

November 9, 2018

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Region 10
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Re: Third Quarter 2018 Groundwater Monitoring Data Report, Yakima Valley Dairies,
SDWA-10-2013-0080

This quarterly groundwater monitoring report has been prepared under the Administrative Order on Consent Statement of Work (AOC SOW). This is the 21st report prepared under the AOC SOW. The Third Quarter 2018 groundwater monitoring event was conducted from September 8 to September 9, 2018. As approved in the 2018 *Groundwater Monitoring Quality Assurance Project Plan* (QAPP; Anchor QEA 2018a), the first, third, and fourth quarters of each year are considered quarterly monitoring events, and the second quarter of each year is considered an annual event. In accordance with the 2018 QAPP, 16 monitoring wells at the site were sampled for chemical analyses, and manual groundwater elevation measurements were completed in all 26 wells. The locations of the monitoring wells are shown in Figure 1. The wells monitored in the quarterly and annual events are listed in Table 1.

Groundwater Monitoring Activities

Synoptic Static Depth to Water Measurement

A set of synoptic water level measurements was collected from all 26 wells in the monitoring network on September 8, 2018, using an electronic water level meter. Depth to water measurements were recorded to the nearest 0.01 foot at the indicated reference point on each well casing. Static depth to water measurements were recorded on the Water Level Survey Form presented in Appendix D of the 2018 QAPP. The depth to water measurements were collected from the 26 wells in as short a time period as possible (approximately 6 hours) to provide a “snapshot” of groundwater elevations and to reduce the effect of atmospheric pressure changes or precipitation effects on the water levels. Groundwater elevations in the North American Vertical Datum of 1988 were calculated by subtracting the depth to water measurements from the surveyed reference point at the top of each well casing. The groundwater measurements for Third Quarter 2018 are shown in Table 2.

Continuous Groundwater Elevation Monitoring

Continuous long-term groundwater elevations are being monitored using Solinst Levellogger Junior Edge pressure transducers in six monitoring wells to evaluate seasonal fluctuations and trends in

groundwater elevations. Two pressure transducers were installed in one of the shallow/deep monitoring well pairs to evaluate differences in hydraulic head and vertical gradients between the shallow and deep portions of the surficial aquifer. Wells with transducers include DC-03, the DC-05/DC-05D well pair, YVD-03, YVD-08, and YVD-11. Additionally, a Solinst Barologger Edge barometric pressure transducer was deployed at well YVD-08 to provide the basis to compensate water levels for barometric pressure changes.

Transducers have been recording water levels in hourly increments since 12:00 p.m. on October 15, 2013. During data downloads, depths to water in wells were manually gauged using an electronic water level meter. Following the data download, water level data were compensated for changes in barometric pressure and recalibrated with concurrent field-verified groundwater elevation measurements. Groundwater hydrographs of the six wells with pressure transducers are presented in Appendix A.

Sample Collection

Groundwater samples were collected using low-flow purging and sampling procedures described in the Standard Operating Procedure (SOP) entitled *Low-Flow Groundwater Purging and Sampling Procedures for Monitoring Wells* presented in Appendix E of the 2018 QAPP.

Purging and sampling of the monitoring wells was performed with dedicated 1-inch-diameter stainless-steel Solinst Model 407 bladder pumps with polytetrafluoroethylene (Teflon) bladders installed in each well.

Sample Handling and Custody

All samples were accompanied by a chain-of-custody record according to procedures described in the 2018 QAPP. When custody of samples was transferred, the individuals relinquishing and receiving the samples signed and dated the chain-of-custody record. The chain-of-custody record documents the custody transfer from the sampler, often through another agent (e.g., a shipping/transport company), to the laboratory sample custodian.

All samples collected for laboratory analyses were delivered to Cascade Analytical, Inc. (Cascade), located at 1008 W Ahtanum Road in Union Gap, Washington. Upon arrival at the laboratory, the Cascade sample custodian accepted custody of the samples from the carrier and entered information about the shipment into a sample receipt log that included the initials of the person delivering the package and the status of the custody seals on the containers. The sample custodian logged in the samples according to the laboratory SOP. Following sample analysis, the unused portions of all samples were disposed of by Cascade in accordance with their laboratory SOP. One sample delivery

group was submitted to the analytical laboratory; the delivery group and collection date are as follows:

Sample Delivery Group	Samples Collected	Date Received by Lab
880601	September 9, 2018	September 10, 2018

Field Sampling Data Sheets were completed for each sample and indicate what type of samples were collected, sample identification, sample bottle types and volumes collected, field parameter measurements, and other pertinent information (including significant events and observations that occurred during sampling activities). Sufficient information was noted on field sampling forms to enable participants to reconstruct events that occurred and to refresh the memory of field personnel, if needed. Original copies of all field forms and chain-of-custody documents were retained by the Yakima Valley Dairies¹ (Dairies') Field Lead in the project files. Dairy owner certifications are included in Appendix B. Copies of the field forms from Third Quarter 2018 are presented in Appendix C.

Analytical Program

Corrective Actions

No corrective actions were required for the Third Quarter 2018 sampling event.

Data Review, Verification, and Validation

All data underwent a Stage 2 validation, which included a data package completeness review. Data were validated in accordance with the U.S. Environmental Protection Agency (EPA) *National Functional Guidelines for Superfund Organic Methods Data Review* (EPA 2014). The Data Validation Report is presented in Appendix D. Any deviation from the 2018 QAPP was either documented within this memorandum or in the Data Validation Report. Results met project data quality goals and criteria and are usable for all purposes except for the rejected results described in the following bullet point. Refer to Table 4 embedded in the Data Validation Report for a list of the qualified results from the data validation process. Qualified results include the following:

- During data validation, 18 total Kjeldahl nitrogen (TKN) results were rejected due to a lack of recovery of the standard in the matrix spike analysis. The sample used for the matrix spike (collected from well YVD-08) had a nitrate concentration of 54.4 milligrams per liter (mg/L). As discussed in Section 4 of the method SOP (ARI 2017), nitrate is a known interferent in TKN analysis, as nitrate can react with ammonia to form nitrous oxide. In the TKN analysis, the organic nitrogen is reduced to ammonia, and it is measured alongside any ammonia that was already present. TKN is the measure of ammonia and organic nitrogen compounds, so the

¹ Collectively, the following are referred to as the Yakima Valley Dairies: 1) Cow Palace, LLC; 2) D&A Dairy, LLC (also known as D and A Dairy L.L.C.), George DeRuyter & Son Dairy, LLC, and George & Margaret, LLC; and 3) Liberty Dairy, LLC, and its associated dairy facility H&S Bosma Dairy.

removal of ammonia creates a negative interference. The TKN lab control sample (LCS) and LCS duplicate recovered within control limits, indicating that the problem was likely due to the nitrate interference with the ammonia in the spike and not with the method as performed. However, the data are qualified as rejected based on the matrix spike.

The TKN results were rejected according to the EPA *National Functional Guidelines for Inorganic Superfund Data Review* (EPA 2017). Historically, TKN and ammonia have not been detected or have been detected at low levels in groundwater samples. There have been only three ammonia detections and one TKN detection since First Quarter 2018. The highest ammonia detection was 1.22 mg/L, and the only TKN detection was an estimated concentration of 0.6 mg/L in a duplicate sample from well YVD-11, both from Second Quarter 2018 (the TKN result in the normal sample from well YVD-11 was non-detect). The rejection of these data does not warrant repeating the sampling event given that TKN concentrations have been consistently low in the past, no ammonia was detected in any of the samples from Third Quarter 2018, and TKN does not have a regulatory threshold. Going forward, samples for matrix spike analysis will be collected from monitoring wells with historically low nitrate concentrations to minimize the risk of the recurrence of spike recovery.

Groundwater Monitoring Results

Site Hydrogeology

The groundwater gradient at the site is generally to the southwest at an average hydraulic gradient of 0.024 foot per foot (foot/foot). Hydraulic gradients are greater in the topographically higher areas in the northern section of the site, with an average of 0.048 foot/foot. As groundwater flows to the southwest toward the center of the Yakima River valley, hydraulic gradients decrease to approximately 0.011 foot/foot in the central portion of the site and then decrease further to 0.0045 foot/foot in the southern portion of the site. The estimated average linear groundwater flow velocities for the shallow surficial aquifer at the Dairies range from 3.9 to 22.9 feet per day across the site. A groundwater elevation contour map for the surficial aquifer based on Third Quarter 2018 depth to groundwater measurements is shown in Figure 1. Groundwater elevation measurements for Third Quarter 2018 and monitoring well construction details are provided in Tables 2 and 3, respectively. Historical groundwater elevations are provided in Table 4. Estimated possible average linear flow velocity values for Third Quarter 2018 are provided in Table 5. Groundwater hydrographs for all 26 wells are provided in Appendix A.

Groundwater Sampling Results

Groundwater field parameters collected during well purging included dissolved oxygen, pH, oxidation-reduction potential, specific conductance, temperature, and turbidity. Field parameter measurements are presented in Table 6.

Groundwater samples were analyzed for the following:

- Nitrate as nitrogen
- Nitrite as nitrogen
- Ammonia
- TKN
- Total phosphorus
- Inorganic anions (chloride, fluoride, sulfate)
- Total metals (calcium, potassium, magnesium, sodium)
- Alkalinity (total and bicarbonate)

Groundwater analytical results for Third Quarter 2018 are presented spatially in Figures 2, 3, 4, and 5 and shown in Table 7. A summary of historical groundwater analytical results is presented in Table 8. Analytical laboratory reports are provided in Appendix E.

Nitrate was measured as nitrogen (Nitrate-N). The nitrate results are presented spatially on a map in Figure 6A. Historical nitrate concentrations since 2013 are presented in Figure 6B and charted in Figures 7 through 11. The monitoring well network includes wells that are located upgradient and downgradient of the Dairies. There are four groundwater monitoring wells located upgradient of the Dairy facilities' footprint. All four wells are screened at the water table. The nitrate concentrations in the four upgradient wells have been consistently below the nitrate maximum contaminant level (MCL) and are not sampled during quarterly events.

Nitrate concentrations (reported in mg/L) in the downgradient monitoring wells that are screened at the water table for Third Quarter 2018 are as follows:

Downgradient Well	Nitrate (mg/L)
DC-03	157
DC-04	30.4
DC-05	31.5
DC-14	4.08
YVD-08	54.4
YVD-09	51.4
YVD-10	90.0
YVD-11	62.8
YVD-12	15.8
YVD-13	26.1
YVD-14R	115
YVD-15	24.4
YVD-16	21.4

The nitrate concentration in one of the downgradient water table wells was less than the MCL of 10 mg/L; nitrate concentrations in 12 of the downgradient water table wells exceeded the MCL.

Three downgradient groundwater monitoring wells were constructed with well screens positioned at depths that were estimated by EPA to approximate the depth of a typical residential drinking water well in the area. Each of these deeper wells was paired at the same location with a water table well. The results for each well pair, with the water table well listed above its deeper counterpart, are as follows:

Well Placement	Shallow/Deep Well Pair	Nitrate (mg/L)	Shallow/Deep Well Pair	Nitrate (mg/L)	Shallow/Deep Well Pair	Nitrate (mg/L)
Shallow Well	YVD-13	26.1	DC-03	157	DC-05	31.5
Deep Well	YVD-18	26.0	DC-03D	32.9	DC-05D	12.2

The results from two of the three well pairs (DC-03/DC-03D and DC-05/DC-05D) show higher nitrate concentrations at the top of the water table and lower concentrations at depth. The nitrate concentrations in the YVD-13/YVD-18 well pair are similar for the seventh consecutive quarter.

Analytical results for cations and anions were used to construct Stiff diagrams and Piper diagrams. A summary of the cation/anion balance is presented in Appendix F. Stiff and Piper diagrams are used to evaluate the natural water chemistry of the shallow surficial aquifer, describe water type classifications, and map hydrochemical facies.

Figures 12A through 12F present Stiff diagrams for the 16 wells sampled in Third Quarter 2018. Stiff diagrams are used to graphically present groundwater cation and anion concentrations. Concentrations in the Stiff diagrams are expressed in milliequivalents per liter and require a specific conversion for each individual ion concentration. Figure 13 presents the Stiff diagrams next to their respective sample points on a facility base map and shows that dissolved ion concentrations increase in the areas downgradient of the Dairies. Similarly, Figure 14 shows that total dissolved ions and nitrate concentrations increase in the downgradient direction from upgradient well YVD-02 to downgradient well DC-03.

Figure 15 presents a Piper diagram of general water quality for the 16 wells sampled in Third Quarter 2018. The wells are divided into well groups (based on location and groundwater gradient) and shown on individual Piper diagrams in Figures 16 through 18. Individual data points within each sample group demonstrate the changes in the hydrochemical facies throughout the groundwater flow path through the Dairies site. Site groundwater is primarily classified as calcium-bicarbonate-type water, which was present in groundwater samples collected from 11 monitoring wells. Calcium-sulfate-type waters were present in groundwater samples collected from four monitoring wells, and groundwater in one well was classified as "no dominant type."

Trends in groundwater concentrations are summarized in the *2017 Annual Report* (Anchor QEA 2018b) and will be updated each year following the fourth quarter groundwater monitoring event. The results of the Third Quarter 2018 sampling generally support the conclusions presented in the *2017 Annual Report* and are listed as follows:

- Nitrate concentrations in all northern wells and upgradient wells have remained below the nitrate MCL since Third Quarter 2016 and Second Quarter 2015, respectively.
- Nitrate concentrations have also been consistently below the nitrate MCL in downgradient wells DC-07 and YVD-17 since the beginning of the monitoring program.
- Nitrate concentrations in the east downgradient wells, west downgradient wells, and central wells (Figures 7, 8, and 9, respectively) have, with a few exceptions, remained stable or are decreasing.
- Significant upward trends in groundwater nitrate are currently noted in only two wells (YVD-08 and YVD-11).
- Nitrite was not detected above the method detection limit (MDL) of 0.05 mg/L in all sampled wells. Nitrite has not been detected above the MDL in all sampled wells since First Quarter 2017.
- All TKN results were rejected in Third Quarter 2018. However, TKN has not been detected above the MDL of 0.5 mg/L in all sampled wells since Second Quarter 2017.
- Ammonia was not detected above the MDL of 0.07 mg/L in all sampled wells in Third Quarter 2018. Other than three detections in First and Second Quarter 2018 combined, ammonia has not been detected above the MDL in all sampled wells since First Quarter 2017.
- Phosphorus was not detected above the MDL of 0.07 mg/L in all sampled wells in Third Quarter 2018. All phosphorus detections have been below 0.10 mg/L since First Quarter 2017.

Significant upward trends were noted in groundwater nitrate concentrations in only two wells (YVD-08 and YVD-11) based on Mann-Kendall trend analyses conducted in Fourth Quarter 2017.² An updated trend analysis will be performed in Fourth Quarter 2018.

References

Anchor QEA (Anchor QEA, LLC), 2018a. *Groundwater Monitoring Quality Assurance Project Plan*. Yakima Valley Dairies/SDWA-10-2013-0080. Prepared for Yakima Valley Dairies. February 2018.

² Trend conclusions are based on Mann-Kendall trend analyses of available nitrate data with 95% confidence level ($\alpha = 0.05$) to determine if a trend exists. The slope of the trend is then determined by the Thiel-Sen analysis. Both analyses were performed in ProUCL version 5.1.

Anchor QEA, 2018b. *2017 Annual Report*. Yakima Valley Dairies/SDWA-10-2013-0080. Prepared for Cow Palace, LLC; George DeRuyter & Son Dairy, LLC, D&A Dairy, LLC, and George & Margaret, LLC; Liberty Dairy, LLC; and H&S Bosma Dairy. April 2018.

ARI (Analytical Resources, Inc.), 2017. *Standard Operating Procedure – Total Kjeldahl Nitrogen (TKN) by Block Digestion and Flow Injection Analysis (FIA)*. SOP 654S, Version 006. March 2017.

EPA (U.S. Environmental Protection Agency), 2014. *National Functional Guidelines for Superfund Organic Methods Data Review*. Office of Superfund Remediation and Technology Innovation, U.S. Environmental Protection Agency, Washington, DC. EPA-540-R-014-002. August 2014.

EPA, 2017. *National Functional Guidelines for Inorganic Superfund Data Review*. Office of Superfund Remediation and Technology Innovation, U.S. Environmental Protection Agency, Washington, DC. EPA-540-R-2017-001. January 2017.

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Table 1
Groundwater Monitoring Frequency

Well ID	Manual Groundwater Elevation Measurements (Quarterly)	Long-Term Groundwater Elevation Measurements (Hourly)	Groundwater Sampling Frequency	
			Quarterly	Annually (Second Quarter Event)
DC-01	X			X
DC-03	X	X	X	X
DC-03D	X		X	X
DC-04	X		X	X
DC-05	X	X	X	X
DC-05D	X	X	X	X
DC-07	X			X
DC-09	X			X
DC-14	X		X	X
YVD-02	X			X
YVD-03	X	X		X
YVD-04	X			X
YVD-05	X			X
YVD-06	X			X
YVD-07	X			X
YVD-08	X	X	X	X
YVD-09	X		X	X
YVD-10	X		X	X
YVD-11	X	X	X	X
YVD-12	X		X	X
YVD-13	X		X	X
YVD-14R	X		X	X
YVD-15	X		X	X
YVD-16	X		X	X
YVD-17	X			X
YVD-18	X		X	X

Table 2
Summary of Groundwater Elevations – Third Quarter 2018

Well ID	Date of Measurement	Reference Point Elevation (feet NAVD88)	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)
DC-01	9/8/2018	1199.17	150.44	1048.73
DC-03	9/8/2018	910.58	73.24	837.34
DC-03D	9/8/2018	911.33	73.78	837.55
DC-04	9/8/2018	877.22	36.45	840.77
DC-05	9/8/2018	911.95	71.39	840.56
DC-05D	9/8/2018	915.91	75.54	840.37
DC-07	9/8/2018	889.29	46.32	842.97
DC-09	9/8/2018	1048.60	151.66	896.94
DC-14	9/8/2018	1036.61	133.67	902.94
YVD-02	9/8/2018	1288.97	29.19	1259.78
YVD-03	9/8/2018	1120.68	191.96	928.72
YVD-04	9/8/2018	1118.66	222.29	896.37
YVD-05	9/8/2018	1051.78	169.85	881.93
YVD-06	9/8/2018	1053.51	109.87	943.64
YVD-07	9/8/2018	1073.03	158.22	914.81
YVD-08	9/8/2018	1014.38	172.36	842.02
YVD-09	9/8/2018	966.81	112.19	854.62
YVD-10	9/8/2018	958.00	93.35	864.65
YVD-11	9/8/2018	967.91	108.97	858.94
YVD-12	9/8/2018	961.91	139.15	822.76
YVD-13	9/8/2018	965.59	128.28	837.31
YVD-14R	9/8/2018	921.41	79.26	842.15
YVD-15	9/8/2018	940.61	95.32	845.29
YVD-16	9/8/2018	975.90	115.77	860.13
YVD-17	9/8/2018	866.73	32.64	834.09
YVD-18	9/8/2018	965.74	128.35	837.39

Notes:

BTOC: below top of casing

NAVD88: North American Vertical Datum of 1988

Table 3
Monitoring Well Construction Details

Well ID	Coordinates		Top of Casing Elevation (feet NAVD88)	Ground Surface Elevation (feet NAVD88)	Surface Completion	Well Depth (feet bgs)	Casing and Screen Material	Screen Slot Size (inches)	Screen Length (feet)	Depth to Top of Screen (feet bgs)	Depth to Bottom of Screen (feet bgs)	Elevation of Top of Screen (feet NAVD88)	Elevation of Base of Screen (feet NAVD88)	Depth to Top of Filter Pack (feet bgs)	Depth to Bottom of Filter Pack (feet bgs)
	Latitude	Longitude													
Monitoring Wells															
DC-01	46.418795	-120.138185	1199.17	1199.64	Flush	160.0	Schedule 40 PVC	0.020	20.0	140.0	160.0	1059.6	1039.6	136.0	160.0
DC-03	46.386289	-120.146145	910.58	911.04	Flush	85.0	Schedule 40 PVC	0.020	20.0	62.5	82.5	848.5	828.5	58.5	85.0
DC-03D	46.386220	-120.146054	911.33	908.83	Stick-up	116.1	Schedule 40 PVC	0.020	9.5	106.1	115.6	802.7	793.2	100.0	116.5
DC-04	46.382446	-120.131129	877.22	877.62	Flush	51.0	Schedule 40 PVC	0.020	20.0	29.5	49.5	848.1	828.1	24.5	51.0
DC-05	46.382358	-120.120237	911.95	912.35	Flush	86.0	Schedule 40 PVC	0.020	20.0	63.5	83.5	848.9	828.9	59.5	86.0
DC-05D	46.382517	-120.120210	915.91	913.55	Stick-up	126.8	Schedule 40 PVC	0.020	9.5	116.8	126.3	796.8	787.3	114.0	128.0
DC-07	46.389612	-120.141671	889.29	889.78	Flush	61.0	Schedule 40 PVC	0.020	20.0	38.5	58.5	851.3	831.3	34.5	61.0
DC-09	46.404230	-120.120858	1048.60	1048.97	Flush	196.0	Schedule 40 PVC	0.020	20.0	173.5	193.5	875.5	855.5	169.5	196.0
DC-14	46.404240	-120.139685	1036.61	1036.92	Flush	151.0	Schedule 40 PVC	0.020	20.0	128.5	148.5	908.4	888.4	124.5	151.0
YVD-02	46.422601	-120.113697	1288.97	1285.81	Stick-up	35.0	Schedule 40 PVC	0.020	19.5	15.0	34.5	1270.8	1251.3	13.0	36.0
YVD-03	46.414227	-120.139638	1120.68	1118.15	Stick-up	200.1	Schedule 40 PVC	0.020	19.5	180.1	199.6	938.1	918.6	176.0	202.0
YVD-04	46.408062	-120.156224	1118.66	1116.06	Stick-up	245.2	Schedule 40 PVC	0.020	19.5	225.2	244.7	890.9	871.4	220.0	248.0
YVD-05	46.404457	-120.142790	1051.78	1052.26	Flush	182.2	Schedule 40 PVC	0.020	19.5	162.2	181.7	890.1	870.6	156.0	208.0
YVD-06	46.407671	-120.137191	1053.51	1053.88	Flush	169.0	Schedule 40 PVC	0.020	19.5	149.0	168.5	904.9	885.4	144.0	170.0
YVD-07	46.404432	-120.125205	1073.03	1070.59	Stick-up	168.3	Schedule 40 PVC	0.020	19.5	148.3	167.8	922.3	902.8	145.0	169.0
YVD-08	46.396920	-120.152771	1014.38	1011.92	Stick-up	182.5	Schedule 40 PVC	0.020	19.5	162.5	182.0	849.4	829.9	155.0	188.0
YVD-09	46.396832	-120.144078	966.81	964.28	Stick-up	122.3	Schedule 40 PVC	0.020	19.5	102.3	121.8	862.0	842.5	9.5	128.0
YVD-10	46.396978	-120.136165	958.00	955.45	Stick-up	103.1	Schedule 40 PVC	0.020	19.5	83.1	102.6	872.4	852.9	76.0	103.5
YVD-11	46.393446	-120.123627	967.91	965.51	Stick-up	116.9	Schedule 40 PVC	0.020	19.5	96.9	116.4	868.6	849.1	94.0	117.3
YVD-12	46.389730	-120.166996	961.91	959.51	Stick-up	151.4	Schedule 40 PVC	0.020	19.5	131.4	150.9	828.1	808.6	127.0	154.0
YVD-13	46.389708	-120.151673	965.59	963.07	Stick-up	141.0	Schedule 40 PVC	0.020	19.5	121.0	140.5	842.1	822.6	117.0	148.0
YVD-14R	46.389532	-120.145124	920.19	918.80	Stick-up	93.0	Schedule 40 PVC	0.020	20.0	72.0	92.0	846.8	826.8	69.0	93.0
YVD-15	46.389802	-120.137153	940.61	938.08	Stick-up	105.1	Schedule 40 PVC	0.020	19.5	85.1	104.6	853.0	833.5	81.0	128.0
YVD-16	46.389586	-120.114783	975.90	972.99	Stick-up	122.1	Schedule 40 PVC	0.020	19.5	102.1	121.6	870.9	851.4	100.5	127.0
YVD-17	46.380761	-120.142067	866.73	864.28	Stick-up	47.7	Schedule 40 PVC	0.020	19.5	27.7	47.2	836.6	817.1	25.0	58.0
YVD-18	46.389758	-120.151671	965.74	963.42	Stick-up	179.9	Schedule 40 PVC	0.020	9.5	169.9	179.4	793.5	784.0	166.0	181.5
Decommissioned Wells															
YVD-14	46.389536	-120.145067	920.19	917.64	Stick-up	91.0	Schedule 40 PVC	0.020	19.5	71.0	90.5	846.6	827.1	66.0	98.0

Notes:
Latitude and longitude in decimal degrees based on World Geodetic Survey 1984.
bgs: below ground surface
NAVD88: North American Vertical Datum of 1988
PVC: polyvinyl chloride

