

DOCKETED

Docket Number:	09-AFC-08C
Project Title:	Genesis Solar Energy Project
TN #:	251024
Document Title:	2023 S1 Groundwater Quality Monitoring Reportpdf
Description:	2023 S1 Groundwater Quality Monitoring Report.pdf
Filer:	Cynthia Keller
Organization:	NexteraEnergy Resources
Submitter Role:	Applicant
Submission Date:	7/12/2023 7:46:23 AM
Docketed Date:	7/12/2023



2023 FIRST SEMIANNUAL
GROUNDWATER QUALITY MONITORING REPORT
Genesis Solar Energy Project

Riverside County, California

COC S&W-20

July 5, 2023

Prepared By:

Northstar Environmental Remediation

26225 Enterprise Court

Lake Forest, California 92630

SIGNATURE PAGE

2023 FIRST SEMIANNUAL GROUNDWATER QUALITY MONITORING REPORT

RIVERSIDE COUNTY, CALIFORNIA

PROFESSIONAL STATEMENT

I declare under the penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violations.

I further certify that this report has been reviewed by the appropriate authority at NextEra Energy Resources and is being submitted with their written consent.



Arlin W. Brewster

Professional Geologist 9207

July 5, 2023

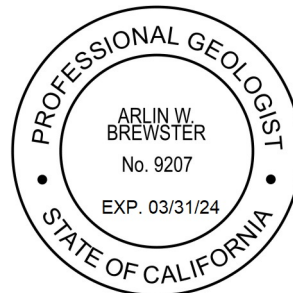


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1.0 INTRODUCTION

Northstar Environmental Remediation (Northstar) has prepared this 2023 First Semiannual Groundwater Quality Monitoring Report on behalf of Genesis Solar, LLC (Genesis). This report details groundwater quality monitoring performed in June 2023 at the Genesis Solar Energy Project (GSEP). 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 is 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 2022 extraction data, is approximately 121.3 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 87.35 feet bgs (300.05 feet amsl) in TW-1, located upgradient of the site, to 136.18 feet bgs (255.92 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 last six months.

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 the most recent semiannual groundwater quality monitoring at the GSEP on June 8, 2023. 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**.

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, TW-1, and PW-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 and PW-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 collect samples from these wells using the low flow purging method in accordance with the most recent EPA guidance document (USEPA, 2017). 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 YSI water quality field instrument equipped with a flow-through cell. Staff calibrated the YSI 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 at 5-minute intervals 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, $\pm 10\%$ for EC, ORP and turbidity) and the discharge volume exceeded the drawdown, tubing, and flow-through cell volume. 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 (Part II A.1.b.). 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 Eurofins Calscience Laboratories, Inc. (Eurofins) of Tustin, 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) were 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 workday and is intended to screen out constituents in ambient air. The trip blank bottle sets are prepared at the laboratory and are sealed throughout the groundwater sampling event. They are stored inside the sample coolers and are 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** – Recent concentrations are within the normal range.
- Chart 2: **Sulfate as SO₄** – Recent concentrations are within the normal range.
- Chart 3: **Nitrate as NO₃** – Appears in low concentrations mostly in shallow monitoring wells, including upgradient well OBS-1. Recent concentrations are within the normal range.
- Chart 4: **Calcium** – Recent concentrations generally increased in all monitoring wells compared to the previous monitoring event and are slightly above normal.
- Chart 5: **Copper** – Historically occurs in only a few wells at low concentrations, and was not detected during this event. There are no apparent trends.
- Chart 6: **Sodium** – Recent concentrations fluctuated compared to the previous monitoring event but are within normal range.
- Chart 7: **Potassium** – Was not detected during this monitoring event due to higher reporting limits. The data has been inconsistent since the fourth quarter of 2017 and suggests irregular but significant influxes of potassium from an upgradient source.
- Chart 8: **Iron** – Was not detected during this monitoring event.
- Chart 9: **Magnesium** – Recent concentrations generally increased compared to the previous monitoring event and are slightly above normal.
- Chart 10: **Antimony** – There have been no detections to date.
- Chart 11: **Arsenic** – Detected in production wells PW-0 and PW-2 and detection monitoring well DM-3 during this event. Arsenic is normally detected in these wells and appears to be naturally occurring.
- Chart 12: **Barium** – Recent concentrations are within the normal range.
- Chart 13: **Cadmium** – There have been no detections to date.
- Chart 14: **Chromium (Total)** – Not detected during this event.
- 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). Manganese has not been analyzed since the 2nd quarter of 2018 because it is no longer part of the standard set of analytes included in the analytical method.
- Chart 18: **Nickel** – Not detected during this event.
- Chart 19: **Selenium** – Only detected in upgradient shallow well OBS-1 during this event, at a concentration within the normal range for this well.

- Chart 20: **Zinc** – Detected only in deep downgradient wells TW-2 and 23a. There are no apparent trends. In general, zinc detections began in several wells in the fourth quarter of 2017 as a result of reduced laboratory detection limits.
- Chart 21: **Mercury** – Has occurred only once at a very low concentration in well DM-1 (second quarter 2015). Mercury has never been detected in the evaporation ponds.
- Chart 22: **Total Dissolved Solids** – Concentrations generally decreased in all monitoring wells during this event.
- Chart 23: **Specific Conductance** - Concentrations remain near baseline values for this event.
- Chart 24: **pH** – Values are near baseline conditions for this reporting period. Overall, pH values have been very stable for all wells except for TW-1 and TW-2.

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. Not detected in any monitoring wells during this reporting period. 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 leaves the remaining water enriched in heavier isotopes), 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 or runoff that occurs locally).
- Both aquifers are more depleted downgradient, indicating they are further from the source of precipitation or groundwater recharge.

- 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 2023 first 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 is 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 M-K 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 are included in **Appendix C**. The analysis was run (where possible) for all analytes except pH, oil & grease, heat transfer fluid, and stable isotopes (deuterium and oxygen-18) for each well and trend direction is reported at the 95% confidence interval. The M-K analysis was not performed on analytes that were not detected during the reporting period. Additionally, analytes with insufficient data have not been statistically analyzed, but 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: An increasing trend was identified for magnesium and barium.
- TW-2: An increasing trend was identified for chloride, sodium, and barium.
- OBS-1: An increasing trend was identified for calcium, barium, and total dissolved solids.
- 23a: An increasing trend was identified for sodium and total dissolved solids.
- DM-1: An increasing trend was identified for sodium, magnesium, and barium.
- DM-2: An increasing trend was identified for chloride, sulfate, calcium, sodium, magnesium, barium, total dissolved solids, and specific conductivity.
- DM-3: An increasing trend was identified for chloride, sodium, and total dissolved solids.
- PW-0: An increasing trend was identified for sodium, arsenic, total dissolved solids, and specific conductivity.
- PW-1: There is not enough data available for this well to perform the Mann-Kendall analysis for any analytes.
- PW-2: An increasing trend was identified for arsenic, barium, and total dissolved solids.

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, and nitrate as NO₃, which has a 48-hour hold time).

No analytes were detected in the method blank sample.

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 spike recovery and/or relative percent difference (RPD) was outside acceptable limits for the MS and/or MSD, but the batch was accepted based on acceptable LCS recovery data. This may have affected the results for **calcium only**.
- The spike recovery was outside acceptable limits for the MS and/or MSD due to possible matrix interference. The LCS was within acceptable criteria and the data was accepted because the chemist determined that there should be no impact to the final results. This may have affected the results for many analytes including **calcium, chloride, iron, magnesium, potassium, sodium, and sulfate as SO₄**.
- A blank sample was outside of the acceptable range, but the data was accepted based on a duplicate blank sample passing, both samples having an acceptable RPD, and other acceptable QC criteria. This may have affected the results for **oil & grease only**.

Duplicate sample control: For this event, a duplicate sample (named DUP) was collected from sample point PW-2. The sample was submitted to the laboratory without date or time qualifiers. For this event, all sample results for PW-2 and DUP agreed within 10% except for the following:

- Arsenic by EPA Method 200.8, which was reported at concentrations of 28 and 32 µg/L, respectively (13% difference).

5.0 ANNUAL SUMMARY

The 2023 annual summary will be included in the 2023 Second Semiannual and Annual Groundwater Quality Monitoring Report, which will be produced by Northstar by January 15, 2024.

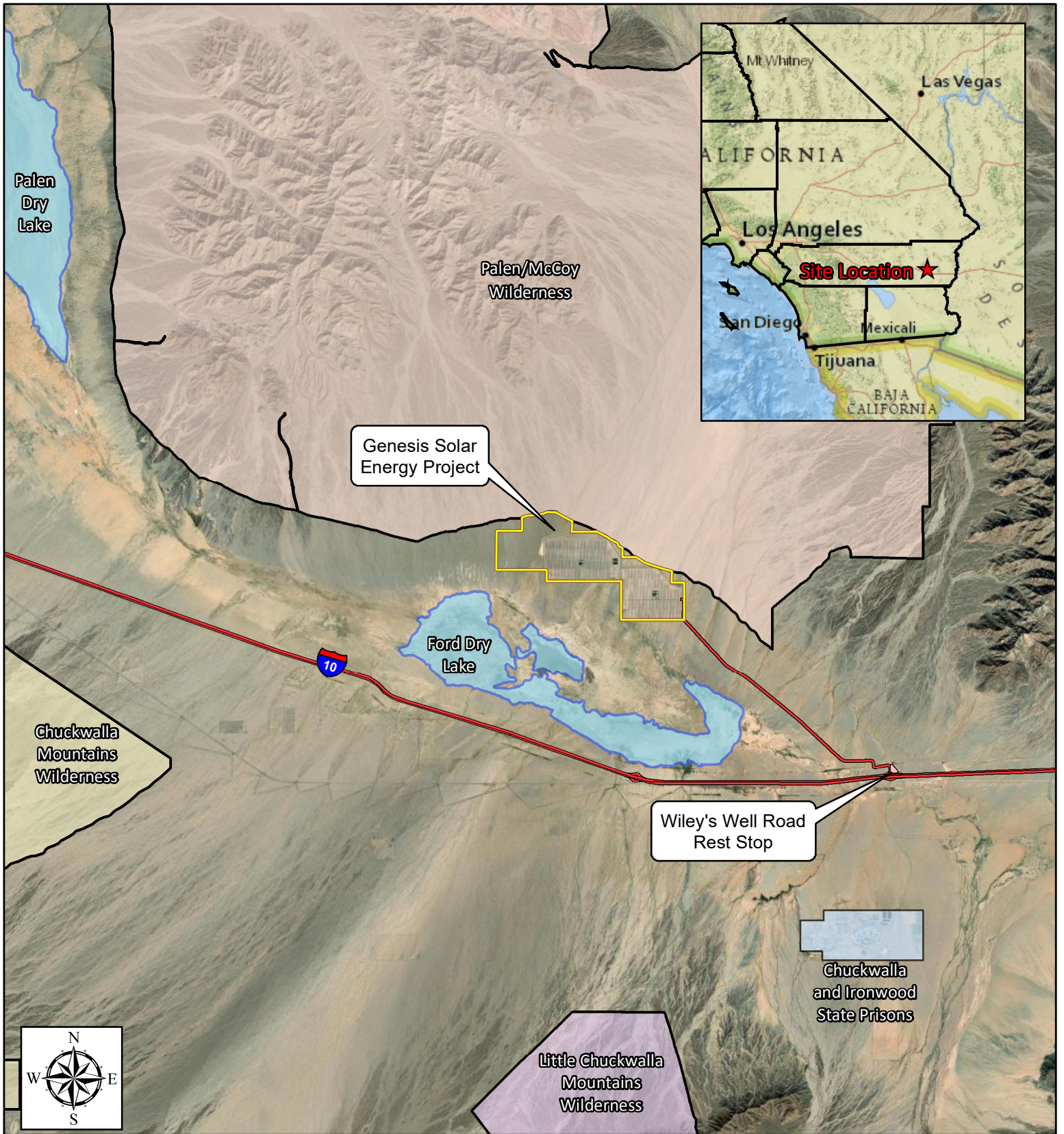
6.0 CONCLUSIONS

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. In general, all available groundwater quality data is stable and consistent with historical data. Additionally, a general increase in the concentrations of calcium and magnesium may be related to extensive precipitation that occurred during the first quarter of 2023.

7.0 REFERENCES

- Bureau of Land Management, 2010. *Final Environmental Impact Statement, Genesis Solar Energy Project*. August 27, 2010.
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FIGURES



Legend

-  GSEP Property Boundary
-  Chuckwalla and Ironwood State Prisons
-  Chuckwalla Mountains Wilderness Area
-  Little Chuckwalla Mountains Wilderness Area
-  Palen/McCoy Wilderness Area
-  Dry Lakes
-  Roads

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

FIGURE 1
Site Vicinity Map

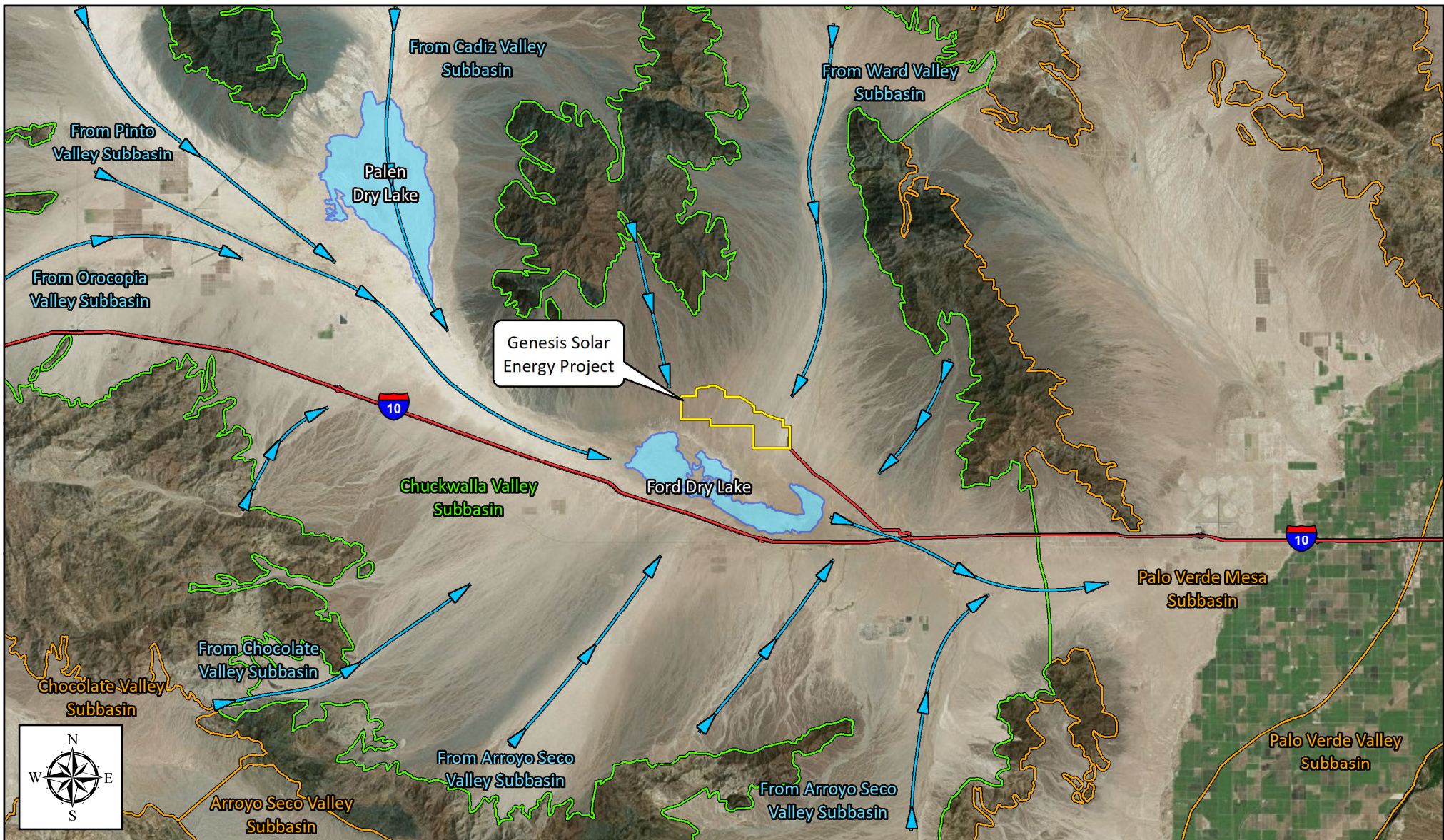


Scale: 1:200,000

Draw Date: 07/06/22

Drawn By: AWB

Checked By: AWB



Legend

- GSEP Property Boundary
- Chuckwalla Valley Groundwater Subbasin
- Adjacent Groundwater Subbasins
- Dry Lakes
- Water Flow Direction

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

FIGURE 2
Hydrogeologic Setting

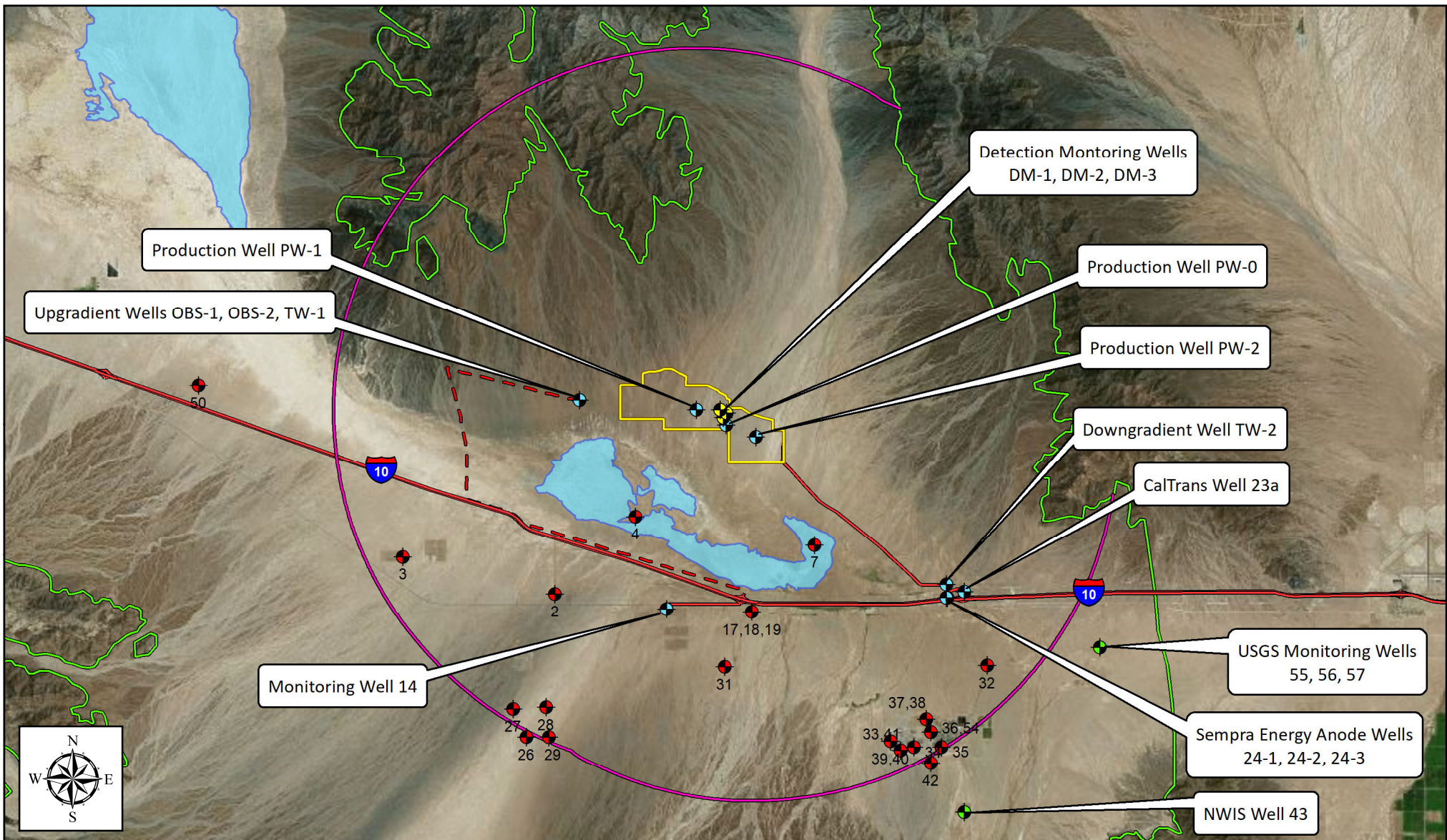


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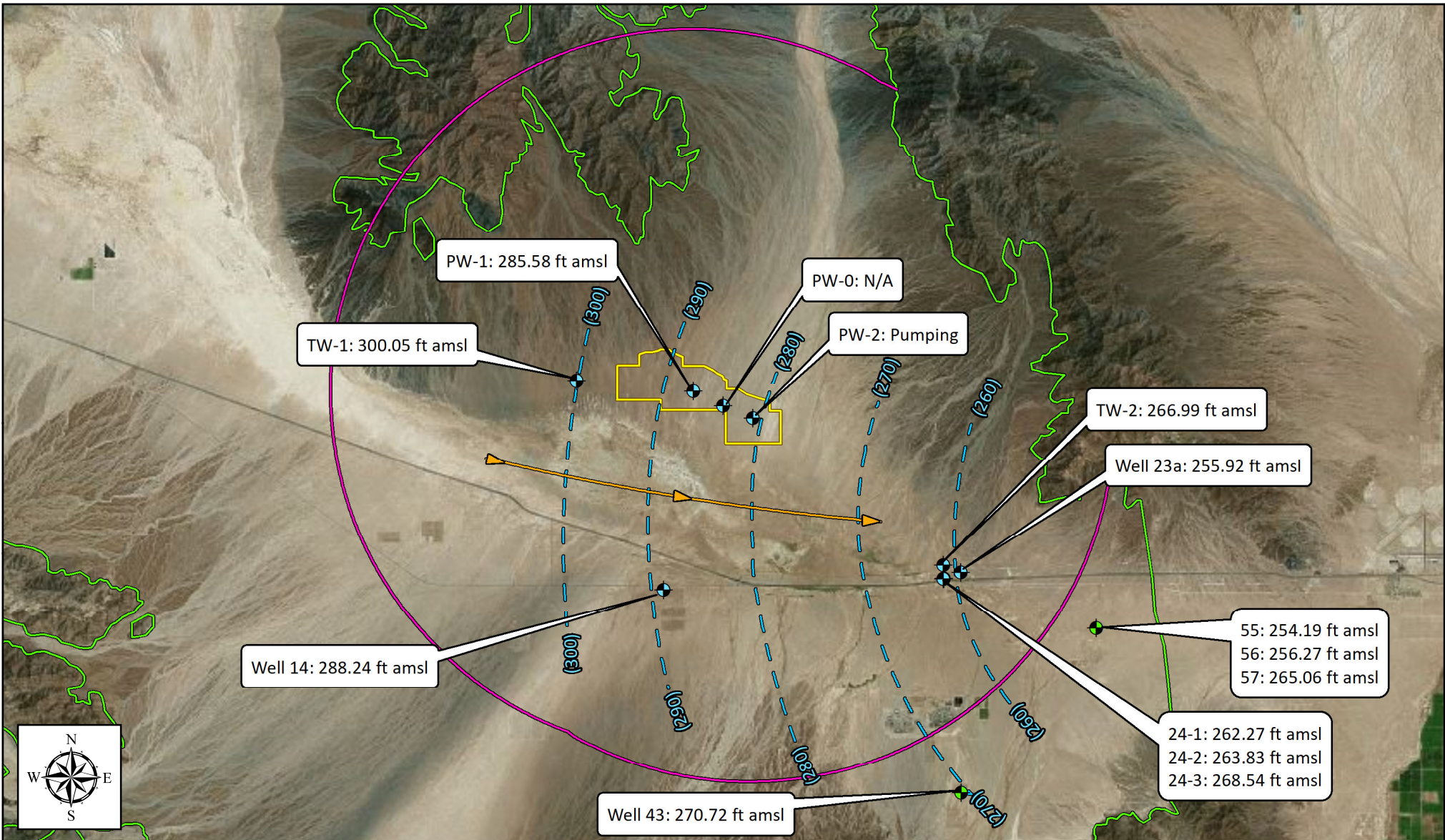


- Legend**
- GSEP Property Boundary
 - Chuckwalla Valley Groundwater Subbasin
 - 10 Mile Boundary
 - Dry Lakes
 - Paved Access Road
 - Unpaved Well Access Road
 - Active Monitoring Wells
 - Detection Monitoring Wells
 - Active NWIS Wells
 - Inactive NWIS Wells








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

FIGURE 3
Monitoring Area Showing all
Groundwater Monitoring Wells

	Scale: 1:240,000	Draw Date: 07/06/22
	Drawn By: AWB	Checked By: AWB



Legend

-  GSEP Property Boundary
-  Chuckwalla Valley Groundwater Subbasin
-  10 Mile Boundary
-  Groundwater Elevation Contour
-  Groundwater Gradient Direction
-  Active Monitoring Wells
-  Active NWIS Wells

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

FIGURE 4
Bouse Formation Groundwater Elevation
Contour Map - June 2023



Scale: 1:240,000

Draw Date: 5 Jul 2023

Drawn By: AWB

Checked By: AWB

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	100-150	Alluvium
OBS-2-270 ^{1,2}	--	Nested Observation Well 2	Genesis Solar, LLC	7/2/2009	Buried Transducer / Inactive	--	385.617	388.14	270	265-275	Bouse Formation
OBS-2-315 ^{1,2}	--	Nested Observation Well 2	Genesis Solar, LLC	7/2/2009	Buried Transducer / Inactive	--	385.617	388.14	315	304-327	Bouse Formation
OBS-2-370 ^{1,2}	--	Nested Observation Well 2	Genesis Solar, LLC	7/2/2009	Buried Transducer / Inactive	--	385.617	388.14	370	359-374	Bouse Formation
OBS-2-400 ^{1,2}	--	Nested Observation Well 2	Genesis Solar, LLC	7/2/2009	Buried Transducer / Inactive	--	385.617	388.14	400	387-418	Bouse Formation
TW-1 ¹	--	Test Well 1	Genesis Solar, LLC	5/22/2009	Monitoring / Active	5	385.91	387.4	565	340-564	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	100-120	Alluvium
DM-2	--	Detection Monitoring Well 2	Genesis Solar, LLC	2/21/2012	Monitoring / Active	4	--	391.32	120	100-120	Alluvium
DM-3	--	Detection Monitoring Well 3	Genesis Solar, LLC	2/20/2012	Monitoring / Active	4	--	388.34	120	100-120	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)	890-940	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	235-435	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	235-435	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	250-290, 770-810	Alluvium/Bouse Formation
3	6S/18E-29	Siddall Well	Agra Energy Corp.	2/26/1982	Irrigation	20 to 8	498	--	957	560-940	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)	410-630, 750-770, 810-870	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)	420-460, 500-520, 540-580, 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	690-1190	Bouse Formation/ Fanglomerate
34	7S/20E-17L1	WP-4	CA Department of Corrections	9/8/1992	Public Water Supply	24	458.3	--	1,200	690-1190	Bouse Formation/ Fanglomerate
35	7S/20E-17K1	--	CA Department of Corrections	12/20/1989	--	30 to 16	456.48	--	1,200	690-1190	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	690-1190	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	750-1,050	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	690-1,200	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	738-1,100	Bouse Formation/ Fanglomerate
43	7S/20E-28C1	7S/20E-28F1/80	Jojoba Inc.	3/15/1982	Irrigation	10 to 8	505.6	--	830	510-600, 680-780	Bouse Formation
44	7S/20E-28C2	--	Jojoba Southwest	11/30/1989	Irrigation	16 to 12	505.3	--	1,100	700-1,100	Bouse Formation/ Fanglomerate
47	8S/20E-10N2	60	--	1984	--	4	621	--	872	500-580, 620-640, 710-850	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	973-993	Bouse Formation

