TEAM
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Dr. Bob Harrington
Inyo County Water Department
135 South Jackson Street
Independence, CA 93526

May 30, 2013

**RE: Summary of Hydrologic Monitoring Activities May 2013**
Rose Valley, Inyo County, California
Hay Ranch Project Conditional Use Permit #2007-03

Dear Dr. Harrington:

This letter summarizes hydrologic monitoring activities conducted in May 2013 by TEAM Engineering & Management, Inc. (TEAM), related to the Hay Ranch Water Extraction Project and CUP #2007-03.

**Background**

As outlined in the Hay Ranch Water Extraction Final EIR's Hydrologic Monitoring and Mitigation Plan (HMMP), Phase 1: Monitoring System Setup and Supplemental Data Collection occurred prior to December 25, 2009 at monitoring points throughout Rose Valley. With the initiation of pumping by Coso Operating Company (Coso) on December 25, 2009, the Hay Ranch Water Extraction Project entered into the Phase 2: Startup Monitoring and Reporting period. Phase 3: Model Recalibration and Redefinition of Pumping Rates and Durations occurred from September 2010 to April 2011, with recalibration of the groundwater model by Daniel B. Stephens & Associates (DBS&A) and with redefinition of pumping rates and durations by Inyo County Water Department (ICWD). With the April 1, 2011 issuance of the ICWD's "Addendum to the HMMP for CUP#2007-003/Coso Operating Company, LLC" (2011 ICWD Addendum) the project has entered Phase 4: Ongoing Monitoring, Mitigation and Reporting.

**Monitoring and Reporting**

During the May 2013 monthly hydrologic data collection event at 30 monitoring locations in the Rose Valley area, static depth-to-water (DTW) measurements, one visual observation of the Little Lake Ranch (LLR) Siphon Well Outflow and four sets of flow rates were collected by TEAM, as summarized in the attached table (Table 1). Data for this monthly field event was collected on May 15 and 16. Pressure transducer data was downloaded from 24 units, including one "BaroTroll" measuring barometric pressure. On May 7, a DTW measurement at LADWP 816 Well was taken by LADWP personnel.

At the Hay Ranch Property, Coso has pumped groundwater from two production wells: Hay Ranch North and Hay Ranch South. From December 25, 2009 to December 31, 2010, a total of approximately 3067 acre feet (AF) of groundwater were extracted from these two wells (850 AF from the Hay Ranch North Well, and 2217 AF from the Hay Ranch South Well).

For the second and third years of project pumping, January 1, 2011 to January 1, 2013, a total of approximately 6832 AF of groundwater were extracted from the Hay Ranch property (3193 AF from the Hay Ranch North Well, and 3715 AF from the Hay Ranch South Well).

For the current year of project pumping, January 1, 2013 to May 15, 2013, a total of approximately 1132 AF of groundwater were extracted from the Hay Ranch property (1084 AF from the Hay Ranch North Well, and 49 AF from the Hay Ranch South Well).

Figure 1 presents the combined amount of groundwater pumped from the Hay Ranch North and South wells, in acre feet, from December 25, 2009 through May 16, 2013 compared to a hypothetical pumping amount. The total amount of groundwater extracted from the Hay Ranch property from December 25, 2009 to May 15, 2013 (Hay Ranch CUP project total) is approximately 11,031 AF. The hypothetical pumping amount assumes a pumping rate of approximately 3000 acre-feet per year (AFY) for December 25, 2009 through December 31, 2010 and assumes a pumping rate of approximately 4839 AFY from January 1, 2011 through September, 2013. These hypothetical pumping rates represent the maximum allowable pumping amounts for the 2010-2013 periods.

**Trigger Levels and Maximum Acceptable Drawdowns**

In Table 2 of the 2011 ICWD Addendum, drawdown at cessation of pumping trigger levels (Trigger Levels) have been set for specific monitoring wells based on an annual pumping rate of 4839 AFY.

Based on the manual DTW data collected by TEAM on May 16, 2013, the Trigger Level for the Little Lake Ranch (LLR) North Well (RV180) has been exceeded. The baseline groundwater elevation (GWE) for LLR North, set by Inyo County Water Department in January 2010, is 3158.88 feet. The GWE at LLR North as measured at 10:30 on May 16 was 3158.87 feet. The Trigger Level for LLR North is 0.00 feet. The LLR North GWE has decreased by 0.01 feet compared to its baseline, exceeding its Trigger Level by 0.01 feet (Table 2). The May 16 LLR North GWE was 1.29 feet above its Maximum Acceptable Drawdown level. ICWD was notified of this exceedance in a timely manner.

