

Appendix A

Water quality data from other studies

Map ID	Sample Site	Date sampled	Time sampled	Sampled by	Average Daily																δD ‰	δ18O ‰		
					Discharge (ft ³ /s)	Temp (C°)	Conductivity (uS/cm)	DO (mg/L)	pH	ORP (mV)	TDS (mg/L)	Hardness (mg/L)	Ca (mg/L)	Mg (mg/L)	K (mg/L)	Na (mg/L)	Alkalinity (as CaCO ₃) (mg/L)	HCO ₃ (mg/L)	CO ₃ (mg/L)	Cl (mg/L)			NO ₃ (mg/L)	SO ₄ (mg/L)
Surface water samples																								
43	Laguna Creek at Highway 16	12/2/2012	NR	GEI ¹	322**	NA	NA	NA	6.54	NA	NA	15	4.1	1.8	4.2	2.9	17	17	NA	1.7	1.9	1.5	-49.6	-7.2
43	Laguna Creek at Highway 16	5/1/2013	NR	GEI ¹	2.2**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	7.2	-38.8	-3.4
43	Laguna Creek at Highway 16	8/7/2013	NR	GEI ¹	0.46**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	11	-25.9	-1
42	Cosumnes River at Rancho Murieta	12/2/2013	NR	GEI ¹	--	NA	NA	NA	6.98	NA	NA	36	8	4.5	2	6.1	32	32	NA	4	3.2	10	-65.7	-9.4
42	Cosumnes River at Rancho Murieta	5/1/2013	NR	GEI ¹	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.8	-72.7	-10
42	Cosumnes River at Rancho Murieta	8/7/2013	NR	GEI ¹	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	5.8	-58.9	-7.1
	Sacramento R A Freeport CA	3/22/1996	10:00	USGS ²	49,900	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-76.3	-10.75
	Sacramento R A Freeport CA	11/18/2009	11:20	USGS ²	8,690	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-76.2	-10.7
	Sacramento R A Freeport CA	12/3/2009	11:00	USGS ²	8,440	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-77.2	-10.42
	Sacramento R A Freeport CA	12/16/2009	11:50	USGS ²	12,600	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-74.6	-10.15
	Sacramento R A Freeport CA	1/14/2010	11:50	USGS ²	12,400	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-71.4	-9.96
	Sacramento R A Freeport CA	1/27/2010	12:00	USGS ²	50,500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-67.3	-9.75
	Sacramento R A Freeport CA	2/3/2010	11:30	USGS ²	32,100	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-69.8	-10.03
	Sacramento R A Freeport CA	2/16/2010	11:10	USGS ²	26,500	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-70.6	-9.91
	Sacramento R A Freeport CA	3/4/2010	10:30	USGS ²	29,200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-70.1	-10.04
	Sacramento R A Freeport CA	4/6/2010	12:00	USGS ²	14,800	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-73.3	-10.54
	Sacramento R A Freeport CA	5/19/2010	12:10	USGS ²	14,200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-77	-10.81
	Sacramento R A Freeport CA	6/17/2010	11:40	USGS ²	18,700	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-80	-11.15
	Sacramento R A Freeport CA	8/5/2010	12:20	USGS ²	18,200	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-79.2	-11.1
	Sacramento R A Freeport CA	1/14/2015	11:30	USGS ²	10,000	10.8	224	10.5	7.9	NA	147	71.6	14.8	8.35	1.43	12.9	84.2	94.1	0.1	10.2	1.77	14.1	NA	NA
	SACR-4	10/15/1997	NR	LLNL ⁴	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	-11.23
	SACR-4	11/14/1997	NR	LLNL ⁴	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	-11.11
	SACR-4	1/19/1998	NR	LLNL ⁴	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-73	-10.01
	SACR-4	2/9/1998	NR	LLNL ⁴	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	-10.56
	SACR-4	5/17/1998	NR	LLNL ⁴	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	-11.3
	SACR-4	6/26/1998	NR	LLNL ⁴	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	-11.5
	American R A Sacramento CA	3/18/1996	11:00	USGS ²	4,650*	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-73.1	-10.5
	American R A Sacramento CA	4/16/1998	9:40	USGS ²	7,260*	10.4	57	12.1	7.6	NA	NA	24.7	5.98	2.37	0.61	2.31	22	30	NA	1.63	<0.05	2.21	NA	NA
	CSUS	1/13/2003	NR	LLNL ⁴	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	-11.4
	Discovery Park	12/18/2001	NR	LLNL ⁴	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	-10.4
	AR-1	9/5/1997	NR	LLNL ⁴	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-84	-12.17
	AR-5	1/29/1997	NR	LLNL ⁴	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	NA	-10.92
	AR-5	1/19/1998	NR	LLNL ⁴	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-77	-10.88
Groundwater samples																								
	SAM-01	3/15/2005	NR	USGS ³	--	20	367	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-51	-7.09
	SAM-02	3/15/2005	NR	USGS ³	--	20	433	NA	7.2	NA	301	190	34	25.4	2.39	20.9	NA	NA	NA	14.3	NA	6.9	-54.8	-7.63
	SAM-03	3/22/2015	NR	USGS ³	--	16	276	NA	7.9	NA	195	130	21.5	19.5	2.31	11.6	NA	NA	NA	8.9	NA	2.7	-78	-10.84
	SAM-04	3/31/2005	NR	USGS ³	--	19.5	267	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-62.6	-8.65
	SAM-05	4/4/2005	NR	USGS ³	--	21	215	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-59.9	-8.47
	SAM-06	4/5/2005	NR	USGS ³	--	21	184	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-51.9	-7.22
	SAM-07	4/5/2005	NR	USGS ³	--	19	441	NA	7.7	NA	283	190	53.2	13.3	2.59	22.4	NA	NA	NA	12.1	NA	17.2	-54.3	-7.7
	SAM-08	4/5/2005	NR	USGS ³	--	18	413	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-65.7	-9.22
	SAM-09	4/19/2005	NR	USGS ³	--	20	236	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-63.3	-9
	SAM-10	4/21/2005	NR	USGS ³	--	18.5	590	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-50.1	-6.94
	SAM-11	4/21/2005	NR	USGS ³	--	19.5	220	NA	7.6	NA	180	81	17.5	8.95	2.62	13.7	NA	NA	NA	8.9	NA	3.2	-50.1	-6.9
	SAM-12	5/18/2005	NR	USGS ³	--	18.5	521	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	-69	-9.85
	Andalusian	8/7/2013	NR	GEI ¹	--	NA	210	NA	7.29	NA	160	74	13	9	1.7	17	88	88	NA	8.3	5.2	2.8	-54.9	-7.7
	Azinger	8/7/2013	NR	GEI ¹	--	NA	250	NA	7.72	NA	170	90	18	9.8	4.7	20	120	120	NA	4.2	<0.5	2.8	-58.6	-8.3
	Excelsior well #1	8/7/2013	NR	GEI ¹	--	NA	180	NA	7.76	NA	150	59	12	6.3	3.1	17	82	82	NA	6.2	<0.5	<0.5	-49.7	-6.9
	VSTWTP-MW	8/8/2013	NR	GEI ¹	--	NA	210	NA	7.5	NA	160	NA	11	6.6	1.4	22	93	NA	NA	11	5.2	2	-46.7	-6.2
	MW-1C	8/8/2013	NR	GEI ¹	--	NA	250	NA	7.25	NA	250	NA	22	13	3.7	30	97	NA	NA	41	23	4.8	-50.8	-7.2
	MW-2	8/8/2013	NR	GEI ¹	--	NA	440	NA	6.87	NA	440	NA	58	32	2.9	65	310	NA	NA	41	18	28	-41.5	-5.1

Notes:

¹GEI Consultants, 2014, "Groundwater Recharge Feasibility Investigation Report, Groundwater Recharge Feasibility Pilot Study." Prepared for: Sacramento County Water Agency. February 24, 2014.

²<http://waterdata.usgs.gov/nwis/>

³U.S. Geological Survey, 2005, "Ground-Water Quality Data in the Southern Sacramento Valley, California, 2005--Results from the California GAMA Program"

⁴Livermore Lawrence National Laboratory, 2004. "Ambient Groundwater Monitoring and Assessment. A Contamination Vulnerability Assessment for the Sacramento Area Groundwater Basin."

* instantaneous discharge

** discharge measured 11 miles down stream from sampling point

NA denotes "not analyzed."

NR denotes "not reported."

Nitrate reported as NO3

Appendix B

Field sheets, chain of custody records, lab reports, and QA/QC tables

Field sheets for sampled wells

Well Purging and Sampling Log

Project: SOUU
 Agency Owner: City of Sac
 Well: Well 3
 Sample ID: CISWEL3
 Date: 9/23/14
 Weather: Windy
 Personnel: Keistyn Hanson

GPS Information:
 Lat.: 38.53860
 Long.: -121.49375
 Acc.: _____
 Unit: _____
 QC site: Yes No

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

Sample Point Description:
 At the wellhead
 After pressure tanks
From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: Domestic Irrigation Domestic/Irrigation

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used	7.0	1413	0.1 10.8	
Temperature	22.7 22.7		23.2 22.8	23.2

Purge Log							
Time	Volume	Temp	EC	DO	pH	ORP	Comments
8:50	0	20.1		13.01	6.84	156.1	
8:52	1	18.8	1045	2.85	6.89	37.6	
8:54	2	18.8	1043	0.95	7.02	-14.7	
8:56	3	18.8	1044	0.91	7.06	27.7 -4.1	
8:58	4	18.8	1045	0.93	7.08	2.9	
9:00	5	18.8	1046	0.91	7.10	8.6	
9:02	6	18.8	1046	0.90	7.11	14.6	
9:04	7	18.8	1046	0.91	7.13	26.5	

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

10:00 → on samples
~~9:10~~
 actual sample time 9:05

Sample Collection Log							Sample time: 8:50
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab	
Alkalinity	Poly	16 oz	1	No		FGL	
Stable Isotopes	Glass	Vial	1	No		UC Davis	
Metals	Poly	250 mL	1	Yes	HNO3	FGL	
SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL	

Notes: 2159.2160

Well Purging and Sampling Log

Project: 5066
 Agency Owner: city of sac
 Well: Well 20
 Sample ID: CISWL20
 Date: 9/23/14
 Weather: cod
 Personnel: KH

GPS Information:
 Lat.: 38.54324
 Long.: -121.43494
 Acc.: .
 Unit: gps map 62

Well Depth: 372
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes

Sample Point Description:
At the wellhead
 After pressure tanks
 From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

park irrigation

Well Type: Domestic Irrigation Domestic/Irrigation

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used				
Temperature				

Purge start time: 9:37 Purge Log

Time	Volume	Temp	EC	DO	pH	ORP	Comments
9:40	0	18.6	557.5	4.00	7.42	138.4	
9:42	3	18.7	557.4	3.60	7.41	141.7	
9:44	4	18.8	557.6	3.56	7.40	145.6	
9:46	5	18.8	557.7	3.53	7.40	147.1	
9:48	6	18.8	557.7	3.53	7.40	149.5	

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: 10:00 9:50
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
Alkalinity	Poly	16 oz	1	No		FGL
Stable Isotopes	Glass	Vial	1	No		UC Davis
Metals	Poly	250 mL	1	Yes	HNO3	FGL
SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes: 2161, 2162

Well Purging and Sampling Log

Project: 5066 GPS Information: Well Depth: 300
 Agency Owner: City of Sac Lat.: 38.51369 Depth to Water: 61
 Well: Well 85 Long.: -121.41338 MP to LSE: _____
 Sample ID: CISW85 Acc.: _____ Casing Dia.: _____
 Date: 9/23/14 Unit: _____
 Weather: Sunny QC site: Yes No
 Personnel: KH

Sample Point Description:

At the wellhead

After pressure tanks

From a holding tank

Spigot away from wellhead

After filter

Other _____

Well Type: Domestic irrigation Domestic/Irrigation

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used				
Temperature				

Purge start time: <u>10:20</u>		Purge Log					
Time	Volume	Temp	EC	DO	pH	ORP	Comments
<u>10:25</u>	<u>0</u>	<u>20.0</u>	<u>244.2</u>	<u>7.14</u>	<u>7.48</u>	<u>1482</u>	
<u>10:27</u>	<u>2</u>	<u>20.1</u>	<u>243.8</u>	<u>7.42</u>	<u>7.42</u>	<u>152.5</u>	
<u>10:29</u>	<u>4</u>	<u>20.2</u>	<u>243.2</u>	<u>7.62</u>	<u>7.41</u>	<u>1540</u>	
<u>10:31</u>	<u>6</u>	<u>20.2</u>	<u>242.8</u>	<u>7.76</u>	<u>7.41</u>	<u>153.4</u>	
<u>10:33</u>	<u>8</u>	<u>20.2</u>	<u>242.9</u>	<u>7.67</u>	<u>7.41</u>	<u>153.3</u>	

Purge Method: submersible turbine pump other _____

Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>10:35</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
Alkalinity	Poly	16 oz	1	No		FGL
Stable Isotopes	Glass	Vial	1	No		UC Davis
Metals	Poly	250 mL	1	Yes	HNO3	FGL
SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes: 2163, 2164

Well Purging and Sampling Log

Project: 5066
 Agency Owner: city of sac
 Well: well 107
 Sample ID: CISW107
 Date: 9/23/14
 Weather: Sunny, warm
 Personnel: KH

GPS Information:
 Lat.: 38.46790
 Long.: -121.43143
 Acc.: _____
 Unit: gps map 62

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes No

Sample Point Description:
 At the wellhead
 After pressure tanks
From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: Domestic Irrigation Domestic/Irrigation

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used				
Temperature				

Purge start time: <u>11:10</u>		Purge Log					
Time	Volume	Temp	EC	DO	pH	ORP	Comments
11:20	0	19.9	373.6	6.25	7.47	507.9	
11:22	1	19.8	362.4	6.03	7.49	600.1	
11:24	3	19.7	361.1	6.08	7.48	650.0	
11:26	4	19.7	358.7	6.08	7.44	674.5	
11:28	5	19.7	356.8	6.05	7.40	691.1	

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>11:30</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
Alkalinity	Poly	16 oz	1	No		FGL
Stable Isotopes	Glass	Vial	1	No		UC Davis
Metals	Poly	250 mL	1	Yes	HNO3	FGL
SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes: 2165, 2166

Well Purging and Sampling Log

Project: 5066
 Agency Owner: City of SAC
 Well: Well 160
 Sample ID: CISW160
 Date: 9/23/14
 Weather: WARM
 Personnel: VH

GPS Information:
 Lat.: 38.47856
 Long.: -121.54276
 Acc.: _____
 Unit: _____

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes No

Sample Point Description:
 At the wellhead
 After pressure tanks
 ← from a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: ~~Domestic~~ Park Irrigation Domestic/Irrigation

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used				
Temperature				

Purge start time: <u>11:59</u>		Purge Log					
Time	Volume	Temp	EC	DO	pH	ORP	Comments
12:02	0	16.2	232.4	6.19	7.92	236.8	
12:04	2	16.2	232.4	5.59	7.90	208.0	
12:06	3	16.2	232.5	5.56	7.77	182.2	
12:08	4	16.2	232.3	5.52	7.78	159.8	
12:10	5	16.2	232.3	5.51	7.78	154.0	

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>12:10</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
Alkalinity	Poly	16 oz	1	No		FGL
Stable Isotopes	Glass	Vial	1	No		UC Davis
Metals	Poly	250 mL	1	Yes	HNO3	FGL
SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes: 2167, 2168

Well Purging and Sampling Log

Project: 5066
 Agency Owner: city of sac
 Well: well 7
 Sample ID: CISWE7
 Date: 9/23/14
 Weather: sunny, warm
 Personnel: KH

GPS Information:
 Lat.: 38.52413
 Long.: -121.50662
 Acc.: _____
 Unit: gps map62

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes No

Sample Point Description:
 At the wellhead
 After pressure tanks
 From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: Domestic irrigation Domestic/Irrigation

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used				
Temperature				

Purge start time: <u>12:45</u>		Purge Log					
Time	Volume	Temp	EC	DO	pH	ORP	Comments
<u>12:47</u>	<u>0</u>	<u>17.9</u>	<u>469.4</u>	<u>1.49</u>	<u>7.25</u>	<u>228.5</u>	
12:49							
13:00							
13:03							
13:06							
<u>12:51</u>	<u>0</u>	<u>17.9</u>	<u>469.0</u>	<u>0.85</u>	<u>7.28</u>	<u>228.5</u>	
<u>12:53</u>	<u>2</u>	<u>17.9</u>	<u>468.9</u>	<u>0.74</u>	<u>7.26</u>	<u>227.9</u>	
<u>12:55</u>	<u>4</u>	<u>17.9</u>	<u>467.8</u>	<u>0.68</u>	<u>7.23</u>	<u>226.0</u>	
<u>12:57</u>	<u>6</u>	<u>17.9</u>	<u>466.5</u>	<u>0.66</u>	<u>7.22</u>	<u>224.2</u>	

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>13:05</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
Alkalinity	Poly	16 oz	1	No		FGL
Stable Isotopes	Glass	Vial	1	No		UC Davis
Metals	Poly	250 mL	1	Yes	HNO3	FGL
SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes:

Well Purging and Sampling Log

Project: 5066
 Agency Owner: Sac County
 Well: Excelsior well #1
 Sample ID: SCOEXW
 Date: 10/7/14
 Weather: cool, windy
 Personnel: LH

GPS Information:
 Lat.: 38.50352
 Long.: 121.29747
 Acc.: _____
 Unit: _____

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes No

Sample Point Description:
At the wellhead
 After pressure tanks
 From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: Domestic Irrigation Domestic/Irrigation

7 Meter ¹⁰ Calibration Log						
	pH	EC	DO	ORP		
Standard Used	<u>7.0 / 10.03</u>	<u>421</u>	<u>10.70</u>	<u>0.10</u>		
Temperature	<u>22.1 / 22.1</u>	<u>22.0</u>	<u>19.3</u>	<u>21.1</u>	<u>19.9</u>	

Purge start time:		Purge Log						
Time	Volume	Temp	EC	DO	pH	ORP	Comments	
<u>8:08</u>	<u>0</u>	<u>20.8</u>	<u>106.9</u>	<u>3.93</u>	<u>6.82</u>	<u>194.5</u>		
<u>8:10</u>	<u>1</u>	<u>21.1</u>	<u>167.6</u>	<u>1.08</u>	<u>7.57</u>	<u>93.3</u>		
<u>8:12</u>	<u>2</u>	<u>21.1</u>	<u>167.9</u>	<u>0.25</u>	<u>7.70</u>	<u>13.6</u>		
<u>8:14</u>	<u>3</u>	<u>21.1</u>	<u>167.9</u>	<u>0.22</u>	<u>7.71</u>	<u>5.2</u>		
<u>8:16</u>	<u>4</u>	<u>21.1</u>	<u>167.9</u>	<u>0.07</u>	<u>7.71</u>	<u>-10.0</u>		
<u>8:18</u>	<u>5</u>	<u>21.1</u>	<u>167.9</u>	<u>0.04</u>	<u>7.71</u>	<u>-22.0</u>		

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>8:20</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
<input checked="" type="checkbox"/> Alkalinity	Poly	16 oz	1	No		FGL
<input checked="" type="checkbox"/> Stable Isotopes	Glass	Vial	1	No		UC Davis
<input checked="" type="checkbox"/> Metals	Poly	250 mL	1	Yes	HNO3	FGL
<input checked="" type="checkbox"/> SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes: 2170, 2171

Well Purging and Sampling Log

Project: 5066
 Agency Owner: Sac County
 Well: Rodriguez
 Sample ID: SCOROD
 Date: 10/7/14
 Weather: Sunny, cool
 Personnel: Klt

GPS Information:
 Lat.: 38.47343
 Long.: -121.30993
 Acc.: _____
 Unit: _____

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes No

Sample Point Description:

- At the wellhead
- After pressure tanks
- From a holding tank
- Spigot away from wellhead
- After filter
- Other _____

Well Type: Domestic Irrigation Domestic/Irrigation

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used	See SCOROD			
Temperature	fieldsheet			

Purge start time:		Purge Log					
Time	Volume	Temp	EC	DO	pH	ORP	Comments
9:00	0	21.8	209.1	0.16	7.77	-97.3	
9:02	2	21.8	209.1	0.16	7.77	-115.5	
9:04	4	21.8	209.1	0.11	7.77	-118.9	
9:06	6	21.8	209.1	0.11	7.76	-120.9	

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>9:10</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
Alkalinity	Poly	16 oz	1	No	 	FGL
<input checked="" type="checkbox"/> Stable Isotopes	Glass	Vial	1	No		UC Davis
Metals	Poly	250 mL	1	Yes	HNO3	FGL
SO4/TDS/NO3/CL	Poly	16 oz	1	Yes	 	FGL

Notes: 2172, 2173

Well Purging and Sampling Log

Project: SC66
 Agency Owner: Sac County
 Well: Andalusan
 Sample ID: SCOAND
 Date: 10/7/14
 Weather: Sunny
 Personnel: LH

GPS Information:
 Lat.: 38.45642
 Long.: -121.30962
 Acc.: _____
 Unit: _____

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes No

Sample Point Description:
At the wellhead
 After pressure tanks
 From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: Domestic Irrigation Domestic/Irrigation

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used		see	SCOEXW	
Temperature		field sheet		

Purge start time: 9:20 Purge Log

Time	Volume	Temp	EC	DO	pH	ORP	Comments
9:24	0	19.3	201.5	5.40	7.98	146.7	
9:26	2	19.3	201.3	4.90	7.09	166.6	
9:28	4	19.3	201.6	4.91	7.08	170.9	
9:30	5	19.3	201.4	4.92	7.11	171.5	
9:32	6	19.3	201.5	4.93	7.17	170.4	

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>9:35</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
✓ Alkalinity	Poly	16 oz	1	No		FGL
✓ Stable Isotopes	Glass	Vial	1	No		UC Davis
✓ Metals	Poly	250 mL	1	Yes	HNO3	FGL
✓ SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes: 2174

Well Purging and Sampling Log

Project: 5066
 Agency Owner: Sac County
 Well: Tillotson Pkwy
 Sample ID: SCO-TIP
 Date: 10/7/14
 Weather: Sunny, warm
 Personnel: 124

GPS Information:
 Lat.: 38.46007
 Long.: -121.36246
 Acc.: _____
 Unit: _____

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes No

Sample Point Description:
~~At the wellhead~~
 After pressure tanks
 From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: Domestic Irrigation Domestic/Irrigation

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used	Sa	SCOEXW		
Temperature		fresnell		

Purge start time:		Purge Log						
Time	Volume	Temp	EC	DO	pH	ORP	Comments	
10:04	0	24.3	189.0	0.13	7.02	7.0		
10:06	2	24.3	188.7	0.07	7.03	-41.8		
10:08	4	24.3	188.5	0.06	7.03	1.3		
10:10	6	24.3	188.5	0.05	7.02	21.9		
10:12	8	24.3	188.3	0.05	7.02	-48.2		

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>10:15</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
✓ Alkalinity	Poly	16 oz	1	No		FGL
✓ Stable Isotopes	Glass	Vial	1	No		UC Davis
✓ Metals	Poly	250 mL	1	Yes	HNO3	FGL
✓ SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes: 2175, 2176

Well Purging and Sampling Log

Project: 5066
 Agency Owner: Sac County
 Well: Sheldon North
 Sample ID: SCOSHNI
 Date: 10/7/14
 Weather: shady, cool
 Personnel: KH

GPS Information:
 Lat.: 38.43831
 Long.: -121.38727
 Acc.: _____
 Unit: _____

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes

Sample Point Description:
At the wellhead
 After pressure tanks
 From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: ~~Domestic~~ Irrigation Domestic/Irrigation

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used	See SDOEW			
Temperature	fieldmet			

Purge start time:		Purge Log					
Time	Volume	Temp	EC	DO	pH	ORP	Comments
10:40	0	19.6	238.0	6.75	7.60	151.9	
10:42	1	19.6	238.7	6.18	7.50	159.2	
10:44	2	19.5	237.9	6.12	7.47	163.6	
10:46	3	19.6	237.5	6.04	7.48	164.8	
10:48	4	19.6	237.8	6.00	7.48	165.2	

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>10:50</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
✓ Alkalinity	Poly	16 oz	1	No		FGL
✓ Stable Isotopes	Glass	Vial	1	No		UC Davis
✓ Metals	Poly	250 mL	1	Yes	HNO3	FGL
✓ SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes: 2177

Well Purging and Sampling Log

Project: 5066
 Agency Owner: JAC county
 Well: EAST Paek
 Sample ID: SCO EPA
 Date: 10/7/14
 Weather: Sunny
 Personnel: KH

GPS Information:
 Lat.: 38.41116
 Long.: -121.34781
 Acc.: _____
 Unit: _____

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes No

Sample Point Description:
At the wellhead
 After pressure tanks
 From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: Domestic Irrigation Domestic/Irrigation

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used	See SCO EPA			/
Temperature	/	field sheet	/	/

Purge start time:		Purge Log					
Time	Volume	Temp	EC	DO	pH	ORP	Comments
11:10	0	23.2	214.4	0.10	7.76	-124.8	
11:20	2	23.2	214.2	0.08	7.75	-129.1	
11:22	4	23.2	214.3	0.08	7.76	-130.9	
11:24	6	23.2	214.2	0.08	7.75	-131.8	
11:26	8	23.2	214.2	0.08	7.75	-131.6	

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>11:30</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
✓ Alkalinity	Poly	16 oz	1	No		FGL
✓ Stable Isotopes	Glass	Vial	1	No		UC Davis
✓ Metals	Poly	250 mL	1	Yes	HNO3	FGL
✓ SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes: 2170

Well Purging and Sampling Log

Project: 5066
 Agency Owner: Sac County
 Well: Suevey Road
 Sample ID: SCOSUR
 Date: 10/7/14
 Weather: SUNNY, warm
 Personnel: Kit

GPS Information:
 Lat.: 38.37812
 Long.: -121.35721
 Acc.: _____
 Unit: _____

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes No

Sample Point Description:
 At the wellhead
 After pressure tanks
 From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: Domestic Irrigation Domestic/Irrigation

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used		see SCOSUR	EXW	
Temperature		fieldsheet		

Purge start time:		Purge Log						
Time	Volume	Temp	EC	DO	pH	ORP	Comments	
12:04	0	18.2	375.0	3.75	7.45	199.9		
12:06	2	18.3	374.8	3.64	7.36	133.0		
12:08	4	18.3	374.8	3.57	7.37	132.0		
12:10	6	18.3	374.5	3.41	7.36	130.9		
12:12	8	18.3	374.3	3.35	7.36	130.0		
12:14	10	18.3	374.1	3.31	7.36	129.0		

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>12:15</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
✓ Alkalinity	Poly	16 oz	1	No		FGL
✓ Stable Isotopes	Glass	Vial	1	No		UC Davis
✓ Metals	Poly	250 mL	1	Yes	HNO3	FGL
✓ SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes: 2179

Well Purging and Sampling Log

Project: 5066
 Agency Owner: Sac County
 Well: McRoberts
 Sample ID: SCOMCR
 Date: 10/8/14
 Weather: Cool, sunny
 Personnel: KH

GPS Information:
 Lat.: 38.54089
 Long.: -121.26988
 Acc.: _____
 Unit: _____

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes No

Sample Point Description:
At the wellhead
 After pressure tanks
 From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: Domestic Irrigation Domestic/Irrigation

7 Meter ¹⁰ Calibration Log					
	pH		EC	DO	ORP
Standard Used	2.0	10.9	430	107%	234.5
Temperature	22.9	22.1	22.7	20.8	22.4

Purge start time:		Purge Log						
Time	Volume	Temp	EC	DO	pH	ORP	Comments	
7:58	0	21.7	150.9	0.09	7.76	60.1		
8:00	2	21.7	150.8	0.05	7.88	3.7		
8:02	4	21.7	151.0	0.05	7.89	-47.9		
8:04	6	21.7	151.0	0.05	7.84	-46.2		

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>8:05</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
<input checked="" type="checkbox"/> Alkalinity	Poly	16 oz	1	No		FGL
<input checked="" type="checkbox"/> Stable Isotopes	Glass	Vial	1	No		UC Davis
<input checked="" type="checkbox"/> Metals	Poly	250 mL	1	Yes	HNO3	FGL
<input checked="" type="checkbox"/> SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes: 2180, 2181

Well Purging and Sampling Log

Project: 5066
 Agency Owner: Sac County
 Well: Poppy Ridge WTP
 Sample ID: SCOPOR
 Date: 10/8/14
 Weather: Sunny, cool
 Personnel: KH

GPS Information:
 Lat.: 38.38980
 Long.: -121.41531
 Acc.: _____
 Unit: _____

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes No

Sample Point Description:
 At the wellhead
 After pressure tanks
 From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: Domestic Irrigation Domestic/Irrigation

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used	<u>see ^{SCOPOR} SACPP</u>			
Temperature	<u>field sheet</u>			

Purge start time:		Purge Log					
Time	Volume	Temp	EC	DO	pH	ORP	Comments
9:00	0	25.8	256.1	1.74	8.13	-11.3	
9:02	2	25.8	256.0	0.12	8.12	-34.0	
9:04	4	25.8	255.9	0.08	8.11	-47.2	

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>9:05</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
<input checked="" type="checkbox"/> Alkalinity	Poly	16 oz	1	No		FGL
<input checked="" type="checkbox"/> Stable Isotopes	Glass	Vial	1	No		UC Davis
<input checked="" type="checkbox"/> Metals	Poly	250 mL	1	Yes	HNO3	FGL
<input checked="" type="checkbox"/> SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes: 2182

Well Purging and Sampling Log

Project: 5066
 Agency Owner: Sac County
 Well: Banyon
 Sample ID: SCOBAN
 Date: 10/8/14
 Weather: sunny, cool
 Personnel: KH

GPS Information:
 Lat.: 38.41967
 Long.: -121.44388
 Acc.: _____
 Unit: _____

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes No

Sample Point Description:
 At the wellhead
 After pressure tanks
 From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: Domestic Irrigation Domestic/Irrigation

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used		See meter ^{SCONCE}		
Temperature		field sheet		

Purge start time: <u>9:25</u>							Purge Log
Time	Volume	Temp	EC	DO	pH	ORP	Comments
9:40	0	19.5	409.7	3.38	7.42	138.0	
9:42	2	19.4	408.2	3.35	7.42	138.7	
9:44	4	19.4	408.3	3.28	7.43	139.9	
9:46	6	19.4	408.8	3.25	7.43	141.2	
9:48	8	19.4	409.1	3.22	7.44	141.6	

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>9:50</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
Alkalinity	Poly	16 oz	1	No	 	FGL
✓ Stable Isotopes	Glass	Vial	1	No		UC Davis
Metals	Poly	250 mL	1	Yes	HNO3	FGL
SO4/TDS/NO3/CL	Poly	16 oz	1	Yes	 	FGL

Notes: 2183, 2184

Well Purging and Sampling Log

Project: 5066 GPS Information: Well Depth: _____
 Agency Owner: Sac County Lat.: 38.42754 Depth to Water: _____
 Well: Big Horn W-52 Long.: -121.41200 MP to LSE: _____
 Sample ID: SC0BHO Acc.: _____ Casing Dia.: _____
 Date: 10/8/14 Unit: _____
 Weather: Sunny, cool **DUP**
 Personnel: VH EC site: Yes No

Sample Point Description:
At the wellhead
 After pressure tanks
 From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: Domestic Irrigation Domestic/Irrigation

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used	See	SCONCP		↑
Temperature		fieldsheet		↑

Purge start time:		Purge Log					
Time	Volume	Temp	EC	DO	pH	ORP	Comments
10:10	0	18.8	482.2	5.96	7.27	150.3	
10:12	2	18.8	480.2	5.82	7.18	153.8	
10:14	4	18.8	479.9	5.83	7.19	156.2	
10:16	6	18.8	481.0	5.81	7.20	157.9	
10:18	8	18.8	479.2	5.80	7.20	158.2	

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>10:20</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
✓ Alkalinity	Poly	16 oz	1	No		FGL
✓ Stable Isotopes	Glass	Vial	1	No		UC Davis
✓ Metals	Poly	250 mL	1	Yes	HNO3	FGL
✓ SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes: DUP → SC0BHO2

2155
2186

Well Purging and Sampling Log

Project: SO6P
 Agency Owner: Sac County
 Well: Dwight Road
 Sample ID: SCODWI
 Date: 10/8/14
 Weather: Sunny
 Personnel: KH

GPS Information:
 Lat.: 38.4311
 Long.: -121.45830
 Acc.: _____
 Unit: _____

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes No

Sample Point Description:
At the wellhead
 After pressure tanks
 From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: Domestic Irrigation Domestic/Irrigation

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used	See SCOMCR			
Temperature	field sheet			

Purge start time:		Purge Log					
Time	Volume	Temp	EC	DO	pH	ORP	Comments
11:00	0	20.8	344.0	0.32	7.69	-57.1	
11:02	2	20.8	339.5	0.18	7.69	-84.4	
11:04	4	20.9	340.5	0.11	7.67	-119.6	
11:06	6	20.9	343.4	0.09	7.67	-124.5	

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>11:10</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
<input checked="" type="checkbox"/> Alkalinity	Poly	16 oz	1	No		FGL
<input checked="" type="checkbox"/> Stable Isotopes	Glass	Vial	1	No		UC Davis
<input checked="" type="checkbox"/> Metals	Poly	250 mL	1	Yes	HNO3	FGL
<input checked="" type="checkbox"/> SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes: 2187, 2188, 2189

Well Purging and Sampling Log

Project: 5066
 Agency Owner: Golden State
 Well: Dolecetto 6
 Sample ID: GSDOL6
 Date: 11/4/14
 Weather: sunny, breezy
 Personnel: Kit

GPS Information:
 Lat.: 38.59995
 Long.: -121.29960
 Acc.: _____
 Unit: _____

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes No

Sample Point Description:
At the wellhead
 After pressure tanks
 From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: Domestic Irrigation Domestic/Irrigation

Meter Calibration Log					
	pH		EC	DO	ORP
Standard Used	703	10.04	421	180.2	242.0
Temperature	16.8	16.8	22.0	17.7	16.0

Purge start time:		Purge Log						
Time	Volume	Temp	EC	DO	pH	ORP	Comments	
9:34	0	18.7	419.7	7.13	7.15	174.9		
9:36	1	18.7	418.2	7.22	7.15	178.2		
9:38	2	18.7	419.7	7.30	7.15	180.5		
9:40	3	18.7	420.3	7.36	7.15	183.1		
9:42	4	18.7	418.9	7.34	7.15	183.6		
9:44	5	18.7	418.7	7.38	7.16	184.0		

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>9:45</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
✓ Alkalinity	Poly	16 oz	1	No		FGL
✓ Stable Isotopes	Glass	Vial	1	No		UC Davis
✓ Metals	Poly	250 mL	1	Yes	HNO3	FGL
✓ SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes: need construction information.