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
56	75/20E-1M2	CWV1#2	USGS	1/23/2012	Exploratory	2	415.4	--	505	485-505	Pinto Formation
57	75/20E-1M3	CWV1#3	USGS	1/23/2012	Exploratory	2	415.4	--	230	210-230	Alluvium
ADDITIONAL WELLS IN THE CHUCKWALLA VALLEY GROUNDWATER BASIN WITHIN 10 MILES OF THE SITE FOR WHICH MONITORING DATA ARE NOT AVAILABLE											
1	55/20E-16M1	McCoy Spring and DWR-17	--	--	Unused	--	889	--	--	--	--
5	65/19E-25P1	--	--	--	Unknown / Destroyed	10	360	--	85.7	--	Alluvium
6	65/19E-25R1	--	--	--	Unknown / Destroyed	10	360	--	61.9	--	Alluvium
7	65/19E-25	Boreholes 1A, 1B, 1C	USGS	1978	Exploratory Borehole / Abandoned	--	358	--	--	--	--
8	65/19E-26Z1	--	--	--	Unknown / Destroyed	--	--	--	--	--	--
10	65/19E-29E1	--	--	--	Destroyed/ Collapsed	6	377	--	Obstructed at 19.7	--	--
11	65/19E-30H1	--	--	--	Destroyed	6	370	--	28.7	--	Alluvium
12	65/19E-31Z1	--	--	--	Destroyed	--	--	--	--	--	--
13	65/19E-32	--	Jacado Agri Corp.	6/27/1982	Destroyed	22 to 18 to 12	392	--	732	307-327, 365-732	Bouse Formation
17	65/19E-33A1	Hopkins Well and DWR-33X1	--	1911	Destroyed	12 to 8	361	--	1,200 (obstructed at 267 feet)	1,175-1,200	Fanglomerate
18	65/19E-34	--	So Cal Gas	4/29/1989	Anode	1	368	--	400	200-400	Alluvium/Bouse Formation
19	65/19E-34	--	So Cal Gas	7/15/1981	Other	--	369	--	274	0-274	Alluvium/Bouse Formation
20	65/19E-36A1	--	--	--	Destroyed	10	365	--	64.8	--	Alluvium
21	65/20E-30Z1	Ford Well	--	--	Stock / Destroyed	10	--	--	--	--	--
25	65/20E-33	--	So Cal Gas	7/20/1981	Monitoring / Presumed Destroyed	1	397	--	278	0-278	Alluvium/Bouse Formation
30	75/18E-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	795-815, 995-1,015	Bouse Formation/ Fanglomerate
45	75/20E-28	--	Chuckwalla Jojoba inc Great American Securities	6/6/1989	Test Hole/Abandoned	--	505	--	825	--	--
46	75/20E-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-1	6/5/2020	Northstar	387.40	86.78	300.62	-0.13	Monitoring
TW-1	12/3/2020	Northstar	387.40	87.05	300.35	-0.40	Monitoring
TW-1	6/4/2021	Northstar	387.40	87.10	300.30	-0.45	Monitoring
TW-1	12/3/2021	Northstar	387.40	87.72	299.68	-1.07	Monitoring
TW-1	6/2/2022	Northstar	387.40	87.40	300.00	-0.75	Monitoring
TW-1	12/1/2022	Northstar	387.40	87.28	300.12	-0.63	Monitoring
TW-1	6/8/2023	Northstar	387.40	87.35	300.05	-0.70	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
TW-2	6/5/2020	Northstar	393.47	126.60	266.87	0.49	Monitoring
TW-2	12/3/2020	Northstar	393.47	126.98	266.49	0.11	Monitoring
TW-2	6/4/2021	Northstar	393.47	126.60	266.87	0.49	Monitoring
TW-2	12/2/2021	Northstar	393.47	127.01	266.46	0.08	Monitoring
TW-2	6/2/2022	Northstar	393.47	126.75	266.72	0.34	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
TW-2	12/1/2022	Northstar	393.47	126.88	266.59	0.21	Monitoring
TW-2	6/8/2023	Northstar	393.47	126.48	266.99	0.61	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
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-1	6/5/2020	Northstar	388.30	78.10	310.20	-0.43	Monitoring
OBS-1	12/3/2020	Northstar	388.30	78.25	310.05	-0.58	Monitoring
OBS-1	6/4/2021	Northstar	388.30	78.15	310.15	-0.48	Monitoring
OBS-1	12/3/2021	Northstar	388.30	78.22	310.08	-0.55	Monitoring
OBS-1	6/2/2022	Northstar	388.30	78.15	310.15	-0.48	Monitoring
OBS-1	12/1/2022	Northstar	388.30	78.15	310.15	-0.48	Monitoring
OBS-1	6/8/2023	Northstar	388.30	78.15	310.15	-0.48	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

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-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
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
14	6/4/2020	Northstar	388.14	100.60	287.54	0.38	Monitoring
14	12/3/2020	Northstar	388.14	100.47	287.67	0.51	Monitoring
14	6/3/2021	Northstar	388.14	100.15	287.99	0.83	Monitoring
14	12/3/2021	Northstar	388.14	100.20	287.94	0.78	Monitoring
14	6/2/2022	Northstar	388.14	100.03	288.11	0.95	Monitoring
14	12/1/2022	Northstar	388.14	99.95	288.19	1.03	Monitoring
14	6/8/2023	Northstar	388.14	99.90	288.24	1.08	Monitoring
23a	11/11/2010	WorleyParsons	392.10	138.05	254.05	0.00	Baseline

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
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
23a	6/5/2020	Northstar	392.10	136.40	255.70	1.65	Monitoring
23a	12/3/2020	Northstar	392.10	136.80	255.30	1.25	Monitoring
23a	6/4/2021	Northstar	392.10	136.35	255.75	1.70	Monitoring
23a	12/3/2021	Northstar	392.10	136.68	255.42	1.37	Monitoring
23a	6/2/2022	Northstar	392.10	NM ⁷		N/A	Monitoring
23a	12/1/2022	Northstar	392.10	136.58	255.52	1.47	Monitoring
23a	6/8/2023	Northstar	392.10	136.18	255.92	1.87	Monitoring
24-1	2/8/2011	WorleyParsons	389.40	123.66	265.74	N/A	Monitoring
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
24-1	6/4/2020	Northstar	389.40	126.90	262.50	-0.19	Monitoring
24-1	12/3/2020	Northstar	389.40	127.30	262.10	-0.59	Monitoring
24-1	6/3/2021	Northstar	389.40	126.98	262.42	-0.27	Monitoring
24-1	12/3/2021	Northstar	389.40	127.31	262.09	-0.60	Monitoring
24-1	6/2/2022	Northstar	389.40	127.11	262.29	-0.40	Monitoring
24-1	12/1/2022	Northstar	389.40	126.98	262.42	-0.27	Monitoring
24-1	6/8/2023	Northstar	389.40	127.13	262.27	-0.42	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

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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
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
24-2	6/4/2020	Northstar	388.86	124.89	263.97	0.02	Monitoring
24-2	12/3/2020	Northstar	388.86	125.30	263.56	-0.39	Monitoring
24-2	6/3/2021	Northstar	388.86	124.97	263.89	-0.06	Monitoring
24-2	12/3/2021	Northstar	388.86	125.25	263.61	-0.34	Monitoring
24-2	6/2/2022	Northstar	388.86	125.02	263.84	-0.11	Monitoring
24-2	12/1/2022	Northstar	388.86	124.90	263.96	0.01	Monitoring
24-2	6/8/2023	Northstar	388.86	125.03	263.83	-0.12	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
24-3	6/4/2020	Northstar	392.04	123.43	268.61	1.05	Monitoring
24-3	12/3/2020	Northstar	392.04	123.81	268.23	0.67	Monitoring
24-3	6/3/2021	Northstar	392.04	123.50	268.54	0.98	Monitoring
24-3	12/3/2021	Northstar	392.04	123.72	268.32	0.76	Monitoring
24-3	6/2/2022	Northstar	392.04	123.50	268.54	0.98	Monitoring
24-3	12/1/2022	Northstar	392.04	123.35	268.69	1.13	Monitoring
24-3	6/8/2023	Northstar	392.04	123.50	268.54	0.98	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
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 ³		N/A	Production/Monitoring
PW-0	6/13/2019	Northstar	385.64	NM ³		N/A	Production/Monitoring

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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
PW-0	12/5/2019	Northstar	385.64	NM ⁹		N/A	Production/Monitoring
PW-0	6/4/2020	Northstar	385.64	NM ⁹		N/A	Production/Monitoring
PW-0	12/3/2020	Northstar	385.64	NM ⁹		N/A	Production/Monitoring
PW-0	6/4/2021	Northstar	385.64	NM ⁹		N/A	Production/Monitoring
PW-0	12/2/2021	Northstar	385.64	NM ⁹		N/A	Production/Monitoring
PW-0	6/2/2022	Northstar	385.64	NM ⁹		N/A	Production/Monitoring
PW-0	12/1/2022	Northstar	385.64	NM ⁹		N/A	Production/Monitoring
PW-0	6/8/2023	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-1	6/4/2020	Northstar	384.43	98.25	286.18	N/A	Production/Monitoring
PW-1	12/3/2020	Northstar	384.43	NM ⁵		N/A	Production/Monitoring
PW-1	6/4/2021	Northstar	384.43	NM ⁵		N/A	Production/Monitoring
PW-1	12/2/2021	Northstar	384.43	NM ⁵		N/A	Production/Monitoring
PW-1	6/2/2022	Northstar	384.43	98.85	285.58	N/A	Production/Monitoring
PW-1	12/1/2022	Northstar	384.43	98.70	285.73	N/A	Production/Monitoring
PW-1	6/8/2023	Northstar	384.43	98.85	285.58	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
PW-2	6/4/2020	Northstar	385.15	NM ⁹		N/A	Production/Monitoring
PW-2	12/3/2020	Northstar	385.15	NM ⁹		N/A	Production/Monitoring
PW-2	6/4/2021	Northstar	385.15	NM ⁹		N/A	Production/Monitoring
PW-2	12/2/2021	Northstar	385.15	NM ⁹		N/A	Production/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
PW-2	6/2/2022	Northstar	385.15	Pumping		N/A	Production/Monitoring
PW-2	12/1/2022	Northstar	385.15	Pumping		N/A	Production/Monitoring
PW-2	6/8/2023	Northstar	385.15	Pumping		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
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-1	6/4/2020	Northstar	391.49	107.10	284.39	0.01	Monitoring
DM-1	12/3/2020	Northstar	391.49	107.70	283.79	-0.59	Monitoring
DM-1	6/3/2021	Northstar	391.49	107.06	284.43	0.05	Monitoring
DM-1	12/2/2021	Northstar	391.49	107.35	284.14	-0.24	Monitoring
DM-1	6/2/2022	Northstar	391.49	107.25	284.24	-0.14	Monitoring
DM-1	12/1/2022	Northstar	391.49	107.40	284.09	-0.29	Monitoring
DM-1	6/8/2023	Northstar	391.49	107.49	284.00	-0.38	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-2	6/4/2020	Northstar	391.32	107.45	283.87	-0.08	Monitoring
DM-2	12/3/2020	Northstar	391.32	108.03	283.29	-0.66	Monitoring
DM-2	6/3/2021	Northstar	391.32	107.64	283.68	-0.27	Monitoring
DM-2	12/2/2021	Northstar	391.32	107.71	283.61	-0.34	Monitoring
DM-2	6/2/2022	Northstar	391.32	107.65	283.67	-0.28	Monitoring
DM-2	12/1/2022	Northstar	391.32	107.72	283.60	-0.35	Monitoring
DM-2	6/8/2023	Northstar	391.32	107.82	283.50	-0.45	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

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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
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
DM-3	6/5/2020	Northstar	388.34	104.32	284.02	0.03	Monitoring
DM-3	12/3/2020	Northstar	388.34	104.80	283.54	-0.45	Monitoring
DM-3	6/3/2021	Northstar	388.34	104.29	284.05	0.06	Monitoring
DM-3	12/2/2021	Northstar	388.34	104.50	283.84	-0.15	Monitoring
DM-3	6/2/2022	Northstar	388.34	104.50	283.84	-0.15	Monitoring
DM-3	12/1/2022	Northstar	388.34	104.50	283.84	-0.15	Monitoring
DM-3	6/8/2023	Northstar	388.34	104.68	283.66	-0.33	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
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

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
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
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

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	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
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
43	3/19/2020	USGS-NWIS	505.6	234.87	270.73	N/A	Irrigation
43	5/27/2020	USGS-NWIS	505.6	234.94	270.66	N/A	Irrigation
43	8/26/2020	USGS-NWIS	505.6	234.92	270.68	N/A	Irrigation
43	10/19/2020	USGS-NWIS	505.6	235.17	270.43	N/A	Irrigation
43	3/31/2021	USGS-NWIS	505.6	234.88	270.72	N/A	Irrigation
43	6/2/2021	USGS-NWIS	505.6	234.85	270.75	N/A	Irrigation
43	9/1/2021	USGS-NWIS	505.6	235.00	270.60	N/A	Irrigation
43	12/27/2021	USGS-NWIS	505.6	235.02	270.58	N/A	Irrigation
43	3/24/2022	USGS-NWIS	505.6	235.28	270.32	N/A	Irrigation
43	6/21/2022	USGS-NWIS	505.6	235.16	270.44	N/A	Irrigation
43	12/15/2022	USGS-NWIS	505.6	235.05	270.55	N/A	Irrigation
43	2/27/2023	USGS-NWIS	505.6	234.72	270.88	N/A	Irrigation
43	5/23/2023	USGS-NWIS	505.6	234.88	270.72	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

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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
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
55	12/5/2017	USGS-NWIS	415.4	161.47	253.93	N/A	Exploratory
55	3/14/2018	USGS-NWIS	415.4	161.24	254.16	N/A	Exploratory
55	5/29/2018	USGS-NWIS	415.4	161.51	253.89	N/A	Exploratory
55	9/4/2018	USGS-NWIS	415.4	162.08	253.32	N/A	Exploratory
55	11/14/2018	USGS-NWIS	415.4	162.04	253.36	N/A	Exploratory
55	3/18/2019	USGS-NWIS	415.4	161.82	253.58	N/A	Exploratory
55	6/12/2019	USGS-NWIS	415.4	162.24	253.16	N/A	Exploratory
55	8/21/2019	USGS-NWIS	415.4	162.06	253.34	N/A	Exploratory
55	11/7/2019	USGS-NWIS	415.4	161.70	253.70	N/A	Exploratory
55	3/19/2020	USGS-NWIS	415.4	161.31	254.09	N/A	Exploratory
55	5/27/2020	USGS-NWIS	415.4	161.54	253.86	N/A	Exploratory
55	8/27/2020	USGS-NWIS	415.4	161.63	253.77	N/A	Exploratory
55	10/20/2020	USGS-NWIS	415.4	161.85	253.55	N/A	Exploratory
55	3/31/2021	USGS-NWIS	415.4	161.15	254.25	N/A	Exploratory
55	6/2/2021	USGS-NWIS	415.4	161.38	254.02	N/A	Exploratory
55	9/1/2021	USGS-NWIS	415.4	161.60	253.80	N/A	Exploratory
55	12/27/2021	USGS-NWIS	415.4	161.41	253.99	N/A	Exploratory
55	3/24/2022	USGS-NWIS	415.4	161.63	253.77	N/A	Exploratory
55	6/21/2022	USGS-NWIS	415.4	161.62	253.78	N/A	Exploratory
55	12/15/2022	USGS-NWIS	415.4	161.19	254.21	N/A	Exploratory
55	2/28/2023	USGS-NWIS	415.4	160.93	254.47	N/A	Exploratory
55	5/23/2023	USGS-NWIS	415.4	161.21	254.19	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
56	12/5/2017	USGS-NWIS	415.4	159.55	255.85	N/A	Exploratory
56	3/14/2018	USGS-NWIS	415.4	159.29	256.11	N/A	Exploratory
56	5/29/2018	USGS-NWIS	415.4	159.30	256.10	N/A	Exploratory
56	9/4/2018	USGS-NWIS	415.4	159.40	256.00	N/A	Exploratory
56	11/14/2018	USGS-NWIS	415.4	159.75	255.65	N/A	Exploratory
56	3/18/2019	USGS-NWIS	415.4	159.38	256.02	N/A	Exploratory
56	6/12/2019	USGS-NWIS	415.4	159.53	255.87	N/A	Exploratory
56	8/21/2019	USGS-NWIS	415.4	159.40	256.00	N/A	Exploratory
56	11/7/2019	USGS-NWIS	415.4	159.44	255.96	N/A	Exploratory
56	3/19/2020	USGS-NWIS	415.4	159.32	256.08	N/A	Exploratory
56	5/27/2020	USGS-NWIS	415.4	159.34	256.06	N/A	Exploratory
56	8/27/2020	USGS-NWIS	415.4	159.23	256.17	N/A	Exploratory
56	10/20/2020	USGS-NWIS	415.4	159.36	256.04	N/A	Exploratory
56	3/31/2021	USGS-NWIS	415.4	159.39	256.01	N/A	Exploratory
56	6/2/2021	USGS-NWIS	415.4	159.27	256.13	N/A	Exploratory
56	9/1/2021	USGS-NWIS	415.4	159.20	256.20	N/A	Exploratory
56	12/27/2021	USGS-NWIS	415.4	159.21	256.19	N/A	Exploratory
56	3/24/2022	USGS-NWIS	415.4	159.37	256.03	N/A	Exploratory
56	6/21/2022	USGS-NWIS	415.4	159.38	256.02	N/A	Exploratory
56	12/15/2022	USGS-NWIS	415.4	159.30	256.10	N/A	Exploratory
56	2/28/2023	USGS-NWIS	415.4	159.20	256.20	N/A	Exploratory
56	5/23/2023	USGS-NWIS	415.4	159.13	256.27	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

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
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
57	12/5/2017	USGS-NWIS	415.4	152.66	262.74	N/A	Exploratory
57	3/14/2018	USGS-NWIS	415.4	152.49	262.91	N/A	Exploratory
57	5/29/2018	USGS-NWIS	415.4	152.35	263.05	N/A	Exploratory
57	9/4/2018	USGS-NWIS	415.4	152.37	263.03	N/A	Exploratory
57	11/14/2018	USGS-NWIS	415.4	152.24	263.16	N/A	Exploratory
57	3/18/2019	USGS-NWIS	415.4	152.09	263.31	N/A	Exploratory
57	6/12/2019	USGS-NWIS	415.4	152.00	263.40	N/A	Exploratory
57	8/21/2019	USGS-NWIS	415.4	151.95	263.45	N/A	Exploratory
57	11/7/2019	USGS-NWIS	415.4	151.83	263.57	N/A	Exploratory
57	3/19/2020	USGS-NWIS	415.4	151.85	263.55	N/A	Exploratory
57	5/27/2020	USGS-NWIS	415.4	151.60	263.80	N/A	Exploratory
57	8/27/2020	USGS-NWIS	415.4	151.49	263.91	N/A	Exploratory
57	10/20/2020	USGS-NWIS	415.4	151.44	263.96	N/A	Exploratory
57	3/31/2021	USGS-NWIS	415.4	151.37	264.03	N/A	Exploratory
57	6/2/2021	USGS-NWIS	415.4	151.17	264.23	N/A	Exploratory
57	9/1/2021	USGS-NWIS	415.4	151.10	264.30	N/A	Exploratory
57	12/27/2021	USGS-NWIS	415.4	150.94	264.46	N/A	Exploratory
57	3/24/2022	USGS-NWIS	415.4	150.87	264.53	N/A	Exploratory
57	6/21/2022	USGS-NWIS	415.4	150.78	264.62	N/A	Exploratory
57	12/15/2022	USGS-NWIS	415.4	150.55	264.85	N/A	Exploratory
57	2/28/2023	USGS-NWIS	415.4	150.45	264.95	N/A	Exploratory
57	5/23/2023	USGS-NWIS	415.4	150.34	265.06	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
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)	Temperature (°C)	pH	Conductivity (mS/cm)	Turbidity (NTU)	ORP (mV)	D.O. (mg/L)
23a	6/8/2023	N/A	Bailer	5750	33.1	8.67	3.57	--	+105	6.35
OBS-1	6/8/2023	N/A	Bailer	5,750	30.8	8.37	25.76	--	+139	7.67
TW-1	6/8/2023	N/A	Bailer	5,750	31.7	9.62	16.90	--	+180	5.22
TW-2	6/8/2023	N/A	Bailer	5,750	33.5	9.52	6.52	--	+101	6.04
PW-0	6/8/2023	N/A	Production Pump	N/A ²	34.0	8.51	7.26	--	+113	6.92
PW-1	6/8/2023	N/A	N/A	N/A ¹	--	--	--	--	--	--
PW-2	6/8/2023	N/A	Production Pump	N/A ²	47.7	8.19	5.15	--	+63.3	8.04
DM-1	6/8/2023	180	Bladder Pump	3,600	31.6	7.80	18.90	--	+119	6.01
DM-2	6/8/2023	138	Bladder Pump	2,760	29.7	7.76	18.70	--	+120	2.58
DM-3	6/8/2023	143	Bladder Pump	2,860	31.9	7.80	18.60	--	+90	4.01

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	Sulfate	Nitrate	Calcium	Copper	Sodium	Potassium	Iron	Magnesium	Antimony	Arsenic	Barium	Cadmium	Chromium	Cobalt	Lead	Manganese	Nickel	Selenium	Zinc	Mercury	Total Dissolved Solids	Specific Conductance	pH	Oil & Grease / HEM	HTF [†]	Deuterium	Oxygen-18	
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(mg/L)	(us/cm)	(standard Units)	(mg/L)	(% relative to VSMOW)	(% relative to VSMOW)	
			EPA Method 300.0				EPA Method 200.7					EPA Method 200.8											SM7470A	SM2540C	SM2510B	SM4500H	SM1664A	8015B	Isotope Geochemistry		
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 [†]	17	<5.0	<10	<5.0	<5.0	9.6	2.9 [†]	<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 [†]	11	<10	3.8 [†]	17	<5.0	<10	<5.0	<5.0	8.6	4.4 [†]	<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 [†]	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 [†]	4.2 [†]	22	<5.0	<10	<5.0	<5.0	5.2	3.4 [†]	2.8 [†]	<100	<0.20	9,400	16,000	9.9	1.7 [†]	<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	6.0	16	<1.0	<2.0	<1.0	<1.0	310	<2.0	1.0 [†]	11 [†]	<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 [†]	13	<5.0	<10	<5.0	<5.0	8.4	<10	9.0 [†]	<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 [†]	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 [†]	6.4	<1.0	13	14	<1.0	<1.0	<1.0	2.5	-	<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 [†]	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 [†]	<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 [†]	6.0	<5.0	<5.0	12	<5.0	0.30 [†]	<5.0	<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-1	6/5/2020	Bailer	4,190	1,370	<0.500	75	0.006	3,100	34	<0.20	8.8	<5.0	<5.0	17	<5.0	<5.0	<5.0	<5.0	-	<5.0	5.8	12	<0.50	8,900	14,500	9.8	<5.0	<0.10	-63.50	-7.96	
TW-1	12/3/2020	Bailer	4,750	1,710	0.657	89	<0.005	9,300	30	3.1	12	<5.0	<5.0	20	<5.0	<5.0	<5.0	<5.0	-	<5.0	<0.50	<0.50	<0.50	6,400	15,000	9.3	<5.0	<0.11	-63.80	-7.96	
TW-1	6/4/2021	Bailer	4,500	1,570	<0.500	58	<0.50	3,400	59	<20	<10	<10	<10	<10	<10	<10	<10	<10	-	<10	12	<10	<0.50	6,600	14,900	11	<5.0	<0.094	-62.40	-7.73	
TW-1	12/3/2021	Bailer	4,470	1,520	0.974	100	<0.50	3,900	<50	<20	18	<10	<10	13	<10	<10	<10	<10	-	<10	14	20	<1.0	9,100	15,300	9.4	<5.0	<0.097	-63.20	-7.76	
TW-1	6/2/2022	Bailer	5,010	1,720	0.72	99	<0.25	3,900	<250	<100	<50	<50	<50	<50	<50	<50	<50	<50	-	<50	52	<50	<1.0	6,900	15,500	10.0	<5.0	<0.094	-63.60	-7.75	
TW-1	12/1/2022	Bailer	4,930	1,650	0.950	65	<0.005	4,300	55	0.89	14	<25	<25	<25	<25	<25	<25	<25	-	<25	<25	<25	<1.0	9,000	15,900	9.4	<5.0	<0.097	-62.10	-7.63	
TW-1	6/8/2023	Bailer	4,530	1,700	<0.500	120	<0.50	3,700	<50	<20	32	<10	<10	11	<10	<10	<10	<10	-	<10	<10	<10	<1.0	8,200	15,800	9.3	<5.0	<0.098	-63.20	-7.85	
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	-	-	-	-	-	-	-	5	-	-	-	-	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	-	-	-	-	-	-	-	93	-	-	-	-	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 [†]	0.093	<2.0	2.9	30	<1.0	<2.0	<1.0	<1.0	4.1	0.91 [†]	<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 [†]	0.11	<2.0	4.4	36	<1.0	<2.0	<1.0	<1.0	3.4	1.8 [†]	<2.0	2.9 [†]	<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 [†]	<2.0	<20	<0.20	3,200	5,900	9.9	1.6 [†]	<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 [†]	0.13	<10	6.9	41	<5.0	<10	<5.0	<5.0	7.8	<10	4.0 [†]	<100	<0.20	3,900	5,900	9.8	<5.0	<0.095	-75.60	-10.15	
TW-2	6/2/2016	Hydrasleeve	1																												

**TABLE 4
SUMMARY OF LABORATORY ANALYTICAL RESULTS**

Genesis Solar Energy Project

Well ID	Date Sampled	Sampling Method	Chloride	Sulfate	Nitrate	Calcium	Copper	Sodium	Potassium	Iron	Magnesium	Antimony	Arsenic	Barium	Cadmium	Chromium (Total)	Cobalt	Lead	Manganese	Nickel	Selenium	Zinc	Mercury	Total Dissolved Solids	Specific Conductance	pH	Oil & Grease / HEM	HTF [†]	Deuterium	Oxygen-18	
			(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(mg/L)	(us/cm)	(standard Units)	(mg/L)	(% relative to VSMOW)	(% relative to VSMOW)	
			EPA Method 300.0				EPA Method 200.7					EPA Method 200.8												SM7470A	SM2540C	SM2510B	SM4500H	SM1664A	8015B	Isotope Geochemistry	
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	
PW-2	6/4/2020	Spigot	864	<500	<0.500	49	<0.005	710	6.4	<0.20	4.1	<5.0	34	41	<5.0	<5.0	<5.0	<5.0	-	<5.0	<5.0	11	<0.50	2,100	3,610	8.1	<5.00	<0.10	-78.00	-10.22	
PW-2	6/4/2020 ¹	Spigot	876	<500	<0.500	48	0.006	700	6.3	<0.20	4.0	<5.0	34	44	<5.0	<5.0	<5.0	<5.0	-	<5.0	6.7	64	<0.50	2,000	3,610	7.9	<5.00	<0.097	-78.60	-10.27	
PW-2	12/3/2020	Spigot	1,010	436	<0.500	47	<0.005	1,200	6.4	<0.20	3.8	<5.0	<5.0	52	<5.0	<5.0	<5.0	<5.0	-	<5.0	<0.50	<0.50	<0.50	1,900	3,700	8.3	<5.00	<0.097	-78.30	-10.30	
PW-2	12/3/2020 ¹	Spigot	920	431	<0.500	46	<0.005	2,000	6.3	<0.20	3.9	<5.0	<5.0	53	<5.0	<5.0	<5.0	<5.0	-	<5.0	<0.50	0.66	<0.50	1,900	3,700	8.3	<5.00	<0.11	-78.80	-10.31	
PW-2	6/4/2021	Spigot	893	452	<0.500	42	<0.50	730	<50	<20	<10	<10	32	43	<10	<10	<10	<10	-	<10	19	<10	<0.50	2,100	3,630	8.1	<5.00	<0.094	-77.70	-10.24	
PW-2	6/4/2021 ¹	Spigot	901	457	<0.500	42	<0.50	720	<50	<20	<10	<10	38	47	<10	<10	<10	<10	-	<10	15	<10	<0.50	1,900	3,620	8.1	<5.00	<0.094	-77.60	-10.22	
PW-2	12/2/2021	Spigot	886	444	<0.500	52	<0.50	800	<50	<20	<10	<0.50	36	47	<0.50	<0.50	<0.50	<0.50	-	0.70	0.75	2.1	<1.0	1,300	3,630	8.2	<5.00	<0.100	-77.60	-10.22	
PW-2	12/2/2021 ¹	Spigot	891	448	<0.500	51	<0.50	800	<50	<20	<10	<0.50	38	46	<0.50	<0.50	<0.50	<0.50	-	0.64	0.78	1.2	<1.0	2,100	3,640	8.0	<5.00	<0.098	-77.80	-10.24	
PW-2	6/2/2022	Spigot	944	438	<0.500	<50	<2.5	630	<250	<100	<50	<50	<50	<50	<50	<50	<50	<50	-	<50	<50	<50	<1.0	2,000	3,680	8.1	<5.00	<0.093	-77.80	-10.30	
PW-2	6/2/2022 ¹	Spigot	953	444	<0.500	<50	<2.5	670	<250	<100	<50	<50	<50	<50	<50	<50	<50	<50	-	<50	<50	<50	<1.0	4,000	3,730	8.2	<5.00	<0.092	-77.70	-10.27	
PW-2	12/1/2022	Spigot	892	426	<0.500	52	<0.005	820	11	<0.20	4.5	<25	<25	43	<25	<25	<25	<25	-	<25	<25	<25	<1.0	5,200	3,910	8.2	<5.00	<0.095	-77.90	-10.28	
PW-2	12/1/2022 ¹	Spigot	886	424	<0.500	52	<0.005	800	12	<0.20	4.6	<25	32	42	<25	<25	<25	<25	-	<25	<25	<25	<1.0	2,000	3,920	8.1	<5.00	<0.097	-77.70	-10.25	
PW-2	6/8/2023	Spigot	802	421	<0.500	62	<0.50	740	<50	<20	<10	<10	28	43	<10	<10	<10	<10	-	<10	<10	<10	<1.0	1,800	3,640	8.2	<5.00	<0.099	-78.60	-10.37	
PW-2	6/8/2023 ¹	Spigot	808	423	<0.500	61	<0.50	700	<50	<20	<10	<10	32																		