Table 4
Historical Groundwater Elevations

Well ID	Date of Measurement	Reference Point Elevation (feet NAVD88)	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)
DC-01	9/16/2013	1199.17	150.45	1048.72
DC-01	12/9/2013	1199.17	150.66	1048.51
DC-01	3/16/2014	1199.17	150.43	1048.74
DC-01	6/1/2014	1199.17	150.50	1048.67
DC-01	9/21/2014	1199.17	150.32	1048.85
DC-01	12/14/2014	1199.17	150.20	1048.97
DC-01	3/5/2015	1199.17	150.35	1048.82
DC-01	6/15/2015	1199.17	150.41	1048.76
DC-01	9/21/2015	1199.17	150.50	1048.67
DC-01	12/13/2015	1199.17	150.46	1048.71
DC-01	3/8/2016	1199.17	150.53	1048.64
DC-01	6/19/2016	1199.17	150.70	1048.47
DC-01	9/25/2016	1199.17	150.70	1048.47
DC-01	12/11/2016	1199.17	150.65	1048.52
DC-01	3/5/2017	1199.17	150.55	1048.62
DC-01	6/4/2017	1199.17	150.68	1048.49
DC-01	9/27/2017	1199.17	150.81	1048.36
DC-01	12/3/2017	1199.17	150.74	1048.43
DC-01	3/18/2018	1199.17	150.74	1048.43
DC-01	6/3/2018	1199.17	150.74	1048.43
DC-01	9/8/2018	1199.17	150.44	1048.73
DC-03	9/16/2013	910.58	72.43	838.15
DC-03	12/9/2013	910.58	72.55	838.03
DC-03	3/16/2014	910.58	73.62	836.96
DC-03	6/1/2014	910.58	73.25	837.33
DC-03	9/21/2014	910.58	72.26	838.32
DC-03	12/14/2014	910.58	72.40	838.18
DC-03	3/5/2015	910.58	73.60	836.98
DC-03	6/15/2015	910.58	73.12	837.46
DC-03	9/21/2015	910.58	72.35	838.23
DC-03	12/13/2015	910.58	73.64	837.94
DC-03	3/8/2016	910.58	73.99	836.59
DC-03	6/19/2016	910.58	73.84	836.74
DC-03	9/25/2016	910.58	72.87	837.71
DC-03	12/11/2016	910.58	72.93	837.65
DC-03	3/5/2017	910.58	74.20	836.38
DC-03	6/4/2017	910.58	74.21	836.37
DC-03	9/27/2017	910.58	72.81	837.77
DC-03	12/3/2017	910.58	73.11	837.47
DC-03	3/18/2018	910.58	74.54	836.04
DC-03	6/3/2018	910.58	74.08	836.50
DC-03	9/8/2018	910.58	73.24	837.34

Table 4
Historical Groundwater Elevations

Well ID	Date of Measurement	Reference Point Elevation (feet NAVD88)	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)
DC-03D	9/16/2013	911.33	73.03	838.30
DC-03D	12/9/2013	911.33	73.16	838.17
DC-03D	3/16/2014	911.33	74.35	836.98
DC-03D	6/1/2014	911.33	73.90	837.43
DC-03D	9/21/2014	911.33	72.87	838.46
DC-03D	12/14/2014	911.33	73.13	838.20
DC-03D	3/5/2015	911.33	74.28	837.05
DC-03D	6/15/2015	911.33	73.72	837.61
DC-03D	9/21/2015	911.33	72.96	838.37
DC-03D	12/13/2015	911.33	73.31	838.02
DC-03D	3/8/2016	911.33	74.66	836.67
DC-03D	6/19/2016	911.33	74.47	836.86
DC-03D	9/25/2016	911.33	73.44	837.89
DC-03D	12/11/2016	911.33	73.73	837.60
DC-03D	3/5/2017	911.33	75.05	836.28
DC-03D	6/4/2017	911.33	74.88	836.45
DC-03D	9/27/2017	911.33	73.42	837.91
DC-03D	12/3/2017	911.33	73.80	837.53
DC-03D	3/18/2018	911.33	75.30	836.03
DC-03D	6/3/2018	911.33	74.82	836.51
DC-03D	9/8/2018	911.33	73.78	837.55
DC-04	9/16/2013	877.22	31.75	845.47
DC-04	12/9/2013	877.22	32.61	844.61
DC-04	3/16/2014	877.22	34.55	842.67
DC-04	6/1/2014	877.22	34.65	842.57
DC-04	9/21/2014	877.22	31.99	845.23
DC-04	12/14/2014	877.22	32.98	844.24
DC-04	3/5/2015	877.22	34.31	842.91
DC-04	6/15/2015	877.22	34.70	842.52
DC-04	9/21/2015	877.22	33.61	843.61
DC-04	12/13/2015	877.22	34.38	842.84
DC-04	3/8/2016	877.22	35.60	841.62
DC-04	6/19/2016	877.22	34.74	842.48
DC-04	9/25/2016	877.22	33.81	843.41
DC-04	12/11/2016	877.22	34.33	842.89
DC-04	3/5/2017	877.22	35.45	841.77
DC-04	6/4/2017	877.22	35.63	841.59
DC-04	9/27/2017	877.22	34.42	842.80
DC-04	12/3/2017	877.22	35.17	842.05
DC-04	3/18/2018	877.22	36.89	840.33
DC-04	6/3/2018	877.22	37.17	840.05
DC-04	9/8/2018	877.22	36.45	840.77

Table 4
Historical Groundwater Elevations

Well ID	Date of Measurement	Reference Point Elevation (feet NAVD88)	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)
DC-05	9/16/2013	911.95	67.78	844.17
DC-05	12/9/2013	911.95	68.28	843.67
DC-05	3/16/2014	911.95	69.25	842.70
DC-05	6/1/2014	911.95	70.15	841.80
DC-05	9/21/2014	911.95	69.43	842.52
DC-05	12/14/2014	911.95	68.80	843.15
DC-05	3/5/2015	911.95	69.33	842.62
DC-05	6/15/2015	911.95	70.28	841.67
DC-05	9/21/2015	911.95	69.94	842.01
DC-05	12/13/2015	911.95	69.59	842.36
DC-05	3/8/2016	911.95	70.58	841.37
DC-05	6/19/2016	911.95	71.43	840.52
DC-05	9/25/2016	911.95	71.08	840.87
DC-05	12/11/2016	911.95	70.24	841.71
DC-05	3/5/2017	911.95	70.98	840.97
DC-05	6/4/2017	911.95	71.81	840.14
DC-05	9/27/2017	911.95	71.14	840.81
DC-05	12/3/2017	911.95	70.50	841.45
DC-05	3/18/2018	911.95	71.06	840.89
DC-05	6/3/2018	911.95	71.33	840.62
DC-05	9/8/2018	911.95	71.39	840.56
DC-05D	9/16/2013	915.91	71.92	843.99
DC-05D	12/9/2013	915.91	72.04	843.87
DC-05D	3/16/2014	915.91	73.83	842.08
DC-05D	6/1/2014	915.91	74.80	841.11
DC-05D	9/21/2014	915.91	73.78	842.13
DC-05D	12/14/2014	915.91	73.02	842.89
DC-05D	3/5/2015	915.91	73.66	842.25
DC-05D	6/15/2015	915.91	74.71	841.20
DC-05D	9/21/2015	915.91	74.38	841.53
DC-05D	12/13/2015	915.91	73.88	842.03
DC-05D	3/8/2016	915.91	74.70	841.21
DC-05D	6/19/2016	915.91	75.71	840.20
DC-05D	9/25/2016	915.91	75.40	840.51
DC-05D	12/11/2016	915.91	74.65	841.26
DC-05D	3/5/2017	915.91	74.96	840.95
DC-05D	6/4/2017	915.91	75.94	839.97
DC-05D	9/27/2017	915.91	75.47	840.44
DC-05D	12/3/2017	915.91	74.64	841.27
DC-05D	3/18/2018	915.91	75.43	840.48
DC-05D	6/3/2018	915.91	75.46	840.45
DC-05D	9/8/2018	915.91	75.54	840.37

Table 4
Historical Groundwater Elevations

Well ID	Date of Measurement	Reference Point Elevation (feet NAVD88)	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)
DC-07	9/16/2013	889.29	44.76	844.53
DC-07	12/9/2013	889.29	44.15	845.14
DC-07	3/16/2014	889.29	44.76	844.53
DC-07	6/1/2014	889.29	35.12	854.17
DC-07	9/21/2014	889.29	44.59	844.70
DC-07	12/14/2014	889.29	44.13	845.16
DC-07	3/5/2015	889.29	44.90	844.39
DC-07	6/15/2015	889.29	45.30	843.99
DC-07	9/21/2015	889.29	45.08	844.21
DC-07	12/13/2015	889.29	44.65	844.64
DC-07	3/8/2016	889.29	45.50	843.79
DC-07	6/19/2016	889.29	46.16	843.13
DC-07	9/25/2016	889.29	45.69	843.60
DC-07	12/11/2016	889.29	45.61	843.68
DC-07	3/5/2017	889.29	46.27	843.02
DC-07	6/4/2017	889.29	46.54	842.75
DC-07	9/27/2017	889.29	46.11	843.18
DC-07	12/3/2017	889.29	45.73	843.56
DC-07	3/18/2018	889.29	46.45	842.84
DC-07	6/3/2018	889.29	46.76	842.53
DC-07	9/8/2018	889.29	46.32	842.97
DC-09	9/16/2013	1048.60	147.16	901.44
DC-09	12/9/2013	1048.60	143.10	905.50
DC-09	3/16/2014	1048.60	139.81	908.79
DC-09	6/1/2014	1048.60	142.53	906.07
DC-09	9/21/2014	1048.60	143.67	904.93
DC-09	12/14/2014	1048.60	139.42	909.18
DC-09	3/5/2015	1048.60	137.83	910.77
DC-09	6/15/2015	1048.60	146.33	902.27
DC-09	9/21/2015	1048.60	151.28	897.32
DC-09	12/13/2015	1048.60	147.46	901.14
DC-09	3/8/2016	1048.60	146.70	901.90
DC-09	6/19/2016	1048.60	151.03	897.57
DC-09	9/25/2016	1048.60	151.98	896.62
DC-09	12/11/2016	1048.60	148.71	899.89
DC-09	3/5/2017	1048.60	146.24	902.36
DC-09	6/4/2017	1048.60	148.62	899.98
DC-09	9/27/2017	1048.60	151.56	897.04
DC-09	12/3/2017	1048.60	149.27	899.33
DC-09	3/18/2018	1048.60	146.19	902.41
DC-09	6/3/2018	1048.60	149.27	899.33
DC-09	9/8/2018	1048.60	151.66	896.94

Table 4
Historical Groundwater Elevations

Well ID	Date of Measurement	Reference Point Elevation (feet NAVD88)	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)
DC-14	9/16/2013	1036.61	131.08	905.53
DC-14	12/9/2013	1036.61	131.10	905.51
DC-14	3/16/2014	1036.61	130.32	906.29
DC-14	6/1/2014	1036.61	130.02	906.59
DC-14	9/21/2014	1036.61	130.25	906.36
DC-14	12/14/2014	1036.61	137.91	898.70
DC-14	3/5/2015	1036.61	129.51	907.10
DC-14	6/15/2015	1036.61	129.37	907.24
DC-14	9/21/2015	1036.61	130.28	906.33
DC-14	12/13/2015	1036.61	130.71	905.90
DC-14	3/8/2016	1036.61	131.26	905.35
DC-14	6/19/2016	1036.61	131.89	904.72
DC-14	9/25/2016	1036.61	132.76	903.85
DC-14	12/11/2016	1036.61	133.45	903.16
DC-14	3/5/2017	1036.61	133.81	902.80
DC-14	6/4/2017	1036.61	133.81	902.80
DC-14	9/27/2017	1036.61	134.16	902.45
DC-14	12/3/2017	1036.61	134.48	902.13
DC-14	3/18/2018	1036.61	133.83	902.78
DC-14	6/3/2018	1036.61	133.35	903.26
DC-14	9/8/2018	1036.61	133.67	902.94
YVD-02	9/16/2013	1288.97	24.21	1264.76
YVD-02	12/9/2013	1288.97	32.85	1256.12
YVD-02	3/16/2014	1288.97	34.45	1254.52
YVD-02	6/1/2014	1288.97	22.10	1266.87
YVD-02	9/21/2014	1288.97	26.14	1262.83
YVD-02	12/14/2014	1288.97	33.01	1255.96
YVD-02	3/5/2015	1288.97	34.42	1254.55
YVD-02	6/15/2015	1288.97	19.69	1269.28
YVD-02	9/21/2015	1288.97	25.36	1263.61
YVD-02	12/13/2015	1288.97	33.25	1255.72
YVD-02	3/8/2016	1288.97	33.93	1255.04
YVD-02	6/19/2016	1288.97	27.49	1261.48
YVD-02	9/25/2016	1288.97	27.72	1261.25
YVD-02	12/11/2016	1288.97	32.52	1256.45
YVD-02	3/5/2017	1288.97	27.34	1261.63
YVD-02	6/4/2017	1288.97	26.97	1262.00
YVD-02	9/27/2017	1288.97	28.08	1260.89
YVD-02	12/3/2017	1288.97	33.83	1255.14
YVD-02	3/18/2018	1288.97	34.07	1254.90
YVD-02	6/3/2018	1288.97	33.78	1255.19
YVD-02	9/8/2018	1288.97	29.19	1259.78

Table 4
Historical Groundwater Elevations

Well ID	Date of Measurement	Reference Point Elevation (feet NAVD88)	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)
YVD-03	9/16/2013	1120.68	189.88	930.80
YVD-03	12/9/2013	1120.68	190.42	930.26
YVD-03	3/16/2014	1120.68	189.10	931.58
YVD-03	6/1/2014	1120.68	188.97	931.71
YVD-03	9/21/2014	1120.68	189.04	931.64
YVD-03	12/14/2014	1120.68	188.73	931.95
YVD-03	3/5/2015	1120.68	187.92	932.76
YVD-03	6/15/2015	1120.68	188.70	931.98
YVD-03	9/21/2015	1120.68	189.63	931.05
YVD-03	12/13/2015	1120.68	189.85	930.83
YVD-03	3/8/2016	1120.68	190.64	930.04
YVD-03	6/19/2016	1120.68	191.31	929.37
YVD-03	9/25/2016	1120.68	191.61	929.07
YVD-03	12/11/2016	1120.68	191.25	929.43
YVD-03	3/5/2017	1120.68	190.85	929.83
YVD-03	6/4/2017	1120.68	191.20	929.48
YVD-03	9/27/2017	1120.68	191.77	928.91
YVD-03	12/3/2017	1120.68	191.61	929.07
YVD-03	3/18/2018	1120.68	191.55	929.13
YVD-03	6/3/2018	1120.68	191.40	929.28
YVD-03	9/8/2018	1120.68	191.96	928.72
YVD-04	9/16/2013	1118.66	220.55	898.11
YVD-04	12/9/2013	1118.66	223.50	895.16
YVD-04	3/16/2014	1118.66	222.20	896.46
YVD-04	6/1/2014	1118.66	221.04	897.62
YVD-04	9/21/2014	1118.66	220.67	897.99
YVD-04	12/14/2014	1118.66	221.30	897.36
YVD-04	3/5/2015	1118.66	220.72	897.94
YVD-04	6/15/2015	1118.66	221.61	897.05
YVD-04	9/21/2015	1118.66	221.99	896.67
YVD-04	12/13/2015	1118.66	221.71	896.95
YVD-04	3/8/2016	1118.66	220.74	897.92
YVD-04	6/19/2016	1118.66	221.50	897.16
YVD-04	9/25/2016	1118.66	221.05	897.61
YVD-04	12/11/2016	1118.66	221.07	897.59
YVD-04	3/5/2017	1118.66	220.89	897.77
YVD-04	6/4/2017	1118.66	221.83	896.83
YVD-04	9/27/2017	1118.66	222.49	896.17
YVD-04	12/3/2017	1118.66	222.38	896.28
YVD-04	3/18/2018	1118.66	222.37	896.29
YVD-04	6/3/2018	1118.66	222.04	896.62
YVD-04	9/8/2018	1118.66	222.29	896.37

Table 4
Historical Groundwater Elevations

Well ID	Date of Measurement	Reference Point Elevation (feet NAVD88)	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)
YVD-05	9/16/2013	1051.78	167.50	884.28
YVD-05	12/9/2013	1051.78	166.35	885.43
YVD-05	3/16/2014	1051.78	165.40	886.38
YVD-05	6/1/2014	1051.78	165.58	886.20
YVD-05	9/21/2014	1051.78	166.01	885.77
YVD-05	12/14/2014	1051.78	165.35	886.43
YVD-05	3/5/2015	1051.78	164.86	886.92
YVD-05	6/15/2015	1051.78	166.04	885.74
YVD-05	9/21/2015	1051.78	168.04	883.74
YVD-05	12/13/2015	1051.78	167.75	884.03
YVD-05	3/8/2016	1051.78	167.71	884.07
YVD-05	6/19/2016	1051.78	168.45	883.33
YVD-05	9/25/2016	1051.78	168.97	882.81
YVD-05	12/11/2016	1051.78	168.51	883.27
YVD-05	3/5/2017	1051.78	167.98	883.80
YVD-05	6/4/2017	1051.78	168.07	883.71
YVD-05	9/27/2017	1051.78	169.83	881.95
YVD-05	12/3/2017	1051.78	169.67	882.11
YVD-05	3/18/2018	1051.78	169.38	882.40
YVD-05	6/3/2018	1051.78	169.45	882.33
YVD-05	9/8/2018	1051.78	169.85	881.93
YVD-06	9/16/2013	1053.51	110.65	942.86
YVD-06	12/9/2013	1053.51	108.21	945.30
YVD-06	3/16/2014	1053.51	105.98	947.53
YVD-06	6/1/2014	1053.51	106.49	947.02
YVD-06	9/21/2014	1053.51	108.02	945.49
YVD-06	12/14/2014	1053.51	106.32	947.19
YVD-06	3/5/2015	1053.51	104.68	948.83
YVD-06	6/15/2015	1053.51	106.37	947.14
YVD-06	9/21/2015	1053.51	109.01	944.50
YVD-06	12/13/2015	1053.51	108.72	944.79
YVD-06	3/8/2016	1053.51	108.90	944.61
YVD-06	6/19/2016	1053.51	111.03	942.48
YVD-06	9/25/2016	1053.51	112.05	941.46
YVD-06	12/11/2016	1053.51	NM	
YVD-06	3/5/2017	1053.51	107.89	945.62
YVD-06	6/4/2017	1053.51	109.14	944.37
YVD-06	9/27/2017	1053.51	110.99	942.52
YVD-06	12/3/2017	1053.51	109.30	944.21
YVD-06	3/18/2018	1053.51	106.37	947.14
YVD-06	6/3/2018	1053.51	108.02	945.49
YVD-06	9/8/2018	1053.51	109.87	943.64

Table 4
Historical Groundwater Elevations

Well ID	Date of Measurement	Reference Point Elevation (feet NAVD88)	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)
YVD-07	9/16/2013	1073.03	157.99	915.04
YVD-07	12/9/2013	1073.03	157.26	915.77
YVD-07	3/16/2014	1073.03	153.95	919.08
YVD-07	6/1/2014	1073.03	153.87	919.16
YVD-07	9/21/2014	1073.03	155.93	917.10
YVD-07	12/14/2014	1073.03	155.40	917.63
YVD-07	3/5/2015	1073.03	153.42	919.61
YVD-07	6/15/2015	1073.03	154.30	918.73
YVD-07	9/21/2015	1073.03	157.09	915.94
YVD-07	12/13/2015	1073.03	158.05	914.98
YVD-07	3/8/2016	1073.03	157.96	915.07
YVD-07	6/19/2016	1073.03	158.75	914.28
YVD-07	9/25/2016	1073.03	160.29	912.74
YVD-07	12/11/2016	1073.03	160.00	913.03
YVD-07	3/5/2017	1073.03	157.59	915.44
YVD-07	6/4/2017	1073.03	157.56	915.47
YVD-07	9/27/2017	1073.03	159.81	913.22
YVD-07	12/3/2017	1073.03	159.30	913.73
YVD-07	3/18/2018	1073.03	156.76	916.27
YVD-07	6/3/2018	1073.03	156.44	916.59
YVD-07	9/8/2018	1073.03	158.22	914.81
YVD-08	9/16/2013	1014.38	170.83	843.55
YVD-08	12/9/2013	1014.38	171.08	843.30
YVD-08	3/16/2014	1014.38	170.66	843.72
YVD-08	6/1/2014	1014.38	170.50	843.88
YVD-08	9/21/2014	1014.38	170.50	843.88
YVD-08	12/14/2014	1014.38	170.22	844.16
YVD-08	3/5/2015	1014.38	169.83	844.55
YVD-08	6/15/2015	1014.38	170.13	844.25
YVD-08	9/21/2015	1014.38	170.67	843.71
YVD-08	12/13/2015	1014.38	170.63	843.75
YVD-08	3/8/2016	1014.38	171.00	843.38
YVD-08	6/19/2016	1014.38	171.51	842.87
YVD-08	9/25/2016	1014.38	171.75	842.63
YVD-08	12/11/2016	1014.38	171.52	842.86
YVD-08	3/5/2017	1014.38	171.16	843.22
YVD-08	6/4/2017	1014.38	171.87	842.51
YVD-08	9/27/2017	1014.38	172.30	842.08
YVD-08	12/3/2017	1014.38	171.95	842.43
YVD-08	3/18/2018	1014.38	172.17	842.21
YVD-08	6/3/2018	1014.38	172.10	842.28
YVD-08	9/8/2018	1014.38	172.36	842.02

Table 4
Historical Groundwater Elevations

Well ID	Date of Measurement	Reference Point Elevation (feet NAVD88)	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)
YVD-09	9/16/2013	966.81	111.14	855.67
YVD-09	12/9/2013	966.81	109.93	856.88
YVD-09	3/16/2014	966.81	109.65	857.16
YVD-09	6/1/2014	966.81	109.95	856.86
YVD-09	9/21/2014	966.81	110.08	856.73
YVD-09	12/14/2014	966.81	109.90	856.91
YVD-09	3/5/2015	966.81	109.95	856.86
YVD-09	6/15/2015	966.81	110.35	856.46
YVD-09	9/21/2015	966.81	110.83	855.98
YVD-09	12/13/2015	966.81	110.89	855.92
YVD-09	3/8/2016	966.81	111.16	855.65
YVD-09	6/19/2016	966.81	111.41	855.40
YVD-09	9/25/2016	966.81	111.68	855.13
YVD-09	12/11/2016	966.81	111.84	854.97
YVD-09	3/5/2017	966.81	111.92	854.89
YVD-09	6/4/2017	966.81	112.29	854.52
YVD-09	9/27/2017	966.81	112.50	854.31
YVD-09	12/3/2017	966.81	112.59	854.22
YVD-09	3/18/2018	966.81	112.56	854.25
YVD-09	6/3/2018	966.81	112.28	854.53
YVD-09	9/8/2018	966.81	112.19	854.62
YVD-10	9/16/2013	958.00	90.04	867.96
YVD-10	12/9/2013	958.00	89.20	868.80
YVD-10	3/16/2014	958.00	89.39	868.61
YVD-10	6/1/2014	958.00	90.35	867.65
YVD-10	9/21/2014	958.00	90.41	867.59
YVD-10	12/14/2014	958.00	88.76	869.24
YVD-10	3/5/2015	958.00	89.90	868.10
YVD-10	6/15/2015	958.00	91.10	866.90
YVD-10	9/21/2015	958.00	91.85	866.15
YVD-10	12/13/2015	958.00	91.52	866.48
YVD-10	3/8/2016	958.00	91.91	866.09
YVD-10	6/19/2016	958.00	92.92	865.08
YVD-10	9/25/2016	958.00	92.99	865.01
YVD-10	12/11/2016	958.00	93.02	864.98
YVD-10	3/5/2017	958.00	93.24	864.76
YVD-10	6/4/2017	958.00	93.70	864.30
YVD-10	9/27/2017	958.00	93.39	864.61
YVD-10	12/3/2017	958.00	92.86	865.14
YVD-10	3/18/2018	958.00	92.49	865.51
YVD-10	6/3/2018	958.00	92.81	865.19
YVD-10	9/8/2018	958.00	93.35	864.65

Table 4
Historical Groundwater Elevations

Well ID	Date of Measurement	Reference Point Elevation (feet NAVD88)	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)
YVD-11	9/16/2013	967.91	106.03	861.88
YVD-11	12/9/2013	967.91	105.77	862.14
YVD-11	3/16/2014	967.91	105.72	862.19
YVD-11	6/1/2014	967.91	106.07	861.84
YVD-11	9/21/2014	967.91	106.04	861.87
YVD-11	12/14/2014	967.91	106.08	861.83
YVD-11	3/5/2015	967.91	106.18	861.73
YVD-11	6/15/2015	967.91	106.67	861.24
YVD-11	9/21/2015	967.91	106.52	861.39
YVD-11	12/13/2015	967.91	106.88	861.03
YVD-11	3/8/2016	967.91	107.58	860.33
YVD-11	6/19/2016	967.91	108.52	859.39
YVD-11	9/25/2016	967.91	108.95	858.96
YVD-11	12/11/2016	967.91	108.90	859.01
YVD-11	3/5/2017	967.91	109.08	858.83
YVD-11	6/4/2017	967.91	109.31	858.60
YVD-11	9/27/2017	967.91	108.75	859.16
YVD-11	12/3/2017	967.91	107.73	860.18
YVD-11	3/18/2018	967.91	108.10	859.81
YVD-11	6/3/2018	967.91	108.63	859.28
YVD-11	9/8/2018	967.91	108.97	858.94
YVD-12	9/16/2013	961.91	138.50	823.41
YVD-12	12/9/2013	961.91	138.34	823.57
YVD-12	3/16/2014	961.91	137.55	824.36
YVD-12	6/1/2014	961.91	137.61	824.30
YVD-12	9/21/2014	961.91	137.45	824.46
YVD-12	12/14/2014	961.91	137.25	824.66
YVD-12	3/5/2015	961.91	136.52	825.39
YVD-12	6/15/2015	961.91	137.85	824.06
YVD-12	9/21/2015	961.91	138.95	822.96
YVD-12	12/13/2015	961.91	138.11	823.80
YVD-12	3/8/2016	961.91	138.26	823.65
YVD-12	6/19/2016	961.91	139.23	822.68
YVD-12	9/25/2016	961.91	139.13	822.78
YVD-12	12/11/2016	961.91	138.56	823.35
YVD-12	3/5/2017	961.91	138.02	823.89
YVD-12	6/4/2017	961.91	138.90	823.01
YVD-12	9/27/2017	961.91	139.05	822.86
YVD-12	12/3/2017	961.91	138.48	823.43
YVD-12	3/18/2018	961.91	138.46	823.45
YVD-12	6/3/2018	961.91	138.75	823.16
YVD-12	9/8/2018	961.91	139.15	822.76

