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Lahontan Regional Water Quality Control Board

**MEMORANDUM**

**TO:** MIKE PLAZIAK  
Supervising Engineering Geologist

**FILE:** General – Hinkley Residential  
Wells 2014-2015

**FROM:** GHASEM POUR-GHASEMI *GP*  
Water Resources Control Engineer

**DATE:** August 6, 2015

**SUBJECT: RESIDENTIAL DRINKING WATER WELL SAMPLING IN HINKLEY AREA**

This report outlines the results of residential water well sampling events conducted between June 26, 2014 and April 15, 2015 in the Hinkley area of San Bernardino County. A total of 42 residential wells were sampled at 41 different locations within this time frame. This study was conducted to gather information on the quality of groundwater in the areas of Hinkley most affected by agricultural and confined animal facility operations. The main goal was to determine, as best as possible, which residences could be affected by drinking water that is above the primary and secondary Maximum Contaminant Levels (MCLs) for nitrate and total dissolved solids (TDS) which are primarily caused by this type of operation. This memorandum provides results of data collected from individual residences.

### Background

The sampling was initiated to collect data to assess whether residential well water quality exceeded the drinking water MCLs. For groundwater having a designated municipal beneficial use, the drinking water standards (MCLs) are also the water quality objectives described in the Basin Plan, Chapter 3.

For many years the Pacific Gas and Electric Company (PG&E) supplied replacement water to many Hinkley area residents. In the summer 2014, the state adopted a new drinking water standard for chromium VI. As a result, PG&E stopped supplying water to residents whose wells met the new chromium VI drinking water standard. The Water Board began assessing residential wells to establish whether constituents other than chromium VI, including nitrate, met drinking water standards.

### Study Areas

The sampling locations were chosen due to their proximity to several agricultural operations and dairies, current and former, located in the Hinkley area. The main areas of concentration were southeast, northwest and northeast of Hinkley as shown on Figure 1 (areas 1, 2, and 3). The groundwater quality in Southwest Hinkley was not affected by the above mentioned operations. Staff canvassed residents starting with Area 1 and continuing to Area 2 and Area 3. A Field Sampling and Analysis Plan was prepared and followed (Attachment A) during the collection of samples.

Samples were gathered from each resident who signed an authorization letter allowing Water Board staff to collect samples from their residential well, see Figures (2, 3, 4). The samples were analyzed for nitrate, general minerals, and metals by Babcock Labs in Riverside, California. The results of the samples were reviewed by Water Board staff. The results of these analyses were then mailed to each residence with a letter informing them of the status of their water, whether it was good to drink or if some elements exceeded the primary or the secondary drinking water MCLs.

The results were then uploaded via Babcock Labs to the State Board's GAMA/GeoTracker database. The GAMA global ID number for each site is recorded on the first two pages of the Attachment B.

## **Dairies**

Within the study area there are two existing dairies (Harmsen and Hinkley), and three operating heifer ranches (DVD Heifer Ranch, Alamo Mucho Ranch, and Green Valley Farms). There are also several historical dairy and heifer ranches within the study area.

## **Water Quality Objective**

For the purpose of this study we only compiled data for the primary drinking water MCLs, secondary drinking water MCLs, and agricultural water quality objectives (WQO). The compendium of numerical water quality thresholds can be found at:

[http://www.waterboards.ca.gov/water\\_issues/programs/water\\_quality\\_goals/](http://www.waterboards.ca.gov/water_issues/programs/water_quality_goals/)

## **Sample Results**

The results are shown in Attachment B. As shown in yellow, the primary drinking water MCLs were exceeded in 10 wells for nitrate, eight wells for arsenic, one well for total chromium, one well for lead, and one well for mercury. As also shown in yellow, the secondary drinking water MCLs (SMCL) were exceeded in 25 wells for TDS, four wells for chloride, 21 wells for electrical conductivity, nine wells for iron, four wells for manganese, and three wells for sulfate. As shown in orange, the agricultural WQO were exceeded in four wells for molybdenum, 30 wells for sodium, 23 wells for chloride, and 26 wells for TDS. All other constituents analyzed were below water quality objectives.

As Attachment B indicates, one well (Hin-31) was sampled twice to establish whether the initial data were correct. The initial samples taken on February 11, 2015 were murky water from the bottom of the storage tank, because the well went dry during the purging. Staff believes this well site has an old rusty pressure tank causing elevated concentrations for some constituents and may need to be replaced. Second round of samples which were taken on April 15, 2015 are more reliable since we did not purge well long and samples were obtained before the well went dry. Therefore, data results from April 15, 2015 are used for comparison.

The results of the analyses for sampled wells exceeding MCL, SMCL, and WQO are as follows:

### Nitrate (as N)

All wells that exceeded the nitrate (as N) MCL from the sampling events are shown in Table B, below. The MCL for nitrate (as N) is 10 mg/L. Ten of the 41 sampling events exceeded the MCL in a range from 11 mg/L to 32 mg/L. See Figures 2, 3, and 4 for the location of these wells.

Hin-2	12 mg/L	Hin-6	12 mg/L	Hin-32	32 mg/L
Hin-3	16 mg/L	Hin-11	23 mg/L	Hin-37	14 mg/L
Hin-4	14 mg/L	Hin-21	12 mg/L		
Hin-5	12 mg/L	Hin-31	11 mg/L		

### TDS

All wells that exceeded the TDS SMCL from the sampling events are shown in Table H, below. The SMCL for TDS had three parts; a recommended limit of 500 mg/L, an upper limit of 1,000 mg/L, and a short term limit of 1,500 mg/L. Twenty five of the 41 sampling events exceeded the SMCL in a range from 510 mg/L to 4300 mg/L. The WQO for TDS is 450 mg/L. Twenty six of the 41 sampling events exceeded the WQO. See Figure 5 for the location of these wells

Hin-1	840 mg/L	Hin-15	560 mg/L	Hin-30	530 mg/L
Hin-2	740 mg/L	Hin-17	2300 mg/L	Hin-31	2700 mg/L
Hin-3	800 mg/L	Hin-18	670 mg/L	Hin-32	4300 mg/L
Hin-4	870 mg/L	Hin-21	690 mg/L	Hin-34	690 mg/L
Hin-5	830 mg/L	Hin-22	1700 mg/L	Hin-37	1000 mg/L
Hin-6	1000 mg/L	Hin-23	590 mg/L	Hin-38	640 mg/L
Hin-11	710 mg/L	Hin-26	690 mg/L	Hin-41	620 mg/L
Hin-13	520 mg/L	Hin-27	510 mg/L		
Hin-14	760 mg/L	Hin-28	620 mg/L		

### Other Elements that Exceeded Primary MCLs for Drinking Water

#### Arsenic

All wells that exceeded the arsenic MCL from the sampling events are shown in Table A, below. The MCL for arsenic is 10 µg/L. Eight of the 41 sampling events exceeded the MCL in a range from 11 µg/L to 110 µg/L (see Attachment B). See Figure 6 for the location of these wells.

Hin-16	14 µg/L	Hin-23	11 µg/L	Hin-39	110 µg/L
Hin-18	11 µg/L	Hin-27	26 µg/L	Hin-40	110 µg/L
Hin-22	15 µg/L	Hin-33	19 µg/L		

#### Lead

There was only one well that exceeded the lead MCL limit during the sampling events. The MCL for lead is 15 µg/L and Hin-4 had a value of 30 µg/L.

### Mercury

One well (Hin-17) exceeded the mercury MCL limit during the sampling events. The MCL for mercury is 2 µg/L and Hin-17 had a value of 20 µg/L. It is unknown why mercury level is so high in this well. This well is one of the two wells in a mobile home park located on the west side of Hinkley along Highway 58 that we sample. The other well, Hin-18 is located near Highway 58 and approximately 1,000 feet south of Hin-17, with a mercury value of 0.4 µg/L. Other values such as TDS, chloride, and sodium are much higher in Hin-17 than Hin-18. However, iron value for Hin-18 is much higher than Hin-17 (see values on Attachment B).

### Total Chromium

One well (Hin-31) exceeded the Total chromium MCL limit during one sampling events. The MCL for Total Chromium is 50 µg/L and samples taken on February 11, 2015 from Hin-31 had a value of 80 µg/L. Total chromium from samples taken on April 15, 2015 was less than 20 µg/L which is below the MCL. As stated previously, data from the sampling on February 11, 2015 are suspect, the well dried up during the purging and murky water was collected from the water in the storage tank. Therefore, there may not be a MCL total chromium problem as results from April 15, 2015 indicates.

### Other Elements that Exceeded Secondary MCLs (SMCL) for Drinking Water

#### Chloride

All wells that exceeded the chloride SMCL from the sampling events are shown in Table C, below. The SMCL for chloride has three parts; a recommended limit of 250 mg/L, an upper limit of 500 mg/L, and a short term limit of 600 mg/L. Four of the 41 sampling events exceeded the SMCL in a range from 410 mg/L to 1100 mg/L. The agricultural WQO for chloride is 106 mg/L. Another eighteen of the 41 sampling events exceeded the agricultural WQO in a range from 110 mg/L to 200 mg/L.

Hin-17	1100 mg/L	Hin-22	410 mg/L	Hin-31	660 mg/L
Hin-32	950 mg/L				

#### Electrical Conductivity

All wells that exceeded the electrical conductivity SMCL from the sampling events are shown in Table D below. The SMCL for electrical conductivity has three parts; a recommended limit of 900 µS/cm, an upper limit of 1,600 µS/cm, and a short term limit of 2,200 µS/cm. Twenty one of the 41 sampling events exceeded the SMCL in a range from 910 µS/cm to 5300 µS/cm.

