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2022 FIRST SEMIANNUAL GROUNDWATER DETECTION MONITORING REPORT

Genesis Solar Energy Project

Riverside County, California

COC S&W-6

July 12, 2022

Prepared By:

Northstar Environmental Remediation

26225 Enterprise Court

Lake Forest, California 92630

SIGNATURE PAGE

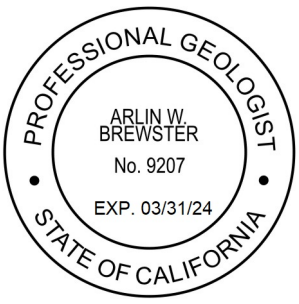
2022 FIRST SEMIANNUAL GROUNDWATER DETECTION MONITORING REPORT

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 12, 2022

Table of Contents

LIST OF FIGURES

LIST OF TABLES

LIST OF APPENDICES

1.0 INTRODUCTION

Northstar Environmental Remediation (Northstar) has prepared this 2022 First Semiannual Groundwater Detection Monitoring Report on behalf of Genesis Solar, LLC (Genesis). This report details groundwater detection monitoring performed in the first half of 2022 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 consists of two independent concentrated solar electric generating facilities with a nominal net electrical output of 125 megawatts (MW) each (a total net electrical output of 250 MW).

Northstar conducts groundwater detection monitoring in accordance with Condition of Certification Soil & Water 6 (COC S&W-6) as presented in the California Energy Commission (CEC) Final Decision document dated October 12, 2010 (CEC, 2010). The COC S&W-6 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 submitted an updated Plan of Development (POD) for the GSEP in September 2010 (Genesis Solar, LLC 2010). In addition, Genesis filed an Application for Certification (AFC) for the GSEP to the 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 GSEP uses dry cooling technology and relies on groundwater as a water source during operation. Three groundwater production wells installed at the GSEP between July and October 2011 are permitted to pump groundwater at an average rate of 202 acre-feet per year (afy) (up to 1,348 afy during construction).

The Final Decision and FEIS discuss the potential impacts associated with the proposed groundwater use by the GSEP. Groundwater drawdown impacts are anticipated to be less than significant, but because the prediction of groundwater level effects by computer modeling entails inherent uncertainty, both the Final Decision and the FEIS adopted COC S&W-2 for the GSEP to monitor groundwater level at the vicinity of the GSEP.

Two evaporation ponds (licensed as Class II Surface Impoundments) located between Solar Fields 1 and 2 accept wastewater generated during GSEP operation (**Figure 3**). 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 (**Figure 4**). Groundwater samples were collected for four quarterly events prior to GSEP operation to establish baseline conditions. Semiannual sampling will be conducted to comply with the requirements of COC S&W-6 and the WDR and MRP documents.

1.2 Geographic Setting

The GSEP lies between the communities of Blythe and Desert Center, California. 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 approximately 6 miles southeast of the GSEP.

The GSEP lies on 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 to the mountains have formed alluvial fans from multiple identifiable sources, and multiple fan surfaces have coalesced into a single bajada surface that wraps around each of these mountain fronts. Between the bajada surfaces from each mountain chain 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.

Climatic data collected from Weather Station Blythe Riverside Airport (33.61°N, -114.71°W, at an elevation of about 387 feet amsl) indicate 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). Northstar obtained this data from the 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 940 mi^2 (2,435 km^2) underlying Chuckwalla Valley. It is bounded upgradient 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 downgradient by the Palo Verde Mesa Groundwater Basin (Palo Verde Basin) (**Figure 2**). Groundwater occurs at depths of about 80 to 140 feet below ground surface (bgs) and groundwater flow is generally southeast to eastward, from the Chuckwalla Basin to the Palo Verde Basin (**Figure 2**).

Sources of groundwater recharge to the Chuckwalla Basin includes 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 prior to GSEP operations indicate a stable surplus of 2,600 afy (CEC, 2010). Current operational demand, based on calendar year 2021 extraction data, is approximately 125 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 is the unconsolidated to partially consolidated Pliocene-aged Bouse Formation, consisting of coarse alluvium and fanglomerate deposits (Wilson and Owen-Joyce, 1994). Below the Bouse Formation is 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 below ground surface); and, the deeper Bouse Formation aquifer (extending between approximately 250 to 6,500 feet below ground surface) (Wilson and Owen-Joyce, 1994). The Pinto Formation exists only on the eastern fringe of the Chuckwalla Basin and is generally 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 87.40 feet bgs (300.00 feet amsl) in TW-1, located upgradient of the site, to 127.11 feet bgs (262.29 feet amsl) in Well 24-1, 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 detection monitoring in accordance with COC S&W-6 as described in the CEC's Final Decision. The primary objectives for the evaporation pond detection as outlined in the MRP are to:

- Establish baseline conditions by conducting four quarters of monitoring prior to discharge of wastewater to the ponds;
- Collect water level elevation data to characterize groundwater flow conditions in the uppermost water-bearing zone beneath the evaporation pond area;
- Collect and evaluate water quality data using approved statistical and other methods to identify potential changes in the existing water quality of the aquifer immediately underlying the evaporation ponds; and,

- Demonstrate compliance with the discharge requirements contained in COC S&W-6 and the WDR for the GSEP.

2.0 EVAPORATION PONDS

2.1 Evaporation Pond Overview

The North and South Evaporation Ponds (sometimes referred to as the West and East ponds, respectively) were designed by Fluor Corp. and are identified on **Figure 3**. Each pond is constructed with multiple layers of containment that drain to a centralized collection trench. The trench slopes away from the centerline of the ponds to the north and south and is equipped with a set of three leakage detection probes in each side. Each pond is also equipped with a pump to return all leaked water back to the pond surface.

2.2 Monitoring Methods

On a semiannual basis, a sample is collected from each of the evaporation ponds and identified as the North Pond and South Pond. Representative water is collected in a clean, dedicated 5-gallon bucket and processed into sample containers inside the containment area. 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. 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,

2.3 Evaporation Pond Sample Results

Analytical data for the evaporation ponds is included in **Table 4** and certified laboratory reports are included in **Appendix B**. In summary:

- The laboratory did not detect copper, potassium, iron, antimony, cadmium, chromium, cobalt, lead, nickel, zinc, mercury, oil & grease, or heat transfer fluid in either pond; and,

- Compound concentrations were similar in both ponds.

3.0 LEAKAGE DETECTION SYSTEM

3.1 Leakage Detection System Overview

A cross-sectional schematic of the leakage detection system is included in **Figure 5**. As shown in the figure, each pond is equipped with a total of six probes (Watermark Model 200SS electrical resistance probes) installed at a distance of 15, 70, and 110 feet from the pond centerline.

The leaked water return pumps are installed on the north side of the North Pond and the south side of the South Pond. Readings from the totalizers on each pump are recorded on a quarterly basis.

3.2 Monitoring Methods

Terminals attached to the probe wire leads are stored in a weatherproof vault at the north and south end of each pond, where resistivity readings can be collected using a Watermark 30-KTCD-NL meter. Values can range from 0-10 centibars (saturated) to 199 centibars (dry). Readings are collected from the probes and the nearby water return pumps on a quarterly basis and summarized in **Table 5**. If the pump totalizers show any signs of increase, or if the probes display values within the saturated range (usually started with probe #1 in the lowest end of the trench), Northstar notifies NextEra operations who then conduct further investigation.

3.3 Monitoring Results

The water return pumps and totalizers were replaced in the second quarter of 2022. No water was pumped from the sumps during the first half of 2022. Both totalizers now read 7.48 gallons.

None of the leak detection probes showed signs of water saturation. Probe #1W in the North Pond has shown signs of humidity since September 2019 but appears to be drying out. Probe #1E in the South Pond showed minor humidity only in the second quarter of 2022. These probes have shown signs of sensor drift and sensitivity in previous events.

4.0 DETECTION MONITORING WELLS

4.1 Detection Monitoring Well Overview

A total of three detection monitoring wells were installed around the perimeter of the evaporation ponds (**Figure 4**). Detection monitoring wells DM-1, DM-2, and DM-3 were installed to a total depth of 120 feet bgs into the shallow Alluvium aquifer with screened intervals between 100 to 120 feet bgs. **Table 1**

provides construction details for the wells. Well DM-1 is located upgradient, west of the ponds. Well DM-2 and DM-3 are located downgradient, east and south of the ponds, respectively.

4.2 Monitoring Methods

Northstar measured the depth to groundwater in each well using a Solinst interface probe. Field staff documented 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** includes the groundwater level measurements and calculated water level elevations. **Figure 4** illustrates the groundwater elevation contours and flow direction.

Each detection monitoring well has a dedicated 1.66-inch diameter Geotech® stainless steel submersible bladder pump and dedicated Teflon-lined tubing with water intakes set at the middle of wetted screen at 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 staff decontaminated reusable/non-dedicated equipment (water level probe and flow-through cell) prior to use at each well. Decontamination of reusable equipment consisted of washing with a laboratory-grade non-phosphate detergent (Liquinox or equivalent) and potable water solution followed by a double rinse with demineralized water.

Field staff measure groundwater parameters with a Horiba water quality field instrument. Staff calibrate the Horiba at the beginning of each day and decontaminate 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.

Wells were purged until water quality parameters stabilized over three successive readings (+/- 0.2 for pH, +/- 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**).

After purging and parameter stabilization, the flow-through cell was disconnected so samples could be collected from the pump discharge. Field staff wore new nitrile gloves to collect groundwater samples in clean bottles (preserved as appropriate) provided by the laboratory. Where required, samples were field filtered with a new 0.45-micron filter attached to the end of the discharge tubing. Staff labeled sample containers with the well identification, date, time, sampler, analytical method, and placed them in a chilled ice chest. Northstar delivered the samples under proper chain-of-custody protocol to the laboratory.

Groundwater purged from DM-1, DM-2, and DM-3 was temporarily contained in a sealed 5-gallon bucket and then disposed in the evaporation ponds as directed in the MRP (Part II A.1.b.). **Table 3** includes the measured field parameters documented at the end of purging activities.
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 analysis 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.

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), as required, with each analytical batch.

Northstar collects a duplicate sample once per sampling event that is submitted to the laboratory without identifiers that associate the sample with a well, date, or time. During this event, a duplicate sample from well PW-2 was collected for analysis. **Table 4** of the *Groundwater Quality Monitoring Report* (Northstar, 2022) provides a summary of analytical results for the duplicate sample.

In addition to these methods, a set of quality control blank samples is collected and put on hold at the laboratory pending analysis of the groundwater samples. These samples include a field blank and trip blank. 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.

4.3 Results of Water Level Measurements

Table 2 provides the wellhead reference elevation (toc elevation), depth-to-groundwater, and water level elevations for each detection monitoring well. Depth to groundwater ranged from 104.50 (well DM-3) to

107.65 (well DM-2) feet bgs, and the calculated groundwater elevations range from 283.67 (well DM-2) to 284.24 (well DM-1) feet amsl.

Northstar used groundwater elevation data to generate a potentiometric surface contour map of the uppermost water-bearing zone beneath the evaporation pond (**Figure 4**). The groundwater flow direction and gradient beneath the site were determined based on linear interpolation between contours of equal elevation. Groundwater flow beneath the evaporation ponds was determined to be predominantly in an east to southeast direction at a gradient of approximately 0.0007 feet/foot. The groundwater flow direction and gradient are consistent with historical monitoring events. Groundwater flow direction has historically ranged between east-northeast and southeast and the gradient has ranged between 0.0004 and 0.0007 feet/foot.

4.4 Groundwater Flow Velocity

The average horizontal groundwater flow velocity beneath the evaporation ponds was estimated using the following equation:

V = (KhI)/ne

Where:

V = average linear groundwater velocity (in feet per day)
Kh = aquifer horizontal hydraulic conductivity (in feet per day)
I = average hydraulic gradient (vertical change in groundwater elevation/corresponding horizontal distance in feet per lateral feet), and
ne = effective aquifer porosity.

Each monitoring well is screened from 100-120 feet bgs in fine-grained sand, as detailed in the Detection Monitoring Well Installation Report (WorleyParsons, 2012). The reported hydraulic conductivity for fine-grained sand is approximately 0.03 to 60 feet/day, as stated in scientific references (Domenico and Schwartz, 1990). Based on the characteristics of the shallow Alluvium aquifer in which the detection monitoring wells are screened, this calculation assumes an average hydraulic conductivity value of 15 to 30 feet/day, an effective porosity of 25 percent, and an average gradient of 0.0007 feet/foot, as estimated from **Figure 4**.

Based on these calculations, the average groundwater velocity estimated in the uppermost water-bearing zone beneath the evaporation ponds is approximately 0.042 to 0.084 feet laterally per day, or 15.33 to 30.66 lateral feet per year. Historically, estimates of groundwater flow velocity have ranged from 8.76 to 30.66 lateral feet per year.

4.5 General Chemical Analysis

Table 4 provides a summary of the detection monitoring well groundwater sample analytical results. **Appendix C** contains copies of the laboratory analytical reports for the groundwater samples. Groundwater samples from detection monitoring wells DM-1, DM-2, and DM-3 were analyzed for the parameters listed in Section 4.2. The concentration of detected analytes is generally similar between the detection monitoring wells. Similarity in the concentrations of analytes is expected as the three wells are located within 1,000 feet of each other and are screened at the same depth interval (100-120 feet bgs).

The following is a summary of the groundwater monitoring results for the detection monitoring wells since the beginning of the monitoring program:

- **Chloride** detections have been consistent for all wells and have ranged from 4,400 to 9,760 milligrams per liter (mg/L), averaging 5,423 mg/L.
- **Sulfate as SO_4** detections have been consistent for all wells and have ranged from 1,600 to 4,350 mg/L, averaging 2,135 mg/L.
- **Nitrate as NO_3** detections have been consistent for all wells and have ranged from non-detect to 21.2 mg/L, averaging 8.06 mg/L.
- **Total Dissolved Solid** concentrations have been consistent for all wells and have ranged from 7,100 to 14,000 mg/L, averaging 10,724 mg/L.
- **pH** levels have been consistent for all wells and have ranged from 7.2 to 8.0 standard units, averaging 7.8 standard units.
- **Specific Conductivity** levels have been consistent for all wells and have ranged from 13,000 to 22,000 microSiemens per centimeter (µs/cm), averaging 17,616 µs/cm.
- **Antimony** has not been detected above the reporting limit for all wells.
- **Arsenic** detections have been consistent for all wells and have ranged from non-detect to 26 µg/L, averaging 11.2 µg/L.
- **Barium** detections have been inconsistent between all wells, averaging 35.3 µg/L in upgradient well DM-1, 67.5 µg/L in downgradient well DM-2, and 18.7 µg/L in downgradient well DM-3.
- **Cadmium** has not been detected above the reporting limit for all wells.
- **Calcium** detections have been consistent for all wells and have ranged from 190 to 470 mg/L, averaging 254 mg/L.
- **Chromium (Total)** detections have been inconsistent because the concentrations are frequently between the MDL and RL. Reportable concentrations have ranged from 3.1 to 3.7 µg/L, averaging 3.4 µg/L.
- **Cobalt** has not been detected above the reporting limit for all wells.
- **Copper** detections have been inconsistent because the concentrations are frequently between the MDL and RL. Reportable concentrations have ranged from 0.006 to 0.027 mg/L, averaging 0.011 mg/L.
- **Lead** has not been detected above the reporting limit for all wells.

- **Mercury** has only been detected once above the reporting limit in upgradient well DM-1 at a concentration of 0.26 µg/L. Mercury has not been detected at or above the reporting limit in wells DM-2 and DM-3.
- **Nickel** has only been detected once above the reporting limit in downgradient well DM-3 at a concentration of 10 µg/L. Nickel has not been detected at or above the reporting limit in wells DM-1 or DM-2.
- **Selenium** detections have been inconsistent because the concentrations are frequently between the MDL and RL. Reportable concentrations have ranged from 0.68 to 55 µg/L, averaging 15.1 µg/L.
- **Zinc** detections have been inconsistent because the concentrations are frequently between the MDL and RL. Reportable concentrations have ranged from 0.55 to 76 µg/L, averaging 24.4 µg/L.

4.6 Non-Statistical Analysis

In accordance with the MRP Part II.A.5 and Part III.A.2, a non-statistical analysis has been applied to the groundwater analytical results for this sampling event.

The non-statistical analysis requires all detections of the constituents of concern (ie, those defined in Part II.A.4 of the same document) reported above the method detection limit (MDL) in the downgradient wells (DM-2 and DM-3) that do not appear in the upgradient well (DM-1) be identified, and where there are either a) two or more constituents identified in this list from a single downgradient monitoring point, or b) one of the identified constituents in this list exceeds the Practical Quantification Limit (PQL), a release is tentatively indicated.

For the purposes of this report, the PQL is equal to the reporting limit (RL) as identified for each constituent in the laboratory report, which is generally 5 times the MDL. The results of the non-statistical method for this sampling event is as follows:

- Well DM-2: There are no constituents of concern that meet the release detection criteria.
- Well DM-3: Zinc was detected equal to the PQL of 50 µg/L. No other analytes were detected in this well that were not detected in the background well DM-1.

4.7 Quality Assurance/Quality Control

As documented in the attached laboratory reports (see **Appendix C**), groundwater samples collected from the evaporation pond detection monitoring wells during this sampling event 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).

Calcium was detected in the method blank sample. The concentration was less than 10% of the sample results and was therefore considered to be negligible according to the method criteria.

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 was outside acceptable limits for the MS and/or MSD due to possible matrix interference. The LCS was within acceptable criteria. The following analytes were potentially affected:
    - Arsenic
    - Chloride
    - Copper
    - Mercury
    - Potassium
    - Sodium
    - Sulfide as SO4

Duplicate sample control: For this event, a duplicate sample (named DUP) was collected from sample point PW-2 (as reported in the *Groundwater Quality Monitoring Report* (Northstar, 2022). 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:

- Total Dissolved Solids by Standard Method 2540C, which was reported at concentrations of 2,000 and 4,000 mg/L, respectively (50% difference).

5.0 LAND TREATMENT UNIT SUMMARY

The Land Treatment Unit (LTU) is an onsite bioremediation landfarm utilized for the treatment of soil contaminated with the heat transfer fluid (HTF) Therminol. Soil from all HTF spills is excavated within 48 hours and placed in one of four treatment bays, numbered LTU #1 to 4. The soil is then tested to determine whether it can be effectively treated onsite (under 10,000 mg/kg of HTF) or if it is hazardous and must be treated offsite (above 10,000 mg/kg of HTF). Soil in the LTUs is overturned on a weekly basis by onsite staff to aid in the bioremediation of the soil. A representative composite soil sample is collected from each bay on a quarterly basis (or as needed) and analyzed by EPA Method 8015M for Therminol (characterized by the chemical markers 1,1'-oxybis-benzene and 1,1'-biphenyl) to monitor the progress of remediation. Once the concentration is less than 100 mg/kg of HTF, the soil may be removed from the LTU and staged onsite for later use. Treatment is enhanced by the addition of moisture and fertilizers.

Contaminated soil in all LTUs is normally overturned on a weekly basis. No soil sampling occurred from any of the LTU bays during the first half of the 2022 calendar year because there was not enough soil to sample.

6.0 ANNUAL SUMMARY

The 2022 annual summary will be included in the *2022 First Semiannual and Annual Groundwater Detection Monitoring Report*, produced by Northstar by January 15, 2023.

7.0 CONCLUSIONS

Based on the available data obtained during this sample event:

- A detection of zinc equaling the PQL in detection monitoring well DM-3 does not meet the tentative release criteria because no other constituents of concern were detected in this well that were not present in upgradient background well DM-1.
- Available groundwater quality data is generally stable with minor trend fluctuations.
- Groundwater flow direction, gradient, and velocity is consistent with historical events.

All data currently indicates compliance with the discharge requirements contained in COC S&W-6 and the WDR for the GSEP, with exceptions as noted above.

8.0 REFERENCES

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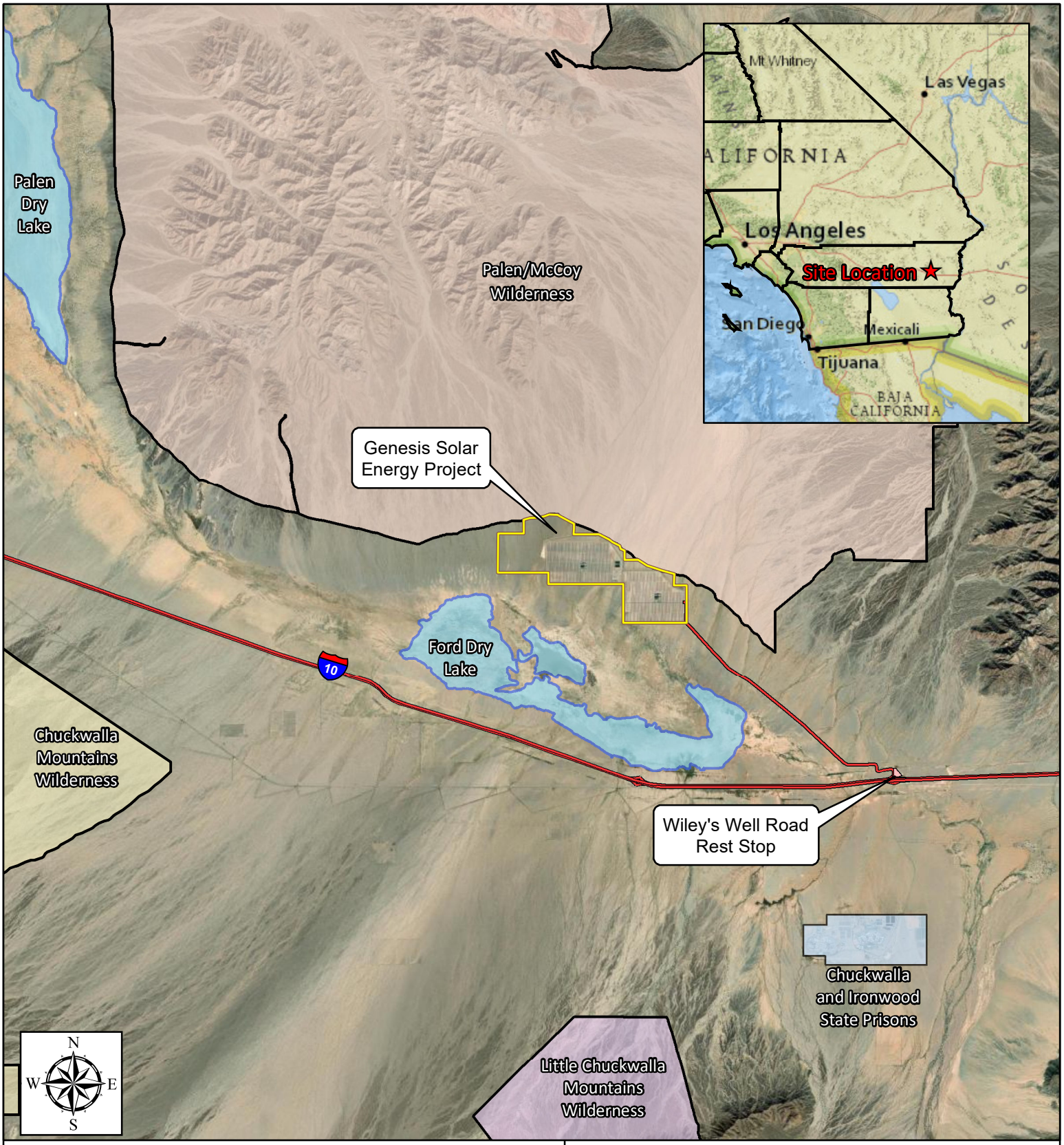
FIGURES



Legend

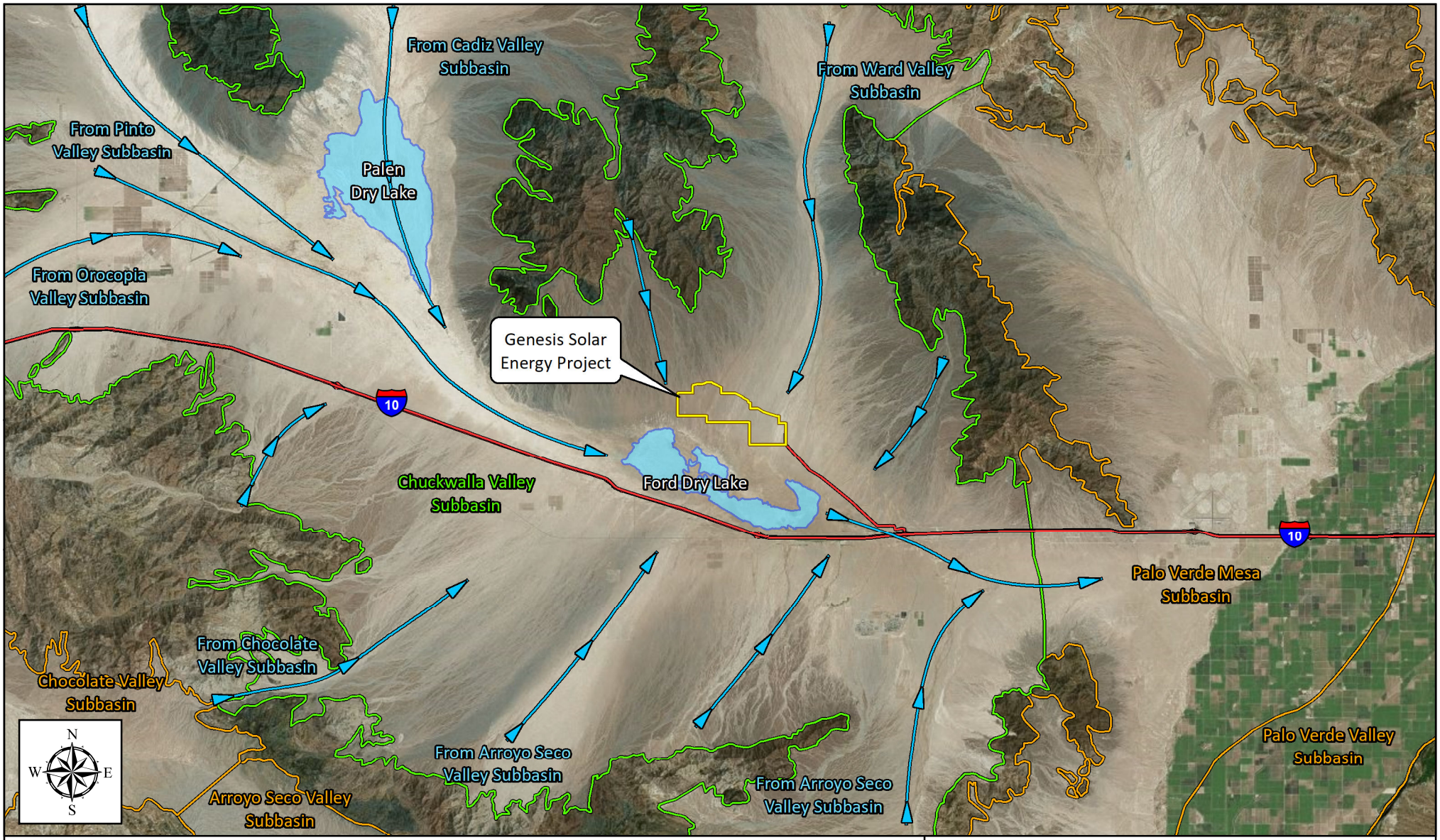
- GSEP Property Boundary
- Chuckwalla and Ironwood State Prisons
- Chuckwalla Mountains Wilderness Area
- Little Chuckwalla Mountains Wilderness Area
- Palen/McCoy Wilderness Area
- Dry Lakes
- Roads