TABLE 5
HISTORICAL ANALYTICAL DATA FOR OFFSITE WELLS WITHIN MONITORING AREA
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
3	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
14	7/29/2009	WorleyParsons	--	--	3,400	--	--	--	--	--	--	--	6,600
15	9/16/2009	WorleyParsons	200.0	--	--	--	--	--	--	--	--	--	19,000
15	9/16/2009	WorleyParsons	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
17	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	275 to 815	--	519	--	--	--	--	--	--	--	1,313
38	6/20/1986	Woodward-Clyde Consultants	835 to 1,015	--	267	--	--	--	--	--	--	--	719
39	6/12/1961	DWR, 1963	853 to 1,083	--	216	--	--	--	--	--	--	--	--
39	1/1986	CH2M Hill and Boyle Eng.	853 to 1,083	--	--	--	--	--	--	--	--	--	786
42	8/24/1983	Woodward-Clyde Consultants	738 to 1,100	--	199	--	--	--	--	--	--	--	--
42	5/1/1988	CH2M Hill and Boyle Eng.	738 to 1,100	--	--	--	--	--	--	--	--	--	765
43	1/1986	Kennedy/Jenks/Chilton, 1986	510 to 780	--	460	--	--	--	--	--	--	--	1,150
47	1/4/1984	Woodward-Clyde Consultants	490	--	550	--	--	--	--	--	--	--	1,380
47	1/5/1984	Woodward-Clyde Consultants	590	--	586	--	--	--	--	--	--	--	1,350
47	2/7/1984	Woodward-Clyde Consultants	850	--	570	--	--	--	--	--	--	--	2,090
47	1/1986	Kennedy/Jenks/Chilton, 1986	500 to 850	--	520	--	--	--	--	--	--	--	1,740
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:

CH2M Hill and Boyle Engineering, 1995. Technical Memorandum, Water Treatment Plant Evaluation - Phase I. Dated March 30, 1995
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, 1986
NWIS = National Water Information System
Woodward-Clyde Consultants, 1986. Final Report, Groundwater Quality Investigation, Wiley's Well Area. Dated March 13, 1986

APPENDIX A

FIELD DATA SHEETS



GROUNDWATER LEVEL MEASUREMENT FORM

Date: 6/8/23	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: Hot

Well No.	Date	TOC Reference Elevation (ft)	Depth to Water (ft)	Corrected Water Level Elevation (ft)	Comments
TW-1	6/8/2023	387.40	87.35	300.05	Levellogger 62100045
TW-2	6/8/2023	393.47	126.48	266.99	Manual Measurement
OBS-1	6/8/2023	388.30	78.15	310.15	Levellogger 32045678; Barologger 12100120
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	6/8/2023	388.14	99.90	288.24	Manual Measurement
23a	6/8/2023	392.10	136.18	255.92	Manual Measurement
24-1	6/8/2023	389.40	127.13	262.27	Manual Measurement
24-2	6/8/2023	388.86	125.03	263.83	Manual Measurement
24-3	6/8/2023	392.04	123.50	268.54	Manual Measurement
PW-0	6/8/2023	385.64	N/A	N/A	Manual Measurement
PW-1	6/8/2023	384.43	98.85	285.58	Levellogger 62149233
PW-2	6/8/2023	385.15	N/A	N/A	Manual Measurement
DM-1	6/8/2023	391.49	107.49	284.00	Manual Measurement
DM-2	6/8/2023	391.32	107.82	283.50	Manual Measurement
DM-3	6/8/2023	388.34	104.68	283.66	Manual Measurement

Additional Notes:



GROUNDWATER SAMPLING FIELD FORM

Date: 6/8/23 Site: Genesis Solar Energy Project Project No: 196-004-06

Project: Groundwater Quality Monitoring Program Project Manager: AWB

Technicians: AWB, RCD Weather: Hot

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	33.1	8.67	3.57	--	+105	6.35
Total Depth (ft btoc)	1,825						
Screen Interval (ft btoc)	1800 - 1825						
Depth to Water (ft btoc)	136.18						
Sample Date	6/8/2023						
Sample Time	14:15						

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	30.8	8.37	25.76	--	+139	7.67
Total Depth (ft btoc)	160						
Screen Interval (ft btoc)	100 - 150						
Depth to Water (ft btoc)	78.15						
Sample Date	6/8/2023						
Sample Time	12:30						

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	31.7	9.62	16.90	--	+180	5.22
Total Depth (ft btoc)	565						
Screen Interval (ft btoc)	340 - 564						
Depth to Water (ft btoc)	87.35						
Sample Date	6/8/2023						
Sample Time	12:00						

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	33.5	9.52	6.52	--	+101	6.04
Total Depth (ft btoc)	1,841						
Screen Interval (ft btoc)	Multiple						
Depth to Water (ft btoc)	126.48						
Sample Date	6/8/2023						
Sample Time	14:30						

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

COMMENTS:



GROUNDWATER SAMPLING FIELD FORM

Date: 6/8/23 Site: Genesis Solar Energy Project Project No: 196-004-06

Project: Groundwater Quality Monitoring Program Project Manager: AWB

Technicians: AWB/RCD Weather: Hot

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	34.0	8.51	7.26	--	+113	6.92
Total Depth (ft btoc)	1,251						
Screen Interval (ft btoc)	Multiple						
Depth to Water (ft btoc)	N/A						
Sample Date	6/8/2023						
Sample Time	15:05						

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

COMMENTS: Access port is blocked

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)	98.85						
Sample Date	6/8/2023						
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 is welded shut.

Well No.	PW-2	Temp °C	pH	Conductivity (mS/cm)	Turbidity (NTUs)	ORP (mV)	DO (mg/L)
Casing Diameter (in.)	10.0	47.7	8.19	5.15	--	+63.3	8.04
Total Depth (ft btoc)	1,125						
Screen Interval (ft btoc)	Multiple						
Depth to Water (ft btoc)	N/A						
Sample Date	6/8/2023						
Sample Time	15:20						

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

COMMENTS: Pump running at time of readings; did not collect water level

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: 6/8/23	Site: Genesis Solar Energy Project	Project No: 196-004-06
Project: Groundwater Quality Monitoring Program		Project Manager: AWB
Technicians: AWB/RCD		Weather: Hot
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	17:50	107.40	32.7	7.88	19.4	--	+123	8.90
Total Depth (ft btoc)	120	17:55	107.40	31.8	7.80	19.1	--	+121	6.07
Screen Interval (ft btoc)	100 - 120	18:00	107.40	31.7	7.80	19.0	--	+120	6.05
Depth to Water (ft btoc)	107.49	18:05	107.40	31.6	7.80	18.9	--	+119	6.01
Depth of Inlet (ft btoc)	115.00								
Discharge Time (sec)	30								
Fill Time (sec)	20								
Cycles per Minute	1.2								
Volume per Cycle (mL)	150								
Pump Rate (mL/min)	180								
Volume Purged (mL)	3,600								
Sample Date	06/08/23								
Sample Time	18:10								

Purge Volume Calculation: Total must exceed tubing volume (1,204 mL) plus drawdown volume (2,460 mL/foot) = **1,425 mL**

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	19:20	108.10	30.5	7.85	19.1	--	+126	5.28
Total Depth (ft btoc)	120	19:25	108.20	29.9	7.75	18.8	--	+122	2.98
Screen Interval (ft btoc)	100 - 120	19:30	108.30	29.8	7.75	18.8	--	+121	2.62
Depth to Water (ft btoc)	107.82	19:35	108.32	29.7	7.76	18.7	--	+120	2.58
Depth of Inlet (ft btoc)	115.00								
Discharge Time (sec)	28								
Fill Time (sec)	37								
Cycles per Minute	0.9								
Volume per Cycle (mL)	150								
Pump Rate (mL/min)	138								
Volume Purged (mL)	2,760								
Sample Date	06/08/23								
Sample Time	19:40								

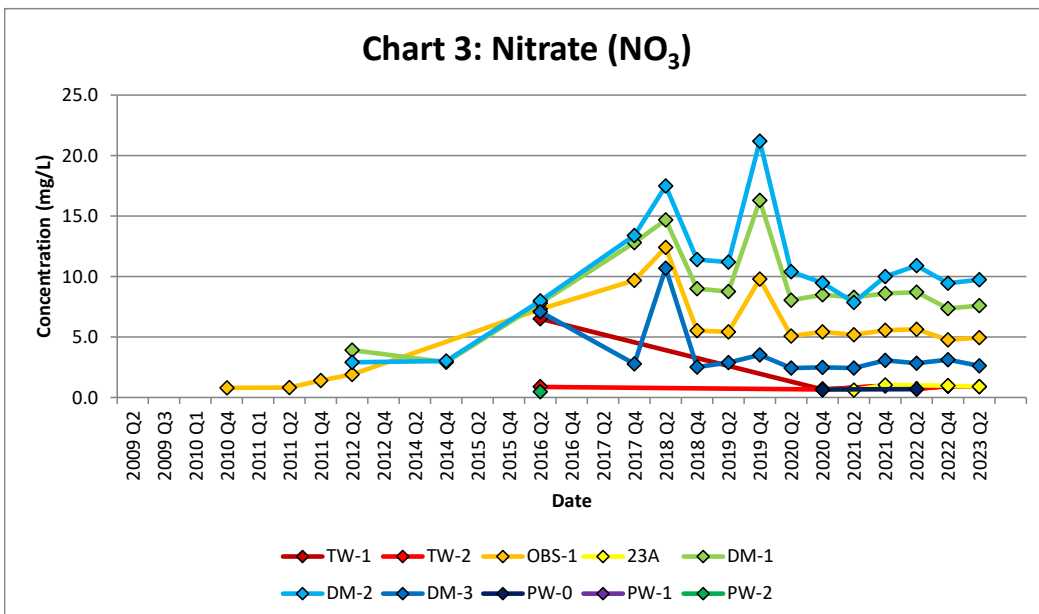
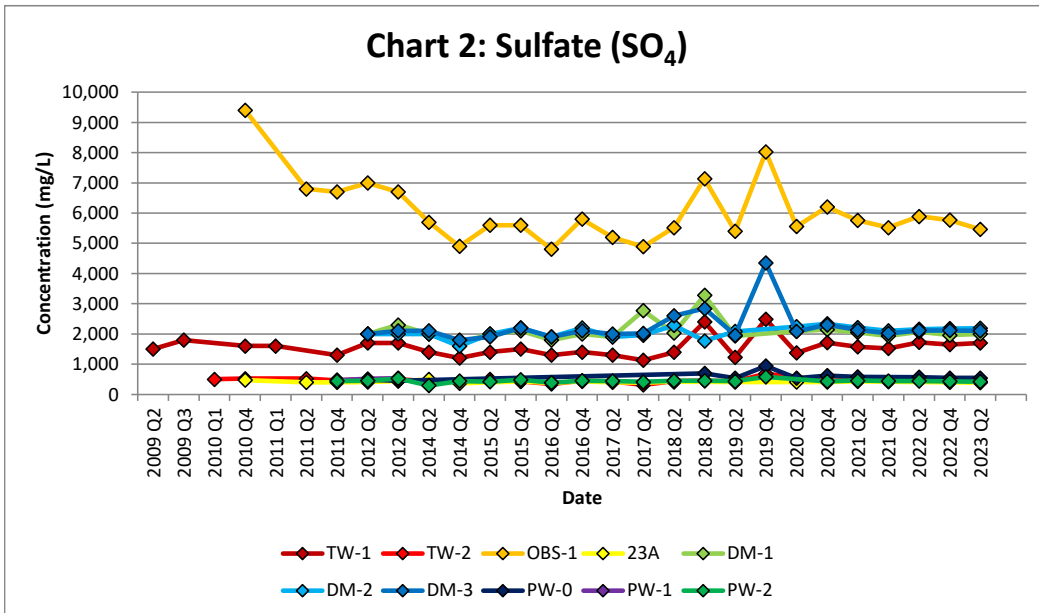
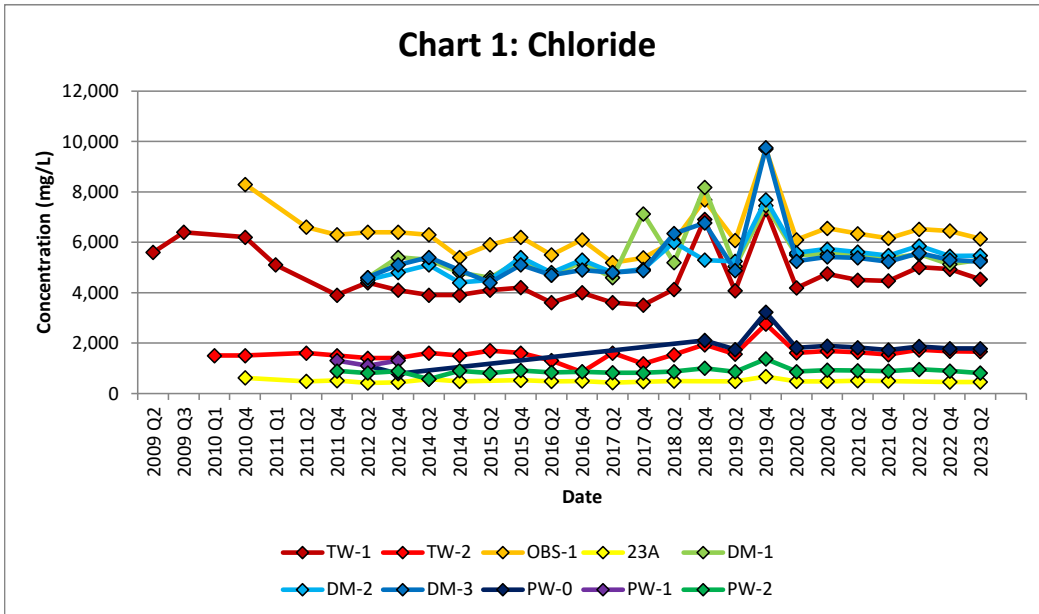
Purge Volume Calculation: Total must exceed tubing volume (1,204 mL) plus drawdown volume (2,460 mL/foot) = **2,434 mL**

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	16:25	104.69	34.1	7.14	19.8	--	+91	6.85
Total Depth (ft btoc)	120	16:30	104.69	32.6	7.77	18.7	--	+91	4.03
Screen Interval (ft btoc)	100 - 120	16:35	104.69	31.7	7.79	18.5	--	+90	4.00
Depth to Water (ft btoc)	104.68	16:40	104.69	31.9	7.80	18.6	--	+90	4.01
Depth of Inlet (ft btoc)	115.00								
Discharge Time (sec)	28								
Fill Time (sec)	35								
Cycles per Minute	1.0								
Volume per Cycle (mL)	150								
Pump Rate (mL/min)	143								
Volume Purged (mL)	2,860								
Sample Date	06/08/23								
Sample Time	16:45								

Purge Volume Calculation: Total must exceed tubing volume (1,204 mL) plus drawdown volume (2,460 mL/foot) = **1,229 mL**

APPENDIX B

TIME SERIES CHARTS 1 - 29



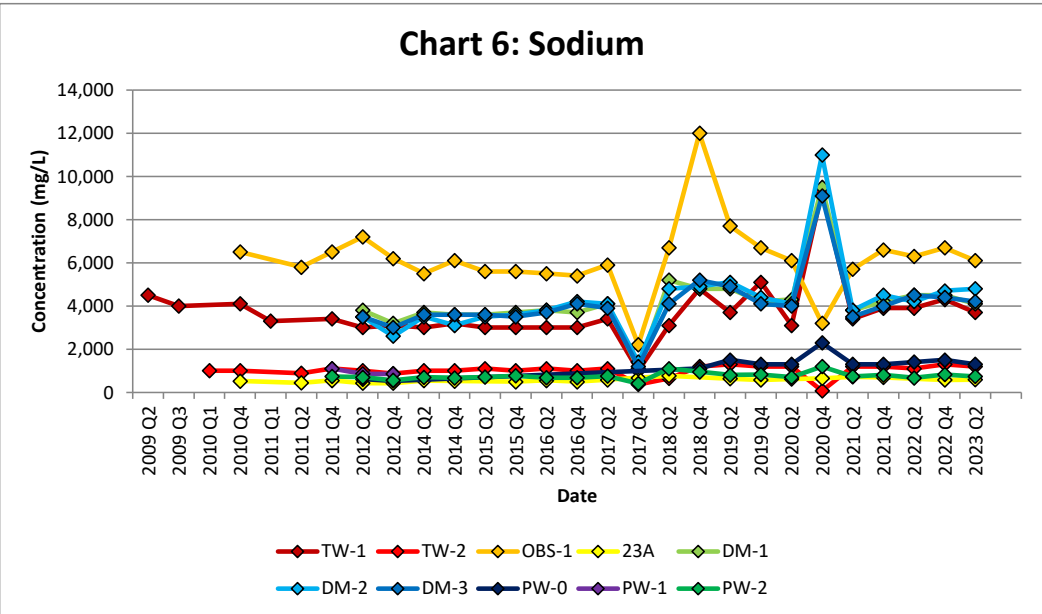
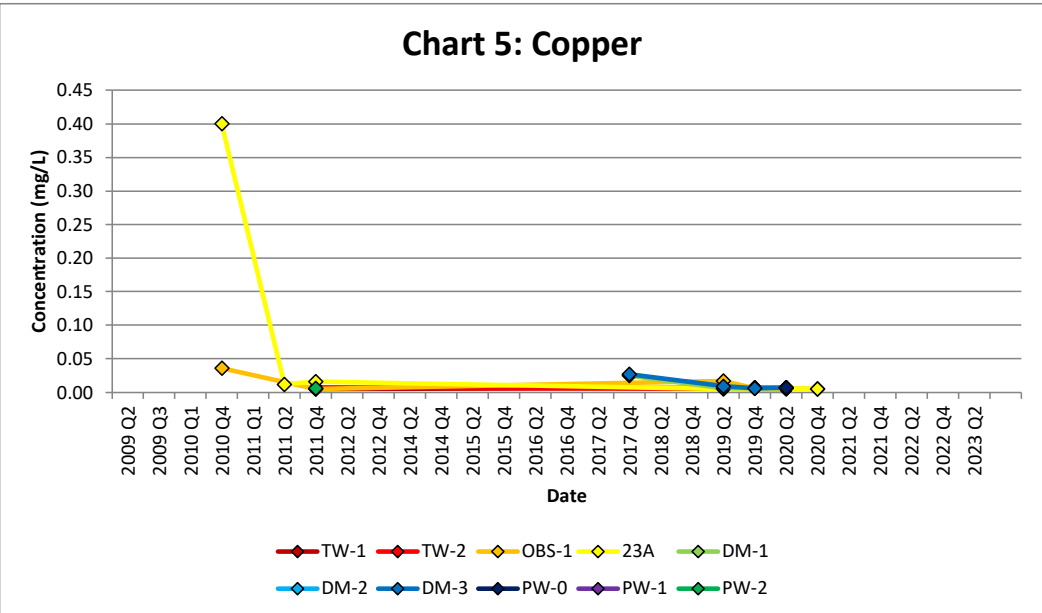
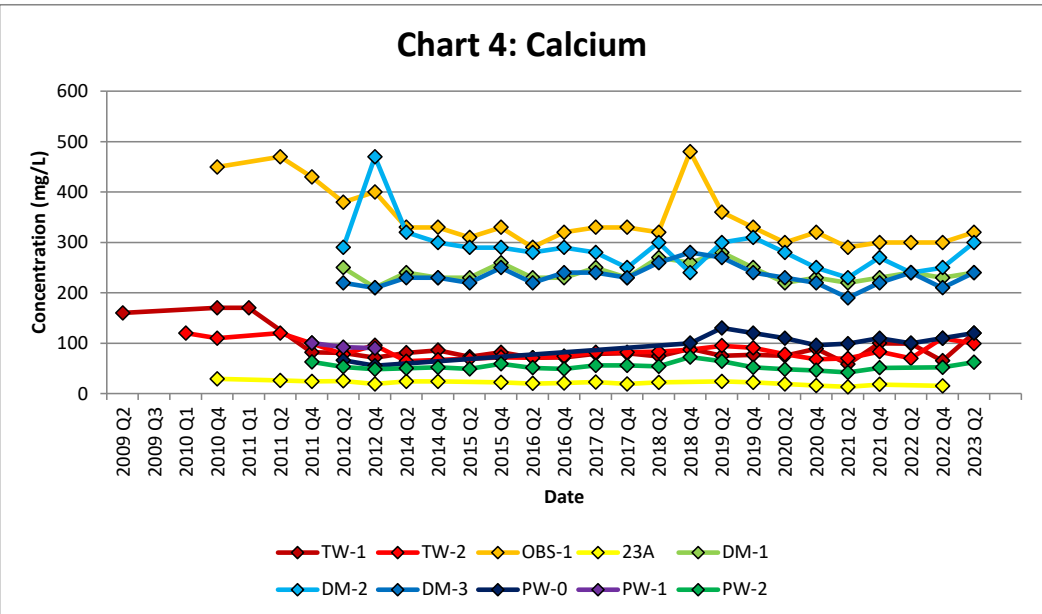