Table D – Electrical Conductivity Exceedances

Hin-1	1300 µS/cm	Hin-15	910 µS/cm	Hin-32	5300 µS/cm
Hin-2	1100 µS/cm	Hin-17	4000 µS/cm	Hin-34	1100 µS/cm
Hin-3	1200 µS/cm	Hin-18	1200 µS/cm	Hin-37	1500 µS/cm
Hin-4	1300 µS/cm	Hin-21	1100 µS/cm	Hin-38	990 µS/cm
Hin-5	1200 µS/cm	Hin-22	2800 µS/cm	Hin-41	960 µS/cm
Hin-6	1500 µS/cm	Hin-26	990 µS/cm		
Hin-11	1100 µS/cm	Hin-28	1000 µS/cm		
Hin-14	1200 µS/cm	Hin-31	3300 µS/cm		

## Iron

All wells that exceeded the iron SMCL from the sampling events are shown in Table E, below. The SMCL for iron is 300 µg/L. Nine of the 41 sampling events exceeded the SMCL in a range from 370 µg/L to 5300 µg/L.

Table E – Iron Exceedances

Hin-16	1300 µg/L	Hin-31	2300 µg/L	Hin-41	5300 µg/L
Hin-18	1200 µg/L	Hin-34	1400 µg/L		
Hin-21	370 µg/L	Hin-35	1300 µg/L		
Hin-23	900 µg/L	Hin-36	550 µg/L		

## Manganese

All wells that exceeded the manganese SMCL from the sampling events are shown in Table F, below. The SMCL for manganese is 50 µg/L. Four of the 41 sampling events exceeded the SMCL in a range from 54 µg/L to 260 µg/L.

Table F – Manganese Exceedances

Hin-31	54 µg/L	Hin-36	140 µg/L	Hin-41	260 µg/L
Hin-35	80 µg/L				

## Sulfate

All wells that exceeded the sulfate SMCL from the sampling events are shown in Table G, below. The SMCL for sulfate had three parts; a recommended limit of 250 mg/L, an upper limit of 500 mg/L, and a short term limit of 600 mg/L. Three of the 41 sampling events exceeded the SMCL in a range from 550 mg/L to 1400 mg/L.

Table G – Sulfate Exceedances

Hin-22	600 mg/L	Hin-32	1400 mg/L	Hin-31	550 mg/L
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**Other Elements that Exceeded Agricultural WQO Limits for Drinking Water**

**Molybdenum**

All wells that exceeded the molybdenum WQO from the sampling events are shown in Table I, below. The agricultural WQO for molybdenum is 10 µg/L. Four of the 41 sampling events exceeded the WQO in a range from 10 µg/L to 40 µg/L.

Hin-17 33 µg/L	Hin-22 20 µg/L	Hin-27 10 µg/L
Hin-18 40 µg/L		

**Sodium**

All wells that exceeded the sodium WQO from the sampling events are shown in Table J, below. The agricultural WQO for sodium is 69 mg/L. Thirty of the 41 sampling events exceeded the WQO in a range from 74 mg/L to 610 mg/L.

Hin-1 140 mg/L	Hin-17 610 mg/L	Hin-31 200 mg/L
Hin-2 97 mg/L	Hin-18 180 mg/L	Hin-32 480 mg/L
Hin-3 130 mg/L	Hin-21 150 mg/L	Hin-33 120 mg/L
Hin-4 130 mg/L	Hin-22 510 mg/L	Hin-34 120 mg/L
Hin-5 94 mg/L	Hin-23 110 mg/L	Hin-37 140 mg/L
Hin-6 150 mg/L	Hin-26 100 mg/L	Hin-38 81 mg/L
Hin-11 93 mg/L	Hin-27 150 mg/L	Hin-39 97 mg/L
Hin-13 74 mg/L	Hin-28 110 mg/L	Hin-40 100 mg/L
Hin-14 140 mg/L	Hin-29 140 mg/L	Hin-41 130 mg/L
Hin-15 88 mg/L	Hin-30 96 mg/L	
Hin-16 120 mg/L		

**Conclusions**

Overall, 19 of the 41 sampled wells did not meet primary drinking water requirements for one or more elements. Of the 19 residential wells exceeding primary MCLs, 10 exceeded the MCL for nitrate. Cleanup and Abatement Orders issued to four dairies required these dairies to provide bottled water to eight of the 10 residences whose wells did not meet drinking water standards for nitrate. As of the date of this memo, only five of the eight residents receive bottled water. Of the other three residential properties not being provided bottled water by the dairies, two are unoccupied and one is used by PG&E. Hin-3 is owned by the California Department of Transportation. Hin-4, and Hin-32 are owned by PG&E. Hin-3 and Hin-4 structures are scheduled for removal and may have already been removed. Hin-32 is owned and operated by PG&E, and PG&E provides bottled water to their employees.

Of the two remaining occupied residential sites with nitrate above the MCL and not receiving replacement water (Hin-21, Hin-37); Hin-37 is next to a historical dairy site and Hin-21 is located next to several other residential wells that we have sampled and did not show nitrate above the MCL. It is possible that Hin-21 has not been influenced by the dairy or agricultural operations

because the water quality observed in residential wells surrounding and upgradient of Hin-21 is below the nitrate MCL.

See the table below for a list of residents provided bottled water by the four dairies and other residents whose well water was above the primary MCLs and are not being provided bottled water:

<b>Dairy providing bottled water for residents with nitrate above MCL</b>	<b>Site Name</b>
Harmsen Dairy	Hin-2, Hin-5, Hin-6
Hinkley Dairy	Hin-11
Former DVD Dairy (new DVD Heifer Ranch)	Hin-31
<b>Structure owned by PG&amp;E with nitrate above MCL</b>	Hin-32
<b>Structures scheduled for removal with nitrate above MCL</b>	Hin-3, Hin-4
<b>Dairy providing bottled water for residents with TDS above SMCL</b>	
Former DVD Heifer Ranch	Hin-26
<b>Site name of residents with nitrate above MCL <u>not</u> receiving bottled water</b>	
Hin-21, Hin- 37	
<b>Site name of residential wells exceeding primary MCLs <u>excluding nitrate</u>, that are <u>not</u> receiving bottled water</b>	
Hin-16, Hin-17, Hin-18, Hin-22, Hin-23, Hin-27, Hin-33, Hin-39, Hin-40	

Of the 41 sampled wells, 25 did not meet secondary drinking water requirements for TDS. Eight of the residential wells with high TDS value also exhibit high nitrates and therefore, well owners are provided bottled water by the dairies and PG&E. Former DVD Heifer Ranch provides bottled water to an additional resident (Hin-26) that does not have nitrate over the MCL, but has TDS over the SMCL. The CAO issued to this heifer ranch and two other dairies in Hinkley requires them to provide bottled water if TDS is over the SMCL and background limit.

There are nine residential wells, with primary MCLs above the drinking water standards not related to nitrate. Eight of these residential wells exceed MCLs for arsenic and one exceeded the mercury MCL. Seven of the eight wells with an arsenic limit above the MCL are located on the north and northeast of Hinkley and one is located on the west side of Hinkley. It is unclear if the arsenic problem in the groundwater in these areas is naturally occurring or from a source other than agricultural or confined animal activity.

Well (Hin-17) with a high mercury problem (20 µg/L) is on the west side of Hinkley about 1000 feet north of well (Hin-18) on the same property with a mercury level of 0.4 µg/L. It is unknown why mercury is so high in one well but not in the other. The samples were taken from well heads at both sites and there was no comingling of well water with stored water in the tanks.

In summary, there are 11 residences with primary MCLs above the drinking water standards for nitrate, mercury, and arsenic that are not receiving bottled water. They were informed by the Water Board via written correspondence that their wells do not meet drinking water standards. At this time, there is no further Water Board action planned to address the arsenic pollution as the arsenic is likely to be naturally occurring.

Of the 41 sampled wells, 26 wells did not meet primary and/ or secondary MCLs. Only 15 of the 41 sampled wells met all the MCLs and the SMCLs.

From the information gathered and the attached figures, it appears that residential wells next to dairies, confined animal facilities, and agricultural sites have elevated nitrate and TDS problems. However, there are other sites such as Hin-17 and Hin-18 that are far away from any agricultural and dairy activities with TDS concentrations of 2300 mg/L and 670 mg/L respectively. The residential wells on the northern portion of the study areas, on the northwest and northeast of Hinkley, have high levels of arsenic but the source is unknown. A more detailed study is required in order to find out who or what is the cause of the high concentrations of some elements in Hinkley groundwater. It would be prudent to coordinate Water Board findings in this study with the imminent USGS groundwater study in Hinkley, which hopefully will define the groundwater movement due to different activities taking place within the Hinkley area and sources of high concentration of certain elements in the groundwater.

