb, As, Ba, Cd, Cr, Co, Pb, Ni, Se, Zn
300.0 - F, Cl, Br, SO4	12/13/19 15:00	5	01/02/20 13:36	Chloride, Sulfate, Fluoride only
300.0 - NO2, NO3, PO4	12/13/19 15:00	5	12/07/19 13:36	Nitrate only
7470/71 Hg	12/13/19 15:00	5	03/04/20 13:36	
Conductivity	12/13/19 15:00	5	01/02/20 13:36	
pH water 9040	12/13/19 15:00	5	12/06/19 13:36	
TDS-160.1	12/13/19 15:00	5	12/12/19 13:36	
T194199-08 DM-2 [Water] Sampled 12/05/19 15:00 (GMT-08:00) Pacific Time (US &				
1664	12/13/19 15:00	5	01/02/20 15:00	Oil & Grease
200.7	12/13/19 15:00	5	06/02/20 15:00	Dissolved Ca, Cu, Na, K, Fe, Mg
200.8	12/13/19 15:00	5	06/02/20 15:00	Dissolved Sb, As, Ba, Cd, Cr, Co, Pb, Ni, Se, Zn
300.0 - F, Cl, Br, SO4	12/13/19 15:00	5	01/02/20 15:00	Chloride, Sulfate, Fluoride only
300.0 - NO2, NO3, PO4	12/13/19 15:00	5	12/07/19 15:00	Nitrate only
7470/71 Hg	12/13/19 15:00	5	03/04/20 15:00	
Conductivity	12/13/19 15:00	5	01/02/20 15:00	
pH water 9040	12/13/19 15:00	5	12/06/19 15:00	
TDS-160.1	12/13/19 15:00	5	12/12/19 15:00	

WORK ORDER

T194199

Client: Northstar Environmental Remediation
Project: Genesis Solar Groundwater

Project Manager: Jeff Lee
Project Number: 196-004-06

Analysis	Due	TAT	Expires	Comments
T194199-09 DM-3 [Water] Sampled 12/05/19 06:55 (GMT-08:00) Pacific Time (US &				
1664	12/13/19 15:00	5	01/02/20 06:55	Oil & Grease
200.7	12/13/19 15:00	5	06/02/20 06:55	Dissolved Ca, Cu, Na, K, Fe, Mg
200.8	12/13/19 15:00	5	06/02/20 06:55	Dissolved Sb, As, Ba, Cd, Cr, Co, Pb, Ni, Se, Zn
300.0 - F, Cl, Br, SO4	12/13/19 15:00	5	01/02/20 06:55	Chloride, Sulfate, Fluoride only
300.0 - NO2, NO3, PO4	12/13/19 15:00	5	12/07/19 06:55	Nitrate only
7470/71 Hg	12/13/19 15:00	5	03/04/20 06:55	
Conductivity	12/13/19 15:00	5	01/02/20 06:55	
pH water 9040	12/13/19 15:00	5	12/06/19 06:55	
TDS-160.1	12/13/19 15:00	5	12/12/19 06:55	

T194199-10 DUP [Water] Sampled 12/06/19 00:00 (GMT-08:00) Pacific Time (US &				
1664	12/13/19 15:00	5	01/03/20 00:00	Oil & Grease
200.7	12/13/19 15:00	5	06/03/20 00:00	Dissolved Ca, Cu, Na, K, Fe, Mg
200.8	12/13/19 15:00	5	06/03/20 00:00	Dissolved Sb, As, Ba, Cd, Cr, Co, Pb, Ni, Se, Zn
300.0 - F, Cl, Br, SO4	12/13/19 15:00	5	01/03/20 00:00	Chloride, Sulfate, Fluoride only
300.0 - NO2, NO3, PO4	12/13/19 15:00	5	12/08/19 00:00	Nitrate only
7470/71 Hg	12/13/19 15:00	5	03/05/20 00:00	
Conductivity	12/13/19 15:00	5	01/03/20 00:00	
pH water 9040	12/13/19 15:00	5	12/07/19 00:00	
TDS-160.1	12/13/19 15:00	5	12/13/19 00:00	