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

FIGURE 1
Site Vicinity Map

NORTHSTAR ENVIRONMENTAL REMEDIATION	Scale: 1:200,000	Draw Date: 07/06/22
	Drawn By: AWB	Checked By: AWB

File Name: Figure 1 - Vicinity Map



Legend

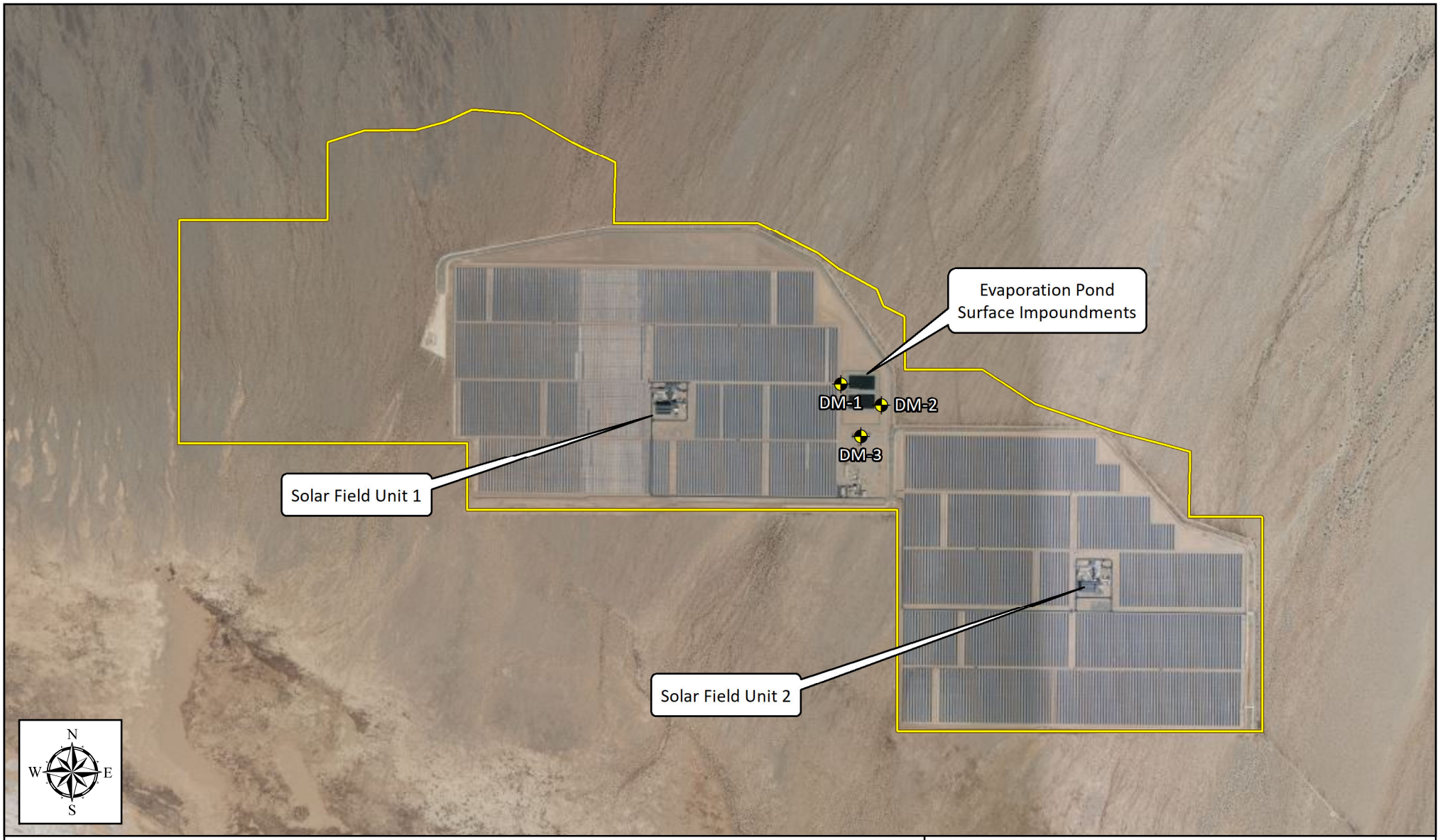
- GSEP Property Boundary
- Chuckwalla Valley Groundwater Subbasin
- Adjacent Groundwater Subbasins
- Dry Lakes
- Water Flow Direction

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

FIGURE 2
Hydrogeologic Setting

NORTHSTAR	Scale: 1:360,000	Draw Date: 07/06/22
	Drawn By: AWB	Checked By: AWB

File Name: Figure 2 - Hydrogeology



Legend

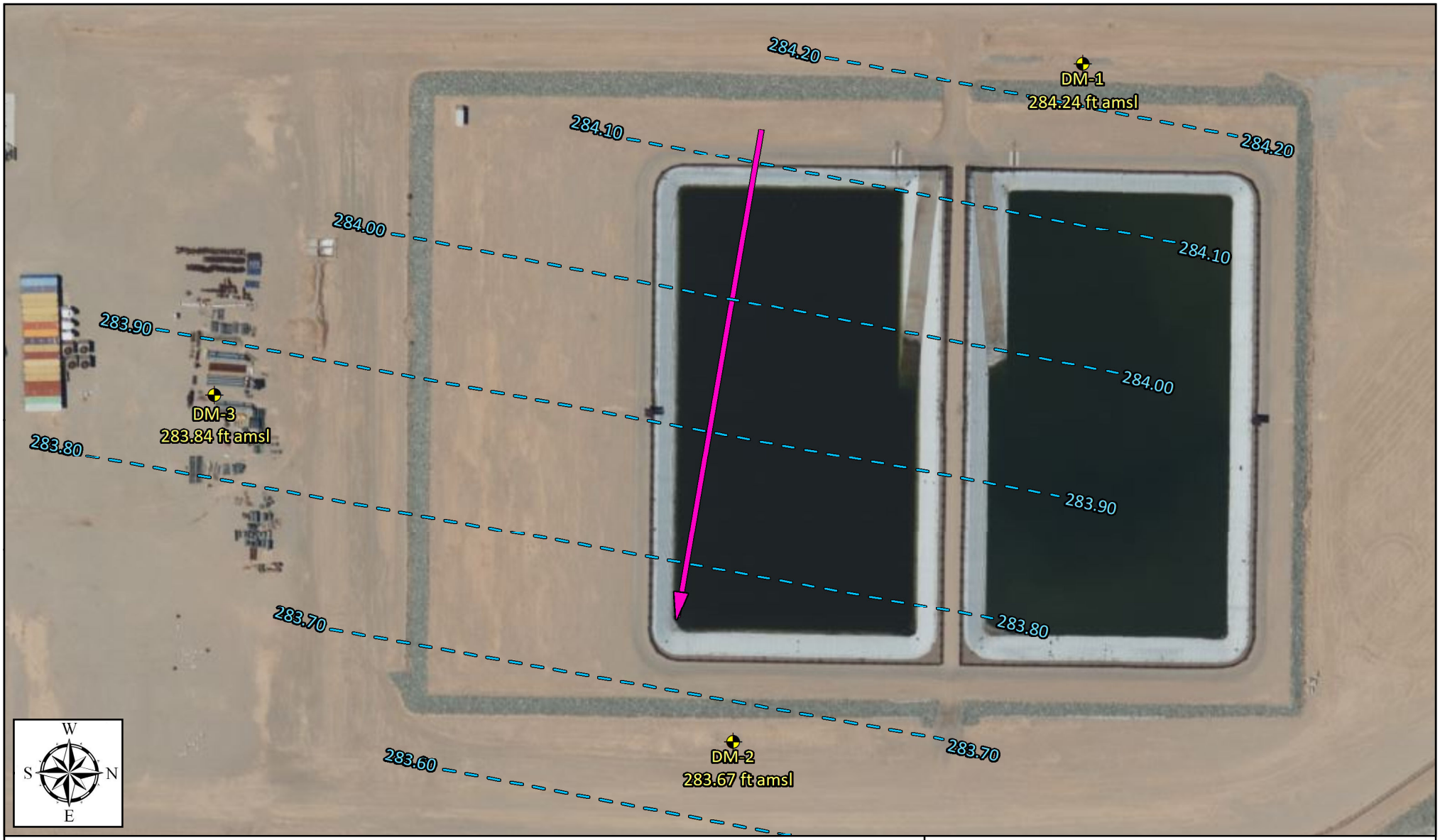
- GSEP Property Boundary
- Detection Monitoring Wells

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

FIGURE 3
Monitoring Area Showing
Detection Monitoring Wells

	Scale: 1:36,000	Draw Date: 07/07/22
	Drawn By: AWB	Checked By: AWB

File Name: Figure 3 - Monitoring Area



Legend

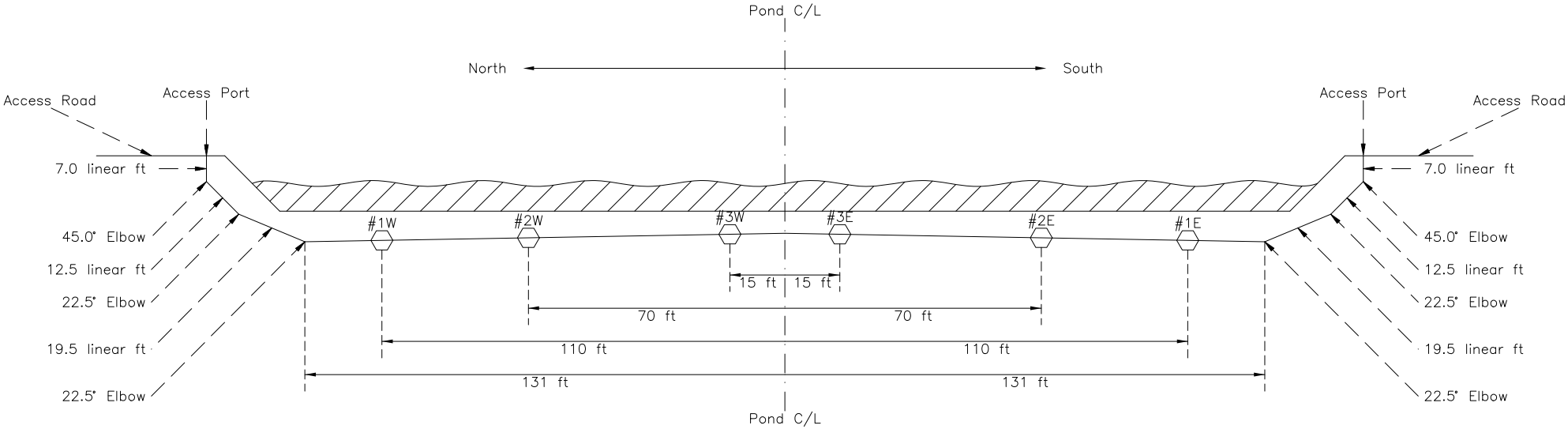
- Detection Monitoring Wells
- Groundwater Elevation Contour Line (in feet above mean sea level)
- Groundwater Gradient Direction

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

FIGURE 4
Groundwater Elevation Contour Map
June 2022

NORTHSTAR	Scale: 1" = 180'	Draw Date: 07/07/22
	Drawn By: AWB	Checked By: AWB

File Name: Figure 4 - GW Contours



Note: All dimensions are approximate and are based upon field observations.

Notes:

1. Probes installed at #1W through #1E are Irrometer/Watermark Model 200SS Moisture Probes.
2. Access port is 4-inch diameter HDPE pipe.
3. Moisture probes are tied to 1/4-inch diameter braided steel pull-through cable (total length of approximately 340 feet).
4. Probes installed in 4-inch diameter perforated pipe with approximate 1 degree slope away from C/L.
5. Moisture probes furnished with two leads for direct read by Watermark Model 30 KTCD-NL meter.

0 15 30
Scale: 1 Inch = 30 Feet

Project Name: Genesis Solar Energy Project	Project Number: 196-004-05
Project Address: 11995 Wiley's Well Rd, Blythe, CA	Drawn/Checked By: AWB
Consulting Firm: Northstar Environmental Remediation	Date Drawn: 07/07/2022
Figure Description: Leak Detection System Detail	Figure Number: Figure 5

TABLES

TABLE 1

DETECTION MONITORING WELL DETAILS

Genesis Solar Energy Project, Riverside County, California

Well ID	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										
DM-1	Detection Monitoring Well 1	Genesis Solar, LLC	2/22/2012	Monitoring / Active	4	--	391.49	120	100 to 120	Alluvium
DM-2	Detection Monitoring Well 2	Genesis Solar, LLC	2/21/2012	Monitoring / Active	4	--	391.32	120	100 to 120	Alluvium
DM-3	Detection Monitoring Well 3	Genesis Solar, LLC	2/20/2012	Monitoring / Active	4	--	388.34	120	100 to 120	Alluvium

Notes:

-- = information is not available or unknown

amsl = above mean sea level

bgs = below ground surface

TABLE 2

GROUNDWATER LEVEL MEASUREMENTS

Genesis Solar Energy Project, Riverside County, California

Well ID	Date	Source	Top of Casing Elevation (feet amsl)	Depth to Water (feet below TOC)	Groundwater Elevation (feet amsl)	Difference from Baseline (feet)	Comments / Use
WELLS INCLUDED IN THE GROUNDWATER DETECTION MONITORING PROGRAM							
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-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-3	2/27/2012	WorleyParsons	388.34	103.85	284.49	N/A	Monitoring
DM-3	5/24/2012	WorleyParsons	388.34	104.35	283.99	0.00	Baseline
DM-3	7/26/2012	WorleyParsons	388.34	104.28	284.06	0.07	Monitoring
DM-3	11/14/2012	WorleyParsons	388.34	105.25	283.09	-0.90	Monitoring
DM-3	3/29/2013	WorleyParsons	388.34	104.35	283.99	0.00	Monitoring
DM-3	6/19/2013	WorleyParsons	388.34	104.20	284.14	0.15	Monitoring
DM-3	8/13/2013	WorleyParsons	388.34	104.31	284.03	0.04	Monitoring
DM-3	11/12/2013	WorleyParsons	388.34	104.43	283.91	-0.08	Monitoring
DM-3	2/26/2014	WorleyParsons	388.34	104.31	284.03	0.04	Monitoring
DM-3	5/22/2014	Northstar	388.34	104.20	284.14	0.15	Monitoring
DM-3	8/8/2014	Northstar	388.34	104.21	284.13	0.14	Monitoring
DM-3	12/4/2014	Northstar	388.34	104.39	283.95	-0.04	Monitoring
DM-3	3/26/2015	Northstar	388.34	104.59	283.75	-0.24	Monitoring

TABLE 2

GROUNDWATER LEVEL MEASUREMENTS

Genesis Solar Energy Project, Riverside County, California

Well ID	Date	Source	Top of Casing Elevation (feet amsl)	Depth to Water (feet below TOC)	Groundwater Elevation (feet amsl)	Difference from Baseline (feet)	Comments / Use
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

Notes:

amsl = above mean sea level

TOC = top of casing

TABLE 3

FIELD DATA COLLECTED DURING THE MOST RECENT GROUNDWATER MONITORING EVENT

Genesis Solar Energy Project, Riverside County, California

Well ID	Date	Groundwater Purging			Field Parameters					
		Rate of Groundwater Discharge (mL/min)	Purging Method	Total Volume Purged (mL)	pH	Conductivity (mS/cm)	Turbidity (NTU)	D.O. (mg/L)	Temperature (C^0)	ORP (mV)
DM-1	6/2/2022	94	Bladder Pump	3,760	7.77	17.6	120	3.41	32.1	+106
DM-2	6/2/2022	94	Bladder Pump	3,760	7.61	18.0	39.0	1.00	31.0	+104
DM-3	6/2/2022	94	Bladder Pump	3,760	7.66	17.3	3.6	1.58	29.6	+106

NOTES:

mL = milliliters

mL/min = milliliters per minute

mS/cm = millisiemens per centermeter

NTU = Nephelometric Turbidity Units

DO = Dissolved Oxygen

mg/L = milligrams per liter

^{0}C = degree Celsius

mV = millivolts

TABLE 4
SUMMARY OF LABORATORY ANALYTICAL RESULTS
Genesis Solar Energy Project, Riverside County, California