## **Enclosures**

Figure 1 – Study Map

Figure 2 – nitrate

Figure 3 – nitrate

Figure 4 – nitrate

Figure 5 – TDS

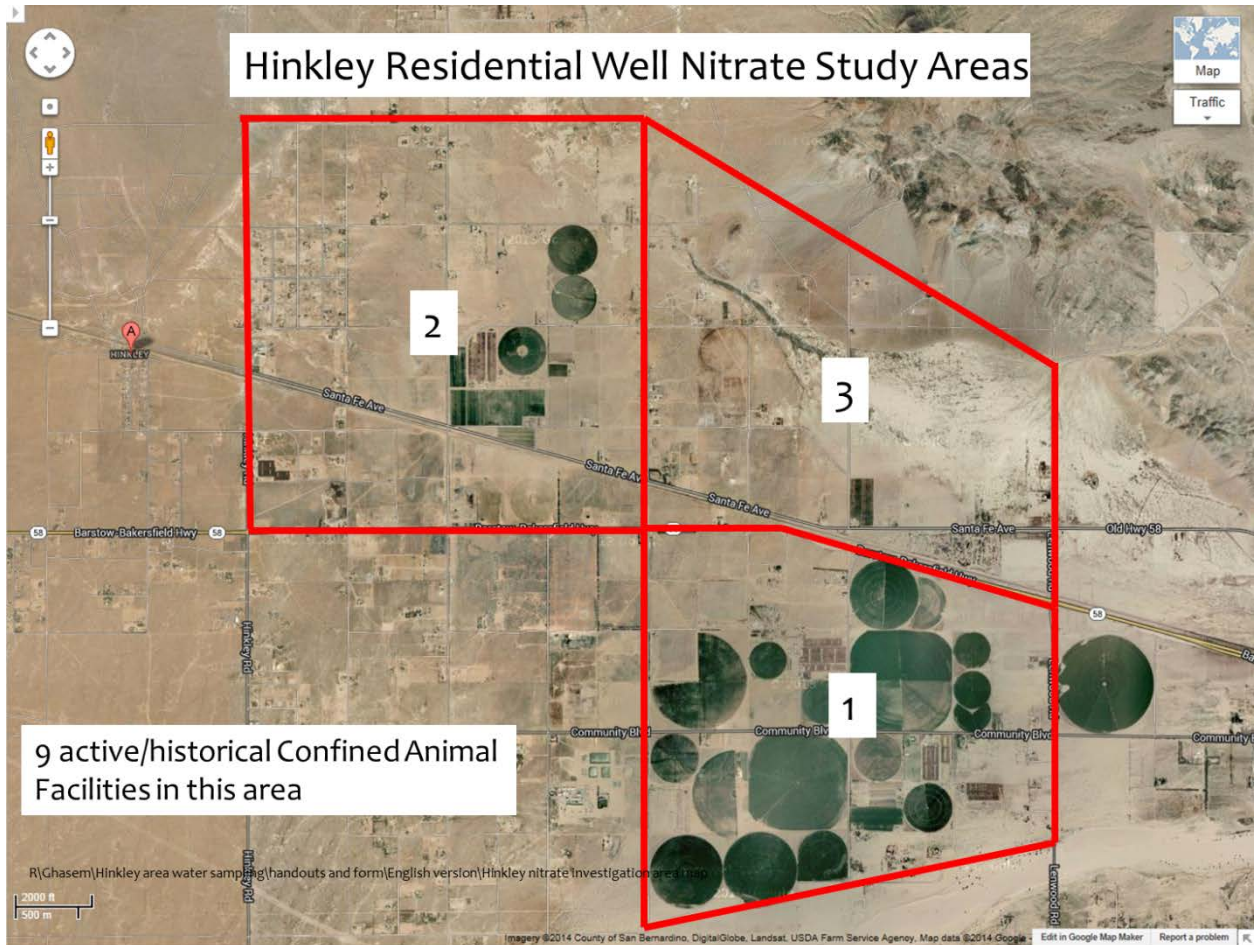
Figure 6 – Arsenic

Attachment A - Field Sampling Plan

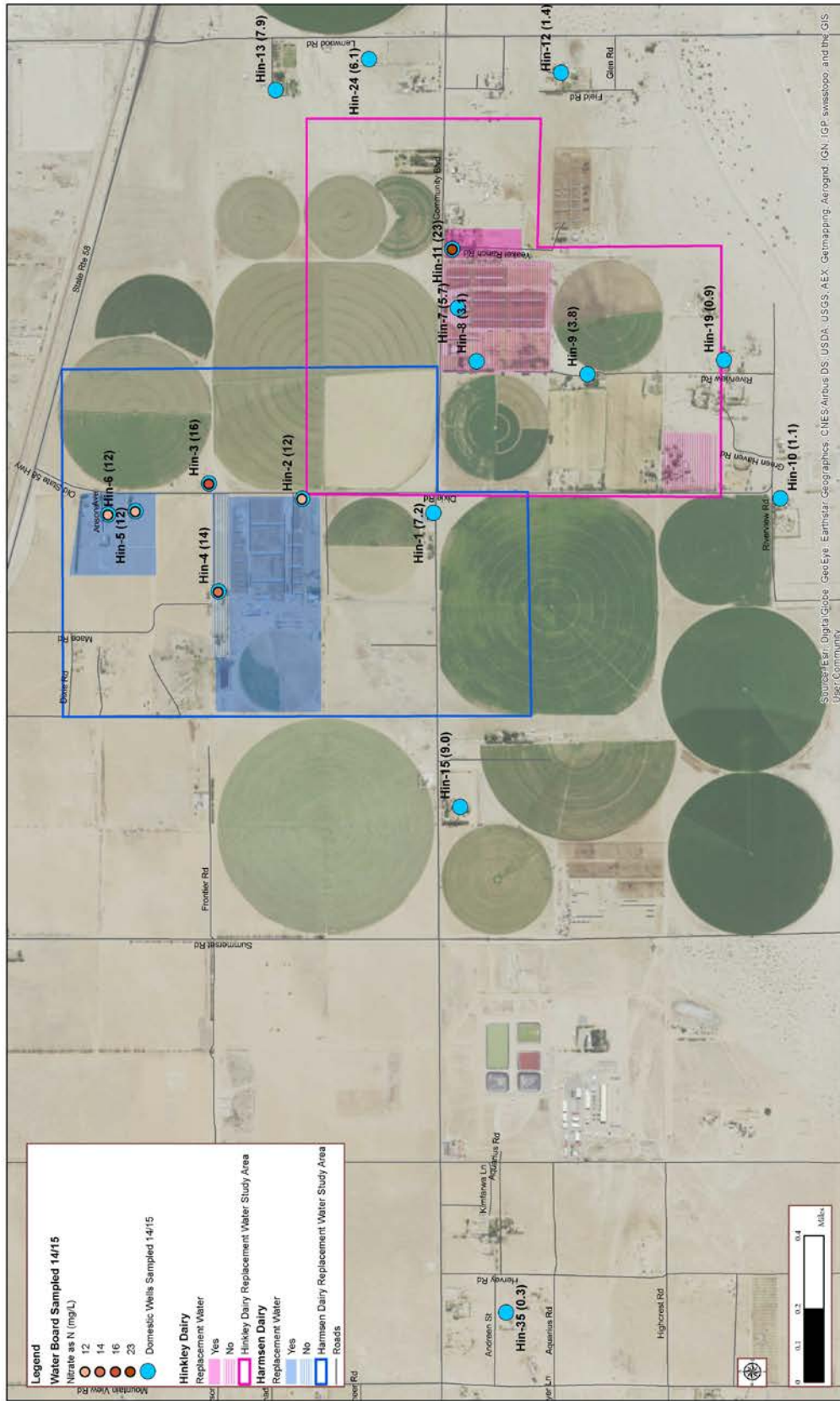
Attachment B – Results



Figure 1 – Study Map

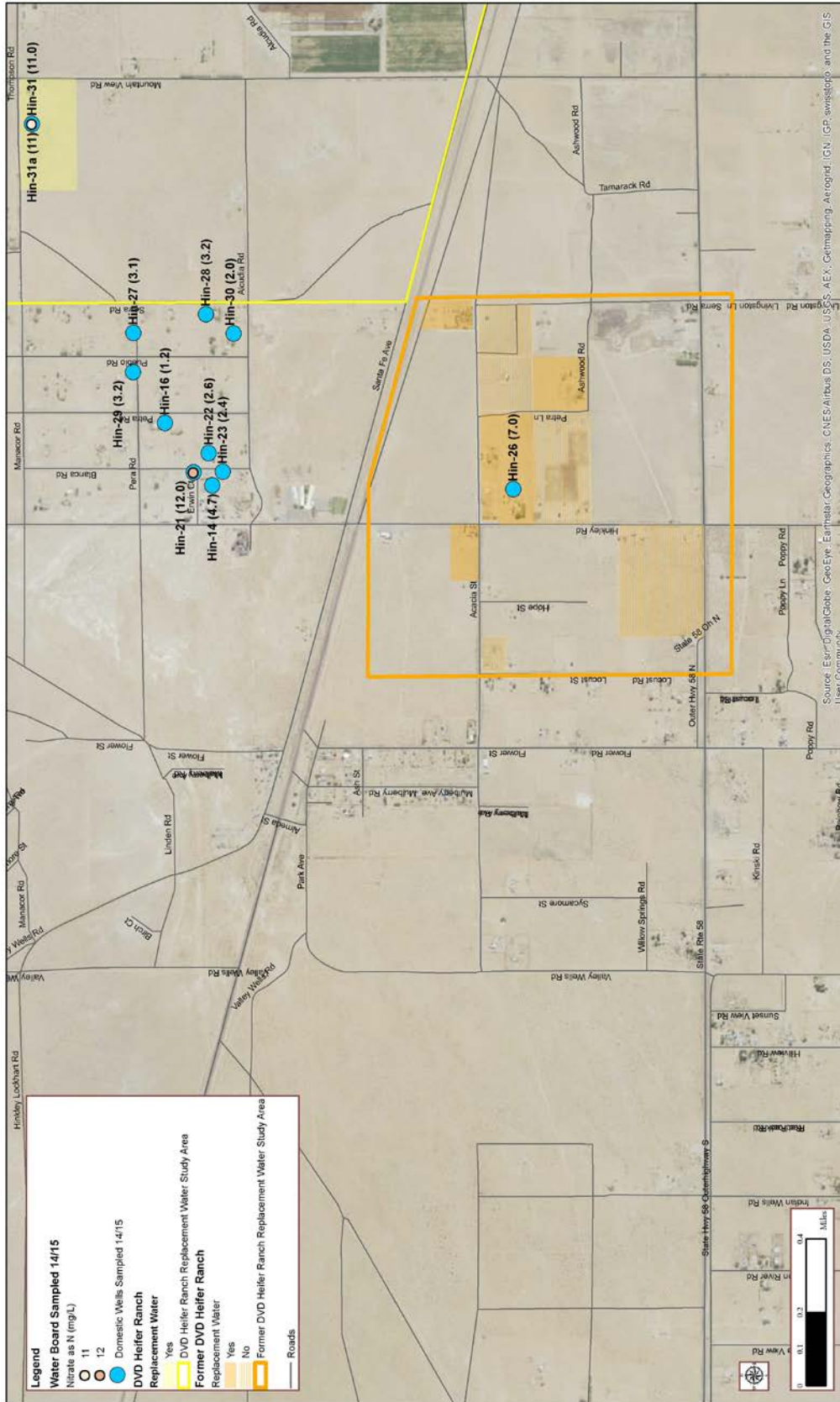


**Figure 2. Water Board Sampling 2014/2015 - Nitrate as Nitrogen (MCL = 10 mg/L)**  
 South Eastern Hinkley



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, IGP, swastopo, and the GIS User Community