2250, 2257

Well Purging and Sampling Log

Project: 5066
 Agency Owner: Golden State
 Well: Mather 18
 Sample ID: GSMA18
 Date: 11/4/14
 Weather: Sunny
 Personnel: KH

GPS Information:
 Lat.: 38.57429
 Long.: -121.29358
 Acc.: _____
 Unit: _____

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes No

Sample Point Description:
 At the wellhead
 After pressure tanks
 From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: Domestic Irrigation Domestic/Irrigation

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used	+ see	GSD046		+
Temperature		field sheet		

Purge start time:		Purge Log						
Time	Volume	Temp	EC	DO	pH	ORP	Comments	
10:12	6	20.3	11.1	7.06	7.77	171.9		
10:14	2	20.3	110.5	7.15	7.75	171.4		
10:16	4	20.4	110.7	7.12	7.74	171.3		
10:18	6	20.4	110.6	7.10	7.73	171.1		

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>10:20</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
✓ Alkalinity	Poly	16 oz	1	No		FGL
✓ Stable Isotopes	Glass	Vial	1	No		UC Davis
✓ Metals	Poly	250 mL	1	Yes	HNO3	FGL
✓ SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes: 2258, 2259

Well Purging and Sampling Log

Project: 5066
 Agency Owner: Golden State
 Well: Agnes Well 8
 Sample ID: GSAGW8
 Date: 11/4/14
 Weather: SUNNY, WARM
 Personnel: KH

GPS Information:
 Lat.: 38.59773
 Long.: -121.3115
 Acc.: _____
 Unit: _____

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes No

Sample Point Description:
At the wellhead
 After pressure tanks
 From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: Domestic Irrigation Domestic/Irrigation

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used	see GSDOLP			
Temperature	field sheet			

Purge start time:							Purge Log
Time	Volume	Temp	EC	DO	pH	ORP	Comments
11:04	0	19.0	319.2	5.64	7.75	178.4	
11:06	2	19.0	319.0	5.39	7.75	177.7	
11:08	3	19.0	319.3	5.40	7.76	178.6	
11:10	4	19.0	319.5	5.22	7.76	180.6	

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>11:10</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
Alkalinity	Poly	16 oz	1	No		FGL
✓ Stable Isotopes	Glass	Vial	1	No		UC Davis
Metals	Poly	250 mL	1	Yes	HNO3	FGL
SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes:
 isotope only 2/16/16

Well Purging and Sampling Log

Project: 5066
 Agency Owner: Golden State
 Well: So. Bridge St. #22-A
 Sample ID: ~~GS105A~~ GSBSA
 Date: 11/4/14
 Weather: Sunny
 Personnel: KH

GPS Information:
 Lat.: 38.63370
 Long.: -121.26226
 Acc.: _____
 Unit: _____

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes No

Sample Point Description:
 At the wellhead
 After pressure tanks
 From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: Domestic Irrigation Domestic/Irrigation

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used	see	GSD066		
Temperature		fieldsheet		

Purge start time:		Purge Log						
Time	Volume	Temp	EC	DO	pH	ORP	Comments	
11:40	0	15.2	114.1	3.84	7.41	191.2		
11:42	2	15.2	114.4	3.80	7.36	192.4		
11:44	4	15.2	114.2	3.78	7.33	193.4		
11:46								
11:48								
11:50								

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____ 11:45

Sample Collection Log						Sample time: 11:50
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
Alkalinity	Poly	16 oz	1	No		FGL
Stable Isotopes	Glass	Vial	1	No		UC Davis
Metals	Poly	250 mL	1	Yes	HNO3	FGL
SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes:
 isotope only 226L, 226R

*duplicate
GSP 17*

Well Purging and Sampling Log

Project: 5066
 Agency Owner: Golden State
 Well: Park 17
 Sample ID: GSP17
 Date: 11/4/14
 Weather: Sunny, warm
 Personnel: KK

GPS Information:
 Lat.: 38.03531
 Long.: -121.23945
 Acc.: _____
 Unit: _____

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes No

Sample Point Description:

At the wellhead
 After pressure tanks
 From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: Domestic Irrigation Domestic/Irrigation

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used		<u>see GSDOL6</u>		
Temperature		<u>field used</u>		

Purge start time:		Purge Log					Comments
Time	Volume	Temp	EC	DO	pH	ORP	
12:10	0	16.4	66.2	4.99	6.55	225.9	
12:12	2	16.4	66.4	4.94	6.52	226.0	
12:14	4	16.4	66.4	4.75	6.54	223.1	
12:16	6	16.4	66.9	4.72	6.53	222.6	
12:18	8	16.5	57.0	4.71	6.53	222.0	

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>12:20</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
✓ Alkalinity	Poly	16 oz	1	No		FGL
✓ Stable Isotopes	Glass	Vial	1	No		UC Davis
✓ Metals	Poly	250 mL	1	Yes	HNO3	FGL
✓ SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes: 2263

Well Purging and Sampling Log

Project: 5066
 Agency Owner: CalAm
 Well: Countryside 1
 Sample ID: CACOS1
 Date: 11/10/14
 Weather: Sunny, cool
 Personnel: KH

GPS Information:
 Lat.: 38.45001
 Long.: 121.40302
 Acc.: _____
 Unit: _____

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes No

Sample Point Description:
 At the wellhead
 After pressure tanks
 From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: Domestic Irrigation Monitoring

Meter Calibration Log					
	pH		EC	DO	ORP
Standard Used	7.03	10.09	383	100%	240.9
Temperature	17.3	17.3	17.7	16.6	17.4

Purge start time:		Purge Log					
Time	Volume	Temp	EC	DO	pH	ORP	Comments
9:26	0	21.4	200.4	0.18	7.62	-89.2	
9:28	2	21.5	200.2	0.12	7.71	-117.4	
9:30	4	21.5	200.3	0.11	7.69	-119.3	
9:32	6	21.4	200.3	0.10	7.71	-127.5	
9:34	8	21.5	200.4	0.10	7.71	-124.8	

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>9:35</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
Alkalinity	Poly	16 oz	1	No		FGL
✓ Stable Isotopes	Glass	Vial	1	No		UC Davis
Metals	Poly	250 mL	1	Yes	HNO3	FGL
SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes: 2270

Well Purging and Sampling Log

Project: SOG66
 Agency Owner: CalAm
 Well: Vintage 2
 Sample ID: CAVIN 2
 Date: 11/10/14
 Weather: Sunny, warm
 Personnel: Kit

GPS Information:
 Lat.: 38.45461
 Long.: -121.38116
 Acc.: _____
 Unit: _____

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes No

Sample Point Description:
 At the well head
 After pressure tanks
 From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: Domestic Irrigation Monitoring

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used		see CACOST		
Temperature		held steady		

Purge start time:		Purge Log					
Time	Volume	Temp	EC	DO	pH	ORP	Comments
10:04	0	24.7	176.7	0.28	7.88	-25.0	
10:06	2	24.7	176.7	0.15	7.89	-76.9	
10:08	4	24.7	176.7	0.12	7.89	-95.3	
10:10	6	24.7	176.6	0.09	7.89	-105.8	
10:12	8	24.7	176.6	0.10	7.89	-108.1	
10:14	10	24.7	176.5	0.12	7.89	-106.4	

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: 10:15
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
<input checked="" type="checkbox"/> Alkalinity	Poly	16 oz	1	No		FGL
<input checked="" type="checkbox"/> Stable Isotopes	Glass	Vial	1	No		UC Davis
<input checked="" type="checkbox"/> Metals	Poly	250 mL	1	Yes	HNO3	FGL
<input checked="" type="checkbox"/> SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes: 2271

Well Purging and Sampling Log

Project: 5066
 Agency Owner: CalAm
 Well: Park Sta 2
 Sample ID: ~~APASS~~ CAPRS2
 Date: 11/10/14
 Weather: Sunny w/ a breeze
 Personnel: KH

GPS Information:
 Lat.: 38.47389
 Long.: -121.39922
 Acc.: _____
 Unit: _____

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes No

Sample Point Description:
 At the wellhead
 After pressure tanks
 From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: Domestic Irrigation Monitoring

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used	<u>see CACOS 2</u>			
Temperature	<u>field sheet</u>			

Purge start time:		Purge Log					
Time	Volume	Temp	EC	DO	pH	ORP	Comments
10:58	0	23.9	194.8	0.14	7.79	-106.4	
11:00	2	23.9	195.4	0.12	7.77	-115.2	
11:02	4	23.9	195.3	0.11	7.79	-122.0	
11:04	6	23.9	195.5	0.10	7.76	-123.0	

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>11:05</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
Alkalinity	Poly	16 oz	1	No		FGL
✓ Stable Isotopes	Glass	Vial	1	No		UC Davis
Metals	Poly	250 mL	1	Yes	HNO3	FGL
SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes: 2272

turned well on at 10:40. ~~needs to~~ hasn't been ran for awhile

Well Purging and Sampling Log

Project: 5066
 Agency Owner: CalAm
 Well: Briggs
 Sample ID: CABRIC
 Date: 11/10/14
 Weather: sunny
 Personnel: KH

GPS Information:
 Lat.: 38.49836
 Long.: -121.41686
 Acc.: _____
 Unit: _____

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes No

Sample Point Description:
At the wellhead
 After pressure tanks
 From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: Domestic Irrigation Monitoring

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used	<u>see CACOS 1</u>			
Temperature	<u>relasnet</u>			

Purge start time: <u>11:30</u>		Purge Log					
Time	Volume	Temp	EC	DO	pH	ORP	Comments
<u>11:30</u>	<u>0</u>	<u>20.2</u>	<u>196.1</u>	<u>2.13</u>	<u>7.61</u>	<u>123.1</u>	
<u>11:40</u>	<u>2</u>	<u>20.2</u>	<u>196.7</u>	<u>2.16</u>	<u>7.61</u>	<u>122.2</u>	
<u>11:42</u>	<u>4</u>	<u>20.2</u>	<u>197.7</u>	<u>2.17</u>	<u>7.61</u>	<u>121.6</u>	
<u>11:44</u>	<u>6</u>	<u>20.2</u>	<u>198.4</u>	<u>2.19</u>	<u>7.61</u>	<u>121.4</u>	

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>11:45</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
<input checked="" type="checkbox"/> Alkalinity	Poly	16 oz	1	No		FGL
<input checked="" type="checkbox"/> Stable Isotopes	Glass	Vial	1	No		UC Davis
<input checked="" type="checkbox"/> Metals	Poly	250 mL	1	Yes	HNO3	FGL
<input checked="" type="checkbox"/> SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes: 2273

Well Purging and Sampling Log

Project: 5066
 Agency Owner: CalAm
 Well: Lippi
 Sample ID: CALIP
 Date: 11/10/14
 Weather: Sunny, warm
 Personnel: KH

GPS Information:
 Lat.: 38.4755
 Long.: -121.45013
 Acc.: _____
 Unit: _____

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes No

Sample Point Description:
 At the wellhead
 After pressure tanks
 From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: Domestic Irrigation Monitoring

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used		see CACDS1		
Temperature		field sheet		

Purge start time:							Purge Log
Time	Volume	Temp	EC	DO	pH	ORP	Comments
12:12	0	19.1	574	3.91	7.32	165.4	
12:14	2	19.1	570	3.83	7.32	165.5	
12:16	4	19.1	570	3.79	7.32	166.0	
12:18	6	19.1	571	3.78	7.32	166.4	

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>12:20</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
✓ Alkalinity	Poly	16 oz	1	No		FGL
✓ Stable Isotopes	Glass	Vial	1	No		UC Davis
✓ Metals	Poly	250 mL	1	Yes	HNO3	FGL
✓ SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes: 2274

Well Purging and Sampling Log

Project: 5065
 Agency Owner: Cal Am
 Well: Woodman Way
 Sample ID: CAWODW
 Date: 11/11/14
 Weather: Sunny, cool
 Personnel: KH

GPS Information:
 Lat.: 38.56651
 Long.: -121.37388
 Acc.: _____
 Unit: _____

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes No

Sample Point Description:
 At the wellhead
 After pressure tanks
 From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: Domestic Irrigation Monitoring

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used	<u>7.03 10.08</u>	<u>3800</u>	<u>100%</u>	<u>240.9</u>
Temperature	<u>17.4 17.4</u>	<u>17.7</u>	<u>17.3</u>	<u>17.3</u>

Purge start time:		Purge Log					Comments
Time	Volume	Temp	EC	DO	pH	ORP	
9:10	0	16.8	130.4	2.20	7.42	213.5	
9:12	2	16.8	129.9	2.17	7.53	208.3	
9:14	4	16.9	129.3	2.13	7.60	204.1	
9:16	6	17.0	128.7	2.12	7.64	200.3	
9:18	8	17.1	127.6	2.12	7.67	196.3	

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>9:20</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
<input checked="" type="checkbox"/> Alkalinity	Poly	16 oz	1	No		FGL
<input checked="" type="checkbox"/> Stable Isotopes	Glass	Vial	1	No		UC Davis
<input checked="" type="checkbox"/> Metals	Poly	250 mL	1	Yes	HNO3	FGL
<input checked="" type="checkbox"/> SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes: 2275

Well Purging and Sampling Log

Project: 5066
 Agency Owner: Cal Am
 Well: Tallyho 2
 Sample ID: CATLH2
 Date: 11/11/14
 Weather: cool cloudy
 Personnel: KH

GPS Information:
 Lat.: 38.54195
 Long.: -121.35024
 Acc.: _____
 Unit: _____

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes No

Sample Point Description:
At the wellhead
 After pressure tanks
 From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: Domestic Irrigation Domestic/Irrigation

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used	+ see	CAWOD		
Temperature		fieldsheet		

Purge start time:		Purge Log						
Time	Volume	Temp	EC	DO	pH	ORP	Comments	
9:52	0	20.6	180.8	3.28	8.01	1867		
9:54	2	20.6	180.6	3.19	8.02	1856		
9:56	4	20.6	180.4	3.07	8.02	180.5		
9:58	6	20.6	180.4	3.06	8.03	180.5		

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>10:00</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
Alkalinity	Poly	16 oz	1	No		FGL
✓ Stable Isotopes	Glass	Vial	1	No		UC Davis
Metals	Poly	250 mL	1	Yes	HNO3	FGL
SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes:

Well Purging and Sampling Log

Project: S066
 Agency Owner: Cal Am
 Well: Oakenbucket
 Sample ID: CAOAK
 Date: 11/11/14
 Weather: Overcast, breeze
 Personnel: KH

GPS Information:
 Lat.: 3856114
 Long.: -121.33757
 Acc.: _____
 Unit: _____

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes No

Sample Point Description:
 At the wellhead
 After pressure tanks
 From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: Domestic Irrigation Domestic/Irrigation

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used	see CAWCD			
Temperature	field sheet			

Purge start time:		Purge Log					
Time	Volume	Temp	EC	DO	pH	ORP	Comments
10:24	0	20.1	164.8	5.76	8.02	186.6	
10:26	2	20.1	164.6	5.60	8.02	186.4	
10:28	4	20.1	164.5	5.61	8.02	186.5	
10:30	6	20.1	164.3	5.58	8.02	186.8	

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>10:30</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
<input checked="" type="checkbox"/> Alkalinity	Poly	16 oz	1	No		FGL
<input checked="" type="checkbox"/> Stable Isotopes	Glass	Vial	1	No		UC Davis
<input checked="" type="checkbox"/> Metals	Poly	250 mL	1	Yes	HNO3	FGL
<input checked="" type="checkbox"/> SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes:

2276

Well Purging and Sampling Log

Project: SOLB
 Agency Owner: CalAm
 Well: Gould
 Sample ID: CAGOLD
 Date: 11/11/14
 Weather: cloudy
 Personnel: VH

GPS Information:
 Lat.: 38.57061
 Long.: -121.31631
 Acc.: _____
 Unit: _____

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes No

Sample Point Description:
 At the wellhead
 After pressure tanks
 From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: Domestic Irrigation Domestic/Irrigation

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used	see CAWOP			
Temperature	see sheet			

Purge start time:		Purge Log					
Time	Volume	Temp	EC	DO	pH	ORP	Comments
10:51	0	19.4	253.7	7.28	7.28	211.0	
10:56	2	19.4	254.1	7.20	7.26	213.1	
10:58	4	19.4	253.7	7.14	7.26	213.9	
11:00	6	19.4	254.4	7.07	7.25	214.7	

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>11:00</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
Alkalinity	Poly	16 oz	1	No		FGL
Stable Isotopes	Glass	Vial	1	No		UC Davis
Metals	Poly	250 mL	1	Yes	HNO3	FGL
SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes:

Well Purging and Sampling Log

Project: SC6B
 Agency Owner: SCGA
 Well: SCGA 20
 Sample ID: SCGA20
 Date: 12/1/11
 Weather: cool
 Personnel: VH

GPS Information:
 Lat.: 38.57165
 Long.: -121.18693
 Acc.: _____
 Unit: gpsmap 62

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes No

Sample Point Description:
 At the wellhead
 After pressure tanks
 From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: Domestic Irrigation Domestic/Irrigation

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used	7.03 108	447	100%	241.4
Temperature	17.4/17.4	17.3	16.5	17.1

Purge start time: <u>9:22</u>		Purge Log					
Time	Volume	Temp	EC	DO	pH	ORP	Comments
9:26	0	20.2	197.6	9.96	7.10	159.2	
9:28	3	20.2	197.6	9.99	7.12	165.3	
9:30	5	20.1	197.2	10.05	7.14	169.5	
9:32	7	20.1	196.9	10.10	7.14	174.2	
9:34	9	20.1	197.0	10.09	7.11	178.6	

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>9:35</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
Alkalinity	Poly	16 oz	1	No		FGL
Stable Isotopes	Glass	Vial	1	No		UC Davis
Metals	Poly	250 mL	1	Yes	HNO3	FGL
SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes:

dup site.

SCGA20d

pump 210'
well 700'

Well Purging and Sampling Log

Project: 5066
 Agency Owner: SCGA
 Well: SCGA 23
 Sample ID: SCGA23
 Date: 12/19/14
 Weather: Sunny
 Personnel: MM

GPS Information:
 Lat.: 38.50409
 Long.: -121.22033
 Acc.: _____
 Unit: gps map 62

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes No

Sample Point Description:
 At the wellhead
 After pressure tanks
 From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: Domestic Irrigation Domestic/Irrigation

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used	F se	SCGA20		1
Temperature	F	field sheet	—	—

Purge start time:		Purge Log						
Time	Volume	Temp	EC	DO	pH	ORP	Comments	
10:10	0	19.5	192.4	10.04	7.11	193.1		
10:12	2	19.6	203.0	10.12	7.11	194.9		
10:14	4	19.6	203.3	10.25	7.09	198.4		
10:16	6	19.6	203.5	10.34	7.08	199.8		
10:18	8	19.7	203.6	10.47	7.07	202.0		
10:20	10	19.6	203.6	10.56	7.07	203.6		

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>10:20</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
Alkalinity	Poly	16 oz	1	No		FGL
Stable Isotopes	Glass	Vial	1	No		UC Davis
Metals	Poly	250 mL	1	Yes	HNO3	FGL
SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes:

Well Purging and Sampling Log

Project: 5066
 Agency Owner: Sac County
 Well: Perry Ranch
 Sample ID: SACPR
 Date: 12/22/14
 Weather: cool, cloudy
 Personnel: KH

GPS Information:
 Lat.: 38.44952
 Long.: 121.35361
 Acc.: _____
 Unit: gpsmap62

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes

Sample Point Description:
At the wellhead
 After pressure tanks
 From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: ~~Domestic~~ Irrigation Domestic/Irrigation

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used	<u>7.04/10.10</u>	<u>447379</u>	<u>100%</u>	<u>2420</u>
Temperature	<u>16.3/16.3</u>	<u>16.6</u>	<u>15</u>	<u>16.6</u>

Purge start time: <u>8:45</u>		Purge Log					
Time	Volume	Temp	EC	DO	pH	ORP	Comments
<u>8:54</u>	<u>0</u>	<u>22.6</u>	<u>182.9</u>	<u>4.32</u>	<u>7.76</u>	<u>36.9</u>	
<u>8:56</u>	<u>2</u>	<u>22.5</u>	<u>182.4</u>	<u>4.32</u>	<u>7.77</u>	<u>59.8</u>	
<u>8:58</u>	<u>4</u>	<u>22.6</u>	<u>182.5</u>	<u>4.30</u>	<u>7.81</u>	<u>77.6</u>	
<u>9:00</u>	<u>6</u>	<u>22.5</u>	<u>182.0</u>	<u>4.30</u>	<u>7.81</u>	<u>90.7</u>	
<u>9:02</u>	<u>8</u>	<u>22.6</u>	<u>182.1</u>	<u>4.32</u>	<u>7.80</u>	<u>26.5</u>	
<u>9:04</u>	<u>10</u>	<u>22.2</u>	<u>182.4</u>	<u>4.40</u>	<u>7.80</u>	<u>23.2</u>	

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>9:05</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
<input checked="" type="checkbox"/> Alkalinity	Poly	16 oz	1	No		FGL
<input checked="" type="checkbox"/> Stable Isotopes	Glass	Vial	1	No		UC Davis
<input checked="" type="checkbox"/> Metals	Poly	250 mL	1	Yes	HNO3	FGL
<input checked="" type="checkbox"/> SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes:

Well Purging and Sampling Log

Project: 5066
 Agency Owner: Sac County
 Well: Equine
 Sample ID: SACEQ
 Date: 12/22/14
 Weather: cool, cloudy
 Personnel: VH

GPS Information:
 Lat.: 38.45676
 Long.: -121.30328
 Acc.: _____
 Unit: GPS map 62

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes

Sample Point Description:
At the wellhead
 After pressure tanks
 From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: Domestic Irrigation Domestic/Irrigation

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used	<u>see</u>			
Temperature		<u>SACPR</u>		

Purge start time:		Purge Log					
Time	Volume	Temp	EC	DO	pH	ORP	Comments
9:48	0	19.5	112.1	40.3	7.43	111.5	
9:50	2	19.5	103.7	3.64	7.38	102.8	
9:52	4	19.5	192.0	3.61	7.37	97.9	
9:54	6	19.5	192.0	3.61	7.35	95.1	

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>9:55</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
<input checked="" type="checkbox"/> Alkalinity	Poly	16 oz	1	No		FGL
<input checked="" type="checkbox"/> Stable Isotopes	Glass	Vial	1	No		UC Davis
<input checked="" type="checkbox"/> Metals	Poly	250 mL	1	Yes	HNO3	FGL
<input checked="" type="checkbox"/> SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes: 1299 turned well on at 9:27. let run for 15mins

Well Purging and Sampling Log

Project: 5066
 Agency Owner: Sac County
 Well: Waterman Ranch
 Sample ID: SACWR
 Date: 12/22/14
 Weather: cool, cloudy
 Personnel: KH

GPS Information:
 Lat.: 38.40193
 Long.: -121.34958
 Acc.: _____
 Unit: gps map 62.

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes No

Sample Point Description:
 At the wellhead
 After pressure tanks
 From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: Domestic Irrigation Domestic/Irrigation

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used		see SACPR		
Temperature		held next		

Purge start time:		Purge Log					
Time	Volume	Temp	EC	DO	pH	ORP	Comments
10:50	0	22.3	186.1	0.27	7.86	-121.4	
10:52	2	22.3	187.9	0.17	7.86	-132.3	
10:54	4	22.4	188.7	0.12	7.86	-140.2	
10:56	6	22.4	189.0	0.11	7.85	-142.3	
10:58	8	22.4	189.0	0.11	7.85	-142.8	

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>11:00</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
Alkalinity	Poly	16 oz	1	No		FGL
✓ Stable Isotopes	Glass	Vial	1	No		UC Davis
Metals	Poly	250 mL	1	Yes	HNO3	FGL
SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes: 10:40 started well. waiting 10 mins to take readings.

Well Purging and Sampling Log

Project: 5066
 Agency Owner: SCGA
 Well: SCGA 15
 Sample ID: SCGA15
 Date: 12/22/14
 Weather: cool, windy
 Personnel: LT

GPS Information:
 Lat.: 38.51910
 Long.: -121.30179
 Acc.: _____
 Unit: GPS map 42

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes

Sample Point Description:
 At the wellhead
 After pressure tanks
 From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: Domestic Irrigation Domestic/Irrigation

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used	<u>sa</u>	<u>SACR</u>	<u>SACPR</u>	<u>1</u>
Temperature	<u>held shed</u>			

Purge start time:		Purge Log						
Time	Volume	Temp	EC	DO	pH	ORP	Comments	
<u>14:22</u>	<u>0</u>	<u>17.6</u>	<u>166.5</u>	<u>10.28</u>	<u>7.86</u>	<u>141.8</u>		
<u>14:24</u>	<u>2</u>	<u>18.1</u>	<u>109.9</u>	<u>10.38</u>	<u>7.79</u>	<u>136.3</u>		
<u>14:26</u>	<u>4</u>	<u>18.0</u>	<u>110.3</u>	<u>10.44</u>	<u>7.78</u>	<u>132.7</u>		
<u>14:28</u>	<u>6</u>	<u>18.4</u>	<u>167.2</u>	<u>10.47</u>	<u>7.74</u>	<u>129.9</u>		
<u>14:30</u>	<u>10</u>	<u>18.8</u>	<u>167.5</u>	<u>10.41</u>	<u>7.69</u>	<u>132.1</u>		

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>14:30</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
<input checked="" type="checkbox"/> Alkalinity	Poly	16 oz	1	No		FGL
<input checked="" type="checkbox"/> Stable Isotopes	Glass	Vial	1	No		UC Davis
<input checked="" type="checkbox"/> Metals	Poly	250 mL	1	Yes	HNO3	FGL
<input checked="" type="checkbox"/> SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes:

Well Purging and Sampling Log

Project: 5066
 Agency Owner: SCGA
 Well: SCGA #17
 Sample ID: SCGA17
 Date: 12/22/14
 Weather: Sunny
 Personnel: VH

GPS Information:
 Lat.: 28.52235
 Long.: -121.36298
 Acc.: _____
 Unit: GPS map 62

Well Depth: _____
 Depth to Water: _____
 MP to LSE: _____
 Casing Dia.: _____

QC site: Yes

Sample Point Description:
 At the wellhead
After pressure tanks
 From a holding tank
 Spigot away from wellhead
 After filter
 Other _____

Well Type: Domestic Irrigation Monitoring

Meter Calibration Log				
	pH	EC	DO	ORP
Standard Used	<u>see SAC PR</u>			
Temperature	<u>field sheet</u>			

Purge start time:		Purge Log						
Time	Volume	Temp	EC	DO	pH	ORP	Comments	
15:22	0	18.3	174.8	8.91	7.72	170.8		
15:24	2	18.3	174.8	8.92	7.72	171.3		
15:26	4	18.4	174.8	8.63	7.69	173.1		
15:28	6	18.4	174.8	8.60	7.70	173.6		

Purge Method: submersible turbine pump other _____
 Sampling Method: submersible turbine pump other _____

Sample Collection Log						Sample time: <u>5:30</u>
Analysis	Type	Volume	Quantity	Filtered	Preservative	Lab
✓ Alkalinity	Poly	16 oz	1	No		FGL
✓ Stable Isotopes	Glass	Vial	1	No		UC Davis
✓ Metals	Poly	250 mL	1	Yes	HNO3	FGL
✓ SO4/TDS/NO3/CL	Poly	16 oz	1	Yes		FGL

Notes:

Chain of custody records for
submitted samples

				35039:08/04/2014		TEST DESCRIPTION - See Reverse side for Container, Preservative and Sampling information															
Client: HydroFocus, Inc. Address: Teresa Deverel P.O. Box 2401 Davis, CA 95617 Phone: (530)759-2484 Fax: (530)756-2687 Contact Person: Teresa Deverel Project Name: Project #5066 GW Monitoring Purchase Order Number: Quote Number:				Method of Sampling: Composite(C) Grab(G) Type of Sample: **SEE REVERSE SIDE** Potable(P) Non-Potable(NP) Ag Water(AgW) Bacti Type: Other(O) System(SYS) Source(SR) Waste(W) Bacti Reason: Routine(ROUT) Repeat(RPT) Replace(RPL) Other(O) Special(SPL)																	
Sampler(s) Sampling Fee: _____ Pickup Fee: _____ Compositor Setup Date: ___/___/___ Time: ___/___/___																					
Lab Number: STK 3-15742																					
Samp Num	Location Description	Date Sampled	Time Sampled																		
1	CISW107	9/23/14	11:30	G	GW				1	1	1										
2	CISW85	9/23/14	10:35	G	GW				1	1	1										
3	CISW120	9/23/14	10:00 10:00	G	GW				1	1	1										
4	CISW E7	9/23/14	13:05	G	GW				1	1	1										
5	CISW E L3	9/23/14	10:00 10:00	G	GW				1	1	1										
6	CISW160	9/23/14	12:10	G	GW				1	1	1										
7				G	GW				1	1	1										
8				G	GW				1	1	1										
9				G	GW				1	1	1										
10				G	GW				1	1	1										
Remarks:				Relinquished		Date:	Time:	Relinquished		Date:	Time:	Relinquished		Date:	Time:						
				Received By: <i>Misty Hines</i>		Date:	Time:	Received By:		Date:	Time:	Received By:		Date:	Time:						
						Date:	Time:			Date:	Time:			Date:	Time:						
						Date:	Time:			Date:	Time:			Date:	Time:						


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 853 Corporation Street
 Santa Paula, CA 93060
 Phone: (805) 392-2000
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Office & Laboratory
 2500 Stagecoach Road
 Stockton, CA 95215
 Phone: (209) 942-0182
 Fax: (209) 942-0423

Office & Laboratory
 563 E. Lindo
 Chico, CA 95926
 Phone: (530) 343-5818
 Fax: (530) 343-3807

Office & Laboratory
 3442 Empresa Drive, Suite D
 San Luis Obispo, CA 93401
 Phone: (805) 783-2940
 Fax: (805) 783-2912

Office & Laboratory
 9415 W. Goshen Avenue
 Visalia, CA 93291
 Phone: (559) 734-9473
 Fax: (559) 734-8435

				35039:08/04/2014				TEST DESCRIPTION - See Reverse side for Container, Preservative and Sampling information												
Client: HydroFocus, Inc. Address: Teresa Deverel P.O. Box 2401 Davis, CA 95617 Phone: (530)759-2484 Fax: (530)756-2687 Contact Person: Teresa Deverel Project Name: Project #5066 GW Monitoring Purchase Order Number: Quote Number:				Method of Sampling: Composite(C) Grab(G) Type of Sample: **SEE REVERSE SIDE** Potable(P) Non-Potable(NP) Ag Water(AgW) Bacti Type: Other(O) System(SYS) Source(SR) Waste(W) Bacti Reason: Routine(ROUT) Repeat(RPT) Replace(RPL) Other(O) Special(SPL) Metals, Diss-Ca, Mg, K, Na 250ml(P) Wet Chemistry-Alk. (CaCO3) 16oz(P) Wet Chemistry-SO4, TDS, NO3, Cl 16oz(P)																
Sampler(s) Sampling Fee: _____ Pickup Fee: _____ Compositor Setup Date: ___/___/___ Time: ___/___/___				Lab Number: STK 3-15742																
Samp Num	Location Description	Date Sampled	Time Sampled	Method	Type	Potable	Bacti	Bacti Reason	Other	Metals	Wet Chem	Wet Chem								
1	SCOEXW	10/7/14	8:20	G	GW					1	1	1								
2	SCOAND	10/7/14	9:35	G	GW					1	1	1								
3	SCOTIP	10/7/14	10:15	G	GW					1	1	1								
4	SCOSHJ	10/7/14	10:50	G	GW					1	1	1								
5	SCO EPA	10/7/14	11:30	G	GW					1	1	1								
6	SCOSUR	10/7/14	12:15	G	GW					1	1	1								
7				G	GW					1	1	1								
8				G	GW					1	1	1								
9				G	GW					1	1	1								
10				G	GW					1	1	1								
Remarks:				Relinquished Date: Time:				Relinquished Date: Time:				Relinquished Date: Time:								
Received By: Date: Time:				Received By: Date: Time:				Received By: Date: Time:				Received By: Date: Time:								

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 853 Corporation Street
 Santa Paula, CA 93060
 Phone: (805) 392-2000
 Env Fax: (805) 525-4172 / Ag Fax: (805) 392-2063

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 2500 Stagecoach Road
 Stockton, CA 95215
 Phone: (209) 942-0182
 Fax: (209) 942-0423