Chart 7: Potassium

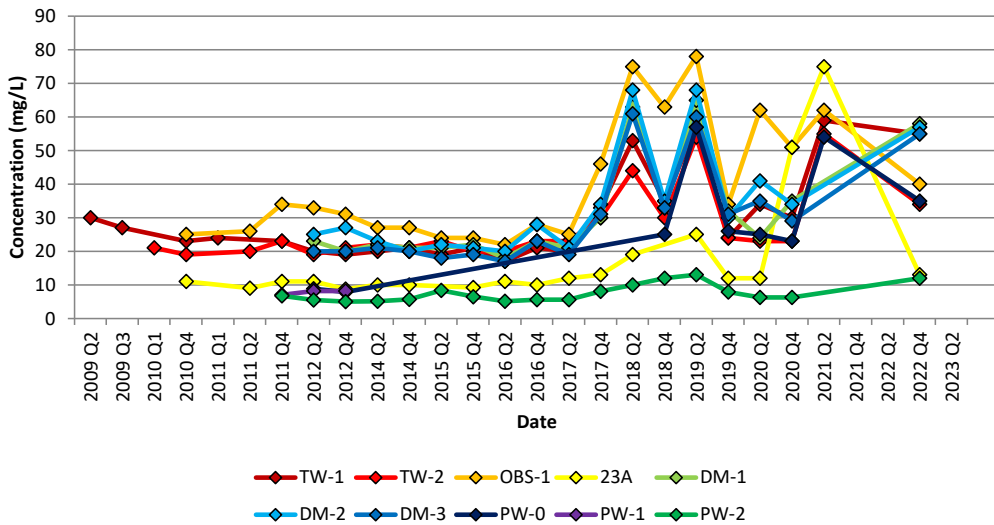


Chart 8: Iron

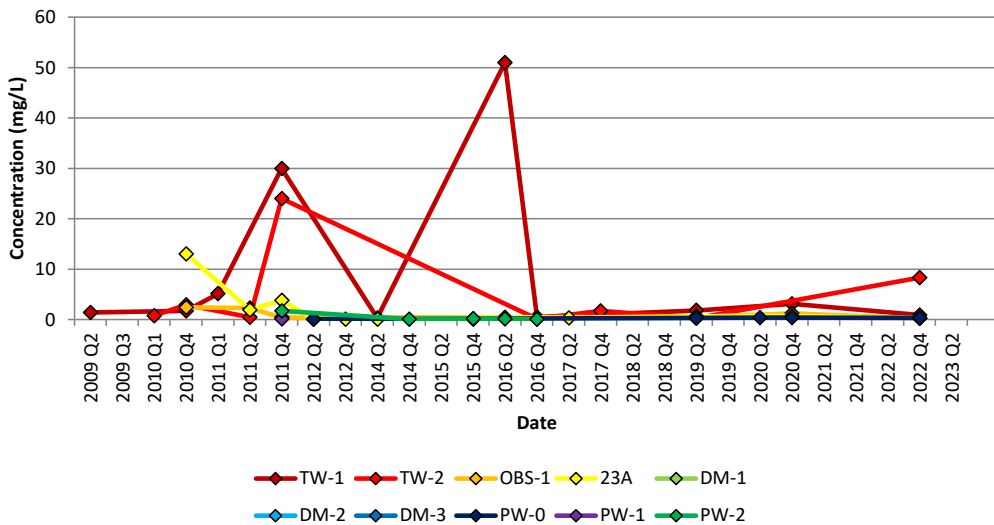


Chart 9: Magnesium

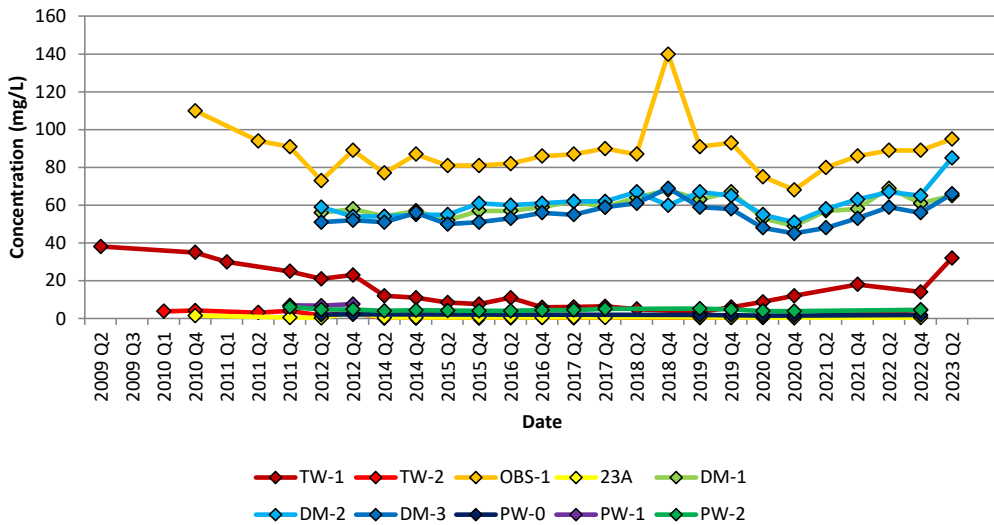


Chart 10: Antimony

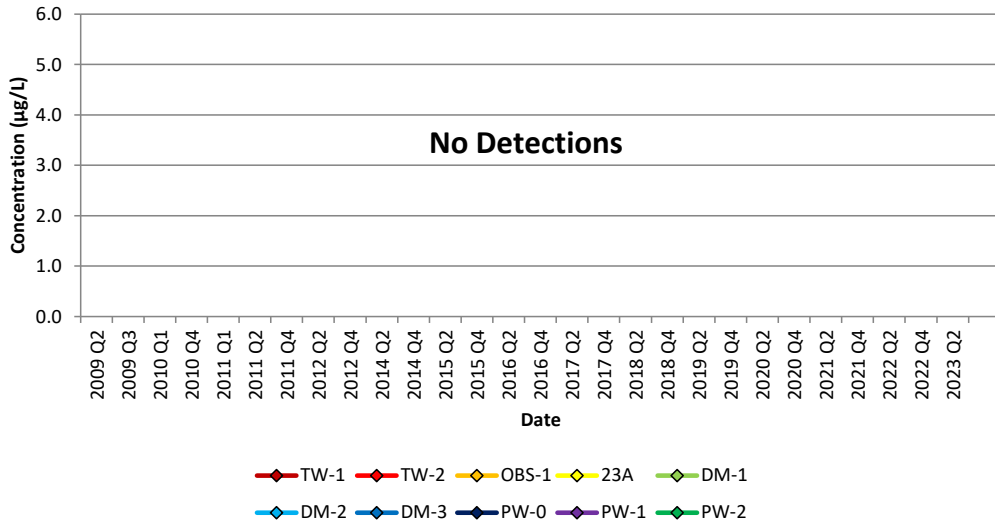


Chart 11: Arsenic

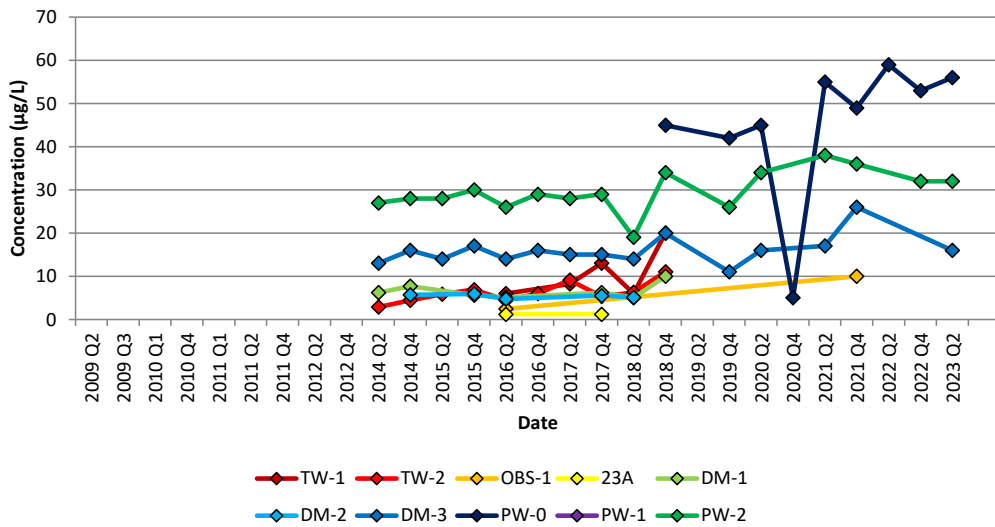


Chart 12: Barium

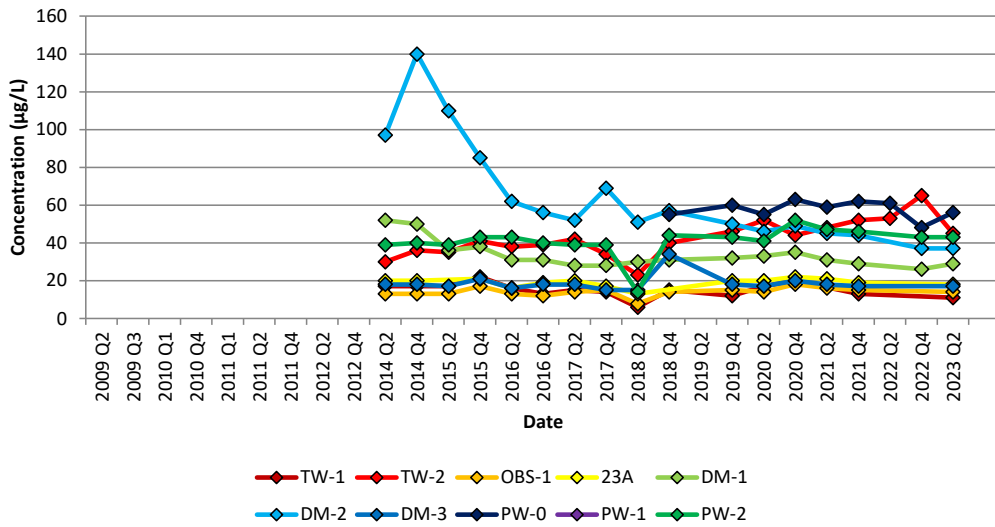


Chart 19: Selenium

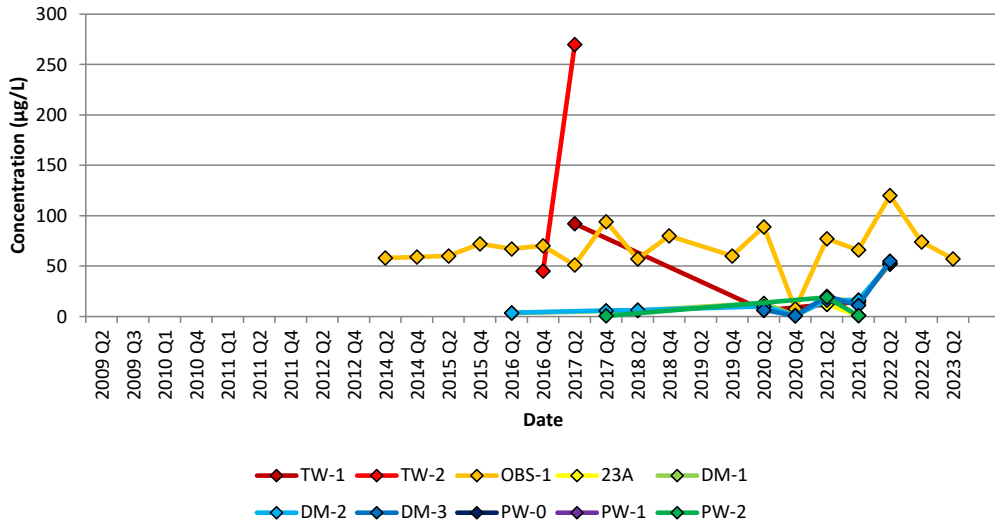


Chart 20: Zinc

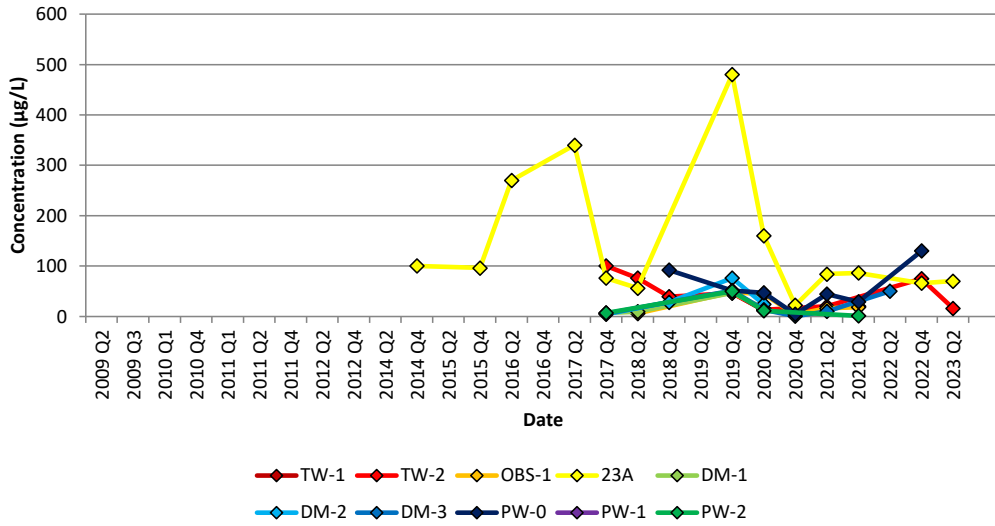


Chart 21: Mercury

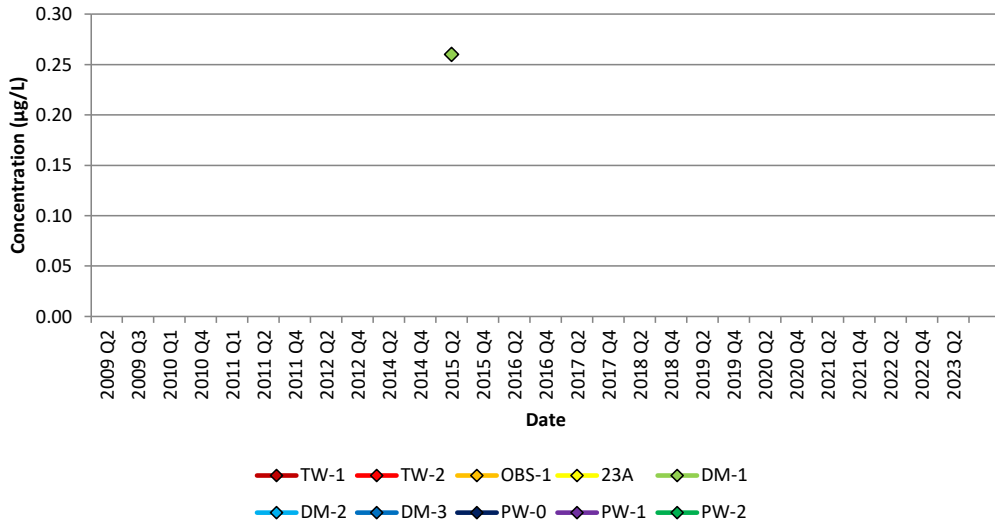


Chart 22: Total Dissolved Solids

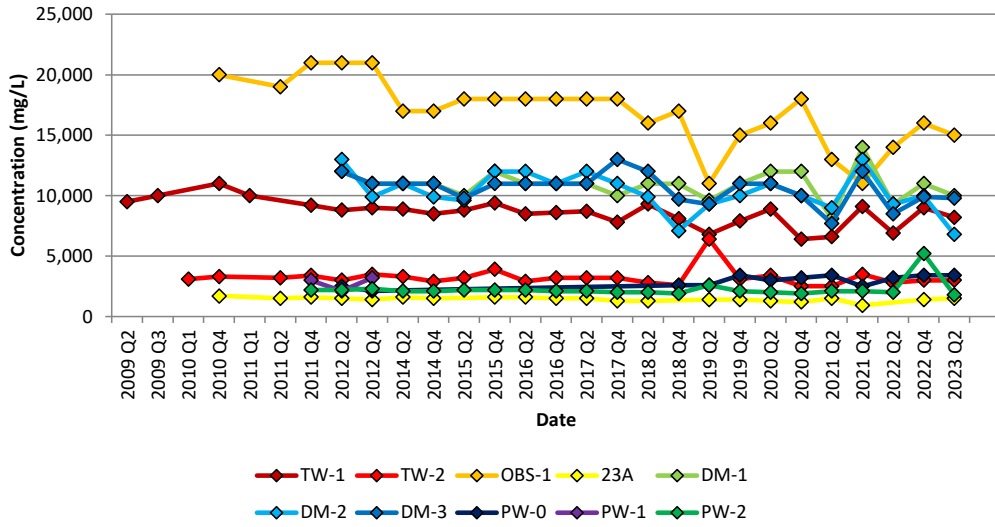


Chart 23: Specific Conductance

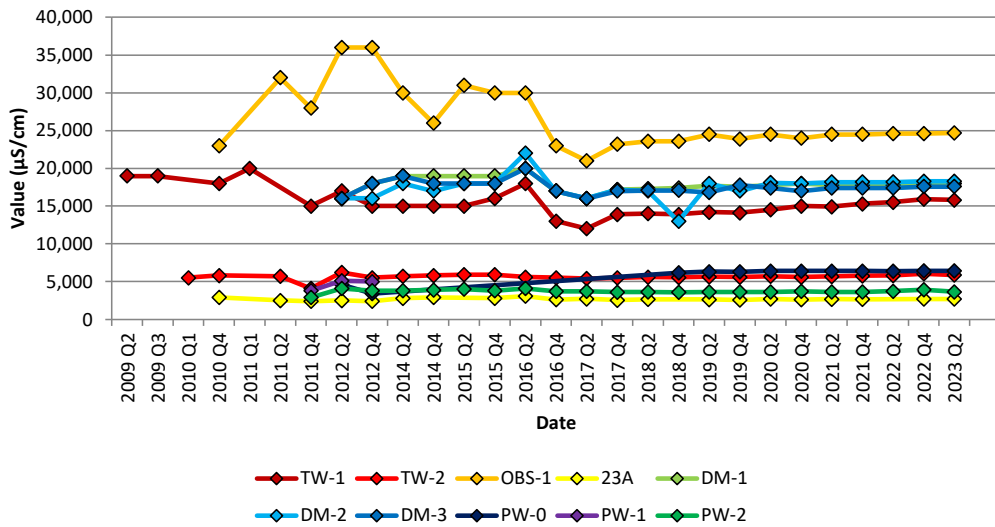


Chart 24: pH

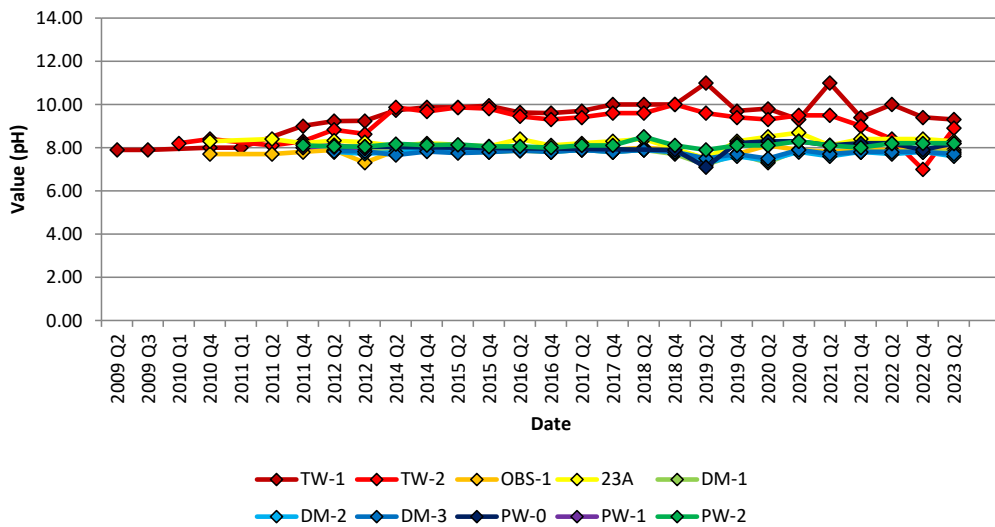


Chart 25: Oil & Grease

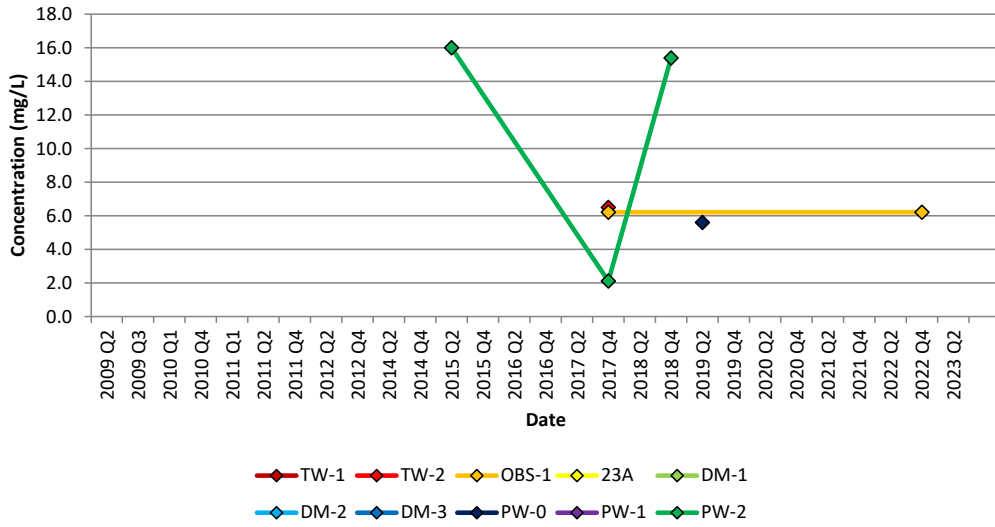


Chart 26: Heat Transfer Fluid

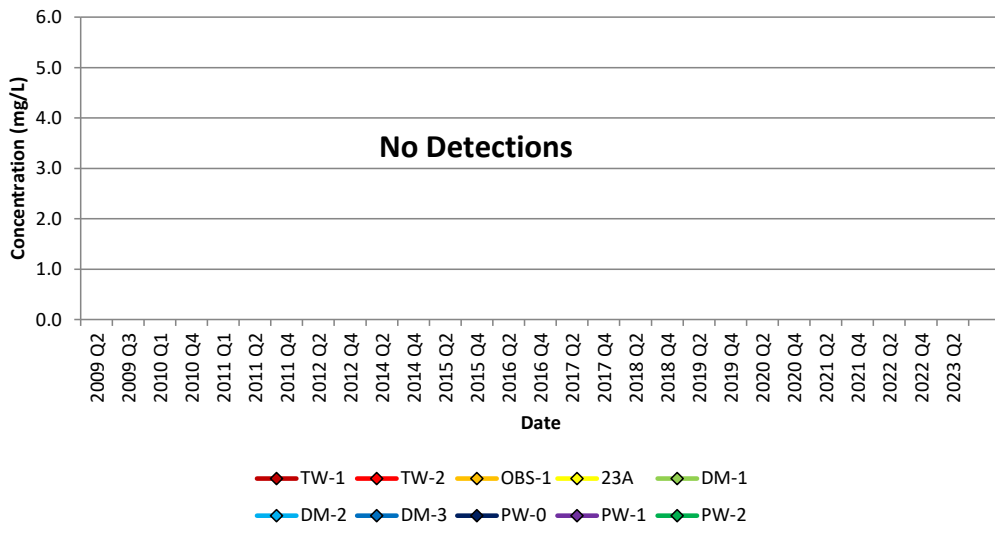


Chart 27: Deuterium

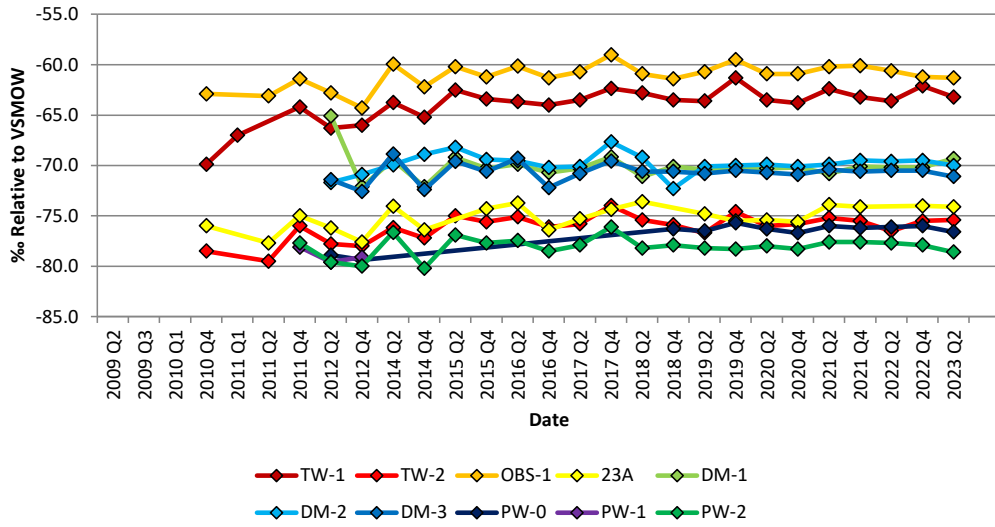


Chart 28: Oxygen-18

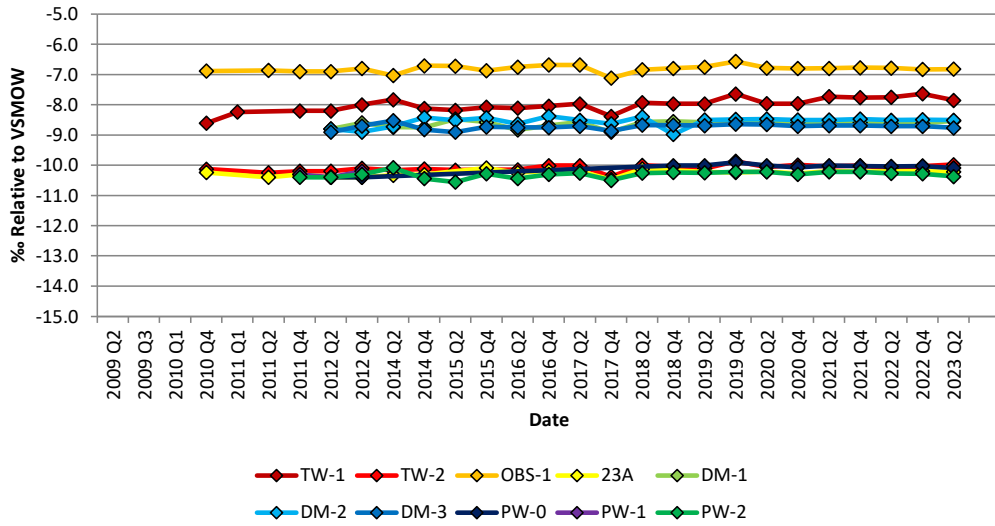
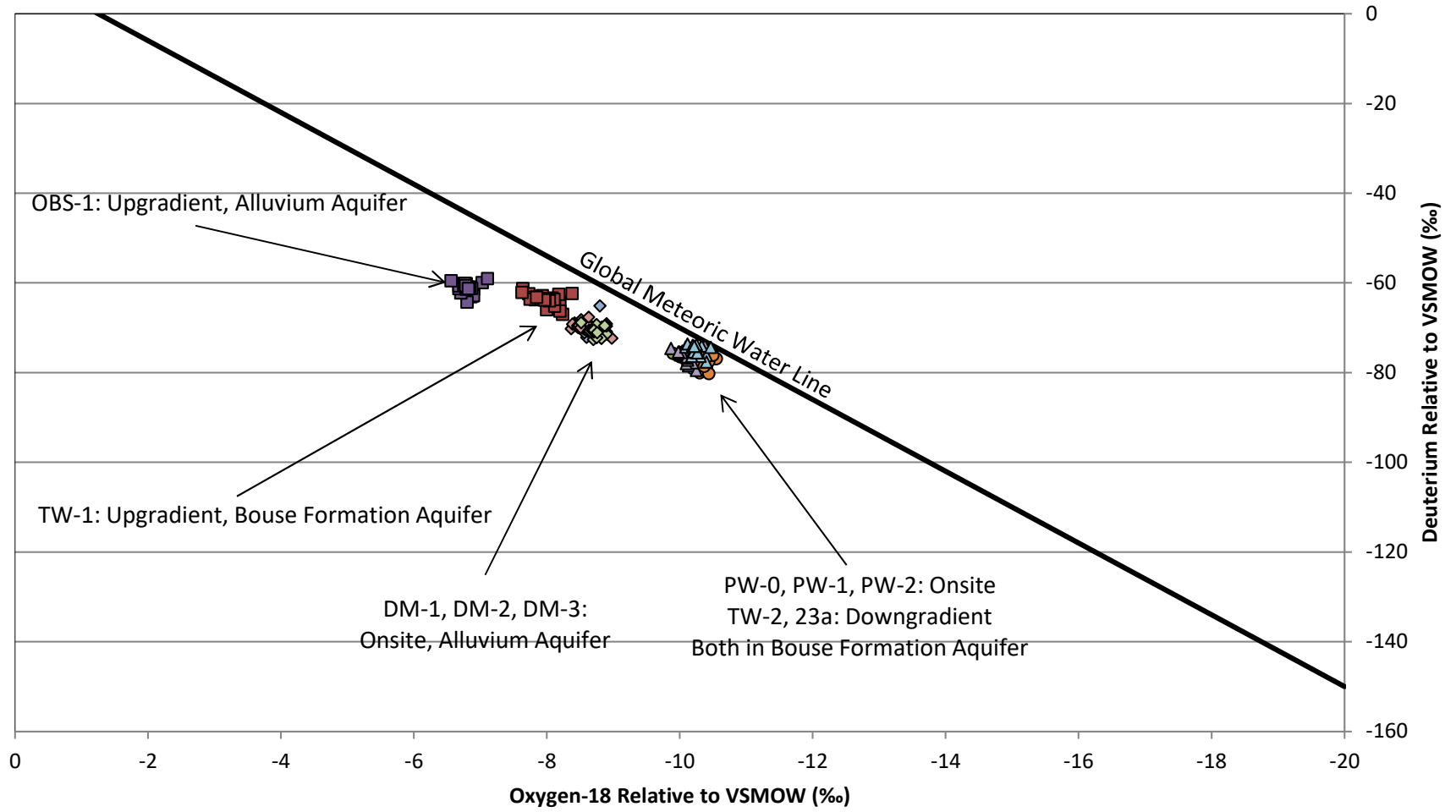


Chart 29: Deuterium vs. Oxygen-18 Concentrations Relative to Vienna Standard Mean Oceanic Water



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
2023 First Semiannual Summary of Mann-Kendall Test for Trend
Genesis Solar Energy Project, Blythe, CA

Well ID	Analyte	Minimum	Maximum	Mean	Mann-Kendall at 95% Confidence Interval			
					Mann-Kendall Test Value (S)	Trend Direction	p-Value	Significant Trend?
TW-1	Chloride	3,510	7,300	4,665	18	Increasing	0.354	No
TW-1	Sulfate	1,130	2,490	1,561	22	Increasing	0.321	No
TW-1	Nitrate	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
TW-1	Calcium	58	170	91	-38	Decreasing	0.193	No
TW-1	Copper	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
TW-1	Sodium	1,000	9,300	3,704	48	Increasing	0.148	No
TW-1	Potassium	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
TW-1	Iron	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
TW-1	Magnesium	3.40	38	15	-83	Decreasing	0.010	Yes
TW-1	Antimony	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
TW-1	Arsenic	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
TW-1	Barium	5.9	22	15	-37	Decreasing	0.036	Yes
TW-1	Cadmium	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
TW-1	Chromium	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
TW-1	Cobalt	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
TW-1	Lead	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
TW-1	Manganese	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
TW-1	Nickel	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
TW-1	Selenium	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
TW-1	Zinc	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
TW-1	Mercury	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
TW-1	TDS	6,400	11,000	8,612	-156	Decreasing	0.000	Yes
TW-1	Conductivity	12,000	20,000	15,538	-65	Decreasing	0.078	No
TW-2	Chloride	850	2,750	1,581	104	Increasing	0.008	Yes
TW-2	Sulfate	315	686	462	-55	Decreasing	0.076	No
TW-2	Nitrate	0.659	0.944	0.832	3	Increasing	0.354	No
TW-2	Calcium	64	120	86	-18	Decreasing	0.345	No
TW-2	Copper	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
TW-2	Sodium	70	1,300	1,006	109	Increasing	0.005	Yes
TW-2	Potassium	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
TW-2	Iron	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
TW-2	Magnesium	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
TW-2	Antimony	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
TW-2	Arsenic	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
TW-2	Barium	23	65	42	96	Increasing	0.000	Yes
TW-2	Cadmium	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
TW-2	Chromium	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
TW-2	Cobalt	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
TW-2	Lead	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
TW-2	Manganese	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
TW-2	Nickel	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
TW-2	Selenium	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	

Appendix C
2023 First Semiannual Summary of Mann-Kendall Test for Trend
Genesis Solar Energy Project, Blythe, CA

Well ID	Analyte	Minimum	Maximum	Mean	Mann-Kendall at 95% Confidence Interval			
					Mann-Kendall Test Value (S)	Trend Direction	p-Value	Significant Trend?
TW-2	Zinc	13	100	48	-14	Decreasing	0.054	No
TW-2	Mercury	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
TW-2	TDS	2,500	6,400	3,236	-66	Decreasing	0.063	No
TW-2	Conductivity	4,100	6,200	5,635	53	Increasing	0.111	No
OBS-1	Chloride	5,200	9,710	6,406	-7	Decreasing	0.441	No
OBS-1	Sulfate	4,800	9,400	6,055	-53	Decreasing	0.098	No
OBS-1	Nitrate	0.78	12.40	5.39	22	Increasing	0.194	No
OBS-1	Calcium	290	480	347	-134	Decreasing	0.000	Yes
OBS-1	Copper	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
OBS-1	Sodium	2,200	12,000	6,158	9	Increasing	0.421	No
OBS-1	Potassium	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
OBS-1	Iron	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
OBS-1	Magnesium	68	140	88	5	Increasing	0.460	No
OBS-1	Antimony	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
OBS-1	Arsenic	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
OBS-1	Barium	7.8	18	14	39	Increasing	0.040	Yes
OBS-1	Cadmium	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
OBS-1	Chromium	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
OBS-1	Cobalt	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
OBS-1	Lead	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
OBS-1	Manganese	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
OBS-1	Nickel	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
OBS-1	Selenium	7.60	120	68	25	Increasing	0.181	No
OBS-1	Zinc	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
OBS-1	Mercury	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
OBS-1	TDS	11,000	21,000	16,917	-160	Decreasing	0.000	Yes
OBS-1	Conductivity	21,000	36,000	26,508	-39	Decreasing	0.172	No
Well 23a	Chloride	410	667	494	-21	Decreasing	0.272	No
Well 23a	Sulfate	370	490	414	-24	Decreasing	0.227	No
Well 23a	Nitrate	0.61	1.02	0.84	2	Increasing	0.403	No
Well 23a	Calcium	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
Well 23a	Copper	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
Well 23a	Sodium	420	760	571	109	Increasing	0.000	Yes
Well 23a	Potassium	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
Well 23a	Iron	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
Well 23a	Magnesium	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
Well 23a	Antimony	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
Well 23a	Arsenic	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
Well 23a	Barium	13	22	19	-1	Decreasing	0.500	No
Well 23a	Cadmium	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
Well 23a	Chromium	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
Well 23a	Cobalt	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	

Appendix C
2023 First Semiannual Summary of Mann-Kendall Test for Trend
Genesis Solar Energy Project, Blythe, CA

Well ID	Analyte	Minimum	Maximum	Mean	Mann-Kendall at 95% Confidence Interval			
					Mann-Kendall Test Value (S)	Trend Direction	p-Value	Significant Trend?
Well 23a	Lead	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
Well 23a	Manganese	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
Well 23a	Nickel	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
Well 23a	Selenium	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
Well 23a	Zinc	22	480	147	-24	Decreasing	0.080	No
Well 23a	Mercury	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
Well 23a	TDS	930	1,700	1,429	-94	Decreasing	0.002	Yes
Well 23a	Conductivity	2,400	3,100	2,666	20	Increasing	0.282	No
DM-1	Chloride	4,600	8,180	5,494	53	Increasing	0.058	No
DM-1	Sulfate	1,700	3,280	2,103	11	Increasing	0.372	No
DM-1	Nitrate	2.90	16.30	8.88	-3	Decreasing	0.461	No
DM-1	Calcium	210	280	240	-2	Decreasing	0.488	No
DM-1	Copper	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
DM-1	Sodium	1,100	9,500	4,200	89	Increasing	0.004	Yes
DM-1	Potassium	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
DM-1	Iron	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
DM-1	Magnesium	49	69	59	72	Increasing	0.016	Yes
DM-1	Antimony	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
DM-1	Arsenic	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
DM-1	Barium	26	52	34	-58	Decreasing	0.009	Yes
DM-1	Cadmium	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
DM-1	Chromium	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
DM-1	Cobalt	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
DM-1	Lead	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
DM-1	Manganese	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
DM-1	Nickel	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
DM-1	Selenium	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
DM-1	Zinc	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
DM-1	Mercury	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
DM-1	TDS	8,100	14,000	10,905	-28	Decreasing	0.192	No
DM-1	Conductivity	16,000	20,000	17,871	18	Increasing	0.302	No
DM-2	Chloride	4,400	7,680	5,329	109	Increasing	0.001	Yes
DM-2	Sulfate	1,600	2,340	2,066	60	Increasing	0.027	Yes
DM-2	Nitrate	2.90	21.20	10.43	1	Increasing	0.500	No
DM-2	Calcium	230	470	287	-81	Decreasing	0.007	Yes
DM-2	Copper	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
DM-2	Sodium	1,400	11,000	4,267	111	Increasing	0.000	Yes
DM-2	Potassium	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
DM-2	Iron	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
DM-2	Magnesium	51	85	61	93	Increasing	0.003	Yes
DM-2	Antimony	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
DM-2	Arsenic	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	

Appendix C
2023 First Semiannual Summary of Mann-Kendall Test for Trend
Genesis Solar Energy Project, Blythe, CA