Well ID	Date Sampled	Sampling Method	Chloride (mg/L)	Sulfate (SO4) (mg/L)	Nitrate (NO3)-N (mg/L)	Calcium (mg/L)	Copper (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Iron (mg/L)	Magnesium (mg/L)	Antimony (ug/L)	Arsenic (ug/L)	Barium (ug/L)	Cadmium (ug/L)	Chromium (Total) (ug/L)	Cobalt (ug/L)	Lead (ug/L)	Manganese (ug/L)	Nickel (ug/L)	Selenium (ug/L)	Zinc (ug/L)	Mercury (ug/L)	Total Dissolved Solids (mg/L)	Specific Conductance (us/cm)	pH (standard Units)	Oil & Grease / HEM (mg/L)	HTF† (mg/L)	Deuterium (‰ relative to VSMOW)	Oxygen-18 (‰ relative to VSMOW)
			EPA Method 300.0			EPA Method 200.7						EPA Method 200.8												SM7470A	SM2540C	SM2510B	SM4500H	SM1664A	8015B	Isotope Geochemistry	
DM-1	5/24/2012	Low Flow	4,600	2,000	3.9	250	<0.10	3,800	23.0	<0.40	56	-	-	-	-	-	-	-	-	-	-	-	-	12,000	16,000	7.84	-	-	-65.1	-8.8
DM-1	10/24/2012	Low Flow	5,400	2,300	<1.1	210	<0.010	3,200	20.0	<0.040	58	-	-	-	-	-	-	-	11	-	-	-	-	11,000	18,000	7.83	-	-	-72.1	-8.6
DM-1	5/22/2014	Low Flow	5,300	2,000	-	240	<0.010	3,700	22	<0.040	54	<10	6.2	52	<5.0	<10	<5.0	<5.0	2.5[J]	4.6[J]	3.0[J]	<100	<0.20	11,000	19,000	7.81	<5.0	-	-68.50	-8.51
DM-1	5/22/2014 [1]	Low Flow	5,200	2,000	-	230	<0.010	3,600	22	<0.040	53	<10	5.6	50	<5.0	<10	<5.0	<5.0	<5.0	3.9[J]	3.1[J]	<100	<0.20	11,000	19,000	7.74	<5.3	-	-69.47	-8.74
DM-1	12/4/2014	Low Flow	4,800	1,700	2.9	230	<0.050	3,600	21	<0.20	57	<10	7.7	50	<5.0	<10	<5.0	<5.0	<5.0	9.2[J]	<10	25[J]	0.15[J]	11,000	19,000	7.92	<4.7	<0.094	N/A[2]	N/A[2]
DM-1	6/11/2015	Low Flow	4,600	2,000	3.7[J]	230	<0.10	3,600	21	<0.40	52	<10	3.8[J]	36	<5.0	2.9[J]	<5.0	<5.0	3.6[J]	6.3[J]	3.6[J]	<100	0.26	10,000	19,000	7.81	<4.7	<0.10	-69.2	-8.47
DM-1	12/10/2015	Low Flow	5,300	2,100	4.9[J]	260	<0.010	3,700	22	<0.040	57	<10	5.6	38	<5.0	<10	<5.0	<5.0	<5.0	<10	5.2[J]	<100	<0.20	12,000	19,000	7.79	<5.0	<0.094	-70.3	-8.57
DM-1	6/2/2016	Low Flow	4,700	1,800	7.8	230	<0.10	3,800	18	<0.40	57	<2.0	5.1	31	<1.0	1.9[J]	<1.0	<1.0	0.99[J]	1.1[J]	3.3	2.5[J]	<0.20	11,000	20,000	7.87	<4.7	<0.094	-69.87	-8.83
DM-1	11/30/2016	Low Flow	5,200	2,000	<5.5	230	<0.010	3,700	23	<0.040	59	<20	6.7[J]	31	<10	<20	<10	<10	<10	<10	13[J]	<200	<0.20	11,000	17,000	7.8	<4.7	<0.093	-70.70	-8.68
DM-1	6/1/2017	Low Flow	4,600	1,900	4.2[J]	250	<0.10	4,100	21	<1.0	62	<10	4.8[J]	28	<5.0	5.9[J]	<5.0	<5.0	<5.0	7.6[J]	6.9[J]	<100	<0.20	11,000	16,000	7.9	<5.1	<0.094	-70.30	-8.57
DM-1	12/5/2017	Low Flow	7,130	2,770	12.8	230	0.025	1,100	30	<1.0	59	<1.0	6.2	28	<2.5	3.1	<2.5	<2.5	-	<2.5	5.1	6.6	<0.50	10,000	17,200	7.8	<5.0	<0.10	-69.14	-8.90
DM-1	5/30/2018	Low Flow	5,190	2,030	14.7	270	0.096[J]	5,200	63	0.78[J]	64	<0.50	5.0	30	<0.50	<5.0	<0.50	<5.0	-	<5.0	5.9	9.5	<0.50	11,000	17,300	7.9	<5.0	<0.10	-71.10	-8.57
DM-1	12/4/2018	Low Flow	8,180	3,280	9.00	260	<0.5	4,800	33	<20	68	<10	10	31	<10	<10	<10	<10	-	<10	<10	<10	<0.50	11,000	17,400	7.7	<5.0	<0.10	-70.10	-8.55
DM-1	6/14/2019	Low Flow	5,040	1,930	8.76	280	0.006	4,800	65	0.35	63	<10	<10	<10	<10	<10	<10	<10	-	<10	<10	-	<0.50	9,600	17,700	7.2	<5.0	<0.10	-70.40	-8.58
DM-1	12/5/2019	Low Flow	7,460	2,150[J]	16.3	250	0.004[J]	4,200	32	<0.20	67	<5.0	0.80[J]	32	<5.0	2.1[J]	<5.0	<5.0	-	<5.0	0.80[J]	47	<0.50	11,000	17,600	7.7	<5.0	<0.10	-70.10	-8.55
DM-1	6/4/2020	Low Flow	5,500	2,090	8.04	220	0.007	4,300	24	<0.20	53	<5.0	<5.0	33	<5.0	<5.0	<5.0	<5.0	-	<5.0	13	16	<0.50	12,000	17,800	7.3	<5.0	<0.096	-70.30	-8.57
DM-1	12/3/2020	Low Flow	5,530	2,150	8.50	230	<0.005	9,500	35	<0.20	49	<5.0	<5.0	35	<5.0	<5.0	<5.0	<5.0	-	<5.0	0.87	<0.50	<0.50	12,000	18,000	7.9	<5.0	<0.11	-70.20	-8.57
DM-1	6/3/2021	Low Flow	5,520	2,050	8.28	220	<0.50	3,800	<50	<20	57	<10	<10	31	<10	<10	<10	<10	-	<10	17	<10	<0.50	8,100	17,800	7.7	<5.0	<0.095	-70.80	-8.62
DM-1	12/2/2021	Low Flow	5,360	1,930	8.59	230	<0.50	4,200	<50	<20	58	<10	<10	29	<10	<10	<10	<10	-	<10	16	<10	<1.0	14,000	17,800	7.8	<5.0	<0.099	-70.10	-8.58
DM-1	6/2/2022	Low Flow	5,530	2,070	8.70	240	<2.5	4,500	<250	<100	69	<50	<50	<50	<50	<50	<50	<50	-	<50	52	<50	<1.0	9,300	17,800	7.8	<5.0	<0.095	-70.20	-8.62
DM-2	5/24/2012	Low Flow	4,500	2,000	2.9	290	<0.10	3,500	25.0	<0.40	59	-	-	-	-	-	-	-	-	-	-	-	-	13,000	16,000	7.80	-	-	-71.7	-8.8
DM-2	10/23/2012	Low Flow	4,800	2,000	<1.1	470	<0.010	2,600	27.0	<0.040	54	-	-	-	-	-	-	-	110	-	-	-	-	9,900	16,000	7.72	-	-	-70.9	-8.9
DM-2	5/22/2014	Low Flow	5,100	2,000	-	320	<0.020	3,500	23	0.022[J]	54	<10	4.7[J]	97	<5.0	<10	<5.0	<5.0	59	4.1[J]	3.3[J]	<100	<0.20	11,000	18,000	7.79	<5.1	-	-69.95	-8.72
DM-2	12/4/2014	Low Flow	4,400	1,600	3.0	300	<0.050	3,100	20	0.082[J]	55	<10	5.7	140	<5.0	<10	<5.0	<5.0	90	8.4[J]	<10	<100	<0.20	9,900	17,000	7.90	<4.7	<0.095	N/A[2]	N/A[2]
DM-2	6/11/2015	Low Flow	4,500	2,000	3.8[J]	290	<0.10	3,500	22	<0.40	55	<10	4.1[J]	110	<5.0	2.9[J]	<5.0	<5.0	40	4.9[J]	<10	<100	<0.20	9,600	18,000	7.92	<4.7	<0.10	-68.2	-8.52
DM-2	12/10/2015	Low Flow	5,400	2,200	<5.5	290	<0.010	3,600	21	0.062	61	<10	5.9	85	<5.0	<10	<5.0	<5.0	88	<10	5.5[J]	<100	<0.20	12,000	18,000	7.85	<5.0	<0.096	-69.4	-8.43
DM-2	6/2/2016	Low Flow	4,800	1,900	8.0	280	<0.10	3,800	20	0.27[J]	60	0.51[J]	4.7	62	<1.0	1.5[J]	<1.0	<1.0	62	1.1[J]	3.5	<20	<0.20	12,000	22,000	7.95	<4.9	<0.097	-69.53	-8.63
DM-2	11/30/2016	Low Flow	5,300	2,200	2.8[J]	290	<0.010	4,200	28	<0.040	61	<20	5.9[J]	56	<10	<20	<10	<10	40	<20	18[J]	<200	<0.20	11,000	17,000	7.8	<4.7	<0.097	-70.20	-8.37
DM-2	6/1/2017	Low Flow	4,800	1,900	3.1[J]	280	<0.10	4,100	21	<1.0	62	<10	4.4[J]	52	<5.0	<10	<5.0	<5.0	17	5.2[J]	5.6[J]	<100	<0.20	12,000	16,000	7.9	<5.2	<0.097	-70.10	-8.51
DM-2	12/5/2017	Low Flow	4,930	1,960	13.4	250	<0.025	1,400	34	<1.0	62	<1.0	5.5	69	<2.5	3.7	<2.5	<2.5	-	<2.5	5.7	4.5	<0.50	11,000	17,200	7.8	<5.0	<0.10	-67.66	-8.63
DM-2	5/30/2018	Low Flow	6,000	2,280	17.5	300	0.11[J]	4,800	68	<10	67	<5.0	5.1	51	<0.50	<5.0	<0.50	<0.50	-	<0.50	6.3	<5.0	<0.50	9,900	17,000	7.9	<5.0	<0.11	-69.20	-8.39
DM-2	12/4/2018	Low Flow	5,290	1,770	11.4	240	<0.5	4,900	35	<20	60	<10	<10	57	<10	<10	<10	<10	-	<10	<10	28	<0.50	7,100	13,000	7.8	<5.0	<0.10	-72.30	-8.98
DM-2	6/14/2019	Low Flow	5,240	2,080	11.2	300	<0.005	5,100	68	<0.20	67	<10	<10	<10	<10	<10	<10	<10	-	<10	<10	-	<0.50	9,300	18,000	7.3	<5.0	<0.10	-70.10	-8.50
DM-2	12/5/2019	Low Flow	7,680	2,330[J]	21.2	310	0.007	4,400	30	<0.20	65	<5.0	<5.0	50	<5.0	2.9[J]	<5.0	<5.0	-	<5.0	3.2[J]	76	<0.50	10,000	17,000	7.6	<5.0	<0.10	-70.00	-8.48
DM-2	6/4/2020	Low Flow	5,580	2,240	10.4	280	0.007	4,100	41	<0.20	55	<5.0	<5.0	46	<5.0	<5.0	<5.0	<5.0	-	<5.0	9.8	24	<0.50	11,000	18,100	7.4	<5.0	<0.096	-69.90	-8.47
DM-2	12/3/2020	Low Flow	5,730	2,340	9.46	250	<0.005	11,000	34	<0.20	51	<5.0	<5.0	49	<5.0	<5.0	<5.0	<5.0	-	<5.0	0.94	<0.50	<0.50	10,000	18,000	7.8	<5.0	<0.11	-70.10	-8.50
DM-2	6/3/2021	Low Flow	5,610	2,210	7.85	230	<0.50	3,800	<50	<20	58	<10	<10	45	<10	<10	<10	<10	-	<10	16	<10	<0.50	9,000	18,200	7.6	<5.0	<0.092	-69.90	-8.50
DM-2	12/2/2021	Low Flow	5,470	2,100	10.0	270	<0.50	4,500	<50	<20	63	<10	<10	44	<10	<10	<10	<10	-	<10	16	<10	<1.0	13,000	18,200	7.8	<5.0	<0.095	-69.50	-8.47
DM-2	6/2/2022	Low Flow	5,860	2,160	10.9	240	<2.5	4,200	<250	<100	67	<50	<50	<50	<50	<50	<50	<50	-	<50	53	<50	<1.0	9,300	18,200	7.7	<5.0	<0.093	-69.60	-8.51
DM-3	5/24/2012	Low Flow	4,600	2,000	<2.2	220	<0.10	3,500	20.0	<0.40	51	-	-	-	-	-	-	-	-	-	-	-	-	12,000	16,000	7.83	-	-	-71.4	-8.9
DM-3	10/23/2012	Low Flow	5,100	2,100	<2.2	210	<0.010	3,000	20.0	<0.040	52	-	-	-	-	-	-	-	<1.0	-	-	-	-	11,000	18,000	7.83	-	-	-72.6	-8.7
DM-3	5/22/2014	Low Flow	5,400	2,100	-	230	<0.010	3,600	21	<0.040	51	<10	13	18	<5.0	<10	<5.0	<5.0	<5.0	10	<10	<100	<0.20	11,000	19,000	7.66	<4.9	-	-68.86	-8.52
DM-3	12/5/2014	Low Flow	4,900	1,800	1.8[J]	230	<0.050	3,600	20	<0.20	56	<10	16	18	<5.0	<10	<5.0	<5.0	<5.0	9.6[J]	<10	<100	<0.20	11,000	18,000	7.82	<4.7	<0.099	N/A[2]	N/A[2]
DM-3	6/12/2015	Low Flow	4,400	1,900	<5.5	220	<0.10	3,600	18	<0.40	50	<10	14	17	<5.0	<10	<5.0	<5.0	<5.0	4.5[J]	<10	<100	<0.20	9,800	18,000	7.75	<4.9	<0.10	-69.6	-8.90
DM-3	12/11/2015	Low Flow	5,100	2,200	<5.5	250	0.0057[J]	3,500	19	<0.040	51	<10	17	21	<5.0	<10	<5.0	<5.0	<5.0	<10	3.1[J]	<100	<0.20	11,000	18,000	7.79	<5.0	<0.094	-70.6	-8.73
DM-3	6/3/2016	Low Flow	4,700	1,900	7.1	220	<0.10	3,700	17	<0.40	53	<2.0	14	16	<1.0	0.66[J]	<1.0	<1.0	0.64[J]	0.88[J]	1.0[J]	5.1[J]	<0.20	11,000	20,000	7.86	<4.7	<0.093	-69.29	-8.75
DM-3	12/2/2016	Low Flow	4,900	2,100	<5.5	240	0.0052[J]	4,100	23	<0.040	56	<10	16	18	<5.0	<10	<5.0	<5.0	<5.0	<10	5.6[J]	<100	<0.20	11,000	17,000	7.8	<4.8	<0.097	-72.20	-8.75
DM-3	6/1/2017	Low Flow	4,800	2,000	<5.5	240	<0.10	3,900	19	<1.0	55	<10	15	18	<5.0	<10	<5.0	<5.0	<5.0	3.9[J]	2.7[J]	<100	<0.20	11,000	16,000	7.9	<5.1	<0.095	-70.80	-8.71
DM-3	12/5/2017	Low Flow	4,880	2,020	2.77	230	0.027	1,200	31	0.073[J]	59	<2.5	15	15	<2.5	<2.5	<2.5	<2.5	-	<2.5	<2.5	5.6	<0.50	13,000	17,000	7.8	<5.0	<0.10	-69.57	-8.87
DM-3	5/30/2018	Low Flow	6,350	2,600	10.7	260	0.11[J]	4,100	61	<10	61	<0.50	14	15	<0.50	<5.0	<0.50	<0.50	-	<0.50	<5.0	<5.0	<0.50	12,000	17,100	7.9	<5.0	<0.11	-70.60	-8.67
DM-3	12/4/2018	Low Flow	6,770	2,840	2.50	280	<0.5	5,200	33	<20	69	<10	20	34	<10	<10	<10	<10	-	<10	<10	<10	<0.50	9,700	17,100	7.8	<5.0	<0.10	-70.60	-8.67
DM-3	6/14/2019	Low Flow	4,880	1,960	2.87	270	0.009	4,900	60	<0.20	59	<10	<10	<10	<10	<10	<10	<10	-	<10	<10	-	<0.50	9,300	16,800	7.5	<5.0	<0.10	-70.80	-8.69
DM-3	12/6/2019	Low Flow	9,760	4,350	3.52	240	0.006	4,100	31	<0.20	58	<5.0	11	18	<5.0	0.90[J]	<5.0	<5.0	-	<5.0	0.40[J]	51	<0.50	11,000	17,800	7.7	<5.0	<0.10	-70.50	-8.64
DM-3	6/5/2020	Low Flow	5,250	2,080	2.44	230	0.007	4,000	35	<0.20	48	<5.0	16	17	<5.0	<5.0	<5.0	<5.0	-	<5.0	6.4	13	<0.50	11,000	17,400	7.5	<5.0	<0.097	-70.70	-8.65
DM-3	12/3/2020	Low Flow	5,420	2,300	2.47	220	<0.005	9,100	29	<0.20	45	<5.0	<5.0	20	<5.0	<5.0	<5.0	<5.0	-	<5.0	0.68	0.55	<0.50	10,000	17,000	7.9	<5.0	<0.11	-70.90	-8.71
DM-3	6/3/2021	Low Flow	5,380	2,130	2.44	190	<0.50	3,500	<50	<20	48	<10	17	18	<10	<10	<10	<10	-	<10	20	10	<0.50	7,700	17,400	7.7	<5.0	<0.093	-70.40	-8.69
DM-3	12/2/2021	Low Flow	5,230	2,020	3.06	220	<0.50	4,000	<50	<20	53	<10	26	17	<10	<10	<10	<10	-	<10	11	<10	<1.0	12,000	17,400	7.8	<5.0	<0.094	-70.60	-8.69
DM-3	6/2/2022	Low Flow	5,570	2,110	2.82	240	<2.5	4,500	<250	<100	59	<50	<50	<50	<50	<50	<50	<50	-	<50	55	50	<1.0	8,500	17,400	7.8	<5.0	<0.090	-70.50	-8.71
North Pond	6/1/2018	Composite	61,700	21,000	0.870	230	<0.015	12,000	430	<0.35	4.6[J]	<10	470	230	<10	<0.50	<10	<0.50	-	25	<25	62	<0.50	120,000	148,000	9.4	<1.40	<0.095	N/A	N/A
North Pond	12/3/2018	Composite	241,000	18,600	24.3	630	2.9	46,000	8,300	<20	27	<25	1,000	68	<25	<25	<25	<25	-	59	<25	<25	<0.50	400,000	241,000	7.6	<5.00	<0.099	N/A	N/A
North Pond	6/13/2019	Composite	39,800	12,000	<0.500	280	0.038	41,000	<0.10	<0.20	5.7	<10	25	12	<10	<10	<10	<10	-	<10	<10	-	<0.50	72,000	108,000	9.1	<5.00	<0.094	N/A	N/A
North Pond	12/5/2019	Composite	83,000	27,000	<500	380	0.090	43,000	340	<0.20	3.0	<5.0	800	200	<5.0	<50	<50	<5.0	-	<50	<50	4,300	<0.50	120,000	120,000	8.8	<5.00	<0.095	N/A	N/A

TABLE 4
SUMMARY OF LABORATORY ANALYTICAL RESULTS
Genesis Solar Energy Project, Riverside County, California

Well ID	Date Sampled	Sampling Method	Chloride (mg/L)	Sulfate (SO4) (mg/L)	Nitrate (NO3)-N (mg/L)	Calcium (mg/L)	Copper (mg/L)	Sodium (mg/L)	Potassium (mg/L)	Iron (mg/L)	Magnesium (mg/L)	Antimony (ug/L)	Arsenic (ug/L)	Barium (ug/L)	Cadmium (ug/L)	Chromium (Total) (ug/L)	Cobalt (ug/L)	Lead (ug/L)	Manganese (ug/L)	Nickel (ug/L)	Selenium (ug/L)	Zinc (ug/L)	Mercury (ug/L)	Total Dissolved Solids (mg/L)	Specific Conductance (us/cm)	pH (standard Units)	Oil & Grease / HEM (mg/L)	HTF† (mg/L)	Deuterium (‰ relative to VSMOW)	Oxygen-18 (‰ relative to VSMOW)
			EPA Method 300.0			EPA Method 200.7						EPA Method 200.8												SM7470A	SM2540C	SM2510B	SM4500H	SM1664A	8015B	Isotope Geochemistry	
North Pond	6/4/2020	Composite	40,900	11,300	27.4	510	3.4	20,000	240	<20	570	<25	560	76	<25	<25	<25	<25	-	<25	38	39	<0.50	70,000	107,000	9.4	<5.00	<0.090	N/A	N/A
North Pond	12/3/2020	Composite	38,000	11,800	7.73	390	<0.5	30,000	250	<20	19	<25	8.7	330	<25	<25	<25	<25	-	<25	0.81	0.81	<0.50	57,000	95,000	8.9	<5.00	<0.10	N/A	N/A
North Pond	6/4/2021	Composite	48,200	15,200	53.1	400	<0.50	31,000	230	<20	12	<25	510	130	<25	<25	<25	<25	-	30	53	<25	<0.50	16,000	119,000	9.4	<5.00	<0.087	N/A	N/A
North Pond	12/2/2021	Composite	57,500	18,600	<50.0	470	<0.50	44,000	300	<20	17	<20	640	170	<20	<20	<20	<20	-	<20	31	<20	<1.0	91,000	142,000	8.9	<5.00	<0.092	N/A	N/A
North Pond	6/2/2022	Composite	86,200	30,400	47.8	<100	<5.0	79,000	<500	<200	<100	<50	940	300	<50	<50	<50	<50	-	<50	89	<50	<1.0	180,000	175,000	8.6	<5.00	<0.098	N/A	N/A
South Pond	6/1/2018	Composite	152,000	59,500	22.2	27	<0.015	17,000	1,100	<0.35	17	<10	1,100	85	<25	<10	<10	<0.50	-	46	43	79	<0.50	310,000	218,000	8.3	<1.40	<0.090	N/A	N/A
South Pond	12/3/2018	Composite	33,200	8,710	65.1	410	2.8	34,000	420	<20	27	<25	390	310	<25	<25	<25	<25	-	<25	<25	160	<0.50	39,000	61,200	8.9	36.4	<0.097	N/A	N/A
South Pond	6/13/2019	Composite	38,700	10,800	57.2	430	0.064	40,000	<0.10	<0.20	16	<10	28	25	<10	<10	<10	<10	-	<10	<10	-	<0.50	68,000	104,000	9.3	<5.00	<0.097	N/A	N/A
South Pond	12/5/2019	Composite	30,000	6,770	2.17	200	0.041	14,000	160	<0.20	13	<5.0	200	170	<5.0	<5.0	<5.0	<5.0	-	<5.0	<5.0	190	<0.50	35,000	49,700	9.0	<5.00	<0.099	N/A	N/A
South Pond	6/4/2020	Composite	74,600	23,900	14.8	390	4.2	62,000	470	<20	1,100	<25	1,100	360	<25	<25	<25	<25	-	36	68	48	<0.50	130,000	166,000	8.8	<5.00	<0.091	N/A	N/A
South Pond	12/3/2020	Composite	73,700	16,600	10.6	370	<0.5	42,000	480	<20	23	<25	14	290	<25	<25	<25	<25	-	<25	0.73	3.0	<0.50	92,000	150,000	8.6	<5.00	<0.099	N/A	N/A
South Pond	6/4/2021	Composite	91,000	22,300	<50.0	420	<0.50	55,000	620	<20	29	<25	1,100	420	<25	<25	<25	<25	-	56	69	100	<0.50	25,000	183,000	9.0	<5.00	<0.091	N/A	N/A
South Pond	12/2/2021	Composite	24,000	6,560	<50.0	240	<0.50	19,000	150	<20	16	<10	290	200	<10	<10	<10	<20	-	21	18	64	<1.0	38,000	67,500	8.9	<5.00	<0.090	N/A	N/A
South Pond	6/2/2022	Composite	80,200	21,900	45.2	300	<5.0	65,000	<500	<200	100	<50	920	310	<50	<50	<50	<50	-	<50	82	<50	<1.0	140,000	168,000	8.4	<5.00	<0.095	N/A	N/A

NOTES:

mg/L = milligrams per liter

ug/L = micrograms per liter

uS/cm = microsiemens per centimeter

‰ = parts per thousand

VSMOW = Vienna Standard Mean Ocean Water

< = not detected at or above the indicated reporting limit

- = information is unknown / not applicable / not analyzed

J - Result is less than the reporting limit but greater than or equal to the method detection limit, thus the concentration is an approximate value.

† - Heat Transfer Fluid (HTF) is characterized by the analytes 1,1'-oxybis-benzene and 1,1'-biphenyl.

1 - Duplicate sample

2 - Analytical results not available at time of reporting due to laboratory equipment failure.

Analytical data shaded grey is a monitored Contaminant of Concern as defined in the Waste Discharge Requirements, Condition 79, Page 16

TABLE 5

SUMMARY OF LEAKAGE DETECTION SYSTEM DATA

Genesis Solar Energy Project, Riverside County, California

Date of Reading	Sensor Readings[1]														Comments
	North Pond							South Pond							
	#1W	#2W	#3W	#1E	#2E	#3E	Totalizer	#1W	#2W	#3W	#1E	#2E	#3E	Totalizer	
1st Qtr 2014	199	199	199	199	199	199	-	199	199	199	199	199	199	-	All probes are dry
2nd Qtr 2014	199	199	199	199	199	199	-	199	199	199	199	199	199	-	
3rd Qtr 2014	199	199	199	199	199	199	-	199	199	199	199	199	199	-	
12/05/2014	199	199	199	199	199	199	-	199	199	199	199	199	199	-	
03/26/2015	199	199	199	199	199	199	-	199	199	199	199	199	199	-	
06/12/2015	133	199	199	199	199	199	-	199	199	199	199	199	199	-	
09/03/2015	78	199	199	199	199	199	-	199	199	199	199	199	199	-	
09/15/2015	67	199	199	199	199	199	-	199	199	199	199	199	199	-	
12/10/2015	0	75	199	199	199	199	-	199	199	199	199	199	199	-	Sump pumps turned on - no water
03/01/2016	6	101	199	199	199	199	-	199	199	199	199	199	199	-	
06/02/2016	4	80	199	199	199	199	-	199	199	199	199	199	199	-	
09/01/2016	0	42	146	199	175	105	-	199	199	199	199	199	199	-	
12/01/2016	0	59	199	199	199	188	1,144.79	199	199	199	183	199	199	24.21	Readings on arrival
12/01/2016	199	199	199	199	199	199	1,144.79	199	199	199	183	199	199	24.21	Readings on departure, new probes in North Pond
03/02/2017	199	199	199	199	199	199	1,144.79	199	199	199	199	199	199	24.21	
06/01/2017	199	199	199	199	199	199	1,144.79	199	199	199	199	199	199	24.21	
09/04/2017	199	199	199	199	199	199	1,695.44	199	199	199	192	178	199	24.21	
12/05/2017	114	165	199	199	179	180	1,695.66	199	199	199	166	199	199	24.21	To date, all totalizer increases are from pump testing
03/06/2018	186	199	199	199	199	199	1,695.66	199	199	199	199	199	199	24.21	
06/01/2018	159	199	199	199	199	199	1,695.66	199	199	199	177	186	199	24.21	
09/12/2018	78	192	199	199	199	192	1,694.83	199	199	199	197	187	199	24.21	
12/03/2018	119	181	199	199	199	199	1,688.26	199	199	199	199	168	199	24.21	
03/08/2019	150	199	199	199	199	199	1,690.80	199	199	199	115	168	199	24.21	
06/13/2019	199	199	199	199	199	199	1,687.19	199	199	199	188	199	199	24.21	
09/08/2019	199	199	199	199	199	199	1,686.68	199	199	199	188	199	199	24.21	
12/05/2019	145	199	199	199	199	199	1,683.78	199	199	199	199	199	199	24.21	
03/17/2020	168	199	199	199	199	199	1,681.87	199	199	199	199	199	199	24.21	
06/04/2020	109	199	199	199	199	199	1,657.23	199	199	199	199	199	199	22.64	
09/16/2020	199	199	199	199	199	199	1,619.72	199	199	199	199	199	199	20.34	
12/03/2020	98	199	199	199	199	199	1,624.77	199	199	199	199	199	199	20.34	
03/23/2021	104	199	199	199	199	199	1,628.91	199	199	199	199	199	199	20.34	
06/04/2021	119	199	199	199	199	199	2,017.91	199	199	199	199	199	199	205.98	Sump pumps tested prior to readings
09/21/2021	89	199	199	199	199	199	2,188.61	199	199	199	199	199	199	197.30	
12/02/2021	97	199	199	199	199	199	2,186.30	199	199	199	199	199	199	N/A [2]	
03/30/2022	134	199	199	199	199	199	2,183.93	199	199	199	199	199	199	N/A [2]	
06/02/2022	151	199	199	199	199	199	7.48	199	199	199	189	199	199	7.48	New pumps and totalizers installed in 2nd quarter

1 - Readings in centibars, collected with a Watermark 30 KTCD-NL Soil Moisture Meter

2 - Pump totalizer not functioning

APPENDIX A

FIELD DATA SHEETS

GROUNDWATER SAMPLING FIELD FORM

Date: June 2022	Site: Genesis Solar Energy Project	Project No: 196-004-06
Project: Groundwater Quality Monitoring Program		Project Manager: AWB
Technicians: AWB/RCD		Weather: Clear, 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	19:47	107.25	33.4	7.78	17.5	109	+101	6.02
Total Depth (ft btoc)	120	19:52	107.27	32.3	7.77	17.5	123	+105	4.11
Screen Interval (ft btoc)	100 - 120	19:57	107.27	32.1	7.77	17.6	120	+106	3.41
Depth to Water (ft btoc)	107.25								
Depth of Inlet (ft btoc)	115.00								
Discharge Time (sec)	35								
Fill Time (sec)	45								
Cycles per Minute	0.8								
Volume per Cycle (mL)	125								
Pump Rate (mL/min)	94								
Volume Purged (mL)	1,880								
Sample Time	20:00								

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

COMMENTS: Sampled 6/2/2022

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	21:28	107.98	31.3	7.69	17.6	54.0	+105	2.14
Total Depth (ft btoc)	120	21:33	108.05	31.0	7.64	17.9	40.0	+106	1.01
Screen Interval (ft btoc)	100 - 120	21:38	108.10	31.1	7.62	17.9	36.0	+105	1.00
Depth to Water (ft btoc)	107.65	21:43	108.15	31.0	7.61	18.0	39.0	+104	1.00
Depth of Inlet (ft btoc)	115.00								
Discharge Time (sec)	35								
Fill Time (sec)	45								
Cycles per Minute	0.8								
Volume per Cycle (mL)	125								
Pump Rate (mL/min)	94								
Volume Purged (mL)	2,820								
Sample Time	21:45								

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

COMMENTS: Sampled 6/2/2022

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	23:06	104.50	30.7	7.73	17.5	13.7	+120	2.39
Total Depth (ft btoc)	120	23:11	104.52	29.8	7.68	17.4	5.8	+110	1.74
Screen Interval (ft btoc)	100 - 120	23:16	104.50	29.7	7.67	17.3	3.7	+107	1.63
Depth to Water (ft btoc)	104.50	23:21	104.52	29.6	7.66	17.3	3.6	+106	1.58
Depth of Inlet (ft btoc)	115.00								
Discharge Time (sec)	35								
Fill Time (sec)	45								
Cycles per Minute	0.8								
Volume per Cycle (mL)	125								
Pump Rate (mL/min)	94								
Volume Purged (mL)	2,820								
Sample Time	23:25								

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

COMMENTS: Sampled 6/2/2022

APPENDIX B

LABORATORY ANALYTICAL RESULTS

EVAPORATION PONDS

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12 July 2022

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

RE: Genesis Solar LTUs & Ponds

Enclosed are the results of analyses for samples received by the laboratory on 06/03/22 11:45. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jeff Lee
Project Manager

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

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Northstar Environmental Remediation	Project: Genesis Solar LTUs & Ponds	
26225 Enterprise Court	Project Number: 196-004-05	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	07/12/22 10:04

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
North Pond	T221595-01	Water	06/02/22 12:00	06/03/22 11:45
South Pond	T221595-02	Water	06/02/22 12:30	06/03/22 11:45

RE1: Report revised to replace orginal Sodium data. Rerun of the sample showed original Sodium data was reported bias low. JL 7/12/22.