Office & Laboratory
 563 E. Lindo
 Chico, CA 95926
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 3442 Empresa Drive, Suite D
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35039:08/04/2014				TEST DESCRIPTION - See Reverse side for Container, Preservative and Sampling information																	
Client: HydroFocus, Inc. Address: Teresa Deverel P.O. Box 2401 Davis, CA 95617 Phone: (530)759-2484 Fax: (530)756-2687 Contact Person: Teresa Deverel Project Name: Project #5066 GW Monitoring Purchase Order Number: Quote Number:				Method of Sampling: Composite(C) Grab(G) Type of Sample: **SEE REVERSE SIDE** Potable(P) Non-Potable(NP) Ag Water(AgW) Bacti Type: Other(O) System(SYS) Source(SR) Waste(W) Bacti Reason: Routine(ROUT) Repeat(RPT) Replace(RPL) Other(O) Special(SPL) Metals, Diss-Ca, Mg, K, Na 250ml(P) Wet Chemistry-Alk. (CaCO3) 16oz(P) Wet Chemistry-SO4, TDS, NO3, Cl 16oz(P)																	
Sampler(s) Sampling Fee: _____ Pickup Fee: _____ Compositor Setup Date: ___/___/___ Time: ___/___																					
Lab Number: STK 3-15742																					
Samp Num	Location Description	Date Sampled	Time Sampled																		
1	SCOMCR	10/8/14	8:05	G	GW				1	1	1										
2	SCOPOR	10/8/14	9:05	G	GW				1	1	1										
3	SCOBHO	10/8/14	10:20	G	GW				1	1	1										
4	SCOBHO2	10/8/14	10:20	G	GW				1	1	1										
5	SCODWI	10/8/14	11:10	G	GW				1	1	1										
6				G	GW				1	1	1										
7				G	GW				1	1	1										
8				G	GW				1	1	1										
9				G	GW				1	1	1										
10				G	GW				1	1	1										
Remarks:				Relinquished			Date:			Time:			Relinquished			Date:			Time:		
Received By: _____ Date: _____ Time: _____				Received By:			Date:			Time:			Received By:			Date:			Time:		

35039:08/04/2014				TEST DESCRIPTION - See Reverse side for Container, Preservative and Sampling information																
Client: HydroFocus, Inc. Address: Teresa Deverel P.O. Box 2401 Davis, CA 95617 Phone: (530)759-2484 Fax: (530)756-2687 Contact Person: Teresa Deverel Project Name: Project #5066 GW Monitoring Purchase Order Number: Quote Number:				Method of Sampling: Composite(C) Grab(G) Type of Sample **SEE REVERSE SIDE** Potable(P) Non-Potable(NP) Ag Water(AgW) Bacti Type: Other(O) System(SYS) Source(SR) Waste(W) Bacti Reason: Routine(ROUT) Repeat(RPT) Replace(RPL) Other(O) Special(SPL) Metals, Diss-Ca, Mg, K, Na 250ml(P) Wet Chemistry-Alk. (CaCO3) 16oz(P) Wet Chemistry-SO4, TDS, NO3, Cl 16oz(P)																
Sampler(s) Sampling Fee: _____ Pickup Fee: _____ Compositor Setup Date: ___/___/___ Time: ___/___																				
Lab Number: STK 3-15742																				
Samp Num	Location Description	Date Sampled	Time Sampled																	
1	GSCOL20	11/4/14	9:10	G	GW															
2	GSDOLLO	11/4/14	9:45	G	GW															
3	GSM A18	11/4/14	10:20	G	GW															
4	GSAGW8	11/4/14	11:10	G	GW															
5	GSBSA	11/4/14	11:45	G	GW															
6	GSP17	11/4/14	12:20	G	GW															
7	GSP17a	11/4/14	12:20	G	GW															
8				G	GW															
9				G	GW															
10				G	GW															
Remarks:				Relinquished	Date:	Time:	Relinquished	Date:	Time:	Relinquished	Date:	Time:								
				Received By:	Date:	Time:	Received By:	Date:	Time:	Received By:	Date:	Time:								

				35039:08/04/2014				TEST DESCRIPTION - See Reverse side for Container, Preservative and Sampling information												
Client: HydroFocus, Inc. Address: Teresa Deverel P.O. Box 2401 Davis, CA 95617 Phone: (530)759-2484 Fax: (530)756-2687 Contact Person: Teresa Deverel Project Name: Project #5066 GW Monitoring Purchase Order Number: Quote Number:				Method of Sampling: Composite(C) Grab(G) Type of Sample: **SEE REVERSE SIDE** Potable(P) Non-Potable(NP) Ag Water(AgW) Bacti Type: Other(O) System(SYS) Source(SR) Waste(W) Bacti Reason: Routine(ROUT) Repeat(RPT) Replace(RPL) Other(O) Special(SPL)				Metals, Diss-Ca, Mg, K, Na 250ml(P) Wet Chemistry-Alk. (CaCO3) 16oz(P) Wet Chemistry-SO4, TDS, NO3, Cl 16oz(P)												
Sampler(s) Sampling Fee: _____ Pickup Fee: _____ Compositor Setup Date: ___/___/___ Time: ___/___				Lab Number: STK 3-15742																
Samp Num	Location Description	Date Sampled	Time Sampled	Method	Type	Potable	Bacti	Bacti Reason	Other	Metals	Wet Chem	Wet Chem								
1	CAVINZ	11/10/14	10:15	G	GW					1	1	1								
2	CABRIG	11/10/14	11:45	G	GW					1	1	1								
3	CALIP	11/10/14	12:20	G	GW					1	1	1								
4				G	GW					1	1	1								
5				G	GW					1	1	1								
6				G	GW					1	1	1								
7				G	GW					1	1	1								
8				G	GW					1	1	1								
9				G	GW					1	1	1								
10				G	GW					1	1	1								
Remarks:				Relinquished Date: _____ Time: _____				Relinquished Date: _____ Time: _____				Relinquished Date: _____ Time: _____								
				Received By: _____ Date: _____ Time: _____				Received By: _____ Date: _____ Time: _____				Received By: _____ Date: _____ Time: _____								

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 853 Corporation Street
 Santa Paula, CA 93060
 Phone: (805) 392-2000
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 2500 Stagecoach Road
 Stockton, CA 95215
 Phone: (209) 942-0182
 Fax: (209) 942-0423

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 563 E. Lindo
 Chico, CA 95926
 Phone: (530) 343-5818
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 San Luis Obispo, CA 93401
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35039:08/04/2014				TEST DESCRIPTION - See Reverse side for Container, Preservative and Sampling information																
Client: HydroFocus, Inc. Address: Teresa Deverel P.O. Box 2401 Davis, CA 95617 Phone: (530)759-2484 Fax: (530)756-2687 Contact Person: Teresa Deverel Project Name: Project #5066 GW Monitoring Purchase Order Number: Quote Number:				Method of Sampling: Composite(C) Grab(G) Type of Sample **SEE REVERSE SIDE** Potable(P) Non-Potable(NP) Ag Water(AgW) Bacti Type: Other(O) System(SYS) Source(SR) Waste(W) Bacti Reason: Routine(ROUT) Repeat(RPT) Replace(RPL) Other(O) Special(SPL) Metals, Diss-Ca, Mg, K, Na 250ml(P) Wet Chemistry-Alk. (CaCO3) 16oz(F) Wet Chemistry-SO4, TDS, NO3, Cl 16oz(F)																
Sampler(s): Sampling Fee: _____ Pickup Fee: _____ Compositor Setup Date: ___/___/___ Time: ___/___																				
Lab Number: STK 3-15742																				
Samp Num	Location Description	Date Sampled	Time Sampled																	
1	CAWOD	11/11/14	9:20	G	GW				1	1	1									
2	CAOAK	11/11/14	10:30	G	GW				1	1	1									
3	CAWOD	11/11/14	9:20	G	GW				1	1	1									
4	CAWOD	11/11/14	9:20	G	GW				1	1	1									
5	CAWOD	11/11/14	9:20	G	GW				1	1	1									
6	CAWOD	11/11/14	9:20	G	GW				1	1	1									
7	CAWOD	11/11/14	9:20	G	GW				1	1	1									
8	CAWOD	11/11/14	9:20	G	GW				1	1	1									
9	CAWOD	11/11/14	9:20	G	GW				1	1	1									
10	CAWOD	11/11/14	9:20	G	GW				1	1	1									
Remarks:				Relinquished		Date:	Time:	Relinquished		Date:	Time:	Relinquished		Date:	Time:					
				Received By:		Date:	Time:	Received By:		Date:	Time:	Received By:		Date:	Time:					

Corporate Offices & Laboratory
853 Corporation Street
Santa Paula, CA 93060
Phone: (805) 392-2000
Env Fax: (805) 525-4172 / Ag Fax: (805) 392-2063

Office & Laboratory
2500 Stagecoach Road
Stockton, CA 95215
Phone: (209) 942-0182
Fax: (209) 942-0423

Office & Laboratory
563 E. Lindo
Chico, CA 95926
Phone: (530) 343-5818
Fax: (530) 343-3807

Office & Laboratory
3442 Empresa Drive, Suite D
San Luis Obispo, CA 93401
Phone: (805) 783-2940
Fax: (805) 783-2912

Office & Laboratory
9415 W. Goshen Avenue
Visalia, CA 93291
Phone: (559) 734-9473
Fax: (559) 734-8435

				35039:08/04/2014				TEST DESCRIPTION - See Reverse side for Container, Preservative and Sampling information													
Client: HydroFocus, Inc. Address: Teresa Deverel P.O. Box 2401 Davis, CA 95617 Phone: (530)759-2484 Fax: (530)756-2687 Contact Person: Teresa Deverel Project Name: Project #5066 GW Monitoring Purchase Order Number: Quote Number:				Method of Sampling: Composite(C) Grab(G) Type of Sample: **SEE REVERSE SIDE** Potable(P) Non-Potable(NP) Ag Water(AgW) Bacti Type: Other(O) System(SYS) Source(SR) Waste(W) Bacti Reason: Routine(ROUT) Repeat(RPT) Replace(RPL) Other(O) Special(SPL) Metals, Diss-Ca, Mg, K, Na 250ml(P) Wet Chemistry-Alk. (CaCO3) 16oz(P) Wet Chemistry-SO4, TDS, NO3, Cl 16oz(P)																	
Sampler(s): Sampling Fee: _____ Pickup Fee: _____ Compositor Setup Date: ___/___/___ Time: ___/___/___				Lab Number: STK 3-15742																	
Samp Num	Location Description	Date Sampled	Time Sampled	Method	Type	Potable	Bacti	Bacti Reason	Other	Metals	Wet Chem	Wet Chem									
1	SCGA20	12/1/14	9:35	G	GW					1	1	1									
2	SCGA20d	12/1/14	9:35	G	GW					1	1	1									
3	SCGA23	12/1/14	10:20	G	GW					1	1	1									
4				G	GW					1	1	1									
5				G	GW					1	1	1									
6				G	GW					1	1	1									
7				G	GW					1	1	1									
8				G	GW					1	1	1									
9				G	GW					1	1	1									
10				G	GW					1	1	1									
Remarks:				Relinquished Date: _____ Time: _____ Received By: _____ Date: _____ Time: _____				Relinquished Date: _____ Time: _____ Received By: _____ Date: _____ Time: _____				Relinquished Date: _____ Time: _____ Received By: _____ Date: _____ Time: _____									


Corporate Offices & Laboratory
 853 Corporation Street
 Santa Paula, CA 93060
 Phone: (805) 392-2000
 Env Fax: (805) 525-4172 / Ag Fax: (805) 392-2063

Office & Laboratory
 2500 Stagecoach Road
 Stockton, CA 95215
 Phone: (209) 942-0182
 Fax: (209) 942-0423

Office & Laboratory
 563 E. Lindo
 Chico, CA 95926
 Phone: (530) 343-5818
 Fax: (530) 343-3807

Office & Laboratory
 3442 Empresa Drive, Suite D
 San Luis Obispo, CA 93401
 Phone: (805) 783-2940
 Fax: (805) 783-2912

Office & Laboratory
 9415 W. Goshen Avenue
 Visalia, CA 93291
 Phone: (559) 734-9473
 Fax: (559) 734-8435

		35039:08/04/2014	TEST DESCRIPTION - See Reverse side for Container, Preservative and Sampling information														
Client: HydroFocus, Inc. Address: Teresa Deverel P.O. Box 2401 Davis, CA 95617 Phone: (530)759-2484 Fax: (530)756-2687 Contact Person: Teresa Deverel Project Name: Project #5066 GW Monitoring Purchase Order Number: Quote Number:		Method of Sampling: Composite(C) Grab(G) Type of Sample: **SEE REVERSE SIDE** Potable(P) Non-Potable(NP) Ag Water(AgW) Bacti Type: Other(O) System(SYS) Source(SR) Waste(W) Bacti Reason: Routine(ROUT) Repeat(RPT) Replace(RPL) Other(O) Special(SPL) Metals, Diss-Ca, Mg, K, Na 250ml(P) Wet Chemistry-Alk. (CaCO3) 16oz(P) Wet Chemistry-SO4, TDS, NO3, Cl 16oz(P)															
Sampler(s) Sampling Fee: _____ Pickup Fee: _____ Compositor Setup Date: ___/___/___ Time: ___/___/___																	
Lab Number: STK 3-15742																	
Samp Num	Location Description	Date Sampled	Time Sampled	G	GW												
1	SACPR	12/22/14	9:05	G	GW				1	1	1						
2	SAC EQ	12/22/14	9:55	G	GW				1	1	1						
3	SAC WR	12/22/14	11:00	G	GW				1	1	1						
4	SCGA15	12/22/14	14:30	G	GW				1	1	1						
5	SCGA17	12/22/14	15:30	G	GW				1	1	1						
6	SCGA18			G	GW				1	1	1						
7	SCGA19			G	GW				1	1	1						
8	SCGA20			G	GW				1	1	1						
9	SCGA21			G	GW				1	1	1						
10	SCGA22			G	GW				1	1	1						
Remarks:				Relinquished		Date:	Time:	Relinquished		Date:	Time:	Relinquished		Date:	Time:		
				Received By:		Date:	Time:	Received By:		Date:	Time:	Received By:		Date:	Time:		

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UC Davis Stable Isotope Facility												(SIF Internal Use Only)
Sample Submission Form												
Last Name:	Hanson											Comment
First Name:	Kristyn											
Counter	Sample ID	Amount (mL)	Type of water	Source of water	Analysis	Enriched?	Estimated Enrichment or Isotope Values	pH	Salinity or Conductivity	Concentration of NO ₃ or DOC/DIC	Special Notes	Comment
Instructions	20 character limit	integer	20 character limit	20 character limit	20 character limit	Yes or No	20 character limit	integer	specify units	specify units	Ordered in increasing salinity	
Example 1	PSW 21	2	Filtered seawater	Puget Sound, WA	18O/16O of water	No	-10 +/- 3 d18O per mil	7	30 ppt	NA		
Example 2	Rainwater 2C	20	River, Rainwater, Snow	Klamath Falls, CA	D & 18O of water	No	-55 dD/-8 d18O per mil	6 to 8	0-1 ppt	NA		
Example 3	PF Well 13	10	Tracer study	Paris, France	D/H of water	Yes	-25 to 200 dD per mil	6 to 8	0-10 mS/cm	NA	Enrichment varies < 200 dD; fluorescent dye added	
Example 4	GIC 68	1	Ice core	Greenland	D & 18O of water	No	-200 dD/-25 d18O per mil	7	0 ppt	NA		
Example 5	Bar 2	30	Filtered groundwater		13C of DOC	Yes	1 at%		< 10 ppt	3-6 ppm DIC, 12-25 ppm DOC	Poisoned with 50% w/v ZnCl2	
Example 6	100901 a	25	Precip		18O, 15N of NO3	No	NA	7 to 9	NA	0.539 uM NO3		
1	CISWEL3	2	Groundwater	Sacramento, Ca	D & 18O of water	No	NA	7 to 8	1046 uS/cm			
2	CISW160	2	Groundwater	Sacramento, Ca	D & 18O of water	No	NA	7 to 8	232.3 uS/cm			
3	CISW107	2	Groundwater	Sacramento, Ca	D & 18O of water	No	NA	7 to 8	356.8 uS/cm			
4	CISW85	2	Groundwater	Sacramento, Ca	D & 18O of water	No	NA	7 to 8	242.9 uS/cm			
5	CISWL20	2	Groundwater	Sacramento, Ca	D & 18O of water	No	NA	7 to 8	557.7 uS/cm			
6	CISWE7	2	Groundwater	Sacramento, Ca	D & 18O of water	No	NA	7 to 8	466.5 uS/cm			
7	SCOSUR	2	Groundwater	Sacramento, Ca	D & 18O of water	No	NA	7 to 8	374.1 uS/cm			
8	SCOEXV	2	Groundwater	Sacramento, Ca	D & 18O of water	No	NA	7 to 8	167.9 uS/cm			
9	SCOAND	2	Groundwater	Sacramento, Ca	D & 18O of water	No	NA	7 to 8	201.5 uS/cm			
10	SCOTIP	2	Groundwater	Sacramento, Ca	D & 18O of water	No	NA	7 to 8	188.3 uS/cm			
11	SCOSHIN	2	Groundwater	Sacramento, Ca	D & 18O of water	No	NA	7 to 8	237.8 uS/cm			
12	SCOEPA	2	Groundwater	Sacramento, Ca	D & 18O of water	No	NA	7 to 8	214.2 uS/cm			
13	SCOROD	2	Groundwater	Sacramento, Ca	D & 18O of water	No	NA	7 to 8	209.1 uS/cm			
14	SCOMCR	2	Groundwater	Sacramento, Ca	D & 18O of water	No	NA	7 to 8	151 uS/cm			
15	SCOPOR	2	Groundwater	Sacramento, Ca	D & 18O of water	No	NA	8 to 9	255.9 uS/cm			
16	SCOBAN	2	Groundwater	Sacramento, Ca	D & 18O of water	No	NA	7 to 8	409.1 uS/cm			
17	SCOBHO	2	Groundwater	Sacramento, Ca	D & 18O of water	No	NA	7 to 8	479.2 uS/cm			
18	SCOBHO2	2	Groundwater	Sacramento, Ca	D & 18O of water	No	NA	7 to 8	479.2 uS/cm			
19	SCODWI	2	Groundwater	Sacramento, Ca	D & 18O of water	No	NA	7 to 8	343.4 uS/cm			
20	GSDOL6	2	Groundwater	Sacramento, Ca	D & 18O of water	No	NA	7 to 8	418.7 uS/cm			
21	GSM18	2	Groundwater	Sacramento, Ca	D & 18O of water	No	NA	7 to 8	110.6 uS/cm			
22	GSCOL20	2	Groundwater	Sacramento, Ca	D & 18O of water	No	NA	7 to 8	206 uS/cm			
23	GSP17	2	Groundwater	Sacramento, Ca	D & 18O of water	No	NA	6 to 7	57 uS/cm			
24	GSP17d	2	Groundwater	Sacramento, Ca	D & 18O of water	No	NA	6 to 7	57 uS/cm			
25	GSAGW8	2	Groundwater	Sacramento, Ca	D & 18O of water	No	NA	7 to 8	319.5 uS/cm			
26	GSBSA	2	Groundwater	Sacramento, Ca	D & 18O of water	No	NA	7 to 8	114.2 uS/cm			
27	C36160	2	Groundwater	Daly City, Ca	D & 18O of water	No	NA	6 to 7	887 uS/cm			
28	C36455	2	Groundwater	Daly City, Ca	D & 18O of water	No	NA	7 to 8	744 uS/cm			
29	C441190	2	Groundwater	Daly City, Ca	D & 18O of water	No	NA	6 to 7	976 uS/cm			
30	C441580	2	Groundwater	Daly City, Ca	D & 18O of water	No	NA	7 to 8	1584 uS/cm			
31	C441580d	2	Groundwater	Daly City, Ca	D & 18O of water	No	NA	7 to 8	1584 uS/cm			
32	PPZ195	2	Groundwater	Daly City, Ca	D & 18O of water	No	NA	7 to 8	1392 uS/cm			
33	MW1420	2	Groundwater	Daly City, Ca	D & 18O of water	No	NA	6 to 7	542 uS/cm			
34	SB-20	2	Groundwater	San Bruno, Ca	D & 18O of water	No	NA	7 to 8	580 uS/cm			
35	SB-18	2	Groundwater	San Bruno, Ca	D & 18O of water	No	NA	7 to 8	451.1 uS/cm			
36	SB-17	2	Groundwater	San Bruno, Ca	D & 18O of water	No	NA	7 to 8	416.3 uS/cm			
37	DC-4	2	Groundwater	Daly City, Ca	D & 18O of water	No	NA	7 to 8	557.9 uS/cm			
38	DC-VAL	2	Groundwater	Daly City, Ca	D & 18O of water	No	NA	7 to 8	494 uS/cm			
39	DC-VAL2	2	Groundwater	Daly City, Ca	D & 18O of water	No	NA	7 to 8	494 uS/cm			
40	DC-JEF	2	Groundwater	Daly City, Ca	D & 18O of water	No	NA	8 to 9	389.5 uS/cm			
41	DC-2	2	Groundwater	Daly City, Ca	D & 18O of water	No	NA	7 to 8	817 uS/cm			
42	SS1-20	2	Groundwater	Daly City, Ca	D & 18O of water	No	NA	7 to 8	1153 uS/cm			
43	SS1-19	2	Groundwater	Daly City, Ca	D & 18O of water	No	NA	7 to 8	1038 uS/cm			
44	SS1-15	2	Groundwater	Daly City, Ca	D & 18O of water	No	NA	7 to 8	1112 uS/cm			
45	C3A240	2	Groundwater	Daly City, Ca	D & 18O of water	No	NA	6 to 7	1064 uS/cm			
46	C3A580	2	Groundwater	Daly City, Ca	D & 18O of water	No	NA	7 to 8	456 uS/cm			
47	C10A160	2	Groundwater	Daly City, Ca	D & 18O of water	No	NA	6 to 7	1179 uS/cm			



Relinquished By:
 Christine Lucas 11/10/14 3:45PM

Received By:
 Elm J... 11-10-14 5:45pm


CHAIN OF CUSTODY RECORD

CLIENT NAME: HydroFocus				PROJECT: <u>5066</u>		ANALYSIS REQUESTED						SPECIAL HANDLING	
ADDRESS: 2827 Spafford St. Davis, CA 95618				PHONE #: 530-759-2484 FAX #: 530-756-2687		HFS & OAS							
PROJECT MANAGER <u>John Fio</u>				SAMPLER <u>Kristyn Hanson</u>									
Reporting Agency: _____ Method of Shipment: _____													
REMARKS													
ID# (For Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPL TYPE	SAMPLE ID / SITE LOCATION	# OF CONT.								
	12/9/14	9:35	gw	SCGA20	1	X							
	12/9/14	9:35	gw	SCGA20d	1	X							
	12/9/14	10:20	gw	SCGA23	1	X							
	12/22/14	15:30	gw	SCGA17	1	X							
	12/22/14	14:30	gw	SCGA15	1	X							
	11/10/14	12:20	gw	CALIFT	1	X							
	11/10/14	9:35	gw	CACOS1	1	X							
	11/11/14	10:00	gw	CATLH	1	X							
	11/11/14	10:30	gw	CAOAV	1	X							
	11/10/14	11:05	gw	CAPRS2	1	X							
RELINQUISHED BY 		DATE / TIME 1/5/15 9:55		RECEIVED BY 		DATE / TIME 01/05/15 9:55		SAMPLE CONDITION: Actual Temperature:			SAMPLE TYPE CODE:		
RELINQUISHED BY		DATE / TIME		RECEIVED BY		DATE / TIME		Received On Ice Y/N			AQ=Aqueous		
								Preserved Y/N			NA= Non Aqueous		
								Evidence Seals Intact Y/N			SL = Sludge		
								Container Attacked Y/N			DW = Drinking Water		
								Preserved at Lab Y/N			WW = Waste Water		
											RW = Rain Water		
											GW = Ground Water		
											SO = Soil		
											SW = Solid Waste		
											OL = Oil		
											OT = Other Matrix		
SPECIAL REQUIREMENTS / BILLING INFORMATION													

CHAIN OF CUSTODY RECORD

CLIENT NAME: HydroFocus		PROJECT: 50db- Sac Isotopes			ANALYSIS REQUESTED				SPECIAL HANDLING	
ADDRESS: 2827 Spafford St. Davis, CA 95618		PHONE #: 530-759-2484 FAX #: 530-756-2687			H ₂ O + O ₂ S					
PROJECT MANAGER: John Fio		SAMPLER: 1								
Reporting Agency: _____		Method of Shipment: _____		REMARKS						
ID# (For lab Use Only)		DATE SAMPLED	TIME SAMPLED					SMPL TYPE	SAMPLE ID / SITE LOCATION	# OF CONT.
	2/3/15	9:15	RW	CRMB	1	X	River water			
	2/3/15	9:15	RW	COR IV	1	X	River water			
RELINQUISHED BY 	DATE / TIME 2/11/15 10:33	RECEIVED BY 	DATE / TIME 2/11/15 12:00P	SAMPLE CONDITION: Actual Temperature:		SAMPLE TYPE CODE:				
RELINQUISHED BY	DATE / TIME	RECEIVED BY	DATE / TIME	Received On Ice	Y / N	DW = Drinking Water	AQ=Aqueous			
				Preserved	Y / N	WW = Waste Water	NA= Non Aqueous			
				Evidence Seals Intact	Y / N	RW = Rain Water	SL = Sludge			
				Container Attacked	Y / N	GW = Ground Water				
				Preserved at Lab	Y / N	SO = Soil				
						SW = Solid Waste				
						OL = Oil				
						OT = Other Matrix				
SPECIAL REQUIREMENTS / BILLING INFORMATION										

CHAIN OF CUSTODY RECORD

CLIENT NAME: HydroFocus				PROJECT: SO ₂ 66- Sae Isotopes				ANALYSIS REQUESTED				SPECIAL HANDLING			
ADDRESS: 2827 Spafford St. Davis, CA 95618				PHONE #: 530-759-2484 FAX #: 530-756-2687				H ₂ S + O ₂ S				Reporting Agency: _____ Method of Shipment: _____			
PROJECT MANAGER: John Flo				SAMPLER: Kristy J Hanson											
ID# (For lab Use Only)	DATE SAMPLED	TIME SAMPLED	SMPL TYPE	SAMPLE ID / SITE LOCATION		# OF CONT.									REMARKS
	7/5/14	10:30	RW	CRatMB		1	X								River water
	10/30/14	11:40	RW	COSMB		1	X								River water
	10/28/14	13:49	GW	PPZ 460		1	X								
	11/4/14	11:04	GW	C19600		1	X								
	11/4/14	9:52	GW	C19690		1	X								
	10/27/14	13:47	GW	C23515		1	X								
	10/30/14	14:05	GW	C22A545		1	X								
	10/30/14	12:40	GW	C22A 290		1	X								
RELINQUISHED BY 				DATE / TIME 2/12/15 12:30pm		RECEIVED BY Ronni Horn		DATE / TIME 2/12/15 12:35 pm		SAMPLE CONDITION: Actual Temperature:				SAMPLE TYPE CODE:	
RELINQUISHED BY				DATE / TIME		RECEIVED BY		DATE / TIME		Received On Ice Y / N Preserved Y / N Evidence Seals Intact Y / N Container Attacked Y / N Preserved at Lab Y / N				AQ=Aqueous NA= Non Aqueous SL = Sludge DW = Drinking Water WW = Waste Water RW = Rain Water GW = Ground Water SO = Soil SW = Solid Waste OL = Oil OT = Other Matrix	
RELINQUISHED BY				DATE / TIME		RECEIVED BY		DATE / TIME							
SPECIAL REQUIREMENTS / BILLING INFORMATION															

Lab reports

October 22, 2014

HydroFocus, Inc.
 Teresa Deverel
 P.O. Box 2401
 Davis, CA 95617

Lab ID : STK1439742
 Customer : 3-15742

Laboratory Report

Introduction: This report package contains total of 11 pages divided into 3 sections:

Case Narrative (2 pages) : An overview of the work performed at FGL.
 Sample Results (6 pages) : Results for each sample submitted.
 Quality Control (3 pages) : Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab ID #	Matrix
CISWEL3	09/23/2014	09/23/2014	STK1439742-001	GW
CISWL20	09/23/2014	09/23/2014	STK1439742-002	GW
CISWE7	09/23/2014	09/23/2014	STK1439742-003	GW
CISE85	09/23/2014	09/23/2014	STK1439742-004	GW
CISW107	09/23/2014	09/23/2014	STK1439742-005	GW
CISW160	09/23/2014	09/23/2014	STK1439742-006	GW

Sampling and Receipt Information: All samples were received in acceptable condition and within temperature requirements, unless noted on the Condition Upon Receipt (CUR) form. All samples arrived on ice. All samples were prepared and analyzed within the method specified hold time. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Inorganic - Metals QC

200.7	09/25/2014:214693 All analysis quality controls are within established criteria.
	09/25/2014:211330 All preparation quality controls are within established criteria, except: The following note applies to Potassium: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.

October 22, 2014
HydroFocus, Inc.

Lab ID : STK1439742
Customer : 3-15742

Inorganic - Wet Chemistry QC

2320B	10/01/2014:215037 All analysis quality controls are within established criteria.
	10/01/2014:211634 All preparation quality controls are within established criteria.
2540CE	09/25/2014:211367 All preparation quality controls are within established criteria.
300.0	09/24/2014:214647 All analysis quality controls are within established criteria.
	09/25/2014:214647 All analysis quality controls are within established criteria.
	09/24/2014:211349 All preparation quality controls are within established criteria, except: The following note applies to Chloride, Nitrate, Sulfate: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery. The following note applies to Sulfate: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.

Certification:: I certify that this data package is in compliance with ELAP standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

KD:CEA

Approved By **Kelly A. Dunnahoo, B.S.**



Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2014-10-23

October 22, 2014

Lab ID : STK1439742-001
 Customer ID : 3-15742

HydroFocus, Inc.

Teresa Deverel
 P.O. Box 2401
 Davis, CA 95617

Sampled On : September 23, 2014-10:00
 Sampled By : Kristyn Hanson
 Received On : September 23, 2014-14:20
 Matrix : Ground Water

Description : CISWEL3
 Project : Project #5066 GW Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis			
							Method	ID	Time	Method	ID	Time	
Metals, Diss ^{P:1}													
Calcium	104	1		mg/L	1		200.7	211330	09/25/14	09:20	200.7	214693-IT203	09/25/14-10:41AC
Magnesium	62	1		mg/L	1		200.7	211330	09/25/14	09:20	200.7	214693-IT203	09/25/14-10:41AC
Potassium	5	1		mg/L	1	h	200.7	211330	09/25/14	09:20	200.7	214693-IT203	09/25/14-10:41AC
Sodium	36	1		mg/L	1		200.7	211330	09/25/14	09:20	200.7	214693-IT203	09/25/14-10:41AC
Wet Chemistry ^{P:1}													
Alkalinity (as CaCO3)	280	10		mg/L	1		2320B	211634	10/01/14	17:30	2320B	215037-MT201	10/01/14-20:48CTL
Bicarbonate	340	10		mg/L	1.000		2320B	211634	10/01/14	17:30	2320B	215037-MT201	10/01/14-20:48CTL
Carbonate	ND	10		mg/L	1.000	U	2320B	211634	10/01/14	17:30	2320B	215037-MT201	10/01/14-20:48CTL
Hydroxide	ND	10		mg/L	1.000	U	2320B	211634	10/01/14	17:30	2320B	215037-MT201	10/01/14-20:48CTL
Chloride	214	5		mg/L	5	b	300.0	211349	09/24/14	18:55	300.0	214647-IC207	09/25/14-08:56SBL
Nitrate	4.6	0.4		mg/L	1	b	300.0	211349	09/24/14	18:55	300.0	214647-IC207	09/25/14-08:40SBL
Solids, Total Dissolved (TDS)	770	20		mg/L	1	b	2540CE	211367	09/25/14	17:47	2540C	214682-WT219	09/26/14-08:32JMG
Sulfate	32	2		mg/L	1		300.0	211349	09/24/14	18:55	300.0	214647-IC207	09/25/14-08:40SBL

DQF Flags Definition:

- b The Blank was positive for constituent but less than the PQL
- h The MS/MSD did not meet QC criteria.
- U Constituent results were non-detect.

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A

October 22, 2014

Lab ID : STK1439742-002

Customer ID : 3-15742

HydroFocus, Inc.
 Teresa Deverel
 P.O. Box 2401
 Davis, CA 95617

Sampled On : September 23, 2014-09:50
 Sampled By : Kristyn Hanson
 Received On : September 23, 2014-14:20
 Matrix : Ground Water

Description : CISWL20
 Project : Project #5066 GW Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis			
							Method	ID	Time	Method	ID	Time	
Metals, Diss ^{P:1}													
Calcium	65	1		mg/L	1		200.7	211330	09/25/14	09:20	200.7	214693-IT203	09/25/14-10:44AC
Magnesium	31	1		mg/L	1		200.7	211330	09/25/14	09:20	200.7	214693-IT203	09/25/14-10:44AC
Potassium	5	1		mg/L	1	h	200.7	211330	09/25/14	09:20	200.7	214693-IT203	09/25/14-10:44AC
Sodium	17	1		mg/L	1		200.7	211330	09/25/14	09:20	200.7	214693-IT203	09/25/14-10:44AC
Wet Chemistry ^{P:1}													
Alkalinity (as CaCO3)	240	10		mg/L	1		2320B	211634	10/01/14	17:30	2320B	215037-MT201	10/01/14-20:59CTL
Bicarbonate	290	10		mg/L	1.000		2320B	211634	10/01/14	17:30	2320B	215037-MT201	10/01/14-20:59CTL
Carbonate	ND	10		mg/L	1.000	U	2320B	211634	10/01/14	17:30	2320B	215037-MT201	10/01/14-20:59CTL
Hydroxide	ND	10		mg/L	1.000	U	2320B	211634	10/01/14	17:30	2320B	215037-MT201	10/01/14-20:59CTL
Chloride	32	1		mg/L	1	b	300.0	211349	09/24/14	18:55	300.0	214647-IC207	09/25/14-09:12SBL
Nitrate	17.4	0.4		mg/L	1	b	300.0	211349	09/24/14	18:55	300.0	214647-IC207	09/25/14-09:12SBL
Solids, Total Dissolved (TDS)	430	20		mg/L	1	b	2540CE	211367	09/25/14	17:47	2540C	214682-WT219	09/26/14-08:31JMG
Sulfate	36	2		mg/L	1		300.0	211349	09/24/14	18:55	300.0	214647-IC207	09/25/14-09:12SBL
DQF Flags Definition:													
b The Blank was positive for constituent but less than the PQL													
h The MS/MSD did not meet QC criteria.													
U Constituent results were non-detect.													