Pace Analytical Energy Services , LLC

T194199-01 23a [Water] Sampled 12/05/19 10:00 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #2	12/13/19 15:00	5	06/02/20 10:00	Deuterium, Oxygen-18

T194199-02 OBS-1 [Water] Sampled 12/05/19 08:45 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #2	12/13/19 15:00	5	06/02/20 08:45	Deuterium, Oxygen-18

T194199-03 TW-1 [Water] Sampled 12/05/19 09:00 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #2	12/13/19 15:00	5	06/02/20 09:00	Deuterium, Oxygen-18

T194199-04 TW-2 [Water] Sampled 12/05/19 10:20 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #2	12/13/19 15:00	5	06/02/20 10:20	Deuterium, Oxygen-18

WORK ORDER

T194199

Client: Northstar Environmental Remediation	Project Manager: Jeff Lee
Project: Genesis Solar Groundwater	Project Number: 196-004-06

Analysis	Due	TAT	Expires	Comments
Pace Analytical Energy Services , LLC				
T194199-05 PW-0 [Water] Sampled 12/05/19 11:40 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #2	12/13/19 15:00	5	06/02/20 11:40	Deuterium, Oxygen-18
T194199-06 PW-2 [Water] Sampled 12/05/19 12:45 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #2	12/13/19 15:00	5	06/02/20 12:45	Deuterium, Oxygen-18
T194199-07 DM-1 [Water] Sampled 12/05/19 13:36 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #2	12/13/19 15:00	5	06/02/20 13:36	Deuterium, Oxygen-18
T194199-08 DM-2 [Water] Sampled 12/05/19 15:00 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #2	12/13/19 15:00	5	06/02/20 15:00	Deuterium, Oxygen-18
T194199-09 DM-3 [Water] Sampled 12/05/19 06:55 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #2	12/13/19 15:00	5	06/02/20 06:55	Deuterium, Oxygen-18
T194199-10 DUP [Water] Sampled 12/06/19 00:00 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #2	12/13/19 15:00	5	06/03/20 00:00	Deuterium, Oxygen-18
TestAmerica (Irvine) Laboratories				
T194199-01 23a [Water] Sampled 12/05/19 10:00 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #1	12/13/19 15:00	5	06/02/20 10:00	8015M - Therminol
T194199-02 OBS-1 [Water] Sampled 12/05/19 08:45 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #1	12/13/19 15:00	5	06/02/20 08:45	8015M - Therminol
T194199-03 TW-1 [Water] Sampled 12/05/19 09:00 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #1	12/13/19 15:00	5	06/02/20 09:00	8015M - Therminol
T194199-04 TW-2 [Water] Sampled 12/05/19 10:20 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #1	12/13/19 15:00	5	06/02/20 10:20	8015M - Therminol

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Client: Northstar Environmental Remediation
Project: Genesis Solar Groundwater

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Analysis	Due	TAT	Expires	Comments
TestAmerica (Irvine) Laboratories				
T194199-05 PW-0 [Water] Sampled 12/05/19 11:40 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #1	12/13/19 15:00	5	06/02/20 11:40	8015M - Therminol
T194199-06 PW-2 [Water] Sampled 12/05/19 12:45 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #1	12/13/19 15:00	5	06/02/20 12:45	8015M - Therminol
T194199-07 DM-1 [Water] Sampled 12/05/19 13:36 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #1	12/13/19 15:00	5	06/02/20 13:36	8015M - Therminol
T194199-08 DM-2 [Water] Sampled 12/05/19 15:00 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #1	12/13/19 15:00	5	06/02/20 15:00	8015M - Therminol
T194199-09 DM-3 [Water] Sampled 12/05/19 06:55 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #1	12/13/19 15:00	5	06/02/20 06:55	8015M - Therminol
T194199-10 DUP [Water] Sampled 12/06/19 00:00 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #1	12/13/19 15:00	5	06/03/20 00:00	8015M - Therminol