**Figure 3. Water Board Sampling 2014/2015 - Nitrate as Nitrogen (MCL = 10 mg/L)**  
North Western Hinkley



**Figure 4. Water Board Sampling 2014/2015 - Nitrate as Nitrogen (MCL = 10 mg/L)**

**North Eastern Hinkley**

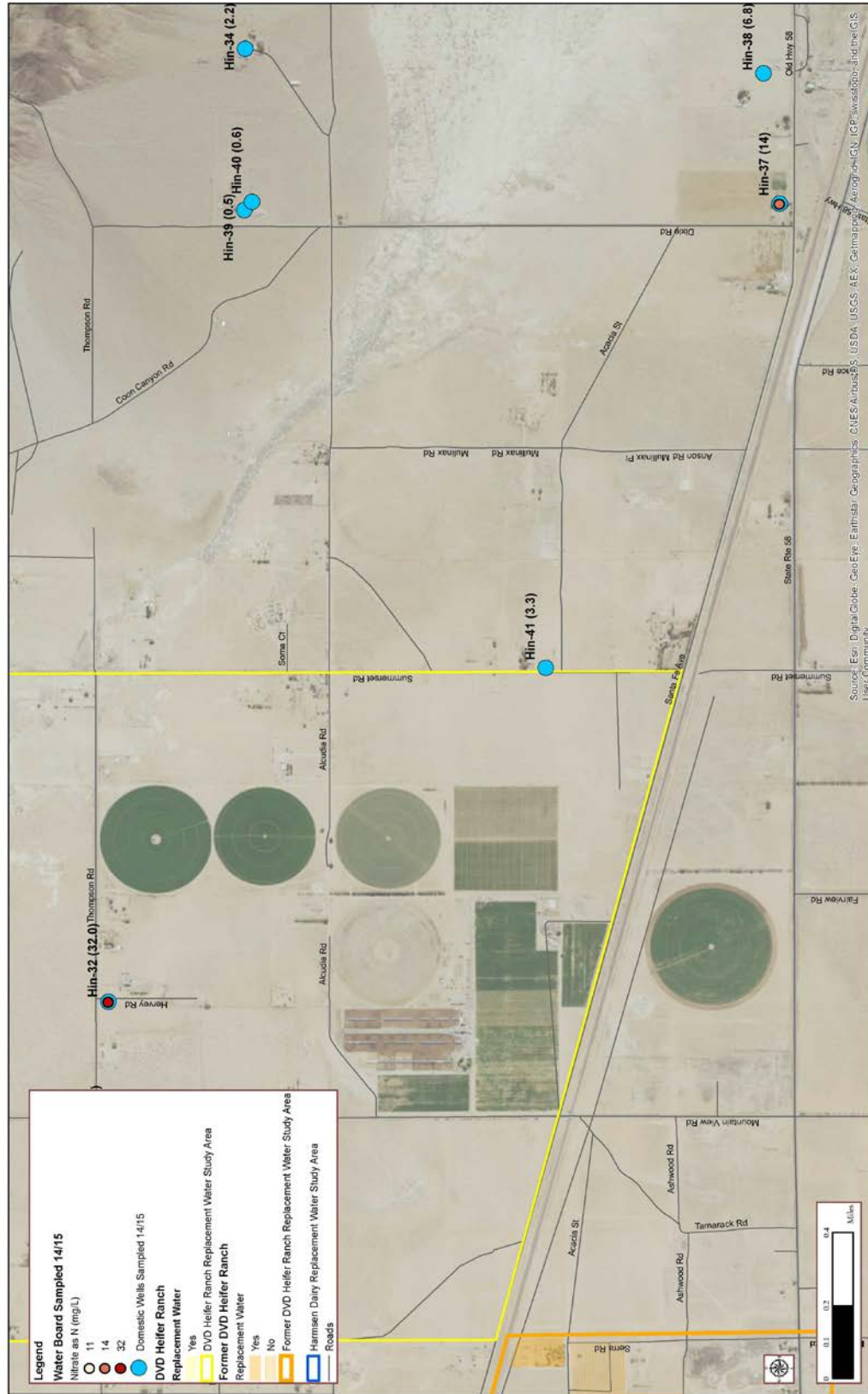


Figure 5. Water Board Sampling 2014/2015 - TDS (SMCL = 500 mg/L)

Hinkley, CA

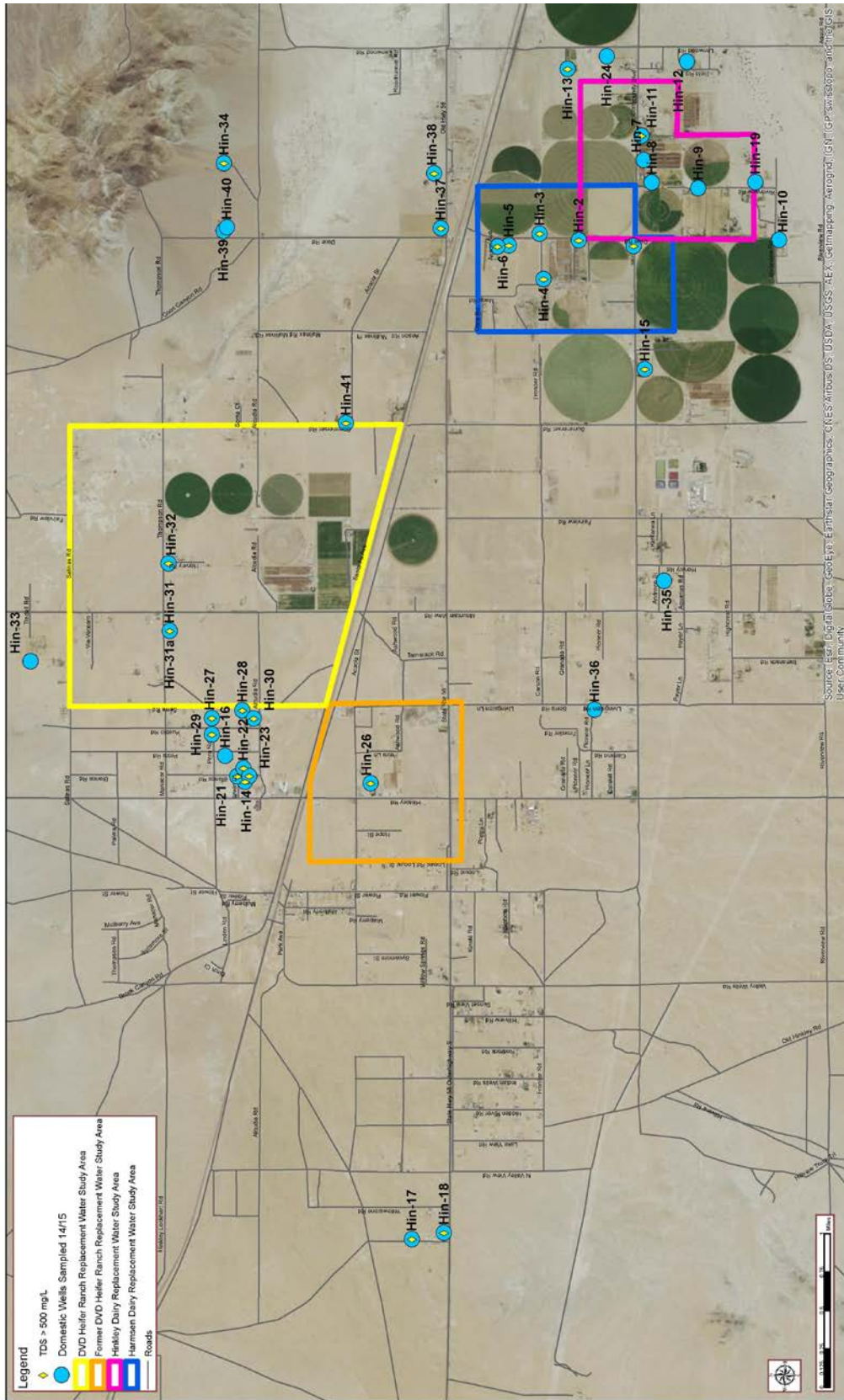
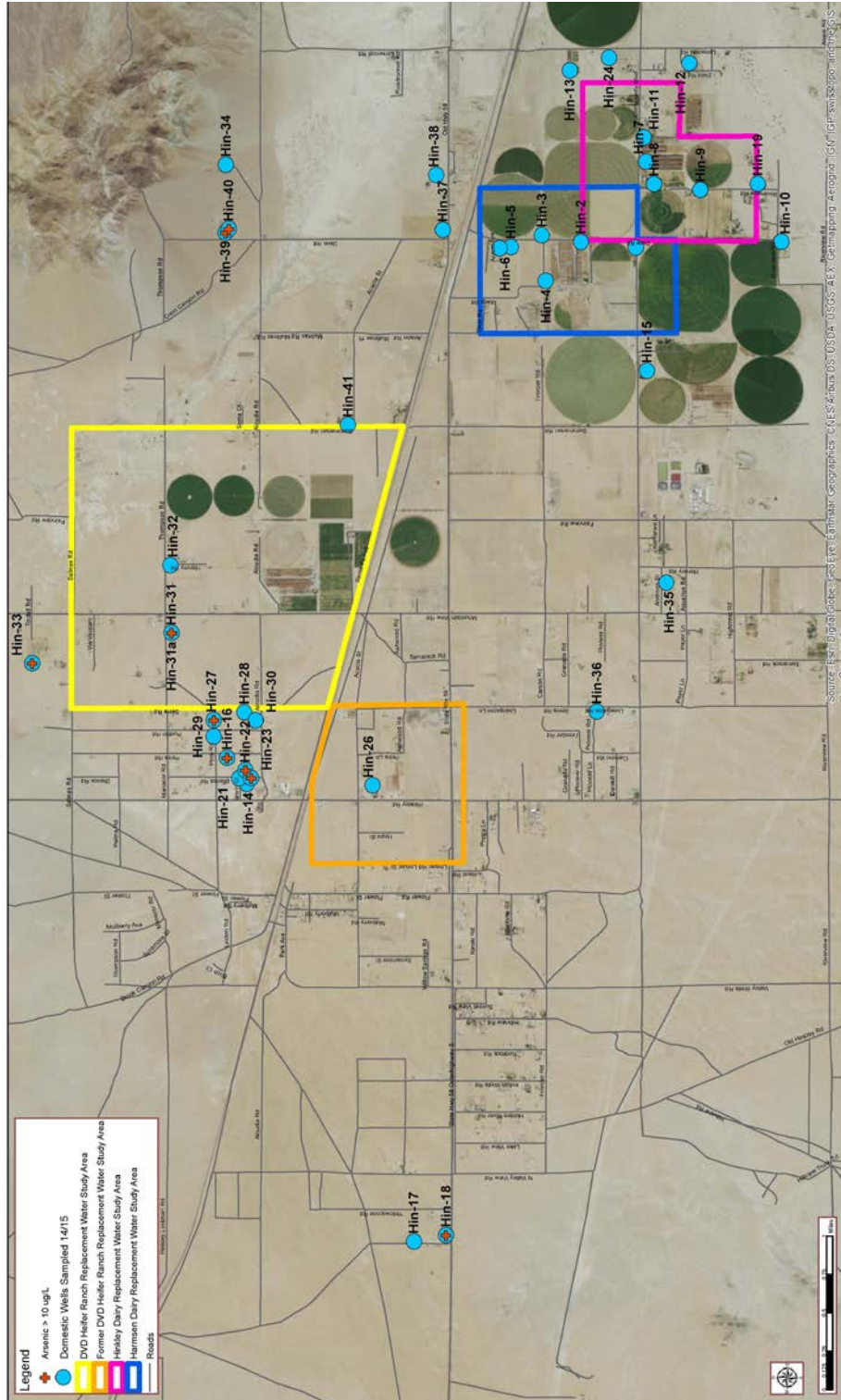