Based on data collected by TEAM during the May 2013 monitoring event, no other Trigger Levels or Maximum Acceptable Drawdowns have been exceeded at Hay Ranch Project monitoring wells which have baselines and trigger levels established.

**Operational Notes**

There were no significant operational notes during the April to May 2013 period.

**Data Transmittal**

TEAM posted updates to the "Coso" database on the ICWD web server. New Hay Ranch Project hydrographs in PDF form were uploaded to the ICWD website (www.inyowater.org).

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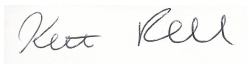
If you have any questions or require additional information, please contact TEAM at your convenience.

Sincerely,

TEAM Engineering & Management, Inc.



Keith Rainville
Staff Geologist

S:\Coso.HRMonitoring Summary_May_13

# TABLE 1
## Field Observations of Rose Valley Hydrologic Monitoring Points
## May 15-16, 2013

| | | |
|---|---|---|
| Project Name: | **Hay Ranch Project HMMP** | Date: May 15-16, 2013 |
| Location: | **Rose Valley, Inyo County** | |
| Observer(s): | K. Rainville | Page: 1 of 1 |

| Well ID | Monitoring Point | Date | Time | DTW (ft) | Flow (cfs) | GWE (ft amsl) | Method | Transducer Log Interval | Notes |
|---|---|---|---|---|---|---|---|---|---|
| RV-10 | Dews | 05/15/13 | 14:00 | 231.46 | | 3755.46 | TEAM manual read | NA | |
| RV-20 | LADWP 816 | 05/07/13 | 12:56 | 74.71 | | 3440.35 | LADWP manual read | NA | Data provided by LADWP |
| RV-30 | Cal Pumice | 05/15/13 | 10:30 | 260.20 | | 3245.69 | TEAM manual read | Hourly | |
| RV-40 | Dunmovin | 05/16/13 | 9:00 | 305.75 | | 3242.12 | TEAM manual read | NA | |
| RV-50 | Hay Ranch North | 05/15/13 | 11:33 | NM | Yes | NM | TEAM manual read | NA | 1,660,940,059 gallons (5097 AF) pumped since 12/25/09 |
| RV-60 | Hay Ranch 1A | 05/15/13 | 11:41 | 200.45 | | 3231.72 | TEAM manual read | Hourly | |
| RV-61 | Hay Ranch 1B | 05/15/13 | 11:46 | 232.65 | | 3199.20 | TEAM manual read | Hourly | |
| RV-62 | Hay Ranch 1C | 05/15/13 | 11:52 | 227.80 | | 3203.70 | TEAM manual read | Hourly | |
| RV-70 | Hay Ranch South | 05/15/13 | 11:32 | NM | No | NM | TEAM manual read | NA | 1,933,405,847 gallons (5933 AF) pumped since 12/25/09 |
| RV-80 | Hay Ranch 2A | 05/15/13 | 12:15 | 201.12 | | 3231.88 | TEAM manual read | Hourly | |
| RV-81 | Hay Ranch 2B | 05/15/13 | 12:10 | 223.80 | | 3208.83 | TEAM manual read | Hourly | |
| RV-82 | Hay Ranch 2C | 05/15/13 | 12:05 | 214.84 | | 3217.26 | TEAM manual read | Hourly | |
| RV-90 | Coso Jct Ranch | 05/15/13 | 10:40 | 173.80 | | 3229.33 | TEAM manual read | Hourly | |
| RV-100 | Coso Jct Store #1 | 05/15/13 | 10:55 | 146.74 | | 3225.38 | TEAM manual read | Hourly | |
| RV-110 | Davis Ranch North Well | 05/16/13 | 11:55 | 6.54 | | 3886.52 | TEAM manual read | Hourly | |
| RV-111 | Davis Ranch South Well | 05/16/13 | 12:05 | 11.31 | | 3886.75 | TEAM manual read | Hourly | |
| RV-112 | Davis Ranch South Flow | 05/16/13 | 12:15 | NA | 0.01 | NA | TEAM manual read | Hourly | |
| RV-120 | Red Hill Well (BLM) | 05/15/13 | 11:10 | 139.96 | | 3200.87 | TEAM manual read | Hourly | |
| RV-130 | G-36 | 05/15/13 | 13:27 | 180.88 | | 3199.14 | TEAM manual read | NA | |
| RV-140 | Lego | 05/15/13 | 13:20 | 222.82 | | 3200.03 | TEAM manual read | Hourly | Well unavailible during April field event |
| RV-150 | Cinder Road | 05/15/13 | 12:40 | 191.16 | | 3186.80 | TEAM manual read | Hourly | |
| RV-160 | 18-28 GTH | 05/15/13 | 13:05 | 173.95 | | 3188.63 | TEAM manual read | Hourly | Well unavailible during April field event |
| RV-170 | Fossil Falls Campground | 05/15/13 | 12:55 | 141.28 | | 3175.49 | TEAM manual read | NA | |
| RV-180 | LLR North Well | 05/16/13 | 10:30 | 40.23 | | 3158.87 | TEAM manual read | Hourly | |
| RV-210 | LLR Dock Well | 05/16/13 | 10:40 | 6.05 | | 3148.09 | TEAM manual read | Hourly | |
| RV-220 | LLR Stilling Well (lake surface) | 05/16/13 | 10:47 | 3.47 | | 3147.57 | TEAM manual read | Hourly | |
| RV-230 | LLR Little Lake Outflow | 05/16/13 | 11:20 | NA | 0.01 | NA | TEAM manual read | Hourly | |
| RV-240 | LLR Coso Springs Flow | 05/16/13 | 11:05 | NA | 0.36 | NA | TEAM manual read | Hourly | |
| RV-245 | LLR North Culvert Flow | 05/16/13 | 11:25 | NA | 1.57 | NA | TEAM manual read | Hourly | |
| RV-250 | LLR Siphon Discharge | 05/16/13 | 11:15 | NA | Yes | NA | TEAM visual read | NA | Siphon Well flowing into Pond 2 |
| RV-260 | LLR Hotel Well | 05/16/13 | 10:15 | 0.28 | | 3138.50 | TEAM manual read | Hourly | |