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A

October 22, 2014

Lab ID : STK1439742-003

Customer ID : 3-15742

HydroFocus, Inc.
 Teresa Deverel
 P.O. Box 2401
 Davis, CA 95617

Sampled On : September 23, 2014-13:05
 Sampled By : Kristyn Hanson
 Received On : September 23, 2014-14:20
 Matrix : Ground Water

Description : CISWE7
 Project : Project #5066 GW Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis			
							Method	ID	Time	Method	ID	Time	
Metals, Diss ^{P:1}													
Calcium	47	1		mg/L	1		200.7	211330	09/25/14	09:20	200.7	214693-IT203	09/25/14-10:47AC
Magnesium	28	1		mg/L	1		200.7	211330	09/25/14	09:20	200.7	214693-IT203	09/25/14-10:47AC
Potassium	3	1		mg/L	1	h	200.7	211330	09/25/14	09:20	200.7	214693-IT203	09/25/14-10:47AC
Sodium	21	1		mg/L	1		200.7	211330	09/25/14	09:20	200.7	214693-IT203	09/25/14-10:47AC
Wet Chemistry ^{P:1}													
Alkalinity (as CaCO3)	230	10		mg/L	1		2320B	211634	10/01/14	17:30	2320B	215037-MT201	10/01/14-21:25CTL
Bicarbonate	280	10		mg/L	1.000		2320B	211634	10/01/14	17:30	2320B	215037-MT201	10/01/14-21:25CTL
Carbonate	ND	10		mg/L	1.000	U	2320B	211634	10/01/14	17:30	2320B	215037-MT201	10/01/14-21:25CTL
Hydroxide	ND	10		mg/L	1.000	U	2320B	211634	10/01/14	17:30	2320B	215037-MT201	10/01/14-21:25CTL
Chloride	16	1		mg/L	1	b	300.0	211349	09/24/14	18:55	300.0	214647-IC207	09/25/14-09:59SBL
Nitrate	4.9	0.4		mg/L	1	b	300.0	211349	09/24/14	18:55	300.0	214647-IC207	09/25/14-09:59SBL
Solids, Total Dissolved (TDS)	340	20		mg/L	1	b	2540CE	211367	09/25/14	17:47	2540C	214682-WT219	09/26/14-08:37JMG
Sulfate	24	2		mg/L	1		300.0	211349	09/24/14	18:55	300.0	214647-IC207	09/25/14-09:59SBL
DQF Flags Definition:													
b The Blank was positive for constituent but less than the PQL													
h The MS/MSD did not meet QC criteria.													
U Constituent results were non-detect.													

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A

October 22, 2014

Lab ID : STK1439742-004

Customer ID : 3-15742

HydroFocus, Inc.

Teresa Deverel
 P.O. Box 2401
 Davis, CA 95617

Sampled On : September 23, 2014-10:35
 Sampled By : Kristyn Hanson
 Received On : September 23, 2014-14:20
 Matrix : Ground Water

Description : CISE85
 Project : Project #5066 GW Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis			
							Method	ID	Time	Method	ID	Time	
Metals, Diss ^{P:1}													
Calcium	25	1		mg/L	1		200.7	211330	09/25/14	09:20	200.7	214693-IT203	09/25/14-11:07AC
Magnesium	10	1		mg/L	1		200.7	211330	09/25/14	09:20	200.7	214693-IT203	09/25/14-11:07AC
Potassium	3	1		mg/L	1	h	200.7	211330	09/25/14	09:20	200.7	214693-IT203	09/25/14-11:07AC
Sodium	14	1		mg/L	1		200.7	211330	09/25/14	09:20	200.7	214693-IT203	09/25/14-11:07AC
Wet Chemistry ^{P:1}													
Alkalinity (as CaCO3)	100	10		mg/L	1		2320B	211634	10/01/14	17:30	2320B	215037-MT201	10/01/14-21:35CTL
Bicarbonate	120	10		mg/L	1.000		2320B	211634	10/01/14	17:30	2320B	215037-MT201	10/01/14-21:35CTL
Carbonate	ND	10		mg/L	1.000	U	2320B	211634	10/01/14	17:30	2320B	215037-MT201	10/01/14-21:35CTL
Hydroxide	ND	10		mg/L	1.000	U	2320B	211634	10/01/14	17:30	2320B	215037-MT201	10/01/14-21:35CTL
Chloride	14	1		mg/L	1	bL	300.0	211349	09/24/14	15:20	300.0	214647-IC207	09/24/14-17:51SBL
Nitrate	9.8	0.4		mg/L	1	bL	300.0	211349	09/24/14	15:20	300.0	214647-IC207	09/24/14-17:51SBL
Solids, Total Dissolved (TDS)	200	20		mg/L	1	b	2540CE	211367	09/25/14	17:47	2540C	214682-WT219	09/26/14-08:36JMG
Sulfate	6	2		mg/L	1	L	300.0	211349	09/24/14	15:20	300.0	214647-IC207	09/24/14-17:51SBL

DQF Flags Definition:

- b The Blank was positive for constituent but less than the PQL
- L The preparation QC spike and/or CCV recoveries did not meet QC acceptance criteria.
- h The MS/MSD did not meet QC criteria.
- U Constituent results were non-detect.

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A

October 22, 2014

Lab ID : STK1439742-005

Customer ID : 3-15742

HydroFocus, Inc.
 Teresa Deverel
 P.O. Box 2401
 Davis, CA 95617

Sampled On : September 23, 2014-11:30
 Sampled By : Kristyn Hanson
 Received On : September 23, 2014-14:20
 Matrix : Ground Water

Description : CISW107
 Project : Project #5066 GW Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis			
							Method	ID	Time	Method	ID	Time	
Metals, Diss ^{P:1}													
Calcium	32	1		mg/L	1		200.7	211330	09/25/14	09:20	200.7	214693-IT203	09/25/14-11:09AC
Magnesium	19	1		mg/L	1		200.7	211330	09/25/14	09:20	200.7	214693-IT203	09/25/14-11:09AC
Potassium	3	1		mg/L	1	h	200.7	211330	09/25/14	09:20	200.7	214693-IT203	09/25/14-11:09AC
Sodium	22	1		mg/L	1		200.7	211330	09/25/14	09:20	200.7	214693-IT203	09/25/14-11:09AC
Wet Chemistry ^{P:1}													
Alkalinity (as CaCO3)	160	10		mg/L	1		2320B	211634	10/01/14	17:30	2320B	215037-MT201	10/01/14-21:52CTL
Bicarbonate	190	10		mg/L	1.000		2320B	211634	10/01/14	17:30	2320B	215037-MT201	10/01/14-21:52CTL
Carbonate	ND	10		mg/L	1.000	U	2320B	211634	10/01/14	17:30	2320B	215037-MT201	10/01/14-21:52CTL
Hydroxide	ND	10		mg/L	1.000	U	2320B	211634	10/01/14	17:30	2320B	215037-MT201	10/01/14-21:52CTL
Chloride	18	1		mg/L	1	b	300.0	211349	09/24/14	18:55	300.0	214647-IC207	09/25/14-09:27SBL
Nitrate	13.0	0.4		mg/L	1	b	300.0	211349	09/24/14	18:55	300.0	214647-IC207	09/25/14-09:27SBL
Solids, Total Dissolved (TDS)	270	20		mg/L	1	b	2540CE	211367	09/25/14	17:47	2540C	214682-WT219	09/26/14-08:36JMG
Sulfate	12	2		mg/L	1		300.0	211349	09/24/14	18:55	300.0	214647-IC207	09/25/14-09:27SBL
DQF Flags Definition:													
b The Blank was positive for constituent but less than the PQL													
h The MS/MSD did not meet QC criteria.													
U Constituent results were non-detect.													

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A

October 22, 2014

Lab ID : STK1439742-006

Customer ID : 3-15742

HydroFocus, Inc.

Teresa Deverel
 P.O. Box 2401
 Davis, CA 95617

Sampled On : September 23, 2014-12:10
 Sampled By : Kristyn Hanson
 Received On : September 23, 2014-14:20
 Matrix : Ground Water

Description : CISW160
 Project : Project #5066 GW Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis			
							Method	ID	Time	Method	ID	Time	
Metals, Diss ^{P:1}													
Calcium	16	1		mg/L	1		200.7	211330	09/25/14	09:20	200.7	214693-IT203	09/25/14-11:12AC
Magnesium	13	1		mg/L	1		200.7	211330	09/25/14	09:20	200.7	214693-IT203	09/25/14-11:12AC
Potassium	2	1		mg/L	1	h	200.7	211330	09/25/14	09:20	200.7	214693-IT203	09/25/14-11:12AC
Sodium	21	1		mg/L	1		200.7	211330	09/25/14	09:20	200.7	214693-IT203	09/25/14-11:12AC
Wet Chemistry ^{P:1}													
Alkalinity (as CaCO3)	130	10		mg/L	1		2320B	211634	10/01/14	17:30	2320B	215037-MT201	10/01/14-22:01CTL
Bicarbonate	150	10		mg/L	1.000		2320B	211634	10/01/14	17:30	2320B	215037-MT201	10/01/14-22:01CTL
Carbonate	ND	10		mg/L	1.000	U	2320B	211634	10/01/14	17:30	2320B	215037-MT201	10/01/14-22:01CTL
Hydroxide	ND	10		mg/L	1.000	U	2320B	211634	10/01/14	17:30	2320B	215037-MT201	10/01/14-22:01CTL
Chloride	5	1		mg/L	1	b	300.0	211349	09/24/14	17:50	300.0	214647-IC207	09/25/14-07:53SBL
Nitrate	ND	0.4		mg/L	1	Jb	300.0	211349	09/24/14	17:50	300.0	214647-IC207	09/25/14-07:53SBL
Solids, Total Dissolved (TDS)	170	20		mg/L	1	b	2540CE	211367	09/25/14	17:47	2540C	214682-WT219	09/26/14-08:39JMG
Sulfate	2	2		mg/L	1		300.0	211349	09/24/14	17:50	300.0	214647-IC207	09/25/14-07:53SBL

DQF Flags Definition:

- b The Blank was positive for constituent but less than the PQL
- h The MS/MSD did not meet QC criteria.
- U Constituent results were non-detect.
- J To indicate that result is estimated in cases where result less than PQL; or estimated due to RPD failure.

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A



October 22, 2014
HydroFocus, Inc.

Lab ID : STK1439742
Customer : 3-15742

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Metals Calcium	200.7	(SP 1410927-001)	MS	mg/L	12.00	89.1 %	75-125	
			MSD	mg/L	12.00	103 %	75-125	
			MSRPD	mg/L	4000	3.1%	≤20.0	
	200.7	09/25/14:214693AC	CCV	ppm	25.00	101 %	90-110	
			CCB	ppm		-0.01	1	
			CCV	ppm	25.00	99.6 %	90-110	
CCB			ppm		-0.009	1		
CCV			ppm	25.00	100 %	90-110		
			CCB	ppm		-0.005	1	
Magnesium	200.7	(SP 1410927-001)	MS	mg/L	12.00	93.5 %	75-125	
			MSD	mg/L	12.00	107 %	75-125	
			MSRPD	mg/L	4000	6.8%	≤20.0	
	200.7	09/25/14:214693AC	CCV	ppm	25.00	98.9 %	90-110	
			CCB	ppm		-0.007	1	
			CCV	ppm	25.00	97.7 %	90-110	
CCB			ppm		-0.008	1		
CCV			ppm	25.00	97.1 %	90-110		
			CCB	ppm		-0.007	1	
Potassium	200.7	(SP 1410927-001)	MS	mg/L	12.00	110 %	75-125	
			MSD	mg/L	12.00	126 %	75-125	435
			MSRPD	mg/L	4000	12.2%	≤20.0	
	200.7	09/25/14:214693AC	CCV	ppm	25.00	104 %	90-110	
			CCB	ppm		-0.03	1	
			CCV	ppm	25.00	103 %	90-110	
CCB			ppm		-0.04	1		
CCV			ppm	25.00	103 %	90-110		
			CCB	ppm		-0.002	1	
Sodium	200.7	(SP 1410927-001)	MS	mg/L	12.00	71.6 %	<1/4	
			MSD	mg/L	12.00	94.8 %	75-125	
			MSRPD	mg/L	4000	2.4%	≤20.0	
	200.7	09/25/14:214693AC	CCV	ppm	25.00	97.5 %	90-110	
			CCB	ppm		-0.05	1	
			CCV	ppm	25.00	97.1 %	90-110	
CCB			ppm		-0.03	1		
CCV			ppm	25.00	95.6 %	90-110		
			CCB	ppm		0.06	1	
Wet Chem Alkalinity (as CaCO3)	2320B	(CC 1483466-001) (STK1439742-005)	Dup	mg/L		0.2%	3.42	
			Dup	mg/L		0.09%	3.42	
	2320B	10/01/14:215037CTL	CCV	mg/L	234.9	92.5 %	90-110	
			CCV	mg/L	234.9	96.5 %	90-110	
			CCV	mg/L	234.9	100 %	90-110	
Bicarbonate	2320B	(CC 1483466-001) (STK1439742-005)	Dup	mg/L		0.2%	4.78	
			Dup	mg/L		0.1%	4.78	
Carbonate	2320B	(CC 1483466-001) (STK1439742-005)	Dup	mg/L		0.0	10	
			Dup	mg/L		0.0	10	
Hydroxide	2320B	(CC 1483466-001) (STK1439742-005)	Dup	mg/L		0.0	10	
			Dup	mg/L		0.0	10	
Solids, Total Dissolved	2540CE	09/25/14:211367CTL (STK1439742-001)	Blank	mg/L		ND	<20	
			LCS	mg/L	1001	98.8 %	90-110	
			Dup	mg/L		3.3%	5	
Chloride	300.0	09/24/14:211349CJJ (VI 1443574-001)	Blank	mg/L		ND	<1	
			LCS	mg/L	25.00	107 %	90-110	
			MS	mg/L	500.0	108 %	94-113	
			MSD	mg/L	500.0	108 %	94-113	

October 22, 2014
HydroFocus, Inc.

Lab ID : STK1439742
 Customer : 3-15742

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note		
Wet Chem Chloride	300.0	09/24/14:211349CJJ (STK1439742-006)	MSRPD	mg/L	100.0	0.6%	≤3	435		
			MS	mg/L	500.0	111 %	94-113			
			MSD	mg/L	500.0	112 %	94-113			
			MSRPD	mg/L	100.0	0.2%	≤3			
			Blank	mg/L		ND	<1			
			LCS	mg/L	25.00	91.2 %	90-110			
			MS	mg/L	500.0	91.0 %	94-113			
			MSD	mg/L	500.0	93.8 %	94-113			
			MSRPD	mg/L	100.0	3.0%	≤3			
			MS	mg/L	500.0	102 %	94-113			
			MSD	mg/L	500.0	101 %	94-113			
			MSRPD	mg/L	100.0	1.4%	≤3			
		Blank	mg/L		ND	<1				
		LCS	mg/L	25.00	107 %	90-110				
		MS	mg/L	500.0	108 %	94-113				
		MSD	mg/L	500.0	108 %	94-113				
		MSRPD	mg/L	100.0	0.6%	≤3				
		MS	mg/L	500.0	111 %	94-113				
		MSD	mg/L	500.0	112 %	94-113				
		MSRPD	mg/L	100.0	0.2%	≤3				
		300.0	09/24/14:214647SBL	ICV	ppm	50.00	101 %		90-110	
				CCV	ppm	25.00	105 %		90-110	
				CCV	ppm	25.00	104 %		90-110	
				CCV	ppm	25.00	106 %		90-110	
CCV	ppm			25.00	107 %	90-110				
Nitrate	300.0			09/24/14:211349CJJ (VI 1443574-001)	Blank	mg/L		ND	<0.4	435
					LCS	mg/L	20.00	103 %	90-110	
					MS	mg/L	400.0	106 %	93-113	
					MSD	mg/L	400.0	106 %	93-113	
					MSRPD	mg/L	100.0	0.6%	≤4	
					MS	mg/L	400.0	109 %	93-113	
					MSD	mg/L	400.0	109 %	93-113	
		MSRPD	mg/L		100.0	0.2%	≤4			
		Blank	mg/L			ND	<0.4			
		LCS	mg/L		20.00	105 %	90-110			
		MS	mg/L		400.0	88.8 %	93-113			
		MSD	mg/L		400.0	91.8 %	93-113			
		MSRPD	mg/L	100.0	3.2%	≤4				
		MS	mg/L	400.0	100 %	93-113				
		MSD	mg/L	400.0	98.7 %	93-113				
		MSRPD	mg/L	100.0	1.7%	≤4				
		Blank	mg/L		ND	<0.4				
		LCS	mg/L	20.00	103 %	90-110				
		MS	mg/L	400.0	106 %	93-113				
		MSD	mg/L	400.0	106 %	93-113				
		MSRPD	mg/L	100.0	0.6%	≤4				
		MS	mg/L	400.0	109 %	93-113				
		MSD	mg/L	400.0	109 %	93-113				
		MSRPD	mg/L	100.0	0.2%	≤4				
300.0	09/24/14:214647SBL	ICV	ppm	40.00	99.3 %	90-110				
		CCV	ppm	20.00	101 %	90-110				
		CCV	ppm	20.00	100 %	90-110				
		CCV	ppm	20.00	103 %	90-110				
		CCV	ppm	20.00	103 %	90-110				
		CCV	ppm	20.00	103 %	90-110				

October 22, 2014
HydroFocus, Inc.

Lab ID : STK1439742
 Customer : 3-15742

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note	
Wet Chem Sulfate	300.0	09/24/14:211349CJJ (VI 1443574-001)	Blank	mg/L		ND	<2.0		
			LCS	mg/L	50.00	106 %	90-110		
			MS	mg/L	1000	108 %	92-113		
			MSD	mg/L	1000	107 %	92-113		
			MSRPD	mg/L	100.0	0.6%	≤4		
			MS	mg/L	1000	111 %	92-113		
		(STK1439742-006)	MSD	mg/L	1000	111 %	92-113		
			MSRPD	mg/L	100.0	0.2%	≤4		
			Blank	mg/L		ND	<2.0		
			LCS	mg/L	50.00	108 %	90-110		
			MS	mg/L	1000	88.0 %	92-113	435	
			MSD	mg/L	1000	92.7 %	92-113		
		(VI 1443572-001)	MSRPD	mg/L	100.0	5.1%	≤4	435	
			MS	mg/L	1000	102 %	92-113		
			MSD	mg/L	1000	100 %	92-113		
			MSRPD	mg/L	100.0	1.3%	≤4		
			Blank	mg/L		ND	<2.0		
			LCS	mg/L	50.00	106 %	90-110		
	(STK1439742-004)	MS	mg/L	1000	108 %	92-113			
		MSD	mg/L	1000	107 %	92-113			
		MSRPD	mg/L	100.0	0.6%	≤4			
		MS	mg/L	1000	111 %	92-113			
		MSD	mg/L	1000	111 %	92-113			
		MSRPD	mg/L	100.0	0.2%	≤4			
	300.0	09/24/14:214647SBL	ICV	ppm	100.0	101 %	90-110		
			CCV	ppm	50.00	105 %	90-110		
			CCV	ppm	50.00	103 %	90-110		
CCV			ppm	50.00	105 %	90-110			
CCV			ppm	50.00	106 %	90-110			
Definition									
ICV			: Initial Calibration Verification - Analyzed to verify the instrument calibration is within criteria.						
CCV			: Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.						
CCB			: Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.						
Blank	: Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.								
LCS	: Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.								
MS	: Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.								
MSD	: Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.								
Dup	: Duplicate Sample - A random sample with each batch is prepared and analyzed in duplicate. The relative percent difference is an indication of precision for the preparation and analysis.								
MSRPD	: MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.								
ND	: Non-detect - Result was below the DQO listed for the analyte.								
≤¼	: High Sample Background - Spike concentration was less than one fourth of the sample concentration.								
DQO	: Data Quality Objective - This is the criteria against which the quality control data is compared.								
Explanation									
435	: Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.								

October 16, 2014

HydroFocus, Inc.
 Teresa Deverel
 P.O. Box 2401
 Davis, CA 95617

Lab ID : STK1450267
 Customer : 3-15742

Laboratory Report

Introduction: This report package contains total of 11 pages divided into 3 sections:

Case Narrative (2 pages) : An overview of the work performed at FGL.
 Sample Results (6 pages) : Results for each sample submitted.
 Quality Control (3 pages) : Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab ID #	Matrix
SCOEXW	10/07/2014	10/07/2014	STK1450267-001	GW
SCOAND	10/07/2014	10/07/2014	STK1450267-002	GW
SCOTIP	10/07/2014	10/07/2014	STK1450267-003	GW
SCOSHNN	10/07/2014	10/07/2014	STK1450267-004	GW
SCOEPA	10/07/2014	10/07/2014	STK1450267-005	GW
SCOSUR	10/07/2014	10/07/2014	STK1450267-006	GW

Sampling and Receipt Information: All samples were received in acceptable condition and within temperature requirements, unless noted on the Condition Upon Receipt (CUR) form. All samples arrived on ice. All samples were prepared and analyzed within the method specified hold time. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Inorganic - Metals QC

200.7	10/10/2014:215530 All analysis quality controls are within established criteria
	10/09/2014:211976 All preparation quality controls are within established criteria

Inorganic - Wet Chemistry QC

2320B	10/09/2014:215467 All analysis quality controls are within established criteria
	10/09/2014:211936 All preparation quality controls are within established criteria

October 16, 2014
HydroFocus, Inc.

Lab ID : STK1450267
Customer : 3-15742

Inorganic - Wet Chemistry QC

2540CE	10/08/2014:211889 All preparation quality controls are within established criteria
300.0	10/08/2014:215612 All analysis quality controls are within established criteria
	10/09/2014:215612 All analysis quality controls are within established criteria
	10/08/2014:212097 All preparation quality controls are within established criteria

Certification:: I certify that this data package is in compliance with ELAP standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

KD:DMB

Approved By **Kelly A. Dunnahoo, B.S.**



Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2014-10-23

October 16, 2014

Lab ID : STK1450267-001

Customer ID : 3-15742

HydroFocus, Inc.

Teresa Deverel

P.O. Box 2401

Davis, CA 95617

Sampled On : October 7, 2014-08:20

Sampled By : Kristyn Hanson

Received On : October 7, 2014-14:25

Matrix : Ground Water

Description : SCOEXW

Project : Project #5066 GW Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Metals, Diss ^{P:1}												
Calcium	12	1		mg/L	1		200.7	211976	10/09/14 14:00	200.7	215530-IT203	10/10/14-16:06AC
Magnesium	6	1		mg/L	1		200.7	211976	10/09/14 14:00	200.7	215530-IT203	10/10/14-16:06AC
Potassium	3	1		mg/L	1		200.7	211976	10/09/14 14:00	200.7	215530-IT203	10/10/14-16:06AC
Sodium	16	1		mg/L	1		200.7	211976	10/09/14 14:00	200.7	215530-IT203	10/10/14-16:06AC
Wet Chemistry ^{P:1}												
Alkalinity (as CaCO3)	80	10		mg/L	1		2320B	211936	10/09/14 04:00	2320B	215467-MT201	10/09/14-13:08AMB
Bicarbonate	90	10		mg/L	1.000		2320B	211936	10/09/14 04:00	2320B	215467-MT201	10/09/14-13:08AMB
Carbonate	ND	10		mg/L	1.000	U	2320B	211936	10/09/14 04:00	2320B	215467-MT201	10/09/14-13:08AMB
Hydroxide	ND	10		mg/L	1.000	U	2320B	211936	10/09/14 04:00	2320B	215467-MT201	10/09/14-13:08AMB
Chloride	6	1		mg/L	1		300.0	212097	10/08/14 14:15	300.0	215612-IC207	10/08/14-16:10SBL
Nitrate	ND	0.4		mg/L	1	Ub	300.0	212097	10/08/14 14:15	300.0	215612-IC207	10/08/14-16:10SBL
Solids, Total Dissolved (TDS)	150	20		mg/L	1	b	2540CE	211889	10/08/14 14:57	2540C	215398-WT219	10/09/14-09:28CTL
Sulfate	ND	2		mg/L	1	J	300.0	212097	10/08/14 14:15	300.0	215612-IC207	10/08/14-16:10SBL

DQF Flags Definition:

- b The Blank was positive for constituent but less than the PQL
- U Constituent results were non-detect.
- J To indicate that result is estimated in cases where result less than PQL; or estimated due to RPD failure.

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A

October 16, 2014

Lab ID : STK1450267-002

Customer ID : 3-15742

HydroFocus, Inc.

Teresa Deverel

P.O. Box 2401

Davis, CA 95617

Sampled On : October 7, 2014-09:35

Sampled By : Kristyn Hanson

Received On : October 7, 2014-14:25

Matrix : Ground Water

Description : SCOAND

Project : Project #5066 GW Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Metals, Diss ^{P:1}												
Calcium	16	1		mg/L	1		200.7	211976	10/09/14 14:00	200.7	215530-IT203	10/10/14-16:19AC
Magnesium	10	1		mg/L	1		200.7	211976	10/09/14 14:00	200.7	215530-IT203	10/10/14-16:19AC
Potassium	2	1		mg/L	1		200.7	211976	10/09/14 14:00	200.7	215530-IT203	10/10/14-16:19AC
Sodium	17	1		mg/L	1		200.7	211976	10/09/14 14:00	200.7	215530-IT203	10/10/14-16:19AC
Wet Chemistry ^{P:1}												
Alkalinity (as CaCO3)	90	10		mg/L	1		2320B	211936	10/09/14 04:00	2320B	215467-MT201	10/09/14-13:16AMB
Bicarbonate	110	10		mg/L	1.000		2320B	211936	10/09/14 04:00	2320B	215467-MT201	10/09/14-13:16AMB
Carbonate	ND	10		mg/L	1.000	U	2320B	211936	10/09/14 04:00	2320B	215467-MT201	10/09/14-13:16AMB
Hydroxide	ND	10		mg/L	1.000	U	2320B	211936	10/09/14 04:00	2320B	215467-MT201	10/09/14-13:16AMB
Chloride	7	1		mg/L	1		300.0	212097	10/08/14 14:15	300.0	215612-IC207	10/08/14-17:04SBL
Nitrate	2.6	0.4		mg/L	1	b	300.0	212097	10/08/14 14:15	300.0	215612-IC207	10/08/14-17:04SBL
Solids, Total Dissolved (TDS)	170	20		mg/L	1	b	2540CE	211889	10/08/14 14:57	2540C	215398-WT219	10/09/14-09:24CTL
Sulfate	2	2		mg/L	1		300.0	212097	10/08/14 14:15	300.0	215612-IC207	10/08/14-17:04SBL
DQF Flags Definition:												
b The Blank was positive for constituent but less than the PQL												
U Constituent results were non-detect.												

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A

October 16, 2014

Lab ID : STK1450267-003

Customer ID : 3-15742

HydroFocus, Inc.

Teresa Deverel
 P.O. Box 2401
 Davis, CA 95617

Sampled On : October 7, 2014-10:15

Sampled By : Kristyn Hanson

Received On : October 7, 2014-14:25

Matrix : Ground Water

Description : SCOTIP

Project : Project #5066 GW Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Metals, Diss ^{P:1}												
Calcium	13	1		mg/L	1		200.7	211976	10/09/14 14:00	200.7	215530-IT203	10/10/14-16:29AC
Magnesium	7	1		mg/L	1		200.7	211976	10/09/14 14:00	200.7	215530-IT203	10/10/14-16:29AC
Potassium	3	1		mg/L	1		200.7	211976	10/09/14 14:00	200.7	215530-IT203	10/10/14-16:29AC
Sodium	20	1		mg/L	1		200.7	211976	10/09/14 14:00	200.7	215530-IT203	10/10/14-16:29AC
Wet Chemistry ^{P:1}												
Alkalinity (as CaCO3)	90	10		mg/L	1		2320B	211936	10/09/14 04:00	2320B	215467-MT201	10/09/14-13:24AMB
Bicarbonate	110	10		mg/L	1.000		2320B	211936	10/09/14 04:00	2320B	215467-MT201	10/09/14-13:24AMB
Carbonate	ND	10		mg/L	1.000	U	2320B	211936	10/09/14 04:00	2320B	215467-MT201	10/09/14-13:24AMB
Hydroxide	ND	10		mg/L	1.000	U	2320B	211936	10/09/14 04:00	2320B	215467-MT201	10/09/14-13:24AMB
Chloride	6	1		mg/L	1		300.0	212097	10/08/14 14:15	300.0	215612-IC207	10/08/14-17:22SBL
Nitrate	ND	0.4		mg/L	1	Ub	300.0	212097	10/08/14 14:15	300.0	215612-IC207	10/08/14-17:22SBL
Solids, Total Dissolved (TDS)	140	20		mg/L	1	b	2540CE	211889	10/08/14 14:57	2540C	215398-WT219	10/09/14-09:23CTL
Sulfate	ND	2		mg/L	1	J	300.0	212097	10/08/14 14:15	300.0	215612-IC207	10/08/14-17:22SBL

DQF Flags Definition:

- b** The Blank was positive for constituent but less than the PQL
- U** Constituent results were non-detect.
- J** To indicate that result is estimated in cases where result less than PQL; or estimated due to RPD failure.

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A

October 16, 2014

Lab ID : STK1450267-004
 Customer ID : 3-15742

HydroFocus, Inc.
 Teresa Deverel
 P.O. Box 2401
 Davis, CA 95617

Sampled On : October 7, 2014-10:50
 Sampled By : Kristyn Hanson
 Received On : October 7, 2014-14:25
 Matrix : Ground Water

Description : SCOSH
 Project : Project #5066 GW Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Metals, Diss ^{P:1}												
Calcium	19	1		mg/L	1		200.7	211976	10/09/14 14:00	200.7	215530-IT203	10/10/14-16:33AC
Magnesium	11	1		mg/L	1		200.7	211976	10/09/14 14:00	200.7	215530-IT203	10/10/14-16:33AC
Potassium	2	1		mg/L	1		200.7	211976	10/09/14 14:00	200.7	215530-IT203	10/10/14-16:33AC
Sodium	21	1		mg/L	1		200.7	211976	10/09/14 14:00	200.7	215530-IT203	10/10/14-16:33AC
Wet Chemistry ^{P:1}												
Alkalinity (as CaCO3)	100	10		mg/L	1		2320B	211936	10/09/14 04:00	2320B	215467-MT201	10/09/14-13:32AMB
Bicarbonate	120	10		mg/L	1.000		2320B	211936	10/09/14 04:00	2320B	215467-MT201	10/09/14-13:32AMB
Carbonate	ND	10		mg/L	1.000	U	2320B	211936	10/09/14 04:00	2320B	215467-MT201	10/09/14-13:32AMB
Hydroxide	ND	10		mg/L	1.000	U	2320B	211936	10/09/14 04:00	2320B	215467-MT201	10/09/14-13:32AMB
Chloride	10	1		mg/L	1		300.0	212097	10/08/14 14:15	300.0	215612-IC207	10/08/14-17:40SBL
Nitrate	4.2	0.4		mg/L	1	b	300.0	212097	10/08/14 14:15	300.0	215612-IC207	10/08/14-17:40SBL
Solids, Total Dissolved (TDS)	180	20		mg/L	1	b	2540CE	211889	10/08/14 14:57	2540C	215398-WT219	10/09/14-09:20CTL
Sulfate	2	2		mg/L	1		300.0	212097	10/08/14 14:15	300.0	215612-IC207	10/08/14-17:40SBL
DQF Flags Definition:												
b The Blank was positive for constituent but less than the PQL												
U Constituent results were non-detect.												

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A

October 16, 2014

HydroFocus, Inc.
 Teresa Deverel
 P.O. Box 2401
 Davis, CA 95617

Description : SCOEPA
 Project : Project #5066 GW Monitoring

Lab ID : STK1450267-005
 Customer ID : 3-15742

Sampled On : October 7, 2014-11:30
 Sampled By : Kristyn Hanson
 Received On : October 7, 2014-14:25
 Matrix : Ground Water

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Metals, Diss ^{P:1}												
Calcium	17	1		mg/L	1		200.7	211976	10/09/14 14:00	200.7	215530-IT203	10/10/14-16:36AC
Magnesium	10	1		mg/L	1		200.7	211976	10/09/14 14:00	200.7	215530-IT203	10/10/14-16:36AC
Potassium	4	1		mg/L	1		200.7	211976	10/09/14 14:00	200.7	215530-IT203	10/10/14-16:36AC
Sodium	17	1		mg/L	1		200.7	211976	10/09/14 14:00	200.7	215530-IT203	10/10/14-16:36AC
Wet Chemistry ^{P:1}												
Alkalinity (as CaCO3)	100	10		mg/L	1		2320B	211936	10/09/14 04:00	2320B	215467-MT201	10/09/14-13:39AMB
Bicarbonate	130	10		mg/L	1.000		2320B	211936	10/09/14 04:00	2320B	215467-MT201	10/09/14-13:39AMB
Carbonate	ND	10		mg/L	1.000	U	2320B	211936	10/09/14 04:00	2320B	215467-MT201	10/09/14-13:39AMB
Hydroxide	ND	10		mg/L	1.000	U	2320B	211936	10/09/14 04:00	2320B	215467-MT201	10/09/14-13:39AMB
Chloride	3	1		mg/L	1		300.0	212097	10/08/14 15:18	300.0	215612-IC207	10/09/14-02:54SBL
Nitrate	ND	0.4		mg/L	1	U	300.0	212097	10/08/14 15:18	300.0	215612-IC207	10/09/14-02:54SBL
Solids, Total Dissolved (TDS)	140	20		mg/L	1	b	2540CE	211889	10/08/14 14:57	2540C	215398-WT219	10/09/14-09:22CTL
Sulfate	ND	2		mg/L	1	J	300.0	212097	10/08/14 15:18	300.0	215612-IC207	10/09/14-02:54SBL

DQF Flags Definition:

- b** The Blank was positive for constituent but less than the PQL
- U** Constituent results were non-detect.
- J** To indicate that result is estimated in cases where result less than PQL; or estimated due to RPD failure.