Table 4
Historical Groundwater Elevations

Well ID	Date of Measurement	Reference Point Elevation (feet NAVD88)	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)
YVD-13	9/16/2013	965.59	127.43	838.16
YVD-13	12/9/2013	965.59	127.25	838.34
YVD-13	3/16/2014	965.59	127.58	838.01
YVD-13	6/1/2014	965.59	127.59	838.00
YVD-13	9/21/2014	965.59	127.29	838.30
YVD-13	12/14/2014	965.59	127.20	838.39
YVD-13	3/5/2015	965.59	127.35	838.24
YVD-13	6/15/2015	965.59	127.60	837.99
YVD-13	9/21/2015	965.59	127.36	838.23
YVD-13	12/13/2015	965.59	127.13	838.46
YVD-13	3/8/2016	965.59	127.87	837.72
YVD-13	6/19/2016	965.59	128.17	837.42
YVD-13	9/25/2016	965.59	127.88	837.71
YVD-13	12/11/2016	965.59	127.57	838.02
YVD-13	3/5/2017	965.59	127.92	837.67
YVD-13	6/4/2017	965.59	128.49	837.10
YVD-13	9/27/2017	965.59	128.05	837.54
YVD-13	12/3/2017	965.59	127.88	837.71
YVD-13	3/18/2018	965.59	128.47	837.12
YVD-13	6/3/2018	965.59	128.44	837.15
YVD-13	9/8/2018	965.59	128.28	837.31
YVD-14	9/16/2013	920.19	77.30	842.89
YVD-14	12/9/2013	920.19	76.97	843.22
YVD-14	3/16/2014	920.19	77.45	842.74
YVD-14	6/1/2014	920.19	77.61	842.58
YVD-14	9/21/2014	920.19	77.28	842.91
YVD-14	12/14/2014	920.19	76.90	843.29
YVD-14	3/5/2015	920.19	77.51	842.68
YVD-14	6/17/2015	NM	NM	
YVD-14	9/21/2015	NM	NM	
YVD-14R	12/13/2015	921.41	77.76	843.65
YVD-14R	3/8/2016	921.41	78.53	842.88
YVD-14R	6/19/2016	921.41	79.03	842.38
YVD-14R	9/25/2016	921.41	78.68	842.73
YVD-14R	12/11/2016	921.41	78.57	842.84
YVD-14R	3/5/2017	921.41	79.14	842.27
YVD-14R	6/4/2017	921.41	79.53	841.88
YVD-14R	9/27/2017	921.41	78.93	842.48
YVD-14R	12/3/2017	921.41	78.72	842.69
YVD-14R	3/18/2018	921.41	79.40	842.01
YVD-14R	6/3/2018	921.41	79.35	842.06
YVD-14R	9/8/2018	921.41	79.26	842.15

Table 4
Historical Groundwater Elevations

Well ID	Date of Measurement	Reference Point Elevation (feet NAVD88)	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)
YVD-15	9/16/2013	940.61	90.34	850.27
YVD-15	12/9/2013	940.61	90.49	850.12
YVD-15	3/16/2014	940.61	91.62	848.99
YVD-15	6/1/2014	940.61	92.57	848.04
YVD-15	9/21/2014	940.61	88.84	851.77
YVD-15	12/14/2014	940.61	90.56	850.05
YVD-15	3/5/2015	940.61	92.03	848.58
YVD-15	6/15/2015	940.61	93.22	847.39
YVD-15	9/21/2015	940.61	93.43	847.18
YVD-15	12/13/2015	940.61	93.21	847.40
YVD-15	3/8/2016	940.61	93.83	846.78
YVD-15	6/19/2016	940.61	94.70	845.91
YVD-15	9/25/2016	940.61	94.70	845.91
YVD-15	12/11/2016	940.61	94.44	846.17
YVD-15	3/5/2017	940.61	94.96	845.65
YVD-15	6/4/2017	940.61	95.52	845.09
YVD-15	9/27/2017	940.61	95.16	845.45
YVD-15	12/3/2017	940.61	94.74	845.87
YVD-15	3/18/2018	940.61	94.96	845.65
YVD-15	6/3/2018	940.61	95.32	845.29
YVD-15	9/8/2018	940.61	95.32	845.29
YVD-16	9/16/2013	975.90	112.95	862.95
YVD-16	12/9/2013	975.90	112.84	863.06
YVD-16	3/16/2014	975.90	112.50	863.40
YVD-16	6/1/2014	975.90	112.62	863.28
YVD-16	9/21/2014	975.90	113.02	862.88
YVD-16	12/14/2014	975.90	112.86	863.04
YVD-16	3/5/2015	975.90	112.42	863.48
YVD-16	6/15/2015	975.90	112.85	863.05
YVD-16	9/21/2015	975.90	113.95	861.95
YVD-16	12/13/2015	975.90	114.04	861.86
YVD-16	3/8/2016	975.90	114.51	861.39
YVD-16	6/19/2016	975.90	115.18	860.72
YVD-16	9/25/2016	975.90	115.67	860.23
YVD-16	12/11/2016	975.90	115.17	860.73
YVD-16	3/5/2017	975.90	114.90	861.00
YVD-16	6/4/2017	975.90	115.51	860.39
YVD-16	9/27/2017	975.90	115.32	860.58
YVD-16	12/3/2017	975.90	114.86	861.04
YVD-16	3/18/2018	975.90	114.49	861.41
YVD-16	6/3/2018	975.90	114.62	861.28
YVD-16	9/8/2018	975.90	115.77	860.13

Table 4
Historical Groundwater Elevations

Well ID	Date of Measurement	Reference Point Elevation (feet NAVD88)	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)
YVD-17	9/16/2013	866.73	32.07	834.66
YVD-17	12/9/2013	866.73	34.81	831.92
YVD-17	3/16/2014	866.73	37.97	828.76
YVD-17	6/1/2014	866.73	35.50	831.23
YVD-17	9/21/2014	866.73	31.86	834.87
YVD-17	12/14/2014	866.73	34.74	831.99
YVD-17	3/5/2015	866.73	37.79	828.94
YVD-17	6/15/2015	866.73	34.57	832.16
YVD-17	9/21/2015	866.73	31.92	834.81
YVD-17	12/13/2015	866.73	35.16	831.57
YVD-17	3/8/2016	866.73	37.47	829.26
YVD-17	6/19/2016	866.73	35.37	831.36
YVD-17	9/25/2016	866.73	32.31	834.42
YVD-17	12/11/2016	866.73	35.20	831.53
YVD-17	3/5/2017	866.73	37.88	828.85
YVD-17	6/4/2017	866.73	36.13	830.60
YVD-17	9/27/2017	866.73	31.22	835.51
YVD-17	12/3/2017	866.73	34.65	832.08
YVD-17	3/18/2018	866.73	38.54	828.19
YVD-17	6/3/2018	866.73	36.20	830.53
YVD-17	9/8/2018	866.73	32.64	834.09
YVD-18	9/16/2013	965.74	127.49	838.25
YVD-18	12/9/2013	965.74	127.45	838.29
YVD-18	3/16/2014	965.74	127.75	837.99
YVD-18	6/1/2014	965.74	127.69	838.05
YVD-18	9/21/2014	965.74	127.33	838.41
YVD-18	12/14/2014	965.74	127.33	838.41
YVD-18	3/5/2015	965.74	127.46	838.28
YVD-18	6/15/2015	965.74	127.71	838.03
YVD-18	9/21/2015	965.74	127.42	838.32
YVD-18	12/13/2015	965.74	127.24	838.50
YVD-18	3/8/2016	965.74	128.05	837.69
YVD-18	6/19/2016	965.74	128.29	837.45
YVD-18	9/25/2016	965.74	127.92	837.82
YVD-18	12/11/2016	965.74	127.66	838.08
YVD-18	3/5/2017	965.74	128.01	837.73
YVD-18	6/4/2017	965.74	128.54	837.20
YVD-18	9/27/2017	965.74	128.14	837.60

Table 4
Historical Groundwater Elevations

Well ID	Date of Measurement	Reference Point Elevation (feet NAVD88)	Depth to Water (feet BTOC)	Groundwater Elevation (feet NAVD88)
YVD-18	12/3/2017	965.74	127.95	837.79
YVD-18	3/18/2018	965.74	128.72	837.02
YVD-18	6/3/2018	965.74	128.48	837.26
YVD-18	9/8/2018	965.74	128.35	837.39

Notes:

BTOC: below top of casing

NAVD88: North American Vertical Datum of 1988

NM: Not measured due to well damage.

Table 5
Estimated Possible Average Linear Groundwater Flow Velocities – Third Quarter 2018

Material	Hydraulic Conductivity ^{1, 2} [K] (feet per day)	Effective Porosity ³ [n _e]	K/n _e	Estimated Possible Average Linear Groundwater Flow Velocities [V _x] (feet per day)			
				First Quarter 2018 Hydraulic Gradients			
				Site Average I ⁴	Upslope I	Central I	Southern I
				-0.024	-0.048	-0.011	-0.0045
Fine sand	53	0.33	161	3.9	7.7	1.8	0.7
Medium sand to fine gravel	131	0.32	409	9.8	19.7	4.5	1.8
Medium sand to coarse gravel	164	0.30	547	13.1	26.2	6.0	2.5
Fine gravel	267	0.28	954	22.9	45.8	10.5	4.3

Notes:

1. Hydraulic conductivities obtained from U.S. Environmental Protection Agency Method 9100, Saturated Hydraulic Conductivity, Saturated Leachate Conductivity, and Intrinsic Permeability, Chapter 6 – Properties; Publication SW-846: Test Methods for Evaluating Solid Waste, Physical/Chemical Methods; 1986.
2. Hydraulic conductivities presented are for well-sorted (poorly graded) material.
3. Effective porosity obtained from *Data Collection Handbook to Support Modeling Impacts of Radioactive Material in Soil*; Environmental Assessment and Information Sciences Division, Argonne National Laboratory; Argonne, Illinois; April 1993.
4. Hydraulic gradient [I] in feet per foot.

Table 6
Field Parameter Measurements – Third Quarter 2018

Well ID	Sample Date	Bladder Pump Type (portable or dedicated)	Purge Time (minutes)	Volume Purged (liters)	Temperature (°C)	Dissolved Oxygen (mg/L)	Specific Conductance (µS/cm)	pH (standard units)	Oxidation/Reduction Potential (mV)	Turbidity (NTUs)
DC-03	9/9/2018	Dedicated	15	3.1	15.6	5.36	2580	6.90	129.1	0.37
DC-03D	9/9/2018	Dedicated	15	3.7	15.0	0.27	1470	6.83	105.9	0.35
DC-04	9/9/2018	Dedicated	16	3.0	14.4	8.96	1161	7.05	7.20	2.45
DC-05	9/9/2018	Dedicated	15	1.1	15.1	7.17	1157	7.16	117.8	0.31
DC-05D	9/9/2018	Dedicated	21	2.9	15.2	7.22	754	7.35	121.4	6.91
DC-14	9/9/2018	Dedicated	15	2.4	16.3	3.46	921	7.08	-0.10	3.26
YVD-08	9/9/2018	Dedicated	32	4.5	16.6	6.53	1510	7.17	75.5	5.84
YVD-09	9/9/2018	Dedicated	24	3.0	16.8	7.15	1547	7.18	26.6	4.69
YVD-10	9/9/2018	Dedicated	22	3.5	14.9	6.57	2330	6.86	102.7	4.08
YVD-11	9/9/2018	Dedicated	31	2.9	16.2	7.02	1585	7.01	111.3	0.24
YVD-12	9/9/2018	Dedicated	19	2.1	17.5	7.76	1133	7.44	-23.2	5.41
YVD-13	9/9/2018	Dedicated	18	4.5	15.9	8.72	1113	7.51	-26.0	3.47
YVD-14R	9/9/2018	Dedicated	15	4.0	15.6	2.14	2233	6.73	94.2	0.16
YVD-15	9/9/2018	Dedicated	15	4.4	14.8	6.96	1151	7.18	102.2	0.41
YVD-16	9/9/2018	Dedicated	37	4.6	16.1	6.98	1010	7.39	1120.0	3.06
YVD-18	9/9/2018	Dedicated	15	2.4	16.4	13.28	896	7.60	-13.0	2.78

Notes:
µS/cm: microsiemens per centimeter
mg/L: milligrams per liter
mV: millivolt
NTU: nephelometric turbidity unit

Table 7
Groundwater Analytical Results – Third Quarter 2018

Analyte					Calcium			Magnesium			Potassium			Sodium			Chloride		
Analytical Method					EPA 200.7			EPA 200.7			EPA 200.7			EPA 200.7			EPA 300.0		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
DC-03	YVD-090918-17	9/9/2018	N	880601	267	-	-	65.50	-	-	2.82	-	-	160	-	-	133	-	-
DC-03D	YVD-090918-15	9/9/2018	N	880601	200	-	-	42.90	-	-	3.01	-	-	68.0	-	-	69.5	-	-
DC-04	YVD-090918-18	9/9/2018	N	880601	176	-	-	30.40	-	-	3.98	-	-	32.8	-	-	32.4	-	-
DC-05	YVD-090918-03	9/9/2018	N	880601	122	-	-	42.55	-	-	2.91	-	-	65.5	-	-	31.4	-	-
DC-05D	YVD-090918-02	9/9/2018	N	880601	79.5	-	-	26.75	-	-	4.00	-	-	38.0	-	-	26.8	-	-
DC-14	YVD-090918-08	9/9/2018	N	880601	104	-	-	25.00	-	-	4.80	-	-	54.0	-	-	63.5	-	-
DC-14 (FD)	YVD-090918-10	9/9/2018	FD	880601	105	-	-	25.05	-	-	4.78	-	-	53.5	-	-	70.8	-	-
YVD-08	YVD-090918-04	9/9/2018	N	880601	146	-	-	49.15	-	-	5.70	-	-	99.5	-	-	103	-	-
YVD-09	YVD-090918-06	9/9/2018	N	880601	108	-	-	35.90	-	-	8.10	-	-	174	-	-	71	-	-
YVD-10	YVD-090918-13	9/9/2018	N	880601	308	-	-	63.50	-	-	2.58	-	-	114	-	-	128	-	-
YVD-11	YVD-090918-05	9/9/2018	N	880601	223	-	-	53.00	-	-	3.05	-	-	28.2	-	-	102	-	-
YVD-12	YVD-090918-16	9/9/2018	N	880601	110	-	-	38.65	-	-	2.52	-	-	67	-	-	105	-	-
YVD-13	YVD-090918-14	9/9/2018	N	880601	92.0	-	-	24.55	-	-	3.90	-	-	104	-	-	66.6	-	-
YVD-14R	YVD-090918-09	9/9/2018	N	880601	250	-	-	63.50	-	-	4.09	-	-	130	-	-	115	-	-
YVD-15	YVD-090918-11	9/9/2018	N	880601	97.5	-	-	42.70	-	-	3.18	-	-	99	-	-	22.8	-	-
YVD-16	YVD-090918-07	9/9/2018	N	880601	89.5	-	-	30.55	-	-	5.20	-	-	83.5	-	-	35.7	-	-
YVD-18	YVD-090918-12	9/9/2018	N	880601	67.5	-	-	22.05	-	-	4.20	-	-	78.0	-	-	67.1	-	-

Table 7
Groundwater Analytical Results – Third Quarter 2018

Analyte					Fluoride			Nitrate (as N)			Nitrite (as N)			Sulfate			Ammonia (as N)		
Analytical Method					EPA 300.0			EPA 300.0			EPA 300.0			EPA 300.0			SM4500 NH3-G		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
DC-03	YVD-090918-17	9/9/2018	N	880601	0.20	-	-	157	-	-	0.05	U	-	136	-	-	0.07	U	-
DC-03D	YVD-090918-15	9/9/2018	N	880601	0.10	-	-	32.9	-	-	0.05	U	-	88.6	-	-	0.07	U	-
DC-04	YVD-090918-18	9/9/2018	N	880601	0.12	-	-	30.4	-	-	0.05	U	-	109	-	-	0.07	U	-
DC-05	YVD-090918-03	9/9/2018	N	880601	0.18	-	-	31.5	-	-	0.05	U	-	95.4	-	-	0.07	U	-
DC-05D	YVD-090918-02	9/9/2018	N	880601	0.25	-	-	12.2	-	-	0.05	U	-	107	-	-	0.07	U	-
DC-14	YVD-090918-08	9/9/2018	N	880601	0.29	-	-	4.08	-	-	0.05	U	-	16.0	-	-	0.07	U	-
DC-14 (FD)	YVD-090918-10	9/9/2018	FD	880601	0.29	-	-	4.00	-	-	0.05	U	-	15.3	-	-	0.07	U	-
YVD-08	YVD-090918-04	9/9/2018	N	880601	0.18	-	-	54.4	-	-	0.05	U	-	195	-	-	0.07	U	-
YVD-09	YVD-090918-06	9/9/2018	N	880601	0.35	-	-	51.4	-	-	0.05	U	-	172	-	-	0.07	U	-
YVD-10	YVD-090918-13	9/9/2018	N	880601	0.10	-	-	90.0	-	-	0.05	U	-	238	-	-	0.07	U	-
YVD-11	YVD-090918-05	9/9/2018	N	880601	0.20	-	-	62.8	-	-	0.05	U	-	90.6	-	-	0.07	U	-
YVD-12	YVD-090918-16	9/9/2018	N	880601	0.33	-	-	15.8	-	-	0.05	U	-	180	-	-	0.07	U	-
YVD-13	YVD-090918-14	9/9/2018	N	880601	0.34	-	-	26.1	-	-	0.05	U	-	222	-	-	0.07	U	-
YVD-14R	YVD-090918-09	9/9/2018	N	880601	0.18	-	-	115	-	-	0.05	U	-	125	-	-	0.07	U	-
YVD-15	YVD-090918-11	9/9/2018	N	880601	0.35	-	-	24.4	-	-	0.05	U	-	110	-	-	0.07	U	-
YVD-16	YVD-090918-07	9/9/2018	N	880601	0.21	-	-	21.4	-	-	0.05	U	-	107	-	-	0.07	U	-
YVD-18	YVD-090918-12	9/9/2018	N	880601	0.35	-	-	26.0	-	-	0.05	U	-	127	-	-	0.07	U	-

Table 7
Groundwater Analytical Results – Third Quarter 2018

Analyte					Total Kjeldahl Nitrogen (TKN)			Phosphorus			Alkalinity, Bicarbonate (as CaCO3)			Alkalinity, Total (as CaCO3)		
Analytical Method					EPA 351.2			SM4500 P-E			SM2320B			SM2320B		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
DC-03	YVD-090918-17	9/9/2018	N	880601	0.5	R	MSD	0.07	U	-	460	-	-	460	-	-
DC-03D	YVD-090918-15	9/9/2018	N	880601	0.5	R	MSD	0.07	U	-	541	-	-	541	-	-
DC-04	YVD-090918-18	9/9/2018	N	880601	0.5	R	MSD	0.07	U	-	371	-	-	371	-	-
DC-05	YVD-090918-03	9/9/2018	N	880601	0.5	R	MSD	0.07	U	-	378	-	-	378	-	-
DC-05D	YVD-090918-02	9/9/2018	N	880601	0.5	R	MSD	0.07	U	-	204	-	-	204	-	-
DC-14	YVD-090918-08	9/9/2018	N	880601	0.5	R	MSD	0.07	U	-	368	-	-	368	-	-
DC-14 (FD)	YVD-090918-10	9/9/2018	FD	880601	0.5	R	MSD	0.07	U	-	363	-	-	363	-	-
YVD-08	YVD-090918-04	9/9/2018	N	880601	0.5	R	MSD	0.07	U	-	237	-	-	237	-	-
YVD-09	YVD-090918-06	9/9/2018	N	880601	0.5	R	MSD	0.07	U	-	354	-	-	354	-	-
YVD-10	YVD-090918-13	9/9/2018	N	880601	0.5	R	MSD	0.07	U	-	557	-	-	557	-	-
YVD-11	YVD-090918-05	9/9/2018	N	880601	0.5	R	MSD	0.07	U	-	395	-	-	395	-	-
YVD-12	YVD-090918-16	9/9/2018	N	880601	0.5	R	MSD	0.07	U	-	185	-	-	185	-	-
YVD-13	YVD-090918-14	9/9/2018	N	880601	0.5	R	MSD	0.07	U	-	140	-	-	140	-	-
YVD-14R	YVD-090918-09	9/9/2018	N	880601	0.5	R	MSD	0.07	U	-	532	-	-	532	-	-
YVD-15	YVD-090918-11	9/9/2018	N	880601	0.5	R	MSD	0.07	U	-	395	-	-	395	-	-
YVD-16	YVD-090918-07	9/9/2018	N	880601	0.5	R	MSD	0.07	U	-	309	-	-	309	-	-
YVD-18	YVD-090918-12	9/9/2018	N	880601	0.5	R	MSD	0.07	U	-	112	-	-	112	-	-

Table 7
Groundwater Analytical Results – Third Quarter 2018

Notes:

Bold: detected result

- : not applicable

(as N): reported as nitrogen

(as CaCO3): reported as calcium carbonate

EPA: U.S. Environmental Protection Agency

FD: field duplicate

mg/L: milligrams per liter

MSD: Matrix spike/matrix spike duplicate percent recoveries were outside acceptance limits.

N: normal sample

R: The sample results are rejected as unusable. The compound may or may not be present in the sample.

SM: Standard Method

U: The compound was analyzed for but not detected. The associated value is the compound reporting limit, or the compound is considered non-detect at the listed value due to associated blank contamination.

Table 8
Historical Groundwater Analytical Results

Analyte					Calcium			Magnesium			Potassium			Sodium			Chloride			Fluoride		
Analytical Method					EPA 200.7			EPA 200.7			EPA 200.7			EPA 200.7			EPA 300			EPA 300.0		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
DC-01	DC-01-130104	01/04/2013	N	EPA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DC-01	DC-01-130924	09/24/2013	N	SWI0178	88.9	-	-	32.5	-	-	6.10	-	-	43.0	-	-	44	-	-	0.5	U	-
DC-01	DC-01-131211	12/11/2013	N	SWL0063	91.4	-	-	32.6	-	-	5.94	-	-	41.9	-	-	47.8	-	-	5	U	-
DC-01	DC-01-140318	03/18/2014	N	SXC0095	90.5	-	-	31.4	-	-	5.93	-	-	40.2	-	-	48.2	-	-	5	U	-
DC-01	DC-01-140602	06/02/2014	N	SXF0017	88.6	-	-	31.9	-	-	6.74	-	-	41.8	-	-	41.4	-	-	2	U	-
DC-01	DC-01-140923	09/23/2014	N	SXI0158	89.4	-	-	31.2	-	-	6.02	-	-	44.3	J+	MSD	41.8	-	-	5	U	-
DC-01	DC-01-141216	12/16/2014	N	SXL0121	92.8	-	-	34.0	-	-	6.18	-	-	43.1	-	-	85.7	-	-	5	U	-
DC-01	DC-01-150316	03/16/2015	N	5904471	91.0	-	-	32.0	-	-	6.50	-	-	44.0	-	-	44	-	-	5	U	-
DC-01	DC-01-150616	06/16/2015	N	59010751	91.0	J+	MSD	33.0	J+	MSD	6.20	J+	MSD	42.0	J+	MSD	42	-	-	5	U	-
DC-01	DC-01-150923	09/23/2015	N	59020281	83.0	-	-	32.0	-	-	6.00	-	-	43.0	-	-	37	-	-	5	U	-
DC-01	YVD-D1-150923	09/23/2015	FD	59020281	85.0	-	-	33.0	-	-	6.10	-	-	43.0	-	-	43	-	-	0.5	U	-
DC-01	DC-01-151214	12/14/2015	N	59025431	97.0	-	-	34.0	-	-	6.80	-	-	48.0	-	-	38	-	-	5	U	-
DC-01	DC-01-160308	03/08/2016	N	59029711	83.0	-	-	30.0	-	-	6.20	-	-	42.0	-	-	40	-	-	5	U	-
DC-01	DC-01-160620	6/20/2016	N	59037101	83.0	-	-	31.0	-	-	6.50	-	-	46.0	-	-	40	-	-	5	U	-
DC-01	DC-01-160928	9/28/2016	N	K1611629	80.6	-	-	28.5	-	-	5.76	-	-	41.6	-	-	34.0	-	-	0.25	-	-
DC-01	DC-01-161212	12/12/2016	N	K1615045	81.1	-	-	27.9	-	-	5.52	-	-	40.4	-	-	31.9	-	-	0.39	-	-
DC-01	YVD-030817-18	3/8/2017	N	K1702324	80.8	-	-	27	-	-	5.13	-	-	37.4	-	-	32.6	-	-	0.39	-	-
DC-01	YVD-060417-03	6/4/2017	N	K1705702	83.4	-	-	26.2	-	-	5.22	-	-	37.4	-	-	32.9	-	-	0.4	-	-
DC-01	YVD-060417-05	6/4/2017	FD	K1705702	83.0	-	-	25.7	-	-	5.08	-	-	36.9	-	-	33.2	-	-	0.38	-	-
DC-01	YVD-092517-13	9/25/2017	N	K1710333	78.9	-	-	26.1	-	-	5.31	-	-	39.1	-	-	33.2	-	-	0.37	-	-
DC-01	YVD-120617-31	12/6/2017	N	K1713157	83.7	-	-	28.1	-	-	5.56	-	-	40.6	-	-	33.2	-	-	0.37	-	-
DC-01	YVD-060418-19	6/4/2018	N	874662	80.5	-	-	28.75	-	-	5.80	-	-	42.4	-	-	34.6	-	-	0.36	-	-
DC-03	DC-03-130102	01/02/2013	N	EPA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DC-03	DC-03-130918	09/18/2013	N	SWI0138	284	-	-	73.7	-	-	2.73	-	-	173	-	-	176	-	-	5	U	-
DC-03	DC-03-131212	12/12/2013	N	SWL0078	280	-	-	75.0	-	-	3.29	-	-	172	-	-	172	-	-	5	U	-
DC-03	YVD-D3-131212	12/12/2013	FD	SWL0078	292	-	-	77.3	-	-	3.53	-	-	181	-	-	142	-	-	5	U	-
DC-03	DC-03-140319	03/19/2014	N	SXC0107	261	-	-	66.8	-	-	2.91	-	-	165	-	-	159	J	FDP	5	U	-
DC-03	YVD-D3-140319	03/19/2014	FD	SXC0107	261	-	-	66.7	-	-	2.81	-	-	166	-	-	128	J	FDP	5	U	-
DC-03	DC-03-140604	06/04/2014	N	SXF0025	259	-	-	67.7	-	-	3.11	-	-	177	-	-	201	-	-	10	U	-
DC-03	DC-03-140924	09/24/2014	N	SXI0173	291	-	-	77.1	-	-	3.28	-	-	178	-	-	147	-	-	5	U	-
DC-03	DC-03-141217	12/17/2014	N	SXL0144	274	-	-	74.9	-	-	3.76	-	-	185	-	-	157	-	-	10	U	-
DC-03	YVD-D4-141217	12/17/2014	FD	SXL0144	271	-	-	72.6	-	-	3.19	-	-	180	-	-	182	-	-	5	U	-
DC-03	DC-03-150318	03/18/2015	N	5904651	260	-	-	73.0	-	-	3.30	J-	MSD	180	-	-	160	-	-	5	U	-
DC-03	YVD-D4-150318	03/18/2015	FD	5904651	270	-	-	74.0	-	-	3.60	J-	MSD	180	-	-	150	-	-	2.5	U	-
DC-03	DC-03-150617	06/17/2015	N	59011021	290	-	-	78.0	J	RPD	3.60	J	RPD	190	J	RPD	170	-	-	5	U	-
DC-03	YVD-D4-150617	06/17/2015	FD	59011021	290	-	-	77.0	J	RPD	3.60	J	RPD	190	J	RPD	180	-	-	5	U	-
DC-03	DC-03-150925	09/25/2015	N	59020431	270	-	-	73.0	-	-	3.30	-	-	180	-	-	140	-	-	10	U	-
DC-03	YVD-D4-150925	09/25/2015	FD	59020431	260	-	-	69.0	-	-	3.20	-	-	180	-	-	140	-	-	0.5	U	-
DC-03	DC-03-151216	12/16/2015	N	59025501	260	-	-	75.0	-	-	3.50	-	-	160	-	-	170	-	-	5	U	-
DC-03	YVD-D4-151216	12/16/2015	FD	59025501	250	-	-	75.0	-	-	3.50	-	-	160	-	-	160	-	-	2.5	U	-