Figure 6. Water Board Sampling 2014/2015 - Arsenic (MCL = 10 ug/L)  
Hinkley, CA



## Attachment A

# Sampling and Analysis Plan (SAP) Field Method and Procedures for Residential Wells in Hinkley

The following steps will be taken by staff conducting groundwater sampling, prior and during the sampling and until the chain of custody relinquished to the E.S. Babcock laboratory representative:

## A) Preparation

### Items Required to take to the field:

- 1) Adequate size cooler,
- 2) Adequate bags of ice for cooler to keep the samples in the range of 4 to 6 degree centigrade,
- 3) Unused and prepared sampling bottles (or procure from the analytical laboratory). Before leaving office, confirm number and type of sample bottles you need. Take a few extra sampling bottles,
- 4) Latex gloves and paper towels,
- 5) At least two bottles of drinking water or beverage,
- 6) Water-proof labels,
- 7) Camera to take photo of sample collection site and GPS to locate sampling site on the google map,
- 8) Few ziploc bags,
- 9) Chain of custody papers (Fill out chain of custody form for all samples with all required information except sample time and sample name),
- 10) Field notebook and pen,
- 11) Calibrated field instrument (Horiba) in office prior to leaving to go to field. The calibration records should be maintained. Horiba will be used to take field measurement data for PH, conductivity, temperature, DO, TDS, and turbidity,
- 12) Bucket for Horiba,
- 13) Sun screen and cell phone, and
- 14) Call E.S. Babcock and request required sampling container shipped to Victorville office few days prior to sampling. The day before sampling Call E.S. Babcock and give them heads-up about pickup time and the type of analyses required.

## B) Sampling

- 1) Find sampling location that is as close as possible to wellhead and put latex gloves on,
- 2) Purge well for minimum of 10 minutes or until temperature and PH is stabilized. If water storage tank is between the wellhead and point of sampling, flush adequate amount of water to draw sampling water from the water storage tank,
- 3) Using Horiba, take temperature and PH reading during the purge until both temperature and PH are stabilized. Record all readings during the purge,
- 4) Take PH and temperature and other readings using Horiba and record time and date after equalization (consecutive data that are the same),
- 5) Use appropriate sampling bottles to collect required samples,

- 6) Place waterproof labels on each sample bottle, and fill them out with sample. Make sure time sample taken, sample ID, and well ID is recorded on each container,
- 7) Wipe sample bottles and place into cooler that contain bags of ice, and
- 8) Clean water bucket and Horiba of any sampled water. Wash bucket and Horiba with water from the next sampling location to clean out any contamination from previously sampled well.

**C) Handling and Shipment to Lab**

- 9) Once sampling is completed, transport cooler to the office and place samples into refrigerator in the lab,
- 10) Complete chain of custody form,
- 11) Sign chain of custody form in the presence of E.S. Babcock representative, have them sign the form and retain a carbon copy for your file,
- 12) Relinquish samples to the custody of E.S. Babcock representative,
- 13) Make sure E.S. Babcock representative have adequate size container and enough ice to keep samples between 4 to 6 degrees centigrade during transport between the Victorville office and E.S. Babcock lab, and
- 14) Give copy of chain of custody to Rebecca in order for her to follow-up when results are due and for billing purposes.

**D) Analyses**

- 15) Samples should be analyzed for the constituents listed on the chain of custody using methods attached to this SAP.



Attachment B - Results

Hinkley, CA Well Sampling Location Index

Site Name	Address	GAMA Global ID#:	Babcock Lab Reference Number:	Latitude Coordinates in Google Maps (WGS84)	Longitude Coordinates in Google Maps (WGS84)	State Well #:	Written Permission Received	Results Provided
Hin-1	24056 Community Blvd.	GSP6V1000000	B4F2645-01	34.907571	-117.13699	10N03W36R02	yes	yes
Hin-2	Harmsen Dairy Supply Well	GSP6V1000001	B4F2645-02	34.91182	-117.136441	10N03W36I03	yes	yes
Hin-3	36507 Dixie Road	GSP6V1000002	B4F2645-03	34.91486	-117.13584	10N02W31E05	yes	yes
Hin-4	36488 Dixie Road	GSP6V1000003	B4F2645-04	34.914541	-117.14008	10N03W36K03	yes	yes
Hin-5	36610 Dixie Road	GSP6V1000004	B4F2645-05	34.91722	-117.136953	10N03W36H04	yes	yes
Hin-6	36686 Dixie Road	GSP6V1000005	B4F2645-06	34.918109	-117.13706	10N03W36H05	yes	yes
Hin-7	24333 Community Blvd Dairy Supply Well	GSP6V1000006	B4G2373-04	34.90668	-117.12892	09N02W06C06	yes	yes
Hin-8	24333 Community Blvd Residential NW	GSP6V1000007	B4G2373-02	34.90619	-117.13105	09N02W06C05	yes	yes
Hin-9	24299 Community Blvd Residential SW	GSP6V1000008	B4G2373-01	34.90262	-117.13157	09N02W06F01	yes	yes
Hin-10	35494 Dixie Road	GSP6V1000009	B4G2373-03	34.89634	-117.13647	09N03W01R04	yes	yes
Hin-11	24543 Community Blvd.	GSP6V1000010	B4G2373-06	34.90696	-117.12664	09N02W06R09	yes	yes
Hin-12	36154 Lenwood Road	GSP6V1000011	B4G2373-07	34.90346	-117.11963	09N02W06A03	yes	yes
Hin-13	36388 Lenwood Road	GSP6V1000012	B4G2374-05	34.91265	-117.12033	10N02W31I07	yes	yes
Hin-14	37797 Hinkley Road	GSP6V1000040	B4J1487-01	34.9380556	-117.1880556	10N03W22N20	yes	yes
Hin-15	23535 Community Blvd	GSP6V1000041	B4J1487-02	34.9066667	-117.1486111	09N03W01C02	yes	yes
Hin-16	37862 Petra Road	GSP6V1000060	B4J1487-03	34.9391667	-117.185	10N03W22N27	yes	yes
Hin-17	19816 Highway 58 #4	GSP6V1000061	B4J1487-04	34.9247222	-117.2305556	10N03W30K02	yes	yes
Hin-18	19816 Highway 58 #1	GSP6V1000062	B4J1487-05	34.9222222	-117.23	10N03W30Q08	yes	yes
Hin-19	35490 Riverview	GSP6V1000066	B4K2437-01	34.89806	-117.13083	09N02W06I10	yes	yes
Hin-20	38790 North Mountainview	GSP6V1000067	B4K2444-01	34.95944	-117.17278	10N03W15H05	yes	yes
Hin-21	37814 Blanca Road	GSP6V1000068	B4K2441-02	34.93833	-117.18694	10N03W22N33	yes	yes
Hin-22	37769 Blanca Road	GSP6V1000069	B4K2441-03	34.93777	-117.18638	10N03W22N28	yes	yes
Hin-23	21785 Erwin Court	GSP6V1000070	B4K2437-02	34.93722	-117.18694	10N03W22N14	yes	yes
Hin-24	36246 Lenwood Road	GSP6V1000071	B4K2441-01	34.90972	-117.11916	10N02W31R03	yes	yes
Hin-25	21574 Shaves Avenue	GSP6V1000072	B4K2444-03	34.87861	-117.1925	09N03W09R02	yes	yes
Hin-26	37223 Hinkley Road	GSP6V1000073	B5A2013-01	34.92781	-117.18778	10N03W27M06	yes	yes
Hin-27	21924 Pera Road	GSP6V1000074	B5A2013-02	34.94012	-117.1815	10N03W22L11	yes	yes
Hin-28	37776 Serra Road	GSP6V1000075	B5A2013-03	34.93778	-117.18074	10N03W22P28	yes	yes
Hin-29	37118 Pueblo Road	GSP6V1000076	B5A2013-04	34.94017	-117.18304	10N03W22L09	yes	yes