Well ID	Analyte	Minimum	Maximum	Mean	Mann-Kendall at 95% Confidence Interval			
					Mann-Kendall Test Value (S)	Trend Direction	p-Value	Significant Trend?
DM-2	Barium	37	140	64	-117	Decreasing	0.000	Yes
DM-2	Cadmium	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
DM-2	Chromium	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
DM-2	Cobalt	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
DM-2	Lead	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
DM-2	Manganese	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
DM-2	Nickel	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
DM-2	Selenium	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
DM-2	Zinc	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
DM-2	Mercury	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
DM-2	TDS	6,800	13,000	10,324	-57	Decreasing	0.044	Yes
DM-2	Conductivity	13,000	22,000	17,500	95	Increasing	0.002	Yes
DM-3	Chloride	4,400	9,760	5,425	68	Increasing	0.021	Yes
DM-3	Sulfate	1,800	4,350	2,225	54	Increasing	0.054	No
DM-3	Nitrate	2.44	10.70	3.72	-15	Decreasing	0.196	No
DM-3	Calcium	190	280	233	11	Increasing	0.379	No
DM-3	Copper	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
DM-3	Sodium	1,200	9,100	4,081	96	Increasing	0.002	Yes
DM-3	Potassium	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
DM-3	Iron	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
DM-3	Magnesium	45	69	55	47	Increasing	0.081	No
DM-3	Antimony	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
DM-3	Arsenic	11	26	16	30	Increasing	0.072	No
DM-3	Barium	15	34	19	-10	Decreasing	0.337	No
DM-3	Cadmium	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
DM-3	Chromium	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
DM-3	Cobalt	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
DM-3	Lead	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
DM-3	Manganese	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
DM-3	Nickel	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
DM-3	Selenium	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
DM-3	Zinc	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
DM-3	Mercury	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
DM-3	TDS	7,700	13,000	10,605	-62	Decreasing	0.027	Yes
DM-3	Conductivity	16,000	20,000	17,505	-12	Decreasing	0.368	No
PW-0	Chloride	780	3,220	1,799	5	Increasing	0.392	No
PW-0	Sulfate	450	944	591	7	Increasing	0.320	No
PW-0	Nitrate	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-0	Calcium	55	130	101	19	Increasing	0.105	No
PW-0	Copper	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-0	Sodium	530	2,300	1,287	27	Increasing	0.031	Yes

Appendix C
2023 First Semiannual Summary of Mann-Kendall Test for Trend
Genesis Solar Energy Project, Blythe, CA

Well ID	Analyte	Minimum	Maximum	Mean	Mann-Kendall at 95% Confidence Interval			
					Mann-Kendall Test Value (S)	Trend Direction	p-Value	Significant Trend?
PW-0	Potassium	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
PW-0	Iron	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
PW-0	Magnesium	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
PW-0	Antimony	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-0	Arsenic	5.00	59	45	19	Increasing	0.030	Yes
PW-0	Barium	48	63	58	-1	Decreasing	0.500	No
PW-0	Cadmium	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-0	Chromium	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-0	Cobalt	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-0	Lead	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-0	Manganese	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-0	Nickel	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-0	Selenium	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-0	Zinc	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
PW-0	Mercury	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-0	TDS	2,100	3,400	2,942	35	Increasing	0.008	Yes
PW-0	Conductivity	3,400	6,430	5,965	49	Increasing	0.000	Yes
PW-1	Chloride	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-1	Sulfate	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-1	Nitrate	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-1	Calcium	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-1	Copper	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-1	Sodium	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-1	Potassium	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-1	Iron	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-1	Magnesium	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-1	Antimony	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-1	Arsenic	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-1	Barium	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-1	Cadmium	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-1	Chromium	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-1	Cobalt	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-1	Lead	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-1	Manganese	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-1	Nickel	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-1	Selenium	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-1	Zinc	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-1	Mercury	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-1	TDS	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-1	Conductivity	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	

Appendix C
2023 First Semiannual Summary of Mann-Kendall Test for Trend
Genesis Solar Energy Project, Blythe, CA

Well ID	Analyte	Minimum	Maximum	Mean	Mann-Kendall at 95% Confidence Interval			
					Mann-Kendall Test Value (S)	Trend Direction	p-Value	Significant Trend?
PW-2	Chloride	570	1,370	882	54	Increasing	0.067	No
PW-2	Sulfate	290	584	443	-7	Decreasing	0.428	No
PW-2	Nitrate	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-2	Calcium	42	72	54	-11	Decreasing	0.381	No
PW-2	Copper	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-2	Sodium	410	1,200	759	59	Increasing	0.050	No
PW-2	Potassium	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
PW-2	Iron	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-2	Magnesium	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	N/A ¹	
PW-2	Antimony	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-2	Arsenic	19	38	30	47	Increasing	0.018	Yes
PW-2	Barium	14	52	41	49	Increasing	0.022	Yes
PW-2	Cadmium	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-2	Chromium	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-2	Cobalt	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-2	Lead	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-2	Manganese	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-2	Nickel	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-2	Selenium	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-2	Zinc	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-2	Mercury	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	N/A ²	
PW-2	TDS	1,800	5,200	2,245	-79	Decreasing	0.012	Yes
PW-2	Conductivity	2,900	4,100	3,714	-43	Decreasing	0.116	No

Notes:

N/A¹ Not Applicable - No new data for the reporting period

N/A² Not Applicable - Not enough data to calculate trend

APPENDIX D

LABORATORY REPORTS



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

29 June 2023

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 06/09/23 08:25. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Jeff Lee', is written in a cursive style.

Jeff Lee
Project Manager



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:
 06/29/23 12:31

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
23a	T231538-01	Water	06/08/23 14:15	06/09/23 08:25
OBS-1	T231538-02	Water	06/08/23 12:30	06/09/23 08:25
TW-1	T231538-03	Water	06/08/23 12:00	06/09/23 08:25
TW-2	T231538-04	Water	06/08/23 14:30	06/09/23 08:25
PW-0	T231538-05	Water	06/08/23 15:05	06/09/23 08:25
PW-2	T231538-06	Water	06/08/23 15:20	06/09/23 08:25
DUP	T231538-07	Water	06/08/23 00:00	06/09/23 08:25

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:
06/29/23 12:31

DETECTIONS SUMMARY

Sample ID: 23a

Laboratory ID: T231538-01

Reporting

Analyte	Result	Limit	Units	Method	Notes
Barium	18	10	ug/l	200.8	FILT
Zinc	70	10	ug/l	200.8	FILT
Sodium	590	50	mg/l	EPA 200.7	FILT
Total Dissolved Solids	1500	10	mg/l	TDS by SM2540C	
pH	8.3	0.10	pH Units	SM 4500-H+B	
pH Temperature °C	18		pH Units	SM 4500-H+B	
Specific Conductance (EC)	2690	10.0	mho/cm @25°t	SM2510b mod.	
Chloride	451	125	mg/l	EPA 300.0	
Sulfate as SO4	390	125	mg/l	EPA 300.0	
Nitrate as NO3	0.888	0.500	mg/l	EPA 300.0	
Nitrate as N	0.200	0.200	mg/l	EPA 300.0	

Sample ID: OBS-1

Laboratory ID: T231538-02

Reporting

Analyte	Result	Limit	Units	Method	Notes
Barium	14	10	ug/l	200.8	FILT
Selenium	57	10	ug/l	200.8	FILT
Calcium	320	50	mg/l	EPA 200.7	FILT
Magnesium	95	10	mg/l	EPA 200.7	FILT
Sodium	6100	50	mg/l	EPA 200.7	FILT
pH	7.9	0.10	pH Units	SM 4500-H+B	
Total Dissolved Solids	15000	10	mg/l	TDS by SM2540C	
pH Temperature °C	18		pH Units	SM 4500-H+B	
Specific Conductance (EC)	24700	10.0	mho/cm @25°t	SM2510b mod.	
Chloride	6140	1000	mg/l	EPA 300.0	
Sulfate as SO4	5460	1000	mg/l	EPA 300.0	
Nitrate as NO3	4.94	0.500	mg/l	EPA 300.0	
Nitrate as N	1.11	0.200	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:
06/29/23 12:31

Sample ID: TW-1 Laboratory ID: T231538-03

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	11	10		ug/l	200.8	FILT
Calcium	120	50		mg/l	EPA 200.7	FILT
Magnesium	32	10		mg/l	EPA 200.7	FILT
Sodium	3700	50		mg/l	EPA 200.7	FILT
Total Dissolved Solids	8200	10		mg/l	TDS by SM2540C	
pH	9.3	0.10		pH Units	SM 4500-H+B	
Specific Conductance (EC)	15800	10.0		mho/cm @25°C	SM2510b mod.	
pH Temperature °C	18			pH Units	SM 4500-H+B	
Chloride	4530	1000		mg/l	EPA 300.0	
Sulfate as SO4	1700	1000		mg/l	EPA 300.0	

Sample ID: TW-2 Laboratory ID: T231538-04

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	45	10		ug/l	200.8	FILT
Zinc	16	10		ug/l	200.8	FILT
Calcium	99	50		mg/l	EPA 200.7	FILT
Sodium	1200	50		mg/l	EPA 200.7	FILT
Total Dissolved Solids	3000	10		mg/l	TDS by SM2540C	
pH	8.9	0.10		pH Units	SM 4500-H+B	
pH Temperature °C	19			pH Units	SM 4500-H+B	
Specific Conductance (EC)	5870	10.0		mho/cm @25°C	SM2510b mod.	
Chloride	1660	250		mg/l	EPA 300.0	
Sulfate as SO4	425	250		mg/l	EPA 300.0	
Nitrate as NO3	0.895	0.500		mg/l	EPA 300.0	
Nitrate as N	0.200	0.200		mg/l	EPA 300.0	

Sample ID: PW-0 Laboratory ID: T231538-05

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Arsenic	56	10		ug/l	200.8	FILT
Barium	56	10		ug/l	200.8	FILT
Calcium	120	50		mg/l	EPA 200.7	FILT
Sodium	1300	50		mg/l	EPA 200.7	FILT
pH	8.2	0.10		pH Units	SM 4500-H+B	

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:
06/29/23 12:31

Sample ID: PW-0

Laboratory ID: T231538-05

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Total Dissolved Solids	3400	10		mg/l	TDS by SM2540C	
pH Temperature °C	20			pH Units	SM 4500-H+B	
Specific Conductance (EC)	6430	10.0		mho/cm @25°C	SM2510b mod.	
Fluoride	4.11	0.500		mg/l	EPA 300.0	
Chloride	1780	250		mg/l	EPA 300.0	
Sulfate as SO4	541	250		mg/l	EPA 300.0	

Sample ID: PW-2

Laboratory ID: T231538-06

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Arsenic	28	10		ug/l	200.8	FILT
Barium	43	10		ug/l	200.8	FILT
Calcium	62	50		mg/l	EPA 200.7	FILT
Sodium	740	50		mg/l	EPA 200.7	FILT
Total Dissolved Solids	1800	10		mg/l	TDS by SM2540C	
pH	8.2	0.10		pH Units	SM 4500-H+B	
Specific Conductance (EC)	3640	10.0		mho/cm @25°C	SM2510b mod.	
pH Temperature °C	20			pH Units	SM 4500-H+B	
Fluoride	5.47	0.500		mg/l	EPA 300.0	
Chloride	802	250		mg/l	EPA 300.0	
Sulfate as SO4	421	250		mg/l	EPA 300.0	

Sample ID: DUP

Laboratory ID: T231538-07

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Arsenic	32	10		ug/l	200.8	FILT
Barium	43	10		ug/l	200.8	FILT
Calcium	61	50		mg/l	EPA 200.7	FILT
Sodium	700	50		mg/l	EPA 200.7	FILT
pH	7.9	0.10		pH Units	SM 4500-H+B	
Total Dissolved Solids	1800	10		mg/l	TDS by SM2540C	
Specific Conductance (EC)	3630	10.0		mho/cm @25°C	SM2510b mod.	
pH Temperature °C	20			pH Units	SM 4500-H+B	
Chloride	808	250		mg/l	EPA 300.0	
Sulfate as SO4	423	250		mg/l	EPA 300.0	

SunStar Laboratories, Inc.



Jeff Lee, Project Manager

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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:
06/29/23 12:31

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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:
06/29/23 12:31

23a

T231538-01 (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	ND	0.50	mg/l	100	23F0140	06/09/23	06/16/23	EPA 200.7	FILT, R-01
Calcium	ND	50	"	"	"	"	06/16/23	"	FILT, R-01
Iron	ND	20	"	"	"	"	"	"	FILT, R-01
Magnesium	ND	10	"	"	"	"	"	"	FILT, R-01
Potassium	ND	50	"	"	"	"	"	"	FILT, R-01
Sodium	590	50	"	"	"	"	"	"	FILT
Antimony	ND	10	ug/l	20	23F0149	06/09/23	06/13/23	200.8	FILT, R-01
Arsenic	ND	10	"	"	"	"	"	"	FILT, R-01
Barium	18	10	"	"	"	"	"	"	FILT
Cadmium	ND	10	"	"	"	"	"	"	FILT, R-01
Chromium	ND	10	"	"	"	"	"	"	FILT, R-01
Cobalt	ND	10	"	"	"	"	"	"	FILT, R-01
Lead	ND	10	"	"	"	"	"	"	FILT, R-01
Nickel	ND	10	"	"	"	"	"	"	FILT, R-01
Selenium	ND	10	"	"	"	"	"	"	FILT, R-01
Zinc	70	10	"	"	"	"	"	"	FILT

Cold Vapor Extraction EPA 7470/7471

Mercury	ND	1.0	ug/l	1	23F0143	06/09/23	06/12/23	EPA 7470A Water	FILT
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Conventional Chemistry Parameters by APHA/EPA/ASTM Methods

Oil & Grease	ND	5.00	mg/l	1	23F0155	06/09/23	06/14/23	EPA 1664B	
Specific Conductance (EC)	2690	10.0	umho/cm @25°C	"	23F0163	06/09/23	06/12/23	SM2510b mod.	
pH	8.3	0.10	pH Units	"	23F0139	06/09/23	06/09/23	SM 4500-H+B	
pH Temperature °C	18		"	"	"	"	"	"	
Total Dissolved Solids	1500	10	mg/l	"	23F0162	06/09/23	06/16/23	TDS by SM2540C	

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 949.297.5020 Phone
 949.297.5027 Fax

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23a
T231538-01 (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	451	125	mg/l	25	23F0138	06/09/23	06/09/23	EPA 300.0	
Sulfate as SO4	390	125	"	"	"	"	"	"	
Nitrate as NO3	0.888	0.500	"	1	"	"	06/09/23	"	
Nitrate as N	0.200	0.200	"	"	"	"	"	"	

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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:
06/29/23 12:31

OBS-1
T231538-02 (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	ND	0.50	mg/l	100	23F0140	06/09/23	06/16/23	EPA 200.7	FILT, R-01
Calcium	320	50	"	"	"	"	06/16/23	"	FILT
Iron	ND	20	"	"	"	"	"	"	FILT, R-01
Magnesium	95	10	"	"	"	"	"	"	FILT
Potassium	ND	50	"	"	"	"	"	"	FILT, R-01
Sodium	6100	50	"	"	"	"	"	"	FILT
Antimony	ND	10	ug/l	20	23F0149	06/09/23	06/13/23	200.8	FILT, R-01
Arsenic	ND	10	"	"	"	"	"	"	FILT, R-01
Barium	14	10	"	"	"	"	"	"	FILT
Cadmium	ND	10	"	"	"	"	"	"	FILT, R-01
Chromium	ND	10	"	"	"	"	"	"	FILT, R-01
Cobalt	ND	10	"	"	"	"	"	"	FILT, R-01
Lead	ND	10	"	"	"	"	"	"	FILT, R-01
Nickel	ND	10	"	"	"	"	"	"	FILT, R-01
Selenium	57	10	"	"	"	"	"	"	FILT
Zinc	ND	10	"	"	"	"	"	"	FILT, R-01

Cold Vapor Extraction EPA 7470/7471

Mercury	ND	1.0	ug/l	1	23F0143	06/09/23	06/12/23	EPA 7470A Water	FILT
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Conventional Chemistry Parameters by APHA/EPA/ASTM Methods

Oil & Grease	ND	5.00	mg/l	1	23F0155	06/09/23	06/14/23	EPA 1664B	
Specific Conductance (EC)	24700	10.0	umho/cm @25°C	"	23F0163	06/09/23	06/12/23	SM2510b mod.	
pH	7.9	0.10	pH Units	"	23F0139	06/09/23	06/09/23	SM 4500-H+B	
pH Temperature °C	18		"	"	"	"	"	"	
Total Dissolved Solids	15000	10	mg/l	"	23F0162	06/09/23	06/16/23	TDS by SM2540C	

SunStar Laboratories, Inc.



Jeff Lee, Project Manager

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 Lake Forest, California 92630
 949.297.5020 Phone
 949.297.5027 Fax

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OBS-1
T231538-02 (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	6140	1000	mg/l	200	23F0138	06/09/23	06/09/23	EPA 300.0	
Sulfate as SO4	5460	1000	"	"	"	"	"	"	
Nitrate as NO3	4.94	0.500	"	1	"	"	06/09/23	"	
Nitrate as N	1.11	0.200	"	"	"	"	"	"	

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:
06/29/23 12:31

TW-1

T231538-03 (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	ND	0.50	mg/l	100	23F0140	06/09/23	06/16/23	EPA 200.7	FILT, R-01
Calcium	120	50	"	"	"	"	06/16/23	"	FILT
Iron	ND	20	"	"	"	"	"	"	FILT, R-01
Magnesium	32	10	"	"	"	"	"	"	FILT
Potassium	ND	50	"	"	"	"	"	"	FILT, R-01
Sodium	3700	50	"	"	"	"	"	"	FILT
Antimony	ND	10	ug/l	20	23F0149	06/09/23	06/13/23	200.8	FILT, R-01
Arsenic	ND	10	"	"	"	"	"	"	FILT, R-01
Barium	11	10	"	"	"	"	"	"	FILT
Cadmium	ND	10	"	"	"	"	"	"	FILT, R-01
Chromium	ND	10	"	"	"	"	"	"	FILT, R-01
Cobalt	ND	10	"	"	"	"	"	"	FILT, R-01
Lead	ND	10	"	"	"	"	"	"	FILT, R-01
Nickel	ND	10	"	"	"	"	"	"	FILT, R-01
Selenium	ND	10	"	"	"	"	"	"	FILT, R-01
Zinc	ND	10	"	"	"	"	"	"	FILT, R-01

Cold Vapor Extraction EPA 7470/7471

Mercury	ND	1.0	ug/l	1	23F0143	06/09/23	06/12/23	EPA 7470A Water	FILT
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Conventional Chemistry Parameters by APHA/EPA/ASTM Methods

Oil & Grease	ND	5.00	mg/l	1	23F0155	06/09/23	06/14/23	EPA 1664B	
Specific Conductance (EC)	15800	10.0	umho/cm @25°C	"	23F0163	06/09/23	06/12/23	SM2510b mod.	
pH	9.3	0.10	pH Units	"	23F0139	06/09/23	06/09/23	SM 4500-H+B	
pH Temperature °C	18		"	"	"	"	"	"	
Total Dissolved Solids	8200	10	mg/l	"	23F0162	06/09/23	06/16/23	TDS by SM2540C	

SunStar Laboratories, Inc.



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 Lake Forest, California 92630
 949.297.5020 Phone
 949.297.5027 Fax

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TW-1
T231538-03 (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	4530	1000	mg/l	200	23F0138	06/09/23	06/09/23	EPA 300.0	
Sulfate as SO4	1700	1000	"	"	"	"	"	"	
Nitrate as NO3	ND	0.500	"	1	"	"	06/09/23	"	
Nitrate as N	ND	0.200	"	"	"	"	"	"	

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 Lake Forest, California 92630
 949.297.5020 Phone
 949.297.5027 Fax

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TW-2
T231538-04 (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	ND	0.50	mg/l	100	23F0140	06/09/23	06/16/23	EPA 200.7	FILT, R-01
Calcium	99	50	"	"	"	"	06/16/23	"	FILT
Iron	ND	20	"	"	"	"	"	"	FILT, R-01
Potassium	ND	50	"	"	"	"	"	"	FILT, R-01
Magnesium	ND	10	"	"	"	"	"	"	FILT, R-01
Sodium	1200	50	"	"	"	"	"	"	FILT
Antimony	ND	10	ug/l	20	23F0149	06/09/23	06/13/23	200.8	FILT, R-01
Arsenic	ND	10	"	"	"	"	"	"	FILT, R-01
Barium	45	10	"	"	"	"	"	"	FILT
Cadmium	ND	10	"	"	"	"	"	"	FILT, R-01
Chromium	ND	10	"	"	"	"	"	"	FILT, R-01
Cobalt	ND	10	"	"	"	"	"	"	FILT, R-01
Lead	ND	10	"	"	"	"	"	"	FILT, R-01
Nickel	ND	10	"	"	"	"	"	"	FILT, R-01
Selenium	ND	10	"	"	"	"	"	"	FILT, R-01
Zinc	16	10	"	"	"	"	"	"	FILT

Cold Vapor Extraction EPA 7470/7471

Mercury	ND	1.0	ug/l	1	23F0143	06/09/23	06/12/23	EPA 7470A Water	FILT
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Conventional Chemistry Parameters by APHA/EPA/ASTM Methods

Oil & Grease	ND	5.00	mg/l	1	23F0155	06/09/23	06/14/23	EPA 1664B	
Specific Conductance (EC)	5870	10.0	umho/cm @25°C	"	23F0163	06/09/23	06/12/23	SM2510b mod.	
pH	8.9	0.10	pH Units	"	23F0139	06/09/23	06/09/23	SM 4500-H+B	
pH Temperature °C	19		"	"	"	"	"	"	
Total Dissolved Solids	3000	10	mg/l	"	23F0162	06/09/23	06/16/23	TDS by SM2540C	

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 Lake Forest, California 92630
 949.297.5020 Phone
 949.297.5027 Fax

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TW-2
T231538-04 (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	1660	250	mg/l	50	23F0138	06/09/23	06/09/23	EPA 300.0	
Sulfate as SO4	425	250	"	"	"	"	"	"	
Nitrate as NO3	0.895	0.500	"	1	"	"	06/09/23	"	
Nitrate as N	0.200	0.200	"	"	"	"	"	"	

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 Lake Forest, California 92630
 949.297.5020 Phone
 949.297.5027 Fax

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 26225 Enterprise Court
 Lake Forest CA, 92630

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

Reported:
 06/29/23 12:31

PW-0

T231538-05 (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	ND	0.50	mg/l	100	23F0140	06/09/23	06/16/23	EPA 200.7	FILT, R-01
Calcium	120	50	"	"	"	"	06/16/23	"	FILT
Iron	ND	20	"	"	"	"	"	"	FILT, R-01
Magnesium	ND	10	"	"	"	"	"	"	FILT, R-01
Potassium	ND	50	"	"	"	"	"	"	FILT, R-01
Sodium	1300	50	"	"	"	"	"	"	FILT
Antimony	ND	10	ug/l	20	23F0149	06/09/23	06/13/23	200.8	FILT, R-01
Arsenic	56	10	"	"	"	"	"	"	FILT
Barium	56	10	"	"	"	"	"	"	FILT
Cadmium	ND	10	"	"	"	"	"	"	FILT, R-01
Chromium	ND	10	"	"	"	"	"	"	FILT, R-01
Cobalt	ND	10	"	"	"	"	"	"	FILT, R-01
Lead	ND	10	"	"	"	"	"	"	FILT, R-01
Nickel	ND	10	"	"	"	"	"	"	FILT, R-01
Selenium	ND	10	"	"	"	"	"	"	FILT, R-01
Zinc	ND	10	"	"	"	"	"	"	FILT, R-01

Cold Vapor Extraction EPA 7470/7471

Mercury	ND	1.0	ug/l	1	23F0143	06/09/23	06/12/23	EPA 7470A Water	FILT
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Conventional Chemistry Parameters by APHA/EPA/ASTM Methods

Oil & Grease	ND	5.00	mg/l	1	23F0155	06/09/23	06/14/23	EPA 1664B	
Specific Conductance (EC)	6430	10.0	umho/cm @25°C	"	23F0163	06/09/23	06/12/23	SM2510b mod.	
pH	8.2	0.10	pH Units	"	23F0139	06/09/23	06/09/23	SM 4500-H+B	
pH Temperature °C	20		"	"	"	"	"	"	
Total Dissolved Solids	3400	10	mg/l	"	23F0162	06/09/23	06/16/23	TDS by SM2540C	

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Jeff Lee, Project Manager



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 Lake Forest, California 92630
 949.297.5020 Phone
 949.297.5027 Fax

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PW-0
T231538-05 (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	4.11	0.500	mg/l	1	23F0138	06/09/23	06/09/23	EPA 300.0	
Chloride	1780	250	"	50	"	"	06/09/23	"	
Sulfate as SO4	541	250	"	"	"	"	"	"	
Nitrate as NO3	ND	0.500	"	1	"	"	06/09/23	"	
Nitrate as N	ND	0.200	"	"	"	"	"	"	

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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:
06/29/23 12:31

PW-2

T231538-06 (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	ND	0.50	mg/l	100	23F0140	06/09/23	06/16/23	EPA 200.7	R-01, FILT
Calcium	62	50	"	"	"	"	06/16/23	"	FILT
Iron	ND	20	"	"	"	"	"	"	R-01, FILT
Potassium	ND	50	"	"	"	"	"	"	FILT, R-01
Magnesium	ND	10	"	"	"	"	"	"	R-01, FILT
Sodium	740	50	"	"	"	"	"	"	FILT
Antimony	ND	10	ug/l	20	23F0149	06/09/23	06/13/23	200.8	FILT, R-01
Arsenic	28	10	"	"	"	"	"	"	FILT
Barium	43	10	"	"	"	"	"	"	FILT
Cadmium	ND	10	"	"	"	"	"	"	FILT, R-01
Chromium	ND	10	"	"	"	"	"	"	FILT, R-01
Cobalt	ND	10	"	"	"	"	"	"	FILT, R-01
Lead	ND	10	"	"	"	"	"	"	FILT, R-01
Nickel	ND	10	"	"	"	"	"	"	R-01, FILT
Selenium	ND	10	"	"	"	"	"	"	FILT, R-01
Zinc	ND	10	"	"	"	"	"	"	FILT, R-01

Cold Vapor Extraction EPA 7470/7471

Mercury	ND	1.0	ug/l	1	23F0143	06/09/23	06/12/23	EPA 7470A Water	FILT
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Conventional Chemistry Parameters by APHA/EPA/ASTM Methods

Oil & Grease	ND	5.00	mg/l	1	23F0155	06/09/23	06/14/23	EPA 1664B	
Specific Conductance (EC)	3640	10.0	umho/cm @25°C	"	23F0163	06/09/23	06/12/23	SM2510b mod.	
pH	8.2	0.10	pH Units	"	23F0139	06/09/23	06/09/23	SM 4500-H+B	
pH Temperature °C	20		"	"	"	"	"	"	
Total Dissolved Solids	1800	10	mg/l	"	23F0162	06/09/23	06/16/23	TDS by SM2540C	

SunStar Laboratories, Inc.



Jeff Lee, Project Manager

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 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: 06/29/23 12:31
--	---	-----------------------------

PW-2
T231538-06 (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	5.47	0.500	mg/l	1	23F0138	06/09/23	06/09/23	EPA 300.0	
Chloride	802	250	"	50	"	"	06/09/23	"	
Sulfate as SO4	421	250	"	"	"	"	"	"	
Nitrate as NO3	ND	0.500	"	1	"	"	06/09/23	"	
Nitrate as N	ND	0.200	"	"	"	"	"	"	

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:
06/29/23 12:31

DUP

T231538-07 (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	ND	0.50	mg/l	100	23F0140	06/09/23	06/16/23	EPA 200.7	R-01, FILT
Calcium	61	50	"	"	"	"	06/16/23	"	FILT
Iron	ND	20	"	"	"	"	"	"	R-01, FILT
Potassium	ND	50	"	"	"	"	"	"	R-01, FILT
Magnesium	ND	10	"	"	"	"	"	"	R-01, FILT
Sodium	700	50	"	"	"	"	"	"	FILT
Antimony	ND	10	ug/l	20	23F0149	06/09/23	06/13/23	200.8	R-01, FILT
Arsenic	32	10	"	"	"	"	"	"	FILT
Barium	43	10	"	"	"	"	"	"	FILT
Cadmium	ND	10	"	"	"	"	"	"	FILT, R-01
Chromium	ND	10	"	"	"	"	"	"	R-01, FILT
Cobalt	ND	10	"	"	"	"	"	"	R-01, FILT
Lead	ND	10	"	"	"	"	"	"	R-01, FILT
Nickel	ND	10	"	"	"	"	"	"	R-01, FILT
Selenium	ND	10	"	"	"	"	"	"	R-01, FILT
Zinc	ND	10	"	"	"	"	"	"	FILT, R-01

Cold Vapor Extraction EPA 7470/7471

Mercury	ND	1.0	ug/l	1	23F0143	06/09/23	06/12/23	EPA 7470A Water	FILT
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Conventional Chemistry Parameters by APHA/EPA/ASTM Methods

Oil & Grease	ND	5.00	mg/l	1	23F0155	06/09/23	06/14/23	EPA 1664B	
Specific Conductance (EC)	3630	10.0	umho/cm @25°C	"	23F0163	06/09/23	06/12/23	SM2510b mod.	
pH	7.9	0.10	pH Units	"	23F0139	06/09/23	06/09/23	SM 4500-H+B	
pH Temperature °C	20		"	"	"	"	"	"	
Total Dissolved Solids	1800	10	mg/l	"	23F0162	06/09/23	06/16/23	TDS by SM2540C	

SunStar Laboratories, Inc.