Table 8
Historical Groundwater Analytical Results

Analyte					Nitrate (as N)			Nitrite (as N)			Sulfate			Ammonia (as N)			Ammonia (as N)			Total Kjeldahl Nitrogen (TKN)		
Analytical Method					EPA 300.0			EPA 300.0			EPA 300.0			SM4500 NH3-G			EPA 350.1			EPA 351.2		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
DC-01	DC-01-130104	01/04/2013	N	EPA01	9.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DC-01	DC-01-130924	09/24/2013	N	SWI0178	11.1	-	-	0.2	U	-	223	-	-	-	-	-	0.1	U	-	0.25	U	-
DC-01	DC-01-131211	12/11/2013	N	SWL0063	11.5	-	-	2	U	-	280	J-	MSD	-	-	-	0.02	R	MSD	0.2	U	-
DC-01	DC-01-140318	03/18/2014	N	SXC0095	11.2	-	-	2	U	-	250	J-	MSD	-	-	-	0.101	-	-	0.304	-	-
DC-01	DC-01-140602	06/02/2014	N	SXF0017	9.76	-	-	0.8	U	-	224	J-	MSD	-	-	-	0.1	U	-	0.45	-	-
DC-01	DC-01-140923	09/23/2014	N	SXI0158	9	-	-	2	U	-	216	-	-	-	-	-	0.1	R	MSD	0.25	U	-
DC-01	DC-01-141216	12/16/2014	N	SXL0121	18.9	-	-	2	U	-	463	-	-	-	-	-	0.1	U	-	0.25	UJ	MSD
DC-01	DC-01-150316	03/16/2015	N	5904471	11	-	-	2	U	-	220	-	-	-	-	-	0.1	U	-	0.25	UJ	MSD
DC-01	DC-01-150616	06/16/2015	N	59010751	9.5	-	-	2	U	-	200	J-	MSD	-	-	-	0.1	U	-	0.25	UJ	MSD
DC-01	DC-01-150923	09/23/2015	N	59020281	8.6	-	-	2	U	-	200	-	-	-	-	-	0.13	-	-	0.25	R	MSD
DC-01	YVD-D1-150923	09/23/2015	FD	59020281	10	-	-	0.2	U	-	210	-	-	-	-	-	0.1	U	-	0.25	R	MSD
DC-01	DC-01-151214	12/14/2015	N	59025431	8.8	-	-	2	U	-	220	-	-	-	-	-	0.1	R	MSD	0.25	R	MSD
DC-01	DC-01-160308	03/08/2016	N	59029711	8.6	-	-	2	U	-	210	J+	MSD	-	-	-	0.11	R	FBK, FDP	0.25	R	MSD
DC-01	DC-01-160620	6/20/2016	N	59037101	9.2	-	-	2	U	-	220	J-	MSD	-	-	-	0.1	U	-	0.25	UJ	MSD
DC-01	DC-01-160928	9/28/2016	N	K1611629	9.15	-	-	0.10	U	-	193	-	-	-	-	-	0.050	U	MBK	0.5	U	-
DC-01	DC-01-161212	12/12/2016	N	K1615045	8.89	J	HTQ	0.10	UJ	HTQ	191	-	-	-	-	-	0.050	U	-	0.5	U	-
DC-01	YVD-030817-18	3/8/2017	N	K1702324	9.0	-	-	0.10	U	-	175	-	-	-	-	-	1	U	-	0.5	U	-
DC-01	YVD-060417-03	6/4/2017	N	K1705702	8.2	-	-	0.10	U	-	203	-	-	-	-	-	0.050	U	-	0.5	U	-
DC-01	YVD-060417-05	6/4/2017	FD	K1705702	8.2	-	-	0.10	U	-	203	-	-	-	-	-	0.050	U	-	0.5	U	-
DC-01	YVD-092517-13	9/25/2017	N	K1710333	8.41	-	-	0.10	U	-	194	-	-	-	-	-	0.050	U	-	0.5	U	-
DC-01	YVD-120617-31	12/6/2017	N	K1713157	8.81	-	-	0.10	U	-	182	-	-	-	-	-	0.050	U	-	0.5	U	-
DC-01	YVD-060418-19	6/4/2018	N	874662	8.60	-	-	0.05	U	-	171	-	-	0.07	U	FBK	-	-	-	0.5	UJ	MSD
DC-03	DC-03-130102	01/02/2013	N	EPA01	190	-	-	-	-	-	-	-	-	-	-	-	0.1	U	-	-	-	-
DC-03	DC-03-130918	09/18/2013	N	SWI0138	166	-	-	2	U	-	176	-	-	-	-	-	0.1	U	-	0.25	U	-
DC-03	DC-03-131212	12/12/2013	N	SWL0078	174	-	-	2	U	-	176	-	-	-	-	-	0.02	U	-	0.2	U	-
DC-03	YVD-D3-131212	12/12/2013	FD	SWL0078	182	-	-	2	U	-	160	-	-	-	-	-	0.02	U	-	0.8311	U	ERL
DC-03	DC-03-140319	03/19/2014	N	SXC0107	195	-	-	2	U	-	189	J	FDP	-	-	-	0.1	U	-	0.938	J-	MSD
DC-03	YVD-D3-140319	03/19/2014	FD	SXC0107	164	-	-	2	U	-	150	J	FDP	-	-	-	0.1	U	-	0.718	J-	MSD
DC-03	DC-03-140604	06/04/2014	N	SXF0025	234	-	-	4	U	-	214	-	-	-	-	-	0.1	U	-	0.25	UJ	MSD
DC-03	DC-03-140924	09/24/2014	N	SXI0173	170	-	-	2	U	-	166	-	-	-	-	-	0.1	U	-	2.27	J+	MSD
DC-03	DC-03-141217	12/17/2014	N	SXL0144	193	-	-	4	U	-	182	-	-	-	-	-	0.18	J+	FBK, MBK	0.25	R	MSD
DC-03	YVD-D4-141217	12/17/2014	FD	SXL0144	156	-	-	10	U	-	211	-	-	-	-	-	0.1	U	-	0.25	R	MSD
DC-03	DC-03-150318	03/18/2015	N	5904651	180	-	-	2	U	-	160	-	-	-	-	-	0.1	U	-	0.45	J-	MSD
DC-03	YVD-D4-150318	03/18/2015	FD	5904651	180	-	-	1	U	-	160	-	-	-	-	-	0.12	-	-	0.53	J-	MSD
DC-03	DC-03-150617	06/17/2015	N	59011021	180	J-	MSD, FD	2	U	-	170	-	-	-	-	-	0.1	U	-	0.25	R	MSD
DC-03	YVD-D4-150617	06/17/2015	FD	59011021	10	J-	MSD, FD	2	U	-	180	-	-	-	-	-	0.1	U	-	0.25	R	MSD
DC-03	DC-03-150925	09/25/2015	N	59020431	180	-	-	4	U	-	150	-	-	-	-	-	0.1	-	-	0.25	U	-
DC-03	YVD-D4-150925	09/25/2015	FD	59020431	180	-	-	4	U	-	160	-	-	-	-	-	0.2	-	-	0.25	U	-
DC-03	DC-03-151216	12/16/2015	N	59025501	200	-	-	2	U	-	130	-	-	-	-	-	0.18	J-	MSD	0.25	R	MSD
DC-03	YVD-D4-151216	12/16/2015	FD	59025501	170	-	-	1	U	-	130	-	-	-	-	-	0.1	R	MSD	0.25	R	MSD

Table 8
Historical Groundwater Analytical Results

Analyte					Phosphorus			Phosphorus			Phosphorus			Phosphorus			Alkalinity, Bicarbonate (as CaCO3)			Alkalinity, Total (as CaCO3)			
Analytical Method					EPA 365.1			EPA 365.3			EPA 365.4			SM4500 P-E			SM2320B			SM2320B			
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	
DC-01	DC-01-130104	01/04/2013	N	EPA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
DC-01	DC-01-130924	09/24/2013	N	SWI0178	-	-	-	-	-	-	0.123	-	-	-	-	-	110	-	-	110	-	-	
DC-01	DC-01-131211	12/11/2013	N	SWL0063	-	-	-	-	-	-	-	-	-	0.186	-	-	159	-	-	160	-	-	
DC-01	DC-01-140318	03/18/2014	N	SXC0095	0.079	-	-	-	-	-	-	-	-	-	-	-	159	-	-	160	-	-	
DC-01	DC-01-140602	06/02/2014	N	SXF0017	0.81	-	-	-	-	-	-	-	-	-	-	-	164	-	-	165	-	-	
DC-01	DC-01-140923	09/23/2014	N	SXI0158	0.12	-	-	-	-	-	-	-	-	-	-	-	154	-	-	155	-	-	
DC-01	DC-01-141216	12/16/2014	N	SXL0121	0.1	U	-	-	-	-	-	-	-	-	-	-	140	-	-	140	-	-	
DC-01	DC-01-150316	03/16/2015	N	5904471	0.25	UJ	MSD	-	-	-	-	-	-	-	-	-	150	-	-	150	-	-	
DC-01	DC-01-150616	06/16/2015	N	59010751	0.25	U	-	-	-	-	-	-	-	-	-	-	150	-	-	150	-	-	
DC-01	DC-01-150923	09/23/2015	N	59020281	0.25	U	-	-	-	-	-	-	-	-	-	-	150	-	-	150	-	-	
DC-01	YVD-D1-150923	09/23/2015	FD	59020281	0.25	U	-	-	-	-	-	-	-	-	-	-	160	-	-	160	-	-	
DC-01	DC-01-151214	12/14/2015	N	59025431	0.3	J	FDP	-	-	-	-	-	-	-	-	-	170	J	FDP	170	J	FDP	
DC-01	DC-01-160308	03/08/2016	N	59029711	0.26	-	-	-	-	-	-	-	-	-	-	-	150	-	-	150	-	-	
DC-01	DC-01-160620	6/20/2016	N	59037101	0.25	U	-	-	-	-	-	-	-	-	-	-	150	-	-	150	-	-	
DC-01	DC-01-160928	9/28/2016	N	K1611629	-	-	-	0.009	J	-	-	-	-	-	-	-	147	-	-	147	-	-	
DC-01	DC-01-161212	12/12/2016	N	K1615045	-	-	-	0.040	-	-	-	-	-	-	-	-	144	-	-	144	-	-	
DC-01	YVD-030817-18	3/8/2017	N	K1702324	-	-	-	0.008	J	-	-	-	-	-	-	-	148	-	-	148	-	-	
DC-01	YVD-060417-03	6/4/2017	N	K1705702	-	-	-	0.010	J	-	-	-	-	-	-	-	147	-	-	147	-	-	
DC-01	YVD-060417-05	6/4/2017	FD	K1705702	-	-	-	0.010	J	-	-	-	-	-	-	-	147	-	-	147	-	-	
DC-01	YVD-092517-13	9/25/2017	N	K1710333	-	-	-	0.010	U	-	-	-	-	-	-	-	148	-	-	148	-	-	
DC-01	YVD-120617-31	12/6/2017	N	K1713157	-	-	-	0.010	-	-	-	-	-	-	-	-	146	-	-	146	-	-	
DC-01	YVD-060418-19	6/4/2018	N	874662	-	-	-	-	-	-	-	-	-	0.07	U	-	141	-	-	141	-	-	
DC-03	DC-03-130102	01/02/2013	N	EPA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
DC-03	DC-03-130918	09/18/2013	N	SWI0138	-	-	-	-	-	-	0.1	U	-	-	-	-	435	-	-	435	-	-	
DC-03	DC-03-131212	12/12/2013	N	SWL0078	-	-	-	-	-	-	-	-	-	0.221	-	-	474	-	-	475	-	-	
DC-03	YVD-D3-131212	12/12/2013	FD	SWL0078	-	-	-	-	-	-	-	-	-	0.244	-	-	459	-	-	460	-	-	
DC-03	DC-03-140319	03/19/2014	N	SXC0107	0.057	-	-	-	-	-	-	-	-	-	-	-	459	-	-	460	-	-	
DC-03	YVD-D3-140319	03/19/2014	FD	SXC0107	0.062	-	-	-	-	-	-	-	-	-	-	-	469	-	-	470	-	-	
DC-03	DC-03-140604	06/04/2014	N	SXF0025	0.12	-	-	-	-	-	-	-	-	-	-	-	425	-	-	425	-	-	
DC-03	DC-03-140924	09/24/2014	N	SXI0173	0.073	J+	FBK	-	-	-	-	-	-	-	-	-	409	-	-	410	-	-	
DC-03	DC-03-141217	12/17/2014	N	SXL0144	0.1	UJ	MSD	-	-	-	-	-	-	-	-	-	429	-	-	430	-	-	
DC-03	YVD-D4-141217	12/17/2014	FD	SXL0144	0.13	J-	MSD	-	-	-	-	-	-	-	-	-	423	-	-	425	-	-	
DC-03	DC-03-150318	03/18/2015	N	5904651	0.25	U	-	-	-	-	-	-	-	-	-	-	420	-	-	420	-	-	
DC-03	YVD-D4-150318	03/18/2015	FD	5904651	0.25	U	-	-	-	-	-	-	-	-	-	-	410	-	-	410	-	-	
DC-03	DC-03-150617	06/17/2015	N	59011021	0.25	U	-	-	-	-	-	-	-	-	-	-	460	-	-	460	-	-	
DC-03	YVD-D4-150617	06/17/2015	FD	59011021	0.25	U	-	-	-	-	-	-	-	-	-	-	450	-	-	450	-	-	
DC-03	DC-03-150925	09/25/2015	N	59020431	0.25	U	-	-	-	-	-	-	-	-	-	-	390	-	-	390	-	-	
DC-03	YVD-D4-150925	09/25/2015	FD	59020431	0.25	U	-	-	-	-	-	-	-	-	-	-	460	-	-	460	-	-	
DC-03	DC-03-151216	12/16/2015	N	59025501	0.25	UJ	MSD	-	-	-	-	-	-	-	-	-	400	-	-	400	-	-	
DC-03	YVD-D4-151216	12/16/2015	FD	59025501	0.25	UJ	MSD	-	-	-	-	-	-	-	-	-	380	-	-	380	-	-	

Table 8
Historical Groundwater Analytical Results

Analyte					Calcium			Magnesium			Potassium			Sodium			Chloride			Fluoride		
Analytical Method					EPA 200.7			EPA 200.7			EPA 200.7			EPA 200.7			EPA 300			EPA 300.0		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
DC-03	DC-03-160310	03/10/2016	N	59029941	270	-	-	72.0	-	-	3.10	-	-	180	-	-	150	-	-	5	U	-
DC-03	YVD-D4-160310	03/10/2016	FD	59029941	270	-	-	72.0	-	-	3.00	-	-	180	-	-	160	-	-	5	U	-
DC-03	DC-03-160623	6/23/2016	N	59037371	270	-	-	73.0	-	-	3.50	-	-	190	-	-	150	-	-	5	U	-
DC-03	YVD-D4-160623	6/23/2016	FD	59037371	250	-	-	71.0	-	-	3.30	-	-	180	-	-	160	-	-	2.5	U	-
DC-03	DC-03-160927	9/27/2016	N	K1611565	265	-	-	72.4	-	-	2.85	-	-	182	-	-	136	-	-	0.2	J	-
DC-03	DC-03-D2-160927	9/27/2016	FD	K1611565	262	-	-	71.9	-	-	2.87	-	-	183	-	-	137	-	-	0.19	J	-
DC-03	DC-03-161212	12/12/2016	N	K1615029	254	-	-	65.7	-	-	3.05	-	-	167	-	-	131	-	-	0.24	-	-
DC-03	YVD-030817-13	3/8/2017	N	K1702324	267	-	-	66	-	-	2.58	-	-	159	-	-	150	-	-	0.22	-	-
DC-03	YVD-060517-02	6/5/2017	N	K1705702	271	-	-	61.6	-	-	2.49	-	-	157	-	-	152	-	-	0.24	-	-
DC-03	YVD-060517-04	6/5/2017	FD	K1705702	269	-	-	70.6	-	-	2.49	-	-	158	-	-	152	-	-	0.28	-	-
DC-03	YVD-092617-22	9/26/2017	N	K1710333	279	-	-	68.9	-	-	2.92	-	-	159	-	-	154	-	-	0.24	-	-
DC-03	YVD-120417-10	12/4/2017	N	K1713026	274	-	-	69.4	-	-	2.76	-	-	161	-	-	161	-	-	0.24	-	-
DC-03	YVD-031818-04	3/18/2018	N	870610	280	-	-	67.00	-	-	3.01	-	-	180	-	-	156	-	-	0.19	-	-
DC-03	YVD-060418-22	6/4/2018	N	874860	266	-	-	67.00	-	-	3.34	-	-	174	-	-	152	-	-	0.19	-	-
DC-03	YVD-090918-17	9/9/2018	N	880601	267	-	-	65.50	-	-	2.82	-	-	160	-	-	133	-	-	0.20	-	-
DC-03D	DC-03D-130918	09/18/2013	N	SWI0138	198	-	-	44.0	-	-	2.71	-	-	62.1	-	-	56	-	-	5	U	-
DC-03D	DC-03D-131212	12/12/2013	N	SWL0073	194	-	-	43.3	-	-	2.67	-	-	59.7	-	-	67.9	-	-	5	U	-
DC-03D	DC-03D-140319	03/19/2014	N	SXC0107	200	-	-	43.9	-	-	2.67	-	-	57.5	-	-	65.9	-	-	5	U	-
DC-03D	DC-03D-140603	06/03/2014	N	SXF0017	179	-	-	40.9	-	-	2.66	-	-	59.0	-	-	65.5	-	-	2	U	-
DC-03D	DC-03D-140923	09/23/2014	N	SXI0173	216	-	-	46.6	-	-	3.40	-	-	67.8	-	-	59.5	-	-	2.5	U	-
DC-03D	DC-03D-141217	12/17/2014	N	SXL0121	203	-	-	46.8	-	-	2.92	-	-	60.7	-	-	62.8	-	-	2.5	U	-
DC-03D	DC-03D-150317	03/17/2015	N	5904651	210	-	-	48.0	-	-	3.00	J-	MSD	68.0	-	-	63	-	-	2.5	U	-
DC-03D	DC-03D-150617	06/17/2015	N	59011021	210	-	-	48.0	J	RPD	3.20	J	RPD	68.0	J	RPD	71	-	-	2.5	U	-
DC-03D	DC-03D-150925	09/25/2015	N	59020431	200	-	-	47.0	-	-	3.00	-	-	65.0	-	-	58	-	-	10	U	-
DC-03D	DC-03D-151216	12/16/2015	N	59025501	210	-	-	50.0	-	-	3.20	-	-	69.0	-	-	70	-	-	2.5	U	-
DC-03D	DC-03D-160310	03/10/2016	N	59029941	200	-	-	47.0	-	-	3.00	-	-	68.0	-	-	65	-	-	2.5	U	-
DC-03D	DC-03D-160623	6/23/2016	N	59037371	200	-	-	47.0	-	-	3.00	-	-	70.0	-	-	65	-	-	5	U	-
DC-03D	DC-03D-160927	9/27/2016	N	K1611565	188	-	-	47.1	-	-	2.73	-	-	63.0	-	-	58.7	-	-	0.1	J	-
DC-03D	DC-03D-161212	12/12/2016	N	K1615029	200	-	-	44.8	-	-	2.98	-	-	65.0	-	-	57.8	-	-	0.12	J	-
DC-03D	YVD-030817-14	3/8/2017	N	K1702324	196	-	-	43.4	-	-	2.75	-	-	61.3	-	-	59.5	-	-	0.16	J	-
DC-03D	YVD-030817-16	3/8/2017	FD	K1702324	194	-	-	42.7	-	-	2.69	-	-	60.2	-	-	59.1	-	-	0.17	J	-
DC-03D	YVD-060517-09	6/5/2017	N	K1705702	203	-	-	41.3	-	-	2.66	-	-	59.7	-	-	58.7	-	-	0.13	J	-
DC-03D	YVD-092617-24	9/26/2017	N	K1710333	194	-	-	44.2	-	-	3.16	-	-	67.1	-	-	60.1	-	-	0.12	J	-
DC-03D	YVD-120417-08	12/4/2017	N	K1713026	195	-	-	41.5	-	-	2.64	-	-	60.9	-	-	57.9	-	-	0.17	J	-
DC-03D	YVD-031818-02	3/18/2018	N	870610	199	-	-	42.65	-	-	3.02	-	-	70.0	-	-	66.1	-	-	0.1	U	-
DC-03D	YVD-060418-24	6/4/2018	N	874860	187	-	-	42.85	-	-	3.24	-	-	67.0	-	-	64.7	-	-	0.10	-	-
DC-03D	YVD-090918-15	9/9/2018	N	880601	200	-	-	42.90	-	-	3.01	-	-	68.0	-	-	69.5	-	-	0.10	-	-
DC-04	DC-04-130103	01/03/2013	N	EPA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DC-04	DC-04-130920	09/20/2013	N	SWI0142	141	-	-	25.5	-	-	3.45	-	-	32.1	-	-	39.4	-	-	5	U	-

Table 8
Historical Groundwater Analytical Results

Analyte					Nitrate (as N)			Nitrite (as N)			Sulfate			Ammonia (as N)			Ammonia (as N)			Total Kjeldahl Nitrogen (TKN)			
Analytical Method					EPA 300.0			EPA 300.0			EPA 300.0			SM4500 NH3-G			EPA 350.1			EPA 351.2			
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	
DC-03	DC-03-160310	03/10/2016	N	59029941	180	-	-	2	U	-	170	J	DUP	-	-	-	0.1	U	-	0.94	J-	FDP, MSD	
DC-03	YVD-D4-160310	03/10/2016	FD	59029941	190	-	-	2	U	-	180	J	DUP	-	-	-	0.1	U	-	0.25	UJ	FDP, MSD	
DC-03	DC-03-160623	6/23/2016	N	59037371	180	-	-	2	U	-	160	-	-	-	-	-	0.12	J-	MSD	0.25	U	-	
DC-03	YVD-D4-160623	6/23/2016	FD	59037371	170	-	-	1	U	-	160	-	-	-	-	-	0.11	J-	MSD	0.25	U	-	
DC-03	DC-03-160927	9/27/2016	N	K1611565	163	-	-	0.10	U	-	139	-	-	-	-	-	0.050	U	MBK	0.5	R	MSD	
DC-03	DC-03-D2-160927	9/27/2016	FD	K1611565	163	-	-	0.10	U	-	138	-	-	-	-	-	0.050	U	MBK	0.5	R	MSD	
DC-03	DC-03-161212	12/12/2016	N	K1615029	168	J	HTQ	0.10	U	-	112	-	-	-	-	-	0.050	U	-	0.5	U	-	
DC-03	YVD-030817-13	3/8/2017	N	K1702324	179	-	-	0.12	-	-	104	-	-	-	-	-	1	U	-	0.5	U	-	
DC-03	YVD-060517-02	6/5/2017	N	K1705702	181	-	-	0.10	U	-	147	-	-	-	-	-	0.050	U	-	0.5	U	-	
DC-03	YVD-060517-04	6/5/2017	FD	K1705702	182	-	-	0.10	U	-	122	-	-	-	-	-	0.050	U	-	0.5	U	-	
DC-03	YVD-092617-22	9/26/2017	N	K1710333	192	-	-	0.10	U	-	115	-	-	-	-	-	0.050	U	-	0.5	U	-	
DC-03	YVD-120417-10	12/4/2017	N	K1713026	207	-	-	0.10	U	-	108	-	-	-	-	-	0.050	U	-	0.5	U	-	
DC-03	YVD-031818-04	3/18/2018	N	870610	192	-	-	0.05	U	-	111	-	-	0.07	U	-	-	-	-	0.5	U	-	
DC-03	YVD-060418-22	6/4/2018	N	874860	184	-	-	0.05	U	-	108	-	-	1.22	-	-	-	-	-	0.5	UJ	MSD	
DC-03	YVD-090918-17	9/9/2018	N	880601	157	-	-	0.05	U	-	136	-	-	0.07	U	-	-	-	-	0.5	R	MSD	
DC-03D	DC-03D-130918	09/18/2013	N	SWI0138	46.4	-	-	2	U	-	101	-	-	-	-	-	0.1	U	-	0.255	-	-	
DC-03D	DC-03D-131212	12/12/2013	N	SWL0073	38.9	-	-	2	U	-	99.1	-	-	-	-	-	0.02	UJ	MSD	0.2	UJ	MSD	
DC-03D	DC-03D-140319	03/19/2014	N	SXC0107	42.5	-	-	2	U	-	106	-	-	-	-	-	0.127	-	-	0.427	J-	MSD	
DC-03D	DC-03D-140603	06/03/2014	N	SXF0017	42	-	-	0.8	U	-	103	J-	MSD	-	-	-	0.1	U	-	0.468	-	-	
DC-03D	DC-03D-140923	09/23/2014	N	SXI0173	38	-	-	1	U	-	89.4	-	-	-	-	-	0.1	U	-	0.25	U	-	
DC-03D	DC-03D-141217	12/17/2014	N	SXL0121	38.6	-	-	1	U	-	92.2	-	-	-	-	-	0.1	U	-	0.282	J-	MSD	
DC-03D	DC-03D-150317	03/17/2015	N	5904651	37	-	-	1	U	-	87	-	-	-	-	-	0.1	U	-	0.25	UJ	MSD	
DC-03D	DC-03D-150617	06/17/2015	N	59011021	42	J-	MSD	1	U	-	93	-	-	-	-	-	0.1	U	-	0.25	R	MSD	
DC-03D	DC-03D-150925	09/25/2015	N	59020431	33	-	-	4	U	-	86	-	-	-	-	-	0.1	U	-	0.25	U	-	
DC-03D	DC-03D-151216	12/16/2015	N	59025501	36	-	-	1	U	-	94	-	-	-	-	-	0.1	R	MSD	0.25	R	MSD	
DC-03D	DC-03D-160310	03/10/2016	N	59029941	37	-	-	1	U	-	90	J	DUP	-	-	-	0.1	U	-	0.25	UJ	FDP, MSD	
DC-03D	DC-03D-160623	6/23/2016	N	59037371	36	-	-	2	U	-	89	-	-	-	-	-	0.11	J-	MSD	0.25	U	-	
DC-03D	DC-03D-160927	9/27/2016	N	K1611565	32.8	-	-	0.10	U	-	90.9	-	-	-	-	-	0.050	U	MBK	0.5	R	MSD	
DC-03D	DC-03D-161212	12/12/2016	N	K1615029	33.8	J	HTQ	0.10	U	-	90.7	-	-	-	-	-	0.050	U	-	0.5	U	-	
DC-03D	YVD-030817-14	3/8/2017	N	K1702324	32.9	-	-	0.05	J	-	80.8	-	-	-	-	-	1	U	-	0.5	U	-	
DC-03D	YVD-030817-16	3/8/2017	FD	K1702324	32.8	-	-	0.04	J	-	79.6	-	-	-	-	-	1	U	-	0.5	U	-	
DC-03D	YVD-060517-09	6/5/2017	N	K1705702	31.9	-	-	0.10	U	-	91.6	-	-	-	-	-	0.050	U	-	0.5	U	-	
DC-03D	YVD-092617-24	9/26/2017	N	K1710333	33.2	-	-	0.10	U	-	101	-	-	-	-	-	0.050	U	-	0.5	R	MSD	
DC-03D	YVD-120417-08	12/4/2017	N	K1713026	33.6	-	-	0.10	U	-	86.7	-	-	-	-	-	0.050	U	-	0.5	U	-	
DC-03D	YVD-031818-02	3/18/2018	N	870610	32.6	-	-	0.05	U	-	86.1	-	-	0.07	U	-	-	-	-	0.5	U	-	
DC-03D	YVD-060418-24	6/4/2018	N	874860	31.0	-	-	0.05	U	-	82.1	-	-	0.07	U	-	-	-	-	0.5	UJ	MSD	
DC-03D	YVD-090918-15	9/9/2018	N	880601	32.9	-	-	0.05	U	-	88.6	-	-	0.07	U	-	-	-	-	0.5	R	MSD	
DC-04	DC-04-130103	01/03/2013	N	EPA01	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
DC-04	DC-04-130920	09/20/2013	N	SWI0142	-	-	-	-	-	-	93.6	-	-	-	-	-	0.1	U	-	3.03	-	-	