SunStar Laboratories, Inc.

Jeff Lee, Project Manager

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Northstar Environmental Remediation	Project: Genesis Solar LTUs & Ponds	
26225 Enterprise Court	Project Number: 196-004-05	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	07/12/22 10:04

DETECTIONS SUMMARY

Sample ID: North Pond **Laboratory ID:** T221595-01

Analyte	Result	Reporting Limit	Units	Method	Notes
Arsenic	**940**	50	ug/l	200.8	FILT, R-07
Barium	**300**	50	ug/l	200.8	FILT, R-07
Selenium	**89**	50	ug/l	200.8	FILT, R-07
pH	**8.6**	0.10	pH Units	SM 4500-H+B	O-04
Total Dissolved Solids	**180000**	10	mg/l	TDS by SM2540C	
Specific Conductance (EC)	**175000**	10.0	mho/cm @25°(	SM2510b mod.	
Chloride	**86200**	5000	mg/l	EPA 300.0	
Sulfate as SO4	**30400**	5000	mg/l	EPA 300.0	
Nitrate as NO3	**47.8**	25.0	mg/l	EPA 300.0	HLD-2, R-07
Nitrate as N	**11.0**	10.0	mg/l	EPA 300.0	HLD-2, R-07

Sample ID: North Pond **Laboratory ID:** T221595-01RE1

No Results Detected

Sample ID: North Pond **Laboratory ID:** T221595-01RE2

Analyte	Result	Reporting Limit	Units	Method	Notes
Sodium	**79000**	500	mg/l	EPA 200.7	

Sample ID: South Pond **Laboratory ID:** T221595-02

Analyte	Result	Reporting Limit	Units	Method	Notes
Arsenic	**920**	50	ug/l	200.8	R-07
Barium	**310**	50	ug/l	200.8	R-07
Selenium	**82**	50	ug/l	200.8	R-07
pH	**8.4**	0.10	pH Units	SM 4500-H+B	O-04
Total Dissolved Solids	**140000**	10	mg/l	TDS by SM2540C	
Specific Conductance (EC)	**168000**	10.0	mho/cm @25°(	SM2510b mod.	

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26225 Enterprise Court	Project Number: 196-004-05	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	07/12/22 10:04

Sample ID: South Pond **Laboratory ID:** T221595-02

Analyte	Result	Reporting Limit	Units	Method	Notes
Chloride	**80200**	5000	mg/l	EPA 300.0	
Sulfate as SO4	**21900**	5000	mg/l	EPA 300.0	
Nitrate as NO3	**45.2**	25.0	mg/l	EPA 300.0	HLD-2, R-07
Nitrate as N	**11.0**	10.0	mg/l	EPA 300.0	HLD-2, R-07

Sample ID: South Pond **Laboratory ID:** T221595-02RE1

Analyte	Result	Reporting Limit	Units	Method	Notes
Calcium	**300**	100	mg/l	EPA 200.7	FILT
Magnesium	**100**	100	mg/l	EPA 200.7	FILT

Sample ID: South Pond **Laboratory ID:** T221595-02RE2

Analyte	Result	Reporting Limit	Units	Method	Notes
Sodium	**65000**	500	mg/l	EPA 200.7	

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Northstar Environmental Remediation	Project: Genesis Solar LTUs & Ponds	
26225 Enterprise Court	Project Number: 196-004-05	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	07/12/22 10:04

North Pond

T221595-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Metals by EPA 200 Series Methods									
Antimony	ND	50	ug/l	100	22F0058	06/03/22	06/07/22	200.8	FILT, R-07
Arsenic	**940**	50	"	"	"	"	"	"	FILT, R-07
Barium	**300**	50	"	"	"	"	"	"	FILT, R-07
Cadmium	ND	50	"	"	"	"	"	"	FILT, R-07
Chromium	ND	50	"	"	"	"	"	"	FILT, R-07
Cobalt	ND	50	"	"	"	"	"	"	FILT, R-07
Lead	ND	50	"	"	"	"	"	"	FILT, R-07
Nickel	ND	50	"	"	"	"	"	"	FILT, R-07
Selenium	**89**	50	"	"	"	"	"	"	FILT, R-07
Zinc	ND	50	"	"	"	"	"	"	FILT, R-07
Cold Vapor Extraction EPA 7470/7471									
Mercury	ND	1.0	ug/l	1	22F0059	06/03/22	06/06/22	EPA 7470A Water	FILT
Conventional Chemistry Parameters by APHA/EPA/ASTM Methods									
Oil & Grease	ND	5.00	mg/l	1	22F0069	06/03/22	06/14/22	EPA 1664B	
Specific Conductance (EC)	**175000**	10.0	umho/cm @25°C	"	22F0183	06/10/22	06/10/22	SM2510b mod.	
pH	**8.6**	0.10	pH Units	"	22F0064	06/03/22	06/06/22	SM 4500-H+B	O-04
Total Dissolved Solids	**180000**	10	mg/l	"	22F0063	06/03/22	06/10/22	TDS by SM2540C	
Anions by EPA Method 300.0									
Chloride	**86200**	5000	mg/l	1000	22F0066	06/03/22	06/07/22	EPA 300.0	
Sulfate as SO4	**30400**	5000	"	"	"	"	"	"	
Nitrate as NO3	**47.8**	25.0	"	50	"	"	06/04/22	"	HLD-2, R-07
Nitrate as N	**11.0**	10.0	"	"	"	"	"	"	HLD-2, R-07

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Jeff Lee, Project Manager

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26225 Enterprise Court	Project Number: 196-004-05	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	07/12/22 10:04

North Pond

T221595-01RE1 (Water)

SunStar Laboratories, Inc.

Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Copper	ND	5.0	mg/l	1000	22F0161	06/09/22	06/13/22	EPA 200.7	FILT
Calcium	ND	100	"	"	"	"	"	"	FILT
Iron	ND	200	"	"	"	"	"	"	FILT
Magnesium	ND	100	"	"	"	"	"	"	FILT
Potassium	ND	500	"	"	"	"	"	"	FILT

SunStar Laboratories, Inc.

Jeff Lee, Project Manager

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26225 Enterprise Court	Project Number: 196-004-05	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	07/12/22 10:04

North Pond

T221595-01RE2 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Metals by EPA 200 Series Methods									
Sodium	**79000**	500	mg/l	1000	22G0002	06/09/22	07/07/22	EPA 200.7	

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Northstar Environmental Remediation	Project: Genesis Solar LTUs & Ponds	
26225 Enterprise Court	Project Number: 196-004-05	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	07/12/22 10:04

South Pond

T221595-02 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Metals by EPA 200 Series Methods									
Antimony	ND	50	ug/l	100	22F0058	06/03/22	06/07/22	200.8	R-07
Arsenic	**920**	50	"	"	"	"	"	"	R-07
Barium	**310**	50	"	"	"	"	"	"	R-07
Cadmium	ND	50	"	"	"	"	"	"	R-07
Chromium	ND	50	"	"	"	"	"	"	R-07
Cobalt	ND	50	"	"	"	"	"	"	R-07
Lead	ND	50	"	"	"	"	"	"	R-07
Nickel	ND	50	"	"	"	"	"	"	R-07
Selenium	**82**	50	"	"	"	"	"	"	R-07
Zinc	ND	50	"	"	"	"	"	"	R-07
Cold Vapor Extraction EPA 7470/7471									
Mercury	ND	1.0	ug/l	1	22F0059	06/03/22	06/06/22	EPA 7470A Water	
Conventional Chemistry Parameters by APHA/EPA/ASTM Methods									
Oil & Grease	ND	5.00	mg/l	1	22F0069	06/03/22	06/14/22	EPA 1664B	
Specific Conductance (EC)	**168000**	10.0	umho/cm @25°C	"	22F0183	06/10/22	06/10/22	SM2510b mod.	
pH	**8.4**	0.10	pH Units	"	22F0064	06/03/22	06/06/22	SM 4500-H+B	O-04
Total Dissolved Solids	**140000**	10	mg/l	"	22F0063	06/03/22	06/10/22	TDS by SM2540C	
Anions by EPA Method 300.0									
Chloride	**80200**	5000	mg/l	1000	22F0066	06/03/22	06/07/22	EPA 300.0	
Sulfate as SO4	**21900**	5000	"	"	"	"	"	"	
Nitrate as NO3	**45.2**	25.0	"	50	"	"	06/04/22	"	HLD-2, R-07
Nitrate as N	**11.0**	10.0	"	"	"	"	"	"	HLD-2, R-07

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Northstar Environmental Remediation	Project: Genesis Solar LTUs & Ponds	
26225 Enterprise Court	Project Number: 196-004-05	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	07/12/22 10:04

South Pond

T221595-02RE1 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Metals by EPA 200 Series Methods									
Copper	ND	5.0	mg/l	1000	22F0161	06/03/22	06/13/22	EPA 200.7	FILT
Calcium	**300**	100	"	"	"	"	"	"	FILT
Iron	ND	200	"	"	"	"	"	"	FILT
Magnesium	**100**	100	"	"	"	"	"	"	FILT
Potassium	ND	500	"	"	"	"	"	"	FILT

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Northstar Environmental Remediation	Project: Genesis Solar LTUs & Ponds	
26225 Enterprise Court	Project Number: 196-004-05	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	07/12/22 10:04

South Pond

T221595-02RE2 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Metals by EPA 200 Series Methods									
Sodium	**65000**	500	mg/l	1000	22G0002	06/03/22	07/07/22	EPA 200.7	

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Northstar Environmental Remediation	Project: Genesis Solar LTUs & Ponds	
26225 Enterprise Court	Project Number: 196-004-05	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	07/12/22 10:04

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
Batch 22F0058 - EPA 3010A										
Blank (22F0058-BLK1)				Prepared: 06/03/22 Analyzed: 06/07/22						
Antimony	ND	0.50	ug/l							
Arsenic	ND	0.50	"							
Barium	ND	0.50	"							
Beryllium	ND	0.50	"							
Cadmium	ND	0.50	"							
Chromium	ND	0.50	"							
Cobalt	ND	0.50	"							
Copper	ND	0.50	"							
Lead	ND	0.50	"							
Molybdenum	ND	0.50	"							
Mercury	ND	0.50	"							
Nickel	ND	0.50	"							
Selenium	ND	0.50	"							
Thallium	ND	0.50	"							
Vanadium	ND	0.50	"							
Zinc	ND	0.50	"							
LCS (22F0058-BS1)				Prepared: 06/03/22 Analyzed: 06/07/22						
Arsenic	50.8	0.50	ug/l	50.0		102	80-120			
Barium	50.4	0.50	"	50.0		101	80-120			
Cadmium	48.4	0.50	"	50.0		96.9	80-120			
Chromium	47.8	0.50	"	50.0		95.6	80-120			
Lead	49.4	0.50	"	50.0		98.9	80-120			
Matrix Spike (22F0058-MS1)	**Source: T221595-01**			Prepared: 06/03/22 Analyzed: 06/07/22						
Arsenic	898	50	ug/l	50.0	937	NR	75-125			QM-05, R-07
Barium	349	50	"	50.0	305	88.0	75-125			R-07
Cadmium	56.0	50	"	50.0	14.0	84.0	75-125			R-07
Chromium	54.0	50	"	50.0	1.00	106	75-125			R-07
Lead	51.0	50	"	50.0	ND	102	75-125			R-07

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Northstar Environmental Remediation	Project: Genesis Solar LTUs & Ponds	
26225 Enterprise Court	Project Number: 196-004-05	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	07/12/22 10:04

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
Batch 22F0058 - EPA 3010A										
Matrix Spike Dup (22F0058-MSD1)	**Source: T221595-01**			Prepared: 06/03/22 Analyzed: 06/07/22						
Arsenic	906	50	ug/l	50.0	937	NR	75-125	0.887	20	QM-05, R-07
Barium	350	50	"	50.0	305	90.0	75-125	0.286	20	R-07
Cadmium	57.0	50	"	50.0	14.0	86.0	75-125	1.77	20	R-07
Chromium	51.0	50	"	50.0	1.00	100	75-125	5.71	20	R-07
Lead	53.0	50	"	50.0	ND	106	75-125	3.85	20	R-07
Batch 22F0161 - EPA 3010A										
Blank (22F0161-BLK1)				Prepared: 06/09/22 Analyzed: 06/13/22						
Copper	ND	0.005	mg/l							
Calcium	ND	0.10	"							
Iron	ND	0.20	"							
Potassium	ND	0.50	"							
Magnesium	ND	0.10	"							
Sodium	ND	0.50	"							
LCS (22F0161-BS1)				Prepared: 06/09/22 Analyzed: 06/13/22						
Copper	1.59	0.005	mg/l	1.50		106	85-115			
Iron	1.55		"	1.50		104	70-130			
Magnesium	1.57		"	1.50		105	65-135			
Potassium	1.64		"	1.50		109	65-135			
Sodium	1.75		"	1.50		117	65-135			
Matrix Spike (22F0161-MS1)	**Source: T221581-02RE1**			Prepared: 06/09/22 Analyzed: 06/13/22						
Copper	1.60	0.005	mg/l	1.50	0.006	107	70-130			
Iron	2.21		"	1.50	0.639	105	70-130			
Potassium	1.75		"	1.50	-0.027	117	65-135			
Magnesium	2.29		"	1.50	0.790	100	65-135			
Sodium	10.9		"	1.50	9.30	106	65-135			

SunStar Laboratories, Inc.

Jeff Lee, Project Manager

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PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

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

Northstar Environmental Remediation	Project: Genesis Solar LTUs & Ponds	
26225 Enterprise Court	Project Number: 196-004-05	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	07/12/22 10:04

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
Batch 22F0161 - EPA 3010A										
Matrix Spike Dup (22F0161-MSD1)		**Source: T221581-02RE1**		Prepared: 06/09/22 Analyzed: 06/13/22						
Copper	1.63	0.005	mg/l	1.50	0.006	108	70-130	1.68	30	
Iron	2.19		"	1.50	0.639	103	70-130	1.04	30	
Magnesium	2.37		"	1.50	0.790	105	65-135	3.35	30	
Potassium	1.78		"	1.50	-0.027	119	65-135	1.92	30	
Sodium	11.0		"	1.50	9.30	114	65-135	1.00	30	
Batch 22G0002 - EPA 3010A										
Blank (22G0002-BLK1)				Prepared: 07/01/22 Analyzed: 07/07/22						
Sodium	ND	0.50	mg/l				0-0			
LCS (22G0002-BS1)				Prepared: 07/01/22 Analyzed: 07/07/22						
Sodium	1.55	0.50	mg/l	1.50		103	85-115			
Matrix Spike (22G0002-MS1)		**Source: T221887-01**		Prepared: 07/01/22 Analyzed: 07/07/22						
Sodium	180	2.5	mg/l	1.50	176	269	70-130			QM-05
Matrix Spike Dup (22G0002-MSD1)		**Source: T221887-01**		Prepared: 07/01/22 Analyzed: 07/07/22						
Sodium	183	2.5	mg/l	1.50	176	421	70-130	1.26	30	QM-05

SunStar Laboratories, Inc.

Jeff Lee, Project Manager

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Lake Forest, California 92630
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Northstar Environmental Remediation	Project: Genesis Solar LTUs & Ponds	
26225 Enterprise Court	Project Number: 196-004-05	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	07/12/22 10:04

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
Batch 22F0059 - EPA 7470A Water										
Blank (22F0059-BLK1)				Prepared: 06/03/22 Analyzed: 06/06/22						
Mercury	ND	1.0	ug/l							
LCS (22F0059-BS1)				Prepared: 06/03/22 Analyzed: 06/06/22						
Mercury	6.05	1.0	ug/l	7.00		86.4	80-120			
Matrix Spike (22F0059-MS1)	**Source: T221595-01**			Prepared: 06/03/22 Analyzed: 06/06/22						
Mercury	1.54	1.0	ug/l	7.00	ND	22.0	75-125			QM-05
Matrix Spike Dup (22F0059-MSD1)	**Source: T221595-01**			Prepared: 06/03/22 Analyzed: 06/06/22						
Mercury	1.52	1.0	ug/l	7.00	ND	21.7	75-125	0.987	20	QM-05

SunStar Laboratories, Inc.

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Jeff Lee, Project Manager

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PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

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Northstar Environmental Remediation	Project: Genesis Solar LTUs & Ponds	
26225 Enterprise Court	Project Number: 196-004-05	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	07/12/22 10:04

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
Batch 22F0063 - General Preparation										
Blank (22F0063-BLK1)				Prepared: 06/03/22 Analyzed: 06/10/22						
Total Dissolved Solids	ND	10	mg/l							
LCS (22F0063-BS1)				Prepared: 06/03/22 Analyzed: 06/10/22						
Total Dissolved Solids	426	10	mg/l	500		85.2	80-120			
Duplicate (22F0063-DUP1)		**Source: T221596-01**		Prepared: 06/03/22 Analyzed: 06/10/22						
Total Dissolved Solids	6220	10	mg/l		6860			9.79	20	
Batch 22F0064 - General Preparation										
Duplicate (22F0064-DUP1)		**Source: T221594-01**		Prepared: 06/03/22 Analyzed: 06/06/22						
pH	6.75	0.10	pH Units		6.79			0.591	20	
Batch 22F0069 - General Preparation										
Blank (22F0069-BLK1)				Prepared: 06/03/22 Analyzed: 06/14/22						
Oil & Grease	ND	5.00	mg/l							
LCS (22F0069-BS1)				Prepared: 06/03/22 Analyzed: 06/14/22						
Oil & Grease	33.8	5.00	mg/l	39.2		86.2	78-114			
LCS Dup (22F0069-BSD1)				Prepared: 06/03/22 Analyzed: 06/14/22						
Oil & Grease	32.1	5.00	mg/l	39.2		81.9	78-114	5.16	20	
Batch 22F0183 - General Preparation										
Duplicate (22F0183-DUP1)		**Source: T221596-01**		Prepared & Analyzed: 06/10/22						
Specific Conductance (EC)	15500	10.0	umho/cm @25°C		15500			0.0645	15	

SunStar Laboratories, Inc.

Jeff Lee, Project Manager

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Providing Quality Analytical Services Nationwide

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Northstar Environmental Remediation	Project: Genesis Solar LTUs & Ponds	
26225 Enterprise Court	Project Number: 196-004-05	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	07/12/22 10:04

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 22F0066 - General Preparation										
Blank (22F0066-BLK1)				Prepared: 06/03/22 Analyzed: 06/07/22						
Fluoride	ND	0.500	mg/l							
Chloride	ND	5.00	"							
Sulfate as SO4	ND	5.00	"							
Nitrate as NO3	ND	0.500	"							
Nitrate as N	ND	0.200	"							
LCS (22F0066-BS1)				Prepared: 06/03/22 Analyzed: 06/07/22						
Fluoride	26.9	0.500	mg/l	25.0		108	75-125			
Chloride	25.3	5.00	"	25.0		101	75-125			
Sulfate as SO4	25.0	5.00	"	25.0		100	75-125			
Nitrate as NO3	25.7	0.500	"	25.0		103	75-125			
Matrix Spike (22F0066-MS1)	**Source: T221596-01**			Prepared: 06/03/22 Analyzed: 06/07/22						
Fluoride	20.2	0.500	mg/l	25.0	ND	80.8	75-125			
Chloride	4710	500	"	25.0	5010	NR	75-125			QM-05
Sulfate as SO4	1640	500	"	25.0	1720	NR	75-125			QM-05
Nitrate as NO3	27.8	0.500	"	25.0	0.720	108	75-125			
Matrix Spike Dup (22F0066-MSD1)	**Source: T221596-01**			Prepared: 06/03/22 Analyzed: 06/07/22						
Fluoride	19.6	0.500	mg/l	25.0	ND	78.6	75-125	2.81	20	
Chloride	4770	500	"	25.0	5010	NR	75-125	1.27	20	QM-05
Sulfate as SO4	1650	500	"	25.0	1720	NR	75-125	1.10	20	QM-05
Nitrate as NO3	26.7	0.500	"	25.0	0.720	104	75-125	3.82	20	

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Jeff Lee, Project Manager

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PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

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

Northstar Environmental Remediation	Project: Genesis Solar LTUs & Ponds	
26225 Enterprise Court	Project Number: 196-004-05	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	07/12/22 10:04

Notes and Definitions

R-07	Reporting limit for this compound(s) has been raised to account for dilution necessary due to high levels of interfering compound(s) and/or matrix affect.
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.
O-04	This sample was received and analyzed outside the EPA recommended holding time.
HLD-2	Sample was originally analyzed within EPA recommended holding time; however, sample result exceeded the linear quantitation range. Dilution and re-analysis occured outside of EPA recommended holding time.
FILT	The sample was filtered prior to analysis.
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: 06/03/22 Page: 1 of 1

Project Name: Genesis Solar LTUs & Ponds

Collector: Arlin Brewster Client Project #: 196-004-05

Batch #: T221595 EDF #: Not Required

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 - Therminol (Subcontract)			Laboratory ID #	Comments/Preservative	Total # of containers
North Pond	6/2/22	12:00	W	Various	X	X	X	X	X	X	X	X	X					6
South Pond	6/2/22	12:30	W	Various	X	X	X	X	X	X	X	X	X					6
Field Blank	N/A	N/A	W	Various													HOLD	1
Trip Blank	N/A	N/A	W	Various													HOLD	1

Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time
[signature]	06/03/22 @ 1145	[signature] 6.3.22	1145
Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time
Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time

Total # of containers	14
Chain of Custody seals Y/N/NA	
Seals intact? Y/N/NA	
Received good condition/cold	4.4 °C

Turn around time: Standard

Notes

EDF report not required.

Reporting limits must match previous reports

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

SunStar Laboratories, Inc.
Providing Quality Analytical Services Nationwide

Rev. 02 Date 07/19
Receiving Form 001

SAMPLE RECEIVING REVIEW SHEET

Batch/Work Order #:

Client Name: North Star Environmental Remediation Project: Genesis Solar LTUs & Ponds

Delivered by: ☒ Client ☐ SunStar Courier ☐ GLS ☐ FedEx ☐ UPS

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

Lab Received by: Dave Date/Time Lab Received: 6.3.22 1145

Total number of coolers received: 1 Thermometer ID: SC-1 Calibration due: 8/24/22

Temperature: Cooler #1	4.3 °C +/- the CF (+0.1 °C) = 4.4 °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?	☒ **Yes**	☐ **No** ☐ **N/A**
If NO:			
Samples received on ice?	☐ Yes	☐ **No → Complete Non-Conformance Sheet**	
If on ice, samples received same day collected?	☐ Yes → Acceptable	☐ **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***	

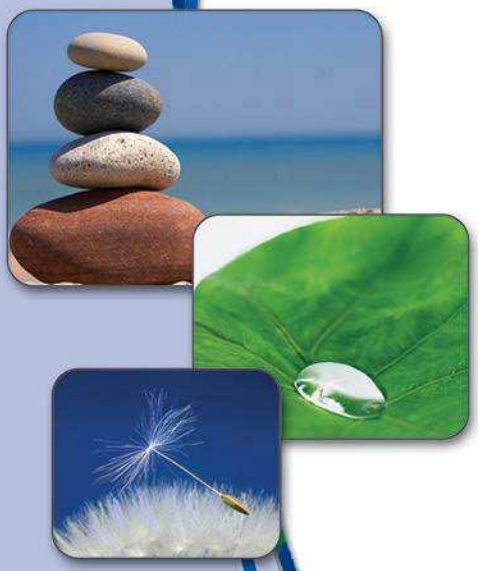
* Complete Non-Conformance Receiving Sheet if checked

Cooler/Sample Review - Initials and date: DS 6.3.22

Comments:

(949) 297-5020 ■ www.sunstarlabs.com ■ 25712 Commercentre Drive ■ Lake Forest, CA 92630

eurofins | Environment Testing America



ANALYTICAL REPORT

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin, CA 92780
Tel: (714)895-5494

Laboratory Job ID: 570-98591-1
Client Project/Site: T221595

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

Attn: Jeff Lee

Authorized for release by:
6/23/2022 4:45:19 AM

Don Burley, Senior Project Manager
(657)212-3033
Donald.Burley@et.eurofinsus.com

Table of Contents

Definitions/Glossary

Client: SunStar Laboratories Inc
Project/Site: T221595

Job ID: 570-98591-1

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
S1-	Surrogate recovery exceeds control limits, low biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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

Job ID: 570-98591-1

Laboratory: Eurofins Calscience

Narrative

Job Narrative
570-98591-1

Comments
No additional comments.

Receipt
The samples were received on 6/6/2022 11:22 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 3.3º C.

GC Semi VOA
Method 8015B: Surrogate recovery for the following sample was outside control limits: T221595-01 (570-98591-1). Re-extraction and/or re-analysis was performed and surrogate recovery was outside control limits.

Method 8015B: Surrogate recovery for the following sample was outside control limits: T221595-02 (570-98591-2). Re-extraction and/or re-analysis was performed outside of holding time with acceptable results.

Method 8015B: The samples were re-prepared outside of preparation holding time due to confirmation of low surrogate.

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

Organic Prep
Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-240089. The laboratory control sample (LCS) was performed in duplicate (LCSD) to provide precision data for this batch.

Method 3510C: The samples formed emulsions during the extraction procedure. The emulsions were broken up using Na2SO4.

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: T221595

Job ID: 570-98591-1

Client Sample ID: T221595-01 — Lab Sample ID: 570-98591-1

No Detections.

Client Sample ID: T221595-02 — Lab Sample ID: 570-98591-2

No Detections.

This Detection Summary does not include radiochemical test results.