Hin-30	37731 Pueblo Road	GSP6V1000077	B5A2013-05	34.93689	-117.18149	10N03W22P20	yes	yes
Hin-31	38080 Mountainview Road	GSP6V1000078	B5B1167-01	34.94333	-117.176944	10N03W22J05	yes	yes
Hin-32	22726 Thompson Road	GSP6V1000079	B5B1167-02	34.94333	-117.166944	10N03W23I04	yes	yes
Hin-33	24410 Alcurdia Road	GSP6V1000080	B5B1167-04	34.954167	-117.176111	10N03W15C03	yes	yes
Hin-34	22240-B Salinas Road	GSP6V1000081	B5B1167-03	34.939167	-117.129167	10N02W19P02	yes	yes
Hin-35	22615 Andreen Street	GSP6V1000082	B5D1572-01	34.904722	-117.169167	09N03W02D04	yes	yes
Hin-36	36280 Serra Road	GSP6V1000083	B5D1572-02	34.910556	-117.180833	10N03W34P08	yes	yes
Hin-31	38080 Mountainview Road	GSP6V1000078	B5D1572-03	34.94333	-117.176944	10N03W22J05	yes	yes
Hin-37	24116 Santa Fe Avenue	GSP6V1000084	B5D1556-01	34.9225	-117.135278	10N02W30N06	yes	yes
Hin-38	24332 Highway 58	GSP6V1000085	B5D1556-02	34.923056	-117.130278	10N02W30P02	yes	yes
Hin-39	37885 Dixie Road	GSP6V1000086	B5D1572-04	34.939167	-117.135556	10N02W19N01	yes	yes
Hin-40	37825 Dixie Road	GSP6V1000087	B5D1572-05	34.938889	-117.135278	10N02W19N02	yes	yes
Hin-41	37373 Summerset Road	GSP6V1000088	B5D1556-03	34.930278	-117.153611	10N03W25E03	yes	yes

rea water sampling\Results table for all sampled wells\Hinkley 2014 Sampling Data

Hinkley, CA Well Sampling  
Metals

Site Name	Address	Sample Date	Sample Time	Units	Antimony <sup>3</sup> ug/L	Arsenic ug/L	Barium ug/L	Beryllium <sup>3</sup> ug/L	Cadmium ug/L	Total Chromium ug/L	Cobalt ug/L	Copper ug/L	Iron ug/L	Lead ug/L	Manganese ug/L	Mercury ug/L	Molybdenum ug/L	Nickel ug/L	Selenium ug/L	Silver ug/L	Thallium ug/L	Vanadium ug/L	Zinc ug/L
Hin-1	24056 Community Blvd	6/26/2014	10:50		<10	2.8	74	<10	<2	<20	<10	4.5	<50	<10	<10	<0.2	2.7	0.4	<5	<10	<200	6.5	3.1
Hin-2	Harmen Dairy Supply Well	6/26/2014	11:00		<10	2.4	113	<10	<2	<20	<10	2.3	19	<20	0.72	<0.2	1.1	<20	<5	<10	<200	<10	4.2
Hin-3	36597 Dixie Road	6/26/2014	11:30		<10	2.5	45	<10	<2	<20	<10	1.7	93	<10	2	<0.2	1.1	<20	<5	<10	<200	4.4	5.5
Hin-4	36488 Dixie Road	6/26/2014	11:55		<10	3.5	40	<10	<2	<20	<10	81	390	33	<10	<0.2	0.9	0.62	<5	<10	<200	5.5	1100
Hin-5	36610 Dixie Road	6/26/2014	12:30		<10	1.5	50	<10	<2	<20	<10	84	<10	84	<10	<0.2	2.1	<20	<5	<10	<200	<10	4.5
Hin-6	36686 Dixie Road	6/26/2014	13:00		<10	6.3	78	<10	<2	<20	<10	3	13	0.35	0.84	<0.2	1.8	0.42	<5	<10	<200	9.9	7.1
Hin-7	Hinkley Dairy Supply Well	7/22/2014	10:45		<10	2.3	86	<10	<2	<20	<10	4.1	12	0.22	<10	<0.20	2.1	<20	<5	<10	<200	<10	11
Hin-8	Hinkley Dairy Residential Well NW	7/22/2014	11:05		<10	2.4	95	<10	<2	<20	<10	18	82	1.1	1.1	<0.20	2.1	<20	<5	<10	<200	<10	29
Hin-9	Hinkley Dairy Residential Well SW	7/22/2014	11:22		<10	1.7	76	<10	<2	<20	<10	4.8	5.8	0.24	1.6	<0.2	2.4	<20	<5	<10	<200	<10	11
Hin-10	35494 Dixie Road	7/22/2014	12:25		<10	2.2	42	<10	<2	<20	<10	4.8	<50	0.25	<10	<0.2	2.8	<20	<5	<10	<200	<10	3.3
Hin-11	24542 Community Blvd.	7/22/2014	13:02		<10	1.7	180	<10	<2	<20	<10	0.94	<50	<10	0.88	<0.2	1.3	<20	<5	<10	<200	<10	2.3
Hin-12	36154 Lemwood Road	7/22/2014	13:35		<10	<5	45	<10	<2	<20	<10	0.96	11	<10	0.87	<0.2	3.2	<20	<5	<10	<200	<10	1.5
Hin-13	36388 Lemwood Road	7/22/2014	15:02		<10	1.8	120	<10	<2	<20	<10	1	13	0.51	<10	<0.2	3.7	<20	<5	<10	<200	<10	7.7
Hin-14	37797 Hinkley Road	10/14/2014	10:10		<10	6.1	64	<10	<2	<20	<10	<10	<50	0.69	<10	<0.2	3.9	<20	<5	<10	<200	17	130
Hin-15	23535 Community Blvd.	10/14/2014	11:58		<10	1.5	50	<10	<2	<20	<10	<10	15	<10	0.62	<0.2	1.2	<20	<5	<10	<200	<10	7.4
Hin-16	37862 Petra Road	10/14/2014	14:00		<10	14	51	<10	<2	<20	<10	<10	1300	0.22	33	<0.2	4.3	1.3	<5	<10	<200	24	20
Hin-17	19816 Highway 58 #4	10/14/2014	14:55		<10	8.9	91	<10	<2	<20	0.33	<10	33	<10	2.4	20	33	2.9	<5	<10	<200	14	8
Hin-18	19816 Highway 58 #1	10/14/2014	15:10		<10	11	22	<10	<2	<20	<10	3.4	1200	0.68	16	0.4	40	0.5	<5	<10	<200	24	43
Hin-19	35490 Riverview	11/25/2014	9:59		<10	3.1	75	<10	<2	<20	<10	0.68	270	0.19	1.5	<0.2	4.1	<20	<5	<10	<200	6.8	21
Hin-20	38790 North Mountview	11/25/2014	10:10		<10	2.3	88	<10	<2	<20	<10	1.3	MA	0.86	NA	<0.2	2.9	<20	<5	<10	<200	9.6	17
Hin-21	37814 Blanca Road	11/25/2014	11:30		<10	4.8	120	<10	<2	<20	<10	<10	370	<10	7.3	<0.2	3.7	1.3	<5	<10	<200	14	11
Hin-22	37769 Blanca Road	11/25/2014	12:10		<10	15	74	<10	<2	<20	<10	4.3	34	0.23	1.6	<0.2	20	0.42	<5	<10	<200	16	11
Hin-23	21785 Fawn Court	11/25/2014	12:45		<10	11	120	<10	<2	<20	<10	7	900	0.86	14	<0.2	2.4	0.7	<5	<10	<200	16	200
Hin-24	36246 Lemwood Road	11/25/2014	14:20		<10	2.4	84	<10	<2	<20	<10	1.3	<50	<10	<10	<0.2	1.9	<20	<5	<10	<200	5.4	10
Hin-25	21574 Shores Avenue	11/25/2014	14:45		<10	3.1	75	<10	<2	<20	<10	<10	MA	<10	<10	<0.2	1	<20	<5	<10	<200	15	7.4
Hin-26	37223 Hinkley Road	12/12/2015	10:00		<10	5.8	100	<10	<2	<20	<10	1.6	34	0.26	0.76	<0.2	3.8	0.76	<5	<10	<200	19	34
Hin-27	21924 Petra Road	12/12/2015	10:45		<10	28	35	<10	<2	<20	<10	1.9	35	<10	0.78	<0.2	10	0.2	<5	<10	<200	46	5.2
Hin-28	37776 Serra Road	12/12/2015	12:35		0.46	1.7	98	<10	<2	<20	<10	9.8	<10	<10	<10	<0.2	2.7	0.38	<5	<10	<200	8.1	3.5
Hin-29	37718 Pueblo Road	12/12/2015	13:00		0.6	5.6	57	<10	<2	<20	<10	2.2	10	0.3	<10	<0.2	4.7	0.78	<5	<10	<200	16	12
Hin-30	37731 Pueblo Road	12/12/2015	14:40		0.57	6.9	60	<10	<2	<20	<10	<10	<50	<10	<10	<0.2	4.6	0.36	<5	<10	<200	18	19
Hin-31	38080 Mountview Road	2/11/2015	10:15		0.62	22	150	<10	0.26	80	0.56	4.3	210000	10	2100	0.44	1.7	0.68	2.2	0.46	<200	160	1600
Hin-32	22726 Thompson Road	2/11/2015	10:50		0.55	1.3	37	<10	<2	4	0.34	2.1	17	0.22	1.1	<0.2	0.71	0.83	3.2	<10	<200	<10	1.7
Hin-33	24410 Alciuda Road	2/11/2015	12:17		<10	19	150	<10	<2	2	<10	<10	87	<10	1.7	<0.2	8.3	0.29	<5	<10	<200	20	6.5
Hin-34	22240-B Salinas Road	2/11/2015	13:20		<10	2.3	76	<10	<2	2.8	<10	<10	1400	0.69	24	<0.2	2.2	<20	<5	<10	<200	10	39
Hin-35	22615 Andruen Street	4/15/2015	10:00		<10	3	87	<10	<2	2.1	0.66	18	1300	1.8	80	<0.2	2.6	0.93	<5	<10	<200	8.1	33
Hin-36	36280 Serra Road	4/15/2015	10:24		<10	9.8	96	<10	<2	<20	<10	6.5	550	<10	140	<0.2	5.6	0.34	<5	<10	<200	<10	140
Hin-37	38080 Mountview Road	4/15/2015	10:55		<10	<5	44	<10	<2	<20	<10	<10	2100	<10	54	<0.2	0.52	<10	<5	<10	<200	<10	160
Hin-37	24116 Santa Fe Avenue	4/15/2015	11:35		<10	1.5	51	<10	<2	2	<10	0.92	19	<10	0.72	<0.2	0.61	<20	<5	<10	<200	4.4	2.7
Hin-38	24332 Highway 58	4/15/2015	13:27		<10	1.7	69	<10	<2	2.1	<10	<10	<10	<10	0.98	<0.2	1.7	<20	<5	<10	<200	4.9	4.4