Table 8
Historical Groundwater Analytical Results

Analyte					Phosphorus			Phosphorus			Phosphorus			Phosphorus			Alkalinity, Bicarbonate (as CaCO3)			Alkalinity, Total (as CaCO3)			
Analytical Method					EPA 365.1			EPA 365.3			EPA 365.4			SM4500 P-E			SM2320B			SM2320B			
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	
DC-03	DC-03-160310	03/10/2016	N	59029941	0.25	U	-	-	-	-	-	-	-	-	-	-	460	-	-	460	-	-	
DC-03	YVD-D4-160310	03/10/2016	FD	59029941	0.25	U	-	-	-	-	-	-	-	-	-	-	480	-	-	480	-	-	
DC-03	DC-03-160623	6/23/2016	N	59037371	0.25	U	-	-	-	-	-	-	-	-	-	-	420	-	-	420	-	-	
DC-03	YVD-D4-160623	6/23/2016	FD	59037371	0.25	U	-	-	-	-	-	-	-	-	-	-	410	-	-	410	-	-	
DC-03	DC-03-160927	9/27/2016	N	K1611565	-	-	-	0.006	J	-	-	-	-	-	-	-	425	-	-	425	-	-	
DC-03	DC-03-D2-160927	9/27/2016	FD	K1611565	-	-	-	0.010	U	-	-	-	-	-	-	-	427	-	-	427	-	-	
DC-03	DC-03-161212	12/12/2016	N	K1615029	-	-	-	0.199	-	-	-	-	-	-	-	-	371	-	-	371	-	-	
DC-03	YVD-030817-13	3/8/2017	N	K1702324	-	-	-	0.006	J	-	-	-	-	-	-	-	381	-	-	381	-	-	
DC-03	YVD-060517-02	6/5/2017	N	K1705702	-	-	-	0.022	-	-	-	-	-	-	-	-	358	-	-	358	-	-	
DC-03	YVD-060517-04	6/5/2017	FD	K1705702	-	-	-	0.019	-	-	-	-	-	-	-	-	360	-	-	360	-	-	
DC-03	YVD-092617-22	9/26/2017	N	K1710333	-	-	-	0.010	J	-	-	-	-	-	-	-	329	-	-	329	-	-	
DC-03	YVD-120417-10	12/4/2017	N	K1713026	-	-	-	0.017	U	MBK	-	-	-	-	-	-	333	-	-	333	-	-	
DC-03	YVD-031818-04	3/18/2018	N	870610	-	-	-	-	-	-	-	-	-	0.07	U	-	374	-	-	374	-	-	
DC-03	YVD-060418-22	6/4/2018	N	874860	-	-	-	-	-	-	-	-	-	0.07	U	-	358	-	-	358	-	-	
DC-03	YVD-090918-17	9/9/2018	N	880601	-	-	-	-	-	-	-	-	-	0.07	U	-	460	-	-	460	-	-	
DC-03D	DC-03D-130918	09/18/2013	N	SWI0138	-	-	-	-	-	-	0.1	U	-	-	-	-	509	-	-	510	-	-	
DC-03D	DC-03D-131212	12/12/2013	N	SWL0073	-	-	-	-	-	-	-	-	-	0.06	U	-	559	-	-	560	-	-	
DC-03D	DC-03D-140319	03/19/2014	N	SXC0107	0.05	U	-	-	-	-	-	-	-	-	-	-	564	-	-	565	-	-	
DC-03D	DC-03D-140603	06/03/2014	N	SXF0017	0.074	J+	FBK	-	-	-	-	-	-	-	-	-	542	-	-	543	-	-	
DC-03D	DC-03D-140923	09/23/2014	N	SXI0173	0.098	-	-	-	-	-	-	-	-	-	-	-	514	-	-	515	-	-	
DC-03D	DC-03D-141217	12/17/2014	N	SXL0121	0.1	U	-	-	-	-	-	-	-	-	-	-	514	-	-	515	-	-	
DC-03D	DC-03D-150317	03/17/2015	N	5904651	0.25	U	-	-	-	-	-	-	-	-	-	-	530	-	-	530	-	-	
DC-03D	DC-03D-150617	06/17/2015	N	59011021	0.25	U	-	-	-	-	-	-	-	-	-	-	530	-	-	530	-	-	
DC-03D	DC-03D-150925	09/25/2015	N	59020431	0.25	U	-	-	-	-	-	-	-	-	-	-	610	-	-	610	-	-	
DC-03D	DC-03D-151216	12/16/2015	N	59025501	0.25	UJ	MSD	-	-	-	-	-	-	-	-	-	590	-	-	590	-	-	
DC-03D	DC-03D-160310	03/10/2016	N	59029941	0.25	U	-	-	-	-	-	-	-	-	-	-	580	-	-	580	-	-	
DC-03D	DC-03D-160623	6/23/2016	N	59037371	0.25	U	-	-	-	-	-	-	-	-	-	-	530	-	-	530	-	-	
DC-03D	DC-03D-160927	9/27/2016	N	K1611565	-	-	-	0.006	J	-	-	-	-	-	-	-	546	-	-	546	-	-	
DC-03D	DC-03D-161212	12/12/2016	N	K1615029	-	-	-	0.085	-	-	-	-	-	-	-	-	544	-	-	544	-	-	
DC-03D	YVD-030817-14	3/8/2017	N	K1702324	-	-	-	0.008	J	-	-	-	-	-	-	-	537	-	-	537	-	-	
DC-03D	YVD-030817-16	3/8/2017	FD	K1702324	-	-	-	0.008	J	-	-	-	-	-	-	-	555	-	-	555	-	-	
DC-03D	YVD-060517-09	6/5/2017	N	K1705702	-	-	-	0.006	J	-	-	-	-	-	-	-	533	-	-	533	-	-	
DC-03D	YVD-092617-24	9/26/2017	N	K1710333	-	-	-	0.011	-	-	-	-	-	-	-	-	537	-	-	537	-	-	
DC-03D	YVD-120417-08	12/4/2017	N	K1713026	-	-	-	0.011	U	MBK	-	-	-	-	-	-	525	-	-	525	-	-	
DC-03D	YVD-031818-02	3/18/2018	N	870610	-	-	-	-	-	-	-	-	-	0.07	U	-	529	-	-	529	-	-	
DC-03D	YVD-060418-24	6/4/2018	N	874860	-	-	-	-	-	-	-	-	-	0.07	U	-	533	-	-	533	-	-	
DC-03D	YVD-090918-15	9/9/2018	N	880601	-	-	-	-	-	-	-	-	-	0.07	U	-	541	-	-	541	-	-	
DC-04	DC-04-130103	01/03/2013	N	EPA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
DC-04	DC-04-130920	09/20/2013	N	SWI0142	-	-	-	-	-	-	0.1	U	-	-	-	-	305	-	-	305	-	-	

Table 8
Historical Groundwater Analytical Results

Analyte					Calcium			Magnesium			Potassium			Sodium			Chloride			Fluoride		
Analytical Method					EPA 200.7			EPA 200.7			EPA 200.7			EPA 200.7			EPA 300			EPA 300.0		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
DC-04	DC-04-130924	09/24/2013	N	SWI0175	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DC-04	DC-04-131212	12/12/2013	N	SWL0073	148	-	-	28.4	-	-	3.51	-	-	31.7	-	-	41.1	-	-	5	U	-
DC-04	DC-04-140318	03/18/2014	N	SXC0107	153	-	-	28.0	-	-	3.58	-	-	30.4	-	-	42	-	-	5	U	-
DC-04	DC-04-140603	06/03/2014	N	SXF0017	134	-	-	28.9	-	-	3.65	-	-	32.3	-	-	36.2	-	-	2	U	-
DC-04	DC-04-140923	09/23/2014	N	SXI0173	174	-	-	34.2	-	-	4.51	-	-	35.5	-	-	39.7	-	-	2.5	U	-
DC-04	DC-04-141217	12/17/2014	N	SXL0121	182	-	-	35.7	-	-	4.34	-	-	34.9	-	-	42.7	-	-	2.5	U	-
DC-04	DC-04-150317	03/17/2015	N	5904651	180	-	-	34.0	-	-	3.90	J-	MSD	36.0	-	-	41	-	-	2.5	U	-
DC-04	DC-04-150617	06/17/2015	N	59010961	180	-	-	34.0	-	-	4.10	J+	MSD	36.0	J+	MSD	46	-	-	5	U	-
DC-04	DC-04-150924	09/24/2015	N	59020391	160	-	-	36.0	-	-	3.90	-	-	33.0	-	-	48	-	-	2.5	U	-
DC-04	YVD-D3-150924	09/24/2015	FD	59020391	170	-	-	37.0	-	-	4.10	-	-	35.0	-	-	53	-	-	2.5	U	-
DC-04	DC-04-151215	12/15/2015	N	59025431	180	-	-	36.0	-	-	4.20	-	-	36.0	-	-	46	-	-	2.5	U	-
DC-04	DC-04-160309	03/09/2016	N	59029711	190	-	-	36.0	-	-	4.00	-	-	36.0	-	-	53	-	-	2.5	U	-
DC-04	DC-04-160621	6/21/2016	N	59037271	200	-	-	40.0	-	-	4.40	-	-	39.0	-	-	50	-	-	2.5	U	-
DC-04	DC-04-160926	9/26/2016	N	K1611506	194	-	-	40.6	-	-	4.50	-	-	38.2	-	-	43.4	-	-	0.12	J	-
DC-04	DC-04-161216	12/12/2016	N	K1615174	214	-	-	39.7	-	-	4.11	-	-	36.9	-	-	44.7	-	-	0.15	J	-
DC-04	YVD-031017-31	3/10/2017	N	K1702448	219	-	-	36.3	-	-	3.75	-	-	32.4	-	-	43.1	-	-	0.16	J	-
DC-04	YVD-031017-33	3/10/2017	FD	K1702448	219	-	-	36.3	-	-	3.74	-	-	32.3	-	-	43.2	-	-	0.16	J	-
DC-04	YVD-060617-26	6/6/2017	N	K1705833	202	-	-	37.0	-	-	3.96	-	-	34.7	-	-	38.6	-	-	0.13	J	-
DC-04	YVD-092517-06	9/25/2017	N	K1710274	192	-	-	37	-	-	4.06	-	-	35.9	-	-	35.2	-	-	0.14	J	-
DC-04	YVD-120517-24	12/5/2017	N	K1713091	188	-	-	32.7	-	-	3.62	-	-	32.7	-	-	34.3	-	-	0.12	J	-
DC-04	YVD-031818-07	3/18/2018	N	870610	182	-	-	32.10	-	-	4.02	-	-	35.6	-	-	34.5	-	-	0.1	U	-
DC-04	YVD-060418-18	6/4/2018	N	874662	182	-	-	33.55	-	-	4.18	-	-	34.4	-	-	35.4	-	-	0.10	-	-
DC-04	YVD-090918-18	9/9/2018	N	880601	176	-	-	30.40	-	-	3.98	-	-	32.8	-	-	32.4	-	-	0.12	-	-
DC-05	DC-05-130104	01/04/2013	N	EPA01	-		-	-		-	-		-	-		-	-		-	-		-
DC-05	DC-05-130920	09/20/2013	N	SWI0142	129		-	48.5		-	2.88		-	64.2		-	36.7		-	5	U	-
DC-05	DC-05-130924	09/24/2013	N	SWI0175	-		-	-		-	-		-	-		-	-		-	-		-
DC-05	DC-05-131212	12/12/2013	N	SWL0073	130	-	-	50.2	-	-	3.92	-	-	64.2	-	-	35.9	-	-	5	U	-
DC-05	DC-05-140318	03/18/2014	N	SXC0107	133	-	-	49.7	-	-	2.90	-	-	59.4	-	-	33	-	-	5	U	-
DC-05	DC-05-140603	06/03/2014	N	SXF0017	118	-	-	46.7	-	-	3.25	-	-	61.3	-	-	31.6	-	-	2	U	-
DC-05	DC-05-140923	09/23/2014	N	SXI0173	140	-	-	53.5	-	-	3.86	-	-	71.0	-	-	35	-	-	2.5	U	-
DC-05	DC-05-141217	12/17/2014	N	SXL0121	147	-	-	58.9	-	-	3.41	-	-	59.0	-	-	34.4	-	-	2.5	U	-
DC-05	DC-05-150317	03/17/2015	N	5904541	150	-	-	58.0	-	-	3.00	-	-	61.0	-	-	36	-	-	2	-	-
DC-05	DC-05-150616	06/16/2015	N	59010961	140	-	-	57.0	-	-	3.00	J+	MSD	64.0	J+	MSD	35	-	-	2	U	-
DC-05	YVD-D2-150616	06/16/2015	FD	59010961	140	-	-	56.0	-	-	3.30	J+	MSD	64.0	J+	MSD	35	-	-	5	U	-
DC-05	DC-05-150923	09/23/2015	N	59020391	130	-	-	57.0	-	-	3.10	-	-	56.0	-	-	33	-	-	2	U	-
DC-05	DC-05-151215	12/15/2015	N	59025431	140	-	-	55.0	-	-	2.90	-	-	51.0	-	-	29	-	-	2	U	-
DC-05	DC-05-160309	03/09/2016	N	59029711	140	-	-	54.0	-	-	2.90	-	-	53.0	-	-	35	-	-	2	U	-
DC-05	DC-05-160621	6/21/2016	N	59037151	130	-	-	54.0	-	-	2.80	-	-	53.0	-	-	34	-	-	2	U	-
DC-05	DC-05-160926	9/26/2016	N	K1611506	119	-	-	49.7	-	-	2.89	-	-	54.9	-	-	26.5	-	-	0.15	J	-
DC-05	DC-05-D1-160926	9/26/2016	FD	K1611506	124	-	-	52.5	-	-	3.06	-	-	58.1	-	-	26.6	-	-	0.16	J	-

Table 8
Historical Groundwater Analytical Results

Analyte					Nitrate (as N)			Nitrite (as N)			Sulfate			Ammonia (as N)			Ammonia (as N)			Total Kjeldahl Nitrogen (TKN)		
Analytical Method					EPA 300.0			EPA 300.0			EPA 300.0			SM4500 NH3-G			EPA 350.1			EPA 351.2		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
DC-04	DC-04-130924	09/24/2013	N	SWI0175	31.7	-	-	2	U	-	-	-	-	-	-	-	-	-	-	-	-	-
DC-04	DC-04-131212	12/12/2013	N	SWL0073	36.7	-	-	2	U	-	110	-	-	-	-	-	0.02	UJ	MSD	0.2	UJ	MSD
DC-04	DC-04-140318	03/18/2014	N	SXC0107	37.3	-	-	2	U	-	107	-	-	-	-	-	0.1	U	-	0.707	J-	MSD
DC-04	DC-04-140603	06/03/2014	N	SXF0017	36.4	-	-	0.8	U	-	104	J-	MSD	-	-	-	0.1	U	-	0.645	-	-
DC-04	DC-04-140923	09/23/2014	N	SXI0173	37.8	-	-	1	U	-	108	-	-	-	-	-	0.1	U	-	0.524	J+	MSD
DC-04	DC-04-141217	12/17/2014	N	SXL0121	40.8	-	-	1	U	-	120	-	-	-	-	-	0.1	U	-	0.25	UJ	MSD
DC-04	DC-04-150317	03/17/2015	N	5904651	39	-	-	1	U	-	110	-	-	-	-	-	0.1	U	-	0.33	J-	MSD
DC-04	DC-04-150617	06/17/2015	N	59010961	42	-	-	2	U	-	110	-	-	-	-	-	0.1	U	-	0.25	UJ	MSD
DC-04	DC-04-150924	09/24/2015	N	59020391	48	J+	MSD	1	U	-	140	J-	MSD	-	-	-	0.1	UJ	MSD	0.25	J-	MSD
DC-04	YVD-D3-150924	09/24/2015	FD	59020391	53	J+	MSD	1	U	-	150	J-	MSD	-	-	-	0.1	UJ	MSD	0.25	UJ	MSD
DC-04	DC-04-151215	12/15/2015	N	59025431	48	-	-	1	U	-	130	-	-	-	-	-	0.1	R	MSD	0.25	R	MSD
DC-04	DC-04-160309	03/09/2016	N	59029711	53	-	-	1	U	-	150	J+	MSD	-	-	-	0.1	UJ	FDP	0.25	R	MSD
DC-04	DC-04-160621	6/21/2016	N	59037271	50	-	-	1	U	-	150	-	-	-	-	-	0.1	UJ	MSD	0.25	R	MSD
DC-04	DC-04-160926	9/26/2016	N	K1611506	44.1	-	-	0.10	U	-	142	-	-	-	-	-	0.050	U	MBK	0.5	R	MSD
DC-04	DC-04-161216	12/12/2016	N	K1615174	45.2	-	-	0.10	U	-	155	-	-	-	-	-	0.050	U	-	0.5	U	-
DC-04	YVD-031017-31	3/10/2017	N	K1702448	46.0	-	-	0.10	U	-	153	-	-	-	-	-	0.050	U	-	0.5	U	-
DC-04	YVD-031017-33	3/10/2017	FD	K1702448	45.7	-	-	0.10	U	-	152	-	-	-	-	-	0.050	U	-	0.5	U	-
DC-04	YVD-060617-26	6/6/2017	N	K1705833	38.4	-	-	0.10	U	-	129	-	-	-	-	-	0.050	U	-	0.5	U	-
DC-04	YVD-092517-06	9/25/2017	N	K1710274	33.7	-	-	0.10	U	-	140	-	-	-	-	-	0.050	U	-	0.5	U	-
DC-04	YVD-120517-24	12/5/2017	N	K1713091	33.8	J	HTQ	0.10	U	-	121	-	-	-	-	-	0.050	U	-	0.5	UJ	MSD
DC-04	YVD-031818-07	3/18/2018	N	870610	32.9	-	-	0.05	U	-	115	-	-	0.07	U	-	-	-	-	0.5	U	-
DC-04	YVD-060418-18	6/4/2018	N	874662	33.0	-	-	0.05	U	-	119	-	-	0.07	U	FBK	-	-	-	0.5	UJ	MSD
DC-04	YVD-090918-18	9/9/2018	N	880601	30.4	-	-	0.05	U	-	109	-	-	0.07	U	-	-	-	-	0.5	R	MSD
DC-05	DC-05-130104	01/04/2013	N	EPA01	32		-	-		-	-		-	-	-	-	-		-	-	-	-
DC-05	DC-05-130920	09/20/2013	N	SWI0142	-		-	-		-	154		-	-	-	-	0.255		-	0.25	U	-
DC-05	DC-05-130924	09/24/2013	N	SWI0175	33.6		-	2	U	-	-		-	-	-	-	-		-	-	-	-
DC-05	DC-05-131212	12/12/2013	N	SWL0073	42.6	-	-	2	U	-	178	-	-	-	-	-	0.02	UJ	MSD	0.2	UJ	MSD
DC-05	DC-05-140318	03/18/2014	N	SXC0107	33.1	-	-	2	U	-	150	-	-	-	-	-	0.131	-	-	0.558	J-	MSD
DC-05	DC-05-140603	06/03/2014	N	SXF0017	32.6	-	-	0.8	U	-	128	J-	MSD	-	-	-	0.1	U	-	0.581	-	-
DC-05	DC-05-140923	09/23/2014	N	SXI0173	35.8	-	-	1	U	-	122	-	-	-	-	-	0.1	U	-	0.998	J+	MSD
DC-05	DC-05-141217	12/17/2014	N	SXL0121	33.4	-	-	1	U	-	141	-	-	-	-	-	0.1	U	-	0.25	UJ	MSD
DC-05	DC-05-150317	03/17/2015	N	5904541	38	J-	MSD	0.8	U	-	140	J-	MSD	-	-	-	0.1	U	-	0.27	J-	MSD
DC-05	DC-05-150616	06/16/2015	N	59010961	37	-	-	0.8	U	-	120	-	-	-	-	-	0.1	U	-	0.25	UJ	MSD
DC-05	YVD-D2-150616	06/16/2015	FD	59010961	41	-	-	2	U	-	110	-	-	-	-	-	0.1	U	-	0.25	UJ	MSD
DC-05	DC-05-150923	09/23/2015	N	59020391	38	J+	MSD	0.8	U	-	110	J-	MSD	-	-	-	0.1	UJ	MSD	0.25	UJ	MSD
DC-05	DC-05-151215	12/15/2015	N	59025431	38	-	-	0.8	U	-	120	-	-	-	-	-	0.1	R	MSD	0.25	R	MSD
DC-05	DC-05-160309	03/09/2016	N	59029711	43	-	-	0.8	U	-	140	J+	MSD	-	-	-	0.1	UJ	FDP	0.25	R	MSD
DC-05	DC-05-160621	6/21/2016	N	59037151	36	-	-	0.8	U	-	130	-	-	-	-	-	0.1	UJ	-	0.25	U	-
DC-05	DC-05-160926	9/26/2016	N	K1611506	32.1	-	-	0.10	U	-	114	-	-	-	-	-	0.050	U	-	0.5	R	MSD
DC-05	DC-05-D1-160926	9/26/2016	FD	K1611506	32.2	-	-	0.10	U	-	114	-	-	-	-	-	0.050	U	MBK	0.5	R	MSD