Client: SunStar Laboratories Inc
Project/Site: T221595

Job ID: 570-98591-1

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

Client Sample ID: T221595-01
Date Collected: 06/02/22 12:00
Date Received: 06/06/22 11:22

Lab Sample ID: 570-98591-1
Matrix: Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		98		ug/L		06/08/22 21:42	06/17/22 18:31	1
1,1'-Biphenyl	ND		98		ug/L		06/08/22 21:42	06/17/22 18:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*19*	*S1-*	*53 - 151*	*06/08/22 21:42*	*06/17/22 18:31*	*1*

Client Sample ID: T221595-02
Date Collected: 06/02/22 12:30
Date Received: 06/06/22 11:22

Lab Sample ID: 570-98591-2
Matrix: Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND	H	95		ug/L		06/20/22 15:55	06/21/22 16:11	1
1,1'-Biphenyl	ND	H	95		ug/L		06/20/22 15:55	06/21/22 16:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*58*		*53 - 151*	*06/20/22 15:55*	*06/21/22 16:11*	*1*

Surrogate Summary

Client: SunStar Laboratories Inc
Project/Site: T221595

Job ID: 570-98591-1

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)
570-98591-1	T221595-01	19 S1-
570-98591-2	T221595-02	58
LCS 570-240089/2-A	Lab Control Sample	55
LCS 570-242971/2-A	Lab Control Sample	69
LCSD 570-240089/3-A	Lab Control Sample Dup	90
LCSD 570-242971/3-A	Lab Control Sample Dup	69
MB 570-240089/1-A	Method Blank	79
MB 570-242971/1-A	Method Blank	58

Surrogate Legend

OTCSN = n-Octacosane (Surr)

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

Lab Sample ID: MB 570-240089/1-A
Matrix: Water
Analysis Batch: 242036

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 240089

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		100		ug/L		06/08/22 21:42	06/16/22 16:20	1
1,1'-Biphenyl	ND		100		ug/L		06/08/22 21:42	06/16/22 16:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*79*		*53 - 151*	*06/08/22 21:42*	*06/16/22 16:20*	*1*

Lab Sample ID: LCS 570-240089/2-A
Matrix: Water
Analysis Batch: 242381

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 240089

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene, 1,1'-oxybis-			1000	863.5		ug/L		86	57 - 120		
1,1'-Biphenyl			1000	867.4		ug/L		87	45 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane (Surr)	*55*		*53 - 151*

Lab Sample ID: LCSD 570-240089/3-A
Matrix: Water
Analysis Batch: 242381

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 240089

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene, 1,1'-oxybis-			1000	1060		ug/L		106	57 - 120	20	20
1,1'-Biphenyl			1000	1065		ug/L		107	45 - 120	20	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
n-Octacosane (Surr)	*90*		*53 - 151*

Lab Sample ID: MB 570-242971/1-A
Matrix: Water
Analysis Batch: 243199

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 242971

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		100		ug/L		06/20/22 15:55	06/21/22 14:30	1
1,1'-Biphenyl	ND		100		ug/L		06/20/22 15:55	06/21/22 14:30	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*58*		*53 - 151*	*06/20/22 15:55*	*06/21/22 14:30*	*1*

Lab Sample ID: LCS 570-242971/2-A
Matrix: Water
Analysis Batch: 243199

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 242971

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene, 1,1'-oxybis-			1000	1035		ug/L		103	57 - 120		
1,1'-Biphenyl			1000	795.6		ug/L		80	45 - 120		

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

Lab Sample ID: LCS 570-242971/2-A
Matrix: Water
Analysis Batch: 243199

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 242971

Surrogate	LCS %Recovery	LCS Qualifier	Limits
n-Octacosane (Surr)	*69*		*53 - 151*

Lab Sample ID: LCSD 570-242971/3-A
Matrix: Water
Analysis Batch: 243199

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 242971

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene, 1,1'-oxybis-			1000	1038		ug/L		104	57 - 120	0	20
1,1'-Biphenyl			1000	798.7		ug/L		80	45 - 120	0	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
n-Octacosane (Surr)	*69*		*53 - 151*

QC Association Summary

Client: SunStar Laboratories Inc
Project/Site: T221595

Job ID: 570-98591-1

GC Semi VOA

Prep Batch: 240089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-98591-1	T221595-01	Total/NA	Water	3510C	
MB 570-240089/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-240089/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-240089/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 242036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 570-240089/1-A	Method Blank	Total/NA	Water	8015B	240089

Analysis Batch: 242381

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-98591-1	T221595-01	Total/NA	Water	8015B	240089
LCS 570-240089/2-A	Lab Control Sample	Total/NA	Water	8015B	240089
LCSD 570-240089/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	240089

Prep Batch: 242971

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-98591-2	T221595-02	Total/NA	Water	3510C	
MB 570-242971/1-A	Method Blank	Total/NA	Water	3510C	
LCS 570-242971/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 570-242971/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 243199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-98591-2	T221595-02	Total/NA	Water	8015B	242971
MB 570-242971/1-A	Method Blank	Total/NA	Water	8015B	242971
LCS 570-242971/2-A	Lab Control Sample	Total/NA	Water	8015B	242971
LCSD 570-242971/3-A	Lab Control Sample Dup	Total/NA	Water	8015B	242971

Lab Chronicle

Client: SunStar Laboratories Inc
Project/Site: T221595

Job ID: 570-98591-1

Client Sample ID: T221595-01

Date Collected: 06/02/22 12:00
Date Received: 06/06/22 11:22

Lab Sample ID: 570-98591-1

Matrix: Water

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 mL	2.5 mL	240089	06/08/22 21:42	UFLU	ECL 4
Total/NA	Analysis	8015B		1			242381	06/17/22 18:31	N5Y3	ECL 4
	Instrument ID: GC70B									

Client Sample ID: T221595-02

Date Collected: 06/02/22 12:30
Date Received: 06/06/22 11:22

Lab Sample ID: 570-98591-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			262.6 mL	2.5 mL	242971	06/20/22 15:55	UFLU	ECL 4
Total/NA	Analysis	8015B		1			243199	06/21/22 16:11	N5Y3	ECL 4
	Instrument ID: GC70B									

Laboratory References:

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

Accreditation/Certification Summary

Client: SunStar Laboratories Inc
Project/Site: T221595

Job ID: 570-98591-1

Laboratory: Eurofins Calscience

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

Authority	Program	Identification Number	Expiration Date
California	State	2944	09-30-22
Oregon	NELAP	4175	01-31-23

Method Summary

Client: SunStar Laboratories Inc
Project/Site: T221595

Job ID: 570-98591-1

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

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: SunStar Laboratories Inc
Project/Site: T221595

Job ID: 570-98591-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-98591-1	T221595-01	Water	06/02/22 12:00	06/06/22 11:22
570-98591-2	T221595-02	Water	06/02/22 12:30	06/06/22 11:22

SUBCONTRACT ORDER

SunStar Laboratories, Inc.

T221595

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: T221595-01	**Water**	**Sampled:06/02/22 12:00**		
Misc Water Testing #1	06/17/22 00 00	11/29/22 12 00		8015M- Therminol
Containers Supplied.				
Sample ID: T221595-02	**Water**	**Sampled:06/02/22 12:30**		
Misc Water Testing #1	06/17/22 00 00	11/29/22 12 30		8015M- Therminol
Containers Supplied				

570-98591 Chain of Custody

Released By	Date	Received By	Date
[signature]	6-6-22 11:22	Olga Oinelas	6/6/22 1122
Released By	Date	Received By	Date

16/33 IR 46

Login Sample Receipt Checklist

Client: SunStar Laboratories Inc

Job Number: 570-98591-1

Login Number: 98591
List Number: 1
Creator: Skinner, Alma D

List Source: Eurofins Calscience

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

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

WORK ORDER

T221595

Client:	**Northstar Environmental Remediation**	**Project Manager:**	**Jeff Lee**
Project:	**Genesis Solar LTUs & Ponds**	**Project Number:**	**196-004-05**

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

Date Due:	06/20/22 00:00 (11 day TAT)		
Received By:	Dave Berner	Date Received:	06/03/22 11:45
Logged In By:	Jeff Lee	Date Logged In:	06/03/22 14:43

Samples Received at: **4.4°C**

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

Analysis	Due	TAT	Expires	Comments
T221595-01 North Pond [Water] Sampled 06/02/22 12:00 (GMT-08:00) Pacific Time (US &				
1664	06/10/22 15:00	5	06/30/22 12:00	Oil & Grease
200.7	06/10/22 15:00	5	11/29/22 12:00	Ca,Cu,Na,K,Fe,Mg (F.F)
200.8	06/10/22 15:00	5	11/29/22 12:00	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (F.F)
300.0 - F, Cl, Br, SO4	06/10/22 15:00	5	06/30/22 12:00	Chloride,Sulfate only
300.0 - NO2, NO3, PO4	06/10/22 15:00	5	06/04/22 12:00	Nitrate
7470/71 Hg	06/10/22 15:00	5	08/31/22 12:00	
Conductivity	06/10/22 15:00	5	06/30/22 12:00	
pH water SM 4500-H+B	06/08/22 15:00	3	06/03/22 12:00	
TDS-160.1	06/10/22 15:00	5	06/09/22 12:00	
T221595-02 South Pond [Water] Sampled 06/02/22 12:30 (GMT-08:00) Pacific Time (US &				
1664	06/10/22 15:00	5	06/30/22 12:30	Oil & Grease
200.7	06/10/22 15:00	5	11/29/22 12:30	Ca,Cu,Na,K,Fe,Mg (F.F)
200.8	06/10/22 15:00	5	11/29/22 12:30	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (F.F)
300.0 - F, Cl, Br, SO4	06/10/22 15:00	5	06/30/22 12:30	Chloride,Sulfate only
300.0 - NO2, NO3, PO4	06/10/22 15:00	5	06/04/22 12:30	Nitrate
7470/71 Hg	06/10/22 15:00	5	08/31/22 12:30	
Conductivity	06/10/22 15:00	5	06/30/22 12:30	
pH water SM 4500-H+B	06/08/22 15:00	3	06/03/22 12:30	
TDS-160.1	06/10/22 15:00	5	06/09/22 12:30	

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

WORK ORDER

T221595

Client:	**Northstar Environmental Remediation**	**Project Manager:**	**Jeff Lee**
Project:	**Genesis Solar LTUs & Ponds**	**Project Number:**	**196-004-05**

Analysis	Due	TAT	Expires	Comments
T221595-03 Field Blank [Water] Sampled 06/02/22 00:00 (GMT-08:00) Pacific Time (US &				**HOLD**
[NO ANALYSES]				
T221595-04 Trip Blank [Water] Sampled 06/02/22 00:00 (GMT-08:00) Pacific Time (US &				**HOLD**
[NO ANALYSES]				

Eurofins Calscience (Tustin)

T221595-01 North Pond [Water] Sampled 06/02/22 12:00 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #1	06/17/22 00:00	10	11/29/22 12:00	8015M- Therminol
T221595-02 South Pond [Water] Sampled 06/02/22 12:30 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #1	06/17/22 00:00	10	11/29/22 12:30	8015M- Therminol

Reviewed By

Date

APPENDIX C

LABORATORY ANALYTICAL RESULTS

DETECTION MONITORING WELLS

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

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

30 June 2022

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 06/03/22 11:45. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Jeff Lee
Project Manager

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

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

Northstar Environmental Remediation	Project: Genesis Solar Groundwater	
26225 Enterprise Court	Project Number: 196-004-06	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	06/30/22 11:37

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TW-1	T221596-01	Water	06/02/22 09:20	06/03/22 11:45
OBS-1	T221596-02	Water	06/02/22 09:05	06/03/22 11:45
TW-2	T221596-03	Water	06/02/22 10:15	06/03/22 11:45
PW-0	T221596-04	Water	06/02/22 11:00	06/03/22 11:45
PW-2	T221596-05	Water	06/02/22 11:10	06/03/22 11:45
DM-1	T221596-06	Water	06/02/22 20:00	06/03/22 11:45
DM-2	T221596-07	Water	06/02/22 21:45	06/03/22 11:45
DM-3	T221596-08	Water	06/02/22 23:25	06/03/22 11:45
DUP	T221596-09	Water	06/02/22 00:00	06/03/22 11:45

Per client's email request on 6/30/22. Sample ID OBS-1 and TW-1 has been swapped back. JL 6/30/22

SunStar Laboratories, Inc.

Jeff Lee, Project Manager

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

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PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

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

Northstar Environmental Remediation	Project: Genesis Solar Groundwater	
26225 Enterprise Court	Project Number: 196-004-06	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	06/30/22 11:37

DETECTIONS SUMMARY

Sample ID: TW-1 **Laboratory ID:** T221596-01

Analyte	Result	Reporting Limit	Units	Method	Notes
Selenium	**52**	50	ug/l	200.8	FILT, R-07
Calcium	**84**	50	mg/l	EPA 200.7	FILT
Sodium	**3400**	250	mg/l	EPA 200.7	FILT
pH	**10**	0.10	pH Units	SM 4500-H+B	O-04
Total Dissolved Solids	**6900**	10	mg/l	TDS by SM2540C	
Specific Conductance (EC)	**15500**	10.0	mho/cm @25°(	SM2510b mod.	
Chloride	**5010**	500	mg/l	EPA 300.0	
Sulfate as SO4	**1720**	500	mg/l	EPA 300.0	
Nitrate as NO3	**0.720**	0.500	mg/l	EPA 300.0	

Sample ID: TW-1 **Laboratory ID:** T221596-01RE1

Analyte	Result	Reporting Limit	Units	Method	Notes
Calcium	**99**	50	mg/l	EPA 200.7	FILT
Sodium	**3900**	250	mg/l	EPA 200.7	FILT

Sample ID: OBS-1 **Laboratory ID:** T221596-02

Analyte	Result	Reporting Limit	Units	Method	Notes
Selenium	**120**	50	ug/l	200.8	FILT, R-07
Total Dissolved Solids	**14000**	10	mg/l	TDS by SM2540C	
pH	**7.9**	0.10	pH Units	SM 4500-H+B	O-04
Specific Conductance (EC)	**24600**	10.0	mho/cm @25°(	SM2510b mod.	
Chloride	**6520**	500	mg/l	EPA 300.0	
Sulfate as SO4	**5890**	500	mg/l	EPA 300.0	
Nitrate as NO3	**5.64**	0.500	mg/l	EPA 300.0	
Nitrate as N	**1.27**	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	Project: Genesis Solar Groundwater	
26225 Enterprise Court	Project Number: 196-004-06	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	06/30/22 11:37

Sample ID: OBS-1 **Laboratory ID:** T221596-02RE1

Analyte	Result	Reporting Limit	Units	Method	Notes
Calcium	**300**	50	mg/l	EPA 200.7	FILT
Magnesium	**89**	50	mg/l	EPA 200.7	FILT
Sodium	**6300**	250	mg/l	EPA 200.7	FILT

Sample ID: TW-2 **Laboratory ID:** T221596-03

Analyte	Result	Reporting Limit	Units	Method	Notes
Barium	**53**	50	ug/l	200.8	FILT, R-07
pH	**8.4**	0.10	pH Units	SM 4500-H+B	O-04
Total Dissolved Solids	**2800**	10	mg/l	TDS by SM2540C	
Specific Conductance (EC)	**5800**	10.0	mho/cm @25°C	SM2510b mod.	
Chloride	**1730**	250	mg/l	EPA 300.0	
Sulfate as SO4	**490**	100	mg/l	EPA 300.0	
Nitrate as NO3	**0.702**	0.500	mg/l	EPA 300.0	

Sample ID: TW-2 **Laboratory ID:** T221596-03RE1

Analyte	Result	Reporting Limit	Units	Method	Notes
Calcium	**70**	50	mg/l	EPA 200.7	FILT
Sodium	**1100**	250	mg/l	EPA 200.7	FILT

Sample ID: PW-0 **Laboratory ID:** T221596-04

Analyte	Result	Reporting Limit	Units	Method	Notes
Arsenic	**59**	50	ug/l	200.8	FILT, R-07
Barium	**61**	50	ug/l	200.8	FILT, R-07
pH	**8.2**	0.10	pH Units	SM 4500-H+B	O-04
Total Dissolved Solids	**3200**	10	mg/l	TDS by SM2540C	
Specific Conductance (EC)	**6380**	10.0	mho/cm @25°C	SM2510b mod.	
Fluoride	**6.44**	0.500	mg/l	EPA 300.0	
Chloride	**1860**	250	mg/l	EPA 300.0	
Sulfate as SO4	**566**	250	mg/l	EPA 300.0	
Nitrate as NO3	**0.668**	0.500	mg/l	EPA 300.0	

SunStar Laboratories, Inc.

Jeff Lee, Project Manager

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SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

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

Northstar Environmental Remediation	Project: Genesis Solar Groundwater	
26225 Enterprise Court	Project Number: 196-004-06	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	06/30/22 11:37

Sample ID: PW-0 **Laboratory ID:** T221596-04RE1

Analyte	Result	Reporting Limit	Units	Method	Notes
Calcium	**100**	50	mg/l	EPA 200.7	FILT
Sodium	**1400**	250	mg/l	EPA 200.7	FILT

Sample ID: PW-2 **Laboratory ID:** T221596-05

Analyte	Result	Reporting Limit	Units	Method	Notes
pH	**8.1**	0.10	pH Units	SM 4500-H+B	O-04
Total Dissolved Solids	**2000**	10	mg/l	TDS by SM2540C	
Specific Conductance (EC)	**3680**	10.0	mho/cm @25°(	SM2510b mod.	
Fluoride	**6.91**	0.500	mg/l	EPA 300.0	
Chloride	**944**	250	mg/l	EPA 300.0	
Sulfate as SO4	**438**	250	mg/l	EPA 300.0	

Sample ID: PW-2 **Laboratory ID:** T221596-05RE1

Analyte	Result	Reporting Limit	Units	Method	Notes
Sodium	**630**	250	mg/l	EPA 200.7	FILT

Sample ID: DM-1 **Laboratory ID:** T221596-06

Analyte	Result	Reporting Limit	Units	Method	Notes
Selenium	**52**	50	ug/l	200.8	FILT, R-07
pH	**7.8**	0.10	pH Units	SM 4500-H+B	
Total Dissolved Solids	**9300**	10	mg/l	TDS by SM2540C	
Specific Conductance (EC)	**17800**	10.0	mho/cm @25°(	SM2510b mod.	
Chloride	**5530**	500	mg/l	EPA 300.0	
Sulfate as SO4	**2070**	250	mg/l	EPA 300.0	
Nitrate as NO3	**8.70**	0.500	mg/l	EPA 300.0	
Nitrate as N	**1.97**	0.200	mg/l	EPA 300.0	

Sample ID: DM-1 **Laboratory ID:** T221596-06RE1

Analyte	Result	Reporting Limit	Units	Method	Notes

SunStar Laboratories, Inc.

Jeff Lee, Project Manager

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

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

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

Northstar Environmental Remediation	Project: Genesis Solar Groundwater	
26225 Enterprise Court	Project Number: 196-004-06	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	06/30/22 11:37

Sample ID: DM-1 **Laboratory ID:** T221596-06RE1

Analyte	Result	Reporting Limit	Units	Method	Notes
Calcium	**240**	50	mg/l	EPA 200.7	FILT
Magnesium	**69**	50	mg/l	EPA 200.7	FILT
Sodium	**4500**	250	mg/l	EPA 200.7	FILT

Sample ID: DM-2 **Laboratory ID:** T221596-07

Analyte	Result	Reporting Limit	Units	Method	Notes
Selenium	**53**	50	ug/l	200.8	FILT, R-07
pH	**7.7**	0.10	pH Units	SM 4500-H+B	
Total Dissolved Solids	**9300**	10	mg/l	TDS by SM2540C	
Specific Conductance (EC)	**18200**	10.0	mho/cm @25°C	SM2510b mod.	
Chloride	**5860**	500	mg/l	EPA 300.0	
Sulfate as SO4	**2160**	250	mg/l	EPA 300.0	
Nitrate as NO3	**10.9**	0.500	mg/l	EPA 300.0	
Nitrate as N	**2.47**	0.200	mg/l	EPA 300.0	

Sample ID: DM-2 **Laboratory ID:** T221596-07RE1

Analyte	Result	Reporting Limit	Units	Method	Notes
Calcium	**240**	50	mg/l	EPA 200.7	FILT
Magnesium	**67**	50	mg/l	EPA 200.7	FILT
Sodium	**4200**	250	mg/l	EPA 200.7	FILT

Sample ID: DM-3 **Laboratory ID:** T221596-08

Analyte	Result	Reporting Limit	Units	Method	Notes
Selenium	**55**	50	ug/l	200.8	R-07, FILT
Zinc	**50**	50	ug/l	200.8	FILT, R-07
pH	**7.8**	0.10	pH Units	SM 4500-H+B	
Total Dissolved Solids	**8500**	10	mg/l	TDS by SM2540C	
Specific Conductance (EC)	**17400**	10.0	mho/cm @25°C	SM2510b mod.	
Chloride	**5570**	500	mg/l	EPA 300.0	
Sulfate as SO4	**2110**	250	mg/l	EPA 300.0	
Nitrate as NO3	**2.82**	0.500	mg/l	EPA 300.0	

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Northstar Environmental Remediation	Project: Genesis Solar Groundwater	
26225 Enterprise Court	Project Number: 196-004-06	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	06/30/22 11:37

Sample ID: DM-3 **Laboratory ID:** T221596-08

Analyte	Result	Reporting Limit	Units	Method	Notes
Nitrate as N	**0.640**	0.200	mg/l	EPA 300.0	

Sample ID: DM-3 **Laboratory ID:** T221596-08RE1

Analyte	Result	Reporting Limit	Units	Method	Notes
Calcium	**240**	50	mg/l	EPA 200.7	FILT
Magnesium	**59**	50	mg/l	EPA 200.7	FILT
Sodium	**4500**	250	mg/l	EPA 200.7	FILT

Sample ID: DUP **Laboratory ID:** T221596-09

Analyte	Result	Reporting Limit	Units	Method	Notes
pH	**8.2**	0.10	pH Units	SM 4500-H+B	O-04
Total Dissolved Solids	**4000**	10	mg/l	TDS by SM2540C	
Specific Conductance (EC)	**3730**	10.0	mho/cm @25°C	SM2510b mod.	
Chloride	**953**	100	mg/l	EPA 300.0	
Sulfate as SO4	**444**	100	mg/l	EPA 300.0	

Sample ID: DUP **Laboratory ID:** T221596-09RE1

Analyte	Result	Reporting Limit	Units	Method	Notes
Sodium	**670**	250	mg/l	EPA 200.7	FILT

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26225 Enterprise Court	Project Number: 196-004-06	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	06/30/22 11:37

TW-1

T221596-01 (Water)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Metals by EPA 200 Series Methods									
Copper	ND	2.5	mg/l	500	22F0053	06/03/22	06/10/22	EPA 200.7	FILT
Calcium	**84**	50	"	"	"	"	"	"	FILT
Iron	ND	100	"	"	"	"	"	"	FILT
Magnesium	ND	50	"	"	"	"	"	"	FILT
Potassium	ND	250	"	"	"	"	"	"	FILT
Sodium	**3400**	250	"	"	"	"	"	"	FILT
Antimony	ND	50	ug/l	100	22F0058	06/03/22	06/07/22	200.8	FILT, R-07
Arsenic	ND	50	"	"	"	"	"	"	FILT, R-07
Barium	ND	50	"	"	"	"	"	"	FILT, R-07
Cadmium	ND	50	"	"	"	"	"	"	FILT, R-07
Chromium	ND	50	"	"	"	"	"	"	FILT, R-07
Cobalt	ND	50	"	"	"	"	"	"	FILT, R-07
Lead	ND	50	"	"	"	"	"	"	FILT, R-07
Nickel	ND	50	"	"	"	"	"	"	FILT, R-07
Selenium	**52**	50	"	"	"	"	"	"	FILT, R-07
Zinc	ND	50	"	"	"	"	"	"	FILT, R-07
Cold Vapor Extraction EPA 7470/7471									
Mercury	ND	1.0	ug/l	1	22F0059	06/03/22	06/06/22	EPA 7470A Water	FILT
Conventional Chemistry Parameters by APHA/EPA/ASTM Methods									
Oil & Grease	ND	5.00	mg/l	1	22F0069	06/03/22	06/14/22	EPA 1664B	
Specific Conductance (EC)	**15500**	10.0	umho/cm @25°C	"	22F0183	06/10/22	06/10/22	SM2510b mod.	
pH	**10**	0.10	pH Units	"	22F0064	06/03/22	06/06/22	SM 4500-H+B	O-04
Total Dissolved Solids	**6900**	10	mg/l	"	22F0063	06/03/22	06/10/22	TDS by SM2540C	

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26225 Enterprise Court	Project Number: 196-004-06	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	06/30/22 11:37

TW-1

T221596-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Anions by EPA Method 300.0									
Fluoride	ND	0.500	mg/l	1	22F0066	06/03/22	06/07/22	EPA 300.0	
Chloride	**5010**	500	"	100	"	"	"	"	
Sulfate as SO4	**1720**	500	"	"	"	"	"	"	
Nitrate as NO3	**0.720**	0.500	"	1	"	"	06/04/22	"	
Nitrate as N	ND	0.200	"	"	"	"	"	"	

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26225 Enterprise Court	Project Number: 196-004-06	**Reported:**
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TW-1

T221596-01RE1 (Water)

SunStar Laboratories, Inc.

Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Copper	ND	2.5	mg/l	500	22F0221	06/13/22	06/20/22	EPA 200.7	FILT
Calcium	**99**	50	"	"	"	"	"	"	FILT
Iron	ND	100	"	"	"	"	"	"	FILT
Magnesium	ND	50	"	"	"	"	"	"	FILT
Potassium	ND	250	"	"	"	"	"	"	FILT
Sodium	**3900**	250	"	"	"	"	"	"	FILT

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26225 Enterprise Court	Project Number: 196-004-06	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	06/30/22 11:37

OBS-1

T221596-02 (Water)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Metals by EPA 200 Series Methods									
Antimony	ND	50	ug/l	100	22F0058	06/03/22	06/07/22	200.8	FILT, R-07
Arsenic	ND	50	"	"	"	"	"	"	FILT, R-07
Barium	ND	50	"	"	"	"	"	"	FILT, R-07
Cadmium	ND	50	"	"	"	"	"	"	FILT, R-07
Chromium	ND	50	"	"	"	"	"	"	FILT, R-07
Cobalt	ND	50	"	"	"	"	"	"	FILT, R-07
Lead	ND	50	"	"	"	"	"	"	FILT, R-07
Nickel	ND	50	"	"	"	"	"	"	FILT, R-07
Selenium	**120**	50	"	"	"	"	"	"	FILT, R-07
Zinc	ND	50	"	"	"	"	"	"	FILT, R-07
Cold Vapor Extraction EPA 7470/7471									
Mercury	ND	1.0	ug/l	1	22F0059	06/03/22	06/06/22	EPA 7470A Water	FILT
Conventional Chemistry Parameters by APHA/EPA/ASTM Methods									
Oil & Grease	ND	5.00	mg/l	1	22F0069	06/03/22	06/14/22	EPA 1664B	
Specific Conductance (EC)	**24600**	10.0	umho/cm @25°C	"	22F0183	06/10/22	06/10/22	SM2510b mod.	
pH	**7.9**	0.10	pH Units	"	22F0064	06/03/22	06/06/22	SM 4500-H+B	O-04
Total Dissolved Solids	**14000**	10	mg/l	"	22F0063	06/03/22	06/10/22	TDS by SM2540C	
Anions by EPA Method 300.0									
Chloride	**6520**	500	mg/l	100	22F0066	06/03/22	06/07/22	EPA 300.0	
Sulfate as SO4	**5890**	500	"	"	"	"	"	"	
Nitrate as NO3	**5.64**	0.500	"	1	"	"	06/04/22	"	
Nitrate as N	**1.27**	0.200	"	"	"	"	"	"	

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Lake Forest CA, 92630	Project Manager: Arlin Brewster	06/30/22 11:37

OBS-1

T221596-02RE1 (Water)

SunStar Laboratories, Inc.

Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Copper	ND	2.5	mg/l	500	22F0221	06/13/22	06/20/22	EPA 200.7	FILT
Calcium	**300**	50	"	"	"	"	06/20/22	"	FILT
Iron	ND	100	"	"	"	"	"	"	FILT
Magnesium	**89**	50	"	"	"	"	"	"	FILT
Potassium	ND	250	"	"	"	"	"	"	FILT
Sodium	**6300**	250	"	"	"	"	"	"	FILT

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TW-2

T221596-03 (Water)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Metals by EPA 200 Series Methods									
Antimony	ND	50	ug/l	100	22F0058	06/03/22	06/07/22	200.8	FILT, R-07
Arsenic	ND	50	"	"	"	"	"	"	FILT, R-07
Barium	**53**	50	"	"	"	"	"	"	FILT, R-07
Cadmium	ND	50	"	"	"	"	"	"	FILT, R-07
Chromium	ND	50	"	"	"	"	"	"	FILT, R-07
Cobalt	ND	50	"	"	"	"	"	"	FILT, R-07
Lead	ND	50	"	"	"	"	"	"	FILT, R-07
Nickel	ND	50	"	"	"	"	"	"	FILT, R-07
Selenium	ND	50	"	"	"	"	"	"	FILT, R-07
Zinc	ND	50	"	"	"	"	"	"	FILT, R-07
Cold Vapor Extraction EPA 7470/7471									
Mercury	ND	1.0	ug/l	1	22F0059	06/03/22	06/06/22	EPA 7470A Water	FILT
Conventional Chemistry Parameters by APHA/EPA/ASTM Methods									
Oil & Grease	ND	5.00	mg/l	1	22F0069	06/03/22	06/14/22	EPA 1664B	
Specific Conductance (EC)	**5800**	10.0	umho/cm @25°C	"	22F0183	06/10/22	06/10/22	SM2510b mod.	
pH	**8.4**	0.10	pH Units	"	22F0064	06/03/22	06/06/22	SM 4500-H+B	O-04
Total Dissolved Solids	**2800**	10	mg/l	"	22F0063	06/03/22	06/10/22	TDS by SM2540C	
Anions by EPA Method 300.0									
Chloride	**1730**	250	mg/l	50	22F0066	06/03/22	06/07/22	EPA 300.0	
Sulfate as SO4	**490**	100	"	20	"	"	"	"	
Nitrate as NO3	**0.702**	0.500	"	1	"	"	06/04/22	"	
Nitrate as N	ND	0.200	"	"	"	"	"	"	

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Lake Forest CA, 92630	Project Manager: Arlin Brewster	06/30/22 11:37

TW-2

T221596-03RE1 (Water)

SunStar Laboratories, Inc.

Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Copper	ND	2.5	mg/l	500	22F0221	06/13/22	06/20/22	EPA 200.7	FILT
Calcium	**70**	50	"	"	"	"	06/20/22	"	FILT
Iron	ND	100	"	"	"	"	"	"	FILT
Magnesium	ND	50	"	"	"	"	"	"	FILT
Potassium	ND	250	"	"	"	"	"	"	FILT
Sodium	**1100**	250	"	"	"	"	"	"	FILT

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26225 Enterprise Court	Project Number: 196-004-06	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	06/30/22 11:37

PW-0

T221596-04 (Water)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Metals by EPA 200 Series Methods									
Antimony	ND	50	ug/l	100	22F0058	06/03/22	06/07/22	200.8	FILT, R-07
Arsenic	**59**	50	"	"	"	"	"	"	FILT, R-07
Barium	**61**	50	"	"	"	"	"	"	FILT, R-07
Cadmium	ND	50	"	"	"	"	"	"	FILT, R-07
Chromium	ND	50	"	"	"	"	"	"	FILT, R-07
Cobalt	ND	50	"	"	"	"	"	"	FILT, R-07
Lead	ND	50	"	"	"	"	"	"	FILT, R-07
Nickel	ND	50	"	"	"	"	"	"	FILT, R-07
Selenium	ND	50	"	"	"	"	"	"	FILT, R-07
Zinc	ND	50	"	"	"	"	"	"	FILT, R-07
Cold Vapor Extraction EPA 7470/7471									
Mercury	ND	1.0	ug/l	1	22F0059	06/03/22	06/06/22	EPA 7470A Water	FILT
Conventional Chemistry Parameters by APHA/EPA/ASTM Methods									
Oil & Grease	ND	5.00	mg/l	1	22F0069	06/03/22	06/14/22	EPA 1664B	
Specific Conductance (EC)	**6380**	10.0	umho/cm @25°C	"	22F0183	06/10/22	06/10/22	SM2510b mod.	
pH	**8.2**	0.10	pH Units	"	22F0064	06/03/22	06/06/22	SM 4500-H+B	O-04
Total Dissolved Solids	**3200**	10	mg/l	"	22F0063	06/03/22	06/10/22	TDS by SM2540C	
Anions by EPA Method 300.0									
Fluoride	**6.44**	0.500	mg/l	1	22F0066	06/03/22	06/07/22	EPA 300.0	
Chloride	**1860**	250	"	50	"	"	"	"	
Sulfate as SO4	**566**	250	"	"	"	"	"	"	
Nitrate as NO3	**0.668**	0.500	"	1	"	"	06/04/22	"	
Nitrate as N	ND	0.200	"	"	"	"	"	"	

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Lake Forest CA, 92630	Project Manager: Arlin Brewster	06/30/22 11:37

PW-0

T221596-04RE1 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Metals by EPA 200 Series Methods									
Copper	ND	2.5	mg/l	500	22F0221	06/13/22	06/20/22	EPA 200.7	FILT
Calcium	**100**	50	"	"	"	"	06/20/22	"	FILT
Iron	ND	100	"	"	"	"	"	"	FILT
Magnesium	ND	50	"	"	"	"	"	"	FILT
Potassium	ND	250	"	"	"	"	"	"	FILT
Sodium	**1400**	250	"	"	"	"	"	"	FILT

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26225 Enterprise Court	Project Number: 196-004-06	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	06/30/22 11:37

PW-2

T221596-05 (Water)

SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Metals by EPA 200 Series Methods									
Antimony	ND	50	ug/l	100	22F0058	06/03/22	06/07/22	200.8	FILT, R-07
Arsenic	ND	50	"	"	"	"	"	"	FILT, R-07
Barium	ND	50	"	"	"	"	"	"	FILT, R-07
Cadmium	ND	50	"	"	"	"	"	"	FILT, R-07
Chromium	ND	50	"	"	"	"	"	"	FILT, R-07
Cobalt	ND	50	"	"	"	"	"	"	FILT, R-07
Lead	ND	50	"	"	"	"	"	"	FILT, R-07
Nickel	ND	50	"	"	"	"	"	"	FILT, R-07
Selenium	ND	50	"	"	"	"	"	"	FILT, R-07
Zinc	ND	50	"	"	"	"	"	"	FILT, R-07
Cold Vapor Extraction EPA 7470/7471									
Mercury	ND	1.0	ug/l	1	22F0059	06/03/22	06/06/22	EPA 7470A Water	FILT
Conventional Chemistry Parameters by APHA/EPA/ASTM Methods									
Oil & Grease	ND	5.00	mg/l	1	22F0069	06/03/22	06/14/22	EPA 1664B	
Specific Conductance (EC)	**3680**	10.0	umho/cm @25°C	"	22F0183	06/10/22	06/10/22	SM2510b mod.	
pH	**8.1**	0.10	pH Units	"	22F0064	06/03/22	06/06/22	SM 4500-H+B	O-04
Total Dissolved Solids	**2000**	10	mg/l	"	22F0063	06/03/22	06/10/22	TDS by SM2540C	
Anions by EPA Method 300.0									
Fluoride	**6.91**	0.500	mg/l	1	22F0066	06/03/22	06/07/22	EPA 300.0	
Chloride	**944**	250	"	50	"	"	"	"	
Sulfate as SO4	**438**	250	"	"	"	"	"	"	
Nitrate as NO3	ND	0.500	"	1	"	"	06/04/22	"	
Nitrate as N	ND	0.200	"	"	"	"	"	"	

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26225 Enterprise Court	Project Number: 196-004-06	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	06/30/22 11:37

PW-2

T221596-05RE1 (Water)

SunStar Laboratories, Inc.

Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Copper	ND	2.5	mg/l	500	22F0221	06/13/22	06/20/22	EPA 200.7	FILT
Calcium	ND	50	"	"	"	"	"	"	FILT
Iron	ND	100	"	"	"	"	"	"	FILT
Potassium	ND	250	"	"	"	"	06/20/22	"	FILT
Magnesium	ND	50	"	"	"	"	06/20/22	"	FILT
Sodium	**630**	250	"	"	"	"	06/20/22	"	FILT

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Northstar Environmental Remediation	Project: Genesis Solar Groundwater	
26225 Enterprise Court	Project Number: 196-004-06	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	06/30/22 11:37

DM-1

T221596-06 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Metals by EPA 200 Series Methods									
Antimony	ND	50	ug/l	100	22F0058	06/03/22	06/07/22	200.8	FILT, R-07
Arsenic	ND	50	"	"	"	"	"	"	FILT, R-07
Barium	ND	50	"	"	"	"	"	"	FILT, R-07
Cadmium	ND	50	"	"	"	"	"	"	FILT, R-07
Chromium	ND	50	"	"	"	"	"	"	FILT, R-07
Cobalt	ND	50	"	"	"	"	"	"	FILT, R-07
Lead	ND	50	"	"	"	"	"	"	FILT, R-07
Nickel	ND	50	"	"	"	"	"	"	FILT, R-07
Selenium	**52**	50	"	"	"	"	"	"	FILT, R-07
Zinc	ND	50	"	"	"	"	"	"	FILT, R-07
Cold Vapor Extraction EPA 7470/7471									
Mercury	ND	1.0	ug/l	1	22F0059	06/03/22	06/06/22	EPA 7470A Water	FILT
Conventional Chemistry Parameters by APHA/EPA/ASTM Methods									
Oil & Grease	ND	5.00	mg/l	1	22F0069	06/03/22	06/14/22	EPA 1664B	
Specific Conductance (EC)	**17800**	10.0	umho/cm @25°C	"	22F0183	06/10/22	06/10/22	SM2510b mod.	
pH	**7.8**	0.10	pH Units	"	22F0064	06/03/22	06/06/22	SM 4500-H+B	
Total Dissolved Solids	**9300**	10	mg/l	"	22F0063	06/03/22	06/10/22	TDS by SM2540C	
Anions by EPA Method 300.0									
Chloride	**5530**	500	mg/l	100	22F0066	06/03/22	06/07/22	EPA 300.0	
Sulfate as SO4	**2070**	250	"	50	"	"	"	"	
Nitrate as NO3	**8.70**	0.500	"	1	"	"	06/04/22	"	
Nitrate as N	**1.97**	0.200	"	"	"	"	"	"	

SunStar Laboratories, Inc.

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Northstar Environmental Remediation	Project: Genesis Solar Groundwater	
26225 Enterprise Court	Project Number: 196-004-06	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	06/30/22 11:37

DM-1

T221596-06RE1 (Water)

SunStar Laboratories, Inc.

Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Copper	ND	2.5	mg/l	500	22F0221	06/13/22	06/20/22	EPA 200.7	FILT
Calcium	**240**	50	"	"	"	"	"	"	FILT
Iron	ND	100	"	"	"	"	"	"	FILT
Potassium	ND	250	"	"	"	"	06/20/22	"	FILT
Magnesium	**69**	50	"	"	"	"	06/20/22	"	FILT
Sodium	**4500**	250	"	"	"	"	06/20/22	"	FILT

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Northstar Environmental Remediation	Project: Genesis Solar Groundwater	
26225 Enterprise Court	Project Number: 196-004-06	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	06/30/22 11:37

DM-2

T221596-07 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Metals by EPA 200 Series Methods									
Antimony	ND	50	ug/l	100	22F0058	06/03/22	06/07/22	200.8	FILT, R-07
Arsenic	ND	50	"	"	"	"	"	"	FILT, R-07
Barium	ND	50	"	"	"	"	"	"	FILT, R-07
Cadmium	ND	50	"	"	"	"	"	"	FILT, R-07
Chromium	ND	50	"	"	"	"	"	"	FILT, R-07
Cobalt	ND	50	"	"	"	"	"	"	FILT, R-07
Lead	ND	50	"	"	"	"	"	"	FILT, R-07
Nickel	ND	50	"	"	"	"	"	"	FILT, R-07
Selenium	**53**	50	"	"	"	"	"	"	FILT, R-07
Zinc	ND	50	"	"	"	"	"	"	FILT, R-07
Cold Vapor Extraction EPA 7470/7471									
Mercury	ND	1.0	ug/l	1	22F0059	06/03/22	06/06/22	EPA 7470A Water	FILT
Conventional Chemistry Parameters by APHA/EPA/ASTM Methods									
Oil & Grease	ND	5.00	mg/l	1	22F0069	06/03/22	06/14/22	EPA 1664B	
Specific Conductance (EC)	**18200**	10.0	umho/cm @25°C	"	22F0183	06/10/22	06/10/22	SM2510b mod.	
pH	**7.7**	0.10	pH Units	"	22F0064	06/03/22	06/06/22	SM 4500-H+B	
Total Dissolved Solids	**9300**	10	mg/l	"	22F0063	06/03/22	06/10/22	TDS by SM2540C	
Anions by EPA Method 300.0									
Chloride	**5860**	500	mg/l	100	22F0066	06/03/22	06/07/22	EPA 300.0	
Sulfate as SO4	**2160**	250	"	50	"	"	"	"	
Nitrate as NO3	**10.9**	0.500	"	1	"	"	06/04/22	"	
Nitrate as N	**2.47**	0.200	"	"	"	"	"	"	

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Northstar Environmental Remediation	Project: Genesis Solar Groundwater	
26225 Enterprise Court	Project Number: 196-004-06	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	06/30/22 11:37

DM-2

T221596-07RE1 (Water)

SunStar Laboratories, Inc.

Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Copper	ND	2.5	mg/l	500	22F0221	06/13/22	06/20/22	EPA 200.7	FILT
Calcium	**240**	50	"	"	"	"	"	"	FILT
Iron	ND	100	"	"	"	"	"	"	FILT
Magnesium	**67**	50	"	"	"	"	"	"	FILT
Potassium	ND	250	"	"	"	"	06/20/22	"	FILT
Sodium	**4200**	250	"	"	"	"	"	"	FILT

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26225 Enterprise Court	Project Number: 196-004-06	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	06/30/22 11:37

DM-3

T221596-08 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Metals by EPA 200 Series Methods									
Antimony	ND	50	ug/l	100	22F0058	06/03/22	06/07/22	200.8	FILT, R-07
Arsenic	ND	50	"	"	"	"	"	"	FILT, R-07
Barium	ND	50	"	"	"	"	"	"	R-07, FILT
Cadmium	ND	50	"	"	"	"	"	"	FILT, R-07
Chromium	ND	50	"	"	"	"	"	"	FILT, R-07
Cobalt	ND	50	"	"	"	"	"	"	FILT, R-07
Lead	ND	50	"	"	"	"	"	"	FILT, R-07
Nickel	ND	50	"	"	"	"	"	"	R-07, FILT
Selenium	**55**	50	"	"	"	"	"	"	R-07, FILT
Zinc	**50**	50	"	"	"	"	"	"	FILT, R-07
Cold Vapor Extraction EPA 7470/7471									
Mercury	ND	1.0	ug/l	1	22F0059	06/03/22	06/06/22	EPA 7470A Water	FILT
Conventional Chemistry Parameters by APHA/EPA/ASTM Methods									
Oil & Grease	ND	5.00	mg/l	1	22F0069	06/03/22	06/14/22	EPA 1664B	
Specific Conductance (EC)	**17400**	10.0	umho/cm @25°C	"	22F0183	06/10/22	06/10/22	SM2510b mod.	
pH	**7.8**	0.10	pH Units	"	22F0064	06/03/22	06/06/22	SM 4500-H+B	
Total Dissolved Solids	**8500**	10	mg/l	"	22F0063	06/03/22	06/10/22	TDS by SM2540C	
Anions by EPA Method 300.0									
Chloride	**5570**	500	mg/l	100	22F0066	06/03/22	06/07/22	EPA 300.0	
Sulfate as SO4	**2110**	250	"	50	"	"	"	"	
Nitrate as NO3	**2.82**	0.500	"	1	"	"	06/04/22	"	
Nitrate as N	**0.640**	0.200	"	"	"	"	"	"	

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26225 Enterprise Court	Project Number: 196-004-06	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	06/30/22 11:37

DM-3

T221596-08RE1 (Water)

SunStar Laboratories, Inc.

Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Copper	ND	2.5	mg/l	500	22F0221	06/13/22	06/20/22	EPA 200.7	FILT
Calcium	**240**	50	"	"	"	"	"	"	FILT
Iron	ND	100	"	"	"	"	"	"	FILT
Magnesium	**59**	50	"	"	"	"	"	"	FILT
Potassium	ND	250	"	"	"	"	06/20/22	"	FILT
Sodium	**4500**	250	"	"	"	"	"	"	FILT

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26225 Enterprise Court	Project Number: 196-004-06	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	06/30/22 11:37

DUP

T221596-09 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
SunStar Laboratories, Inc.									
Metals by EPA 200 Series Methods									
Antimony	ND	50	ug/l	100	22F0058	06/03/22	06/07/22	200.8	FILT, R-07
Arsenic	ND	50	"	"	"	"	"	"	FILT, R-07
Barium	ND	50	"	"	"	"	"	"	FILT, R-07
Cadmium	ND	50	"	"	"	"	"	"	FILT, R-07
Chromium	ND	50	"	"	"	"	"	"	FILT, R-07
Cobalt	ND	50	"	"	"	"	"	"	FILT, R-07
Lead	ND	50	"	"	"	"	"	"	R-07, FILT
Nickel	ND	50	"	"	"	"	"	"	R-07, FILT
Selenium	ND	50	"	"	"	"	"	"	R-07, FILT
Zinc	ND	50	"	"	"	"	"	"	FILT, R-07
Cold Vapor Extraction EPA 7470/7471									
Mercury	ND	1.0	ug/l	1	22F0059	06/03/22	06/06/22	EPA 7470A Water	FILT
Conventional Chemistry Parameters by APHA/EPA/ASTM Methods									
Oil & Grease	ND	5.00	mg/l	1	22F0069	06/03/22	06/14/22	EPA 1664B	
Specific Conductance (EC)	**3730**	10.0	umho/cm @25°C	"	22F0183	06/10/22	06/10/22	SM2510b mod.	
pH	**8.2**	0.10	pH Units	"	22F0064	06/03/22	06/06/22	SM 4500-H+B	O-04
Total Dissolved Solids	**4000**	10	mg/l	"	22F0063	06/03/22	06/10/22	TDS by SM2540C	
Anions by EPA Method 300.0									
Chloride	**953**	100	mg/l	20	22F0066	06/03/22	06/07/22	EPA 300.0	
Sulfate as SO4	**444**	100	"	"	"	"	"	"	
Nitrate as NO3	ND	0.500	"	1	"	"	06/04/22	"	I-02
Nitrate as N	ND	0.200	"	"	"	"	"	"	I-02

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Northstar Environmental Remediation	Project: Genesis Solar Groundwater	
26225 Enterprise Court	Project Number: 196-004-06	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	06/30/22 11:37

DUP

T221596-09RE1 (Water)

SunStar Laboratories, Inc.

Metals by EPA 200 Series Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Copper	ND	2.5	mg/l	500	22F0221	06/13/22	06/20/22	EPA 200.7	FILT
Calcium	ND	50	"	"	"	"	"	"	FILT
Iron	ND	100	"	"	"	"	"	"	FILT
Magnesium	ND	50	"	"	"	"	"	"	FILT
Potassium	ND	250	"	"	"	"	06/20/22	"	FILT
Sodium	**670**	250	"	"	"	"	"	"	FILT

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26225 Enterprise Court	Project Number: 196-004-06	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	06/30/22 11:37

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
Batch 22F0053 - EPA 3010A										
Blank (22F0053-BLK1)				Prepared: 06/03/22 Analyzed: 06/08/22						
Cadmium	ND	0.005	mg/l							
Chromium	ND	0.005	"							
Copper	ND	0.005	"							
Lead	ND	0.005	"							
Molybdenum	ND	0.005	"							
Nickel	ND	0.005	"							
Silver	ND	0.030	"							
Zinc	ND	0.030	"							
Calcium	0.154	0.10	"							QB-01
LCS (22F0053-BS1)				Prepared: 06/03/22 Analyzed: 06/08/22						
Cadmium	1.50	0.005	mg/l	1.50		100	85-115			
Chromium	1.49	0.005	"	1.50		99.4	85-115			
Copper	1.51	0.005	"	1.50		100	85-115			
Lead	1.49	0.005	"	1.50		99.4	85-115			
Molybdenum	1.47	0.005	"	1.50		98.3	85-115			
Nickel	1.49	0.005	"	1.50		99.1	85-115			
Zinc	1.49	0.030	"	1.50		99.4	85-115			
Calcium	2.07		"	1.50		138	65-135			
Iron	1.51	0.20	"	1.50		101	70-130			
Magnesium	1.48	0.10	"	1.50		98.4	65-135			
Potassium	1.54	0.50	"	1.50		102	65-135			
Sodium	2.19	0.50	"	1.50		146	65-135			
Matrix Spike (22F0053-MS1)	**Source: T221581-02**			Prepared: 06/03/22 Analyzed: 06/08/22						
Cadmium	1.48	0.005	mg/l	1.50	ND	98.8	70-130			
Chromium	1.48	0.005	"	1.50	0.013	97.6	70-130			
Copper	1.50	0.005	"	1.50	0.002	100	70-130			
Lead	1.47	0.005	"	1.50	ND	97.8	70-130			
Molybdenum	1.46	0.005	"	1.50	0.004	96.9	70-130			
Nickel	1.46	0.005	"	1.50	0.002	97.3	70-130			
Zinc	1.55	0.030	"	1.50	0.051	99.7	70-130			
Calcium	2.20	0.10	"	1.50	0.776	95.1	65-135			
Iron	2.10	0.20	"	1.50	0.600	99.9	70-130			
Magnesium	2.14	0.10	"	1.50	0.742	93.1	65-135			
Potassium	1.57	0.50	"	1.50	ND	105	65-135			

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Northstar Environmental Remediation	Project: Genesis Solar Groundwater	
26225 Enterprise Court	Project Number: 196-004-06	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	06/30/22 11:37