Water Quality Objectives	MCL <sup>1</sup>	Primary Secondary WQP <sup>2</sup>	69	106	10	4.50	0.5

Footnotes: 1 - Primary and Secondary Maximum Contaminant Limits (MCLs) are based on Title 22, California Code of Regulations as indicated in the Laboratory Region Water Quality Control Board Basin Plan Chapter 3 Water Quality Objectives page 3-4.

2 - Agricultural Water Quality Goal

3 - Secondary MCLs are organized by recommended/upper/Swert term values.

NA - Not Analyzed

Values in Yellow exceed Water Quality Objectives (MCL and SWCLs)  
 Values in Red exceed Water Quality Objectives (Ag Obj)

Hinkley, CA Well Sampling Minerals

Site Name	Address	Sample Date	Sample Time	Units	Total Hardness mg/L	Calcium mg/L	Magnesium mg/L	Sodium mg/L	Potassium mg/L	Total Alkalinity mg/L	Hydroxide mg/L	Carbonate mg/L	Bicarbonate mg/L	Chloride mg/L	Sulfate mg/L	Nitrate as N mg/L	pH Std limits	Electric Conduc. umhos/cm	TDS mg/L	MBAS mg/L	
				RDL	3	1	1	1	1	3	3	3	3	1	0.5	0.2	1	1	20	0.08	
Hin-1	24056 Community Blvd.	6/26/2014	1030		380	120	20	140	3.5	400	<3.0	<3.0	480	110	130	7.2	7.5	1300	840	<0.08	
Hin-2	Harmsen Dairy Supply Well	6/26/2014	1100		350	110	18	97	3.5	260	<3.0	<3.0	320	100	130	12	7.5	1100	740	<0.08	
Hin-3	36597 Dixie Road	6/26/2014	1130		330	100	18	130	3.7	280	<3.0	<3.0	340	110	140	16	7.5	1200	800	<0.08	
Hin-4	36488 Dixie Road	6/26/2014	1155		390	120	20	130	3.6	300	<3.0	<3.0	370	120	170	14	7.6	1500	870	<0.08	
Hin-5	36610 Dixie Road	6/26/2014	1230		450	140	23	94	3.7	250	<3.0	<3.0	310	140	160	12	7.8	1700	830	<0.08	
Hin-6	36686 Dixie Road	6/26/2014	1300		460	150	24	150	4.5	320	<3.0	<3.0	390	150	220	12	7.5	1500	1000	<0.08	
Hin-7	Hinkley Dairy Supply Well	7/22/2014	1045		180	57	9.9	58	2.6	140	<3.0	<3.0	170	50	60	5.7	7.3	620	370	<0.20	
Hin-8	Hinkley Dairy Residential Well NW	7/22/2014	1105		160	51	8.7	50	2.4	130	<3.0	<3.0	160	46	63	3.1	7.6	580	330	<0.20	
Hin-9	Hinkley Dairy Residential Well SW	7/22/2014	1122		170	52	9	53	2.6	140	<3.0	<3.0	170	47	52	3.8	7.8	580	340	<0.20	
Hin-10	35094 Dixie Road	7/22/2014	1225		120	37	6.6	35	2.4	97	<3.0	<3.0	120	32	35	1.1	7.5	400	220	<0.20	
Hin-11	24543 Community Blvd	7/22/2014	1303		350	110	19	93	3.7	230	<3.0	<3.0	280	110	110	23	7.4	1100	710	<0.20	
Hin-12	36154 Lemwood Road	7/22/2014	1335		110	35	6.2	44	2.3	100	<3.0	<3.0	120	36	45	1.4	7.7	440	230	<0.20	
Hin-13	36388 Lemwood Road	7/22/2014	1302		280	87	14	74	3.1	210	<3.0	<3.0	260	70	90	7.9	7.5	860	520	<0.20	
Hin-14	37797 Hinkley Road	10/14/2014	1010		280	81	19	140	3.8	100	<3.0	<3.0	120	190	170	4.7	8.0	1200	760	<0.20	
Hin-15	23535 Community Blvd.	10/14/2014	1158		290	90	16	88	4.6	220	<3.0	<3.0	270	61	91	9.0	7.8	910	560	<0.20	
Hin-16	37862 Petra Road	10/14/2014	1400		120	38	6.9	120	2.3	130	<3.0	<3.0	160	110	98	1.2	8.1	840	440	<0.20	
Hin-17	19816 Highway 58 #4	10/14/2014	1455		700	180	60	610	9.3	210	<3.0	<3.0	260	1100	210	10.0	7.7	4000	2300	<0.20	
Hin-18	19816 Highway 58 #1	10/14/2014	1510		130	30	14	180	4.0	160	<3.0	<3.0	200	120	200	1.1	7.9	1700	670	<0.20	
Hin-19	35490 Riverview	11/25/2014	939		140	43	8	57	2.6	120	<3.0	<3.0	150	47	67	0.9	7.8	550	420	<0.20	
Hin-20	38790 North Mountainview	11/25/2014	1010		NA	NA	NA	NA	NA	150	<3.0	<3.0	180	81	64	6.5	NA	NA	430	NA	NA
Hin-21	37814 Blanca Road	11/25/2014	1130		230	69	14	150	3.8	130	<3.0	<3.0	160	170	120	12.0	7.8	1100	690	<0.20	
Hin-22	37769 Blanca Road	11/25/2014	1210		290	87	17	510	5.8	140	<3.0	<3.0	180	410	600	2.6	7.8	2800	1700	<0.20	
Hin-23	21785 Erwin Court	11/25/2014	1245		140	41	10	110	3.8	100	<3.0	<3.0	130	130	98	2.4	8.0	840	590	<0.20	
Hin-24	36246 Lemwood Road	11/25/2014	1420		150	46	8	59	2.8	120	<3.0	<3.0	140	54	52	6.1	7.6	560	360	<0.20	
Hin-25	21574 Shaves Avenue	11/25/2014	1445		NA	NA	NA	NA	NA	160	<3.0	<3.0	200	43	45	0.6	NA	NA	350	NA	NA
Hin-26	37223 Hinkley Road	1/21/2015	1000		270	82	16	100	4.1	130	<3.0	<3.0	160	160	79	7.0	7.7	990	690	<0.20	
Hin-27	21924 Pera Road	1/21/2015	1045		47	14	3	150	2.1	140	<3.0	<3.0	160	100	76	3.1	8.2	780	510	<0.20	
Hin-28	37776 Serra Road	1/21/2015	1235		260	78	15	110	2.7	110	<3.0	<3.0	140	180	88	3.2	7.8	1000	620	<0.20	
Hin-29	37118 Pueblo Road	1/21/2015	1300		91	28	5	140	2.5	130	<3.0	<3.0	160	110	62	3.2	7.9	730	480	<0.20	
Hin-30	37731 Pueblo Road	1/21/2015	1140		180	54	11	96	2.2	130	<3.0	<3.0	160	120	83	2.0	8.0	860	530	<0.20	
Hin-31	38080 Mountainview Road	2/11/2015	1015		1300	400	74	200	6.4	130	<3.0	<3.0	160	640	540	11.0	7.1	3100	2700	<0.20	
Hin-32	22726 Thompson Road	2/11/2015	1059		2100	630	120	480	15.0	260	<3.0	<3.0	320	950	1400	32.0	7.2	5500	4900	<0.20	
Hin-33	24410 Alcuella Road	2/11/2015	1317		21	8	1	120	1.4	130	<3.0	<3.0	160	67	32	2.7	8.5	560	360	<0.20	
Hin-34	22240-B Salinas Road	2/11/2015	1220		300	92	16	120	2.8	120	<3.0	<3.0	150	200	110	2.2	7.8	1100	690	<0.20	
Hin-35	22615 Andreen Street	4/15/2015	1000		140	42	8	51	2.0	130	<3.0	<3.0	160	34	48	0.3	7.8	520	320	<0.20	
Hin-36	36280 Serra Road	4/15/2015	1024		95	29	6	50	2.4	100	<3.0	<3.0	130	36	34	<0.2	7.8	440	320	<0.20	
Hin-37	38080 Mountainview Road	4/15/2015	1055		1300	390	71	200	4.9	140	<3.0	<3.0	170	660	550	11.0	7.3	3500	2700	<0.20	
Hin-37	24116 Santa Fe Avenue	4/15/2015	1135		490	150	26	140	4.4	280	<3.0	<3.0	340	140	220	14.0	7.3	1500	1000	<0.20	