Table 8
Historical Groundwater Analytical Results

Analyte					Phosphorus			Phosphorus			Phosphorus			Phosphorus			Alkalinity, Bicarbonate (as CaCO3)			Alkalinity, Total (as CaCO3)			
Analytical Method					EPA 365.1			EPA 365.3			EPA 365.4			SM4500 P-E			SM2320B			SM2320B			
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	
DC-04	DC-04-130924	09/24/2013	N	SWI0175	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
DC-04	DC-04-131212	12/12/2013	N	SWL0073	-	-	-	-	-	-	-	-	-	0.104	-	-	315	-	-	315	-	-	
DC-04	DC-04-140318	03/18/2014	N	SXC0107	0.13	-	-	-	-	-	-	-	-	-	-	-	325	-	-	325	-	-	
DC-04	DC-04-140603	06/03/2014	N	SXF0017	0.24	J+	FBK	-	-	-	-	-	-	-	-	-	310	-	-	310	-	-	
DC-04	DC-04-140923	09/23/2014	N	SXI0173	0.29	-	-	-	-	-	-	-	-	-	-	-	317	-	-	320	-	-	
DC-04	DC-04-141217	12/17/2014	N	SXL0121	0.17	-	-	-	-	-	-	-	-	-	-	-	329	-	-	330	-	-	
DC-04	DC-04-150317	03/17/2015	N	5904651	0.25	U	-	-	-	-	-	-	-	-	-	-	340	-	-	340	-	-	
DC-04	DC-04-150617	06/17/2015	N	59010961	0.25	U	-	-	-	-	-	-	-	-	-	-	330	-	-	330	-	-	
DC-04	DC-04-150924	09/24/2015	N	59020391	0.25	U	-	-	-	-	-	-	-	-	-	-	400	-	-	400	-	-	
DC-04	YVD-D3-150924	09/24/2015	FD	59020391	0.25	U	-	-	-	-	-	-	-	-	-	-	380	-	-	380	-	-	
DC-04	DC-04-151215	12/15/2015	N	59025431	0.25	UJ	FDP	-	-	-	-	-	-	-	-	-	400	J	FDP	400	J	FDP	
DC-04	DC-04-160309	03/09/2016	N	59029711	0.25	U	-	-	-	-	-	-	-	-	-	-	390	-	-	390	-	-	
DC-04	DC-04-160621	6/21/2016	N	59037271	0.25	U	-	-	-	-	-	-	-	-	-	-	360	-	-	360	-	-	
DC-04	DC-04-160926	9/26/2016	N	K1611506	-	-	-	0.137	-	-	-	-	-	-	-	-	374	-	-	374	-	-	
DC-04	DC-04-161216	12/12/2016	N	K1615174	-	-	-	0.052	-	-	-	-	-	-	-	-	384	-	-	384	-	-	
DC-04	YVD-031017-31	3/10/2017	N	K1702448	-	-	-	0.035	J	FDP	-	-	-	-	-	-	375	-	-	375	-	-	
DC-04	YVD-031017-33	3/10/2017	FD	K1702448	-	-	-	0.053	J	FDP	-	-	-	-	-	-	383	-	-	383	-	-	
DC-04	YVD-060617-26	6/6/2017	N	K1705833	-	-	-	0.085	-	-	-	-	-	-	-	-	390	-	-	390	-	-	
DC-04	YVD-092517-06	9/25/2017	N	K1710274	-	-	-	0.044	-	-	-	-	-	-	-	-	391	-	-	391	-	-	
DC-04	YVD-120517-24	12/5/2017	N	K1713091	-	-	-	0.037	-	-	-	-	-	-	-	-	388	-	-	388	-	-	
DC-04	YVD-031818-07	3/18/2018	N	870610	-	-	-	-	-	-	-	-	-	0.07	U	-	377	-	-	377	-	-	
DC-04	YVD-060418-18	6/4/2018	N	874662	-	-	-	-	-	-	-	-	-	0.07	U	-	380	-	-	380	-	-	
DC-04	YVD-090918-18	9/9/2018	N	880601	-	-	-	-	-	-	-	-	-	0.07	U	-	371	-	-	371	-	-	
DC-05	DC-05-130104	01/04/2013	N	EPA01	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	
DC-05	DC-05-130920	09/20/2013	N	SWI0142	-	-	-	-	-	-	0.1	U	-	-	-	-	414		-	415		-	
DC-05	DC-05-130924	09/24/2013	N	SWI0175	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	
DC-05	DC-05-131212	12/12/2013	N	SWL0073	-	-	-	-	-	-	-	-	-	0.723	-	-	424	-	-	425	-	-	
DC-05	DC-05-140318	03/18/2014	N	SXC0107	0.06	-	-	-	-	-	-	-	-	-	-	-	404	-	-	405	-	-	
DC-05	DC-05-140603	06/03/2014	N	SXF0017	0.28	J+	FBK	-	-	-	-	-	-	-	-	-	412	-	-	413	-	-	
DC-05	DC-05-140923	09/23/2014	N	SXI0173	0.16	-	-	-	-	-	-	-	-	-	-	-	408	-	-	410	-	-	
DC-05	DC-05-141217	12/17/2014	N	SXL0121	0.13	-	-	-	-	-	-	-	-	-	-	-	414	-	-	415	-	-	
DC-05	DC-05-150317	03/17/2015	N	5904541	0.25	U	-	-	-	-	-	-	-	-	-	-	430	-	-	430	-	-	
DC-05	DC-05-150616	06/16/2015	N	59010961	0.25	U	-	-	-	-	-	-	-	-	-	-	410	-	-	410	-	-	
DC-05	YVD-D2-150616	06/16/2015	FD	59010961	0.25	U	-	-	-	-	-	-	-	-	-	-	410	-	-	410	-	-	
DC-05	DC-05-150923	09/23/2015	N	59020391	0.25	U	-	-	-	-	-	-	-	-	-	-	440	-	-	440	-	-	
DC-05	DC-05-151215	12/15/2015	N	59025431	0.25	UJ	FDP	-	-	-	-	-	-	-	-	-	440	J	FDP	440	J	FDP	
DC-05	DC-05-160309	03/09/2016	N	59029711	0.25	U	-	-	-	-	-	-	-	-	-	-	410	-	-	410	-	-	
DC-05	DC-05-160621	6/21/2016	N	59037151	0.25	U	-	-	-	-	-	-	-	-	-	-	390	-	-	390	-	-	
DC-05	DC-05-160926	9/26/2016	N	K1611506	-	-	-	0.031	-	-	-	-	-	-	-	-	346	-	-	346	-	-	
DC-05	DC-05-D1-160926	9/26/2016	FD	K1611506	-	-	-	0.028	-	-	-	-	-	-	-	-	364	-	-	364	-	-	

Table 8
Historical Groundwater Analytical Results

Analyte					Calcium			Magnesium			Potassium			Sodium			Chloride			Fluoride		
Analytical Method					EPA 200.7			EPA 200.7			EPA 200.7			EPA 200.7			EPA 300			EPA 300.0		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
DC-05	DC-05-161216	12/16/2016	N	K1615174	129	-	-	45.4	-	-	2.60	-	-	47.9	-	-	28.6	-	-	0.19	J	-
DC-05	YVD-D5-161216	12/16/2016	FD	K1615174	128	-	-	48.0	-	-	2.65	-	-	49.6	-	-	28.9	-	-	0.19	J	-
DC-05	YVD-030717-09	3/7/2017	N	K1702324	117	-	-	43.5	-	-	2.61	-	-	58.3	-	-	28.5	-	-	0.2	J	-
DC-05	YVD-060717-30	6/7/2017	N	K1705833	122	-	-	47.1	-	-	2.82	-	-	63.9	-	-	26.8	-	-	0.16	J	-
DC-05	YVD-060717-32	6/7/2017	FD	K1705833	122	-	-	45.8	-	-	2.77	-	-	62.6	-	-	26.3	-	-	0.16	J	-
DC-05	YVD-092517-04	9/25/2017	N	K1710274	126	-	-	49.7	-	-	2.99	-	-	62.0	-	-	28.1	-	-	0.19	J	-
DC-05	YVD-120517-16	12/5/2017	N	K1713091	119	-	-	42.5	-	-	2.52	-	-	59.1	-	-	31.9	-	-	0.18	J	-
DC-05	YVD-120517-18	12/5/2017	FD	K1713091	120	-	-	43.1	-	-	2.53	-	-	60.0	-	-	31.3	-	-	0.19	J	-
DC-05	YVD-031818-03	3/18/2018	N	870610	116	-	-	42.35	-	-	2.94	-	-	75.0	-	-	33.0	-	-	0.14	U	-
DC-05	YVD-031818-05	3/18/2018	FD	870610	116	-	-	42.85	-	-	2.94	-	-	75.0	-	-	33.1	-	-	0.14	-	-
DC-05	YVD-060318-02	6/3/2018	FD	874568	118	-	-	43.50	-	-	3.02	-	-	72.0	-	-	32.2	-	-	0.15	-	-
DC-05	YVD-090918-03	9/9/2018	N	880601	122	-	-	42.55	-	-	2.91	-	-	65.5	-	-	31.4	-	-	0.18	-	-
DC-05D	DC-05D-130920	09/20/2013	N	SWI0142	86.7	-	-	30.3	-	-	3.67	-	-	40.5	-	-	43.6	-	-	5	U	-
DC-05D	DC-05D-130924	09/24/2013	N	SWI0178	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DC-05D	DC-05D-131211	12/11/2013	N	SWL0073	81.8	-	-	28.8	-	-	3.52	-	-	37.5	-	-	32.3	-	-	5	U	-
DC-05D	DC-05D-140318	03/18/2014	N	SXC0095	86.2	-	-	29.4	-	-	3.73	-	-	36.7	-	-	33.4	-	-	5	U	-
DC-05D	DC-05D-140602	06/02/2014	N	SXF0017	67.4	-	-	24.6	-	-	4.99	-	-	34.3	-	-	30.6	-	-	2	U	-
DC-05D	DC-05D-140922	09/22/2014	N	SXI0148	83.3	-	-	30.2	-	-	3.56	-	-	37.8	-	-	30.9	-	-	2	U	-
DC-05D	DC-05D-141216	12/16/2014	N	SXL0121	78.9	-	-	29.5	-	-	5.18	-	-	36.8	-	-	35.9	-	-	5	U	-
DC-05D	DC-05D-150317	03/17/2015	N	5904541	78.0	-	-	29.0	-	-	4.60	-	-	39.0	-	-	31	-	-	2	U	-
DC-05D	DC-05D-150616	06/16/2015	N	59010961	79.0	-	-	30.0	-	-	4.70	J+	MSD	41.0	J+	MSD	34	-	-	2	U	-
DC-05D	DC-05D-150923	09/23/2015	N	59020391	74.0	-	-	31.0	-	-	4.40	-	-	38.0	-	-	31	-	-	2	U	-
DC-05D	YVD-D2-150923	09/23/2015	FD	59020391	73.0	-	-	30.0	-	-	4.40	-	-	38.0	-	-	33	-	-	0.5	U	-
DC-05D	DC-05D-151215	12/15/2015	N	59025431	78.0	-	-	29.0	-	-	4.40	-	-	39.0	-	-	30	-	-	2	U	-
DC-05D	DC-05D-160309	03/09/2016	N	59029711	81.0	-	-	30.0	-	-	4.30	-	-	41.0	-	-	33	-	-	2	U	-
DC-05D	DC-05D-160621	6/21/2016	N	59037271	78.0	-	-	30.0	-	-	4.10	-	-	41.0	-	-	32	-	-	2	U	-
DC-05D	DC-05D-160926	9/26/2016	N	K1611506	81.4	-	-	28.4	-	-	3.93	-	-	39.4	J	MSD	25.6	-	-	0.26	-	-
DC-05D	DC-05D-161214	12/14/2016	N	K1615126	78.1	-	-	27.5	-	-	3.90	-	-	38.2	-	-	25.7	-	-	0.28	-	-
DC-05D	YVD-030717-12	3/7/2017	N	K1702324	76.4	-	-	26.5	-	-	3.64	-	-	35.6	-	-	26.3	-	-	0.32	-	-
DC-05D	YVD-060717-34	6/7/2017	N	K1705833	79.1	-	-	27.3	-	-	3.78	-	-	37.4	-	-	23.9	-	-	0.29	-	-
DC-05D	YVD-092517-02	9/25/2017	N	K1710274	79.2	-	-	28.9	-	-	3.91	-	-	38.7	-	-	25.2	-	-	0.28	-	-
DC-05D	YVD-092517-03	9/25/2017	FD	K1710274	80.6	-	-	29.1	-	-	4.02	-	-	38.9	-	-	24.9	-	-	0.27	-	-
DC-05D	YVD-120517-20	12/5/2017	N	K1713091	81.2	-	-	27.1	-	-	3.69	-	-	37.6	-	-	26.6	-	-	0.28	-	-
DC-05D	YVD-031818-08	3/18/2018	N	870610	82.0	-	-	27.50	-	-	3.97	-	-	41.2	-	-	27.4	-	-	0.25	-	-
DC-05D	YVD-060318-03	6/3/2018	N	874568	78.5	-	-	27.95	-	-	4.12	-	-	39.6	-	-	27.4	-	-	0.35	-	-
DC-05D	YVD-060318-05	6/3/2018	FD	874568	78.5	-	-	28.00	-	-	4.14	-	-	39.6	-	-	27.4	-	-	0.26	-	-
DC-05D	YVD-090918-02	9/9/2018	N	880601	79.5	-	-	26.75	-	-	4.00	-	-	38.0	-	-	26.8	-	-	0.25	-	-
DC-07	DC-07-130103	01/03/2013	N	EPA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DC-07	DC-07-130918	09/18/2013	N	SWI0123	122	-	-	18.4	-	-	1.00	U	-	45.7	-	-	30.5	-	-	5	U	-

Table 8
Historical Groundwater Analytical Results

Analyte					Nitrate (as N)			Nitrite (as N)			Sulfate			Ammonia (as N)			Ammonia (as N)			Total Kjeldahl Nitrogen (TKN)			
Analytical Method					EPA 300.0			EPA 300.0			EPA 300.0			SM4500 NH3-G			EPA 350.1			EPA 351.2			
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	
DC-05	DC-05-161216	12/16/2016	N	K1615174	33.7	-	-	0.10	U	-	108	-	-	-	-	-	0.050	U	-	0.5	U	-	
DC-05	YVD-D5-161216	12/16/2016	FD	K1615174	33.3	-	-	0.10	U	-	107	-	-	-	-	-	0.050	U	-	0.5	U	-	
DC-05	YVD-030717-09	3/7/2017	N	K1702324	32.9	J	HTQ	0.10	U	-	97.6	-	-	-	-	-	1	U	-	0.5	U	-	
DC-05	YVD-060717-30	6/7/2017	N	K1705833	30.8	-	-	0.10	U	-	102	-	-	-	-	-	0.050	U	-	0.5	U	-	
DC-05	YVD-060717-32	6/7/2017	FD	K1705833	30.7	-	-	0.10	U	-	102	-	-	-	-	-	0.050	U	-	0.5	U	-	
DC-05	YVD-092517-04	9/25/2017	N	K1710274	30.7	-	-	0.10	U	-	107	-	-	-	-	-	0.050	U	-	0.5	U	-	
DC-05	YVD-120517-16	12/5/2017	N	K1713091	34.5	J	HTQ	0.10	U	-	88.8	-	-	-	-	-	0.050	U	-	0.5	UJ	MSD	
DC-05	YVD-120517-18	12/5/2017	FD	K1713091	33.9	J	HTQ	0.10	U	-	89.3	-	-	-	-	-	0.050	U	-	0.5	UJ	MSD	
DC-05	YVD-031818-03	3/18/2018	N	870610	33.6	-	-	0.05	U	-	97.4	-	-	0.10	-	-	-	-	-	0.5	U	-	
DC-05	YVD-031818-05	3/18/2018	FD	870610	33.8	-	-	0.05	U	-	96.7	-	-	0.07	U	-	-	-	-	0.5	U	-	
DC-05	YVD-060318-02	6/3/2018	FD	874568	34.4	-	-	0.05	U	-	88.3	-	-	0.07	U	-	-	-	-	0.5	U	-	
DC-05	YVD-090918-03	9/9/2018	N	880601	31.5	-	-	0.05	U	-	95.4	-	-	0.07	U	-	-	-	-	0.5	R	MSD	
DC-05D	DC-05D-130920	09/20/2013	N	SWI0142	-	-	-	-	-	-	167	-	-	-	-	-	0.1	U	-	0.361	-	-	
DC-05D	DC-05D-130924	09/24/2013	N	SWI0178	14.6	-	-	0.2	U	-	-	-	-	-	-	-	-	-	-	-	-	-	
DC-05D	DC-05D-131211	12/11/2013	N	SWL0073	16	-	-	2	U	-	145	-	-	-	-	-	0.02	UJ	MSD	0.2	UJ	MSD	
DC-05D	DC-05D-140318	03/18/2014	N	SXC0095	12.8	-	-	2	U	-	137	J-	MSD	-	-	-	0.182	-	-	0.25	U	-	
DC-05D	DC-05D-140602	06/02/2014	N	SXF0017	3.36	-	-	0.8	U	-	122	J-	MSD	-	-	-	0.163	-	-	0.591	-	-	
DC-05D	DC-05D-140922	09/22/2014	N	SXI0148	11.7	-	-	0.8	U	-	127	-	-	-	-	-	0.1	U	-	0.424	-	-	
DC-05D	DC-05D-141216	12/16/2014	N	SXL0121	7.9	-	-	0.2	U	-	140	-	-	-	-	-	0.1	U	-	0.25	UJ	MSD	
DC-05D	DC-05D-150317	03/17/2015	N	5904541	7.7	J-	MSD	0.8	U	-	120	J-	MSD	-	-	-	0.1	U	-	0.25	UJ	MSD	
DC-05D	DC-05D-150616	06/16/2015	N	59010961	8.6	-	-	0.8	U	-	120	-	-	-	-	-	0.1	U	-	0.25	UJ	MSD	
DC-05D	DC-05D-150923	09/23/2015	N	59020391	8.9	J+	MSD	0.8	U	-	120	J-	MSD	-	-	-	0.1	UJ	MSD	0.25	UJ	MSD	
DC-05D	YVD-D2-150923	09/23/2015	FD	59020391	10	J+	MSD	0.2	U	-	120	J-	MSD	-	-	-	0.16	J	MSD	0.25	UJ	MSD	
DC-05D	DC-05D-151215	12/15/2015	N	59025431	9.9	-	-	0.8	U	-	120	-	-	-	-	-	0.1	R	MSD	0.25	R	MSD	
DC-05D	DC-05D-160309	03/09/2016	N	59029711	13	-	-	0.8	U	-	140	J+	MSD	-	-	-	0.1	UJ	FDP	0.25	R	MSD	
DC-05D	DC-05D-160621	6/21/2016	N	59037271	12	-	-	0.8	U	-	130	-	-	-	-	-	0.13	J-	MSD	0.25	R	MSD	
DC-05D	DC-05D-160926	9/26/2016	N	K1611506	11.2	-	-	0.10	U	-	113	-	-	-	-	-	0.050	U	-	0.5	R	MSD	
DC-05D	DC-05D-161214	12/14/2016	N	K1615126	11.2	-	-	0.10	U	-	114	-	-	-	-	-	0.050	U	-	0.5	U	-	
DC-05D	YVD-030717-12	3/7/2017	N	K1702324	11.6	J	HTQ	0.10	U	-	105	-	-	-	-	-	1	U	-	0.5	U	-	
DC-05D	YVD-060717-34	6/7/2017	N	K1705833	10.8	-	-	0.10	U	-	101	-	-	-	-	-	0.050	U	-	0.5	U	-	
DC-05D	YVD-092517-02	9/25/2017	N	K1710274	11.1	-	-	0.10	U	-	118	-	-	-	-	-	0.050	U	-	0.5	U	-	
DC-05D	YVD-092517-03	9/25/2017	FD	K1710274	11	-	-	0.10	U	-	115	-	-	-	-	-	0.050	U	-	0.5	U	-	
DC-05D	YVD-120517-20	12/5/2017	N	K1713091	11.9	J	HTQ	0.10	U	-	112	-	-	-	-	-	0.050	U	-	0.5	UJ	MSD	
DC-05D	YVD-031818-08	3/18/2018	N	870610	12.6	-	-	0.05	U	-	108	-	-	0.07	U	-	-	-	-	0.5	U	-	
DC-05D	YVD-060318-03	6/3/2018	N	874568	12.5	-	-	0.05	U	-	105	-	-	0.08	U	FBK	-	-	-	0.5	U	-	
DC-05D	YVD-060318-05	6/3/2018	FD	874568	13.4	-	-	0.05	U	-	105	-	-	0.07	U	-	-	-	-	0.5	U	-	
DC-05D	YVD-090918-02	9/9/2018	N	880601	12.2	-	-	0.05	U	-	107	-	-	0.07	U	-	-	-	-	0.5	R	MSD	
DC-07	DC-07-130103	01/03/2013	N	EPA01	2.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
DC-07	DC-07-130918	09/18/2013	N	SWI0123	4.3	-	-	2	U	-	168	-	-	-	-	-	0.1	U	-	0.25	U	-	

Table 8
Historical Groundwater Analytical Results

Analyte					Phosphorus			Phosphorus			Phosphorus			Phosphorus			Alkalinity, Bicarbonate (as CaCO3)			Alkalinity, Total (as CaCO3)			
Analytical Method					EPA 365.1			EPA 365.3			EPA 365.4			SM4500 P-E			SM2320B			SM2320B			
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	
DC-05	DC-05-161216	12/16/2016	N	K1615174	-	-	-	0.048	-	-	-	-	-	-	-	-	348	-	-	348	-	-	
DC-05	YVD-D5-161216	12/16/2016	FD	K1615174	-	-	-	0.04	-	-	-	-	-	-	-	-	340	-	-	340	-	-	
DC-05	YVD-030717-09	3/7/2017	N	K1702324	-	-	-	0.026	-	-	-	-	-	-	-	-	367	-	-	367	-	-	
DC-05	YVD-060717-30	6/7/2017	N	K1705833	-	-	-	0.059	J	FDP	-	-	-	-	-	-	364	-	-	364	-	-	
DC-05	YVD-060717-32	6/7/2017	FD	K1705833	-	-	-	0.031	J	FDP	-	-	-	-	-	-	364	-	-	364	-	-	
DC-05	YVD-092517-04	9/25/2017	N	K1710274	-	-	-	0.039	-	-	-	-	-	-	-	-	368	-	-	368	-	-	
DC-05	YVD-120517-16	12/5/2017	N	K1713091	-	-	-	0.014	-	-	-	-	-	-	-	-	364	-	-	364	-	-	
DC-05	YVD-120517-18	12/5/2017	FD	K1713091	-	-	-	0.014	-	-	-	-	-	-	-	-	366	-	-	366	-	-	
DC-05	YVD-031818-03	3/18/2018	N	870610	-	-	-	-	-	-	-	-	-	0.07	U	-	364	-	-	364	-	-	
DC-05	YVD-031818-05	3/18/2018	FD	870610	-	-	-	-	-	-	-	-	-	0.07	U	-	356	-	-	356	-	-	
DC-05	YVD-060318-02	6/3/2018	FD	874568	-	-	-	-	-	-	-	-	-	0.07	U	-	368	-	-	368	-	-	
DC-05	YVD-090918-03	9/9/2018	N	880601	-	-	-	-	-	-	-	-	-	0.07	U	-	378	-	-	378	-	-	
DC-05D	DC-05D-130920	09/20/2013	N	SWI0142	-	-	-	-	-	-	0.163	-	-	-	-	-	214	-	-	215	-	-	
DC-05D	DC-05D-130924	09/24/2013	N	SWI0178	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
DC-05D	DC-05D-131211	12/11/2013	N	SWL0073	-	-	-	-	-	-	-	-	-	0.06	U	-	209	-	-	210	-	-	
DC-05D	DC-05D-140318	03/18/2014	N	SXC0095	0.072	-	-	-	-	-	-	-	-	-	-	-	209	-	-	210	-	-	
DC-05D	DC-05D-140602	06/02/2014	N	SXF0017	0.56	J+	FBK	-	-	-	-	-	-	-	-	-	214	-	-	215	-	-	
DC-05D	DC-05D-140922	09/22/2014	N	SXI0148	0.057	-	-	-	-	-	-	-	-	-	-	-	203	-	-	205	-	-	
DC-05D	DC-05D-141216	12/16/2014	N	SXL0121	0.39	-	-	-	-	-	-	-	-	-	-	-	199	-	-	200	-	-	
DC-05D	DC-05D-150317	03/17/2015	N	5904541	0.3	-	-	-	-	-	-	-	-	-	-	-	210	-	-	210	-	-	
DC-05D	DC-05D-150616	06/16/2015	N	59010961	0.27	-	-	-	-	-	-	-	-	-	-	-	210	-	-	210	-	-	
DC-05D	DC-05D-150923	09/23/2015	N	59020391	0.25	U	-	-	-	-	-	-	-	-	-	-	200	-	-	200	-	-	
DC-05D	YVD-D2-150923	09/23/2015	FD	59020391	0.25	U	-	-	-	-	-	-	-	-	-	-	220	-	-	220	-	-	
DC-05D	DC-05D-151215	12/15/2015	N	59025431	0.25	UJ	FDP	-	-	-	-	-	-	-	-	-	230	J	FDP	230	J	FDP	
DC-05D	DC-05D-160309	03/09/2016	N	59029711	0.25	U	-	-	-	-	-	-	-	-	-	-	220	-	-	220	-	-	
DC-05D	DC-05D-160621	6/21/2016	N	59037271	0.25	U	-	-	-	-	-	-	-	-	-	-	210	-	-	210	-	-	
DC-05D	DC-05D-160926	9/26/2016	N	K1611506	-	-	-	0.014	-	-	-	-	-	-	-	-	209	-	-	209	-	-	
DC-05D	DC-05D-161214	12/14/2016	N	K1615126	-	-	-	0.015	-	-	-	-	-	-	-	-	202	-	-	202	-	-	
DC-05D	YVD-030717-12	3/7/2017	N	K1702324	-	-	-	0.041	-	-	-	-	-	-	-	-	206	-	-	206	-	-	
DC-05D	YVD-060717-34	6/7/2017	N	K1705833	-	-	-	0.012	-	-	-	-	-	-	-	-	201	-	-	201	-	-	
DC-05D	YVD-092517-02	9/25/2017	N	K1710274	-	-	-	0.024	J	FDP	-	-	-	-	-	-	207	-	-	207	-	-	
DC-05D	YVD-092517-03	9/25/2017	FD	K1710274	-	-	-	0.008	J	FDP	-	-	-	-	-	-	207	-	-	207	-	-	
DC-05D	YVD-120517-20	12/5/2017	N	K1713091	-	-	-	0.013	-	-	-	-	-	-	-	-	202	-	-	202	-	-	
DC-05D	YVD-031818-08	3/18/2018	N	870610	-	-	-	-	-	-	-	-	-	0.07	U	-	198	-	-	198	-	-	
DC-05D	YVD-060318-03	6/3/2018	N	874568	-	-	-	-	-	-	-	-	-	0.07	U	-	203	-	-	203	-	-	
DC-05D	YVD-060318-05	6/3/2018	FD	874568	-	-	-	-	-	-	-	-	-	0.07	U	-	202	-	-	202	-	-	
DC-05D	YVD-090918-02	9/9/2018	N	880601	-	-	-	-	-	-	-	-	-	0.07	U	-	204	-	-	204	-	-	
DC-07	DC-07-130103	01/03/2013	N	EPA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
DC-07	DC-07-130918	09/18/2013	N	SWI0123	-	-	-	-	-	-	0.1	U	-	-	-	-	315	-	-	315	-	-	