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
Batch 22F0053 - EPA 3010A										
Matrix Spike (22F0053-MS1)	**Source: T221581-02**			Prepared: 06/03/22 Analyzed: 06/08/22						
Sodium	10.6	0.50	mg/l	1.50	ND	705	65-135			
Matrix Spike Dup (22F0053-MSD1)	**Source: T221581-02**			Prepared: 06/03/22 Analyzed: 06/08/22						
Cadmium	1.50	0.005	mg/l	1.50	ND	100	70-130	1.20	30	
Chromium	1.50	0.005	"	1.50	0.013	99.3	70-130	1.66	30	
Copper	1.52	0.005	"	1.50	0.002	101	70-130	1.23	30	
Lead	1.47	0.005	"	1.50	ND	98.2	70-130	0.450	30	
Molybdenum	1.48	0.005	"	1.50	0.004	98.1	70-130	1.26	30	
Nickel	1.48	0.005	"	1.50	0.002	98.9	70-130	1.58	30	
Zinc	1.57	0.030	"	1.50	0.051	101	70-130	1.20	30	
Calcium	2.21	0.10	"	1.50	0.776	95.6	65-135	0.363	30	
Iron	2.06	0.20	"	1.50	0.600	97.5	70-130	1.73	30	
Magnesium	2.19	0.10	"	1.50	0.742	96.5	65-135	2.40	30	
Potassium	1.46	0.50	"	1.50	ND	97.6	65-135	6.86	30	
Sodium	10.6	0.50	"	1.50	ND	709	65-135	0.566	30	
Batch 22F0058 - EPA 3010A										
Blank (22F0058-BLK1)				Prepared: 06/03/22 Analyzed: 06/07/22						
Antimony	ND	0.50	ug/l							
Arsenic	ND	0.50	"							
Barium	ND	0.50	"							
Beryllium	ND	0.50	"							
Cadmium	ND	0.50	"							
Chromium	ND	0.50	"							
Cobalt	ND	0.50	"							
Copper	ND	0.50	"							
Lead	ND	0.50	"							
Molybdenum	ND	0.50	"							
Mercury	ND	0.50	"							
Nickel	ND	0.50	"							
Selenium	ND	0.50	"							
Thallium	ND	0.50	"							
Vanadium	ND	0.50	"							
Zinc	ND	0.50	"							

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Northstar Environmental Remediation	Project: Genesis Solar Groundwater	
26225 Enterprise Court	Project Number: 196-004-06	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	06/30/22 11:37

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
Batch 22F0058 - EPA 3010A										
LCS (22F0058-BS1)				Prepared: 06/03/22 Analyzed: 06/07/22						
Arsenic	50.8	0.50	ug/l	50.0		102	80-120			
Barium	50.4	0.50	"	50.0		101	80-120			
Cadmium	48.4	0.50	"	50.0		96.9	80-120			
Chromium	47.8	0.50	"	50.0		95.6	80-120			
Lead	49.4	0.50	"	50.0		98.9	80-120			
Matrix Spike (22F0058-MS1)	**Source: T221595-01**			Prepared: 06/03/22 Analyzed: 06/07/22						
Arsenic	898	50	ug/l	50.0	937	NR	75-125			QM-05, R-07
Barium	349	50	"	50.0	305	88.0	75-125			R-07
Cadmium	56.0	50	"	50.0	14.0	84.0	75-125			R-07
Chromium	54.0	50	"	50.0	1.00	106	75-125			R-07
Lead	51.0	50	"	50.0	ND	102	75-125			R-07
Matrix Spike Dup (22F0058-MSD1)	**Source: T221595-01**			Prepared: 06/03/22 Analyzed: 06/07/22						
Arsenic	906	50	ug/l	50.0	937	NR	75-125	0.887	20	QM-05, R-07
Barium	350	50	"	50.0	305	90.0	75-125	0.286	20	R-07
Cadmium	57.0	50	"	50.0	14.0	86.0	75-125	1.77	20	R-07
Chromium	51.0	50	"	50.0	1.00	100	75-125	5.71	20	R-07
Lead	53.0	50	"	50.0	ND	106	75-125	3.85	20	R-07
Batch 22F0221 - EPA 3010A										
Blank (22F0221-BLK1)				Prepared: 06/13/22 Analyzed: 06/20/22						
Copper	ND	0.010	mg/l							
Calcium	ND	0.20	"							
Iron	ND	0.40	"							
Potassium	ND	1.0	"							
Magnesium	ND	0.20	"							
Sodium	ND	1.0	"							

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	Project: Genesis Solar Groundwater	
26225 Enterprise Court	Project Number: 196-004-06	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	06/30/22 11:37

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
Batch 22F0221 - EPA 3010A										
LCS (22F0221-BS1)				Prepared: 06/13/22 Analyzed: 06/20/22						
Copper	1.67	0.010	mg/l	1.50		112	85-115			
Potassium	1.65	1.0	"	1.50		110	65-135			
Sodium	1.34	1.0	"	1.50		89.3	65-135			
Matrix Spike (22F0221-MS1)		**Source: T221596-01RE1**		Prepared: 06/13/22 Analyzed: 06/20/22						
Copper	2.82	5.0	mg/l	1.50	ND	188	70-130			QM-05
Potassium	ND	500	"	1.50	ND		65-135			QM-05
Sodium	7800	500	"	1.50	3920	NR	65-135			QM-05
Matrix Spike Dup (22F0221-MSD1)		**Source: T221596-01RE1**		Prepared: 06/13/22 Analyzed: 06/20/22						
Copper	1.84	5.0	mg/l	1.50	ND	123	70-130	42.0	30	QM-05
Potassium	ND	500	"	1.50	ND		65-135		30	QM-05
Sodium	7850	500	"	1.50	3920	NR	65-135	0.562	30	QM-05

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Northstar Environmental Remediation	Project: Genesis Solar Groundwater	
26225 Enterprise Court	Project Number: 196-004-06	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	06/30/22 11:37

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
Batch 22F0059 - EPA 7470A Water										
Blank (22F0059-BLK1)				Prepared: 06/03/22 Analyzed: 06/06/22						
Mercury	ND	1.0	ug/l							
LCS (22F0059-BS1)				Prepared: 06/03/22 Analyzed: 06/06/22						
Mercury	6.05	1.0	ug/l	7.00		86.4	80-120			
Matrix Spike (22F0059-MS1)	**Source: T221595-01**			Prepared: 06/03/22 Analyzed: 06/06/22						
Mercury	1.54	1.0	ug/l	7.00	ND	22.0	75-125			QM-05
Matrix Spike Dup (22F0059-MSD1)	**Source: T221595-01**			Prepared: 06/03/22 Analyzed: 06/06/22						
Mercury	1.52	1.0	ug/l	7.00	ND	21.7	75-125	0.987	20	QM-05

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Lake Forest, California 92630
949.297.5020 Phone
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Northstar Environmental Remediation	Project: Genesis Solar Groundwater	
26225 Enterprise Court	Project Number: 196-004-06	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	06/30/22 11:37

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
Batch 22F0063 - General Preparation										
Blank (22F0063-BLK1)				Prepared: 06/03/22 Analyzed: 06/10/22						
Total Dissolved Solids	ND	10	mg/l							
LCS (22F0063-BS1)				Prepared: 06/03/22 Analyzed: 06/10/22						
Total Dissolved Solids	426	10	mg/l	500		85.2	80-120			
Duplicate (22F0063-DUP1)		**Source: T221596-01**		Prepared: 06/03/22 Analyzed: 06/10/22						
Total Dissolved Solids	6220	10	mg/l		6860			9.79	20	
Batch 22F0064 - General Preparation										
Duplicate (22F0064-DUP1)		**Source: T221594-01**		Prepared: 06/03/22 Analyzed: 06/06/22						
pH	6.75	0.10	pH Units		6.79			0.591	20	
Batch 22F0069 - General Preparation										
Blank (22F0069-BLK1)				Prepared: 06/03/22 Analyzed: 06/14/22						
Oil & Grease	ND	5.00	mg/l							
LCS (22F0069-BS1)				Prepared: 06/03/22 Analyzed: 06/14/22						
Oil & Grease	33.8	5.00	mg/l	39.2		86.2	78-114			
LCS Dup (22F0069-BSD1)				Prepared: 06/03/22 Analyzed: 06/14/22						
Oil & Grease	32.1	5.00	mg/l	39.2		81.9	78-114	5.16	20	
Batch 22F0183 - General Preparation										
Duplicate (22F0183-DUP1)		**Source: T221596-01**		Prepared & Analyzed: 06/10/22						
Specific Conductance (EC)	15500	10.0	umho/cm @25°C		15500			0.0645	15	

SunStar Laboratories, Inc.

Jeff Lee, Project Manager

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Northstar Environmental Remediation	Project: Genesis Solar Groundwater	
26225 Enterprise Court	Project Number: 196-004-06	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	06/30/22 11:37

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 22F0066 - General Preparation										
Blank (22F0066-BLK1)				Prepared: 06/03/22 Analyzed: 06/07/22						
Fluoride	ND	0.500	mg/l							
Chloride	ND	5.00	"							
Sulfate as SO4	ND	5.00	"							
Nitrate as NO3	ND	0.500	"							
Nitrate as N	ND	0.200	"							
LCS (22F0066-BS1)				Prepared: 06/03/22 Analyzed: 06/07/22						
Fluoride	26.9	0.500	mg/l	25.0		108	75-125			
Chloride	25.3	5.00	"	25.0		101	75-125			
Sulfate as SO4	25.0	5.00	"	25.0		100	75-125			
Nitrate as NO3	25.7	0.500	"	25.0		103	75-125			
Matrix Spike (22F0066-MS1)	**Source: T221596-01**			Prepared: 06/03/22 Analyzed: 06/07/22						
Fluoride	20.2	0.500	mg/l	25.0	ND	80.8	75-125			
Chloride	4710	500	"	25.0	5010	NR	75-125			QM-05
Sulfate as SO4	1640	500	"	25.0	1720	NR	75-125			QM-05
Nitrate as NO3	27.8	0.500	"	25.0	0.720	108	75-125			
Matrix Spike Dup (22F0066-MSD1)	**Source: T221596-01**			Prepared: 06/03/22 Analyzed: 06/07/22						
Fluoride	19.6	0.500	mg/l	25.0	ND	78.6	75-125	2.81	20	
Chloride	4770	500	"	25.0	5010	NR	75-125	1.27	20	QM-05
Sulfate as SO4	1650	500	"	25.0	1720	NR	75-125	1.10	20	QM-05
Nitrate as NO3	26.7	0.500	"	25.0	0.720	104	75-125	3.82	20	

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Northstar Environmental Remediation	Project: Genesis Solar Groundwater	
26225 Enterprise Court	Project Number: 196-004-06	**Reported:**
Lake Forest CA, 92630	Project Manager: Arlin Brewster	06/30/22 11:37

Notes and Definitions

R-07	Reporting limit for this compound(s) has been raised to account for dilution necessary due to high levels of interfering compound(s) and/or matrix affect.
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.
QB-01	The method blank contains analyte at a concentration above the MRL; however, concentration is less than 10% of the sample result, which is negligible according to method criteria.
O-04	This sample was received and analyzed outside the EPA recommended holding time.
I-02	This result was analyzed outside of the EPA recommended holding time.
FILT	The sample was filtered prior to analysis.
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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25712 Commercentre Dr
Lake Forest, CA 92630
949-297-5020

Chain of Custody Record

Client: Northstar Environmental Remediation _____ Date: 06/03/22 Page: 1 of 1

Address: 26225 Enterprise Court, Lake Forest, CA 92630 _____ Project Name: Genesis Solar Groundwater _____

Phone: 949-274-1719 _____ Fax: _____ Collector: Arlin Brewster _____ Client Project #: 196-004-06 _____

Project Manager: Arlin Brewster _____ Batch #: T221596 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 - Therminol (Subcontract)	Deuterium, Oxygen-18 (Subcont.)	300.0 - Fluoride	Laboratory ID #	Comments/Preservative	Total # of containers
23a	—	—	~~W~~	~~Various~~	X	X	X	X	X	X	X	X	X	X				~~7~~ AWB
AWB TW-1 ~~OBS-1~~	6/2/22	9:20	W	Various	X	X	X	X	X	X	X	X	X	X				7
OBS-1 ~~TW-1~~		9:05	W	Various	X	X	X	X	X	X	X	X	X	X				7
TW-2		10:15	W	Various	X	X	X	X	X	X	X	X	X	X				7
PW-0		11:00	W	Various	X	X	X	X	X	X	X	X	X	X	X			7
PW-2		11:10	W	Various	X	X	X	X	X	X	X	X	X	X	X			7
DM-1		20:00	W	Various	X	X	X	X	X	X	X	X	X	X				7
DM-2		21:45	W	Various	X	X	X	X	X	X	X	X	X	X				7
DM-3	↓	23:25	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)	Date / Time	Received by: (signature)	Date / Time
AWB	06/03/22 @ 1145	[illegible]	6.3.22 1145
Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time
Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time

Total # of containers: ~~64~~ 64

Chain of Custody seals Y/N/NA

Seals intact? Y/N/NA

Received good condition/cold: 4.4°c

Turn around time: Standard **

Notes

** Deuterium & Oxygen-18 subcontract has 10 day TAT

Reporting limits must match previous reports

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

SunStar Laboratories, Inc.
Providing Quality Analytical Services Nationwide

Rev. 02 Date 07/19
Receiving Form 001

SAMPLE RECEIVING REVIEW SHEET

Batch/Work Order #: _____

Client Name: North Star Environmental Remediation Project: Genesis Solar Groundwater

Delivered by: ☒ **Client** ☐ **SunStar Courier** ☐ **GLS** ☐ **FedEx** ☐ **UPS**

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

Lab Received by: Dave Date/Time Lab Received: 6·3·22 1145

Total number of coolers received: 4 Thermometer ID: SC-1 Calibration due: 8/24/22

Temperature: Cooler #1 4.3	°C +/- the CF (+0.1 °C) = 4.4	°C corrected temperature	
Temperature: Cooler #2 4.3	°C +/- the CF (+0.1 °C) = 4.4	°C corrected temperature	
Temperature: Cooler #3 4.3	°C +/- the CF (+0.1 °C) = 4.4	°C corrected temperature	
Temperature criteria = ≤ 6°C (no frozen containers)	Within criteria?	☒ **Yes**	☐ **No** ☐ **N/A**
If NO:			
Samples received on ice?	☐ Yes	☐ **No → Complete Non-Conformance Sheet**	
If on ice, samples received same day collected?	☐ Yes → Acceptable	☐ **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: DB 6·3·22

Comments:

(949) 297-5020 ■ www.sunstarlabs.com ■ 25712 Commercentre Drive ■ Lake Forest, CA 92630

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a Stratum Reservoir brand

www.isotechlabs.com

Lab #:	830506	Job #:	51196	IS-101168	Co. Job#:
Sample Name:	T221596-01				Co. Lab#:
Company:	SunStar Laboratories, Inc				
API/Well:					
Container:	250ml Plastic Bottle				
Field/Site Name:	T221596				
Location:					
Formation/Depth:					
Sampling Point:					
Date Sampled:	6/02/2022 9:20	Date Received:	6/07/2022	Date Reported:	6/14/2022

δD of water	----------	-63.6 ‰ relative to VSMOW
$\delta^{18}O$ of water	----------	-7.75 ‰ 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

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a Stratum Reservoir brand

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Lab #:	830507	Job #:	51196	IS-101168	Co. Job#:
Sample Name:	T221596-02				Co. Lab#:
Company:	SunStar Laboratories, Inc				
API/Well:					
Container:	250ml Plastic Bottle				
Field/Site Name:	T221596				
Location:					
Formation/Depth:					
Sampling Point:					
Date Sampled:	6/02/2022 9:05	Date Received:	6/07/2022	Date Reported:	6/14/2022

δD of water	----------	-60.6 ‰ relative to VSMOW
$\delta^{18}O$ of water	----------	-6.78 ‰ 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

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Lab #:	830508	Job #:	51196	IS-101168	Co. Job#:
Sample Name:	T221596-03				Co. Lab#:
Company:	SunStar Laboratories, Inc				
API/Well:					
Container:	250ml Plastic Bottle				
Field/Site Name:	T221596				
Location:					
Formation/Depth:					
Sampling Point:					
Date Sampled:	6/02/2022 10:15	Date Received:	6/07/2022	Date Reported:	6/14/2022

δD of water	----------	-76.5 ‰ relative to VSMOW
$\delta^{18}O$ of water	----------	-10.11 ‰ 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

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Lab #:	830509	Job #:	51196	IS-101168	Co. Job#:
Sample Name:	T221596-04				Co. Lab#:
Company:	SunStar Laboratories, Inc				
API/Well:					
Container:	250ml Plastic Bottle				
Field/Site Name:	T221596				
Location:					
Formation/Depth:					
Sampling Point:					
Date Sampled:	6/02/2022 11:00	Date Received:	6/07/2022	Date Reported:	6/14/2022

δD of water	----------	-76.1 ‰ relative to VSMOW
$\delta^{18}O$ of water	----------	-10.04 ‰ 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

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Lab #:	830510	Job #:	51196	IS-101168	Co. Job#:
Sample Name:	T221596-05				Co. Lab#:
Company:	SunStar Laboratories, Inc				
API/Well:					
Container:	250ml Plastic Bottle				
Field/Site Name:	T221596				
Location:					
Formation/Depth:					
Sampling Point:					
Date Sampled:	6/02/2022 11:10	Date Received:	6/07/2022	Date Reported:	6/14/2022

δD of water	----------	-77.8 ‰ relative to VSMOW
$\delta^{18}O$ of water	----------	-10.30 ‰ 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

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Lab #:	830511	Job #:	51196	IS-101168	Co. Job#:
Sample Name:	T221596-06				Co. Lab#:
Company:	SunStar Laboratories, Inc				
API/Well:					
Container:	250ml Plastic Bottle				
Field/Site Name:	T221596				
Location:					
Formation/Depth:					
Sampling Point:					
Date Sampled:	6/02/2022 20:00	Date Received:	6/07/2022	Date Reported:	6/14/2022

δD of water	----------	-70.2 ‰ relative to VSMOW
$\delta^{18}O$ of water	----------	-8.62 ‰ 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

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Lab #:	830512	Job #:	51196	IS-101168	Co. Job#:
Sample Name:	T221596-07				Co. Lab#:
Company:	SunStar Laboratories, Inc				
API/Well:					
Container:	250ml Plastic Bottle				
Field/Site Name:	T221596				
Location:					
Formation/Depth:					
Sampling Point:					
Date Sampled:	6/02/2022 21:45	Date Received:	6/07/2022	Date Reported:	6/14/2022

δD of water	----------	-69.6 ‰ 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

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Lab #:	830513	Job #:	51196	IS-101168	Co. Job#:
Sample Name:	T221596-08				Co. Lab#:
Company:	SunStar Laboratories, Inc				
API/Well:					
Container:	250ml Plastic Bottle				
Field/Site Name:	T221596				
Location:					
Formation/Depth:					
Sampling Point:					
Date Sampled:	6/02/2022 23:25	Date Received:	6/07/2022	Date Reported:	6/14/2022

δD of water	----------	-70.5 ‰ relative to VSMOW
$\delta^{18}O$ of water	----------	-8.71 ‰ 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

ISOTECH
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Lab #:	830514	Job #:	51196	IS-101168	Co. Job#:
Sample Name:	T221596-09				Co. Lab#:
Company:	SunStar Laboratories, Inc				
API/Well:					
Container:	250ml Plastic Bottle				
Field/Site Name:	T221596				
Location:					
Formation/Depth:					
Sampling Point:					
Date Sampled:	6/02/2022 0:00	Date Received:	6/07/2022	Date Reported:	6/14/2022

δD of water	----------	-77.7 ‰ relative to VSMOW
$\delta^{18}O$ of water	----------	-10.27 ‰ 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

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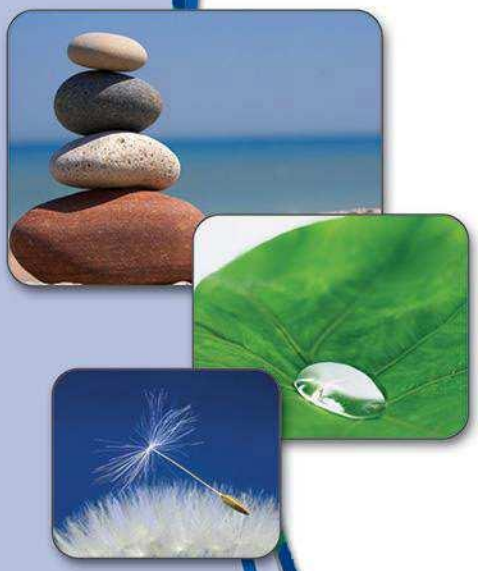

ANALYTICAL REPORT

Eurofins Calscience
2841 Dow Avenue, Suite 100
Tustin, CA 92780
Tel: (714)895-5494

Laboratory Job ID: 570-98589-1
Client Project/Site: T221596

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

Attn: Jeff Lee

Authorized for release by:
6/17/2022 5:22:24 PM

Don Burley, Senior Project Manager
(657)212-3033
Donald.Burley@et.eurofinsus.com

Table of Contents

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	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: T221596

Job ID: 570-98589-1

Job ID: 570-98589-1

Laboratory: Eurofins Calscience

Narrative

Job Narrative
570-98589-1

Comments
No additional comments.

Receipt
The samples were received on 6/6/2022 11:22 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 3.3º C.

GC Semi VOA
Method 8015B: The continuing calibration verification (CCV) associated with batch 570-242036 recovered above the upper control limit for Benzene, 1,1'-oxybis- and 1,1'-Biphenyl. The samples associated with this CCV were non-detects for the affected analytes; 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: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with preparation batch 570-240089. 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: T221596

Job ID: 570-98589-1

Client Sample ID: T221596-01 — Lab Sample ID: 570-98589-1

No Detections.

Client Sample ID: T221596-02 — Lab Sample ID: 570-98589-2

No Detections.

Client Sample ID: T221596-03 — Lab Sample ID: 570-98589-3

No Detections.

Client Sample ID: T221596-04 — Lab Sample ID: 570-98589-4

No Detections.

Client Sample ID: T221596-05 — Lab Sample ID: 570-98589-5

No Detections.

Client Sample ID: T221596-06 — Lab Sample ID: 570-98589-6

No Detections.

Client Sample ID: T221596-07 — Lab Sample ID: 570-98589-7

No Detections.

Client Sample ID: T221596-08 — Lab Sample ID: 570-98589-8

No Detections.

Client Sample ID: T221596-09 — Lab Sample ID: 570-98589-9

No Detections.

This Detection Summary does not include radiochemical test results.

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

Client Sample ID: T221596-01
Date Collected: 06/02/22 09:20
Date Received: 06/06/22 11:22

Lab Sample ID: 570-98589-1
Matrix: Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		94		ug/L		06/08/22 21:42	06/16/22 20:59	1
1,1'-Biphenyl	ND		94		ug/L		06/08/22 21:42	06/16/22 20:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*69*		*53 - 151*	*06/08/22 21:42*	*06/16/22 20:59*	*1*

Client Sample ID: T221596-02
Date Collected: 06/02/22 09:05
Date Received: 06/06/22 11:22

Lab Sample ID: 570-98589-2
Matrix: Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		94		ug/L		06/08/22 21:42	06/16/22 21:24	1
1,1'-Biphenyl	ND		94		ug/L		06/08/22 21:42	06/16/22 21:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*74*		*53 - 151*	*06/08/22 21:42*	*06/16/22 21:24*	*1*

Client Sample ID: T221596-03
Date Collected: 06/02/22 10:15
Date Received: 06/06/22 11:22

Lab Sample ID: 570-98589-3
Matrix: Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		93		ug/L		06/08/22 21:42	06/16/22 21:49	1
1,1'-Biphenyl	ND		93		ug/L		06/08/22 21:42	06/16/22 21:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*66*		*53 - 151*	*06/08/22 21:42*	*06/16/22 21:49*	*1*

Client Sample ID: T221596-04
Date Collected: 06/02/22 11:00
Date Received: 06/06/22 11:22

Lab Sample ID: 570-98589-4
Matrix: Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		94		ug/L		06/08/22 21:42	06/16/22 22:15	1
1,1'-Biphenyl	ND		94		ug/L		06/08/22 21:42	06/16/22 22:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*75*		*53 - 151*	*06/08/22 21:42*	*06/16/22 22:15*	*1*

Client Sample ID: T221596-05
Date Collected: 06/02/22 11:10
Date Received: 06/06/22 11:22

Lab Sample ID: 570-98589-5
Matrix: Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		93		ug/L		06/08/22 21:42	06/16/22 22:40	1
1,1'-Biphenyl	ND		93		ug/L		06/08/22 21:42	06/16/22 22:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*68*		*53 - 151*	*06/08/22 21:42*	*06/16/22 22:40*	*1*

Client Sample ID: T221596-06
Date Collected: 06/02/22 20:00
Date Received: 06/06/22 11:22

Lab Sample ID: 570-98589-6
Matrix: Water

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		95		ug/L		06/08/22 21:42	06/16/22 23:06	1
1,1'-Biphenyl	ND		95		ug/L		06/08/22 21:42	06/16/22 23:06	1

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	*61*		*53 - 151*	*06/08/22 21:42*	*06/16/22 23:06*	*1*

Client Sample ID: T221596-07
Date Collected: 06/02/22 21:45
Date Received: 06/06/22 11:22

Lab Sample ID: 570-98589-7
Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		93	ug/L		06/08/22 21:42	06/16/22 23:31	1
1,1'-Biphenyl	ND		93	ug/L		06/08/22 21:42	06/16/22 23:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	*55*		*53 - 151*	*06/08/22 21:42*	*06/16/22 23:31*	*1*

Client Sample ID: T221596-08
Date Collected: 06/02/22 23:25
Date Received: 06/06/22 11:22

Lab Sample ID: 570-98589-8
Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		90	ug/L		06/08/22 21:42	06/16/22 23:57	1
1,1'-Biphenyl	ND		90	ug/L		06/08/22 21:42	06/16/22 23:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	*55*		*53 - 151*	*06/08/22 21:42*	*06/16/22 23:57*	*1*

Client Sample ID: T221596-09
Date Collected: 06/02/22 00:00
Date Received: 06/06/22 11:22

Lab Sample ID: 570-98589-9
Matrix: Water

Analyte	Result	Qualifier	RL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		92	ug/L		06/08/22 21:42	06/17/22 00:22	1
1,1'-Biphenyl	ND		92	ug/L		06/08/22 21:42	06/17/22 00:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
n-Octacosane (Surr)	*61*		*53 - 151*	*06/08/22 21:42*	*06/17/22 00:22*	*1*