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Jeff Lee, Project Manager



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 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: 06/29/23 12:31
--	---	-----------------------------

DUP
T231538-07 (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	808	250	mg/l	50	23F0138	06/09/23	06/09/23	EPA 300.0	
Sulfate as SO4	423	250	"	"	"	"	"	"	
Nitrate as NO3	ND	0.500	"	1	"	"	06/09/23	"	
Nitrate as N	ND	0.200	"	"	"	"	"	"	

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 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:
 06/29/23 12:31

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 23F0140 - EPA 3010A

Blank (23F0140-BLK1)

Prepared: 06/09/23 Analyzed: 06/16/23

Copper	ND	0.005	mg/l							
Calcium	ND	0.50	"							
Iron	ND	0.20	"							
Magnesium	ND	0.10	"							
Potassium	ND	0.50	"							
Sodium	ND	0.50	"							

LCS (23F0140-BS1)

Prepared: 06/09/23 Analyzed: 06/16/23

Copper	1.53	0.005	mg/l	1.50		102	85-115			
Calcium	1.52	0.50	"	1.50		101	80-120			
Iron	1.52	0.20	"	1.50		101	80-120			
Potassium	1.44	0.50	"	1.50		96.0	80-120			
Magnesium	1.56	0.10	"	1.50		104	80-120			
Sodium	1.44	0.50	"	1.50		95.9	80-120			

Matrix Spike (23F0140-MS1)

Source: T231538-01

Prepared: 06/09/23 Analyzed: 06/16/23

Copper	1.99	0.50	mg/l	1.50	0.058	129	70-130			
Calcium	31.4	50	"	1.50	28.4	195	70-130			QM-07, R-01
Iron	2.24	20	"	1.50	0.847	92.6	70-130			R-01
Magnesium	ND	10	"	1.50	ND		70-130			QM-05, R-01
Potassium	ND	50	"	1.50	ND		70-130			QM-05, R-01
Sodium	614	50	"	1.50	590	NR	70-130			QM-05

Matrix Spike Dup (23F0140-MSD1)

Source: T231538-01

Prepared: 06/09/23 Analyzed: 06/16/23

Copper	1.78	0.50	mg/l	1.50	0.058	115	70-130	11.2	30	
Calcium	29.0	50	"	1.50	28.4	40.8	70-130	7.65	30	QM-05, R-01
Iron	1.73	20	"	1.50	0.847	59.1	70-130	25.3	30	QM-05, R-01
Magnesium	ND	10	"	1.50	ND		70-130		30	QM-05, R-01
Potassium	17.2	50	"	1.50	ND	NR	70-130		30	QM-05, R-01
Sodium	576	50	"	1.50	590	NR	70-130	6.32	30	QM-05, R-01

SunStar Laboratories, Inc.

Jeff Lee, Project Manager

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 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:
 06/29/23 12:31

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 23F0149 - EPA 3010A

Blank (23F0149-BLK1)

Prepared: 06/09/23 Analyzed: 06/13/23

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

LCS (23F0149-BS1)

Prepared: 06/09/23 Analyzed: 06/13/23

Arsenic	23.6	0.50	ug/l	25.0		94.3	85-115			
Barium	23.6	0.50	"	25.0		94.6	85-115			
Cadmium	23.6	0.50	"	25.0		94.5	85-115			
Chromium	23.9	0.50	"	25.0		95.7	85-115			
Lead	25.4	0.50	"	25.0		102	85-115			

Matrix Spike (23F0149-MS1)

Source: T231538-02

Prepared: 06/09/23 Analyzed: 06/13/23

Arsenic	27.0	10	ug/l	25.0	0.400	106	70-130			
Barium	36.8	10	"	25.0	13.8	92.0	70-130			
Cadmium	25.6	10	"	25.0	3.80	87.2	70-130			
Chromium	23.6	10	"	25.0	ND	94.4	70-130			
Lead	27.0	10	"	25.0	ND	108	70-130			

Matrix Spike Dup (23F0149-MSD1)

Source: T231538-02

Prepared: 06/09/23 Analyzed: 06/13/23

Arsenic	29.2	10	ug/l	25.0	0.400	115	70-130	7.83	20	
Barium	37.4	10	"	25.0	13.8	94.4	70-130	1.62	20	
Cadmium	28.0	10	"	25.0	3.80	96.8	70-130	8.96	20	
Chromium	24.0	10	"	25.0	ND	96.0	70-130	1.68	20	
Lead	27.2	10	"	25.0	ND	109	70-130	0.738	20	

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: 06/29/23 12:31
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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 23F0143 - EPA 7470A Water

Blank (23F0143-BLK1)				Prepared: 06/09/23 Analyzed: 06/12/23						
Mercury	ND	1.0	ug/l							
LCS (23F0143-BS1)				Prepared: 06/09/23 Analyzed: 06/12/23						
Mercury	7.33	1.0	ug/l	7.50		97.7	80-120			
Matrix Spike (23F0143-MS1)				Source: T231538-01		Prepared: 06/09/23 Analyzed: 06/12/23				
Mercury	7.76	1.0	ug/l	7.50	ND	103	80-120			
Matrix Spike Dup (23F0143-MSD1)				Source: T231538-01		Prepared: 06/09/23 Analyzed: 06/12/23				
Mercury	7.98	1.0	ug/l	7.50	ND	106	80-120	2.80	20	

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 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:
 06/29/23 12:31

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 23F0139 - General Preparation

Duplicate (23F0139-DUP1)		Source: T231538-01			Prepared & Analyzed: 06/09/23					
pH	8.22	0.10	pH Units		8.31			1.09	10	
pH Temperature °C	18.9		"		18.5			2.14	200	

Batch 23F0155 - General Preparation

Blank (23F0155-BLK1)		Prepared: 06/09/23 Analyzed: 06/14/23								
Oil & Grease	ND	5.00	mg/l							

LCS (23F0155-BS1)		Prepared: 06/09/23 Analyzed: 06/14/23								
Oil & Grease	41.5	5.00	mg/l	53.1		78.2	78-114			

LCS Dup (23F0155-BSD1)		Prepared: 06/09/23 Analyzed: 06/14/23								
Oil & Grease	40.0	5.00	mg/l	53.1		75.3	78-114	3.68	20	BS-4

Batch 23F0162 - General Preparation

Blank (23F0162-BLK1)		Prepared: 06/09/23 Analyzed: 06/16/23								
Total Dissolved Solids	ND	10	mg/l							

LCS (23F0162-BS1)		Prepared: 06/09/23 Analyzed: 06/16/23								
Total Dissolved Solids	564	10	mg/l	500		113	80-120			

Duplicate (23F0162-DUP1)		Source: T231538-01			Prepared: 06/09/23 Analyzed: 06/16/23					
Total Dissolved Solids	1400	10	mg/l		1490			6.09	20	

SunStar Laboratories, Inc.

Jeff Lee, Project Manager

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 Lake Forest, California 92630
 949.297.5020 Phone
 949.297.5027 Fax

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--	---	-----------------------------

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 23F0163 - General Preparation

Duplicate (23F0163-DUP1)	Source: T231538-01		Prepared: 06/09/23 Analyzed: 06/12/23							
Specific Conductance (EC)	2680	10.0	umho/cm @25°C		2690			0.372	15	

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Jeff Lee, Project Manager



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:
 06/29/23 12:31

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 23F0138 - General Preparation

Blank (23F0138-BLK1)

Prepared & Analyzed: 06/09/23

Fluoride	ND	0.500	mg/l							
Chloride	ND	5.00	"							
Nitrite as NO2	ND	0.500	"							
Sulfate as SO4	ND	5.00	"							
Nitrate as NO3	ND	0.500	"							
Phosphate, Total as Orthophosphate	ND	0.500	"							
Nitrite as N	ND	0.200	"							
Nitrate as N	ND	0.200	"							

LCS (23F0138-BS1)

Prepared & Analyzed: 06/09/23

Fluoride	22.6	0.500	mg/l	25.0		90.4	75-125			
Chloride	24.6	5.00	"	25.0		98.3	75-125			
Sulfate as SO4	25.4	5.00	"	25.0		101	75-125			
Nitrate as NO3	25.7	0.500	"	25.0		103	75-125			

Matrix Spike (23F0138-MS1)

Source: T231538-01

Prepared & Analyzed: 06/09/23

Fluoride	29.4	0.500	mg/l	25.0	4.80	98.6	75-125			
Chloride	449	125	"	25.0	451	NR	75-125			QM-05
Sulfate as SO4	392	125	"	25.0	390	7.30	75-125			QM-05
Nitrate as NO3	24.6	0.500	"	25.0	0.888	94.7	75-125			

Matrix Spike Dup (23F0138-MSD1)

Source: T231538-01

Prepared & Analyzed: 06/09/23

Fluoride	26.8	0.500	mg/l	25.0	4.80	88.2	75-125	9.20	20	
Chloride	445	125	"	25.0	451	NR	75-125	0.744	20	QM-05
Sulfate as SO4	391	125	"	25.0	390	4.20	75-125	0.198	20	QM-05
Nitrate as NO3	24.8	0.500	"	25.0	0.888	95.6	75-125	0.953	20	

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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:
06/29/23 12:31

Notes and Definitions

- R-01 The Reporting Limit has been raised to account for dilution necessary due to matrix interference.
- QM-07 The spike recovery and or RPD was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- 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.
- FILT The sample was filtered prior to analysis.
- BS-4 A BS was outside of acceptance range, however, the data was accepted based on the passing duplicate BS, acceptable RPD, and other batch QCs.
- 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

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Jeff Lee, Project Manager

SunStar Laboratories, Inc.
 25712 Commercentre Dr
 Lake Forest, CA 92630
 949-297-5020

Chain of Custody Record

Client: Northstar Environmental Remediation _____
 Address: 26225 Enterprise Court, Lake Forest, CA 92630 _____
 Phone: 949-274-1719 _____ Fax: _____
 Project Manager: Arlin Brewster _____

Date: 6/9/2023 Page: 1 of 1
 Project Name: Genesis Solar Groundwater _____
 Collector: Arlin Brewster _____ Client Project #: 196-004-06 _____
 Batch #: T231538 EDF #: T10000006093 _____

Sample ID	Date Sampled	Time	Sample Type	Container Type	200.7 - Dissolved Metals: Ca, Cu, Na, K, Fe, Mg (FIELD FILTERED)	200.8 - Dissolved Metals: Sb, As, Ba, Cd, Cr, Co, Pb, Ni, Se, Zn (F.F.)	300.0 - Chloride, Nitrate, Sulfate	1664 - Oil and Grease	7470A - Mercury	9040 - pH	SM2510B - Conductivity, Specific	SM2540C - Total Dis. Solids	8015M - TerminoI (Subcontract)	Deuterium, Oxygen-18 (Subcont.)	300.0 - Fluoride	Laboratory ID #	Comments/Preservative	Total # of containers
23a	6/8/23	1415	W	Various	X	X	X	X	X	X	X	X	X	X				7
OBS-1		1230	W	Various	X	X	X	X	X	X	X	X	X	X				7
TW-1		1200	W	Various	X	X	X	X	X	X	X	X	X	X				7
TW-2		1430	W	Various	X	X	X	X	X	X	X	X	X	X				7
PW-0		1505	W	Various	X	X	X	X	X	X	X	X	X	X				7
PW-2	✓	1520	W	Various	X	X	X	X	X	X	X	X	X	X				7
DUP	N/A	N/A	W	Various	X	X	X	X	X	X	X	X	X	X				7
Field Blank	N/A	N/A	W	Various													HOLD	1
Trip Blank	N/A	N/A	W	Various													HOLD	1

Relinquished by: (signature) <i>Alan Br</i>	Date / Time 6/9/23 08:25	Received by: (signature) <i>Alan Br</i>	Date / Time 6/9/23 8:25	Total # of containers 51 Chain of Custody seals Y/N/A Seals intact? Y/N/A Received good condition/cold <u>0.89</u> Turn around time: Standard **	Notes ** Deuterium & Oxygen-18 subcontract has 10 day TAT Reporting limits must match previous reports
Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time		
Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time		

Sample disposal Instructions: Disposal @ \$2.00 each _____ Return to client _____ Pickup _____



SAMPLE RECEIVING REVIEW SHEET

Batch/Work Order #: T231538
 Client Name: Northstar Project: Genesis Solar Groundwater
 Delivered by: Client SunStar Courier GLS FedEx Other
 If Courier, Received by: _____ Date/Time Courier Received: _____
 Lab Received by: Joann Date/Time Lab Received: 6-9-23 8:25
 Total number of coolers received: _____ Thermometer ID: SC-1 Calibration due: 8/2/23

Temperature: Cooler #1	0.7 °C +/- the CF (+0.1°C) = 0.8	°C corrected temperature
Temperature: Cooler #2	°C +/- the CF (+0.1°C) =	°C corrected temperature
Temperature: Cooler #3	°C +/- the CF (+0.1°C) =	°C corrected temperature
Temperature criteria = ≤ 6°C (no frozen containers)		Within criteria? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
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: TB 6-9-23

Comments:

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ANALYTICAL REPORT

PREPARED FOR

Attn: Jeff Lee
SunStar Laboratories Inc
25712 Commercentre Drive
Lake Forest, California 92630

Generated 6/23/2023 10:24:43 AM Revision 1

JOB DESCRIPTION

T231538

JOB NUMBER

570-141353-1

Eurofins Calscience

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



Authorized for release by
Sandy Tat, Project Manager I
Sandy.Tat@et.eurofinsus.com
Designee for
Don Burley, Senior Project Manager
Donald.Burley@et.eurofinsus.com
(657)212-3033

Generated
6/23/2023 10:24:43 AM
Revision 1

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Definitions/Glossary

Client: SunStar Laboratories Inc
Project/Site: T231538

Job ID: 570-141353-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.

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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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)
TNTC	Too Numerous To Count

Case Narrative

Client: SunStar Laboratories Inc
Project/Site: T231538

Job ID: 570-141353-1

Job ID: 570-141353-1

Laboratory: Eurofins Calscience

Narrative

**Job Narrative
570-141353-1**

Comments

No additional comments.

Receipt

The samples were received on 6/12/2023 10:17 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.9° C.

GC Semi VOA

Method 8015B: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 570-337466 and analytical batch 570-338949 recovered outside control limits for the following analytes: Benzene, 1,1'-oxybis-. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

Method 3510C: The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.



Detection Summary

Client: SunStar Laboratories Inc
Project/Site: T231538

Job ID: 570-141353-1

Client Sample ID: T231538-01

Lab Sample ID: 570-141353-1

No Detections.

Client Sample ID: T231538-02

Lab Sample ID: 570-141353-2

No Detections.

Client Sample ID: T231538-03

Lab Sample ID: 570-141353-3

No Detections.

Client Sample ID: T231538-04

Lab Sample ID: 570-141353-4

No Detections.

Client Sample ID: T231538-05

Lab Sample ID: 570-141353-5

No Detections.

Client Sample ID: T231538-06

Lab Sample ID: 570-141353-6

No Detections.

Client Sample ID: T231538-07

Lab Sample ID: 570-141353-7

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins Calscience



Client Sample Results

Client: SunStar Laboratories Inc
Project/Site: T231538

Job ID: 570-141353-1

Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: T231538-01
Date Collected: 06/08/23 14:15
Date Received: 06/12/23 10:17

Lab Sample ID: 570-141353-1
Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND	*+	100	ug/L		06/14/23 20:52	06/20/23 19:25	1
1,1'-Biphenyl	ND		100	ug/L		06/14/23 20:52	06/20/23 19:25	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	103		53 - 151			06/14/23 20:52	06/20/23 19:25	1

Client Sample ID: T231538-02
Date Collected: 06/08/23 12:30
Date Received: 06/12/23 10:17

Lab Sample ID: 570-141353-2
Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND	*+	100	ug/L		06/14/23 20:52	06/20/23 19:50	1
1,1'-Biphenyl	ND		100	ug/L		06/14/23 20:52	06/20/23 19:50	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	100		53 - 151			06/14/23 20:52	06/20/23 19:50	1

Client Sample ID: T231538-03
Date Collected: 06/08/23 12:00
Date Received: 06/12/23 10:17

Lab Sample ID: 570-141353-3
Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND	*+	98	ug/L		06/14/23 20:52	06/20/23 20:14	1
1,1'-Biphenyl	ND		98	ug/L		06/14/23 20:52	06/20/23 20:14	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	98		53 - 151			06/14/23 20:52	06/20/23 20:14	1

Client Sample ID: T231538-04
Date Collected: 06/08/23 14:30
Date Received: 06/12/23 10:17

Lab Sample ID: 570-141353-4
Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND	*+	96	ug/L		06/14/23 20:52	06/20/23 20:39	1
1,1'-Biphenyl	ND		96	ug/L		06/14/23 20:52	06/20/23 20:39	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	95		53 - 151			06/14/23 20:52	06/20/23 20:39	1

Client Sample ID: T231538-05
Date Collected: 06/08/23 15:05
Date Received: 06/12/23 10:17

Lab Sample ID: 570-141353-5
Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND	*+	99	ug/L		06/14/23 20:52	06/20/23 21:03	1
1,1'-Biphenyl	ND		99	ug/L		06/14/23 20:52	06/20/23 21:03	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	100		53 - 151			06/14/23 20:52	06/20/23 21:03	1

Client Sample ID: T231538-06
Date Collected: 06/08/23 15:20
Date Received: 06/12/23 10:17

Lab Sample ID: 570-141353-6
Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND	*+	99	ug/L		06/14/23 20:52	06/20/23 21:27	1
1,1'-Biphenyl	ND		99	ug/L		06/14/23 20:52	06/20/23 21:27	1

Eurofins Calscience

Client Sample Results

Client: SunStar Laboratories Inc
 Project/Site: T231538

Job ID: 570-141353-1

Method: SW846 8015B - Diesel Range Organics (DRO) (GC) (Continued)

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>			<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>	
<i>n</i> -Octacosane (Surr)	99		53 - 151			06/14/23 20:52	06/20/23 21:27	1	
Client Sample ID: T231538-07						Lab Sample ID: 570-141353-7			
Date Collected: 06/08/23 00:00						Matrix: Water			
Date Received: 06/12/23 10:17									
<u>Analyte</u>	<u>Result</u>	<u>Qualifier</u>	<u>RL</u>	<u>Unit</u>	<u>D</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>	
Benzene, 1,1'-oxybis-	ND	*+	100	ug/L		06/14/23 20:52	06/20/23 21:52	1	
1,1'-Biphenyl	ND		100	ug/L		06/14/23 20:52	06/20/23 21:52	1	
<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>			<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>	
<i>n</i> -Octacosane (Surr)	105		53 - 151			06/14/23 20:52	06/20/23 21:52	1	



Surrogate Summary

Client: SunStar Laboratories Inc
Project/Site: T231538

Job ID: 570-141353-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTCSN1 (53-151)
570-141353-1	T231538-01	103
570-141353-2	T231538-02	100
570-141353-3	T231538-03	98
570-141353-4	T231538-04	95
570-141353-5	T231538-05	100
570-141353-6	T231538-06	99
570-141353-7	T231538-07	105

Surrogate Legend

OTCSN = n-Octacosane (Surr)

- 1
- 2
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- 11
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QC Sample Results

Client: SunStar Laboratories Inc
Project/Site: T231538

Job ID: 570-141353-1

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

Lab Sample ID: MB 570-337466/1-A
Matrix: Water
Analysis Batch: 338949

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 337466

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene, 1,1'-oxybis-	ND		100	ug/L		06/14/23 20:52	06/20/23 17:23	1
1,1'-Biphenyl	ND		100	ug/L		06/14/23 20:52	06/20/23 17:23	1
Surrogate	MB MB		Limits			Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier						
<i>n-Octacosane (Surr)</i>	92		53 - 151			06/14/23 20:52	06/20/23 17:23	1

Lab Sample ID: LCS 570-337466/2-A
Matrix: Water
Analysis Batch: 338949

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 337466

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1'-Biphenyl	1000	898.4		ug/L		90	45 - 120
Surrogate	LCS LCS		Limits				
	%Recovery	Qualifier					
<i>n-Octacosane (Surr)</i>	106		53 - 151				

Lab Sample ID: LCSD 570-337466/3-A
Matrix: Water
Analysis Batch: 338949

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 337466

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	
								RPD	Limit
Benzene, 1,1'-oxybis-	1000	1375	*+	ug/L		137	57 - 120	11	20
1,1'-Biphenyl	1000	1003		ug/L		100	45 - 120	11	20
Surrogate	LCSD LCSD		Limits						
	%Recovery	Qualifier							
<i>n-Octacosane (Surr)</i>	119		53 - 151						

QC Association Summary

Client: SunStar Laboratories Inc
Project/Site: T231538

Job ID: 570-141353-1

GC Semi VOA

Prep Batch: 337466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-141353-1	T231538-01	Total/NA	Water	3510C	
570-141353-2	T231538-02	Total/NA	Water	3510C	
570-141353-3	T231538-03	Total/NA	Water	3510C	
570-141353-4	T231538-04	Total/NA	Water	3510C	
570-141353-5	T231538-05	Total/NA	Water	3510C	
570-141353-6	T231538-06	Total/NA	Water	3510C	
570-141353-7	T231538-07	Total/NA	Water	3510C	

Analysis Batch: 338949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-141353-1	T231538-01	Total/NA	Water	8015B	337466
570-141353-2	T231538-02	Total/NA	Water	8015B	337466
570-141353-3	T231538-03	Total/NA	Water	8015B	337466
570-141353-4	T231538-04	Total/NA	Water	8015B	337466
570-141353-5	T231538-05	Total/NA	Water	8015B	337466
570-141353-6	T231538-06	Total/NA	Water	8015B	337466
570-141353-7	T231538-07	Total/NA	Water	8015B	337466

Lab Chronicle

Client: SunStar Laboratories Inc
Project/Site: T231538

Job ID: 570-141353-1

Client Sample ID: T231538-01

Lab Sample ID: 570-141353-1

Date Collected: 06/08/23 14:15

Matrix: Water

Date Received: 06/12/23 10:17

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			250.9 mL	2.5 mL	337466	06/14/23 20:52	UFLU	EET CAL 4
Total/NA	Analysis	8015B		1	1 mL	1 mL	338949	06/20/23 19:25	N5Y3	EET CAL 4

Instrument ID: GC70B

Client Sample ID: T231538-02

Lab Sample ID: 570-141353-2

Date Collected: 06/08/23 12:30

Matrix: Water

Date Received: 06/12/23 10:17

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			246 mL	2.5 mL	337466	06/14/23 20:52	UFLU	EET CAL 4
Total/NA	Analysis	8015B		1	1 mL	1 mL	338949	06/20/23 19:50	N5Y3	EET CAL 4

Instrument ID: GC70B

Client Sample ID: T231538-03

Lab Sample ID: 570-141353-3

Date Collected: 06/08/23 12:00

Matrix: Water

Date Received: 06/12/23 10:17

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			256.1 mL	2.5 mL	337466	06/14/23 20:52	UFLU	EET CAL 4
Total/NA	Analysis	8015B		1	1 mL	1 mL	338949	06/20/23 20:14	N5Y3	EET CAL 4

Instrument ID: GC70B

Client Sample ID: T231538-04

Lab Sample ID: 570-141353-4

Date Collected: 06/08/23 14:30

Matrix: Water

Date Received: 06/12/23 10:17

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			259.2 mL	2.5 mL	337466	06/14/23 20:52	UFLU	EET CAL 4
Total/NA	Analysis	8015B		1	1 mL	1 mL	338949	06/20/23 20:39	N5Y3	EET CAL 4

Instrument ID: GC70B

Client Sample ID: T231538-05

Lab Sample ID: 570-141353-5

Date Collected: 06/08/23 15:05

Matrix: Water

Date Received: 06/12/23 10:17

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			252.4 mL	2.5 mL	337466	06/14/23 20:52	UFLU	EET CAL 4
Total/NA	Analysis	8015B		1	1 mL	1 mL	338949	06/20/23 21:03	N5Y3	EET CAL 4

Instrument ID: GC70B

Lab Chronicle

Client: SunStar Laboratories Inc
Project/Site: T231538

Job ID: 570-141353-1

Client Sample ID: T231538-06

Lab Sample ID: 570-141353-6

Date Collected: 06/08/23 15:20

Matrix: Water

Date Received: 06/12/23 10:17

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			253.5 mL	2.5 mL	337466	06/14/23 20:52	UFLU	EET CAL 4
Total/NA	Analysis	8015B		1	1 mL	1 mL	338949	06/20/23 21:27	N5Y3	EET CAL 4
Instrument ID: GC70B										

Client Sample ID: T231538-07

Lab Sample ID: 570-141353-7

Date Collected: 06/08/23 00:00

Matrix: Water

Date Received: 06/12/23 10:17

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			251.2 mL	2.5 mL	337466	06/14/23 20:52	UFLU	EET CAL 4
Total/NA	Analysis	8015B		1	1 mL	1 mL	338949	06/20/23 21:52	N5Y3	EET CAL 4
Instrument ID: GC70B										

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Accreditation/Certification Summary

Client: SunStar Laboratories Inc
Project/Site: T231538

Job ID: 570-141353-1

Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

<u>Authority</u>	<u>Program</u>	<u>Identification Number</u>	<u>Expiration Date</u>
Oregon	NELAP	4175	02-02-24

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Method Summary

Client: SunStar Laboratories Inc
Project/Site: T231538

Job ID: 570-141353-1

Method	Method Description	Protocol	Laboratory
8015B	Diesel Range Organics (DRO) (GC)	SW846	EET CAL 4
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET CAL 4

Protocol References:

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

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494



Sample Summary

Client: SunStar Laboratories Inc
Project/Site: T231538

Job ID: 570-141353-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-141353-1	T231538-01	Water	06/08/23 14:15	06/12/23 10:17
570-141353-2	T231538-02	Water	06/08/23 12:30	06/12/23 10:17
570-141353-3	T231538-03	Water	06/08/23 12:00	06/12/23 10:17
570-141353-4	T231538-04	Water	06/08/23 14:30	06/12/23 10:17
570-141353-5	T231538-05	Water	06/08/23 15:05	06/12/23 10:17
570-141353-6	T231538-06	Water	06/08/23 15:20	06/12/23 10:17
570-141353-7	T231538-07	Water	06/08/23 00:00	06/12/23 10:17

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SUBCONTRACT ORDER

SunStar Laboratories, Inc.

T231538

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:

Eurofins Calscience (Tustin)
2841 Dow Ave, Suite 100
Tustin, CA 92780
Phone : (949) 261-1022
Fax: N/A



Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: T231538-01	Water	Sampled:06/08/23 14:15	[REDACTED]	
Misc Water Testing #1	06/23/23 00:00	12/05/23 14:15		8015M- Therminol
<i>Containers Supplied:</i>				
Sample ID: T231538-02	Water	Sampled:06/08/23 12:30	[REDACTED]	
Misc Water Testing #1	06/23/23 00:00	12/05/23 12:30		8015M- Therminol
<i>Containers Supplied:</i>				
Sample ID: T231538-03	Water	Sampled:06/08/23 12:00	[REDACTED]	
Misc Water Testing #1	06/23/23 00:00	12/05/23 12:00		8015M- Therminol
<i>Containers Supplied:</i>				
Sample ID: T231538-04	Water	Sampled:06/08/23 14:30	[REDACTED]	
Misc Water Testing #1	06/23/23 00:00	12/05/23 14:30		8015M- Therminol
<i>Containers Supplied:</i>				
Sample ID: T231538-05	Water	Sampled:06/08/23 15:05	[REDACTED]	
Misc Water Testing #1	06/23/23 00:00	12/05/23 15:05		8015M- Therminol
<i>Containers Supplied:</i>				
Sample ID: T231538-06	Water	Sampled:06/08/23 15:20	[REDACTED]	
Misc Water Testing #1	06/23/23 00:00	12/05/23 15:20		8015M- Therminol
<i>Containers Supplied:</i>				

Released By [Signature] Date 6-12-23 10:17 Received By [Signature] Date 6/12/23 10:17

Released By _____ Date _____ Received By 27/2-9 Date SCB



SUBCONTRACT ORDER

141353

SunStar Laboratories, Inc.