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A

October 16, 2014

Lab ID : STK1450267-006

Customer ID : 3-15742

HydroFocus, Inc.

Teresa Deverel
 P.O. Box 2401
 Davis, CA 95617

Sampled On : October 7, 2014-12:15

Sampled By : Kristyn Hanson

Received On : October 7, 2014-14:25

Matrix : Ground Water

Description : SCOSUR

Project : Project #5066 GW Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Metals, Diss ^{P:1}												
Calcium	33	1		mg/L	1		200.7	211976	10/09/14 14:00	200.7	215530-IT203	10/10/14-16:39AC
Magnesium	22	1		mg/L	1		200.7	211976	10/09/14 14:00	200.7	215530-IT203	10/10/14-16:39AC
Potassium	3	1		mg/L	1		200.7	211976	10/09/14 14:00	200.7	215530-IT203	10/10/14-16:39AC
Sodium	22	1		mg/L	1		200.7	211976	10/09/14 14:00	200.7	215530-IT203	10/10/14-16:39AC
Wet Chemistry ^{P:1}												
Alkalinity (as CaCO3)	160	10		mg/L	1		2320B	211936	10/09/14 04:00	2320B	215467-MT201	10/09/14-13:47AMB
Bicarbonate	200	10		mg/L	1.000		2320B	211936	10/09/14 04:00	2320B	215467-MT201	10/09/14-13:47AMB
Carbonate	ND	10		mg/L	1.000	U	2320B	211936	10/09/14 04:00	2320B	215467-MT201	10/09/14-13:47AMB
Hydroxide	ND	10		mg/L	1.000	U	2320B	211936	10/09/14 04:00	2320B	215467-MT201	10/09/14-13:47AMB
Chloride	6	1		mg/L	1		300.0	212097	10/08/14 15:18	300.0	215612-IC207	10/09/14-04:42SBL
Nitrate	19.6	0.4		mg/L	1		300.0	212097	10/08/14 15:18	300.0	215612-IC207	10/09/14-04:42SBL
Solids, Total Dissolved (TDS)	250	20		mg/L	1	b	2540CE	211889	10/08/14 14:57	2540C	215398-WT219	10/09/14-09:19CTL
Sulfate	15	2		mg/L	1		300.0	212097	10/08/14 15:18	300.0	215612-IC207	10/09/14-04:42SBL
DQF Flags Definition:												
b The Blank was positive for constituent but less than the PQL												
U Constituent results were non-detect.												

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A

October 16, 2014
HydroFocus, Inc.

Lab ID : STK1450267
 Customer : 3-15742

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note	
Metals Calcium	200.7	(SP 1411669-001)	MS	mg/L	12.00	112 %	75-125		
			MSD	mg/L	12.00	115 %	75-125		
			MSRPD	mg/L	800.0	3.3%	≤20.0		
		(STK1450267-002)	MS	mg/L	12.00	86.9 %	75-125		
			MSD	mg/L	12.00	109 %	75-125		
			MSRPD	mg/L	800.0	9.9%	≤20.0		
	200.7	10/10/14:215530AC	CCV	ppm	25.00	102 %	90-110		
			CCB	ppm		-0.03	1		
			CCV	ppm	25.00	102 %	90-110		
			CCB	ppm		-0.03	1		
			CCV	ppm	25.00	105 %	90-110		
			CCB	ppm		-0.03	1		
	Magnesium	200.7	(SP 1411669-001)	MS	mg/L	12.00	108 %	75-125	
				MSD	mg/L	12.00	112 %	75-125	
MSRPD				mg/L	800.0	4.1%	≤20.0		
(STK1450267-002)			MS	mg/L	12.00	93.0 %	75-125		
			MSD	mg/L	12.00	114 %	75-125		
			MSRPD	mg/L	800.0	11.3%	≤20.0		
200.7		10/10/14:215530AC	CCV	ppm	25.00	103 %	90-110		
			CCB	ppm		0.002	1		
			CCV	ppm	25.00	102 %	90-110		
			CCB	ppm		0.001	1		
			CCV	ppm	25.00	104 %	90-110		
			CCB	ppm		0.003	1		
Potassium		200.7	(SP 1411669-001)	MS	mg/L	12.00	112 %	75-125	
				MSD	mg/L	12.00	117 %	75-125	
	MSRPD			mg/L	800.0	4.3%	≤20.0		
	(STK1450267-002)		MS	mg/L	12.00	102 %	75-125		
			MSD	mg/L	12.00	122 %	75-125		
			MSRPD	mg/L	800.0	15.5%	≤20.0		
	200.7	10/10/14:215530AC	CCV	ppm	25.00	104 %	90-110		
			CCB	ppm		-0.16	1		
			CCV	ppm	25.00	103 %	90-110		
			CCB	ppm		-0.11	1		
			CCV	ppm	25.00	104 %	90-110		
			CCB	ppm		-0.10	1		
	Sodium	200.7	(SP 1411669-001)	MS	mg/L	12.00	106 %	75-125	
				MSD	mg/L	12.00	110 %	75-125	
MSRPD				mg/L	800.0	3.8%	≤20.0		
(STK1450267-002)			MS	mg/L	12.00	91.8 %	75-125		
			MSD	mg/L	12.00	113 %	75-125		
			MSRPD	mg/L	800.0	8.7%	≤20.0		
200.7		10/10/14:215530AC	CCV	ppm	25.00	102 %	90-110		
			CCB	ppm		-0.13	1		
			CCV	ppm	25.00	101 %	90-110		
			CCB	ppm		-0.06	1		
			CCV	ppm	25.00	102 %	90-110		
			CCB	ppm		-0.07	1		
Wet Chem Alkalinity (as CaCO3)		2320B	(VI 1443728-002)	Dup	mg/L		0.05%	3.42	
		2320B	10/09/14:215467AMB	CCV	mg/L	234.9	94.2 %	90-110	
	CCV			mg/L	234.9	94.1 %	90-110		
	Bicarbonate	2320B	(VI 1443728-002)	Dup	mg/L		0.0%	4.78	
Carbonate	2320B	(VI 1443728-002)	Dup	mg/L		0.0	10		
Hydroxide	2320B	(VI 1443728-002)	Dup	mg/L		0.0	10		

October 16, 2014
HydroFocus, Inc.

Lab ID : STK1450267
 Customer : 3-15742

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note		
Wet Chem										
Solids, Total Dissolved	2540CE	10/08/14:211889CTL (CC 1483604-002)	Blank LCS Dup	mg/L mg/L mg/L	1001	5.9 99.9 % 1.3%	20 90-110 5			
Chloride	300.0	10/08/14:212097CJJ (STK1450267-005)	Blank	mg/L		ND	<1			
			LCS	mg/L	25.00	102 %	90-110			
			MS	mg/L	500.0	104 %	94-113			
			MSD	mg/L	500.0	104 %	94-113			
			MSRPD	mg/L	100.0	0.3%	≤3			
			MS	mg/L	500.0	104 %	94-113			
			MSD	mg/L	500.0	107 %	94-113			
			MSRPD	mg/L	100.0	2.8%	≤3			
			Blank	mg/L		ND	<1			
	300.0	10/08/14:215612SBL (STK1450267-001)	LCS	mg/L	25.00	101 %	90-110			
			MS	mg/L	500.0	98.9 %	94-113			
			MSD	mg/L	500.0	99.2 %	94-113			
			MSRPD	mg/L	100.0	0.3%	≤3			
			MS	mg/L	500.0	98.9 %	94-113			
			MSD	mg/L	500.0	99.1 %	94-113			
			MSRPD	mg/L	100.0	0.2%	≤3			
			300.0	10/08/14:215612SBL	CCV	ppm	25.00	101 %	90-110	
					CCV	ppm	25.00	105 %	90-110	
CCV	ppm	25.00			106 %	90-110				
ICV	ppm	50.00			98.3 %	90-110				
CCV	ppm	25.00			104 %	90-110				
Nitrate	300.0	10/08/14:212097CJJ (STK1450267-005)	Blank	mg/L		ND	<0.4			
			LCS	mg/L	20.00	100 %	90-110			
			MS	mg/L	400.0	103 %	93-113			
			MSD	mg/L	400.0	102 %	93-113			
			MSRPD	mg/L	100.0	0.2%	≤4			
			MS	mg/L	400.0	101 %	93-113			
			MSD	mg/L	400.0	104 %	93-113			
			MSRPD	mg/L	100.0	2.6%	≤4			
			Blank	mg/L		ND	<0.4			
	300.0	10/08/14:215612SBL (STK1450267-001)	LCS	mg/L	20.00	98.4 %	90-110			
			MS	mg/L	400.0	97.6 %	93-113			
			MSD	mg/L	400.0	97.9 %	93-113			
			MSRPD	mg/L	100.0	0.3%	≤4			
			MS	mg/L	400.0	97.8 %	93-113			
			MSD	mg/L	400.0	98.0 %	93-113			
			MSRPD	mg/L	100.0	0.3%	≤4			
			300.0	10/08/14:215612SBL	CCV	ppm	20.00	99.4 %	90-110	
					CCV	ppm	20.00	103 %	90-110	
CCV	ppm	20.00			104 %	90-110				
ICV	ppm	40.00			97.2 %	90-110				
CCV	ppm	20.00			101 %	90-110				
Sulfate	300.0	10/08/14:212097CJJ (STK1450267-005) (STK1450267-006)	Blank	mg/L		ND	<2.0			
			LCS	mg/L	50.00	103 %	90-110			
			MS	mg/L	1000	104 %	92-113			
			MSD	mg/L	1000	104 %	92-113			
			MSRPD	mg/L	100.0	0.2%	≤4			
			MS	mg/L	1000	103 %	92-113			
			MSD	mg/L	1000	106 %	92-113			
			MSRPD	mg/L	100.0	2.4%	≤4			
			Blank	mg/L		ND	<2.0			

October 16, 2014
HydroFocus, Inc.

Lab ID : STK1450267
 Customer : 3-15742

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem Sulfate	300.0	10/08/14:212097SBL (STK1450267-001)	LCS	mg/L	50.00	99.5 %	90-110	
			MS	mg/L	1000	97.7 %	92-113	
			MSD	mg/L	1000	98.2 %	92-113	
			MSRPD	mg/L	100.0	0.5%	≤4	
		(STK1450267-002)	MS	mg/L	1000	97.9 %	92-113	
			MSD	mg/L	1000	98.2 %	92-113	
			MSRPD	mg/L	100.0	0.3%	≤4	
	300.0	10/08/14:215612SBL	CCV	ppm	50.00	101 %	90-110	
			CCV	ppm	50.00	105 %	90-110	
			CCV	ppm	50.00	104 %	90-110	
			ICV	ppm	100.0	97.6 %	90-110	
			CCV	ppm	50.00	103 %	90-110	
	Definition							
ICV	: Initial Calibration Verification - Analyzed to verify the instrument calibration is within criteria.							
CCV	: Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.							
CCB	: Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.							
Blank	: Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.							
LCS	: Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.							
MS	: Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.							
MSD	: Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.							
Dup	: Duplicate Sample - A random sample with each batch is prepared and analyzed in duplicate. The relative percent difference is an indication of precision for the preparation and analysis.							
MSRPD	: MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.							
ND	: Non-detect - Result was below the DQO listed for the analyte.							
DQO	: Data Quality Objective - This is the criteria against which the quality control data is compared.							

October 28, 2014

HydroFocus, Inc.
 Teresa Deverel
 P.O. Box 2401
 Davis, CA 95617

Lab ID : STK1450339
 Customer : 3-15742

Laboratory Report

Introduction: This report package contains total of 11 pages divided into 3 sections:

Case Narrative (2 pages) : An overview of the work performed at FGL.
 Sample Results (5 pages) : Results for each sample submitted.
 Quality Control (4 pages) : Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab ID #	Matrix
SCOMCR	10/08/2014	10/08/2014	STK1450339-001	GW
SCOPOR	10/08/2014	10/08/2014	STK1450339-002	GW
SCOBHO	10/08/2014	10/08/2014	STK1450339-003	GW
SCOBHO2	10/08/2014	10/08/2014	STK1450339-004	GW
SCODWI	10/08/2014	10/08/2014	STK1450339-005	GW

Sampling and Receipt Information: All samples were received in acceptable condition and within temperature requirements, unless noted on the Condition Upon Receipt (CUR) form. All samples arrived on ice. All samples were prepared and analyzed within the method specified hold time. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Inorganic - Metals QC

200.7	10/13/2014:215617 All analysis quality controls are within established criteria.
	10/13/2014:212088 All preparation quality controls are within established criteria.

Inorganic - Wet Chemistry QC

2320B	10/13/2014:215642 All analysis quality controls are within established criteria.
	10/13/2014:212044 All preparation quality controls are within established criteria.
2540CE	10/13/2014:212079 All preparation quality controls are within established criteria.

October 28, 2014
HydroFocus, Inc.

Lab ID : STK1450339
Customer : 3-15742


Inorganic - Wet Chemistry QC

2540CE	10/15/2014:212202 All preparation quality controls are within established criteria.
300.0	10/09/2014:215501 All analysis quality controls are within established criteria.
	10/09/2014:215636 All analysis quality controls are within established criteria.
	10/21/2014:216146 All analysis quality controls are within established criteria.
	10/09/2014:212016 All preparation quality controls are within established criteria, except: The following note applies to Chloride, Nitrate, Sulfate: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery. The following note applies to Chloride, Nitrate, Sulfate: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.
	10/09/2014:212101 All preparation quality controls are within established criteria.
	10/21/2014:212472 All preparation quality controls are within established criteria.
4500NO3F	10/22/2014:216165 All analysis quality controls are within established criteria.
	10/22/2014:212492 All preparation quality controls are within established criteria.

Certification:: I certify that this data package is in compliance with ELAP standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

KD:DMB

Approved By **Kelly A. Dunnahoo, B.S.**

 Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2014-10-31

October 28, 2014

Lab ID : STK1450339-001
 Customer ID : 3-15742

HydroFocus, Inc.

Teresa Deverel
 P.O. Box 2401
 Davis, CA 95617

Sampled On : October 8, 2014-08:05
 Sampled By : Kristyn Hanson
 Received On : October 8, 2014-14:00
 Matrix : Ground Water

Description : SCOMCR
 Project : Project #5066 GW Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Metals, Diss ^{P:1}												
Calcium	12	1		mg/L	1		200.7	212088	10/13/14 13:48	200.7	215617-IT203	10/13/14-18:49AC
Magnesium	5	1		mg/L	1		200.7	212088	10/13/14 13:48	200.7	215617-IT203	10/13/14-18:49AC
Potassium	3	1		mg/L	1		200.7	212088	10/13/14 13:48	200.7	215617-IT203	10/13/14-18:49AC
Sodium	13	1		mg/L	1		200.7	212088	10/13/14 13:48	200.7	215617-IT203	10/13/14-18:49AC
Wet Chemistry ^{P:1}												
Alkalinity (as CaCO3)	60	10		mg/L	1		2320B	212044	10/13/14 05:00	2320B	215642-MT201	10/13/14-15:57AMB
Bicarbonate	70	10		mg/L	1.000		2320B	212044	10/13/14 05:00	2320B	215642-MT201	10/13/14-15:57AMB
Carbonate	ND	10		mg/L	1.000	U	2320B	212044	10/13/14 05:00	2320B	215642-MT201	10/13/14-15:57AMB
Hydroxide	ND	10		mg/L	1.000	U	2320B	212044	10/13/14 05:00	2320B	215642-MT201	10/13/14-15:57AMB
Chloride	7	1		mg/L	1		300.0	212101	10/09/14 12:40	300.0	215636-IC207	10/09/14-21:59SBL
Nitrate	ND	0.4		mg/L	1	Ub	300.0	212101	10/09/14 12:40	300.0	215636-IC207	10/09/14-21:59SBL
Solids, Total Dissolved (TDS)	160	20		mg/L	1	b	2540CE	212202	10/15/14 14:16	2540C	215794-WT219	10/16/14-08:52CTL
Sulfate	ND	2		mg/L	1	J	300.0	212101	10/09/14 12:40	300.0	215636-IC207	10/09/14-21:59SBL

DQF Flags Definition:

- b The Blank was positive for constituent but less than the PQL
- U Constituent results were non-detect.
- J To indicate that result is estimated in cases where result less than PQL; or estimated due to RPD failure.

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A

October 28, 2014

Lab ID : STK1450339-002

Customer ID : 3-15742

HydroFocus, Inc.
 Teresa Deverel
 P.O. Box 2401
 Davis, CA 95617

Sampled On : October 8, 2014-09:05

Sampled By : Kristyn Hanson

Received On : October 8, 2014-14:00

Matrix : Ground Water

Description : SCOPOR

Project : Project #5066 GW Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Metals, Diss ^{P:1}												
Calcium	7	1		mg/L	1		200.7	212088	10/13/14 13:48	200.7	215617-IT203	10/13/14-18:52AC
Magnesium	2	1		mg/L	1		200.7	212088	10/13/14 13:48	200.7	215617-IT203	10/13/14-18:52AC
Potassium	3	1		mg/L	1		200.7	212088	10/13/14 13:48	200.7	215617-IT203	10/13/14-18:52AC
Sodium	52	1		mg/L	1		200.7	212088	10/13/14 13:48	200.7	215617-IT203	10/13/14-18:52AC
Wet Chemistry ^{P:1}												
Alkalinity (as CaCO3)	90	10		mg/L	1		2320B	212044	10/13/14 05:00	2320B	215642-MT201	10/13/14-16:05AMB
Bicarbonate	120	10		mg/L	1.000		2320B	212044	10/13/14 05:00	2320B	215642-MT201	10/13/14-16:05AMB
Carbonate	ND	10		mg/L	1.000	U	2320B	212044	10/13/14 05:00	2320B	215642-MT201	10/13/14-16:05AMB
Hydroxide	ND	10		mg/L	1.000	U	2320B	212044	10/13/14 05:00	2320B	215642-MT201	10/13/14-16:05AMB
Chloride	21	1		mg/L	1		300.0	212101	10/09/14 12:40	300.0	215636-IC207	10/09/14-22:53SBL
Nitrate	ND	0.4		mg/L	1	Ub	300.0	212101	10/09/14 12:40	300.0	215636-IC207	10/09/14-22:53SBL
Solids, Total Dissolved (TDS)	210	20		mg/L	1	b	2540CE	212079	10/13/14 12:45	2540C	215619-WT219	10/14/14-09:12JMG
Sulfate	ND	2		mg/L	1	J	300.0	212101	10/09/14 12:40	300.0	215636-IC207	10/09/14-22:53SBL

DQF Flags Definition:

- b** The Blank was positive for constituent but less than the PQL
- U** Constituent results were non-detect.
- J** To indicate that result is estimated in cases where result less than PQL; or estimated due to RPD failure.

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A

October 28, 2014

Lab ID : STK1450339-003

Customer ID : 3-15742

HydroFocus, Inc.

Teresa Deverel

P.O. Box 2401

Davis, CA 95617

Sampled On : October 8, 2014-10:20

Sampled By : Kristyn Hanson

Received On : October 8, 2014-14:00

Matrix : Ground Water

Description : SCOBHO

Project : Project #5066 GW Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Metals, Diss ^{P:1}												
Calcium	41	1		mg/L	1		200.7	212088	10/13/14 13:48	200.7	215617-IT203	10/13/14-18:55AC
Magnesium	29	1		mg/L	1		200.7	212088	10/13/14 13:48	200.7	215617-IT203	10/13/14-18:55AC
Potassium	2	1		mg/L	1		200.7	212088	10/13/14 13:48	200.7	215617-IT203	10/13/14-18:55AC
Sodium	27	1		mg/L	1		200.7	212088	10/13/14 13:48	200.7	215617-IT203	10/13/14-18:55AC
Wet Chemistry ^{P:1}												
Alkalinity (as CaCO ₃)	220	10		mg/L	1		2320B	212044	10/13/14 05:00	2320B	215642-MT201	10/13/14-16:13AMB
Bicarbonate	270	10		mg/L	1.000		2320B	212044	10/13/14 05:00	2320B	215642-MT201	10/13/14-16:13AMB
Carbonate	ND	10		mg/L	1.000	U	2320B	212044	10/13/14 05:00	2320B	215642-MT201	10/13/14-16:13AMB
Hydroxide	ND	10		mg/L	1.000	U	2320B	212044	10/13/14 05:00	2320B	215642-MT201	10/13/14-16:13AMB
Chloride	19	1		mg/L	1	hb	300.0	212016	10/09/14 11:40	300.0	215501-IC208	10/09/14-19:10SBL
Nitrate	9.5	0.4		mg/L	1	hb	300.0	212016	10/09/14 11:40	300.0	215501-IC208	10/09/14-19:10SBL
Solids, Total Dissolved (TDS)	340	20		mg/L	1	b	2540CE	212079	10/13/14 12:45	2540C	215619-WT219	10/14/14-09:05JMG
Sulfate	10	2		mg/L	1	hb	300.0	212016	10/09/14 11:40	300.0	215501-IC208	10/09/14-19:10SBL
DQF Flags Definition:												
b The Blank was positive for constituent but less than the PQL												
h The MS/MSD did not meet QC criteria.												
U Constituent results were non-detect.												

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A

October 28, 2014

Lab ID : STK1450339-004

Customer ID : 3-15742

HydroFocus, Inc.

Teresa Deverel

P.O. Box 2401

Davis, CA 95617

Sampled On : October 8, 2014-10:20

Sampled By : Kristyn Hanson

Received On : October 8, 2014-14:00

Matrix : Ground Water

Description : SCOBHO2

Project : Project #5066 GW Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Metals, Diss ^{P:1}												
Calcium	42	1		mg/L	1		200.7	212088	10/13/14 13:48	200.7	215617-IT203	10/13/14-18:58AC
Magnesium	29	1		mg/L	1		200.7	212088	10/13/14 13:48	200.7	215617-IT203	10/13/14-18:58AC
Potassium	2	1		mg/L	1		200.7	212088	10/13/14 13:48	200.7	215617-IT203	10/13/14-18:58AC
Sodium	27	1		mg/L	1		200.7	212088	10/13/14 13:48	200.7	215617-IT203	10/13/14-18:58AC
Wet Chemistry ^{P:1}												
Alkalinity (as CaCO3)	220	10		mg/L	1		2320B	212044	10/13/14 05:00	2320B	215642-MT201	10/13/14-16:23AMB
Bicarbonate	270	10		mg/L	1.000		2320B	212044	10/13/14 05:00	2320B	215642-MT201	10/13/14-16:23AMB
Carbonate	ND	10		mg/L	1.000	U	2320B	212044	10/13/14 05:00	2320B	215642-MT201	10/13/14-16:23AMB
Hydroxide	ND	10		mg/L	1.000	U	2320B	212044	10/13/14 05:00	2320B	215642-MT201	10/13/14-16:23AMB
Chloride	19	1		mg/L	1	hb	300.0	212016	10/09/14 11:40	300.0	215501-IC208	10/09/14-19:26SBL
Nitrate	9.4	0.4		mg/L	1	hb	300.0	212016	10/09/14 11:40	300.0	215501-IC208	10/09/14-19:26SBL
Solids, Total Dissolved (TDS)	310	20		mg/L	1	b	2540CE	212079	10/13/14 12:45	2540C	215619-WT219	10/14/14-09:06JMG
Sulfate	9	2		mg/L	1	hb	300.0	212016	10/09/14 11:40	300.0	215501-IC208	10/09/14-19:26SBL
DQF Flags Definition:												
b The Blank was positive for constituent but less than the PQL												
h The MS/MSD did not meet QC criteria.												
U Constituent results were non-detect.												

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A

October 28, 2014

Lab ID : STK1450339-005

Customer ID : 3-15742

HydroFocus, Inc.
 Teresa Deverel
 P.O. Box 2401
 Davis, CA 95617

Sampled On : October 8, 2014-11:10

Sampled By : Kristyn Hanson

Received On : October 8, 2014-14:00

Matrix : Ground Water

Description : SCODWI

Project : Project #5066 GW Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Metals, Diss ^{P:1}												
Calcium	28	1		mg/L	1		200.7	212088	10/13/14 13:48	200.7	215617-IT203	10/13/14-19:14AC
Magnesium	13	1		mg/L	1		200.7	212088	10/13/14 13:48	200.7	215617-IT203	10/13/14-19:14AC
Potassium	3	1		mg/L	1		200.7	212088	10/13/14 13:48	200.7	215617-IT203	10/13/14-19:14AC
Sodium	27	1		mg/L	1		200.7	212088	10/13/14 13:48	200.7	215617-IT203	10/13/14-19:14AC
Wet Chemistry ^{P:1}												
Alkalinity (as CaCO3)	120	10		mg/L	1		2320B	212044	10/13/14 05:00	2320B	215642-MT201	10/13/14-16:33AMB
Bicarbonate	150	10		mg/L	1.000		2320B	212044	10/13/14 05:00	2320B	215642-MT201	10/13/14-16:33AMB
Carbonate	ND	10		mg/L	1.000	U	2320B	212044	10/13/14 05:00	2320B	215642-MT201	10/13/14-16:33AMB
Hydroxide	ND	10		mg/L	1.000	U	2320B	212044	10/13/14 05:00	2320B	215642-MT201	10/13/14-16:33AMB
Chloride	40	1		mg/L	1	b	300.0	212472	10/21/14 18:50	300.0	216146-IC208	10/21/14-22:24SBL
Nitrate	ND	0.4		mg/L	1	U	4500NO3F	212492	10/22/14 09:18	4500NO3F	216165-FI207	10/22/14-11:33CJJ
Solids, Total Dissolved (TDS)	220	20		mg/L	1	b	2540CE	212079	10/13/14 12:45	2540C	215619-WT219	10/14/14-09:25JMG
Sulfate	ND	2		mg/L	1	Jb	300.0	212472	10/21/14 18:50	300.0	216146-IC208	10/21/14-22:24SBL

DQF Flags Definition:

- b** The Blank was positive for constituent but less than the PQL
- U** Constituent results were non-detect.
- J** To indicate that result is estimated in cases where result less than PQL; or estimated due to RPD failure.

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A

October 28, 2014
HydroFocus, Inc.

Lab ID : STK1450339
 Customer : 3-15742

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note	
Metals Calcium	200.7	(VI 1443739-003)	MS	mg/L	12.00	76.4 %	75-125		
			MSD	mg/L	12.00	90.6 %	75-125		
			MSRPD	mg/L	4000	2.1%	≤20.0		
		(STK1450339-005)	MS	mg/L	12.00	95.6 %	75-125		
			MSD	mg/L	12.00	103 %	75-125		
			MSRPD	mg/L	4000	2.1%	≤20.0		
	200.7	10/13/14:215617AC	CCV	ppm	25.00	107 %	90-110		
			CCB	ppm		0.0004	1		
			CCV	ppm	25.00	106 %	90-110		
			CCB	ppm		-0.06	1		
			CCV	ppm	25.00	109 %	90-110		
			CCB	ppm		-0.06	1		
	Magnesium	200.7	(VI 1443739-003)	MS	mg/L	12.00	99.5 %	75-125	
				MSD	mg/L	12.00	107 %	75-125	
MSRPD				mg/L	4000	4.1%	≤20.0		
(STK1450339-005)			MS	mg/L	12.00	99.0 %	75-125		
			MSD	mg/L	12.00	105 %	75-125		
			MSRPD	mg/L	4000	2.7%	≤20.0		
200.7		10/13/14:215617AC	CCV	ppm	25.00	106 %	90-110		
			CCB	ppm		-0.005	1		
			CCV	ppm	25.00	105 %	90-110		
			CCB	ppm		-0.01	1		
			CCV	ppm	25.00	109 %	90-110		
			CCB	ppm		-0.01	1		
Potassium		200.7	(VI 1443739-003)	MS	mg/L	12.00	108 %	75-125	
				MSD	mg/L	12.00	115 %	75-125	
	MSRPD			mg/L	4000	5.4%	≤20.0		
	(STK1450339-005)		MS	mg/L	12.00	103 %	75-125		
			MSD	mg/L	12.00	109 %	75-125		
			MSRPD	mg/L	4000	4.4%	≤20.0		
	200.7	10/13/14:215617AC	CCV	ppm	25.00	106 %	90-110		
			CCB	ppm		0.09	1		
			CCV	ppm	25.00	105 %	90-110		
			CCB	ppm		-0.32	1		
			CCV	ppm	25.00	108 %	90-110		
			CCB	ppm		-0.38	1		
	Sodium	200.7	(VI 1443739-003)	MS	mg/L	12.00	92.7 %	75-125	
				MSD	mg/L	12.00	107 %	75-125	
MSRPD				mg/L	4000	1.7%	≤20.0		
(STK1450339-005)			MS	mg/L	12.00	98.1 %	75-125		
			MSD	mg/L	12.00	102 %	75-125		
			MSRPD	mg/L	4000	1.3%	≤20.0		
200.7		10/13/14:215617AC	CCV	ppm	25.00	103 %	90-110		
			CCB	ppm		0.16	1		
			CCV	ppm	25.00	102 %	90-110		
			CCB	ppm		-0.05	1		
			CCV	ppm	25.00	106 %	90-110		
			CCB	ppm		-0.1	1		
Wet Chem Alkalinity (as CaCO3)		2320B	(SP 1411745-014)	Dup	mg/L		0.03%	3.42	
		2320B	10/13/14:215642AMB	CCV	mg/L	234.9	95.6 %	90-110	
	CCV			mg/L	234.9	95.1 %	90-110		
	Bicarbonate	2320B	(SP 1411745-014)	Dup	mg/L		0.04%	4.78	
Carbonate	2320B	(SP 1411745-014)	Dup	mg/L		0.0	10		
Hydroxide	2320B	(SP 1411745-014)	Dup	mg/L		0.0	10		

October 28, 2014
HydroFocus, Inc.