Surrogate Summary

Client: SunStar Laboratories Inc
Project/Site: T221596

Job ID: 570-98589-1

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)						
570-98589-1	T221596-01	69						
570-98589-2	T221596-02	74						
570-98589-3	T221596-03	66						
570-98589-4	T221596-04	75						
570-98589-5	T221596-05	68						
570-98589-6	T221596-06	61						
570-98589-7	T221596-07	55						
570-98589-8	T221596-08	55						
570-98589-9	T221596-09	61						
MB 570-240089/1-A	Method Blank	79						

Surrogate Legend

OTCSN = n-Octacosane (Surr)

Client: SunStar Laboratories Inc
Project/Site: T221596

Job ID: 570-98589-1

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

Lab Sample ID: MB 570-240089/1-A
Matrix: Water
Analysis Batch: 242036

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 240089

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene, 1,1'-oxybis-	ND		100		ug/L		06/08/22 21:42	06/16/22 16:20	1
1,1'-Biphenyl	ND		100		ug/L		06/08/22 21:42	06/16/22 16:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane (Surr)	*79*		*53 - 151*	*06/08/22 21:42*	*06/16/22 16:20*	*1*

QC Association Summary

Client: SunStar Laboratories Inc
Project/Site: T221596

Job ID: 570-98589-1

GC Semi VOA

Prep Batch: 240089

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-98589-1	T221596-01	Total/NA	Water	3510C	
570-98589-2	T221596-02	Total/NA	Water	3510C	
570-98589-3	T221596-03	Total/NA	Water	3510C	
570-98589-4	T221596-04	Total/NA	Water	3510C	
570-98589-5	T221596-05	Total/NA	Water	3510C	
570-98589-6	T221596-06	Total/NA	Water	3510C	
570-98589-7	T221596-07	Total/NA	Water	3510C	
570-98589-8	T221596-08	Total/NA	Water	3510C	
570-98589-9	T221596-09	Total/NA	Water	3510C	
MB 570-240089/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 242036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
570-98589-1	T221596-01	Total/NA	Water	8015B	240089
570-98589-2	T221596-02	Total/NA	Water	8015B	240089
570-98589-3	T221596-03	Total/NA	Water	8015B	240089
570-98589-4	T221596-04	Total/NA	Water	8015B	240089
570-98589-5	T221596-05	Total/NA	Water	8015B	240089
570-98589-6	T221596-06	Total/NA	Water	8015B	240089
570-98589-7	T221596-07	Total/NA	Water	8015B	240089
570-98589-8	T221596-08	Total/NA	Water	8015B	240089
570-98589-9	T221596-09	Total/NA	Water	8015B	240089
MB 570-240089/1-A	Method Blank	Total/NA	Water	8015B	240089

Lab Chronicle

Client: SunStar Laboratories Inc
Project/Site: T221596

Job ID: 570-98589-1

Client Sample ID: T221596-01
Date Collected: 06/02/22 09:20
Date Received: 06/06/22 11:22

Lab Sample ID: 570-98589-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			265.9 mL	2.5 mL	240089	06/08/22 21:42	UFLU	ECL 4
Total/NA	Analysis	8015B		1			242036	06/16/22 20:59	N5Y3	ECL 4
	Instrument ID: GC70B									

Client Sample ID: T221596-02
Date Collected: 06/02/22 09:05
Date Received: 06/06/22 11:22

Lab Sample ID: 570-98589-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			266.9 mL	2.5 mL	240089	06/08/22 21:42	UFLU	ECL 4
Total/NA	Analysis	8015B		1			242036	06/16/22 21:24	N5Y3	ECL 4
	Instrument ID: GC70B									

Client Sample ID: T221596-03
Date Collected: 06/02/22 10:15
Date Received: 06/06/22 11:22

Lab Sample ID: 570-98589-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			269.8 mL	2.5 mL	240089	06/08/22 21:42	UFLU	ECL 4
Total/NA	Analysis	8015B		1			242036	06/16/22 21:49	N5Y3	ECL 4
	Instrument ID: GC70B									

Client Sample ID: T221596-04
Date Collected: 06/02/22 11:00
Date Received: 06/06/22 11:22

Lab Sample ID: 570-98589-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			265.5 mL	2.5 mL	240089	06/08/22 21:42	UFLU	ECL 4
Total/NA	Analysis	8015B		1			242036	06/16/22 22:15	N5Y3	ECL 4
	Instrument ID: GC70B									

Client Sample ID: T221596-05
Date Collected: 06/02/22 11:10
Date Received: 06/06/22 11:22

Lab Sample ID: 570-98589-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			268 mL	2.5 mL	240089	06/08/22 21:42	UFLU	ECL 4
Total/NA	Analysis	8015B		1			242036	06/16/22 22:40	N5Y3	ECL 4
	Instrument ID: GC70B									

Lab Chronicle

Client: SunStar Laboratories Inc
Project/Site: T221596

Job ID: 570-98589-1

Client Sample ID: T221596-06
Date Collected: 06/02/22 20:00
Date Received: 06/06/22 11:22

Lab Sample ID: 570-98589-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			264.1 mL	2.5 mL	240089	06/08/22 21:42	UFLU	ECL 4
Total/NA	Analysis	8015B		1			242036	06/16/22 23:06	N5Y3	ECL 4
	Instrument ID: GC70B									

Client Sample ID: T221596-07
Date Collected: 06/02/22 21:45
Date Received: 06/06/22 11:22

Lab Sample ID: 570-98589-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			269.1 mL	2.5 mL	240089	06/08/22 21:42	UFLU	ECL 4
Total/NA	Analysis	8015B		1			242036	06/16/22 23:31	N5Y3	ECL 4
	Instrument ID: GC70B									

Client Sample ID: T221596-08
Date Collected: 06/02/22 23:25
Date Received: 06/06/22 11:22

Lab Sample ID: 570-98589-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			276.3 mL	2.5 mL	240089	06/08/22 21:42	UFLU	ECL 4
Total/NA	Analysis	8015B		1			242036	06/16/22 23:57	N5Y3	ECL 4
	Instrument ID: GC70B									

Client Sample ID: T221596-09
Date Collected: 06/02/22 00:00
Date Received: 06/06/22 11:22

Lab Sample ID: 570-98589-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			272.5 mL	2.5 mL	240089	06/08/22 21:42	UFLU	ECL 4
Total/NA	Analysis	8015B		1			242036	06/17/22 00:22	N5Y3	ECL 4
	Instrument ID: GC70B									

Laboratory References:

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

Accreditation/Certification Summary

Client: SunStar Laboratories Inc
Project/Site: T221596

Job ID: 570-98589-1

Laboratory: Eurofins Calscience

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

Authority	Program	Identification Number	Expiration Date
California	State	2944	09-30-22
Oregon	NELAP	4175	01-31-23

Method Summary

Client: SunStar Laboratories Inc
Project/Site: T221596

Job ID: 570-98589-1

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

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: SunStar Laboratories Inc
Project/Site: T221596

Job ID: 570-98589-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
570-98589-1	T221596-01	Water	06/02/22 09:20	06/06/22 11:22
570-98589-2	T221596-02	Water	06/02/22 09:05	06/06/22 11:22
570-98589-3	T221596-03	Water	06/02/22 10:15	06/06/22 11:22
570-98589-4	T221596-04	Water	06/02/22 11:00	06/06/22 11:22
570-98589-5	T221596-05	Water	06/02/22 11:10	06/06/22 11:22
570-98589-6	T221596-06	Water	06/02/22 20:00	06/06/22 11:22
570-98589-7	T221596-07	Water	06/02/22 21:45	06/06/22 11:22
570-98589-8	T221596-08	Water	06/02/22 23:25	06/06/22 11:22
570-98589-9	T221596-09	Water	06/02/22 00:00	06/06/22 11:22

SUBCONTRACT ORDER

SunStar Laboratories, Inc.

T221596

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: T221596-01	**Water**	**Sampled:06/02/22 09:20**		
Misc Water Testing #1	06/17/22 00 00	11/29/22 09 20		8015M- Therminol
Containers Supplied				
Sample ID: T221596-02	**Water**	**Sampled:06/02/22 09:05**		
Misc Water Testing #1	06/17/22 00 00	11/29/22 09 05		8015M- Therminol
Containers Supplied				
Sample ID: T221596-03	**Water**	**Sampled:06/02/22 10:15**		
Misc Water Testing #1	06/17/22 00 00	11/29/22 10 15		8015M- Therminol
Containers Supplied				
Sample ID: T221596-04	**Water**	**Sampled:06/02/22 11:00**		
Misc Water Testing #1	06/17/22 00 00	11/29/22 11 00		8015M- Therminol
Containers Supplied				
Sample ID: T221596-05	**Water**	**Sampled:06/02/22 11:10**		
Misc Water Testing #1	06/17/22 00 00	11/29/22 11 10		8015M- Therminol
Containers Supplied				
Sample ID: T221596-06	**Water**	**Sampled:06/02/22 20:00**		
Misc Water Testing #1	06/17/22 00 00	11/29/22 20 00		8015M- Therminol
Containers Supplied				

570-98589 Chain of Custody

Released By	Date	Received By	Date
[signature]	6-6-22	[signature] Olga Oneias	6/6/22 1122
Released By	Date	Received By	Date

1.6/33 IR 93

SUBCONTRACT ORDER

SunStar Laboratories, Inc.

T221596

Analysis	Due	Expires	Laboratory ID	Comments
Sample ID: T221596-07	**Water**	**Sampled:06/02/22 21:45**		
Misc Water Testing #1	06/17/22 00 00	11/29/22 21 45		8015M- Therminol
Containers Supplied				
Sample ID: T221596-08	**Water**	**Sampled:06/02/22 23:25**		
Misc Water Testing #1	06/17/22 00 00	11/29/22 23 25		8015M- Therminol
Containers Supplied				
Sample ID: T221596-09	**Water**	**Sampled:06/02/22 00:00**		
Misc Water Testing #1	06/17/22 00 00	11/29/22 00 00		8015M- Therminol
Containers Supplied.				

Released By	Date	Received By	Date
[signature]	6-6-22 11:22	Olga Mendez	6/6/22 1122
Released By	Date	Received By	Date

16/33 IR 96

SUBCONTRACT ORDER

SunStar Laboratories, Inc.

T221595

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: T221595-01	**Water**	**Sampled:06/02/22 12:00**		
Misc Water Testing #1	06/17/22 00 00	11/29/22 12 00		8015M- Therminol
Containers Supplied.				
Sample ID: T221595-02	**Water**	**Sampled:06/02/22 12:30**		
Misc Water Testing #1	06/17/22 00 00	11/29/22 12 30		8015M- Therminol
Containers Supplied				

Released By	Date	Received By	Date
[signature]	6-6-22 11:22	Olga Oinelas	6/6/22 1122
Released By	Date	Received By	Date

16/33 TR 96

Login Sample Receipt Checklist

Client: SunStar Laboratories Inc

Job Number: 570-98589-1

Login Number: 98589
List Number: 1
Creator: Skinner, Alma D

List Source: Eurofins Calscience

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

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

Chain of Custody Record

Client: Northstar Environmental Remediation _____ Date: 06/03/22 Page: 1 of 1

Address: 26225 Enterprise Court, Lake Forest, CA 92630 _____ Project Name: Genesis Solar Groundwater _____

Phone: 949-274-1719 _____ Fax: _____ Collector: Arlin Brewster _____ Client Project #: 196-004-06 _____

Project Manager: Arlin Brewster _____ Batch #: T221596 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 - Therminol (Subcontract)	Deuterium, Oxygen-18 (Subcont.)	300.0 - Fluoride	Laboratory ID #	Comments/Preservative	Total # of containers
23a	—	—	~~W~~	~~Various~~	X	X	X	X	X	X	X	X	X	X				~~7~~ AWB
AWB TW-1 ~~OBS-1~~	6/2/22	9:20	W	Various	X	X	X	X	X	X	X	X	X	X				7
OBS-1 ~~TW-1~~		9:05	W	Various	X	X	X	X	X	X	X	X	X	X				7
TW-2		10:15	W	Various	X	X	X	X	X	X	X	X	X	X				7
PW-0		11:00	W	Various	X	X	X	X	X	X	X	X	X	X	X			7
PW-2		11:10	W	Various	X	X	X	X	X	X	X	X	X	X	X			7
DM-1		20:00	W	Various	X	X	X	X	X	X	X	X	X	X				7
DM-2		21:45	W	Various	X	X	X	X	X	X	X	X	X	X				7
DM-3	↓	23:25	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)	Date / Time	Received by: (signature)	Date / Time
AWB	06/03/22 @ 1145	[illegible]	6.3.22 1145
Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time
Relinquished by: (signature)	Date / Time	Received by: (signature)	Date / Time

Total # of containers: ~~64~~ 64

Chain of Custody seals Y/N/NA

Seals intact? Y/N/NA

Received good condition/cold: 4.4°c

Turn around time: Standard **

Notes

** Deuterium & Oxygen-18 subcontract has 10 day TAT

Reporting limits must match previous reports

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

Jeff Lee

From: Arlin Brewster <Arlin.Brewster@NorthstarER.com>
Sent: Wednesday, June 29, 2022 1:29 PM
To: Jeff Lee
Subject: Revised COC
Attachments: Revised COC.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Hello Jeff,

Attached is a revised COC for lab report T221596; can you please swap the sample IDs for OBS-1 and TW-1 as I have indicated? As I mentioned earlier, I realized afterwards that I accidentally swapped them in the field. I also need a revised EDF file.

Thank you,

Arlin Brewster, PG
Northstar Environmental Remediation

26225 Enterprise Court
Lake Forest, CA 92630
Cell: (949) 274-1719
WBE, DBE, SBE Certified, CA Lic #827022
www.northstarer.com

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

WORK ORDER

T221596

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: 06/17/22 00:00 (10 day TAT)
Received By: Dave Berner
Date Received: 06/03/22 11:45
Logged In By: Jeff Lee
Date Logged In: 06/03/22 15:01

Samples Received at: **4.4°C**
Custody Seals No
Received On Ice Yes
Containers Intact Yes
COC/Labels Agree Yes
Preservation Confirı Yes

Analysis	Due	TAT	Expires	Comments
T221596-01 OBS-1 [Water] Sampled 06/02/22 09:20 (GMT-08:00) Pacific Time (US &				
1664	06/10/22 15:00	5	06/30/22 09:20	Oil & Grease
200.7	06/10/22 15:00	5	11/29/22 09:20	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	06/10/22 15:00	5	11/29/22 09:20	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	06/10/22 15:00	5	06/30/22 09:20	Chloride,Sulfate only
300.0 - NO2, NO3, PO4	06/10/22 15:00	5	06/04/22 09:20	Nitrate
7470/71 Hg	06/10/22 15:00	5	08/31/22 09:20	
Conductivity	06/10/22 15:00	5	06/30/22 09:20	
pH water SM 4500-H+B	06/08/22 15:00	3	06/03/22 09:20	
TDS-160.1	06/10/22 15:00	5	06/09/22 09:20	
T221596-02 TW-1 [Water] Sampled 06/02/22 09:05 (GMT-08:00) Pacific Time (US &				
1664	06/10/22 15:00	5	06/30/22 09:05	Oil & Grease
200.7	06/10/22 15:00	5	11/29/22 09:05	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	06/10/22 15:00	5	11/29/22 09:05	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	06/10/22 15:00	5	06/30/22 09:05	Chloride,Sulfate only
300.0 - NO2, NO3, PO4	06/10/22 15:00	5	06/04/22 09:05	Nitrate
7470/71 Hg	06/10/22 15:00	5	08/31/22 09:05	
Conductivity	06/10/22 15:00	5	06/30/22 09:05	
pH water SM 4500-H+B	06/08/22 15:00	3	06/03/22 09:05	
TDS-160.1	06/10/22 15:00	5	06/09/22 09:05	

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

WORK ORDER

T221596

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

Analysis	Due	TAT	Expires	Comments
T221596-03 TW-2 [Water] Sampled 06/02/22 10:15 (GMT-08:00) Pacific Time (US &				
1664	06/10/22 15:00	5	06/30/22 10:15	Oil & Grease
200.7	06/10/22 15:00	5	11/29/22 10:15	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	06/10/22 15:00	5	11/29/22 10:15	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	06/10/22 15:00	5	06/30/22 10:15	Chloride,Sulfate only
300.0 - NO2, NO3, PO4	06/10/22 15:00	5	06/04/22 10:15	Nitrate
7470/71 Hg	06/10/22 15:00	5	08/31/22 10:15	
Conductivity	06/10/22 15:00	5	06/30/22 10:15	
pH water SM 4500-H+B	06/08/22 15:00	3	06/03/22 10:15	
TDS-160.1	06/10/22 15:00	5	06/09/22 10:15	
T221596-04 PW-0 [Water] Sampled 06/02/22 11:00 (GMT-08:00) Pacific Time (US &				
1664	06/10/22 15:00	5	06/30/22 11:00	Oil & Grease
200.7	06/10/22 15:00	5	11/29/22 11:00	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	06/10/22 15:00	5	11/29/22 11:00	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	06/10/22 15:00	5	06/30/22 11:00	Fluoride, Chloride,Sulfate only
300.0 - NO2, NO3, PO4	06/10/22 15:00	5	06/04/22 11:00	Nitrate
7470/71 Hg	06/10/22 15:00	5	08/31/22 11:00	
Conductivity	06/10/22 15:00	5	06/30/22 11:00	
pH water SM 4500-H+B	06/08/22 15:00	3	06/03/22 11:00	
TDS-160.1	06/10/22 15:00	5	06/09/22 11:00	
T221596-05 PW-2 [Water] Sampled 06/02/22 11:10 (GMT-08:00) Pacific Time (US &				
1664	06/10/22 15:00	5	06/30/22 11:10	Oil & Grease
200.7	06/10/22 15:00	5	11/29/22 11:10	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	06/10/22 15:00	5	11/29/22 11:10	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	06/10/22 15:00	5	06/30/22 11:10	Fluoride, Chloride,Sulfate only
300.0 - NO2, NO3, PO4	06/10/22 15:00	5	06/04/22 11:10	Nitrate
7470/71 Hg	06/10/22 15:00	5	08/31/22 11:10	
Conductivity	06/10/22 15:00	5	06/30/22 11:10	
pH water SM 4500-H+B	06/08/22 15:00	3	06/03/22 11:10	
TDS-160.1	06/10/22 15:00	5	06/09/22 11:10	

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

WORK ORDER

T221596

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

Analysis	Due	TAT	Expires	Comments
T221596-06 DM-1 [Water] Sampled 06/02/22 20:00 (GMT-08:00) Pacific Time (US &				
1664	06/10/22 15:00	5	06/30/22 20:00	Oil & Grease
200.7	06/10/22 15:00	5	11/29/22 20:00	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	06/10/22 15:00	5	11/29/22 20:00	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	06/10/22 15:00	5	06/30/22 20:00	Chloride,Sulfate only
300.0 - NO2, NO3, PO4	06/10/22 15:00	5	06/04/22 20:00	Nitrate
7470/71 Hg	06/10/22 15:00	5	08/31/22 20:00	
Conductivity	06/10/22 15:00	5	06/30/22 20:00	
pH water SM 4500-H+B	06/08/22 15:00	3	06/03/22 20:00	
TDS-160.1	06/10/22 15:00	5	06/09/22 20:00	
T221596-07 DM-2 [Water] Sampled 06/02/22 21:45 (GMT-08:00) Pacific Time (US &				
1664	06/10/22 15:00	5	06/30/22 21:45	Oil & Grease
200.7	06/10/22 15:00	5	11/29/22 21:45	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	06/10/22 15:00	5	11/29/22 21:45	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	06/10/22 15:00	5	06/30/22 21:45	Chloride,Sulfate only
300.0 - NO2, NO3, PO4	06/10/22 15:00	5	06/04/22 21:45	Nitrate
7470/71 Hg	06/10/22 15:00	5	08/31/22 21:45	
Conductivity	06/10/22 15:00	5	06/30/22 21:45	
pH water SM 4500-H+B	06/08/22 15:00	3	06/03/22 21:45	
TDS-160.1	06/10/22 15:00	5	06/09/22 21:45	
T221596-08 DM-3 [Water] Sampled 06/02/22 23:25 (GMT-08:00) Pacific Time (US &				
1664	06/10/22 15:00	5	06/30/22 23:25	Oil & Grease
200.7	06/10/22 15:00	5	11/29/22 23:25	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	06/10/22 15:00	5	11/29/22 23:25	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	06/10/22 15:00	5	06/30/22 23:25	Chloride,Sulfate only
300.0 - NO2, NO3, PO4	06/10/22 15:00	5	06/04/22 23:25	Nitrate
7470/71 Hg	06/10/22 15:00	5	08/31/22 23:25	
Conductivity	06/10/22 15:00	5	06/30/22 23:25	
pH water SM 4500-H+B	06/08/22 15:00	3	06/03/22 23:25	
TDS-160.1	06/10/22 15:00	5	06/09/22 23:25	

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

WORK ORDER

T221596

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

Analysis	Due	TAT	Expires	Comments
T221596-09 DUP [Water] Sampled 06/02/22 00:00 (GMT-08:00) Pacific Time (US &				
1664	06/10/22 15:00	5	06/30/22 00:00	Oil & Grease
200.7	06/10/22 15:00	5	11/29/22 00:00	Ca,Cu,Na,K,Fe,Mg (Field Filtered)
200.8	06/10/22 15:00	5	11/29/22 00:00	Sb,As,Ba,Cd,Cr,Co,Pb,Ni,Se,Zn (Field Filtered)
300.0 - F, Cl, Br, SO4	06/10/22 15:00	5	06/30/22 00:00	Chloride,Sulfate only
300.0 - NO2, NO3, PO4	06/10/22 15:00	5	06/04/22 00:00	Nitrate
7470/71 Hg	06/10/22 15:00	5	08/31/22 00:00	
Conductivity	06/10/22 15:00	5	06/30/22 00:00	
pH water SM 4500-H+B	06/08/22 15:00	3	06/03/22 00:00	
TDS-160.1	06/10/22 15:00	5	06/09/22 00:00	
T221596-10 FIELD BLANK [Water] Sampled 06/02/22 00:00 (GMT-08:00) Pacific Time (US &				**HOLD**
[NO ANALYSES]				
T221596-11 TRIP BLANK [Water] Sampled 06/02/22 00:00 (GMT-08:00) Pacific Time (US &				**HOLD**
[NO ANALYSES]				
Eurofins Calscience (Tustin)				
T221596-01 OBS-1 [Water] Sampled 06/02/22 09:20 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #1	06/17/22 00:00	10	11/29/22 09:20	8015M- Therminol
T221596-02 TW-1 [Water] Sampled 06/02/22 09:05 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #1	06/17/22 00:00	10	11/29/22 09:05	8015M- Therminol
T221596-03 TW-2 [Water] Sampled 06/02/22 10:15 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #1	06/17/22 00:00	10	11/29/22 10:15	8015M- Therminol
T221596-04 PW-0 [Water] Sampled 06/02/22 11:00 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #1	06/17/22 00:00	10	11/29/22 11:00	8015M- Therminol
T221596-05 PW-2 [Water] Sampled 06/02/22 11:10 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #1	06/17/22 00:00	10	11/29/22 11:10	8015M- Therminol

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

WORK ORDER

T221596

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

Analysis	Due	TAT	Expires	Comments
Eurofins Calscience (Tustin)				
T221596-06 DM-1 [Water] Sampled 06/02/22 20:00 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #1	06/17/22 00:00	10	11/29/22 20:00	8015M- Therminol
T221596-07 DM-2 [Water] Sampled 06/02/22 21:45 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #1	06/17/22 00:00	10	11/29/22 21:45	8015M- Therminol
T221596-08 DM-3 [Water] Sampled 06/02/22 23:25 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #1	06/17/22 00:00	10	11/29/22 23:25	8015M- Therminol
T221596-09 DUP [Water] Sampled 06/02/22 00:00 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #1	06/17/22 00:00	10	11/29/22 00:00	8015M- Therminol
Isotech Laboratories, Inc.				
T221596-01 OBS-1 [Water] Sampled 06/02/22 09:20 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #2	06/17/22 00:00	10	11/29/22 09:20	Deuterium,Oxygen-18
T221596-02 TW-1 [Water] Sampled 06/02/22 09:05 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #2	06/17/22 00:00	10	11/29/22 09:05	Deuterium,Oxygen-18
T221596-03 TW-2 [Water] Sampled 06/02/22 10:15 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #2	06/17/22 00:00	10	11/29/22 10:15	Deuterium,Oxygen-18
T221596-04 PW-0 [Water] Sampled 06/02/22 11:00 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #2	06/17/22 00:00	10	11/29/22 11:00	Deuterium,Oxygen-18
T221596-05 PW-2 [Water] Sampled 06/02/22 11:10 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #2	06/17/22 00:00	10	11/29/22 11:10	Deuterium,Oxygen-18
T221596-06 DM-1 [Water] Sampled 06/02/22 20:00 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #2	06/17/22 00:00	10	11/29/22 20:00	Deuterium,Oxygen-18

SunStar Laboratories, Inc.
PROVIDING QUALITY ANALYTICAL SERVICES NATIONWIDE

WORK ORDER

T221596

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.				
T221596-07 DM-2 [Water] Sampled 06/02/22 21:45 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #2	06/17/22 00:00	10	11/29/22 21:45	Deuterium,Oxygen-18
T221596-08 DM-3 [Water] Sampled 06/02/22 23:25 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #2	06/17/22 00:00	10	11/29/22 23:25	Deuterium,Oxygen-18
T221596-09 DUP [Water] Sampled 06/02/22 00:00 (GMT-08:00) Pacific Time (US &				
Misc Water Testing #2	06/17/22 00:00	10	11/29/22 00:00	Deuterium,Oxygen-18

Reviewed By

Date