Table 8
Historical Groundwater Analytical Results

Analyte					Calcium			Magnesium			Potassium			Sodium			Chloride			Fluoride		
Analytical Method					EPA 200.7			EPA 200.7			EPA 200.7			EPA 200.7			EPA 300			EPA 300.0		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
DC-07	YVD-D1-130918	09/18/2013	FD	SWI0123	122	-	-	18.5	-	-	1.00	U	-	46.1	-	-	32.8	-	-	5	U	-
DC-07	DC-07-131210	12/10/2013	N	SWL0055	27.5	-	-	11.5	-	-	3.82	-	-	38.4	-	-	31	-	-	5	U	-
DC-07	DC-07-140316	03/16/2014	N	SXC0081	88.4	-	-	15.4	-	-	1.04	-	-	33.5	-	-	26.5	-	-	2	U	-
DC-07	DC-07-140602	06/02/2014	N	SXF0008	93.7	-	-	16.5	-	-	1.00	U	-	36.3	-	-	28.2	-	-	2	U	-
DC-07	DC-07-140922	09/22/2014	N	SXI0148	87.1	-	-	16.1	-	-	1.00	U	-	33.7	-	-	29.8	-	-	2	U	-
DC-07	DC-07-141216	12/16/2014	N	SXL0108	83.6	-	-	15.1	-	-	1.00	U	-	30.6	-	-	24.2	-	-	2	U	-
DC-07	YVD-D2-141216	12/16/2014	FD	SXL0108	84.2	-	-	15.1	-	-	1.00	U	-	30.8	-	-	25.6	-	-	0.5	U	-
DC-07	DC-07-150317	03/17/2015	N	5904541	94.0	-	-	17.0	-	-	1.00	-	-	35.0	-	-	29	-	-	2	U	-
DC-07	DC-07-150617	06/17/2015	N	59011021	97.0	-	-	17.0	J	RPD	1.00	U	-	37.0	J	RPD	32	-	-	2	U	-
DC-07	DC-07-150924	09/24/2015	N	59020391	76.0	-	-	15.0	-	-	1.00	U	-	33.0	-	-	30	-	-	2	U	-
DC-07	DC-07-151215	12/15/2015	N	59025501	87.0	-	-	16.0	-	-	1.00	U	-	34.0	-	-	29	-	-	2	U	-
DC-07	DC-07-160309	03/09/2016	N	59029941	91.0	-	-	17.0	-	-	1.10	-	-	36.0	-	-	31	-	-	2	U	-
DC-07	DC-07-160621	6/21/2016	N	59037271	96.0	-	-	18.0	-	-	1.20	-	-	38.0	-	-	33	-	-	2	U	-
DC-07	DC-07-160926	9/26/2016	N	K1611565	82.3	-	-	15.0	-	-	1.06	-	-	36.6	-	-	24.4	-	-	0.2	U	-
DC-07	DC-07-161214	12/14/2016	N	K1615083	77.0	-	-	13.1	-	-	1.05	-	-	32.0	-	-	19.2	-	-	0.2	U	-
DC-07	YVD-030917-25	3/9/2017	N	K1702448	87.9	-	-	14.4	-	-	1.03	-	-	32.1	-	-	21.4	-	-	0.2	U	-
DC-07	YVD-060617-18	6/6/2017	N	K1705754	82.8	-	-	14.3	-	-	1.10	-	-	34.6	-	-	24.5	-	-	0.11	J	-
DC-07	YVD-092517-12	9/25/2017	N	K1710333	86.1	-	-	13.9	-	-	1.14	-	-	34.5	-	-	25.4	-	-	0.09	J	-
DC-07	YVD-120417-14	12/4/2017	N	K1713026	80.9	-	-	13.3	-	-	1.17	-	-	33.0	-	-	25.7	-	-	0.18	J	-
DC-07	YVD-060318-17	6/3/2018	N	874568	90.5	-	-	15.85	-	-	1.52	-	-	37.8	-	-	28.5	-	-	0.10	U	-
DC-09	DC-09-130103	01/03/2013	N	EPA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DC-09	DC-09-130923	09/23/2013	N	SWI0178	34.0	-	-	8.4	-	-	2.75	-	-	39.7	-	-	-	-	-	-	-	-
DC-09	DC-09-130926	09/26/2013	N	SWI0190	-	-	-	-	-	-	-	-	-	-	-	-	16.2	-	-	0.5	U	-
DC-09	DC-09-131211	12/11/2013	N	SWL0063	34.8	-	-	7.9	-	-	2.48	-	-	39.1	-	-	17.4	-	-	0.5	U	-
DC-09	DC-09-140317	03/17/2014	N	SXC0095	35.4	-	-	8.4	-	-	2.88	-	-	36.5	-	-	15.6	-	-	0.82	-	-
DC-09	DC-09-140602	06/02/2014	N	SXF0008	33.9	-	-	8.3	-	-	2.92	-	-	38.1	-	-	15.9	-	-	0.5	U	-
DC-09	YVD-D3-140602	06/02/2014	FD	SXF0008	34.2	-	-	8.7	-	-	3.08	-	-	37.9	-	-	15.8	-	-	0.5	U	-
DC-09	DC-09-140923	09/23/2014	N	SXI0158	32.2	-	-	6.8	-	-	1.94	-	-	38.9	J+	MSD	15.8	-	-	0.5	U	-
DC-09	DC-09-141216	12/16/2014	N	SXL0108	35.3	-	-	8.0	-	-	2.48	-	-	39.1	-	-	16.3	-	-	0.5	U	-
DC-09	DC-09-150316	03/16/2015	N	5904541	36.0	-	-	8.0	-	-	2.60	-	-	43.0	-	-	17	-	-	0.6	-	-
DC-09	DC-09-150616	06/16/2015	N	59010751	34.0	J+	MSD	8.1	J+	MSD	2.30	J+	MSD	38.0	J+	MSD	16	-	-	0.5	U	-
DC-09	DC-09-150923	09/23/2015	N	59020281	33.0	-	-	8.1	-	-	2.50	-	-	40.0	-	-	16	-	-	0.5	U	-
DC-09	DC-09-151214	12/14/2015	N	59025431	34.0	-	-	8.2	-	-	2.70	-	-	40.0	-	-	16	-	-	0.5	U	-
DC-09	DC-09-160308	03/08/2016	N	59029711	35.0	-	-	8.8	-	-	3.30	-	-	39.0	-	-	16	-	-	0.5	U	-
DC-09	YVD-D2-160308	03/08/2016	FD	59029711	34.0	-	-	8.6	-	-	3.10	-	-	39.0	-	-	16	-	-	0.5	U	-
DC-09	DC-09-160621	6/21/2016	N	59037151	32.0	-	-	7.5	-	-	2.20	-	-	41.0	-	-	17	-	-	0.51	-	-
DC-09	DC-09-160929	9/29/2016	N	K1611704	30.6	-	-	6.25	-	-	2.00	-	-	39.3	-	-	14.8	-	-	0.38	-	-
DC-09	DC-09-D4-160929	9/29/2016	FD	K1611704	30.4	-	-	6.22	-	-	1.98	-	-	38.8	-	-	14.9	-	-	0.38	-	-
DC-09	DC-09-161215	12/15/2016	N	K1615126	33.0	-	-	6.65	-	-	1.99	-	-	38.9	-	-	15.0	-	-	0.41	-	-
DC-09	YVD-D4-161215	12/15/2016	FD	K1615126	32.8	-	-	6.62	-	-	1.98	-	-	37.8	-	-	15.0	-	-	0.42	-	-

Table 8
Historical Groundwater Analytical Results

Analyte					Nitrate (as N)			Nitrite (as N)			Sulfate			Ammonia (as N)			Ammonia (as N)			Total Kjeldahl Nitrogen (TKN)		
Analytical Method					EPA 300.0			EPA 300.0			EPA 300.0			SM4500 NH3-G			EPA 350.1			EPA 351.2		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
DC-07	YVD-D1-130918	09/18/2013	FD	SWI0123	4.3	-	-	2	U	-	179	-	-	-	-	-	0.1	U	-	0.25	U	-
DC-07	DC-07-131210	12/10/2013	N	SWL0055	4.7	-	-	2	U	-	117	-	-	-	-	-	0.02	UJ	MSD	0.4366	UJ	ERL, MSD
DC-07	DC-07-140316	03/16/2014	N	SXC0081	4.72	-	-	0.8	U	-	78.9	-	-	-	-	-	0.116	-	-	0.25	U	-
DC-07	DC-07-140602	06/02/2014	N	SXF0008	0.8	U	-	0.8	U	-	105	-	-	-	-	-	0.1	U	-	0.34	-	-
DC-07	DC-07-140922	09/22/2014	N	SXI0148	4.88	-	-	0.8	U	-	98.2	-	-	-	-	-	0.1	U	-	0.487	-	-
DC-07	DC-07-141216	12/16/2014	N	SXL0108	2.8	-	-	0.8	U	-	80.4	-	-	-	-	-	0.1	U	-	0.261	-	-
DC-07	YVD-D2-141216	12/16/2014	FD	SXL0108	2.92	-	-	0.2	U	-	82.1	-	-	-	-	-	0.1	U	-	0.305	-	-
DC-07	DC-07-150317	03/17/2015	N	5904541	4.6	J-	MSD	0.8	U	-	83	J-	MSD	-	-	-	0.1	U	-	0.25	UJ	MSD
DC-07	DC-07-150617	06/17/2015	N	59011021	4	J-	MSD	0.8	U	-	93	-	-	-	-	-	0.1	U	-	0.28	J-	MSD
DC-07	DC-07-150924	09/24/2015	N	59020391	2.7	J+	MSD	0.8	U	-	95	J-	MSD	-	-	-	0.1	UJ	MSD	0.25	UJ	MSD
DC-07	DC-07-151215	12/15/2015	N	59025501	2.5	-	-	0.8	U	-	70	-	-	-	-	-	0.1	R	MSD	0.25	R	MSD
DC-07	DC-07-160309	03/09/2016	N	59029941	2.2	-	-	0.8	U	-	78	J	DUP	-	-	-	0.1	U	-	0.25	R	FBK, FDP, MSD
DC-07	DC-07-160621	6/21/2016	N	59037271	4.8	-	-	0.8	U	-	96	-	-	-	-	-	0.1	J-	MSD	0.25	R	MSD
DC-07	DC-07-160926	9/26/2016	N	K1611565	2.74	-	-	0.10	U	-	92.3	-	-	-	-	-	0.050	U	-	0.5	R	MSD
DC-07	DC-07-161214	12/14/2016	N	K1615083	1.44	-	-	0.10	U	-	72.4	-	-	-	-	-	0.050	U	-	0.5	U	-
DC-07	YVD-030917-25	3/9/2017	N	K1702448	2.58	-	-	0.10	U	-	59.8	-	-	-	-	-	0.050	U	-	0.5	U	-
DC-07	YVD-060617-18	6/6/2017	N	K1705754	2.42	-	-	0.10	U	-	70.4	-	-	-	-	-	0.050	U	-	0.5	U	-
DC-07	YVD-092517-12	9/25/2017	N	K1710333	2.34	-	-	0.10	U	-	94.2	-	-	-	-	-	0.050	U	-	0.5	U	-
DC-07	YVD-120417-14	12/4/2017	N	K1713026	2.92	-	-	0.10	U	-	81.9	-	-	-	-	-	0.050	U	-	0.5	U	-
DC-07	YVD-060318-17	6/3/2018	N	874568	6.90	-	-	0.05	U	-	93.4	-	-	0.07	U	-	-	-	-	0.5	U	-
DC-09	DC-09-130103	01/03/2013	N	EPA01	6	-	-	-	-	-	-	-	-	-	-	-	0.1	U	-	-	-	-
DC-09	DC-09-130923	09/23/2013	N	SWI0178	-	-	-	-	-	-	-	-	-	-	-	-	0.1	U	-	0.447	-	-
DC-09	DC-09-130926	09/26/2013	N	SWI0190	6.02	-	-	0.2	U	-	30.7	-	-	-	-	-	-	-	-	-	-	-
DC-09	DC-09-131211	12/11/2013	N	SWL0063	6.78	-	-	0.2	U	-	34.4	J-	MSD	-	-	-	0.02	R	MSD	0.2	U	-
DC-09	DC-09-140317	03/17/2014	N	SXC0095	5.85	-	-	0.2	U	-	28.8	J-	MSD	-	-	-	0.1	U	-	0.251	-	-
DC-09	DC-09-140602	06/02/2014	N	SXF0008	6.18	-	-	0.2	U	-	29.4	-	-	-	-	-	0.106	-	-	0.279	-	-
DC-09	YVD-D3-140602	06/02/2014	FD	SXF0008	5.97	-	-	0.2	U	-	29.1	-	-	-	-	-	0.1	U	-	0.359	-	-
DC-09	DC-09-140923	09/23/2014	N	SXI0158	6.01	-	-	0.2	U	-	29.6	-	-	-	-	-	0.1	R	MSD	0.25	U	-
DC-09	DC-09-141216	12/16/2014	N	SXL0108	5.94	-	-	0.2	U	-	30.2	-	-	-	-	-	0.1	U	-	0.25	U	-
DC-09	DC-09-150316	03/16/2015	N	5904541	5.9	J-	MSD	0.2	U	-	29	J-	MSD	-	-	-	0.15	-	-	0.25	UJ	MSD
DC-09	DC-09-150616	06/16/2015	N	59010751	5.8	-	-	0.2	U	-	28	J-	MSD	-	-	-	0.1	U	-	0.25	UJ	MSD
DC-09	DC-09-150923	09/23/2015	N	59020281	5.8	-	-	0.2	U	-	30	-	-	-	-	-	0.1	U	-	0.25	R	MSD
DC-09	DC-09-151214	12/14/2015	N	59025431	5.9	-	-	0.2	U	-	31	-	-	-	-	-	0.1	R	MSD	0.25	R	MSD
DC-09	DC-09-160308	03/08/2016	N	59029711	5.7	-	-	0.2	U	-	31	J+	MSD	-	-	-	0.25	R	FBK, FDP	0.25	R	MSD
DC-09	YVD-D2-160308	03/08/2016	FD	59029711	5.7	-	-	0.2	U	-	31	J+	MSD	-	-	-	0.1	UJ	FDP	0.25	R	MSD
DC-09	DC-09-160621	6/21/2016	N	59037151	5.9	-	-	0.2	U	-	32	-	-	-	-	-	0.1	UJ	-	0.25	U	-
DC-09	DC-09-160929	9/29/2016	N	K1611704	5.53	-	-	0.10	U	-	29.8	-	-	-	-	-	0.050	U	MBK	0.5	U	-
DC-09	DC-09-D4-160929	9/29/2016	FD	K1611704	5.53	-	-	0.10	U	-	29.6	-	-	-	-	-	0.050	U	MBK	0.5	U	-
DC-09	DC-09-161215	12/15/2016	N	K1615126	5.62	-	-	0.10	U	-	30.6	-	-	-	-	-	0.050	U	-	0.5	U	-
DC-09	YVD-D4-161215	12/15/2016	FD	K1615126	5.61	-	-	0.10	U	-	30.6	-	-	-	-	-	0.050	U	-	0.5	U	-

Table 8
Historical Groundwater Analytical Results

Analyte					Phosphorus			Phosphorus			Phosphorus			Phosphorus			Alkalinity, Bicarbonate (as CaCO3)			Alkalinity, Total (as CaCO3)			
Analytical Method					EPA 365.1			EPA 365.3			EPA 365.4			SM4500 P-E			SM2320B			SM2320B			
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	
DC-07	YVD-D1-130918	09/18/2013	FD	SWI0123	-	-	-	-	-	-	0.1	U	-	-	-	-	295	-	-	295	-	-	
DC-07	DC-07-131210	12/10/2013	N	SWL0055	-	-	-	-	-	-	-	-	-	0.0648	-	-	260	-	-	260	-	-	
DC-07	DC-07-140316	03/16/2014	N	SXC0081	0.11	-	-	-	-	-	-	-	-	-	-	-	260	-	-	260	-	-	
DC-07	DC-07-140602	06/02/2014	N	SXF0008	0.12	-	-	-	-	-	-	-	-	-	-	-	245	-	-	245	-	-	
DC-07	DC-07-140922	09/22/2014	N	SXI0148	0.19	-	-	-	-	-	-	-	-	-	-	-	215	-	-	215	-	-	
DC-07	DC-07-141216	12/16/2014	N	SXL0108	0.1	U	-	-	-	-	-	-	-	-	-	-	210	-	-	210	-	-	
DC-07	YVD-D2-141216	12/16/2014	FD	SXL0108	0.1	U	-	-	-	-	-	-	-	-	-	-	210	-	-	210	-	-	
DC-07	DC-07-150317	03/17/2015	N	5904541	0.25	U	-	-	-	-	-	-	-	-	-	-	240	-	-	240	-	-	
DC-07	DC-07-150617	06/17/2015	N	59011021	0.25	U	-	-	-	-	-	-	-	-	-	-	230	-	-	230	-	-	
DC-07	DC-07-150924	09/24/2015	N	59020391	0.25	U	-	-	-	-	-	-	-	-	-	-	240	-	-	240	-	-	
DC-07	DC-07-151215	12/15/2015	N	59025501	0.41	J-	MSD	-	-	-	-	-	-	-	-	-	240	-	-	240	-	-	
DC-07	DC-07-160309	03/09/2016	N	59029941	0.25	U	-	-	-	-	-	-	-	-	-	-	280	-	-	280	-	-	
DC-07	DC-07-160621	6/21/2016	N	59037271	0.25	U	-	-	-	-	-	-	-	-	-	-	250	-	-	250	-	-	
DC-07	DC-07-160926	9/26/2016	N	K1611565	-	-	-	0.057	-	-	-	-	-	-	-	-	204	-	-	204	-	-	
DC-07	DC-07-161214	12/14/2016	N	K1615083	-	-	-	0.078	-	-	-	-	-	-	-	-	218	-	-	218	-	-	
DC-07	YVD-030917-25	3/9/2017	N	K1702448	-	-	-	0.093	-	-	-	-	-	-	-	-	255	-	-	255	-	-	
DC-07	YVD-060617-18	6/6/2017	N	K1705754	-	-	-	0.061	-	-	-	-	-	-	-	-	232	-	-	232	-	-	
DC-07	YVD-092517-12	9/25/2017	N	K1710333	-	-	-	0.058	-	-	-	-	-	-	-	-	235	-	-	235	-	-	
DC-07	YVD-120417-14	12/4/2017	N	K1713026	-	-	-	0.064	-	-	-	-	-	-	-	-	221	-	-	221	-	-	
DC-07	YVD-060318-17	6/3/2018	N	874568	-	-	-	-	-	-	-	-	-	0.07	U	-	202	-	-	202	-	-	
DC-09	DC-09-130103	01/03/2013	N	EPA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
DC-09	DC-09-130923	09/23/2013	N	SWI0178	-	-	-	-	-	-	0.1	U	-	-	-	-	44.7	-	-	45	-	-	
DC-09	DC-09-130926	09/26/2013	N	SWI0190	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
DC-09	DC-09-131211	12/11/2013	N	SWL0063	-	-	-	-	-	-	-	-	-	0.125	-	-	129	-	-	130	-	-	
DC-09	DC-09-140317	03/17/2014	N	SXC0095	0.18	-	-	-	-	-	-	-	-	-	-	-	144	-	-	145	-	-	
DC-09	DC-09-140602	06/02/2014	N	SXF0008	0.22	J	FDP	-	-	-	-	-	-	-	-	-	129	-	-	130	-	-	
DC-09	YVD-D3-140602	06/02/2014	FD	SXF0008	0.16	J	FDP	-	-	-	-	-	-	-	-	-	129	-	-	130	-	-	
DC-09	DC-09-140923	09/23/2014	N	SXI0158	0.05	U	-	-	-	-	-	-	-	-	-	-	124	-	-	125	-	-	
DC-09	DC-09-141216	12/16/2014	N	SXL0108	0.13	-	-	-	-	-	-	-	-	-	-	-	129	-	-	130	-	-	
DC-09	DC-09-150316	03/16/2015	N	5904541	0.25	U	-	-	-	-	-	-	-	-	-	-	130	-	-	130	-	-	
DC-09	DC-09-150616	06/16/2015	N	59010751	0.25	U	-	-	-	-	-	-	-	-	-	-	130	-	-	130	-	-	
DC-09	DC-09-150923	09/23/2015	N	59020281	0.25	U	-	-	-	-	-	-	-	-	-	-	140	-	-	140	-	-	
DC-09	DC-09-151214	12/14/2015	N	59025431	0.3	J	FDP	-	-	-	-	-	-	-	-	-	150	J	FDP	150	J	FDP	
DC-09	DC-09-160308	03/08/2016	N	59029711	0.25	U	-	-	-	-	-	-	-	-	-	-	130	-	-	130	-	-	
DC-09	YVD-D2-160308	03/08/2016	FD	59029711	0.25	U	-	-	-	-	-	-	-	-	-	-	130	-	-	130	-	-	
DC-09	DC-09-160621	6/21/2016	N	59037151	0.25	U	-	-	-	-	-	-	-	-	-	-	130	-	-	130	-	-	
DC-09	DC-09-160929	9/29/2016	N	K1611704	-	-	-	0.016	-	-	-	-	-	-	-	-	129	-	-	129	-	-	
DC-09	DC-09-D4-160929	9/29/2016	FD	K1611704	-	-	-	0.013	-	-	-	-	-	-	-	-	128	-	-	128	-	-	
DC-09	DC-09-161215	12/15/2016	N	K1615126	-	-	-	0.009	J	-	-	-	-	-	-	-	127	-	-	127	-	-	
DC-09	YVD-D4-161215	12/15/2016	FD	K1615126	-	-	-	0.007	J	-	-	-	-	-	-	-	127	-	-	127	-	-	

Table 8
Historical Groundwater Analytical Results

Analyte					Calcium			Magnesium			Potassium			Sodium			Chloride			Fluoride		
Analytical Method					EPA 200.7			EPA 200.7			EPA 200.7			EPA 200.7			EPA 300			EPA 300.0		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
DC-09	YVD-031317-36	3/13/2017	N	K1702489	33.8	-	-	6.75	-	-	2.00	-	-	38.8	-	-	14.6	-	-	0.44	-	-
DC-09	YVD-060717-27	6/7/2017	N	K1705833	33.3	-	-	6.88	-	-	1.97	-	-	39.3	-	-	14.7	-	-	0.40	-	-
DC-09	YVD-092617-23	9/26/2017	N	K1710333	32.9	-	-	6.71	-	-	1.98	-	-	38.5	-	-	14.7	-	-	0.40	-	-
DC-09	YVD-120417-09	12/4/2017	N	K1713026	33.0	-	-	6.50	-	-	1.86	-	-	37.3	-	-	15.1	-	-	0.43	-	-
DC-09	YVD-060418-25	6/4/2018	N	874860	33.4	-	-	7.30	-	-	2.08	-	-	40.2	-	-	14.1	-	-	0.39	-	-
DC-14	DC-14-130103	01/03/2013	N	EPA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DC-14	DC-14-130917	09/17/2013	N	SWI0113	121	-	-	32.3	-	-	5.85	-	-	94.9	-	-	80.2	-	-	0.5	U	-
DC-14	DC-14-131211	12/11/2013	N	SWL0063	91.2	-	-	23.9	-	-	4.71	-	-	94.0	-	-	64.4	-	-	5	U	-
DC-14	DC-14-140318	03/18/2014	N	SXC0095	107	-	-	28.4	-	-	5.25	-	-	87.0	-	-	71.8	-	-	5	U	-
DC-14	DC-14-140602	06/02/2014	N	SXF0017	95.9	-	-	26.3	-	-	5.37	-	-	83.2	-	-	56.1	-	-	1	U	-
DC-14	DC-14-140923	09/23/2014	N	SXI0158	106	-	-	27.6	-	-	4.95	-	-	88.6	J+	MSD	63.7	-	-	1	U	-
DC-14	DC-14-141216	12/16/2014	N	SXL0108	110	-	-	31.5	-	-	5.57	-	-	84.5	-	-	74.4	-	-	1	U	-
DC-14	DC-14-150316	03/16/2015	N	5904541	140	-	-	38.0	-	-	6.10	-	-	100	-	-	80	-	-	1	U	-
DC-14	DC-14-150616	06/16/2015	N	59010961	120	-	-	33.0	-	-	6.50	J+	MSD	85.0	J+	MSD	76	-	-	1	U	-
DC-14	DC-14-150924	09/24/2015	N	59020391	130	-	-	42.0	-	-	6.30	-	-	92.0	-	-	96	-	-	1	U	-
DC-14	DC-14-151214	12/14/2015	N	59025351	150	-	-	43.0	-	-	6.60	-	-	100	-	-	90	-	-	1	U	-
DC-14	YVD-D1-151214	12/14/2015	FD	59025351	150	-	-	43.0	-	-	6.60	-	-	100	-	-	85	-	-	0.5	U	-
DC-14	DC-14-160309	03/09/2016	N	59029711	130	-	-	38.0	-	-	6.60	-	-	95.0	-	-	82	-	-	1	U	-
DC-14	DC-14-160620	6/20/2016	N	59037151	120	-	-	36.0	-	-	6.00	-	-	92.0	-	-	75	-	-	1	U	-
DC-14	DC-14-160929	9/29/2016	N	K1611704	97.2	-	-	28.9	-	-	4.75	-	-	74.9	-	-	56.4	-	-	0.30	-	-
DC-14	DC-14-161216	12/16/2016	N	K1615174	93.3	-	-	22.3	-	-	4.37	-	-	68.8	-	-	53.9	-	-	0.36	-	-
DC-14	YVD-031317-38	3/14/2017	N	K1702542	91.0	-	-	24.4	-	-	4.57	-	-	68.4	-	-	49.6	-	-	0.34	-	-
DC-14	YVD-060617-19	6/6/2017	N	K1705754	97.7	-	-	24.4	-	-	4.40	-	-	65.2	-	-	49.2	-	-	0.34	-	-
DC-14	YVD-092517-11	9/25/2017	N	K1710274	98.2	-	-	24.5	-	-	4.63	-	-	64.3	-	-	43.3	-	-	0.34	-	-
DC-14	YVD-120617-27	12/6/2017	N	K1713157	100	-	-	23.5	-	-	4.49	-	-	60.5	-	-	46.4	-	-	0.35	-	-
DC-14	YVD-120617-29	12/6/2017	FD	K1713157	97.7	-	-	22.8	-	-	4.44	-	-	60.6	-	-	46.0	-	-	0.34	-	-
DC-14	YVD-031918-20	3/19/2018	N	870634	95.0	-	-	22.55	-	-	4.56	-	-	58.0	-	-	47.9	-	-	0.31	-	-
DC-14	YVD-060518-28	6/5/2018	N	874860	92.0	-	-	23.45	-	-	4.62	-	-	56.0	-	-	56.5	-	-	0.31	-	-
DC-14	YVD-060518-30	6/5/2018	FD	874860	97.5	-	-	24.55	-	-	4.78	-	-	57.5	-	-	-	R	PRS	-	R	PRS
DC-14	YVD-090918-08	9/9/2018	N	880601	104	-	-	25.00	-	-	4.80	-	-	54.0	-	-	63.5	-	-	0.29	-	-
DC-14 (FD)	YVD-090918-10	9/9/2018	FD	880601	105	-	-	25.05	-	-	4.78	-	-	53.5	-	-	70.8	-	-	0.29	-	-
YVD-02	YVD-02-130924	09/24/2013	N	SWI0178	20.4	-	-	5.9	-	-	3.50	-	-	8.6	-	-	3.85	-	-	0.5	U	-
YVD-02	YVD-02-140316	03/16/2014	N	SXC0081	90.8	-	-	71.7	-	-	12.60	-	-	88.6	-	-	3.93	-	-	1.02	-	-
YVD-02	YVD-02-140602	06/02/2014	N	SXF0008	62.7	-	-	48.7	-	-	8.53	-	-	23.0	-	-	2.75	-	-	0.5	U	-
YVD-02	YVD-02-140921	09/21/2014	N	SXI0148	29.6	-	-	13.7	J	FDP	4.53	-	-	11.6	J	FDP	2.64	-	-	0.5	U	-
YVD-02	YVD-D1-140921	09/21/2014	FD	SXI0148	35.8	-	-	18.2	J	FDP	5.05	-	-	15.7	J	FDP	2.2	-	-	0.5	U	-
YVD-02	YVD-02-141215	12/15/2014	N	SXL0103	35.7	-	-	17.4	-	-	5.35	-	-	16.1	-	-	2.9	J+	MSD	0.5	U	-
YVD-02	YVD-02-150615	06/15/2015	N	59010751	32.0	J+	MSD	16.0	J+	MSD	4.10	J+	MSD	12.0	J+	MSD	2.6	-	-	0.5	U	-
YVD-02	YVD-02-150923	09/23/2015	N	59020281	28.0	-	-	17.0	-	-	4.80	-	-	14.0	-	-	2.5	-	-	0.5	U	-