Lab ID : STK1450339
Customer : 3-15742

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem Solids, Total Dissolved	2540CE	10/13/14:212079CTL (SP 1411709-001)	Blank LCS Dup	mg/L mg/L mg/L	1001	ND 101 % 1.0%	<20 90-110 5	
	2540CE	10/15/14:212202CTL (CC 1483686-001)	Blank LCS Dup	mg/L mg/L mg/L	1001	ND 101 % 0.06%	<20 90-110 5	
Chloride	300.0	10/09/14:212016SBL (VI 1443662-001)	Blank	mg/L		ND	<1	
			LCS	mg/L	25.00	102 %	90-110	
			MS	mg/L	500.0	115 %	94-113	435
			MSD	mg/L	500.0	143 %	94-113	435
			MSRPD	mg/L	100.0	20.6%	≤3	435
			MS	mg/L	500.0	134 %	94-113	435
	(SP 1411562-001)	MSD	mg/L	500.0	121 %	94-113	435	
		MSRPD	mg/L	No Ref.	10.3%	≤3	435	
	300.0	10/09/14:212101MCA (STK1450339-001)	Blank	mg/L		ND	<1	
			LCS	mg/L	25.00	102 %	90-110	
			MS	mg/L	500.0	105 %	94-113	
			MSD	mg/L	500.0	104 %	94-113	
			MSRPD	mg/L	100.0	0.9%	≤3	
			MS	mg/L	500.0	102 %	94-113	
(STK1450339-002)	MSD	mg/L	500.0	101 %	94-113			
	MSRPD	mg/L	100.0	1.0%	≤3			
300.0	10/09/14:215501SBL	CCV	ppm	25.00	103 %	90-110		
		CCV	ppm	25.00	106 %	90-110		
300.0	10/09/14:215636SBL	CCV	ppm	25.00	104 %	90-110		
		CCV	ppm	25.00	103 %	90-110		
300.0	10/21/14:212472MCA (CC 1483582-010)	Blank	mg/L		ND	<1		
		LCS	mg/L	25.00	102 %	90-110		
		MS	mg/L	250.0	102 %	94-113		
		MSD	mg/L	250.0	101 %	94-113		
		MSRPD	mg/L	50.00	0.6%	≤3		
		MS	mg/L	250.0	99.5 %	94-113		
(STK1450133-014)	MSD	mg/L	250.0	99.6 %	94-113			
	MSRPD	mg/L	50.00	0.06%	≤3			
300.0	10/21/14:216146SBL	CCB	ppm		0.49	1		
		CCV	ppm	25.00	101 %	90-110		
		CCB	ppm		0.49	1		
		CCV	ppm	25.00	101 %	90-110		
Nitrate	300.0	10/09/14:212016SBL (VI 1443662-001)	Blank	mg/L		ND	<0.4	
			LCS	mg/L	20.00	99.4 %	90-110	
			MS	mg/L	400.0	114 %	93-113	435
			MSD	mg/L	400.0	144 %	93-113	435
			MSRPD	mg/L	100.0	22.9%	≤4	435
			MS	mg/L	400.0	135 %	93-113	435
	(SP 1411562-001)	MSD	mg/L	400.0	121 %	93-113	435	
		MSRPD	mg/L	No Ref.	11.2%	≤4	435	
	300.0	10/09/14:212101MCA (STK1450339-001)	Blank	mg/L		ND	<0.4	
			LCS	mg/L	20.00	99.9 %	90-110	
MS			mg/L	400.0	103 %	93-113		
MSD			mg/L	400.0	103 %	93-113		
(STK1450339-002)	MSRPD	mg/L	100.0	0.9%	≤4			
	MS	mg/L	400.0	101 %	93-113			
		MSD	mg/L	400.0	100 %	93-113		
		MSRPD	mg/L	100.0	1.1%	≤4		

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note		
Wet Chem Nitrate	300.0	10/09/14:215501SBL	CCV	ppm	20.00	99.8 %	90-110			
			CCV	ppm	20.00	102 %	90-110			
	300.0	10/09/14:215636SBL	CCV	ppm	20.00	102 %	90-110			
			CCV	ppm	20.00	101 %	90-110			
Sulfate	300.0	10/09/14:212016SBL (VI 1443662-001)	Blank	mg/L		ND	<2.0			
			LCS	mg/L	50.00	102 %	90-110			
			MS	mg/L	1000	117 %	92-113	435		
			MSD	mg/L	1000	150 %	92-113	435		
			MSRPD	mg/L	100.0	23.5%	≤4	435		
			MS	mg/L	1000	141 %	92-113	435		
		(SP 1411562-001)	MSD	mg/L	1000	124 %	92-113	435		
			MSRPD	mg/L	No Ref.	12.5%	≤4	435		
			300.0	10/09/14:212101MCA (STK1450339-001)	Blank	mg/L		ND	<2.0	
					LCS	mg/L	50.00	101 %	90-110	
					MS	mg/L	1000	104 %	92-113	
					MSD	mg/L	1000	103 %	92-113	
	MSRPD	mg/L			100.0	1.0%	≤4			
	MS	mg/L			1000	102 %	92-113			
	(STK1450339-002)	MSD	mg/L	1000	101 %	92-113				
		MSRPD	mg/L	100.0	0.9%	≤4				
		300.0	10/09/14:215501SBL	CCV	ppm	50.00	103 %	90-110		
				CCV	ppm	50.00	106 %	90-110		
		300.0	10/09/14:215636SBL	CCV	ppm	50.00	102 %	90-110		
				CCV	ppm	50.00	103 %	90-110		
	300.0	10/21/14:212472MCA (CC 1483582-010)	Blank	mg/L		ND	<2.0			
			LCS	mg/L	50.00	101 %	90-110			
			MS	mg/L	500.0	100 %	92-113			
			MSD	mg/L	500.0	99.5 %	92-113			
MSRPD			mg/L	50.00	0.7%	≤4				
MS			mg/L	500.0	98.5 %	92-113				
(STK1450133-014)		MSD	mg/L	500.0	98.7 %	92-113				
		MSRPD	mg/L	50.00	0.2%	≤4				
		300.0	10/21/14:216146SBL	CCB	ppm		0.97	2		
				CCV	ppm	50.00	100 %	90-110		
				CCB	ppm		0.97	2		
				CCV	ppm	50.00	100 %	90-110		

Definition	
CCV	: Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.
CCB	: Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.
Blank	: Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.
LCS	: Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.
MS	: Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
MSD	: Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.
Dup	: Duplicate Sample - A random sample with each batch is prepared and analyzed in duplicate. The relative percent difference is an indication of precision for the preparation and analysis.

October 28, 2014
HydroFocus, Inc.

Lab ID : STK1450339
Customer : 3-15742

Quality Control - Inorganic

Definition	
MSRPD	: MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.
ND	: Non-detect - Result was below the DQO listed for the analyte.
DQO	: Data Quality Objective - This is the criteria against which the quality control data is compared.
Explanation	
435	: Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.

November 25, 2014

HydroFocus, Inc.
 Teresa Deverel
 P.O. Box 2401
 Davis, CA 95617

Lab ID : STK1451248
 Customer : 3-15742

Laboratory Report

Introduction: This report package contains total of 9 pages divided into 3 sections:

Case Narrative (2 pages) : An overview of the work performed at FGL.
 Sample Results (4 pages) : Results for each sample submitted.
 Quality Control (3 pages) : Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab ID #	Matrix
GSDoL6	11/04/2014	11/04/2014	STK1451248-002	GW
GSMA18	11/04/2014	11/04/2014	STK1451248-003	GW
GSP17	11/04/2014	11/04/2014	STK1451248-006	GW
GSP17d	11/04/2014	11/04/2014	STK1451248-007	GW

Sampling and Receipt Information: All samples were received in acceptable condition and within temperature requirements, unless noted on the Condition Upon Receipt (CUR) form. All samples arrived on ice. All samples were prepared and analyzed within the method specified hold time. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Inorganic - Metals QC

200.7	11/09/2014:217201 All analysis quality controls are within established criteria
	11/09/2014:213239 All preparation quality controls are within established criteria

Inorganic - Wet Chemistry QC

2320B	11/13/2014:217417 All analysis quality controls are within established criteria
	11/13/2014:213475 All preparation quality controls are within established criteria
2540CE	11/08/2014:213212 All preparation quality controls are within established criteria

November 25, 2014
HydroFocus, Inc.

Lab ID : STK1451248
Customer : 3-15742

Inorganic - Wet Chemistry QC

300.0	11/05/2014:216947 All analysis quality controls are within established criteria
	11/06/2014:216947 All analysis quality controls are within established criteria
	11/05/2014:213127 All preparation quality controls are within established criteria

Certification:: I certify that this data package is in compliance with ELAP standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

KD:DMB

Approved By **Kelly A. Dunnahoo, B.S.**



Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2014-11-25

November 25, 2014

Lab ID : STK1451248-002

Customer ID : 3-15742

HydroFocus, Inc.

Teresa Deverel
 P.O. Box 2401
 Davis, CA 95617

Sampled On : November 4, 2014-09:45

Sampled By : Kristyn Hanson

Received On : November 4, 2014-14:05

Matrix : Ground Water

Description : GSDoL6

Project : Project #5066 GW Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Metals, Diss ^{P:1}												
Calcium	51	1		mg/L	1		200.7	213239	11/09/14 15:50	200.7	217201-IT203	11/09/14-21:09AC
Magnesium	23	1		mg/L	1		200.7	213239	11/09/14 15:50	200.7	217201-IT203	11/09/14-21:09AC
Potassium	2	1		mg/L	1		200.7	213239	11/09/14 15:50	200.7	217201-IT203	11/09/14-21:09AC
Sodium	17	1		mg/L	1		200.7	213239	11/09/14 15:50	200.7	217201-IT203	11/09/14-21:09AC
Wet Chemistry ^{P:1}												
Alkalinity (as CaCO3)	200	10		mg/L	1		2320B	213475	11/13/14 11:00	2320B	217417-MT201	11/13/14-13:13CTL
Bicarbonate	250	10		mg/L	1.000		2320B	213475	11/13/14 11:00	2320B	217417-MT201	11/13/14-13:13CTL
Carbonate	ND	10		mg/L	1.000	U	2320B	213475	11/13/14 11:00	2320B	217417-MT201	11/13/14-13:13CTL
Hydroxide	ND	10		mg/L	1.000	U	2320B	213475	11/13/14 11:00	2320B	217417-MT201	11/13/14-13:13CTL
Chloride	18	1		mg/L	1	b	300.0	213127	11/05/14 15:00	300.0	216947-IC207	11/06/14-04:13KD
Nitrate	21.3	0.5		mg/L	1	b	300.0	213127	11/05/14 15:00	300.0	216947-IC207	11/06/14-04:13KD
Solids, Total Dissolved (TDS)	340	20		mg/L	1		2540CE	213212	11/08/14 10:24	2540C	217089-WT219	11/10/14-08:47JMG
Sulfate	23	2		mg/L	1		300.0	213127	11/05/14 15:00	300.0	216947-IC207	11/06/14-04:13KD

DQF Flags Definition:

- b The Blank was positive for constituent but less than the PQL
- U Constituent results were non-detect.

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A

November 25, 2014

Lab ID : STK1451248-003

Customer ID : 3-15742

HydroFocus, Inc.
 Teresa Deverel
 P.O. Box 2401
 Davis, CA 95617

Sampled On : November 4, 2014-10:20

Sampled By : Kristyn Hanson

Received On : November 4, 2014-14:05

Matrix : Ground Water

Description : GSMA18

Project : Project #5066 GW Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Metals, Diss ^{P:1}												
Calcium	11	1		mg/L	1		200.7	213239	11/09/14 15:50	200.7	217201-IT203	11/09/14-21:12AC
Magnesium	5	1		mg/L	1		200.7	213239	11/09/14 15:50	200.7	217201-IT203	11/09/14-21:12AC
Potassium	3	1		mg/L	1		200.7	213239	11/09/14 15:50	200.7	217201-IT203	11/09/14-21:12AC
Sodium	7	1		mg/L	1		200.7	213239	11/09/14 15:50	200.7	217201-IT203	11/09/14-21:12AC
Wet Chemistry ^{P:1}												
Alkalinity (as CaCO3)	50	10		mg/L	1		2320B	213475	11/13/14 11:00	2320B	217417-MT201	11/13/14-13:23CTL
Bicarbonate	60	10		mg/L	1.000		2320B	213475	11/13/14 11:00	2320B	217417-MT201	11/13/14-13:23CTL
Carbonate	ND	10		mg/L	1.000	U	2320B	213475	11/13/14 11:00	2320B	217417-MT201	11/13/14-13:23CTL
Hydroxide	ND	10		mg/L	1.000	U	2320B	213475	11/13/14 11:00	2320B	217417-MT201	11/13/14-13:23CTL
Chloride	3	1		mg/L	1	b	300.0	213127	11/05/14 15:00	300.0	216947-IC207	11/05/14-18:11KD
Nitrate	6.2	0.5		mg/L	1	b	300.0	213127	11/05/14 15:00	300.0	216947-IC207	11/05/14-18:11KD
Solids, Total Dissolved (TDS)	120	20		mg/L	1		2540CE	213212	11/08/14 10:24	2540C	217089-WT219	11/10/14-08:49JMG
Sulfate	3	2		mg/L	1		300.0	213127	11/05/14 15:00	300.0	216947-IC207	11/05/14-18:11KD
DQF Flags Definition:												
b The Blank was positive for constituent but less than the PQL												
U Constituent results were non-detect.												

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A

November 25, 2014

Lab ID : STK1451248-006

Customer ID : 3-15742

HydroFocus, Inc.
 Teresa Deverel
 P.O. Box 2401
 Davis, CA 95617

Sampled On : November 4, 2014-12:20

Sampled By : Kristyn Hanson

Received On : November 4, 2014-14:05

Matrix : Ground Water

Description : GSP17

Project : Project #5066 GW Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Metals, Diss ^{P:1}												
Calcium	8	1		mg/L	1		200.7	213239	11/09/14 15:50	200.7	217201-IT203	11/09/14-21:36AC
Magnesium	3	1		mg/L	1		200.7	213239	11/09/14 15:50	200.7	217201-IT203	11/09/14-21:36AC
Potassium	ND	1		mg/L	1	J	200.7	213239	11/09/14 15:50	200.7	217201-IT203	11/09/14-21:36AC
Sodium	3	1		mg/L	1		200.7	213239	11/09/14 15:50	200.7	217201-IT203	11/09/14-21:36AC
Wet Chemistry ^{P:1}												
Alkalinity (as CaCO3)	30	10		mg/L	1		2320B	213475	11/13/14 11:00	2320B	217417-MT201	11/13/14-13:29CTL
Bicarbonate	40	10		mg/L	1.000		2320B	213475	11/13/14 11:00	2320B	217417-MT201	11/13/14-13:29CTL
Carbonate	ND	10		mg/L	1.000	U	2320B	213475	11/13/14 11:00	2320B	217417-MT201	11/13/14-13:29CTL
Hydroxide	ND	10		mg/L	1.000	U	2320B	213475	11/13/14 11:00	2320B	217417-MT201	11/13/14-13:29CTL
Chloride	3	1		mg/L	1	b	300.0	213127	11/05/14 18:00	300.0	216947-IC207	11/06/14-05:12KD
Nitrate	0.9	0.5		mg/L	1	b	300.0	213127	11/05/14 18:00	300.0	216947-IC207	11/06/14-05:12KD
Solids, Total Dissolved (TDS)	80	20		mg/L	1		2540CE	213212	11/08/14 10:24	2540C	217089-WT219	11/10/14-09:24JMG
Sulfate	3	2		mg/L	1	b	300.0	213127	11/05/14 18:00	300.0	216947-IC207	11/06/14-05:12KD

DQF Flags Definition:

- b** The Blank was positive for constituent but less than the PQL
- U** Constituent results were non-detect.
- J** To indicate that result is estimated in cases where result less than PQL; or estimated due to RPD failure.

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A

November 25, 2014

Lab ID : STK1451248-007

Customer ID : 3-15742

HydroFocus, Inc.
 Teresa Deverel
 P.O. Box 2401
 Davis, CA 95617

Sampled On : November 4, 2014-12:20
 Sampled By : Kristyn Hanson
 Received On : November 4, 2014-14:05
 Matrix : Ground Water

Description : GSP17d
 Project : Project #5066 GW Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Metals, Diss ^{P:1}												
Calcium	8	1		mg/L	1		200.7	213239	11/09/14 15:50	200.7	217201-IT203	11/09/14-21:38AC
Magnesium	3	1		mg/L	1		200.7	213239	11/09/14 15:50	200.7	217201-IT203	11/09/14-21:38AC
Potassium	ND	1		mg/L	1	J	200.7	213239	11/09/14 15:50	200.7	217201-IT203	11/09/14-21:38AC
Sodium	3	1		mg/L	1		200.7	213239	11/09/14 15:50	200.7	217201-IT203	11/09/14-21:38AC
Wet Chemistry ^{P:1}												
Alkalinity (as CaCO3)	30	10		mg/L	1		2320B	213475	11/13/14 11:00	2320B	217417-MT201	11/13/14-13:36CTL
Bicarbonate	40	10		mg/L	1.000		2320B	213475	11/13/14 11:00	2320B	217417-MT201	11/13/14-13:36CTL
Carbonate	ND	10		mg/L	1.000	U	2320B	213475	11/13/14 11:00	2320B	217417-MT201	11/13/14-13:36CTL
Hydroxide	ND	10		mg/L	1.000	U	2320B	213475	11/13/14 11:00	2320B	217417-MT201	11/13/14-13:36CTL
Chloride	3	1		mg/L	1	b	300.0	213127	11/05/14 18:00	300.0	216947-IC207	11/06/14-06:12KD
Nitrate	0.9	0.5		mg/L	1	b	300.0	213127	11/05/14 18:00	300.0	216947-IC207	11/06/14-06:12KD
Solids, Total Dissolved (TDS)	80	20		mg/L	1		2540CE	213212	11/08/14 10:24	2540C	217089-WT219	11/10/14-09:24JMG
Sulfate	3	2		mg/L	1	b	300.0	213127	11/05/14 18:00	300.0	216947-IC207	11/06/14-06:12KD

DQF Flags Definition:

- b** The Blank was positive for constituent but less than the PQL
- U** Constituent results were non-detect.
- J** To indicate that result is estimated in cases where result less than PQL; or estimated due to RPD failure.

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A

November 25, 2014
HydroFocus, Inc.

Lab ID : STK1451248
 Customer : 3-15742

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Metals Calcium	200.7	(STK1451312-001)	MS	mg/L	12.00	104 %	75-125	
			MSD	mg/L	12.00	98.1 %	75-125	
			MSRPD	mg/L	4000	3.5%	≤20.0	
		(CH 1477829-001)	MS	mg/L	12.00	104 %	75-125	
			MSD	mg/L	12.00	107 %	75-125	
			MSRPD	mg/L	4000	3.0%	≤20.0	
	200.7	11/09/14:217201AC	CCV	ppm	25.00	100 %	90-110	
			CCB	ppm		0.01	1	
			CCV	ppm	25.00	104 %	90-110	
			CCB	ppm		0.01	1	
CCV			ppm	25.00	100 %	90-110		
Magnesium	200.7	(STK1451312-001)	MS	mg/L	12.00	102 %	75-125	
			MSD	mg/L	12.00	97.0 %	75-125	
			MSRPD	mg/L	4000	3.4%	≤20.0	
		(CH 1477829-001)	MS	mg/L	12.00	100 %	75-125	
			MSD	mg/L	12.00	104 %	75-125	
			MSRPD	mg/L	4000	3.5%	≤20.0	
	200.7	11/09/14:217201AC	CCV	ppm	25.00	96.6 %	90-110	
			CCB	ppm		-0.0003	1	
			CCV	ppm	25.00	102 %	90-110	
			CCB	ppm		0.0004	1	
CCV			ppm	25.00	98.4 %	90-110		
Potassium	200.7	(STK1451312-001)	MS	mg/L	12.00	109 %	75-125	
			MSD	mg/L	12.00	104 %	75-125	
			MSRPD	mg/L	4000	4.8%	≤20.0	
		(CH 1477829-001)	MS	mg/L	12.00	107 %	75-125	
			MSD	mg/L	12.00	111 %	75-125	
			MSRPD	mg/L	4000	3.4%	≤20.0	
	200.7	11/09/14:217201AC	CCV	ppm	25.00	100 %	90-110	
			CCB	ppm		0.008	1	
			CCV	ppm	25.00	106 %	90-110	
			CCB	ppm		0.02	1	
CCV			ppm	25.00	101 %	90-110		
Sodium	200.7	(STK1451312-001)	MS	mg/L	12.00	99.3 %	75-125	
			MSD	mg/L	12.00	94.7 %	75-125	
			MSRPD	mg/L	4000	3.7%	≤20.0	
		(CH 1477829-001)	MS	mg/L	12.00	96.9 %	75-125	
			MSD	mg/L	12.00	100 %	75-125	
			MSRPD	mg/L	4000	3.1%	≤20.0	
	200.7	11/09/14:217201AC	CCV	ppm	25.00	94.5 %	90-110	
			CCB	ppm		-0.02	1	
			CCV	ppm	25.00	100 %	90-110	
			CCB	ppm		-0.003	1	
CCV			ppm	25.00	96.8 %	90-110		
Alkalinity (as CaCO3)	2320B	(CC 1483890-002)	Dup	mg/L		2.5%	3.42	
	2320B	11/13/14:217417CTL	CCV	mg/L	234.9	95.9 %	90-110	
Bicarbonate	2320B	(CC 1483890-002)	Dup	mg/L		2.4%	4.78	
Carbonate	2320B	(CC 1483890-002)	Dup	mg/L		0.0	10	
Hydroxide	2320B	(CC 1483890-002)	Dup	mg/L		0.0	10	

November 25, 2014
HydroFocus, Inc.

Lab ID : STK1451248
 Customer : 3-15742

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem								
Solids, Total Dissolved	2540CE	11/08/14:213212CTL (VI 1444146-001)	Blank LCS Dup	mg/L mg/L mg/L	1001	ND 96.7 % 1.5%	<20 90-110 5	
Chloride	300.0	11/05/14:213127SBL (STK1451230-001)	Blank	mg/L		ND	<1	
			LCS	mg/L	25.00	104 %	90-110	
			MS	mg/L	500.0	101 %	85-121	
			MSD	mg/L	500.0	100 %	85-121	
			MSRPD	mg/L	500.0	0.9%	≤19	
			MS	mg/L	500.0	109 %	85-121	
			MSD	mg/L	500.0	102 %	85-121	
	300.0	11/05/14:216947KD	Blank	mg/L		ND	<1	
			LCS	mg/L	25.00	102 %	90-110	
			MS	mg/L	500.0	105 %	85-121	
			MSD	mg/L	500.0	108 %	85-121	
			MSRPD	mg/L	500.0	2.7%	≤19	
			ICV	ppm	25.00	106 %	90-110	
			ICB	ppm		0.44	1	
CCB	ppm		0.48	1				
CCV	ppm	25.00	102 %	90-110				
CCB	ppm		0.46	1				
CCV	ppm	25.00	98.9 %	90-110				
CCB	ppm		0.45	1				
CCV	ppm	25.00	103 %	90-110				
Nitrate	300.0	11/05/14:213127SBL (STK1451230-001)	Blank	mg/L		ND	<0.5	
			LCS	mg/L	20.00	103 %	90-110	
			MS	mg/L	400.0	101 %	85-119	
			MSD	mg/L	400.0	101 %	85-119	
			MSRPD	mg/L	500.0	0.0%	≤19	
			MS	mg/L	400.0	110 %	85-119	
			MSD	mg/L	400.0	101 %	85-119	
	300.0	11/05/14:216947KD	Blank	mg/L		ND	<0.5	
			LCS	mg/L	20.00	102 %	90-110	
			MS	mg/L	400.0	102 %	85-119	
			MSD	mg/L	400.0	104 %	85-119	
			MSRPD	mg/L	500.0	1.3%	≤19	
			ICV	ppm	20.00	108 %	90-110	
			ICB	ppm		0.490	0.5	
CCB	ppm		0.482	0.5				
CCV	ppm	20.00	101 %	90-110				
CCB	ppm		0.381	0.5				
CCV	ppm	20.00	97.5 %	90-110				
CCB	ppm		0.379	0.5				
CCV	ppm	20.00	103 %	90-110				
Sulfate	300.0	11/05/14:213127SBL (STK1451230-001)	Blank	mg/L		ND	<2.0	
			LCS	mg/L	50.00	103 %	90-110	
			MS	mg/L	1000	101 %	82-124	
			MSD	mg/L	1000	99.8 %	82-124	
		11/05/14:216947KD (STK1451248-003)	MSRPD	mg/L	500.0	1.4%	≤23	
			MS	mg/L	1000	109 %	82-124	
			MSD	mg/L	1000	101 %	82-124	
			MSRPD	mg/L	500.0	7.6%	≤23	
Blank	mg/L		ND	<2.0				

November 25, 2014
HydroFocus, Inc.

Lab ID : STK1451248
 Customer : 3-15742

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Wet Chem Sulfate	300.0	11/05/14:213127SBL (STK1451248-006)	LCS	mg/L	50.00	102 %	90-110	
			MS	mg/L	1000	105 %	82-124	
			MSD	mg/L	1000	107 %	82-124	
			MSRPD	mg/L	500.0	2.3%	≤23	
	300.0	11/05/14:216947KD	ICV	ppm	50.00	105 %	90-110	
			ICB	ppm		0.00	2	
			CCB	ppm		0.00	2	
			CCV	ppm	50.00	102 %	90-110	
			CCB	ppm		0.86	2	
			CCV	ppm	50.00	99.4 %	90-110	
			CCB	ppm		0.89	2	
			CCV	ppm	50.00	103 %	90-110	
Definition								
ICV : Initial Calibration Verification - Analyzed to verify the instrument calibration is within criteria.								
ICB : Initial Calibration Blank - Analyzed to verify the instrument baseline is within criteria.								
CCV : Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.								
CCB : Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.								
Blank : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.								
LCS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.								
MS : Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.								
MSD : Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.								
Dup : Duplicate Sample - A random sample with each batch is prepared and analyzed in duplicate. The relative percent difference is an indication of precision for the preparation and analysis.								
MSRPD : MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.								
ND : Non-detect - Result was below the DQO listed for the analyte.								
DQO : Data Quality Objective - This is the criteria against which the quality control data is compared.								

November 25, 2014

HydroFocus, Inc.
 Teresa Deverel
 P.O. Box 2401
 Davis, CA 95617

Lab ID : STK1451414
 Customer : 3-15742

Laboratory Report

Introduction: This report package contains total of 7 pages divided into 3 sections:

Case Narrative (2 pages) : An overview of the work performed at FGL.
 Sample Results (3 pages) : Results for each sample submitted.
 Quality Control (2 pages) : Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab ID #	Matrix
CAVIN2	11/10/2014	11/10/2014	STK1451414-001	GW
CAVBRIG	11/10/2014	11/10/2014	STK1451414-002	GW
CALIP	11/10/2014	11/10/2014	STK1451414-003	GW

Sampling and Receipt Information: All samples were received in acceptable condition and within temperature requirements, unless noted on the Condition Upon Receipt (CUR) form. All samples arrived on ice. All samples were prepared and analyzed within the method specified hold time. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Inorganic - Metals QC

200.7	11/14/2014:217532 All analysis quality controls are within established criteria.
	11/14/2014:213519 All preparation quality controls are within established criteria, except: The following note applies to Potassium: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.

Inorganic - Wet Chemistry QC

2320B	11/18/2014:217675 All analysis quality controls are within established criteria.
	11/19/2014:217708 All analysis quality controls are within established criteria.

November 25, 2014
HydroFocus, Inc.

Lab ID : STK1451414
Customer : 3-15742

Inorganic - Wet Chemistry QC

2320B	11/18/2014:213624 All preparation quality controls are within established criteria.
	11/19/2014:213673 All preparation quality controls are within established criteria.
2540CE	11/13/2014:213466 All preparation quality controls are within established criteria.
300.0	11/11/2014:217389 All analysis quality controls are within established criteria.
	11/12/2014:217389 All analysis quality controls are within established criteria.
	11/11/2014:213443 All preparation quality controls are within established criteria, except: The following note applies to Chloride, Nitrate, Sulfate: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery. The following note applies to Chloride, Nitrate, Sulfate: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.

Certification:: I certify that this data package is in compliance with ELAP standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

KD:DMB

Approved By **Kelly A. Dunnahoo, B.S.**



Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2014-11-25

November 25, 2014

Lab ID : STK1451414-001
 Customer ID : 3-15742

HydroFocus, Inc.

Teresa Deverel
 P.O. Box 2401
 Davis, CA 95617

Sampled On : November 10, 2014-10:15
 Sampled By : Kristyn Hanson
 Received On : November 10, 2014-14:15
 Matrix : Ground Water

Description : CAVIN2
 Project : Project #5066 GW Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis			
							Method	ID	Time	Method	ID	Time	
Metals, Diss ^{P:1}													
Calcium	12	1		mg/L	1		200.7	213519	11/14/14	14:00	200.7	217532-IT203	11/14/14-20:31AC
Magnesium	7	1		mg/L	1		200.7	213519	11/14/14	14:00	200.7	217532-IT203	11/14/14-20:31AC
Potassium	4	1		mg/L	1	h	200.7	213519	11/14/14	14:00	200.7	217532-IT203	11/14/14-20:31AC
Sodium	20	1		mg/L	1		200.7	213519	11/14/14	14:00	200.7	217532-IT203	11/14/14-20:31AC
Wet Chemistry ^{P:1}													
Alkalinity (as CaCO3)	90	10		mg/L	1		2320B	213624	11/18/14	04:00	2320B	217675-MT201	11/18/14-16:28CTL
Bicarbonate	120	10		mg/L	1.000		2320B	213624	11/18/14	04:00	2320B	217675-MT201	11/18/14-16:28CTL
Carbonate	ND	10		mg/L	1.000	U	2320B	213624	11/18/14	04:00	2320B	217675-MT201	11/18/14-16:28CTL
Hydroxide	ND	10		mg/L	1.000	U	2320B	213624	11/18/14	04:00	2320B	217675-MT201	11/18/14-16:28CTL
Chloride	5	1		mg/L	1	hb	300.0	213443	11/11/14	12:00	300.0	217389-IC207	11/11/14-23:26KD
Nitrate	ND	0.5		mg/L	1	Jhb	300.0	213443	11/11/14	12:00	300.0	217389-IC207	11/11/14-23:26KD
Solids, Total Dissolved (TDS)	180	20		mg/L	1	b	2540CE	213466	11/13/14	17:40	2540C	217419-WT219	11/14/14-11:42CTL
Sulfate	ND	2		mg/L	1	Uhb	300.0	213443	11/11/14	12:00	300.0	217389-IC207	11/11/14-23:26KD

DQF Flags Definition:

- b The Blank was positive for constituent but less than the PQL
- h The MS/MSD did not meet QC criteria.
- U Constituent results were non-detect.
- J To indicate that result is estimated in cases where result less than PQL; or estimated due to RPD failure.

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A

November 25, 2014

Lab ID : STK1451414-002

Customer ID : 3-15742

HydroFocus, Inc.

Teresa Deverel

P.O. Box 2401

Davis, CA 95617

Sampled On : November 10, 2014-11:45

Sampled By : Kristyn Hanson

Received On : November 10, 2014-14:15

Matrix : Ground Water

Description : CAVBRIG

Project : Project #5066 GW Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Metals, Diss ^{P:1}												
Calcium	19	1		mg/L	1		200.7	213519	11/14/14 14:00	200.7	217532-IT203	11/14/14-20:34AC
Magnesium	9	1		mg/L	1		200.7	213519	11/14/14 14:00	200.7	217532-IT203	11/14/14-20:34AC
Potassium	3	1		mg/L	1	h	200.7	213519	11/14/14 14:00	200.7	217532-IT203	11/14/14-20:34AC
Sodium	13	1		mg/L	1		200.7	213519	11/14/14 14:00	200.7	217532-IT203	11/14/14-20:34AC
Wet Chemistry ^{P:1}												
Alkalinity (as CaCO3)	90	10		mg/L	1		2320B	213673	11/19/14 10:45	2320B	217708-MT201	11/19/14-12:02CTL
Bicarbonate	110	10		mg/L	1.000		2320B	213673	11/19/14 10:45	2320B	217708-MT201	11/19/14-12:02CTL
Carbonate	ND	10		mg/L	1.000	U	2320B	213673	11/19/14 10:45	2320B	217708-MT201	11/19/14-12:02CTL
Hydroxide	ND	10		mg/L	1.000	U	2320B	213673	11/19/14 10:45	2320B	217708-MT201	11/19/14-12:02CTL
Chloride	10	1		mg/L	1	hb	300.0	213443	11/11/14 12:00	300.0	217389-IC207	11/11/14-23:46KD
Nitrate	5.5	0.5		mg/L	1	hb	300.0	213443	11/11/14 12:00	300.0	217389-IC207	11/11/14-23:46KD
Solids, Total Dissolved (TDS)	210	20		mg/L	1	b	2540CE	213466	11/13/14 17:40	2540C	217419-WT219	11/14/14-11:42CTL
Sulfate	2	2		mg/L	1	hb	300.0	213443	11/11/14 12:00	300.0	217389-IC207	11/11/14-23:46KD

DQF Flags Definition:

- b The Blank was positive for constituent but less than the PQL
- h The MS/MSD did not meet QC criteria.
- U Constituent results were non-detect.

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A

November 25, 2014

Lab ID : STK1451414-003

Customer ID : 3-15742

HydroFocus, Inc.

Teresa Deverel

P.O. Box 2401

Davis, CA 95617

Sampled On : November 10, 2014-12:20

Sampled By : Kristyn Hanson

Received On : November 10, 2014-14:15

Matrix : Ground Water

Description : CALIP

Project : Project #5066 GW Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Metals, Diss ^{P:1}												
Calcium	58	1		mg/L	1		200.7	213519	11/14/14 14:00	200.7	217532-IT203	11/14/14-20:36AC
Magnesium	36	1		mg/L	1		200.7	213519	11/14/14 14:00	200.7	217532-IT203	11/14/14-20:36AC
Potassium	3	1		mg/L	1	h	200.7	213519	11/14/14 14:00	200.7	217532-IT203	11/14/14-20:36AC
Sodium	25	1		mg/L	1		200.7	213519	11/14/14 14:00	200.7	217532-IT203	11/14/14-20:36AC
Wet Chemistry ^{P:1}												
Alkalinity (as CaCO3)	240	10		mg/L	1		2320B	213624	11/18/14 04:00	2320B	217675-MT201	11/18/14-15:14CTL
Bicarbonate	300	10		mg/L	1.000		2320B	213624	11/18/14 04:00	2320B	217675-MT201	11/18/14-15:14CTL
Carbonate	ND	10		mg/L	1.000	U	2320B	213624	11/18/14 04:00	2320B	217675-MT201	11/18/14-15:14CTL
Hydroxide	ND	10		mg/L	1.000	U	2320B	213624	11/18/14 04:00	2320B	217675-MT201	11/18/14-15:14CTL
Chloride	55	1		mg/L	1	hb	300.0	213443	11/11/14 12:00	300.0	217389-IC207	11/12/14-00:06KD
Nitrate	14.4	0.5		mg/L	1	hb	300.0	213443	11/11/14 12:00	300.0	217389-IC207	11/12/14-00:06KD
Solids, Total Dissolved (TDS)	420	20		mg/L	1	b	2540CE	213466	11/13/14 17:40	2540C	217419-WT219	11/14/14-11:42CTL
Sulfate	14	2		mg/L	1	hb	300.0	213443	11/11/14 12:00	300.0	217389-IC207	11/12/14-00:06KD
DQF Flags Definition:												
b The Blank was positive for constituent but less than the PQL												
h The MS/MSD did not meet QC criteria.												
U Constituent results were non-detect.												

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A

November 25, 2014
HydroFocus, Inc.