NM - not measured; NA - not applicable; IO - Inoperative; UA - Data currently unavailable

DTW - Depth to water in feet (ft) below top of casing or other reference point; a negative DTW indicates that the groundwater elevation is above the surveyed reference point

Flow - In cubic feet per second (cfs)

GWE- Groundwater elevation in feet above mean sea level (ft amsl)

# TABLE 2
## Hay Ranch Project Groundwater Baselines and Trigger Levels
## May 2013

| Well ID | Monitoring Point | Baseline GWE[1] (feet amsl) | Recent Date of Measurement | Recent GWE (feet amsl) | Recent GWE Compared to Baseline (feet) | Recent GWE Above Max DD[2] (feet) | Trigger Level At Cessation of Pumping[3] (feet) | Recent GWE Compared to Trigger Level (feet) |
|---|---|---|---|---|---|---|---|---|
| RV-40 | Dunmovin | 3252.73 | 05/16/13 | 3242.12 | -10.61 | 12.69 | 23.2 | 12.59 |
| RV-80 | HR 2A | 3240.92 | 05/15/13 | 3231.88 | -9.04 | 18.56 | 27.6 | 18.56 |
| RV-90 | Coso Jct Ranch | 3230.65 | 05/15/13 | 3229.33 | -1.32 | 10.38 | 11.3 | 9.98 |
| RV-100 | Coso Jct Store #1 | 3227.59 | 05/15/13 | 3225.38 | -2.21 | 7.89 | 9.5 | 7.29 |
| RV-120 | Red Hill Well | 3200.66 | 05/15/13 | 3200.87 | 0.21 | 4.11 | 1.8 | 2.01 |
| RV-130 | G-36 | 3198.35 | 05/15/13 | 3199.14 | 0.79 | 4.19 | 1.0 | 1.79 |
| RV-140 | Lego | 3199.21 | 05/15/13 | 3200.03 | 0.82 | 3.12 | 0.0 | 0.82 |
| RV-150 | Cinder Road | 3186.92 | 05/15/13 | 3186.80 | -0.12 | 2.18 | 0.2 | 0.08 |
| RV-160 | 18-28 GTH | 3187.67 | 05/15/13 | 3188.63 | 0.96 | 3.06 | 0.0 | 0.96 |
| RV-180 | LLR North Well | 3158.88 | 05/16/13 | 3158.87 | -0.01 | 1.29 | 0.0 | -0.01 |