	4/15/2015	310	98	16	81	3.2	140	<3.0	<3.0	170	120	140	6.8	7.7	590	640	<0.20
Hin-38 24332 Highway 58	1327																
Hin-39 37885 Dike Road	1354	6	2	<1	97	0.7	160	<3.0	<3.0	200	22	26	0.5	8.8	490	280	<0.20
Hin-40 37825 Dike Road	1409	7	2	<1	100	0.7	150	<3.0	<3.0	180	22	24	0.6	8.8	470	260	<0.20
Hin-41 37373 Summerset Road	1433	240	77	12	130	5.0	190	<3.0	<3.0	230	87	130	3.3	7.6	960	670	<0.20
	Water Quality Objectives	Primary MCLs	Secondary MCLs	WQC	69						150/500/600	106			590/1600/2000	500/1000/1500	0.5

Footnotes: 1 - Primary and Secondary Maximum Contaminant Limits (MCL) are based on Title 22 California Code of Regulations as indicated in the Jurisdiction Water Quality Control Board Basin Plan Chapter 3 Water Quality Objectives page 3-4.  
 2 - Agricultural Water Quality Goal  
 3 - Secondary MCLs are organized by recommended upper short term values.  
 NA - Not Analyzed  
 Values in Yellow exceed Water Quality Objectives (MCLs and SWCL)  
 Values in Red exceed Water Quality Objectives (Ag. Obj)  
 USGS Total Dissolved Solids  
 MCLs - Primary and Secondary  
 RDL - Reporting Detection Limit

Hinkley, CA Well Sampling

Field Data Results

Site Name	Address	Coordinates In Google Maps	Coordinates NAD27 CON US	Date	Time	pH Std. Units	DO mg/L	EC mS	Temp °C	TDS g/L	Notes
Hin-1	24056 Community Blvd	N34.907571 W117.136990	N34.90757 W117.13614	6/26/2014	1030	7.86	8.1	0.154	19.1	1	Jim Griffin accompanied staff during well sampling. Well is located on the southeast corner of the property to the right of the driveway.
Hin-2	Hermesen Dairy Supply Well	N34.911820 W117.136441	N34.91182 W117.13557	6/26/2014	1100	7.48	8.18	0.125	19.9	0.8	Jim Griffin accompanied staff during well sampling. Well is connected to a tank west of Dixie Road.
Hin-3	36507 Dixie Road	N34.91486 W117.135840	N34.91484 W117.13499	6/26/2014	1130	7.63	8.61	0.136	20.4	0.9	Jim Griffin accompanied staff during well sampling. Well is located south of the house and east of Dixie Road.
Hin-4	36488 Dixie Road	N34.914541 W117.140080	N34.91457 W117.13921	6/26/2014	1155	7.8	8.93	0.148	20.6	0.9	Property is owned by Ann & Manuel Baca. Well is located east of the house and west of Dixie Road.
Hin-5	36610 Dixie Road	N34.917220 W117.136953	N34.91720 W117.13609	6/26/2014	1230	7.8	9.14	0.142	21.6	0.9	Well is located in the backyard of the property west of Dixie Road.
Hin-6	36686 Dixie Road	N34.918109 W117.137060	N34.91810 W117.13621	6/26/2014	1300	7.5	7.94	0.162	22	1.1	Owner indicated that the well is 300 feet deep. Well is located in the backyard of the property west of Dixie Road and north of Anson Avenue.
Hin-7	24333 Community Blvd	N34.9068 W117.12892	N34.9068 W117.12802	7/22/2014	1045	7.27	9.56	48	17.6	0.31	Hinkley Dairy Supply Well
Hin-8	24333 Community Blvd	N34.90619 W117.13105	N34.90569 W117.13040	7/22/2014	1105	7.58	10.76	45.4	18.1	0.3	Hinkley Dairy Residential Well NW
Hin-9	24299 Community Blvd	N34.90262 W117.13157	N34.90262 W117.13067	7/22/2014	1122	7.56	10.87	45.3	17.5	0.29	Hinkley Dairy Residential Well SW
Hin-10	35494 Dixie Road	N34.89634 W117.13647	N34.89634 W117.13557	7/22/2014	1225	7.58	11.1	30.8	16.4	0.2	Spigot is 1.2 feet from the well.
Hin-11	24543 Community Blvd	N34.90696 W117.12664	N34.90696 W117.12574	7/22/2014	1303	7.66	10.67	88.8	17.8	0.57	
Hin-12	36154 Lenwood Road	N34.90346 W117.11963	N34.90346 W117.11873	7/22/2014	1335	7.83	11.44	33.8	17.1	0.22	
Hin-13	36388 Lenwood Road	N34.91265 W117.12033	N34.91265 W117.11943	7/22/2014	1502	7.77	10.65	65.9	18.6	0.42	
Hin-14	37797 Hinkley Road	N34.9380556 W117.1880556		10/14/2014	1010	8.42	7.88	0.14	21.4	0.9	Well goes dry, did not run much.
Hin-15	23535 Community Blvd	N34.9066667 W117.1486111		10/14/2014	1158	7.78	7.69	0.104	19.5	0.7	

**Hinkley, CA Well Sampling  
Field Data Results**

Site Name	Address	Coordinates In Google Maps	Coordinates NAD27 CON US	Date	Time	pH Std. Units	DO mg/L	EC mS	Temp °C	TDS g/L	Notes
Hin-16	37862 Petra Road	N34.9391667 W117.1850000		10/14/2014	1400	8.21	5.2	0.095	21.5	0.6	
Hin-17	19816 Highway 58 #4	N34.9247222 W117.2305556		10/14/2014	1455	7.56	5.6	0.468	22.5	3	North. Wells go dry, did not run much.
Hin-18	19816 Highway 58 #1	N34.9222222 W117.2300000		10/14/2014	1510	8.16	8.06	0.13	23	0.8	South
Hin-19	35490 Riverview	N34.89806 W117.13083		11/25/2014	939	6.9	9.15	45.8	16.9	0.3	
Hin-20	38790 North Mountainview	N34.95944 W117.17278		11/25/2014	1010	7.3	7.5	59.3	21.6	0.38	
Hin-21	37814 Blanca Road	N34.93833 W117.18694		11/25/2014	1130	7.5	7.6	99.1	21.6	0.63	
Hin-22	37769 Blanca Road	N34.93777 W117.18638		11/25/2014	1210	7.7	8.25	0.214	22.5	1.4	
Hin-23	21785 Erwin Court	N34.93722 W117.18694		11/25/2014	1245	7.9	6.2	69.4	17.7	0.44	
Hin-24	36246 Lenwood Road	N34.90972 W117.11916		11/25/2014	1420	7.7	8.5	47.7	17.9	0.31	
Hin-25	21574 Shaves Avenue	N34.87861 W117.19250		11/25/2014	1445	7.8	8.2	46.1	23.5	0.3	
Hin-26	37223 Hinkley Road	N34.92761 W117.18778		1/21/2015	1000						
Hin-27	21924 Pera Road	N34.94012 W117.18150		1/21/2015	1045						
Hin-28	37776 Serra Road	N34.93778 W117.18074		1/21/2015	1235						
Hin-29	37118 Pueblo Road	N34.94017 W117.18304		1/21/2015	1300						
Hin-30	37731 Pueblo Road	N34.93689 W117.18149		1/21/2015	1140						
Hin-31	38080 Mountainview Road	N34.94333 W117.176944		2/11/2015	1015	7.3	8	246	21.5	1.6	* Towards end of sampling water was murky (less clear). Data obtained was questionable due to murky
Hin-32	22726 Thompson Road	N34.94333 W117.166944		2/11/2015	1050	7	7.8	401	22	2.6	



Hinkley, CA Well Sampling

Site Name	Address	Coordinates In Google Maps	Coordinates NAD27 CON US	Date	Time	pH Std. Units	DO mg/L	EC mS	Temp °C	TDS g/L	Notes
Hin-33	24410 Alcludia Road	N34.954167 W117.176111		2/11/2015	1217	8.1	6	46.6	23.1	0.3	
Hin-34	22240-B Salinas Road	N34.939167 W117.129167		2/11/2015	1320	7.8	8.05	92.2	21.6	0.59	
Hin-35	22615 Andreen Street	N34.904722 W117.169167		4/15/2015	1000	6.5	6.65	55.5	21.7	0.35	
Hin-36	36280 Serra Road	N34.910556 W117.180833		4/15/2015	1024	6.89	5.8	47.8	19.4	0.31	
Hin-31	38080 MountainView Road	N34.943333 W117.176944		4/15/2015	1055	6.88	7.3	334	21.5	2.1	*Resampled due to questionable results from 2/11/15.
Hin-37	24116 Santa Fe Avenue	N34.9225 W117.135278		4/15/2015	1135	7.38	8.4	157	20.9	1	
Hin-38	24332 Highway 58	N34.923056 W117.130278		4/15/2015	1327	7.86	8.58	112	21.9	0.7	
Hin-39	37885 Dixie Road	N34.939167 W117.135556		4/15/2015	1354	8.72	7.7	50.2	24.1	0.34	
Hin-40	37825 Dixie Road	N34.938889 W117.135278		4/15/2015	1409	8.71	5.95	50.8	24	0.32	
Hin-41	37373 Summerset Road	N34.946944 W117.153611		4/15/2015	1433	7.81	6.05	103	22.7	0.7	

Footnote: Coordinates were determined in the field using a Garmin Etrex Venture HC. Datum used - NAD27 CON US.