T231538

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: T231538-07	Water	Sampled:06/08/23 00:00	[REDACTED]	
Misc Water Testing #1	06/23/23 00:00	12/05/23 00:00		8015M- Therminol
<i>Containers Supplied:</i>				
Sample ID: T231538-10	Water	Sampled:06/08/23 18:10	[REDACTED]	
Misc Water Testing #1	06/23/23 00:00	12/05/23 18:10		8015M- Therminol
<i>Containers Supplied:</i>				
Sample ID: T231538-11	Water	Sampled:06/08/23 19:40	[REDACTED]	
Misc Water Testing #1	06/23/23 00:00	12/05/23 19:40		8015M- Therminol
<i>Containers Supplied:</i>				
Sample ID: T231538-12	Water	Sampled:06/08/23 16:45	[REDACTED]	
Misc Water Testing #1	06/23/23 00:00	12/05/23 16:45		8015M- Therminol
<i>Containers Supplied:</i>				

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Released By [Signature] Date 6/12-23 Received By [Signature] Date 6/12/23

Released By _____ Date _____ Received By _____ Date _____

Login Sample Receipt Checklist

Client: SunStar Laboratories Inc

Job Number: 570-141353-1

Login Number: 141353

List Number: 1

Creator: Vitente, Precy

List Source: Eurofins Calscience

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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	Received project as a subcontract.
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.	True	
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	



Lab #: 874731 Job #: 54935 IS-101168 Co. Job#:
Sample Name: T231538-01 Co. Lab#:
Company: SunStar Laboratories, Inc
API/Well:
Container: 250ml Plastic Bottle
Field/Site Name: T231538
Location:
Formation/Depth:
Sampling Point:
Date Sampled: 6/08/2023 14:15 Date Received: 6/13/2023 Date Reported: 6/27/2023

δD of water ----- -74.1 ‰ 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

Lab #: 874732 Job #: 54935 IS-101168 Co. Job#:
Sample Name: T231538-02 Co. Lab#:
Company: SunStar Laboratories, Inc
API/Well:
Container: 250ml Plastic Bottle
Field/Site Name: T231538
Location:
Formation/Depth:
Sampling Point:
Date Sampled: 6/08/2023 12:30 Date Received: 6/13/2023 Date Reported: 6/27/2023

δ D of water ----- -61.3 ‰ relative to VSMOW

δ ¹⁸O of water ----- -6.82 ‰ 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 #: 874733 Job #: 54935 IS-101168 Co. Job#:
Sample Name: T231538-03 Co. Lab#:
Company: SunStar Laboratories, Inc
API/Well:
Container: 250ml Plastic Bottle
Field/Site Name: T231538
Location:
Formation/Depth:
Sampling Point:
Date Sampled: 6/08/2023 12:00 Date Received: 6/13/2023 Date Reported: 6/27/2023

δ D of water ----- -63.2 ‰ relative to VSMOW

δ ¹⁸O of water ----- -7.85 ‰ 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 #: 874734 Job #: 54935 IS-101168 Co. Job#:
Sample Name: T231538-04 Co. Lab#:
Company: SunStar Laboratories, Inc
API/Well:
Container: 250ml Plastic Bottle
Field/Site Name: T231538
Location:
Formation/Depth:
Sampling Point:
Date Sampled: 6/08/2023 14:30 Date Received: 6/13/2023 Date Reported: 6/27/2023

δD of water ----- -75.4 ‰ relative to VSMOW

$\delta^{18}O$ of water ----- -9.98 ‰ 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 #: 874735 Job #: 54935 IS-101168 Co. Job#:
Sample Name: T231538-05 Co. Lab#:
Company: SunStar Laboratories, Inc
API/Well:
Container: 250ml Plastic Bottle
Field/Site Name: T231538
Location:
Formation/Depth:
Sampling Point:
Date Sampled: 6/08/2023 15:05 Date Received: 6/13/2023 Date Reported: 6/27/2023

δ D of water ----- -76.6 ‰ relative to VSMOW

δ^{18} O of water ----- -10.09 ‰ relative to VSMOW

Tritium content of water ----- na

δ^{13} C of DIC ----- na

14 C content of DIC ----- na

δ^{15} N of nitrate ----- na

δ^{18} O of nitrate ----- na

δ^{34} S of sulfate ----- na

δ^{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 #: 874736 Job #: 54935 IS-101168 Co. Job#:
Sample Name: T231538-06 Co. Lab#:
Company: SunStar Laboratories, Inc
API/Well:
Container: 250ml Plastic Bottle
Field/Site Name: T231538
Location:
Formation/Depth:
Sampling Point:
Date Sampled: 6/08/2023 15:20 Date Received: 6/13/2023 Date Reported: 6/27/2023

δ D of water ----- -78.6 ‰ relative to VSMOW

δ^{18} O of water ----- -10.37 ‰ relative to VSMOW

Tritium content of water ----- na

δ^{13} C of DIC ----- na

14 C content of DIC ----- na

δ^{15} N of nitrate ----- na

δ^{18} O of nitrate ----- na

δ^{34} S of sulfate ----- na

δ^{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 #: 874737 Job #: 54935 IS-101168 Co. Job#:
Sample Name: T231538-07 Co. Lab#:
Company: SunStar Laboratories, Inc
API/Well:
Container: 250ml Plastic Bottle
Field/Site Name: T231538
Location:
Formation/Depth:
Sampling Point:
Date Sampled: 6/08/2023 0:00 Date Received: 6/13/2023 Date Reported: 6/27/2023

δ D of water ----- -78.4 ‰ relative to VSMOW

δ^{18} O of water ----- -10.32 ‰ relative to VSMOW

Tritium content of water ----- na

δ^{13} C of DIC ----- na

14 C content of DIC ----- na

δ^{15} N of nitrate ----- na

δ^{18} O of nitrate ----- na

δ^{34} S of sulfate ----- na

δ^{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

WORK ORDER

T231538

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: 06/26/23 00:00 (11 day TAT)

Received By: Joann Marroquin

Date Received: 06/09/23 08:25

Logged In By: Jeff Lee

Date Logged In: 06/09/23 09:19

Samples Received at: **0.8°C**

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

Analysis	Due	TAT	Expires	Comments
T231538-01 23a [Water] Sampled 06/08/23 14:15 (GMT-08:00) Pacific Time (US &				
1664	06/16/23 15:00	5	07/06/23 14:15	Oil & Grease
200.7	06/16/23 15:00	5	12/05/23 14:15	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	06/16/23 15:00	5	12/05/23 14:15	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	06/16/23 15:00	5	07/06/23 14:15	Chloride,Sulfate only
300.0 - NO2, NO3, PO4	06/16/23 15:00	5	06/10/23 14:15	Nitrate
7470/71 Hg	06/16/23 15:00	5	09/06/23 14:15	
Conductivity	06/16/23 15:00	5	07/06/23 14:15	
pH water SM 4500-H+B	06/14/23 15:00	3	06/09/23 14:15	
TDS-160.1	06/16/23 15:00	5	06/15/23 14:15	

T231538-02 OBS-1 [Water] Sampled 06/08/23 12:30 (GMT-08:00) Pacific Time (US &				
1664	06/16/23 15:00	5	07/06/23 12:30	Oil & Grease
200.7	06/16/23 15:00	5	12/05/23 12:30	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	06/16/23 15:00	5	12/05/23 12:30	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	06/16/23 15:00	5	07/06/23 12:30	Chloride,Sulfate only
300.0 - NO2, NO3, PO4	06/16/23 15:00	5	06/10/23 12:30	Nitrate
7470/71 Hg	06/16/23 15:00	5	09/06/23 12:30	
Conductivity	06/16/23 15:00	5	07/06/23 12:30	
pH water SM 4500-H+B	06/14/23 15:00	3	06/09/23 12:30	
TDS-160.1	06/16/23 15:00	5	06/15/23 12:30	

WORK ORDER

T231538

Client: Northstar Environmental Remediation
Project: Genesis Solar Groundwater

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

Analysis	Due	TAT	Expires	Comments
T231538-03 TW-1 [Water] Sampled 06/08/23 12:00 (GMT-08:00) Pacific Time (US &				
1664	06/16/23 15:00	5	07/06/23 12:00	Oil & Grease
200.7	06/16/23 15:00	5	12/05/23 12:00	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	06/16/23 15:00	5	12/05/23 12:00	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	06/16/23 15:00	5	07/06/23 12:00	Chloride,Sulfate only
300.0 - NO2, NO3, PO4	06/16/23 15:00	5	06/10/23 12:00	Nitrate
7470/71 Hg	06/16/23 15:00	5	09/06/23 12:00	
Conductivity	06/16/23 15:00	5	07/06/23 12:00	
pH water SM 4500-H+B	06/14/23 15:00	3	06/09/23 12:00	
TDS-160.1	06/16/23 15:00	5	06/15/23 12:00	
T231538-04 TW-2 [Water] Sampled 06/08/23 14:30 (GMT-08:00) Pacific Time (US &				
1664	06/16/23 15:00	5	07/06/23 14:30	Oil & Grease
200.7	06/16/23 15:00	5	12/05/23 14:30	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	06/16/23 15:00	5	12/05/23 14:30	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	06/16/23 15:00	5	07/06/23 14:30	Chloride,Sulfate only
300.0 - NO2, NO3, PO4	06/16/23 15:00	5	06/10/23 14:30	Nitrate
7470/71 Hg	06/16/23 15:00	5	09/06/23 14:30	
Conductivity	06/16/23 15:00	5	07/06/23 14:30	
pH water SM 4500-H+B	06/14/23 15:00	3	06/09/23 14:30	
TDS-160.1	06/16/23 15:00	5	06/15/23 14:30	
T231538-05 PW-0 [Water] Sampled 06/08/23 15:05 (GMT-08:00) Pacific Time (US &				
1664	06/16/23 15:00	5	07/06/23 15:05	Oil & Grease
200.7	06/16/23 15:00	5	12/05/23 15:05	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	06/16/23 15:00	5	12/05/23 15:05	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	06/16/23 15:00	5	07/06/23 15:05	Chloride,Sulfate, and Fluoride only
300.0 - NO2, NO3, PO4	06/16/23 15:00	5	06/10/23 15:05	Nitrate
7470/71 Hg	06/16/23 15:00	5	09/06/23 15:05	
Conductivity	06/16/23 15:00	5	07/06/23 15:05	
pH water SM 4500-H+B	06/14/23 15:00	3	06/09/23 15:05	
TDS-160.1	06/16/23 15:00	5	06/15/23 15:05	

WORK ORDER

T231538

Client: Northstar Environmental Remediation
Project: Genesis Solar Groundwater

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

Analysis	Due	TAT	Expires	Comments
T231538-06 PW-2 [Water] Sampled 06/08/23 15:20 (GMT-08:00) Pacific Time (US &				
1664	06/16/23 15:00	5	07/06/23 15:20	Oil & Grease
200.7	06/16/23 15:00	5	12/05/23 15:20	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	06/16/23 15:00	5	12/05/23 15:20	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	06/16/23 15:00	5	07/06/23 15:20	Chloride,Sulfate, and Fluoride only
300.0 - NO2, NO3, PO4	06/16/23 15:00	5	06/10/23 15:20	Nitrate
7470/71 Hg	06/16/23 15:00	5	09/06/23 15:20	
Conductivity	06/16/23 15:00	5	07/06/23 15:20	
pH water SM 4500-H+B	06/14/23 15:00	3	06/09/23 15:20	
TDS-160.1	06/16/23 15:00	5	06/15/23 15:20	

T231538-07 DUP [Water] Sampled 06/08/23 00:00 (GMT-08:00) Pacific Time (US &				
1664	06/16/23 15:00	5	07/06/23 00:00	Oil & Grease
200.7	06/16/23 15:00	5	12/05/23 00:00	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	06/16/23 15:00	5	12/05/23 00:00	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	06/16/23 15:00	5	07/06/23 00:00	Chloride,Sulfate only
300.0 - NO2, NO3, PO4	06/16/23 15:00	5	06/10/23 00:00	Nitrate
7470/71 Hg	06/16/23 15:00	5	09/06/23 00:00	
Conductivity	06/16/23 15:00	5	07/06/23 00:00	
pH water SM 4500-H+B	06/14/23 15:00	3	06/09/23 00:00	
TDS-160.1	06/16/23 15:00	5	06/15/23 00:00	

T231538-08 Field Blank [Water] Sampled 06/08/23 00:00 (GMT-08:00) Pacific Time (US & **HOLD**
[NO ANALYSES]

T231538-09 Trip Blank [Water] Sampled 06/08/23 00:00 (GMT-08:00) Pacific Time (US & **HOLD**
[NO ANALYSES]

Eurofins Calscience (Tustin)

T231538-01 23a [Water] Sampled 06/08/23 14:15 (GMT-08:00) Pacific Time (US &

Misc Water Testing #1	06/23/23 00:00	10	12/05/23 14:15	8015M- Therminol
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T231538-02 OBS-1 [Water] Sampled 06/08/23 12:30 (GMT-08:00) Pacific Time (US &

Misc Water Testing #1	06/23/23 00:00	10	12/05/23 12:30	8015M- Therminol
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WORK ORDER

T231538

Client: Northstar Environmental Remediation
Project: Genesis Solar Groundwater

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

Analysis	Due	TAT	Expires	Comments
Eurofins Calscience (Tustin)				
T231538-03 TW-1 [Water] Sampled 06/08/23 12:00 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #1	06/23/23 00:00	10	12/05/23 12:00	8015M- Therminol
T231538-04 TW-2 [Water] Sampled 06/08/23 14:30 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #1	06/23/23 00:00	10	12/05/23 14:30	8015M- Therminol
T231538-05 PW-0 [Water] Sampled 06/08/23 15:05 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #1	06/23/23 00:00	10	12/05/23 15:05	8015M- Therminol
T231538-06 PW-2 [Water] Sampled 06/08/23 15:20 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #1	06/23/23 00:00	10	12/05/23 15:20	8015M- Therminol
T231538-07 DUP [Water] Sampled 06/08/23 00:00 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #1	06/23/23 00:00	10	12/05/23 00:00	8015M- Therminol
Isotech Laboratories, Inc.				
T231538-01 23a [Water] Sampled 06/08/23 14:15 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #2	06/23/23 00:00	10	12/05/23 14:15	Deuterium,Oxygen-18
T231538-02 OBS-1 [Water] Sampled 06/08/23 12:30 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #2	06/23/23 00:00	10	12/05/23 12:30	Deuterium,Oxygen-18
T231538-03 TW-1 [Water] Sampled 06/08/23 12:00 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #2	06/23/23 00:00	10	12/05/23 12:00	Deuterium,Oxygen-18
T231538-04 TW-2 [Water] Sampled 06/08/23 14:30 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #2	06/23/23 00:00	10	12/05/23 14:30	Deuterium,Oxygen-18
T231538-05 PW-0 [Water] Sampled 06/08/23 15:05 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #2	06/23/23 00:00	10	12/05/23 15:05	Deuterium,Oxygen-18

WORK ORDER

T231538

Client: Northstar Environmental Remediation
Project: Genesis Solar Groundwater

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

Analysis	Due	TAT	Expires	Comments
Isotech Laboratories, Inc.				
T231538-06 PW-2 [Water] Sampled 06/08/23 15:20 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #2	06/23/23 00:00	10	12/05/23 15:20	Deuterium,Oxygen-18
T231538-07 DUP [Water] Sampled 06/08/23 00:00 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #2	06/23/23 00:00	10	12/05/23 00:00	Deuterium,Oxygen-18



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

29 June 2023

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 06/09/23 08:25. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jeff Lee
Project Manager



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:
06/29/23 12:05

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
DM-1	T231538-10	Water	06/08/23 18:10	06/09/23 08:25
DM-2	T231538-11	Water	06/08/23 19:40	06/09/23 08:25
DM-3	T231538-12	Water	06/08/23 16:45	06/09/23 08:25

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:
06/29/23 12:05

DETECTIONS SUMMARY

Sample ID: DM-1

Laboratory ID: T231538-10

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	29	10		ug/l	200.8	FILT
Calcium	240	50		mg/l	EPA 200.7	FILT
Magnesium	65	10		mg/l	EPA 200.7	FILT
Sodium	4100	50		mg/l	EPA 200.7	FILT
pH	7.8	0.10		pH Units	SM 4500-H+B	
Total Dissolved Solids	10000	10		mg/l	TDS by SM2540C	
pH Temperature °C	21			pH Units	SM 4500-H+B	
Specific Conductance (EC)	18000	10.0		mho/cm @25°t	SM2510b mod.	
Chloride	5300	1000		mg/l	EPA 300.0	
Sulfate as SO4	2000	1000		mg/l	EPA 300.0	
Nitrate as NO3	7.58	0.500		mg/l	EPA 300.0	
Nitrate as N	1.71	0.200		mg/l	EPA 300.0	

Sample ID: DM-2

Laboratory ID: T231538-11

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Barium	37	10		ug/l	200.8	FILT
Calcium	300	50		mg/l	EPA 200.7	FILT
Magnesium	85	10		mg/l	EPA 200.7	FILT
Sodium	4800	50		mg/l	EPA 200.7	FILT
pH	7.6	0.10		pH Units	SM 4500-H+B	
Total Dissolved Solids	6800	10		mg/l	TDS by SM2540C	
pH Temperature °C	20			pH Units	SM 4500-H+B	
Specific Conductance (EC)	18300	10.0		mho/cm @25°t	SM2510b mod.	
Chloride	5470	1000		mg/l	EPA 300.0	
Sulfate as SO4	2190	1000		mg/l	EPA 300.0	
Nitrate as NO3	9.73	0.500		mg/l	EPA 300.0	
Nitrate as N	2.20	0.200		mg/l	EPA 300.0	

SunStar Laboratories, Inc.



Jeff Lee, Project Manager

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 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:
 06/29/23 12:05

Sample ID: DM-3

Laboratory ID: T231538-12

Analyte	Result	Reporting		Units	Method	Notes
		Limit				
Arsenic	16	10		ug/l	200.8	FILT
Barium	17	10		ug/l	200.8	FILT
Calcium	240	50		mg/l	EPA 200.7	FILT
Magnesium	66	10		mg/l	EPA 200.7	FILT
Sodium	4200	50		mg/l	EPA 200.7	FILT
Total Dissolved Solids	9800	10		mg/l	TDS by SM2540C	
pH	7.7	0.10		pH Units	SM 4500-H+B	
pH Temperature °C	19			pH Units	SM 4500-H+B	
Specific Conductance (EC)	17600	10.0		mho/cm @25°t	SM2510b mod.	
Chloride	5230	1000		mg/l	EPA 300.0	
Sulfate as SO4	2100	1000		mg/l	EPA 300.0	
Nitrate as NO3	2.61	0.500		mg/l	EPA 300.0	
Nitrate as N	0.590	0.200		mg/l	EPA 300.0	

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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:
06/29/23 12:05

**DM-1
T231538-10 (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	ND	0.50	mg/l	100	23F0140	06/09/23	06/16/23	EPA 200.7	FILT, R-01
Calcium	240	50	"	"	"	"	06/16/23	"	FILT
Iron	ND	20	"	"	"	"	"	"	FILT, R-01
Magnesium	65	10	"	"	"	"	"	"	FILT
Potassium	ND	50	"	"	"	"	"	"	FILT, R-01
Sodium	4100	50	"	"	"	"	"	"	FILT
Antimony	ND	10	ug/l	20	23F0149	06/09/23	06/13/23	200.8	FILT, R-01
Arsenic	ND	10	"	"	"	"	"	"	FILT, R-01
Barium	29	10	"	"	"	"	"	"	FILT
Cadmium	ND	10	"	"	"	"	"	"	FILT, R-01
Chromium	ND	10	"	"	"	"	"	"	FILT, R-01
Cobalt	ND	10	"	"	"	"	"	"	FILT, R-01
Lead	ND	10	"	"	"	"	"	"	FILT, R-01
Nickel	ND	10	"	"	"	"	"	"	FILT, R-01
Selenium	ND	10	"	"	"	"	"	"	FILT, R-01
Zinc	ND	10	"	"	"	"	"	"	FILT, R-01

Cold Vapor Extraction EPA 7470/7471

Mercury	ND	1.0	ug/l	1	23F0143	06/09/23	06/12/23	EPA 7470A Water	FILT
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Conventional Chemistry Parameters by APHA/EPA/ASTM Methods

Oil & Grease	ND	5.00	mg/l	1	23F0155	06/09/23	06/14/23	EPA 1664B	
Specific Conductance (EC)	18000	10.0	umho/cm @25°C	"	23F0163	06/09/23	06/12/23	SM2510b mod.	
pH	7.8	0.10	pH Units	"	23F0139	06/09/23	06/09/23	SM 4500-H+B	
pH Temperature °C	21		"	"	"	"	"	"	
Total Dissolved Solids	10000	10	mg/l	"	23F0162	06/09/23	06/16/23	TDS by SM2540C	

SunStar Laboratories, Inc.



Jeff Lee, Project Manager

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 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: 06/29/23 12:05
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**DM-1
 T231538-10 (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	5300	1000	mg/l	200	23F0138	06/09/23	06/09/23	EPA 300.0	
Sulfate as SO4	2000	1000	"	"	"	"	"	"	
Nitrate as NO3	7.58	0.500	"	1	"	"	06/09/23	"	
Nitrate as N	1.71	0.200	"	"	"	"	"	"	

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:
06/29/23 12:05

**DM-2
T231538-11 (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	ND	0.50	mg/l	100	23F0140	06/09/23	06/16/23	EPA 200.7	FILT, R-01
Calcium	300	50	"	"	"	"	06/16/23	"	FILT
Iron	ND	20	"	"	"	"	"	"	FILT, R-01
Potassium	ND	50	"	"	"	"	"	"	FILT, R-01
Magnesium	85	10	"	"	"	"	"	"	FILT
Sodium	4800	50	"	"	"	"	"	"	FILT
Antimony	ND	10	ug/l	20	23F0149	06/09/23	06/13/23	200.8	FILT, R-01
Arsenic	ND	10	"	"	"	"	"	"	FILT, R-01
Barium	37	10	"	"	"	"	"	"	FILT
Cadmium	ND	10	"	"	"	"	"	"	FILT, R-01
Chromium	ND	10	"	"	"	"	"	"	FILT, R-01
Cobalt	ND	10	"	"	"	"	"	"	FILT, R-01
Lead	ND	10	"	"	"	"	"	"	FILT, R-01
Nickel	ND	10	"	"	"	"	"	"	FILT, R-01
Selenium	ND	10	"	"	"	"	"	"	FILT, R-01
Zinc	ND	10	"	"	"	"	"	"	FILT, R-01

Cold Vapor Extraction EPA 7470/7471

Mercury	ND	1.0	ug/l	1	23F0143	06/09/23	06/12/23	EPA 7470A Water	FILT
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Conventional Chemistry Parameters by APHA/EPA/ASTM Methods

Oil & Grease	ND	5.00	mg/l	1	23F0155	06/09/23	06/14/23	EPA 1664B	
Specific Conductance (EC)	18300	10.0	umho/cm @25°C	"	23F0163	06/09/23	06/12/23	SM2510b mod.	
pH	7.6	0.10	pH Units	"	23F0139	06/09/23	06/09/23	SM 4500-H+B	
pH Temperature °C	20		"	"	"	"	"	"	
Total Dissolved Solids	6800	10	mg/l	"	23F0162	06/09/23	06/16/23	TDS by SM2540C	

SunStar Laboratories, Inc.



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 Lake Forest, California 92630
 949.297.5020 Phone
 949.297.5027 Fax

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DM-2
T231538-11 (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	5470	1000	mg/l	200	23F0138	06/09/23	06/09/23	EPA 300.0	
Sulfate as SO4	2190	1000	"	"	"	"	"	"	
Nitrate as NO3	9.73	0.500	"	1	"	"	06/09/23	"	
Nitrate as N	2.20	0.200	"	"	"	"	"	"	

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 Lake Forest, California 92630
 949.297.5020 Phone
 949.297.5027 Fax

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**DM-3
T231538-12 (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	ND	0.50	mg/l	100	23F0140	06/09/23	06/16/23	EPA 200.7	FILT, R-01
Calcium	240	50	"	"	"	"	06/16/23	"	FILT
Iron	ND	20	"	"	"	"	"	"	FILT, R-01
Potassium	ND	50	"	"	"	"	"	"	FILT, R-01
Magnesium	66	10	"	"	"	"	"	"	FILT
Sodium	4200	50	"	"	"	"	"	"	FILT
Antimony	ND	10	ug/l	20	23F0149	06/09/23	06/13/23	200.8	FILT, R-01
Arsenic	16	10	"	"	"	"	"	"	FILT
Barium	17	10	"	"	"	"	"	"	FILT
Cadmium	ND	10	"	"	"	"	"	"	FILT, R-01
Chromium	ND	10	"	"	"	"	"	"	FILT, R-01
Cobalt	ND	10	"	"	"	"	"	"	FILT, R-01
Lead	ND	10	"	"	"	"	"	"	FILT, R-01
Nickel	ND	10	"	"	"	"	"	"	FILT, R-01
Selenium	ND	10	"	"	"	"	"	"	FILT, R-01
Zinc	ND	10	"	"	"	"	"	"	FILT, R-01

Cold Vapor Extraction EPA 7470/7471

Mercury	ND	1.0	ug/l	1	23F0143	06/09/23	06/12/23	EPA 7470A Water	FILT
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Conventional Chemistry Parameters by APHA/EPA/ASTM Methods

Oil & Grease	ND	5.00	mg/l	1	23F0155	06/09/23	06/14/23	EPA 1664B	
Specific Conductance (EC)	17600	10.0	umho/cm @25°C	"	23F0163	06/09/23	06/12/23	SM2510b mod.	
pH	7.7	0.10	pH Units	"	23F0139	06/09/23	06/09/23	SM 4500-H+B	
pH Temperature °C	19		"	"	"	"	"	"	
Total Dissolved Solids	9800	10	mg/l	"	23F0162	06/09/23	06/16/23	TDS by SM2540C	

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

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DM-3
T231538-12 (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	5230	1000	mg/l	200	23F0138	06/09/23	06/09/23	EPA 300.0	
Sulfate as SO4	2100	1000	"	"	"	"	"	"	
Nitrate as NO3	2.61	0.500	"	1	"	"	06/09/23	"	
Nitrate as N	0.590	0.200	"	"	"	"	"	"	

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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:
 06/29/23 12:05

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 23F0140 - EPA 3010A

Blank (23F0140-BLK1)

Prepared: 06/09/23 Analyzed: 06/16/23

Copper	ND	0.005	mg/l							
Calcium	ND	0.50	"							
Iron	ND	0.20	"							
Magnesium	ND	0.10	"							
Potassium	ND	0.50	"							
Sodium	ND	0.50	"							

LCS (23F0140-BS1)

Prepared: 06/09/23 Analyzed: 06/16/23

Copper	1.53	0.005	mg/l	1.50		102	85-115			
Calcium	1.52	0.50	"	1.50		101	80-120			
Iron	1.52	0.20	"	1.50		101	80-120			
Potassium	1.44	0.50	"	1.50		96.0	80-120			
Magnesium	1.56	0.10	"	1.50		104	80-120			
Sodium	1.44	0.50	"	1.50		95.9	80-120			

Matrix Spike (23F0140-MS1)

Source: T231538-01

Prepared: 06/09/23 Analyzed: 06/16/23

Copper	1.99	0.50	mg/l	1.50	0.058	129	70-130			
Calcium	31.4	50	"	1.50	28.4	195	70-130			QM-07, R-01
Iron	2.24	20	"	1.50	0.847	92.6	70-130			R-01
Magnesium	ND	10	"	1.50	ND		70-130			QM-05, R-01
Potassium	ND	50	"	1.50	ND		70-130			QM-05, R-01
Sodium	614	50	"	1.50	590	NR	70-130			QM-05

Matrix Spike Dup (23F0140-MSD1)

Source: T231538-01

Prepared: 06/09/23 Analyzed: 06/16/23

Copper	1.78	0.50	mg/l	1.50	0.058	115	70-130	11.2	30	
Calcium	29.0	50	"	1.50	28.4	40.8	70-130	7.65	30	QM-05, R-01
Iron	1.73	20	"	1.50	0.847	59.1	70-130	25.3	30	QM-05, R-01
Magnesium	ND	10	"	1.50	ND		70-130		30	QM-05, R-01
Potassium	17.2	50	"	1.50	ND	NR	70-130		30	QM-05, R-01
Sodium	576	50	"	1.50	590	NR	70-130	6.32	30	QM-05, R-01

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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:
 06/29/23 12:05

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 23F0149 - EPA 3010A

Blank (23F0149-BLK1)

Prepared: 06/09/23 Analyzed: 06/13/23

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

LCS (23F0149-BS1)

Prepared: 06/09/23 Analyzed: 06/13/23

Arsenic	23.6	0.50	ug/l	25.0	0.400	106	70-130			
Barium	23.6	0.50	"	25.0	13.8	92.0	70-130			
Cadmium	23.6	0.50	"	25.0	3.80	87.2	70-130			
Chromium	23.9	0.50	"	25.0	ND	94.4	70-130			
Lead	25.4	0.50	"	25.0	ND	108	70-130			

Matrix Spike (23F0149-MS1)

Source: T231538-02

Prepared: 06/09/23 Analyzed: 06/13/23

Arsenic	27.0	10	ug/l	25.0	0.400	115	70-130	7.83	20	
Barium	36.8	10	"	25.0	13.8	94.4	70-130	1.62	20	
Cadmium	25.6	10	"	25.0	3.80	96.8	70-130	8.96	20	
Chromium	23.6	10	"	25.0	ND	96.0	70-130	1.68	20	
Lead	27.0	10	"	25.0	ND	109	70-130	0.738	20	

Matrix Spike Dup (23F0149-MSD1)

Source: T231538-02

Prepared: 06/09/23 Analyzed: 06/13/23

Arsenic	29.2	10	ug/l	25.0	0.400	115	70-130	7.83	20	
Barium	37.4	10	"	25.0	13.8	94.4	70-130	1.62	20	
Cadmium	28.0	10	"	25.0	3.80	96.8	70-130	8.96	20	
Chromium	24.0	10	"	25.0	ND	96.0	70-130	1.68	20	
Lead	27.2	10	"	25.0	ND	109	70-130	0.738	20	

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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:
 06/29/23 12:05

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 23F0143 - EPA 7470A Water

Blank (23F0143-BLK1)

Prepared: 06/09/23 Analyzed: 06/12/23

Mercury ND 1.0 ug/l

LCS (23F0143-BS1)

Prepared: 06/09/23 Analyzed: 06/12/23

Mercury 7.33 1.0 ug/l 7.50 97.7 80-120

Matrix Spike (23F0143-MS1)

Source: T231538-01

Prepared: 06/09/23 Analyzed: 06/12/23

Mercury 7.76 1.0 ug/l 7.50 ND 103 80-120

Matrix Spike Dup (23F0143-MSD1)

Source: T231538-01

Prepared: 06/09/23 Analyzed: 06/12/23

Mercury 7.98 1.0 ug/l 7.50 ND 106 80-120 2.80 20

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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:
 06/29/23 12:05

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 23F0139 - General Preparation

Duplicate (23F0139-DUP1)		Source: T231538-01			Prepared & Analyzed: 06/09/23					
pH	8.22	0.10	pH Units		8.31			1.09	10	
pH Temperature °C	18.9		"		18.5			2.14	200	

Batch 23F0155 - General Preparation

Blank (23F0155-BLK1)		Prepared: 06/09/23 Analyzed: 06/14/23								
Oil & Grease	ND	5.00	mg/l							

LCS (23F0155-BS1)		Prepared: 06/09/23 Analyzed: 06/14/23								
Oil & Grease	41.5	5.00	mg/l	53.1		78.2	78-114			

LCS Dup (23F0155-BSD1)		Prepared: 06/09/23 Analyzed: 06/14/23								
Oil & Grease	40.0	5.00	mg/l	53.1		75.3	78-114	3.68	20	BS-4

Batch 23F0162 - General Preparation

Blank (23F0162-BLK1)		Prepared: 06/09/23 Analyzed: 06/16/23								
Total Dissolved Solids	ND	10	mg/l							

LCS (23F0162-BS1)		Prepared: 06/09/23 Analyzed: 06/16/23								
Total Dissolved Solids	564	10	mg/l	500		113	80-120			

Duplicate (23F0162-DUP1)		Source: T231538-01			Prepared: 06/09/23 Analyzed: 06/16/23					
Total Dissolved Solids	1400	10	mg/l		1490			6.09	20	

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

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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 23F0163 - General Preparation

Duplicate (23F0163-DUP1)	Source: T231538-01		Prepared: 06/09/23		Analyzed: 06/12/23					
Specific Conductance (EC)	2680	10.0	umho/cm @25°C		2690			0.372	15	

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager



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: 06/29/23 12:05
--	---	-----------------------------

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
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 23F0138 - General Preparation

Blank (23F0138-BLK1)

Prepared & Analyzed: 06/09/23

Fluoride	ND	0.500	mg/l							
Chloride	ND	5.00	"							
Nitrite as NO2	ND	0.500	"							
Sulfate as SO4	ND	5.00	"							
Nitrate as NO3	ND	0.500	"							
Phosphate, Total as Orthophosphate	ND	0.500	"							
Nitrite as N	ND	0.200	"							
Nitrate as N	ND	0.200	"							

LCS (23F0138-BS1)

Prepared & Analyzed: 06/09/23

Fluoride	22.6	0.500	mg/l	25.0		90.4	75-125			
Chloride	24.6	5.00	"	25.0		98.3	75-125			
Sulfate as SO4	25.4	5.00	"	25.0		101	75-125			
Nitrate as NO3	25.7	0.500	"	25.0		103	75-125			

Matrix Spike (23F0138-MS1)

Source: T231538-01

Prepared & Analyzed: 06/09/23

Fluoride	29.4	0.500	mg/l	25.0	4.80	98.6	75-125			
Chloride	449	125	"	25.0	451	NR	75-125			QM-05
Sulfate as SO4	392	125	"	25.0	390	7.30	75-125			QM-05
Nitrate as NO3	24.6	0.500	"	25.0	0.888	94.7	75-125			

Matrix Spike Dup (23F0138-MSD1)

Source: T231538-01

Prepared & Analyzed: 06/09/23

Fluoride	26.8	0.500	mg/l	25.0	4.80	88.2	75-125	9.20	20	
Chloride	445	125	"	25.0	451	NR	75-125	0.744	20	QM-05
Sulfate as SO4	391	125	"	25.0	390	4.20	75-125	0.198	20	QM-05
Nitrate as NO3	24.8	0.500	"	25.0	0.888	95.6	75-125	0.953	20	

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:
06/29/23 12:05

Notes and Definitions

- R-01 The Reporting Limit has been raised to account for dilution necessary due to matrix interference.
- QM-07 The spike recovery and or RPD was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- 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.
- FILT The sample was filtered prior to analysis.
- BS-4 A BS was outside of acceptance range, however, the data was accepted based on the passing duplicate BS, acceptable RPD, and other batch QCs.
- 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.