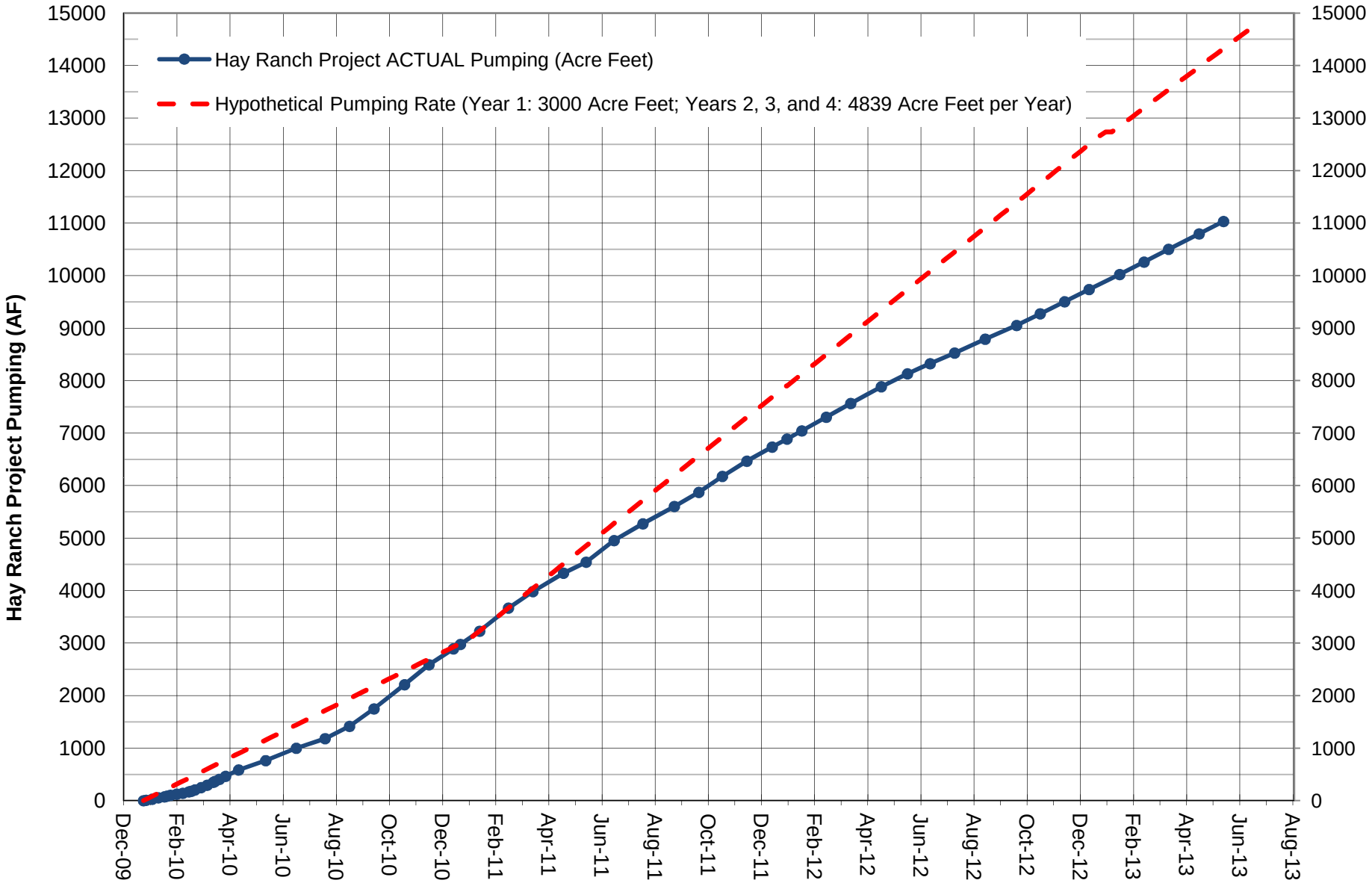
1) GWE: Groundwater elevation measured in feet above mean sea level. Baseline GWEs set January 2010 and March 2011 and approved by Inyo County Water Department

2) Max DD: Maximum Acceptable Drawdown from Table 2 of "Addendum to HMMP for CUP#2007-003/Coso Operating Company, LLC"

3) Trigger Level at Cessation of Pumping from Table 2 of "Addendum to HMMP for CUP#2007-003/Coso Operating Company, LLC"

**FIGURE 1**

HYPOTHETICAL AND ACTUAL HAY RANCH PROJECT PUMPING




Note: Coso Operating Co. initiated Hay Ranch Project pumping on 12/25/09.
The "hypothetical pumping rate" is based on a pumping rate of 3000 AF per year for 12/25/09 to 12/31/10, and 4839 AF per year for 2011 and 2012.

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5/17/2013