Lab ID : STK1451414
Customer : 3-15742

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Metals Calcium	200.7	(SP 1413119-001)	MS	mg/L	12.00	42.8 %	<¼	
			MSD	mg/L	12.00	50.8 %	<¼	
			MSRPD	mg/L	4000	0.5%	≤20.0	
	200.7	11/14/14:217532AC	CCV	ppm	25.00	99.4 %	90-110	
			CCB	ppm		0.008	1	
			CCV	ppm	25.00	101 %	90-110	
			CCB	ppm		0.01	1	
Magnesium	200.7	(SP 1413119-001)	MS	mg/L	12.00	101 %	75-125	
			MSD	mg/L	12.00	101 %	75-125	
			MSRPD	mg/L	4000	0.1%	≤20.0	
	200.7	11/14/14:217532AC	CCV	ppm	25.00	98.9 %	90-110	
			CCB	ppm		0.004	1	
			CCV	ppm	25.00	100 %	90-110	
			CCB	ppm		0.005	1	
Potassium	200.7	(SP 1413119-001)	MS	mg/L	12.00	124 %	75-125	
			MSD	mg/L	12.00	127 %	75-125	435
			MSRPD	mg/L	4000	1.4%	≤20.0	
	200.7	11/14/14:217532AC	CCV	ppm	25.00	102 %	90-110	
			CCB	ppm		-0.14	1	
			CCV	ppm	25.00	104 %	90-110	
			CCB	ppm		0.02	1	
Sodium	200.7	(SP 1413119-001)	MS	mg/L	12.00	100 %	75-125	
			MSD	mg/L	12.00	98.4 %	75-125	
			MSRPD	mg/L	4000	0.2%	≤20.0	
	200.7	11/14/14:217532AC	CCV	ppm	25.00	98.8 %	90-110	
			CCB	ppm		0.16	1	
			CCV	ppm	25.00	100 %	90-110	
			CCB	ppm		0.17	1	
Wet Chem Alkalinity (as CaCO3)	2320B	(STK1451504-002)	Dup	mg/L		0.5%	3.42	
	2320B	11/18/14:217675CTL	CCV	mg/L	234.9	97.0 %	90-110	
			CCV	mg/L	234.9	95.2 %	90-110	
			CCV	mg/L	234.9	98.0 %	90-110	
	2320B	(VI 1444305-001)	Dup	mg/L		0.3%	3.42	
	2320B	11/19/14:217708CTL	CCV	mg/L	234.9	96.9 %	90-110	
			CCV	mg/L	234.9	105 %	90-110	
Bicarbonate	2320B	(STK1451504-002)	Dup	mg/L		0.4%	4.78	
	2320B	(VI 1444305-001)	Dup	mg/L		0.3%	4.78	
Carbonate	2320B	(STK1451504-002)	Dup	mg/L		0.0	10	
	2320B	(VI 1444305-001)	Dup	mg/L		0.0	10	
Hydroxide	2320B	(STK1451504-002)	Dup	mg/L		0.0	10	
	2320B	(VI 1444305-001)	Dup	mg/L		0.0	10	
Solids, Total Dissolved	2540CE	11/13/14:213466CTL	Blank	mg/L		ND	<20	
			LCS	mg/L	1001	101 %	90-110	
		(STK1451544-001)	Dup	mg/L		3.4%	5	
Chloride	300.0	11/11/14:213443SBL	Blank	mg/L		ND	<1	
			LCS	mg/L	25.00	98.5 %	90-110	
			MS	mg/L	500.0	129 %	85-121	435
			MSD	mg/L	500.0	96.7 %	85-121	
			MSRPD	mg/L	500.0	28.0%	≤19	435
			MS	mg/L	500.0	97.1 %	85-121	
			MSD	mg/L	500.0	106 %	85-121	
	MSRPD	mg/L	500.0	8.3%	≤19			
300.0	11/11/14:217389KD	CCB	ppm		0.50	1		
		CCV	ppm	25.00	103 %	90-110		

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note	
Wet Chem									
Chloride	300.0	11/12/14:217389KD	CCB CCV	ppm ppm	25.00	0.49 103 %	1 90-110		
Nitrate	300.0	11/11/14:213443SBL (CH 1478324-001)	Blank	mg/L		ND	<0.5		
			LCS	mg/L	20.00	97.5 %	90-110	435	
			MS	mg/L	400.0	128 %	85-119		
			MSD	mg/L	400.0	97.8 %	85-119		
	300.0	11/11/14:217389KD	(CH 1478324-002)	MSRPD	mg/L	500.0	26.6 %	≤19	435
				MS	mg/L	400.0	96.6 %	85-119	
				MSD	mg/L	400.0	105 %	85-119	
				MSRPD	mg/L	500.0	8.3 %	≤19	
Sulfate	300.0	11/11/14:213443SBL (CH 1478324-001)	Blank	mg/L		ND	<2.0		
			LCS	mg/L	50.00	99.0 %	90-110	435	
			MS	mg/L	1000	127 %	82-124		
			MSD	mg/L	1000	97.9 %	82-124		
	300.0	11/11/14:217389KD	(CH 1478324-002)	MSRPD	mg/L	500.0	25.7 %	≤23	435
				MS	mg/L	1000	96.3 %	82-124	
				MSD	mg/L	1000	106 %	82-124	
				MSRPD	mg/L	500.0	9.7 %	≤23	
300.0	11/11/14:217389KD		CCB	ppm		0.99	2		
			CCV	ppm	50.00	103 %	90-110		
			CCB	ppm		0.97	2		
			CCV	ppm	50.00	103 %	90-110		
Definition									
CCV : Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.									
CCB : Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.									
Blank : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.									
LCS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.									
MS : Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.									
MSD : Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.									
Dup : Duplicate Sample - A random sample with each batch is prepared and analyzed in duplicate. The relative percent difference is an indication of precision for the preparation and analysis.									
MSRPD : MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.									
ND : Non-detect - Result was below the DQO listed for the analyte.									
<¼ : High Sample Background - Spike concentration was less than one fourth of the sample concentration.									
DQO : Data Quality Objective - This is the criteria against which the quality control data is compared.									
Explanation									
435 : Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.									

November 25, 2014

HydroFocus, Inc.
 Teresa Deverel
 P.O. Box 2401
 Davis, CA 95617

Lab ID : STK1451484
 Customer : 3-15742

Laboratory Report

Introduction: This report package contains total of 6 pages divided into 3 sections:

Case Narrative	(2 pages) : An overview of the work performed at FGL.
Sample Results	(2 pages) : Results for each sample submitted.
Quality Control	(2 pages) : Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab ID #	Matrix
CAWOD	11/11/2014	11/11/2014	STK1451484-001	GW
CAOAK	11/11/2014	11/11/2014	STK1451484-002	GW

Sampling and Receipt Information: All samples were received in acceptable condition and within temperature requirements, unless noted on the Condition Upon Receipt (CUR) form. All samples arrived on ice. All samples were prepared and analyzed within the method specified hold time. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Inorganic - Metals QC

200.7	11/14/2014:217532 All analysis quality controls are within established criteria.
	11/14/2014:213503 All preparation quality controls are within established criteria.

Inorganic - Wet Chemistry QC

2320B	11/18/2014:217675 All analysis quality controls are within established criteria.
	11/19/2014:217708 All analysis quality controls are within established criteria.
	11/18/2014:213624 All preparation quality controls are within established criteria.
	11/19/2014:213673 All preparation quality controls are within established criteria.

November 25, 2014
HydroFocus, Inc.

Lab ID : STK1451484
Customer : 3-15742

Inorganic - Wet Chemistry QC

2540CE	11/14/2014:213498 All preparation quality controls are within established criteria, except: The following note applies to Solids, Total Dissolved: 440 Sample nonhomogeneity may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.
300.0	11/12/2014:217390 All analysis quality controls are within established criteria.
	11/12/2014:213444 All preparation quality controls are within established criteria, except: The following note applies to Sulfate: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery. The following note applies to Sulfate: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.

Certification:: I certify that this data package is in compliance with ELAP standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

KD:DMB

Approved By **Kelly A. Dunnahoo, B.S.**



Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2014-11-25

November 25, 2014

Lab ID : STK1451484-001
 Customer ID : 3-15742

HydroFocus, Inc.

Teresa Deverel
 P.O. Box 2401
 Davis, CA 95617

Sampled On : November 11, 2014-09:20
 Sampled By : Kristyn Hanson
 Received On : November 11, 2014-14:30
 Matrix : Ground Water

Description : CAWOD
 Project : Project #5066 GW Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Metals, Diss ^{P:1}												
Calcium	14	1		mg/L	1		200.7	213503	11/14/14 11:58	200.7	217532-IT203	11/14/14-12:35AC
Magnesium	5	1		mg/L	1		200.7	213503	11/14/14 11:58	200.7	217532-IT203	11/14/14-12:35AC
Potassium	3	1		mg/L	1		200.7	213503	11/14/14 11:58	200.7	217532-IT203	11/14/14-12:35AC
Sodium	7	1		mg/L	1		200.7	213503	11/14/14 11:58	200.7	217532-IT203	11/14/14-12:35AC
Wet Chemistry ^{P:1}												
Alkalinity (as CaCO3)	60	10		mg/L	1		2320B	213673	11/19/14 10:45	2320B	217708-MT201	11/19/14-13:35CTL
Bicarbonate	70	10		mg/L	1.000		2320B	213673	11/19/14 10:45	2320B	217708-MT201	11/19/14-13:35CTL
Carbonate	ND	10		mg/L	1.000	U	2320B	213673	11/19/14 10:45	2320B	217708-MT201	11/19/14-13:35CTL
Hydroxide	ND	10		mg/L	1.000	U	2320B	213673	11/19/14 10:45	2320B	217708-MT201	11/19/14-13:35CTL
Chloride	4	1		mg/L	1	b	300.0	213444	11/12/14 14:45	300.0	217390-IC207	11/12/14-16:17KD
Nitrate	2.5	0.5		mg/L	1	b	300.0	213444	11/12/14 14:45	300.0	217390-IC207	11/12/14-16:17KD
Solids, Total Dissolved (TDS)	90	20		mg/L	1	Jb	2540CE	213498	11/14/14 10:31	2540C	217499-WT219	11/17/14-05:01JMG
Sulfate	4	2		mg/L	1	bL	300.0	213444	11/12/14 14:45	300.0	217390-IC207	11/12/14-16:17KD

DQF Flags Definition:

- b The Blank was positive for constituent but less than the PQL
- L The preparation QC spike and/or CCV recoveries did not meet QC acceptance criteria.
- U Constituent results were non-detect.
- J To indicate that result is estimated in cases where result less than PQL; or estimated due to RPD failure.

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A

November 25, 2014

Lab ID : STK1451484-002

Customer ID : 3-15742

HydroFocus, Inc.

Teresa Deverel

P.O. Box 2401

Davis, CA 95617

Sampled On : November 11, 2014-10:30

Sampled By : Kristyn Hanson

Received On : November 11, 2014-14:30

Matrix : Ground Water

Description : CAOAK

Project : Project #5066 GW Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Metals, Diss ^{P:1}												
Calcium	21	1		mg/L	1		200.7	213503	11/14/14 11:58	200.7	217532-IT203	11/14/14-12:53AC
Magnesium	5	1		mg/L	1		200.7	213503	11/14/14 11:58	200.7	217532-IT203	11/14/14-12:53AC
Potassium	3	1		mg/L	1		200.7	213503	11/14/14 11:58	200.7	217532-IT203	11/14/14-12:53AC
Sodium	9	1		mg/L	1		200.7	213503	11/14/14 11:58	200.7	217532-IT203	11/14/14-12:53AC
Wet Chemistry ^{P:1}												
Alkalinity (as CaCO3)	70	10		mg/L	1		2320B	213624	11/18/14 04:00	2320B	217675-MT201	11/18/14-12:14CTL
Bicarbonate	90	10		mg/L	1.000		2320B	213624	11/18/14 04:00	2320B	217675-MT201	11/18/14-12:14CTL
Carbonate	ND	10		mg/L	1.000	U	2320B	213624	11/18/14 04:00	2320B	217675-MT201	11/18/14-12:14CTL
Hydroxide	ND	10		mg/L	1.000	U	2320B	213624	11/18/14 04:00	2320B	217675-MT201	11/18/14-12:14CTL
Chloride	4	1		mg/L	1	b	300.0	213444	11/12/14 14:45	300.0	217390-IC207	11/12/14-17:17KD
Nitrate	9.1	0.5		mg/L	1	b	300.0	213444	11/12/14 14:45	300.0	217390-IC207	11/12/14-17:17KD
Solids, Total Dissolved (TDS)	140	20		mg/L	1	Jb	2540CE	213498	11/14/14 10:31	2540C	217499-WT219	11/17/14-05:06JMG
Sulfate	5	2		mg/L	1	bL	300.0	213444	11/12/14 14:45	300.0	217390-IC207	11/12/14-17:17KD

DQF Flags Definition:

- b** The Blank was positive for constituent but less than the PQL
- L** The preparation QC spike and/or CCV recoveries did not meet QC acceptance criteria.
- U** Constituent results were non-detect.
- J** To indicate that result is estimated in cases where result less than PQL; or estimated due to RPD failure.

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A



November 25, 2014
HydroFocus, Inc.

Lab ID : STK1451484
Customer : 3-15742

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note
Metals Calcium	200.7	(STK1451335-001)	MS	mg/L	12.00	92.9 %	75-125	
			MSD	mg/L	12.00	63.1 %	<1/4	
			MSRPD	mg/L	4000	3.5%	≤20.0	
	200.7	11/14/14:217532AC	CCV	ppm	25.00	101 %	90-110	
			CCB	ppm		-0.003	1	
			CCV	ppm	25.00	103 %	90-110	
CCB			ppm		-0.003	1		
CCV			ppm	25.00	101 %	90-110		
			CCB	ppm		-0.004	1	
Magnesium	200.7	(STK1451335-001)	MS	mg/L	12.00	107 %	75-125	
			MSD	mg/L	12.00	86.0 %	75-125	
			MSRPD	mg/L	4000	4.3%	≤20.0	
	200.7	11/14/14:217532AC	CCV	ppm	25.00	98.4 %	90-110	
			CCB	ppm		-0.0009	1	
			CCV	ppm	25.00	101 %	90-110	
CCB			ppm		-0.0001	1		
CCV			ppm	25.00	98.9 %	90-110		
			CCB	ppm		-0.0002	1	
Potassium	200.7	(STK1451335-001)	MS	mg/L	12.00	119 %	75-125	
			MSD	mg/L	12.00	112 %	75-125	
			MSRPD	mg/L	4000	5.9%	≤20.0	
	200.7	11/14/14:217532AC	CCV	ppm	25.00	102 %	90-110	
			CCB	ppm		-0.07	1	
			CCV	ppm	25.00	104 %	90-110	
CCB			ppm		-0.01	1		
CCV			ppm	25.00	102 %	90-110		
			CCB	ppm		-0.1	1	
Sodium	200.7	(STK1451335-001)	MS	mg/L	12.00	112 %	75-125	
			MSD	mg/L	12.00	80.6 %	75-125	
			MSRPD	mg/L	4000	4.1%	≤20.0	
	200.7	11/14/14:217532AC	CCV	ppm	25.00	96.9 %	90-110	
			CCB	ppm		-0.003	1	
			CCV	ppm	25.00	99.9 %	90-110	
CCB			ppm		0.06	1		
CCV			ppm	25.00	98.2 %	90-110		
			CCB	ppm		0.06	1	
Wet Chem Alkalinity (as CaCO3)	2320B	(SP 1413119-001)	Dup	mg/L		0.7%	3.42	
	2320B	11/18/14:217675CTL	CCV	mg/L	234.9	98.0 %	90-110	
			CCV	mg/L	234.9	104 %	90-110	
	2320B	(VI 1444305-001)	Dup	mg/L		0.3%	3.42	
	2320B	11/19/14:217708CTL	CCV	mg/L	234.9	96.9 %	90-110	
			CCV	mg/L	234.9	105 %	90-110	
Bicarbonate	2320B	(SP 1413119-001)	Dup	mg/L		0.7%	4.78	
	2320B	(VI 1444305-001)	Dup	mg/L		0.3%	4.78	
Carbonate	2320B	(SP 1413119-001)	Dup	mg/L		0.0	10	
	2320B	(VI 1444305-001)	Dup	mg/L		0.0	10	
Hydroxide	2320B	(SP 1413119-001)	Dup	mg/L		0.0	10	
	2320B	(VI 1444305-001)	Dup	mg/L		0.0	10	
Solids, Total Dissolved	2540CE	11/14/14:213498CTL (STK1451456-001)	Blank	mg/L		ND	<20	
			LCS	mg/L	1001	99.0 %	90-110	
			Dup	mg/L		5.4%	5	440
Chloride	300.0	11/12/14:213444SBL	Blank	mg/L		ND	<1	
			LCS	mg/L	25.00	97.7 %	90-110	
			MS	mg/L	500.0	117 %	85-121	

November 25, 2014
HydroFocus, Inc.

Lab ID : STK1451484
 Customer : 3-15742

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note	
Wet Chem Chloride	300.0	(STK1451484-001)	MSD	mg/L	500.0	105 %	85-121		
			MSRPD	mg/L	500.0	10.6%	≤19		
		(STK1451484-002)	MS	mg/L	500.0	101 %	85-121		
			MSRPD	mg/L	500.0	0.3%	≤19		
	300.0	11/12/14:217390KD	ICV	ppm	25.00	97.5 %	90-110		
			ICB	ppm		0.46	1		
CCB			ppm		0.48	1			
CCV			ppm	25.00	101 %	90-110			
Nitrate	300.0	11/12/14:213444SBL	Blank	mg/L		ND	<0.5		
			LCS	mg/L	20.00	97.5 %	90-110		
			MS	mg/L	400.0	116 %	85-119		
		(STK1451484-001)	MSD	mg/L	400.0	105 %	85-119		
			MSRPD	mg/L	500.0	9.5%	≤19		
			MS	mg/L	400.0	102 %	85-119		
	(STK1451484-002)	MSD	mg/L	400.0	101 %	85-119			
		MSRPD	mg/L	500.0	1.2%	≤19			
		300.0	11/12/14:217390KD	ICV	ppm	20.00	94.7 %	90-110	
				ICB	ppm		0.400	0.5	
CCB	ppm				0.408	0.5			
CCV	ppm			20.00	97.9 %	90-110			
Sulfate	300.0	11/12/14:213444SBL	Blank	mg/L		ND	<2.0		
			LCS	mg/L	50.00	98.1 %	90-110		
			MS	mg/L	1000	-0.4 %	82-124	435	
		(STK1451484-001)	MSD	mg/L	1000	106 %	82-124		
			MSRPD	mg/L	500.0	200%	≤23	435	
			MS	mg/L	1000	102 %	82-124		
	(STK1451484-002)	MSD	mg/L	1000	99.9 %	82-124			
		MSRPD	mg/L	500.0	1.9%	≤23			
		300.0	11/12/14:217390KD	ICV	ppm	50.00	98.2 %	90-110	
				ICB	ppm		0.87	2	
CCB	ppm				0.90	2			
CCV	ppm			50.00	101 %	90-110			
Definition									
ICV : Initial Calibration Verification - Analyzed to verify the instrument calibration is within criteria.									
ICB : Initial Calibration Blank - Analyzed to verify the instrument baseline is within criteria.									
CCV : Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.									
CCB : Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.									
Blank : Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.									
LCS : Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.									
MS : Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.									
MSD : Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.									
Dup : Duplicate Sample - A random sample with each batch is prepared and analyzed in duplicate. The relative percent difference is an indication of precision for the preparation and analysis.									
MSRPD : MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.									
ND : Non-detect - Result was below the DQO listed for the analyte.									
<¼ : High Sample Background - Spike concentration was less than one fourth of the sample concentration.									
DQO : Data Quality Objective - This is the criteria against which the quality control data is compared.									
Explanation									
435 : Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.									
440 : Sample nonhomogeneity may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.									

December 19, 2014

HydroFocus, Inc.
 Teresa Deverel
 P.O. Box 2401
 Davis, CA 95617

Lab ID : STK1452483
 Customer : 3-15742

Laboratory Report

Introduction: This report package contains total of 7 pages divided into 3 sections:

Case Narrative (2 pages) : An overview of the work performed at FGL.
 Sample Results (3 pages) : Results for each sample submitted.
 Quality Control (2 pages) : Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab ID #	Matrix
SCGA20	12/09/2014	12/09/2014	STK1452483-001	GW
SCGA20d	12/09/2014	12/09/2014	STK1452483-002	GW
SCGA23	12/09/2014	12/09/2014	STK1452483-003	GW

Sampling and Receipt Information: All samples were received in acceptable condition and within temperature requirements, unless noted on the Condition Upon Receipt (CUR) form. All samples arrived on ice. All samples were prepared and analyzed within the method specified hold time. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Inorganic - Metals QC

200.7	12/10/2014:218873 All analysis quality controls are within established criteria.
	12/10/2014:214560 All preparation quality controls are within established criteria, except: The following note applies to Potassium: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.

Inorganic - Wet Chemistry QC

2320B	12/19/2014:219343 All analysis quality controls are within established criteria.
	12/12/2014:219086 All analysis quality controls are within established criteria.

December 19, 2014
HydroFocus, Inc.

Lab ID : STK1452483
Customer : 3-15742

Inorganic - Wet Chemistry QC

2320B	12/12/2014:214633 All preparation quality controls are within established criteria.
	12/19/2014:214969 All preparation quality controls are within established criteria.
2540CE	12/12/2014:214660 All preparation quality controls are within established criteria.
300.0	12/10/2014:218937 All analysis quality controls are within established criteria.
	12/10/2014:214573 All preparation quality controls are within established criteria.

Certification:: I certify that this data package is in compliance with ELAP standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

KD:DMB

Approved By **Kelly A. Dunnahoo, B.S.**



Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2014-12-19

December 19, 2014

Lab ID : STK1452483-001

Customer ID : 3-15742

HydroFocus, Inc.

Teresa Deverel
 P.O. Box 2401
 Davis, CA 95617

Sampled On : December 9, 2014-09:35

Sampled By : Kristyn Hanson

Received On : December 9, 2014-14:05

Matrix : Ground Water

Description : SCGA20

Project : Project #5066 GW Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Metals, Diss ^{P:1}												
Calcium	12	1		mg/L	1		200.7	214560	12/10/14 15:48	200.7	218873-IT203	12/10/14-19:37AC
Magnesium	7	1		mg/L	1		200.7	214560	12/10/14 15:48	200.7	218873-IT203	12/10/14-19:37AC
Potassium	2	1		mg/L	1	h	200.7	214560	12/10/14 15:48	200.7	218873-IT203	12/10/14-19:37AC
Sodium	20	1		mg/L	1		200.7	214560	12/10/14 15:48	200.7	218873-IT203	12/10/14-19:37AC
Total Cations _____	2.1	0.1		meq/L	1	h	200.7	214560	12/10/14 15:48	200.7	218873-IT203	12/10/14-19:37AC
Wet Chemistry ^{P:1}												
Alkalinity (as CaCO3)	80	10		mg/L	1		2320B	214633	12/12/14 05:00	2320B	219086-MT201	12/12/14-19:48AMB
Bicarbonate	90	10		mg/L	1.000		2320B	214633	12/12/14 05:00	2320B	219086-MT201	12/12/14-19:48AMB
Carbonate	ND	10		mg/L	1.000	U	2320B	214633	12/12/14 05:00	2320B	219086-MT201	12/12/14-19:48AMB
Hydroxide	ND	10		mg/L	1.000	U	2320B	214633	12/12/14 05:00	2320B	219086-MT201	12/12/14-19:48AMB
Chloride	7	1		mg/L	1	b	300.0	214573	12/10/14 11:35	300.0	218937-IC207	12/10/14-22:19SBL
Nitrate	6.5	0.5		mg/L	1		300.0	214573	12/10/14 11:35	300.0	218937-IC207	12/10/14-22:19SBL
Solids, Total Dissolved (TDS)	190	20		mg/L	1	b	2540CE	214660	12/12/14 12:18	2540C	219024-WT219	12/13/14-10:32CTL
Sulfate	4	2		mg/L	1		300.0	214573	12/10/14 11:35	300.0	218937-IC207	12/10/14-22:19SBL
Total Anions _____	1.9	0.1		meq/L	1.000	b	2320B	214633	12/12/14 05:00	2320B	219086-MT201	12/12/14-19:48AMB

DQF Flags Definition:

- b The Blank was positive for constituent but less than the PQL
- h The MS/MSD did not meet QC criteria.
- U Constituent results were non-detect.

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A

December 19, 2014

Lab ID : STK1452483-002

Customer ID : 3-15742

HydroFocus, Inc.

Teresa Deverel
 P.O. Box 2401
 Davis, CA 95617

Sampled On : December 9, 2014-09:35

Sampled By : Kristyn Hanson

Received On : December 9, 2014-14:05

Matrix : Ground Water

Description : SCGA20d

Project : Project #5066 GW Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Metals, Diss ^{P:1}												
Calcium	12	1		mg/L	1		200.7	214560	12/10/14 15:48	200.7	218873-IT203	12/10/14-19:39AC
Magnesium	6	1		mg/L	1		200.7	214560	12/10/14 15:48	200.7	218873-IT203	12/10/14-19:39AC
Potassium	2	1		mg/L	1	h	200.7	214560	12/10/14 15:48	200.7	218873-IT203	12/10/14-19:39AC
Sodium	20	1		mg/L	1		200.7	214560	12/10/14 15:48	200.7	218873-IT203	12/10/14-19:39AC
Total Cations _____	2.0	0.1		meq/L	1	h	200.7	214560	12/10/14 15:48	200.7	218873-IT203	12/10/14-19:39AC
Wet Chemistry ^{P:1}												
Alkalinity (as CaCO3)	70	10		mg/L	1		2320B	214969	12/19/14 10:00	2320B	219343-AMB	12/19/14-10:19AMB
Bicarbonate	90	10		mg/L	1.000		2320B	214969	12/19/14 10:00	2320B	219343-AMB	12/19/14-10:19AMB
Carbonate	ND	10		mg/L	1.000	U	2320B	214969	12/19/14 10:00	2320B	219343-AMB	12/19/14-10:19AMB
Hydroxide	ND	10		mg/L	1.000	U	2320B	214969	12/19/14 10:00	2320B	219343-AMB	12/19/14-10:19AMB
Chloride	7	1		mg/L	1	b	300.0	214573	12/10/14 11:35	300.0	218937-IC207	12/10/14-22:39SBL
Nitrate	6.7	0.5		mg/L	1		300.0	214573	12/10/14 11:35	300.0	218937-IC207	12/10/14-22:39SBL
Solids, Total Dissolved (TDS)	180	20		mg/L	1	b	2540CE	214660	12/12/14 12:18	2540C	219024-WT219	12/13/14-10:37CTL
Sulfate	3	2		mg/L	1		300.0	214573	12/10/14 11:35	300.0	218937-IC207	12/10/14-22:39SBL
Total Anions _____	1.8	0.1		meq/L	1.000	b	2320B	214969	12/19/14 10:00	2320B	219343-AMB	12/19/14-10:19AMB
DQF Flags Definition:												
b The Blank was positive for constituent but less than the PQL												
h The MS/MSD did not meet QC criteria.												
U Constituent results were non-detect.												

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A

December 19, 2014

Lab ID : STK1452483-003

Customer ID : 3-15742

HydroFocus, Inc.

Teresa Deverel
 P.O. Box 2401
 Davis, CA 95617

Sampled On : December 9, 2014-10:20

Sampled By : Kristyn Hanson

Received On : December 9, 2014-14:05

Matrix : Ground Water

Description : SCGA23

Project : Project #5066 GW Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Metals, Diss ^{P:1}												
Calcium	13	1		mg/L	1		200.7	214560	12/10/14 15:48	200.7	218873-IT203	12/10/14-19:42AC
Magnesium	7	1		mg/L	1		200.7	214560	12/10/14 15:48	200.7	218873-IT203	12/10/14-19:42AC
Potassium	2	1		mg/L	1	h	200.7	214560	12/10/14 15:48	200.7	218873-IT203	12/10/14-19:42AC
Sodium	19	1		mg/L	1		200.7	214560	12/10/14 15:48	200.7	218873-IT203	12/10/14-19:42AC
Total Cations _____	2.1	0.1		meq/L	1	h	200.7	214560	12/10/14 15:48	200.7	218873-IT203	12/10/14-19:42AC
Wet Chemistry ^{P:1}												
Alkalinity (as CaCO3)	80	10		mg/L	1		2320B	214969	12/19/14 10:00	2320B	219343-AMB	12/19/14-10:19AMB
Bicarbonate	100	10		mg/L	1.000		2320B	214969	12/19/14 10:00	2320B	219343-AMB	12/19/14-10:19AMB
Carbonate	ND	10		mg/L	1.000	U	2320B	214969	12/19/14 10:00	2320B	219343-AMB	12/19/14-10:19AMB
Hydroxide	ND	10		mg/L	1.000	U	2320B	214969	12/19/14 10:00	2320B	219343-AMB	12/19/14-10:19AMB
Chloride	6	1		mg/L	1	b	300.0	214573	12/10/14 11:35	300.0	218937-IC207	12/10/14-22:59SBL
Nitrate	3.1	0.5		mg/L	1		300.0	214573	12/10/14 11:35	300.0	218937-IC207	12/10/14-22:59SBL
Solids, Total Dissolved (TDS)	160	20		mg/L	1	b	2540CE	214660	12/12/14 12:18	2540C	219024-WT219	12/13/14-10:37CTL
Sulfate	3	2		mg/L	1		300.0	214573	12/10/14 11:35	300.0	218937-IC207	12/10/14-22:59SBL
Total Anions _____	1.9	0.1		meq/L	1.000	b	2320B	214969	12/19/14 10:00	2320B	219343-AMB	12/19/14-10:19AMB
DQF Flags Definition:												
b The Blank was positive for constituent but less than the PQL												
h The MS/MSD did not meet QC criteria.												
U Constituent results were non-detect.												

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A

December 19, 2014
HydroFocus, Inc.

Lab ID : STK1452483
 Customer : 3-15742

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note	
Metals Calcium	200.7	(SP 1414380-001)	MS	mg/L	12.00	91.2 %	75-125		
			MSD	mg/L	12.00	94.0 %	75-125		
			MSRPD	mg/L	4000	0.2%	≤20.0		
	200.7	12/10/14:218873AC	CCV	ppm	25.00	102 %	90-110		
			CCB	ppm		0.001	1		
			CCV	ppm	25.00	102 %	90-110		
			CCB	ppm		0.002	1		
Magnesium	200.7	(SP 1414380-001)	MS	mg/L	12.00	103 %	75-125		
			MSD	mg/L	12.00	114 %	75-125		
			MSRPD	mg/L	4000	3.0%	≤20.0		
	200.7	12/10/14:218873AC	CCV	ppm	25.00	100 %	90-110		
			CCB	ppm		0.003	1		
			CCV	ppm	25.00	100 %	90-110		
			CCB	ppm		0.002	1		
Potassium	200.7	(SP 1414380-001)	MS	mg/L	12.00	121 %	75-125		
			MSD	mg/L	12.00	134 %	75-125	435	
			MSRPD	mg/L	4000	8.7%	≤20.0		
	200.7	12/10/14:218873AC	CCV	ppm	25.00	103 %	90-110		
			CCB	ppm		0.01	1		
			CCV	ppm	25.00	103 %	90-110		
			CCB	ppm		0.04	1		
Sodium	200.7	(SP 1414380-001)	MS	mg/L	12.00	96.8 %	75-125		
			MSD	mg/L	12.00	109 %	75-125		
			MSRPD	mg/L	4000	1.5%	≤20.0		
	200.7	12/10/14:218873AC	CCV	ppm	25.00	100 %	90-110		
			CCB	ppm		0.04	1		
			CCV	ppm	25.00	100 %	90-110		
			CCB	ppm		0.02	1		
Wet Chem Alkalinity (as CaCO3)	2320B	(STK1452330-006)	Dup	mg/L		0.9%	3.42		
	2320B	12/12/14:219086AMB	CCV	mg/L	234.9	91.6 %	90-110		
			CCV	mg/L	234.9	92.3 %	90-110		
	2320B	(STK1452483-002)	Dup	mg/L		0.0%	3.42		
	2320B	12/19/14:219343AMB	CCV	mg/L	234.9	100 %	80-120		
Bicarbonate	2320B	(STK1452330-006)	Dup	mg/L		0.9%	4.78		
	2320B	(STK1452483-002)	Dup	mg/L		0.0%	4.78		
Carbonate	2320B	(STK1452330-006)	Dup	mg/L		0.0	10		
	2320B	(STK1452483-002)	Dup	mg/L		0.0	10		
Hydroxide	2320B	(STK1452330-006)	Dup	mg/L		0.0	10		
	2320B	(STK1452483-002)	Dup	mg/L		0.0	10		
Solids, Total Dissolved	2540CE	12/12/14:214660CTL (SP 1414332-001)	Blank	mg/L		4.4	20		
			LCS	mg/L	1001	99.8 %	90-110		
			Dup	mg/L		0.2%	5		
Chloride	300.0	(VI 1444633-002)	MS	mg/L	500.0	97.9 %	85-121		
			MSD	mg/L	500.0	96.9 %	85-121		
			MSRPD	mg/L	100.0	0.9%	≤19		
			Blank	mg/L		ND	<1		
			LCS	mg/L	25.00	95.1 %	90-110		
			MS	mg/L	500.0	110 %	85-121		
	300.0	12/10/14:218937SBL		MSD	mg/L	500.0	94.4 %	85-121	
				MSRPD	mg/L	100.0	15.1%	≤19	
				CCB	ppm	25.00	-0.31	1	
				CCV	ppm	25.00	97.3 %	90-110	
			CCB	ppm		-0.32	1		
			CCV	ppm	25.00	98.7 %	90-110		

December 19, 2014
HydroFocus, Inc.