Jeff Lee, Project Manager

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SunStar Laboratories, Inc.
 25712 Commercentre Dr
 Lake Forest, CA 92630
 949-297-5020

Chain of Custody Record

Client: Northstar Environmental Remediation _____
 Address: 26225 Enterprise Court, Lake Forest, CA 92630 _____
 Phone: 949-274-1719 _____ Fax: _____
 Project Manager: Arlin Brewster _____

Date: 6/9/2023 Page: 1 of 1
 Project Name: Genesis Solar Groundwater _____
 Collector: Arlin Brewster _____ Client Project #: 196-004-06 _____
 Batch #: _____ EDF #: T10000006093 _____

Sample ID	Date Sampled	Time	Sample Type	Container Type	200.7 - Dissolved Metals: Ca, Cu, Na, K, Fe, Mg (FIELD FILTERED)	200.8 - Dissolved Metals: Sb, As, Ba, Cd, Cr, Co, Pb, Ni, Se, Zn (F.F.)	300.0 - Chloride, Nitrate, Sulfate	1664 - Oil and Grease	7470A - Mercury	9040 - pH	SM2510B - Conductivity, Specific	SM2540C - Total Dis. Solids	8015M - Thermanol (Subcontract)	Deuterium, Oxygen-18 (Subcont.)	300.0 - Fluoride	Laboratory ID #	Comments/Preservative	Total # of containers		
DM-1	6/8/23	1610	W	Various	X	X	X	X	X	X	X	X	X	X				7		
DM-2	↓	1940	W	Various	X	X	X	X	X	X	X	X	X	X				7		
DM-3	↓	1645	W	Various	X	X	X	X	X	X	X	X	X	X				7		
Relinquished by: (signature)			Date / Time			Received by: (signature)			Date / Time			Total # of containers			21			Notes ** Deuterium & Oxygen-18 subcontract has 10 day TAT Reporting limits must match previous reports		
Relinquished by: (signature)			Date / Time			Received by: (signature)			Date / Time			Chain of Custody seals Y/N/NA			Seals intact? Y/N/NA					
Relinquished by: (signature)			Date / Time			Received by: (signature)			Date / Time			Received good condition/cold			0.8°C					
Turn around time: Standard **																				

Sample disposal Instructions: Disposal @ \$2.00 each _____ Return to client _____ Pickup _____



SAMPLE RECEIVING REVIEW SHEET

Batch/Work Order #: T231538

Client Name: Northstar Project: Genesis Solar Groundwater

Delivered by: Client SunStar Courier GLS FedEx Other

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

Lab Received by: Joann Date/Time Lab Received: 6-9-23 8:25

Total number of coolers received: _____ Thermometer ID: SC-1 Calibration due: 8/2/23

Temperature: Cooler #1	0.7 °C +/- the CF (+ 0.1°C) = 0.8	°C corrected temperature
Temperature: Cooler #2	°C +/- the CF (+ 0.1°C) =	°C corrected temperature
Temperature: Cooler #3	°C +/- the CF (+ 0.1°C) =	°C corrected temperature
Temperature criteria = ≤ 6°C (no frozen containers)		Within criteria? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
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: TB 6-9-23

Comments:

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ANALYTICAL REPORT

PREPARED FOR

Attn: Jeff Lee
SunStar Laboratories Inc
25712 Commercentre Drive
Lake Forest, California 92630

Generated 6/23/2023 10:05:59 AM Revision 1

JOB DESCRIPTION

T231538

JOB NUMBER

570-141353-1

Eurofins Calscience

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Calscience Project Manager.

Authorization



Authorized for release by
Sandy Tat, Project Manager I
Sandy.Tat@et.eurofinsus.com
Designee for
Don Burley, Senior Project Manager
Donald.Burley@et.eurofinsus.com
(657)212-3033

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Revision 1

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Definitions/Glossary

Client: SunStar Laboratories Inc
Project/Site: T231538

Job ID: 570-141353-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.

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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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)
TNTC	Too Numerous To Count

Case Narrative

Client: SunStar Laboratories Inc
Project/Site: T231538

Job ID: 570-141353-1

Job ID: 570-141353-1

Laboratory: Eurofins Calscience

Narrative

Job Narrative
570-141353-1

Comments

No additional comments.

Receipt

The samples were received on 6/12/2023 10:17 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.9° C.

GC Semi VOA

Method 8015B: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 570-337466 and analytical batch 570-338949 recovered outside control limits for the following analytes: Benzene, 1,1'-oxybis-. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

Method 3510C: The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.



Detection Summary

Client: SunStar Laboratories Inc
Project/Site: T231538

Job ID: 570-141353-1

Client Sample ID: T231538-10

Lab Sample ID: 570-141353-8

No Detections.

Client Sample ID: T231538-11

Lab Sample ID: 570-141353-9

No Detections.

Client Sample ID: T231538-12

Lab Sample ID: 570-141353-10

No Detections.

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This Detection Summary does not include radiochemical test results.

Eurofins Calscience

Client Sample Results

Client: SunStar Laboratories Inc
Project/Site: T231538

Job ID: 570-141353-1

Method: SW846 8015B - Diesel Range Organics (DRO) (GC)

Client Sample ID: T231538-10
Date Collected: 06/08/23 18:10
Date Received: 06/12/23 10:17

Lab Sample ID: 570-141353-8
Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND	*+	97	ug/L		06/14/23 20:52	06/20/23 22:16	1
1,1'-Biphenyl	ND		97	ug/L		06/14/23 20:52	06/20/23 22:16	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	101		53 - 151			06/14/23 20:52	06/20/23 22:16	1

Client Sample ID: T231538-11
Date Collected: 06/08/23 19:40
Date Received: 06/12/23 10:17

Lab Sample ID: 570-141353-9
Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND	*+	100	ug/L		06/14/23 20:52	06/20/23 22:41	1
1,1'-Biphenyl	ND		100	ug/L		06/14/23 20:52	06/20/23 22:41	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	94		53 - 151			06/14/23 20:52	06/20/23 22:41	1

Client Sample ID: T231538-12
Date Collected: 06/08/23 16:45
Date Received: 06/12/23 10:17

Lab Sample ID: 570-141353-10
Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND	*+	99	ug/L		06/14/23 20:52	06/20/23 23:06	1
1,1'-Biphenyl	ND		99	ug/L		06/14/23 20:52	06/20/23 23:06	1
Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
<i>n</i> -Octacosane (Surr)	99		53 - 151			06/14/23 20:52	06/20/23 23:06	1

Surrogate Summary

Client: SunStar Laboratories Inc
Project/Site: T231538

Job ID: 570-141353-1

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	OTCSN1 (53-151)
570-141353-8	T231538-10	101
570-141353-9	T231538-11	94
570-141353-10	T231538-12	99

Surrogate Legend

OTCSN = n-Octacosane (Surr)

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QC Sample Results

Client: SunStar Laboratories Inc
Project/Site: T231538

Job ID: 570-141353-1

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

Lab Sample ID: MB 570-337466/1-A
Matrix: Water
Analysis Batch: 338949

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 337466

Analyte	MB MB		RL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier						
Benzene, 1,1'-oxybis-	ND		100	ug/L		06/14/23 20:52	06/20/23 17:23	1
1,1'-Biphenyl	ND		100	ug/L		06/14/23 20:52	06/20/23 17:23	1
Surrogate		MB MB	Limits			Prepared	Analyzed	Dil Fac
		%Recovery		Qualifier				
n-Octacosane (Surr)		92		53 - 151		06/14/23 20:52	06/20/23 17:23	1

Lab Sample ID: LCS 570-337466/2-A
Matrix: Water
Analysis Batch: 338949

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 337466

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1'-Biphenyl	1000	898.4		ug/L		90	45 - 120
Surrogate		LCS LCS	Limits				
		%Recovery		Qualifier			
n-Octacosane (Surr)		106		53 - 151			

Lab Sample ID: LCSD 570-337466/3-A
Matrix: Water
Analysis Batch: 338949

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 337466

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	
								RPD	Limit
Benzene, 1,1'-oxybis-	1000	1375	*+	ug/L		137	57 - 120	11	20
1,1'-Biphenyl	1000	1003		ug/L		100	45 - 120	11	20
Surrogate		LCSD LCSD	Limits						
		%Recovery		Qualifier					
n-Octacosane (Surr)		119		53 - 151					

QC Association Summary

Client: SunStar Laboratories Inc
Project/Site: T231538

Job ID: 570-141353-1

GC Semi VOA

Prep Batch: 337466

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-141353-8	T231538-10	Total/NA	Water	3510C	
570-141353-9	T231538-11	Total/NA	Water	3510C	
570-141353-10	T231538-12	Total/NA	Water	3510C	

Analysis Batch: 338949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-141353-8	T231538-10	Total/NA	Water	8015B	337466
570-141353-9	T231538-11	Total/NA	Water	8015B	337466
570-141353-10	T231538-12	Total/NA	Water	8015B	337466

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Lab Chronicle

Client: SunStar Laboratories Inc
Project/Site: T231538

Job ID: 570-141353-1

Client Sample ID: T231538-10

Lab Sample ID: 570-141353-8

Date Collected: 06/08/23 18:10

Matrix: Water

Date Received: 06/12/23 10:17

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			257.5 mL	2.5 mL	337466	06/14/23 20:52	UFLU	EET CAL 4
Total/NA	Analysis	8015B		1	1 mL	1 mL	338949	06/20/23 22:16	N5Y3	EET CAL 4
Instrument ID: GC70B										

Client Sample ID: T231538-11

Lab Sample ID: 570-141353-9

Date Collected: 06/08/23 19:40

Matrix: Water

Date Received: 06/12/23 10:17

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			248.5 mL	2.5 mL	337466	06/14/23 20:52	UFLU	EET CAL 4
Total/NA	Analysis	8015B		1	1 mL	1 mL	338949	06/20/23 22:41	N5Y3	EET CAL 4
Instrument ID: GC70B										

Client Sample ID: T231538-12

Lab Sample ID: 570-141353-10

Date Collected: 06/08/23 16:45

Matrix: Water

Date Received: 06/12/23 10:17

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			252.8 mL	2.5 mL	337466	06/14/23 20:52	UFLU	EET CAL 4
Total/NA	Analysis	8015B		1	1 mL	1 mL	338949	06/20/23 23:06	N5Y3	EET CAL 4
Instrument ID: GC70B										

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494

Accreditation/Certification Summary

Client: SunStar Laboratories Inc
Project/Site: T231538

Job ID: 570-141353-1

Laboratory: Eurofins Calscience

The accreditations/certifications listed below are applicable to this report.

<u>Authority</u>	<u>Program</u>	<u>Identification Number</u>	<u>Expiration Date</u>
Oregon	NELAP	4175	02-02-24

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Method Summary

Client: SunStar Laboratories Inc
Project/Site: T231538

Job ID: 570-141353-1

Method	Method Description	Protocol	Laboratory
8015B	Diesel Range Organics (DRO) (GC)	SW846	EET CAL 4
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET CAL 4

Protocol References:

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

Laboratory References:

EET CAL 4 = Eurofins Calscience Tustin, 2841 Dow Avenue, Tustin, CA 92780, TEL (714)895-5494



Sample Summary

Client: SunStar Laboratories Inc
Project/Site: T231538

Job ID: 570-141353-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-141353-8	T231538-10	Water	06/08/23 18:10	06/12/23 10:17
570-141353-9	T231538-11	Water	06/08/23 19:40	06/12/23 10:17
570-141353-10	T231538-12	Water	06/08/23 16:45	06/12/23 10:17

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SUBCONTRACT ORDER

SunStar Laboratories, Inc.

T231538

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:

Eurofins Calscience (Tustin)
2841 Dow Ave, Suite 100
Tustin, CA 92780
Phone : (949) 261-1022
Fax: N/A



Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: T231538-01	Water	Sampled:06/08/23 14:15	[REDACTED]	
Misc Water Testing #1	06/23/23 00:00	12/05/23 14:15		8015M- Therminol
<i>Containers Supplied:</i>				
Sample ID: T231538-02	Water	Sampled:06/08/23 12:30	[REDACTED]	
Misc Water Testing #1	06/23/23 00:00	12/05/23 12:30		8015M- Therminol
<i>Containers Supplied:</i>				
Sample ID: T231538-03	Water	Sampled:06/08/23 12:00	[REDACTED]	
Misc Water Testing #1	06/23/23 00:00	12/05/23 12:00		8015M- Therminol
<i>Containers Supplied:</i>				
Sample ID: T231538-04	Water	Sampled:06/08/23 14:30	[REDACTED]	
Misc Water Testing #1	06/23/23 00:00	12/05/23 14:30		8015M- Therminol
<i>Containers Supplied:</i>				
Sample ID: T231538-05	Water	Sampled:06/08/23 15:05	[REDACTED]	
Misc Water Testing #1	06/23/23 00:00	12/05/23 15:05		8015M- Therminol
<i>Containers Supplied:</i>				
Sample ID: T231538-06	Water	Sampled:06/08/23 15:20	[REDACTED]	
Misc Water Testing #1	06/23/23 00:00	12/05/23 15:20		8015M- Therminol
<i>Containers Supplied:</i>				

Released By: *[Signature]* Date: 6-12-23 10:17
 Received By: *[Signature]* Date: 6/12/23 10:17

Released By: _____ Date: _____
 Received By: *[Signature]* Date: 27/2-9



SUBCONTRACT ORDER

141353

SunStar Laboratories, Inc.

T231538

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: T231538-07	Water	Sampled:06/08/23 00:00	[REDACTED]	
Misc Water Testing #1	06/23/23 00:00	12/05/23 00:00		8015M- Therminol
<i>Containers Supplied:</i>				
Sample ID: T231538-10	Water	Sampled:06/08/23 18:10	[REDACTED]	
Misc Water Testing #1	06/23/23 00:00	12/05/23 18:10		8015M- Therminol
<i>Containers Supplied:</i>				
Sample ID: T231538-11	Water	Sampled:06/08/23 19:40	[REDACTED]	
Misc Water Testing #1	06/23/23 00:00	12/05/23 19:40		8015M- Therminol
<i>Containers Supplied:</i>				
Sample ID: T231538-12	Water	Sampled:06/08/23 16:45	[REDACTED]	
Misc Water Testing #1	06/23/23 00:00	12/05/23 16:45		8015M- Therminol
<i>Containers Supplied:</i>				

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Released By [Signature] Date 6/12-23 Received By [Signature] Date 6/12/23

Released By _____ Date _____ Received By _____ Date _____

Login Sample Receipt Checklist

Client: SunStar Laboratories Inc

Job Number: 570-141353-1

Login Number: 141353

List Source: Eurofins Calscience

List Number: 1

Creator: Vitente, Precy

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
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	Received project as a subcontract.
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.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Lab #: 874738 Job #: 54935 IS-101168 Co. Job#:
Sample Name: T231538-10 Co. Lab#:
Company: SunStar Laboratories, Inc
API/Well:
Container: 250ml Plastic Bottle
Field/Site Name: T231538
Location:
Formation/Depth:
Sampling Point:
Date Sampled: 6/08/2023 18:10 Date Received: 6/13/2023 Date Reported: 6/27/2023

δD of water ----- -69.3 ‰ relative to VSMOW

$\delta^{18}O$ of water ----- -8.53 ‰ 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 #: 874739 Job #: 54935 IS-101168 Co. Job#:
Sample Name: T231538-11 Co. Lab#:
Company: SunStar Laboratories, Inc
API/Well:
Container: 250ml Plastic Bottle
Field/Site Name: T231538
Location:
Formation/Depth:
Sampling Point:
Date Sampled: 6/08/2023 19:40 Date Received: 6/13/2023 Date Reported: 6/27/2023

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

$\delta^{18}O$ of water ----- -8.51 ‰ 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 #: 874740 Job #: 54935 IS-101168 Co. Job#:
Sample Name: T231538-12 Co. Lab#:
Company: SunStar Laboratories, Inc
API/Well:
Container: 250ml Plastic Bottle
Field/Site Name: T231538
Location:
Formation/Depth:
Sampling Point:
Date Sampled: 6/08/2023 16:45 Date Received: 6/13/2023 Date Reported: 6/27/2023

δ D of water ----- -71.1 ‰ relative to VSMOW

δ ¹⁸O of water ----- -8.76 ‰ 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

WORK ORDER

T231538

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: 06/26/23 00:00 (11 day TAT)

Received By: Joann Marroquin

Date Received: 06/09/23 08:25

Logged In By: Jeff Lee

Date Logged In: 06/09/23 09:19

Samples Received at: **0.8°C**

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

Analysis	Due	TAT	Expires	Comments
T231538-01 23a [Water] Sampled 06/08/23 14:15 (GMT-08:00) Pacific Time (US &				
1664	06/16/23 15:00	5	07/06/23 14:15	Oil & Grease
200.7	06/16/23 15:00	5	12/05/23 14:15	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	06/16/23 15:00	5	12/05/23 14:15	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	06/16/23 15:00	5	07/06/23 14:15	Chloride,Sulfate only
300.0 - NO2, NO3, PO4	06/16/23 15:00	5	06/10/23 14:15	Nitrate
7470/71 Hg	06/16/23 15:00	5	09/06/23 14:15	
Conductivity	06/16/23 15:00	5	07/06/23 14:15	
pH water SM 4500-H+B	06/14/23 15:00	3	06/09/23 14:15	
TDS-160.1	06/16/23 15:00	5	06/15/23 14:15	

T231538-02 OBS-1 [Water] Sampled 06/08/23 12:30 (GMT-08:00) Pacific Time (US &				
1664	06/16/23 15:00	5	07/06/23 12:30	Oil & Grease
200.7	06/16/23 15:00	5	12/05/23 12:30	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	06/16/23 15:00	5	12/05/23 12:30	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	06/16/23 15:00	5	07/06/23 12:30	Chloride,Sulfate only
300.0 - NO2, NO3, PO4	06/16/23 15:00	5	06/10/23 12:30	Nitrate
7470/71 Hg	06/16/23 15:00	5	09/06/23 12:30	
Conductivity	06/16/23 15:00	5	07/06/23 12:30	
pH water SM 4500-H+B	06/14/23 15:00	3	06/09/23 12:30	
TDS-160.1	06/16/23 15:00	5	06/15/23 12:30	

WORK ORDER

T231538

Client: Northstar Environmental Remediation
Project: Genesis Solar Groundwater

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

Analysis	Due	TAT	Expires	Comments
T231538-03 TW-1 [Water] Sampled 06/08/23 12:00 (GMT-08:00) Pacific Time (US &				
1664	06/16/23 15:00	5	07/06/23 12:00	Oil & Grease
200.7	06/16/23 15:00	5	12/05/23 12:00	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	06/16/23 15:00	5	12/05/23 12:00	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	06/16/23 15:00	5	07/06/23 12:00	Chloride,Sulfate only
300.0 - NO2, NO3, PO4	06/16/23 15:00	5	06/10/23 12:00	Nitrate
7470/71 Hg	06/16/23 15:00	5	09/06/23 12:00	
Conductivity	06/16/23 15:00	5	07/06/23 12:00	
pH water SM 4500-H+B	06/14/23 15:00	3	06/09/23 12:00	
TDS-160.1	06/16/23 15:00	5	06/15/23 12:00	
T231538-04 TW-2 [Water] Sampled 06/08/23 14:30 (GMT-08:00) Pacific Time (US &				
1664	06/16/23 15:00	5	07/06/23 14:30	Oil & Grease
200.7	06/16/23 15:00	5	12/05/23 14:30	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	06/16/23 15:00	5	12/05/23 14:30	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	06/16/23 15:00	5	07/06/23 14:30	Chloride,Sulfate only
300.0 - NO2, NO3, PO4	06/16/23 15:00	5	06/10/23 14:30	Nitrate
7470/71 Hg	06/16/23 15:00	5	09/06/23 14:30	
Conductivity	06/16/23 15:00	5	07/06/23 14:30	
pH water SM 4500-H+B	06/14/23 15:00	3	06/09/23 14:30	
TDS-160.1	06/16/23 15:00	5	06/15/23 14:30	
T231538-05 PW-0 [Water] Sampled 06/08/23 15:05 (GMT-08:00) Pacific Time (US &				
1664	06/16/23 15:00	5	07/06/23 15:05	Oil & Grease
200.7	06/16/23 15:00	5	12/05/23 15:05	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	06/16/23 15:00	5	12/05/23 15:05	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	06/16/23 15:00	5	07/06/23 15:05	Chloride,Sulfate, and Fluoride only
300.0 - NO2, NO3, PO4	06/16/23 15:00	5	06/10/23 15:05	Nitrate
7470/71 Hg	06/16/23 15:00	5	09/06/23 15:05	
Conductivity	06/16/23 15:00	5	07/06/23 15:05	
pH water SM 4500-H+B	06/14/23 15:00	3	06/09/23 15:05	
TDS-160.1	06/16/23 15:00	5	06/15/23 15:05	

WORK ORDER

T231538

Client: Northstar Environmental Remediation
Project: Genesis Solar Groundwater

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

Analysis	Due	TAT	Expires	Comments
T231538-06 PW-2 [Water] Sampled 06/08/23 15:20 (GMT-08:00) Pacific Time (US &				
1664	06/16/23 15:00	5	07/06/23 15:20	Oil & Grease
200.7	06/16/23 15:00	5	12/05/23 15:20	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	06/16/23 15:00	5	12/05/23 15:20	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	06/16/23 15:00	5	07/06/23 15:20	Chloride,Sulfate, and Fluoride only
300.0 - NO2, NO3, PO4	06/16/23 15:00	5	06/10/23 15:20	Nitrate
7470/71 Hg	06/16/23 15:00	5	09/06/23 15:20	
Conductivity	06/16/23 15:00	5	07/06/23 15:20	
pH water SM 4500-H+B	06/14/23 15:00	3	06/09/23 15:20	
TDS-160.1	06/16/23 15:00	5	06/15/23 15:20	

T231538-07 DUP [Water] Sampled 06/08/23 00:00 (GMT-08:00) Pacific Time (US &				
1664	06/16/23 15:00	5	07/06/23 00:00	Oil & Grease
200.7	06/16/23 15:00	5	12/05/23 00:00	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	06/16/23 15:00	5	12/05/23 00:00	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	06/16/23 15:00	5	07/06/23 00:00	Chloride,Sulfate only
300.0 - NO2, NO3, PO4	06/16/23 15:00	5	06/10/23 00:00	Nitrate
7470/71 Hg	06/16/23 15:00	5	09/06/23 00:00	
Conductivity	06/16/23 15:00	5	07/06/23 00:00	
pH water SM 4500-H+B	06/14/23 15:00	3	06/09/23 00:00	
TDS-160.1	06/16/23 15:00	5	06/15/23 00:00	

T231538-08 Field Blank [Water] Sampled 06/08/23 00:00 (GMT-08:00) Pacific Time (US & **HOLD**
[NO ANALYSES]

T231538-09 Trip Blank [Water] Sampled 06/08/23 00:00 (GMT-08:00) Pacific Time (US & **HOLD**
[NO ANALYSES]

Eurofins Calscience (Tustin)

T231538-01 23a [Water] Sampled 06/08/23 14:15 (GMT-08:00) Pacific Time (US &

Misc Water Testing #1	06/23/23 00:00	10	12/05/23 14:15	8015M- Therminol
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T231538-02 OBS-1 [Water] Sampled 06/08/23 12:30 (GMT-08:00) Pacific Time (US &

Misc Water Testing #1	06/23/23 00:00	10	12/05/23 12:30	8015M- Therminol
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WORK ORDER

T231538

Client: Northstar Environmental Remediation
Project: Genesis Solar Groundwater

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

Analysis	Due	TAT	Expires	Comments
Eurofins Calscience (Tustin)				
T231538-03 TW-1 [Water] Sampled 06/08/23 12:00 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #1	06/23/23 00:00	10	12/05/23 12:00	8015M- Therminol
T231538-04 TW-2 [Water] Sampled 06/08/23 14:30 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #1	06/23/23 00:00	10	12/05/23 14:30	8015M- Therminol
T231538-05 PW-0 [Water] Sampled 06/08/23 15:05 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #1	06/23/23 00:00	10	12/05/23 15:05	8015M- Therminol
T231538-06 PW-2 [Water] Sampled 06/08/23 15:20 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #1	06/23/23 00:00	10	12/05/23 15:20	8015M- Therminol
T231538-07 DUP [Water] Sampled 06/08/23 00:00 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #1	06/23/23 00:00	10	12/05/23 00:00	8015M- Therminol
Isotech Laboratories, Inc.				
T231538-01 23a [Water] Sampled 06/08/23 14:15 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #2	06/23/23 00:00	10	12/05/23 14:15	Deuterium,Oxygen-18
T231538-02 OBS-1 [Water] Sampled 06/08/23 12:30 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #2	06/23/23 00:00	10	12/05/23 12:30	Deuterium,Oxygen-18
T231538-03 TW-1 [Water] Sampled 06/08/23 12:00 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #2	06/23/23 00:00	10	12/05/23 12:00	Deuterium,Oxygen-18
T231538-04 TW-2 [Water] Sampled 06/08/23 14:30 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #2	06/23/23 00:00	10	12/05/23 14:30	Deuterium,Oxygen-18
T231538-05 PW-0 [Water] Sampled 06/08/23 15:05 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #2	06/23/23 00:00	10	12/05/23 15:05	Deuterium,Oxygen-18

WORK ORDER

T231538

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

Analysis	Due	TAT	Expires	Comments
Isotech Laboratories, Inc.				
T231538-06 PW-2 [Water] Sampled 06/08/23 15:20 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #2	06/23/23 00:00	10	12/05/23 15:20	Deuterium,Oxygen-18
T231538-07 DUP [Water] Sampled 06/08/23 00:00 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #2	06/23/23 00:00	10	12/05/23 00:00	Deuterium,Oxygen-18