Lab ID : STK1452483
 Customer : 3-15742

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note		
Wet Chem Nitrate	300.0	(VI 1444633-002)	MS	mg/L	400.0	97.3 %	85-119			
			MSD	mg/L	400.0	96.2 %	85-119			
			MSRPD	mg/L	100.0	1.0%	≤19			
			Blank	mg/L		ND	<0.5			
			LCS	mg/L	20.00	94.6 %	90-110			
		(VI 1444634-005)	MS	mg/L	400.0	109 %	85-119			
			MSD	mg/L	400.0	93.9 %	85-119			
			MSRPD	mg/L	100.0	15.2%	≤19			
			300.0	12/10/14:218937SBL	CCB	ppm		-0.104	0.5	
					CCV	ppm	20.00	97.8 %	90-110	
	CCB	ppm				-0.108	0.5			
	CCV	ppm			20.00	100 %	90-110			
	Sulfate	300.0	(VI 1444633-002)	MS	mg/L	1000	99.8 %	82-124		
				MSD	mg/L	1000	98.1 %	82-124		
MSRPD				mg/L	100.0	1.7%	≤23			
Blank				mg/L		ND	<2.0			
LCS				mg/L	50.00	95.4 %	90-110			
(VI 1444634-005)			MS	mg/L	1000	112 %	82-124			
			MSD	mg/L	1000	95.5 %	82-124			
			MSRPD	mg/L	100.0	15.5%	≤23			
			300.0	12/10/14:218937SBL	CCB	ppm		0.00	2	
					CCV	ppm	50.00	97.2 %	90-110	
CCB		ppm				0.00	2			
CCV		ppm			50.00	98.4 %	90-110			
Definition										
CCV		: Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.								
CCB	: Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.									
Blank	: Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.									
LCS	: Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.									
MS	: Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.									
MSD	: Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.									
Dup	: Duplicate Sample - A random sample with each batch is prepared and analyzed in duplicate. The relative percent difference is an indication of precision for the preparation and analysis.									
MSRPD	: MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.									
ND	: Non-detect - Result was below the DQO listed for the analyte.									
DQO	: Data Quality Objective - This is the criteria against which the quality control data is compared.									
Explanation										
435	: Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.									

January 13, 2015

HydroFocus, Inc.
 Teresa Deverel
 P.O. Box 2401
 Davis, CA 95617

Lab ID : STK1452916
 Customer : 3-15742

Laboratory Report

Introduction: This report package contains total of 8 pages divided into 3 sections:

Case Narrative (2 pages) : An overview of the work performed at FGL.
 Sample Results (4 pages) : Results for each sample submitted.
 Quality Control (2 pages) : Supporting Quality Control (QC) results.

Case Narrative

This Case Narrative pertains to the following samples:

Sample Description	Date Sampled	Date Received	FGL Lab ID #	Matrix
SACPR	12/22/2014	12/22/2014	STK1452916-001	GW
SACEQ	12/22/2014	12/22/2014	STK1452916-002	GW
SAGA15	12/22/2014	12/22/2014	STK1452916-003	GW
SCGA17	12/22/2014	12/22/2014	STK1452916-004	GW

Sampling and Receipt Information: All samples were received in acceptable condition and within temperature requirements, unless noted on the Condition Upon Receipt (CUR) form. All samples arrived on ice. All samples were prepared and analyzed within the method specified hold time. All samples were checked for pH if acid or base preservation is required (except for VOAs). For details of sample receipt information, please see the attached Chain of Custody and Condition Upon Receipt Form.

Quality Control: All samples were prepared and analyzed according to the following tables:

Inorganic - Metals QC

200.7	12/30/2014:219865 All analysis quality controls are within established criteria.
	12/30/2014:215332 All preparation quality controls are within established criteria, except: The following note applies to Potassium: 435 Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.

January 13, 2015
HydroFocus, Inc.

Lab ID : STK1452916
Customer : 3-15742

Inorganic - Wet Chemistry QC

2320B	01/02/2015:200125 All analysis quality controls are within established criteria.
	01/02/2015:200024 All preparation quality controls are within established criteria.
2540CE	12/23/2014:215142 All preparation quality controls are within established criteria.
300.0	12/23/2014:219772 All analysis quality controls are within established criteria.
	12/23/2014:215261 All preparation quality controls are within established criteria.

Certification:: I certify that this data package is in compliance with ELAP standards, both technically and for completeness, except for any conditions listed above. Release of the data contained in this data package is authorized by the Laboratory Director or his designee, as verified by the following electronic signature.

KD:DMB

Approved By **Kelly A. Dunnahoo, B.S.**



Digitally signed by Kelly A. Dunnahoo, B.S.
Title: Laboratory Director
Date: 2015-01-13

January 13, 2015

Lab ID : STK1452916-001
 Customer ID : 3-15742

HydroFocus, Inc.

Teresa Deverel
 P.O. Box 2401
 Davis, CA 95617

Sampled On : December 22, 2014-09:05
 Sampled By : Kristyn Hanson
 Received On : December 22, 2014-16:45
 Matrix : Ground Water

Description : SACPR
 Project : Project #5066 GW Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis			
							Method	ID	Time	Method	ID	Time	
Metals, Diss ^{P:1}													
Calcium	16	1		mg/L	1		200.7	215332	12/30/14	11:54	200.7	219865-IT203	12/30/14-15:25AC
Magnesium	9	1		mg/L	1		200.7	215332	12/30/14	11:54	200.7	219865-IT203	12/30/14-15:25AC
Potassium	4	1		mg/L	1	h	200.7	215332	12/30/14	11:54	200.7	219865-IT203	12/30/14-15:25AC
Sodium	17	1		mg/L	1		200.7	215332	12/30/14	11:54	200.7	219865-IT203	12/30/14-15:25AC
Total Cations _____	2.4	0.1		meq/L	1	h	200.7	215332	12/30/14	11:54	200.7	219865-IT203	12/30/14-15:25AC
Wet Chemistry ^{P:1}													
Alkalinity (as CaCO3)	100	10		mg/L	1		2320B	200024	01/02/15	11:23	2320B	200125-MT201	01/02/15-15:11AMB
Bicarbonate	120	10		mg/L	1.000		2320B	200024	01/02/15	11:23	2320B	200125-MT201	01/02/15-15:11AMB
Carbonate	ND	10		mg/L	1.000	U	2320B	200024	01/02/15	11:23	2320B	200125-MT201	01/02/15-15:11AMB
Hydroxide	ND	10		mg/L	1.000	U	2320B	200024	01/02/15	11:23	2320B	200125-MT201	01/02/15-15:11AMB
Chloride	3	1		mg/L	1	b	300.0	215261	12/23/14	10:35	300.0	219772-IC207	12/23/14-20:38KD
Nitrate	ND	0.5		mg/L	1	Ub	300.0	215261	12/23/14	10:35	300.0	219772-IC207	12/23/14-20:38KD
Solids, Total Dissolved (TDS)	170	20		mg/L	1	b	2540CE	215142	12/23/14	15:49	2540C	219596-WT219	12/24/14-07:52JMG
Sulfate	ND	2		mg/L	1	J	300.0	215261	12/23/14	10:35	300.0	219772-IC207	12/23/14-20:38KD
Total Anions _____	2.1	0.1		meq/L	1.000	Jb	2320B	200024	01/02/15	11:23	2320B	200125-MT201	01/02/15-15:11AMB

DQF Flags Definition:

- b The Blank was positive for constituent but less than the PQL
- h The MS/MSD did not meet QC criteria.
- U Constituent results were non-detect.
- J To indicate that result is estimated in cases where result less than PQL; or estimated due to RPD failure.

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A

January 13, 2015

Lab ID : STK1452916-002
 Customer ID : 3-15742

HydroFocus, Inc.
 Teresa Deverel
 P.O. Box 2401
 Davis, CA 95617

Sampled On : December 22, 2014-09:55
 Sampled By : Kristyn Hanson
 Received On : December 22, 2014-16:45
 Matrix : Ground Water

Description : SACEQ
 Project : Project #5066 GW Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Metals, Diss ^{P:1}												
Calcium	17	1		mg/L	1		200.7	215332	12/30/14 11:54	200.7	219865-IT203	12/30/14-15:27AC
Magnesium	10	1		mg/L	1		200.7	215332	12/30/14 11:54	200.7	219865-IT203	12/30/14-15:27AC
Potassium	2	1		mg/L	1	h	200.7	215332	12/30/14 11:54	200.7	219865-IT203	12/30/14-15:27AC
Sodium	17	1		mg/L	1		200.7	215332	12/30/14 11:54	200.7	219865-IT203	12/30/14-15:27AC
Total Cations _____	2.5	0.1		meq/L	1	h	200.7	215332	12/30/14 11:54	200.7	219865-IT203	12/30/14-15:27AC
Wet Chemistry ^{P:1}												
Alkalinity (as CaCO3)	100	10		mg/L	1		2320B	200024	01/02/15 11:23	2320B	200125-MT201	01/02/15-15:37AMB
Bicarbonate	120	10		mg/L	1.000		2320B	200024	01/02/15 11:23	2320B	200125-MT201	01/02/15-15:37AMB
Carbonate	ND	10		mg/L	1.000	U	2320B	200024	01/02/15 11:23	2320B	200125-MT201	01/02/15-15:37AMB
Hydroxide	ND	10		mg/L	1.000	U	2320B	200024	01/02/15 11:23	2320B	200125-MT201	01/02/15-15:37AMB
Chloride	5	1		mg/L	1	b	300.0	215261	12/23/14 10:35	300.0	219772-IC207	12/23/14-20:58KD
Nitrate	1.4	0.5		mg/L	1	b	300.0	215261	12/23/14 10:35	300.0	219772-IC207	12/23/14-20:58KD
Solids, Total Dissolved (TDS)	170	20		mg/L	1	b	2540CE	215142	12/23/14 15:49	2540C	219596-WT219	12/24/14-07:47JMG
Sulfate	ND	2		mg/L	1	J	300.0	215261	12/23/14 10:35	300.0	219772-IC207	12/23/14-20:58KD
Total Anions _____	2.1	0.1		meq/L	1.000	Jb	2320B	200024	01/02/15 11:23	2320B	200125-MT201	01/02/15-15:37AMB
DQF Flags Definition:												
b The Blank was positive for constituent but less than the PQL												
h The MS/MSD did not meet QC criteria.												
U Constituent results were non-detect.												
J To indicate that result is estimated in cases where result less than PQL; or estimated due to RPD failure.												

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A

January 13, 2015

Lab ID : STK1452916-003

Customer ID : 3-15742

HydroFocus, Inc.

Teresa Deverel
 P.O. Box 2401
 Davis, CA 95617

Sampled On : December 22, 2014-14:30

Sampled By : Kristyn Hanson

Received On : December 22, 2014-16:45

Matrix : Ground Water

Description : SAGA15

Project : Project #5066 GW Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Metals, Diss ^{P:1}												
Calcium	16	1		mg/L	1		200.7	215332	12/30/14 11:54	200.7	219865-IT203	12/30/14-15:30AC
Magnesium	9	1		mg/L	1		200.7	215332	12/30/14 11:54	200.7	219865-IT203	12/30/14-15:30AC
Potassium	ND	1		mg/L	1	Jh	200.7	215332	12/30/14 11:54	200.7	219865-IT203	12/30/14-15:30AC
Sodium	12	1		mg/L	1		200.7	215332	12/30/14 11:54	200.7	219865-IT203	12/30/14-15:30AC
Total Cations _____	2.1	0.1		meq/L	1	Jh	200.7	215332	12/30/14 11:54	200.7	219865-IT203	12/30/14-15:30AC
Wet Chemistry ^{P:1}												
Alkalinity (as CaCO3)	60	10		mg/L	1		2320B	200024	01/02/15 11:23	2320B	200125-MT201	01/02/15-15:46AMB
Bicarbonate	70	10		mg/L	1.000		2320B	200024	01/02/15 11:23	2320B	200125-MT201	01/02/15-15:46AMB
Carbonate	ND	10		mg/L	1.000	U	2320B	200024	01/02/15 11:23	2320B	200125-MT201	01/02/15-15:46AMB
Hydroxide	ND	10		mg/L	1.000	U	2320B	200024	01/02/15 11:23	2320B	200125-MT201	01/02/15-15:46AMB
Chloride	8	1		mg/L	1	b	300.0	215261	12/23/14 10:35	300.0	219772-IC207	12/23/14-21:18KD
Nitrate	17.4	0.5		mg/L	1	b	300.0	215261	12/23/14 10:35	300.0	219772-IC207	12/23/14-21:18KD
Solids, Total Dissolved (TDS)	170	20		mg/L	1	b	2540CE	215142	12/23/14 15:49	2540C	219596-WT219	12/24/14-07:46JMG
Sulfate	3	2		mg/L	1		300.0	215261	12/23/14 10:35	300.0	219772-IC207	12/23/14-21:18KD
Total Anions _____	1.7	0.1		meq/L	1.000	b	2320B	200024	01/02/15 11:23	2320B	200125-MT201	01/02/15-15:46AMB
DQF Flags Definition:												
b The Blank was positive for constituent but less than the PQL												
h The MS/MSD did not meet QC criteria.												
U Constituent results were non-detect.												
J To indicate that result is estimated in cases where result less than PQL; or estimated due to RPD failure.												

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A

January 13, 2015

Lab ID : STK1452916-004

Customer ID : 3-15742

HydroFocus, Inc.

Teresa Deverel
 P.O. Box 2401
 Davis, CA 95617

Sampled On : December 22, 2014-15:30

Sampled By : Kristyn Hanson

Received On : December 22, 2014-16:45

Matrix : Ground Water

Description : SCGA17

Project : Project #5066 GW Monitoring

Sample Result - Inorganic

Constituent	Result	PQL	MDL	Units	Dilution	DQF	Sample Preparation			Sample Analysis		
							Method	ID	Time	Method	ID	Time
Metals, Diss ^{P:1}												
Calcium	21	1		mg/L	1		200.7	215332	12/30/14 11:54	200.7	219865-IT203	12/30/14-15:33AC
Magnesium	7	1		mg/L	1		200.7	215332	12/30/14 11:54	200.7	219865-IT203	12/30/14-15:33AC
Potassium	3	1		mg/L	1	h	200.7	215332	12/30/14 11:54	200.7	219865-IT203	12/30/14-15:33AC
Sodium	11	1		mg/L	1		200.7	215332	12/30/14 11:54	200.7	219865-IT203	12/30/14-15:33AC
Total Cations _____	2.2	0.1		meq/L	1	h	200.7	215332	12/30/14 11:54	200.7	219865-IT203	12/30/14-15:33AC
Wet Chemistry ^{P:1}												
Alkalinity (as CaCO3)	70	10		mg/L	1		2320B	200024	01/02/15 11:23	2320B	200125-MT201	01/02/15-16:27AMB
Bicarbonate	90	10		mg/L	1.000		2320B	200024	01/02/15 11:23	2320B	200125-MT201	01/02/15-16:27AMB
Carbonate	ND	10		mg/L	1.000	U	2320B	200024	01/02/15 11:23	2320B	200125-MT201	01/02/15-16:27AMB
Hydroxide	ND	10		mg/L	1.000	U	2320B	200024	01/02/15 11:23	2320B	200125-MT201	01/02/15-16:27AMB
Chloride	7	1		mg/L	1	b	300.0	215261	12/23/14 10:35	300.0	219772-IC207	12/23/14-21:38KD
Nitrate	10.3	0.5		mg/L	1	b	300.0	215261	12/23/14 10:35	300.0	219772-IC207	12/23/14-21:38KD
Solids, Total Dissolved (TDS)	180	20		mg/L	1	b	2540CE	215142	12/23/14 15:49	2540C	219596-WT219	12/24/14-07:59JMG
Sulfate	3	2		mg/L	1		300.0	215261	12/23/14 10:35	300.0	219772-IC207	12/23/14-21:38KD
Total Anions _____	1.9	0.1		meq/L	1.000	b	2320B	200024	01/02/15 11:23	2320B	200125-MT201	01/02/15-16:27AMB
DQF Flags Definition:												
b The Blank was positive for constituent but less than the PQL												
h The MS/MSD did not meet QC criteria.												
U Constituent results were non-detect.												

ND=Non-Detected. PQL=Practical Quantitation Limit. Containers: (P) Plastic Preservatives: N/A

January 13, 2015
HydroFocus, Inc.

Lab ID : STK1452916
Customer : 3-15742

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note	
Metals Calcium	200.7	(SP 1415076-001)	MS	mg/L	12.00	97.1 %	75-125		
			MSD	mg/L	12.00	87.4 %	75-125		
			MSRPD	mg/L	4000	1.4%	≤20.0		
	200.7	12/30/14:219865AC	CCV	ppm	25.00	107 %	90-110		
			CCB	ppm		0.002	1		
			CCV	ppm	25.00	107 %	90-110		
			CCB	ppm		0.0004	1		
Magnesium	200.7	(SP 1415076-001)	MS	mg/L	12.00	110 %	75-125		
			MSD	mg/L	12.00	100 %	75-125		
			MSRPD	mg/L	4000	2.9%	≤20.0		
	200.7	12/30/14:219865AC	CCV	ppm	25.00	105 %	90-110		
			CCB	ppm		0.0009	1		
			CCV	ppm	25.00	105 %	90-110		
			CCB	ppm		0.0008	1		
Potassium	200.7	(SP 1415076-001)	MS	mg/L	12.00	130 %	75-125	435	
			MSD	mg/L	12.00	118 %	75-125		
			MSRPD	mg/L	4000	9.2%	≤20.0		
	200.7	12/30/14:219865AC	CCV	ppm	25.00	107 %	90-110		
			CCB	ppm		0.02	1		
			CCV	ppm	25.00	107 %	90-110		
			CCB	ppm		0.04	1		
Sodium	200.7	(SP 1415076-001)	MS	mg/L	12.00	105 %	75-125		
			MSD	mg/L	12.00	94.3 %	75-125		
			MSRPD	mg/L	4000	1.3%	≤20.0		
	200.7	12/30/14:219865AC	CCV	ppm	25.00	103 %	90-110		
			CCB	ppm		0.04	1		
			CCV	ppm	25.00	104 %	90-110		
			CCB	ppm		0.04	1		
Wet Chem Alkalinity (as CaCO3)	2320B	(SP 1414843-001) (STK1452944-001)	Dup	mg/L		0.7%	3.42		
			Dup	mg/L		0.1%	3.42		
	2320B	01/02/15:200125AMB	CCV	mg/L	234.9	95.0 %	90-110		
			CCV	mg/L	234.9	99.3 %	90-110		
			CCV	mg/L	234.9	107 %	90-110		
Bicarbonate	2320B	(SP 1414843-001) (STK1452944-001)	Dup	mg/L		0.5%	4.78		
			Dup	mg/L		0.06%	4.78		
Carbonate	2320B	(SP 1414843-001) (STK1452944-001)	Dup	mg/L		0.0	10		
			Dup	mg/L		0.0	10		
Hydroxide	2320B	(SP 1414843-001) (STK1452944-001)	Dup	mg/L		0.0	10		
			Dup	mg/L		0.0	10		
Solids, Total Dissolved	2540CE	12/23/14:215142CTL	Blank	mg/L		ND	<20		
		(SP 1414842-001)	LCS	mg/L	1001	100 %	90-110		
			Dup	mg/L		0.8%	5		
Chloride	300.0	(STK1452890-001)	MS	mg/L	500.0	94.6 %	85-121		
			MSD	mg/L	500.0	95.5 %	85-121		
			MSRPD	mg/L	100.0	0.9%	≤19		
			Blank	mg/L		ND	<1		
			LCS	mg/L	25.00	96.9 %	90-110		
	300.0	12/23/14:219772KD	(STK1452580-001)	MS	mg/L	500.0	99.1 %	85-121	
				MSD	mg/L	500.0	99.6 %	85-121	
				MSRPD	mg/L	100.0	0.5%	≤19	
				CCB	ppm	25.00	-0.22	1	
				CCV	ppm	25.00	102 %	90-110	
			CCB	ppm		-0.22	1		
			CCV	ppm	25.00	103 %	90-110		

January 13, 2015
HydroFocus, Inc.

Lab ID : STK1452916
 Customer : 3-15742

Quality Control - Inorganic

Constituent	Method	Date/ID	Type	Units	Conc.	QC Data	DQO	Note		
Wet Chem Nitrate	300.0	(STK1452890-001)	MS	mg/L	400.0	93.7 %	85-119			
			MSD	mg/L	400.0	94.7 %	85-119			
			MSRPD	mg/L	100.0	1.0%	≤19			
			Blank	mg/L		ND	<0.5			
			LCS	mg/L	20.00	96.6 %	90-110			
			MS	mg/L	400.0	99.0 %	85-119			
			MSD	mg/L	400.0	99.4 %	85-119			
			MSRPD	mg/L	100.0	0.4%	≤19			
	300.0	12/23/14:219772KD	CCB	ppm		-0.120	0.5			
			CCV	ppm	20.00	101 %	90-110			
			CCB	ppm		-0.119	0.5			
			CCV	ppm	20.00	103 %	90-110			
	Sulfate	300.0	(STK1452890-001)	MS	mg/L	1000	95.5 %	82-124		
				MSD	mg/L	1000	96.8 %	82-124		
MSRPD				mg/L	100.0	1.4%	≤23			
Blank				mg/L		ND	<2.0			
LCS				mg/L	50.00	97.9 %	90-110			
MS				mg/L	1000	98.5 %	82-124			
MSD				mg/L	1000	100 %	82-124			
MSRPD				mg/L	100.0	2.0%	≤23			
300.0		12/23/14:219772KD	CCB	ppm		-0.53	2			
			CCV	ppm	50.00	94.0 %	90-110			
			CCB	ppm		-0.55	2			
			CCV	ppm	50.00	104 %	90-110			
			Definition							
			CCV	: Continuing Calibration Verification - Analyzed to verify the instrument calibration is within criteria.						
CCB	: Continuing Calibration Blank - Analyzed to verify the instrument baseline is within criteria.									
Blank	: Method Blank - Prepared to verify that the preparation process is not contributing contamination to the samples.									
LCS	: Laboratory Control Standard/Sample - Prepared to verify that the preparation process is not affecting analyte recovery.									
MS	: Matrix Spikes - A random sample is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.									
MSD	: Matrix Spike Duplicate of MS/MSD pair - A random sample duplicate is spiked with a known amount of analyte. The recoveries are an indication of how that sample matrix affects analyte recovery.									
Dup	: Duplicate Sample - A random sample with each batch is prepared and analyzed in duplicate. The relative percent difference is an indication of precision for the preparation and analysis.									
MSRPD	: MS/MSD Relative Percent Difference (RPD) - The MS relative percent difference is an indication of precision for the preparation and analysis.									
ND	: Non-detect - Result was below the DQO listed for the analyte.									
DQO	: Data Quality Objective - This is the criteria against which the quality control data is compared.									
Explanation										
435	: Sample matrix may be affecting this analyte. Data was accepted based on the LCS or CCV recovery.									

Results (2)

University of California-Davis Stable Isotope Facility
 One Shields Ave. Davis, CA 95616
 530-754-7517
 2/4/2015

HydroFocus, Inc.
 SCGA Isotopes
 Kristyn Hanson
 530-759-2484
khanson@hydrofocus.com

H₂O stable isotope analysis by laser spectroscopy (Los Gatos Research Instruments)

LabID	Sample ID	VSMOW d ² H	VSMOW d ¹⁸ O
W-24615	SCGA20	-49.7	-7.64
W-24616	SCGA20d	-51.1	-7.36
W-24617	SCGA23	-48.7	-6.53
W-24618	SCGA17	-48.6	-7.03
W-24619	SCGA15	-48.4	-6.99
W-24620	CALIPI	-50.2	-7.50
W-24621	CACOS1	-54.8	-7.88
W-24622	CATLH	-50.4	-7.13
W-24623	CAOAK	-51.4	-7.40
W-24624	CAPRS2	-52.7	-7.52
W-24625	CABRIG	-50.3	-7.05
W-24626	CAGOLD	-51.0	-7.16
W-24627	CAWOD	-76.2	-10.43
W-24628	CAVIN2	-55.3	-7.83
W-24629	SACPR	-59.2	-8.66
W-24630	SACEQ	-59.6	-8.68
W-24631	SACWR	-59.6	-8.66
W-24632	cr_at_mb	-68.8	-9.53
W-24633	crmb2	-38.4	-2.97

Internal check	d ² H per mil	d ¹⁸ O per mil
Known value	-55.65	-8.04
Mean	-57.08	-8.14
1 SD	0.54	0.09

Results (2)

University of California-Davis Stable Isotope Facility
 One Shields Ave. Davis, CA 95616
 530-754-7517
 3/20/2015

[HydroFocus, Inc.](#)
[SCGA Isotopes](#)
 Kristyn Hanson
 530-759-2484
khanson@hydrofocus.com

H₂O stable isotope analysis by laser spectroscopy (Los Gatos Research Instruments)

LabID	Sample ID	VSMOW	VSMOW
		d ² H	d ¹⁸ O
W-24751	CRMB	-66.2	-10.05
W-24752	CORIV	-65.9	-10.06
W-24753	CRatMB	-66.7	-9.63
W-24754	COSMB	-37.5	-3.10

Internal Check	d ² H per mil		d ¹⁸ O per mil	
	Mean	1 SD	Mean	1 SD
Known value check 1	-55.7		-8.04	
Run 1	-57.8	0.32	-8.08	0.09
Run 2	-55.4	0.95	-8.21	0.14

Results (2)

University of California-Davis Stable Isotope Facility
 One Shields Ave. Davis, CA 95616
 530-754-7517
 1/16/2015

HydroFocus, Inc.
 SCGA Isotopes
 Kristyn Hanson
 530-759-2484
khanson@hydrofocus.com

H₂O stable isotope analysis by laser spectroscopy (Los Gatos Research Instruments)

LabID	Sample ID	VSMOW d ² H	VSMOW d ¹⁸ O
W-24344	CISWEL3	-68.3	-9.51
W-24345	CISW160	-76.2	-10.50
W-24346	CISW107	-51.5	-6.95
W-24347	CISW85	-50.6	-6.97
W-24348	CISWL20	-63.4	-8.99
W-24349	CISWE7	-70.2	-9.68
W-24350	SCOSUR	-59.4	-8.45
W-24351	SCOEXW	-49.7	-6.94
W-24352	SCOAND	-58.5	-8.26
W-24353	SCOTIP	-53.8	-7.62
W-24354	SCOSHJ	-52.8	-7.52
W-24355	SCOEPA	-60.5	-8.68
W-24356	SCOROD	-56.3	-8.10
W-24357	SCOMCR	-50.9	-7.14
W-24358	SCOPOR	-71.2	-9.79
W-24359	SCOBAN	-52.8	-7.42
W-24360	SCOBHO	-48.8	-6.91
W-24361	SCOBHO2	-50.0	-7.05
W-24362	SCODWI	-62.8	-8.68
W-24363	GSDOL6	-55.3	-7.72
W-24364	GSMA18	-51.8	-7.25
W-24365	GSCOL20	-60.5	-8.38
W-24366	GSP17	-78.9	-11.03
W-24367	GSP17d	-77.4	-10.71
W-24368	GSAGW8	-62.0	-8.70
W-24369	GSBSA	-77.2	-11.10

Internal check	d ² H per mil	d ¹⁸ O per mil
Known value	-8.98	-2.83
Mean	-9.02	-2.71
1 SD	1.21	0.04

QA/QC tables for sampled wells

Anion-Cation charge balance for sampled wells.

Site	Sample Date	Sum Cations (meq/L)	Sum Anions (meq/L)	An/Cat Balance (percent difference)
CISWEL3	9/23/2014	11.98	12.35	-1.5%
CISWL20	9/23/2014	6.66	6.69	-0.2%
CISWE7	9/23/2014	5.64	5.62	0.2%
CISE85	9/23/2014	2.76	2.64	2.1%
CISW107	9/23/2014	4.19	4.08	1.4%
CISW160	9/23/2014	2.83	2.64	3.4%
SCOEXW	10/7/2014	1.87	1.67	5.4%
SCOAND	10/7/2014	2.41	2.06	7.8%
SCOTIP	10/7/2014	2.17	2.00	4.2%
SCOSHJ	10/7/2014	2.82	2.36	8.9%
SCOEPA	10/7/2014	2.51	2.24	5.8%
SCOSUR	10/7/2014	4.49	4.08	4.8%
SCOMCR	10/8/2014	1.65	1.37	9.4%
SCOPOR	10/8/2014	2.85	2.58	5.0%
SCOBHO	10/8/2014	5.66	5.32	3.0%
SCOBHO2 (D)	10/8/2014	5.71	5.30	3.7%
SCODWI	10/8/2014	3.72	3.61	1.5%
GSDOL6	11/4/2014	5.23	5.43	-1.9%
GSMA18	11/4/2014	1.34	1.23	4.3%
GSP17	11/4/2014	0.79	0.82	-1.7%
GSP17d (D)	11/4/2014	0.79	0.82	-1.7%
CAVIN2	11/10/2014	2.15	2.13	0.4%
CABRIG	11/10/2014	2.33	2.22	2.5%
CALIP	11/10/2014	7.02	6.99	0.2%
CAWOD	11/11/2014	1.49	1.38	3.7%
CAOAK	11/11/2014	1.93	1.84	2.4%
SCGA20	12/9/2014	2.10	1.86	5.9%
SCGA20d (D)	12/9/2014	2.01	1.84	4.4%
SCGA23	12/9/2014	2.10	1.92	4.5%
SCGA15	12/22/2014	2.07	1.72	9.4%
SCGA17	12/22/2014	2.18	1.90	6.8%
SACEQ	12/22/2014	2.46	2.15	6.7%
SACPR	12/22/2014	2.38	2.08	6.8%

Notes:

(D) duplicate sample

Percent differences in **bold** are outside the recommended limit.

Ratio of calculated sum dissolved solids to specific conductance for sampled wells.

Site	Sample Date	Calculated Sum of Dissolved Solids (mg/L)	Specific Conductance (uS/cm)	Ratio of Calculated Dissolved Solids to Specific Conductance
CISWEL3	9/23/2014	797.60	1046	0.76
CISWL20	9/23/2014	493.40	557.7	0.88
CISWE7	9/23/2014	423.90	466.5	0.91
CISE85	9/23/2014	201.80	242.9	0.83
CISW107	9/23/2014	309.00	356.8	0.87
CISW160	9/23/2014	209.20	232.3	0.90
SCOEXW	10/7/2014	134.50	167.9	0.80
SCOAND	10/7/2014	165.60	201.5	0.82
SCOTIP	10/7/2014	160.20	188.3	0.85
SCOSHN	10/7/2014	189.20	237.8	0.80
SCOEPA	10/7/2014	182.20	214.2	0.85
SCOSUR	10/7/2014	320.60	374.1	0.86
SCOMCR	10/8/2014	111.20	151	0.74
SCOPOR	10/8/2014	206.20	255.9	0.81
SCOBHO	10/8/2014	407.50	479.2	0.85
SCOBHO2 (D)	10/8/2014	407.40	479.2	0.85
SCODWI	10/8/2014	262.20	343.4	0.76
GSDOL6	11/4/2014	405.30	418.7	0.97
GSM A18	11/4/2014	98.20	110.6	0.89
GSP17	11/4/2014	61.40	57	1.08
GSP17d (D)	11/4/2014	61.40	57	1.08
CAVIN2	11/10/2014	169.20	176.5	0.96
CABRIG	11/10/2014	171.50	198.4	0.86
CALIP	11/10/2014	505.40	571	0.89
CAWOD	11/11/2014	109.50	127.6	0.86
CAOAK	11/11/2014	146.10	164.3	0.89
SCGA20	12/9/2014	148.50	197	0.75
SCGA20d (D)	12/9/2014	146.70	197	0.74
SCGA23	12/9/2014	153.10	203.6	0.75
SCGA15	12/22/2014	135.90	167.5	0.81
SCGA17	12/22/2014	152.30	174.8	0.87
SACEQ	12/22/2014	173.40	192	0.90
SACPR	12/22/2014	170.20	182.4	0.93

Notes:

(D) duplicate sample

Ratios in **bold** are outside the recommended limits.

Ratio of the sum of reacting constituents to specific conductance.

Site	Sample Date	Specific Conductance (uS/cm)	Ratio of Cations to 0.01 Specific Conductance	Ratio of Anions to 0.01 Specific Conductance
CISWEL3	9/23/2014	1046	1.15	1.18
CISWL20	9/23/2014	557.7	1.19	1.20
CISWE7	9/23/2014	466.5	1.21	1.20
CISE85	9/23/2014	242.9	1.13	1.09
CISW107	9/23/2014	356.8	1.18	1.14
CISW160	9/23/2014	232.3	1.22	1.14
SCOEXW	10/7/2014	167.9	1.11	1.00
SCOAND	10/7/2014	201.5	1.20	1.02
SCOTIP	10/7/2014	188.3	1.15	1.06
SCOSHN	10/7/2014	237.8	1.18	0.99
SCOEPA	10/7/2014	214.2	1.17	1.05
SCOSUR	10/7/2014	374.1	1.20	1.09
SCOMCR	10/8/2014	151	1.09	0.91
SCOPOR	10/8/2014	255.9	1.11	1.01
SCOBHO	10/8/2014	479.2	1.18	1.11
SCOBHO2 (D)	10/8/2014	479.2	1.19	1.11
SCODWI	10/8/2014	343.4	1.08	1.05
GSDOL6	11/4/2014	418.7	1.25	1.30
GSM A18	11/4/2014	110.6	1.21	1.11
GSP17	11/4/2014	57	1.38	1.43
GSP17d (D)	11/4/2014	57	1.38	1.43
CAVIN2	11/10/2014	176.5	1.22	1.21
CABRIG	11/10/2014	198.4	1.17	1.12
CALIP	11/10/2014	571	1.23	1.22
CAWOD	11/11/2014	127.6	1.17	1.08
CAOAK	11/11/2014	164.3	1.17	1.12
SCGA20	12/9/2014	197	1.06	0.94
SCGA20d (D)	12/9/2014	197	1.02	0.94
SCGA23	12/9/2014	203.6	1.03	0.94
SCGA15	12/22/2014	167.5	1.24	1.02
SCGA17	12/22/2014	174.8	1.25	1.09
SACEQ	12/22/2014	192	1.28	1.12

Notes:

(D) duplicate sample

Ratios in **bold** are outside the recommended limits.