Table 8
Historical Groundwater Analytical Results

Analyte					Nitrate (as N)			Nitrite (as N)			Sulfate			Ammonia (as N)			Ammonia (as N)			Total Kjeldahl Nitrogen (TKN)		
Analytical Method					EPA 300.0			EPA 300.0			EPA 300.0			SM4500 NH3-G			EPA 350.1			EPA 351.2		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
DC-09	YVD-031317-36	3/13/2017	N	K1702489	5.54	-	-	0.10	U	-	28.2	-	-	-	-	-	0.050	U	-	0.5	U	-
DC-09	YVD-060717-27	6/7/2017	N	K1705833	5.55	-	-	0.10	U	-	30.3	-	-	-	-	-	0.050	U	-	0.5	U	-
DC-09	YVD-092617-23	9/26/2017	N	K1710333	5.47	-	-	0.10	U	-	32.5	-	-	-	-	-	0.050	U	-	0.5	U	-
DC-09	YVD-120417-09	12/4/2017	N	K1713026	5.80	-	-	0.10	U	-	30.6	-	-	-	-	-	0.050	U	-	0.5	U	-
DC-09	YVD-060418-25	6/4/2018	N	874860	5.29	-	-	0.05	U	-	29.2	-	-	0.07	U	-	-	-	-	0.5	UJ	MSD
DC-14	DC-14-130103	01/03/2013	N	EPA01	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DC-14	DC-14-130917	09/17/2013	N	SWI0113	12	-	-	0.2	U	-	34.2	-	-	-	-	-	0.115	-	-	0.31	-	-
DC-14	DC-14-131211	12/11/2013	N	SWL0063	5.8	-	-	2	U	-	33.9	J-	MSD	-	-	-	0.02	R	MSD	0.2	U	-
DC-14	DC-14-140318	03/18/2014	N	SXC0095	10.6	-	-	2	U	-	35.7	J-	MSD	-	-	-	0.1	U	-	0.25	U	-
DC-14	DC-14-140602	06/02/2014	N	SXF0017	6.46	-	-	0.4	U	-	24.2	J-	MSD	-	-	-	0.1	U	-	0.367	-	-
DC-14	DC-14-140923	09/23/2014	N	SXI0158	8.9	-	-	0.4	U	-	25.9	-	-	-	-	-	0.1	R	MSD	0.315	-	-
DC-14	DC-14-141216	12/16/2014	N	SXL0108	10.4	-	-	0.4	U	-	29.8	-	-	-	-	-	0.1	U	-	0.25	U	-
DC-14	DC-14-150316	03/16/2015	N	5904541	18	J-	MSD	0.4	U	-	38	J-	MSD	-	-	-	0.16	-	-	0.25	UJ	MSD
DC-14	DC-14-150616	06/16/2015	N	59010961	12	-	-	0.4	U	-	29	-	-	-	-	-	0.1	U	-	0.25	UJ	MSD
DC-14	DC-14-150924	09/24/2015	N	59020391	22	J+	MSD	0.4	U	-	42	J-	MSD	-	-	-	0.1	UJ	MSD	0.25	UJ	MSD
DC-14	DC-14-151214	12/14/2015	N	59025351	21	-	-	0.4	U	-	39	-	-	-	-	-	0.1	R	MSD	0.25	UJ	MSD
DC-14	YVD-D1-151214	12/14/2015	FD	59025351	22	-	-	0.2	U	-	41	-	-	-	-	-	0.1	R	MSD	0.25	UJ	MSD
DC-14	DC-14-160309	03/09/2016	N	59029711	16	-	-	0.4	U	-	39	J+	MSD	-	-	-	0.1	UJ	FDP	0.25	R	MSD
DC-14	DC-14-160620	6/20/2016	N	59037151	16	-	-	0.4	U	-	38	-	-	-	-	-	0.1	U	-	0.25	U	-
DC-14	DC-14-160929	9/29/2016	N	K1611704	7.19	-	-	0.10	U	-	23.1	-	-	-	-	-	0.050	U	MBK	0.5	U	-
DC-14	DC-14-161216	12/16/2016	N	K1615174	4.45	-	-	0.10	U	-	21.9	-	-	-	-	-	0.050	U	-	0.5	U	-
DC-14	YVD-031317-38	3/14/2017	N	K1702542	4.34	-	-	0.10	U	-	20.8	-	-	-	-	-	0.050	U	-	0.5	U	-
DC-14	YVD-060617-19	6/6/2017	N	K1705754	3.86	-	-	0.10	U	-	26.9	-	-	-	-	-	0.050	U	-	0.5	U	-
DC-14	YVD-092517-11	9/25/2017	N	K1710274	2.41	-	-	0.10	U	-	23.9	-	-	-	-	-	0.050	U	-	0.5	U	-
DC-14	YVD-120617-27	12/6/2017	N	K1713157	2.52	-	-	0.10	U	-	20.3	-	-	-	-	-	0.050	U	MBK	0.5	U	-
DC-14	YVD-120617-29	12/6/2017	FD	K1713157	2.52	-	-	0.10	U	-	20.0	-	-	-	-	-	0.050	U	-	0.5	U	-
DC-14	YVD-031918-20	3/19/2018	N	870634	2.86	-	-	0.05	U	-	17.8	-	-	0.07	U	-	-	-	-	0.5	U	-
DC-14	YVD-060518-28	6/5/2018	N	874860	4.0	-	-	0.05	U	-	16.1	-	-	0.07	U	-	-	-	-	0.5	UJ	MSD
DC-14	YVD-060518-30	6/5/2018	FD	874860	-	R	PRS	-	R	PRS	-	R	PRS	0.07	U	-	-	-	-	0.5	UJ	MBK
DC-14	YVD-090918-08	9/9/2018	N	880601	4.08	-	-	0.05	U	-	16.0	-	-	0.07	U	-	-	-	-	0.5	R	MSD
DC-14 (FD)	YVD-090918-10	9/9/2018	FD	880601	4.00	-	-	0.05	U	-	15.3	-	-	0.07	U	-	-	-	-	0.5	R	MSD
YVD-02	YVD-02-130924	09/24/2013	N	SWI0178	0.41	-	-	0.2	U	-	5.77	-	-	-	-	-	0.146	-	-	0.25	U	-
YVD-02	YVD-02-140316	03/16/2014	N	SXC0081	0.2	U	-	0.2	U	-	66.9	-	-	-	-	-	0.1	U	-	0.25	U	-
YVD-02	YVD-02-140602	06/02/2014	N	SXF0008	0.2	U	-	0.2	U	-	3.12	-	-	-	-	-	0.1	U	-	0.49	-	-
YVD-02	YVD-02-140921	09/21/2014	N	SXI0148	0.2	U	-	0.2	U	-	13.8	-	-	-	-	-	0.1	U	-	0.274	-	-
YVD-02	YVD-D1-140921	09/21/2014	FD	SXI0148	0.2	U	-	0.2	U	-	15.6	-	-	-	-	-	0.1	U	-	0.25	U	-
YVD-02	YVD-02-141215	12/15/2014	N	SXL0103	0.22	J	DUP	0.2	U	-	33.6	J+	MSD, DUP	-	-	-	0.1	U	-	0.358	-	-
YVD-02	YVD-02-150615	06/15/2015	N	59010751	0.23	-	-	0.2	U	-	3.2	J-	MSD	-	-	-	0.11	-	-	0.25	UJ	MSD
YVD-02	YVD-02-150923	09/23/2015	N	59020281	0.2	U	-	0.2	U	-	9.5	-	-	-	-	-	0.1	U	-	0.25	J-	MSD

Table 8
Historical Groundwater Analytical Results

Analyte					Phosphorus			Phosphorus			Phosphorus			Phosphorus			Alkalinity, Bicarbonate (as CaCO3)			Alkalinity, Total (as CaCO3)		
Analytical Method					EPA 365.1			EPA 365.3			EPA 365.4			SM4500 P-E			SM2320B			SM2320B		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
DC-09	YVD-031317-36	3/13/2017	N	K1702489	-	-	-	0.024	-	-	-	-	-	-	-	-	124	-	-	124	-	-
DC-09	YVD-060717-27	6/7/2017	N	K1705833	-	-	-	0.029	-	-	-	-	-	-	-	-	126	-	-	126	-	-
DC-09	YVD-092617-23	9/26/2017	N	K1710333	-	-	-	0.010	U	-	-	-	-	-	-	-	132	-	-	132	-	-
DC-09	YVD-120417-09	12/4/2017	N	K1713026	-	-	-	0.014	U	MBK	-	-	-	-	-	-	129	-	-	129	-	-
DC-09	YVD-060418-25	6/4/2018	N	874860	-	-	-	-	-	-	-	-	-	0.07	U	-	127	-	-	127	-	-
DC-14	DC-14-130103	01/03/2013	N	EPA01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DC-14	DC-14-130917	09/17/2013	N	SWI0113	-	-	-	-	-	-	0.199	-	-	-	-	-	454	-	-	455	-	-
DC-14	DC-14-131211	12/11/2013	N	SWL0063	-	-	-	-	-	-	-	-	-	0.167	-	-	434	-	-	435	-	-
DC-14	DC-14-140318	03/18/2014	N	SXC0095	0.26	-	-	-	-	-	-	-	-	-	-	-	494	-	-	495	-	-
DC-14	DC-14-140602	06/02/2014	N	SXF0017	0.42	J+	FBK	-	-	-	-	-	-	-	-	-	425	-	-	425	-	-
DC-14	DC-14-140923	09/23/2014	N	SXI0158	0.3	-	-	-	-	-	-	-	-	-	-	-	424	-	-	425	-	-
DC-14	DC-14-141216	12/16/2014	N	SXL0108	0.14	-	-	-	-	-	-	-	-	-	-	-	429	-	-	430	-	-
DC-14	DC-14-150316	03/16/2015	N	5904541	0.25	U	-	-	-	-	-	-	-	-	-	-	490	-	-	490	-	-
DC-14	DC-14-150616	06/16/2015	N	59010961	0.3	-	-	-	-	-	-	-	-	-	-	-	430	-	-	430	-	-
DC-14	DC-14-150924	09/24/2015	N	59020391	0.31	-	-	-	-	-	-	-	-	-	-	-	470	-	-	470	-	-
DC-14	DC-14-151214	12/14/2015	N	59025351	0.35	-	-	-	-	-	-	-	-	-	-	-	550	-	-	550	-	-
DC-14	YVD-D1-151214	12/14/2015	FD	59025351	0.38	-	-	-	-	-	-	-	-	-	-	-	540	-	-	540	-	-
DC-14	DC-14-160309	03/09/2016	N	59029711	0.33	-	-	-	-	-	-	-	-	-	-	-	490	-	-	490	-	-
DC-14	DC-14-160620	6/20/2016	N	59037151	0.25	U	-	-	-	-	-	-	-	-	-	-	460	-	-	460	-	-
DC-14	DC-14-160929	9/29/2016	N	K1611704	-	-	-	0.009	J	-	-	-	-	-	-	-	394	-	-	394	-	-
DC-14	DC-14-161216	12/16/2016	N	K1615174	-	-	-	0.014	-	-	-	-	-	-	-	-	361	-	-	361	-	-
DC-14	YVD-031317-38	3/14/2017	N	K1702542	-	-	-	0.074	-	-	-	-	-	-	-	-	359	-	-	359	-	-
DC-14	YVD-060617-19	6/6/2017	N	K1705754	-	-	-	0.010	J	-	-	-	-	-	-	-	386	-	-	386	-	-
DC-14	YVD-092517-11	9/25/2017	N	K1710274	-	-	-	0.005	J	-	-	-	-	-	-	-	382	-	-	382	-	-
DC-14	YVD-120617-27	12/6/2017	N	K1713157	-	-	-	0.020	-	-	-	-	-	-	-	-	378	-	-	378	-	-
DC-14	YVD-120617-29	12/6/2017	FD	K1713157	-	-	-	0.021	-	-	-	-	-	-	-	-	372	-	-	372	-	-
DC-14	YVD-031918-20	3/19/2018	N	870634	-	-	-	-	-	-	-	-	-	0.07	U	-	372	-	-	372	-	-
DC-14	YVD-060518-28	6/5/2018	N	874860	-	-	-	-	-	-	-	-	-	0.07	U	-	370	-	-	370	-	-
DC-14	YVD-060518-30	6/5/2018	FD	874860	-	-	-	-	-	-	-	-	-	0.07	U	-	-	R	PRS	-	R	PRS
DC-14	YVD-090918-08	9/9/2018	N	880601	-	-	-	-	-	-	-	-	-	0.07	U	-	368	-	-	368	-	-
DC-14 (FD)	YVD-090918-10	9/9/2018	FD	880601	-	-	-	-	-	-	-	-	-	0.07	U	-	363	-	-	363	-	-
YVD-02	YVD-02-130924	09/24/2013	N	SWI0178	-	-	-	-	-	-	0.124	-	-	-	-	-	54.9	-	-	55	-	-
YVD-02	YVD-02-140316	03/16/2014	N	SXC0081	0.54	-	-	-	-	-	-	-	-	-	-	-	199	-	-	200	-	-
YVD-02	YVD-02-140602	06/02/2014	N	SXF0008	3.8	-	-	-	-	-	-	-	-	-	-	-	82.2	-	-	82.5	-	-
YVD-02	YVD-02-140921	09/21/2014	N	SXI0148	1.2	J	FDP	-	-	-	-	-	-	-	-	-	89.4	-	-	90	-	-
YVD-02	YVD-D1-140921	09/21/2014	FD	SXI0148	0.86	J	FDP	-	-	-	-	-	-	-	-	-	89.4	-	-	90	-	-
YVD-02	YVD-02-141215	12/15/2014	N	SXL0103	0.61	-	-	-	-	-	-	-	-	-	-	-	94.7	-	-	95	-	-
YVD-02	YVD-02-150615	06/15/2015	N	59010751	1.1	-	-	-	-	-	-	-	-	-	-	-	75	J+	FBK	75	J+	FBK
YVD-02	YVD-02-150923	09/23/2015	N	59020281	1	J+	FBK	-	-	-	-	-	-	-	-	-	95	-	-	95	-	-

Table 8
Historical Groundwater Analytical Results

Analyte					Calcium			Magnesium			Potassium			Sodium			Chloride			Fluoride		
Analytical Method					EPA 200.7			EPA 200.7			EPA 200.7			EPA 200.7			EPA 300			EPA 300.0		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
YVD-02	YVD-02-151214	12/14/2015	N	59025351	38.0	-	-	23.0	-	-	6.30	-	-	25.0	-	-	2.6	-	-	0.5	U	-
YVD-02	YVD-02-160308	03/08/2016	N	59029521	32.0	-	-	20.0	-	-	5.80	-	-	22.0	-	-	3	-	-	0.57	-	-
YVD-02	YVD-02-160620	6/20/2016	N	59037101	25.0	-	-	10.0	-	-	4.20	-	-	9.7	-	-	2.9	-	-	0.5	U	-
YVD-02	YVD-02-160928	9/28/2016	N	K1611629	17.2	-	-	4.6	-	-	3.41	-	-	5.07	-	-	2.79	J	DUP	0.16	J	-
YVD-02	YVD-030817-15	3/8/2017	N	K1702324	30.2	-	-	7.2	-	-	3.51	-	-	7.06	-	-	3.85	-	-	0.21	-	-
YVD-02	YVD-060617-14	6/6/2017	N	K1705754	20.9	-	-	4.85	-	-	3.00	-	-	5.95	-	-	3.03	-	-	0.16	J	-
YVD-02	YVD-060617-16	6/6/2017	FD	K1705754	20.2	-	-	4.74	-	-	3.00	-	-	5.91	-	-	2.95	-	-	0.15	J	-
YVD-02	YVD-092617-20	9/26/2017	N	K1710333	17.7	-	-	4.64	-	-	3.06	-	-	5.2	-	-	2.63	-	-	0.15	J	-
YVD-02	YVD-120417-02	12/4/2017	N	K1713026	20.0	-	-	7.43	-	-	3.18	-	-	9.59	-	-	2.37	-	-	0.29	-	-
YVD-02	YVD-120417-04	12/4/2017	FD	K1713026	19.6	-	-	7.74	-	-	3.08	-	-	9.58	-	-	2.20	-	-	0.31	-	-
YVD-02	YVD-061218-32	6/12/2018	N	875438	-	R	NR	-	R	NR	-	R	NR	-	R	NR	-	R	NR	-	R	NR
YVD-03	YVD-03-130916	09/16/2013	N	SWI0113	57.5	-	-	24.3	-	-	9.00	-	-	43.0	-	-	14	-	-	0.74	-	-
YVD-03	YVD-03-131210	12/10/2013	N	SWL0063	48.7	-	-	20.4	-	-	6.67	-	-	40.2	-	-	14.3	-	-	1	U	-
YVD-03	YVD-03-140317	03/17/2014	N	SXC0081	51.2	-	-	18.2	-	-	4.10	-	-	37.6	-	-	13.3	-	-	1.03	-	-
YVD-03	YVD-03-140602	06/02/2014	N	SXF0008	46.4	-	-	16.8	-	-	3.93	-	-	36.8	-	-	10.7	-	-	0.5	U	-
YVD-03	YVD-03-140923	09/23/2014	N	SXI0158	52.2	-	-	19.5	-	-	4.66	J	FDP	40.7	J+	MSD	11.8	-	-	0.62	-	-
YVD-03	YVD-D3-140923	09/23/2014	FD	SXI0158	45.4	-	-	16.2	-	-	3.62	J	FDP	38.0	J+	MSD	12.1	-	-	0.65	-	-
YVD-03	YVD-03-141215	12/15/2014	N	SXL0108	51.7	-	-	19.3	-	-	4.47	-	-	39.1	-	-	12.9	-	-	0.54	-	-
YVD-03	YVD-03-150316	03/16/2015	N	5904541	46.0	-	-	17.0	-	-	3.90	-	-	39.0	-	-	13	-	-	0.84	-	-
YVD-03	YVD-03-150616	06/16/2015	N	59010751	50.0	J+	MSD	20.0	J+	MSD	6.10	J+	MSD	37.0	J+	MSD	12	-	-	0.68	-	-
YVD-03	YVD-03-150922	09/22/2015	N	59020141	43.0	-	-	19.0	-	-	6.50	-	-	40.0	-	-	14	-	-	0.66	-	-
YVD-03	YVD-03-151214	12/14/2015	N	59025351	49.0	-	-	22.0	-	-	7.80	-	-	43.0	-	-	14	-	-	0.74	-	-
YVD-03	YVD-03-160307	03/07/2016	N	59029521	43.0	-	-	20.0	-	-	7.10	-	-	40.0	-	-	13	-	-	0.72	-	-
YVD-03	YVD-03-160620	6/20/2016	N	59037151	46.0	-	-	21.0	-	-	7.70	-	-	40.0	-	-	14	-	-	0.76	-	-
YVD-03	YVD-03-160929	9/29/2016	N	K1611758	43.2	-	-	18.3	-	-	6.89	-	-	41.4	-	-	11.7	-	-	0.61	-	-
YVD-03	YVD-03-161213	12/13/2016	N	K1615045	40.0	-	-	17.4	-	-	6.57	-	-	38.9	-	-	11.6	-	-	0.69	-	-
YVD-03	YVD-030617-02	3/6/2017	N	K1702228	41.6	-	-	17.3	-	-	6.53	-	-	38.5	-	-	11.4	-	-	0.6	-	-
YVD-03	YVD-030617-03	3/6/2017	FD	K1702228	41.5	-	-	17.3	-	-	6.48	-	-	38.4	-	-	11.6	-	-	0.65	-	-
YVD-03	YVD-060517-13	6/5/2017	N	K1705702	41.9	-	-	18.1	-	-	6.27	-	-	36.4	-	-	11.9	-	-	0.66	-	-
YVD-03	YVD-092517-05	9/25/2017	N	K1710274	41.6	-	-	18.7	-	-	6.85	-	-	40.9	-	-	11.6	-	-	0.66	-	-
YVD-03	YVD-120517-19	12/5/2017	N	K1713091	41.9	-	-	17.4	-	-	6.39	-	-	38.0	-	-	11.1	-	-	0.64	-	-
YVD-03	YVD-060518-27	6/5/2018	N	874860	39.0	-	-	17.4	-	-	6.70	-	-	39.3	-	-	11.3	-	-	0.62	-	-
YVD-04	YVD-04-130916	09/16/2013	N	SWI0113	37.4	-	-	11.2	-	-	4.23	-	-	49.2	-	-	14.9	-	-	0.5	U	-
YVD-04	YVD-04-131210	12/10/2013	N	SWL0063	38.2	-	-	11.7	-	-	4.44	-	-	49.9	-	-	15	-	-	1	U	-
YVD-04	YVD-04-140317	03/17/2014	N	SXC0081	37.7	-	-	11.6	-	-	4.46	-	-	47.8	-	-	15.1	-	-	0.63	-	-
YVD-04	YVD-04-140602	06/02/2014	N	SXF0008	36.8	-	-	11.5	-	-	4.41	-	-	50.5	-	-	14.3	-	-	1	U	-
YVD-04	YVD-04-140923	09/23/2014	N	SXI0158	37.8	-	-	11.5	-	-	4.49	-	-	52.2	J+	MSD	15.3	-	-	0.5	U	-
YVD-04	YVD-04-141215	12/15/2014	N	SXL0108	38.8	-	-	12.4	-	-	4.62	-	-	50.0	-	-	15.2	-	-	0.5	U	-
YVD-04	YVD-04-150315	03/15/2015	N	5904471	38.0	-	-	12.0	-	-	4.70	-	-	52.0	-	-	16	-	-	0.5	U	-

Table 8
Historical Groundwater Analytical Results

Analyte					Nitrate (as N)			Nitrite (as N)			Sulfate			Ammonia (as N)			Ammonia (as N)			Total Kjeldahl Nitrogen (TKN)			
Analytical Method					EPA 300.0			EPA 300.0			EPA 300.0			SM4500 NH3-G			EPA 350.1			EPA 351.2			
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	
YVD-02	YVD-02-151214	12/14/2015	N	59025351	0.2	U	-	0.2	U	-	24	-	-	-	-	-	0.1	R	MSD	0.76	J-	MSD	
YVD-02	YVD-02-160308	03/08/2016	N	59029521	0.2	U	-	0.2	U	-	54	-	-	-	-	-	0.1	UJ	RPD	0.25	J-	MSD	
YVD-02	YVD-02-160620	6/20/2016	N	59037101	0.31	-	-	0.2	U	-	8	J-	MSD	-	-	-	0.1	U	-	0.35	J-	MSD	
YVD-02	YVD-02-160928	9/28/2016	N	K1611629	0.13	-	-	0.10	U	-	3.13	-	-	-	-	-	0.050	U	MBK	0.5	U	-	
YVD-02	YVD-030817-15	3/8/2017	N	K1702324	5.40	-	-	0.10	U	-	11.7	-	-	-	-	-	1	U	-	0.5	U	-	
YVD-02	YVD-060617-14	6/6/2017	N	K1705754	0.20	-	-	0.10	U	-	3.43	J	FDP	-	-	-	0.050	U	-	0.5	U	-	
YVD-02	YVD-060617-16	6/6/2017	FD	K1705754	0.20	-	-	0.10	U	-	12.2	J	FDP	-	-	-	0.050	U	-	0.5	U	-	
YVD-02	YVD-092617-20	9/26/2017	N	K1710333	0.17	-	-	0.10	U	-	4.79	-	-	-	-	-	0.050	U	-	0.5	U	-	
YVD-02	YVD-120417-02	12/4/2017	N	K1713026	0.22	-	-	0.10	U	-	16.1	-	-	-	-	-	0.050	U	-	0.5	U	-	
YVD-02	YVD-120417-04	12/4/2017	FD	K1713026	0.20	-	-	0.10	U	-	15.8	-	-	-	-	-	0.050	U	-	0.5	U	-	
YVD-02	YVD-061218-32	6/12/2018	N	875438	-	R	NR	-	R	NR	-	R	NR	-	R	NR	-	-	-	-	R	NR	
YVD-03	YVD-03-130916	09/16/2013	N	SWI0113	4.75	-	-	0.49	-	-	70.7	-	-	-	-	-	0.1	U	-	0.488	-	-	
YVD-03	YVD-03-131210	12/10/2013	N	SWL0063	5.96	-	-	0.4	U	-	54.8	J-	MSD	-	-	-	0.02	R	MSD	0.2	U	-	
YVD-03	YVD-03-140317	03/17/2014	N	SXC0081	4.75	-	-	0.2	U	-	38	-	-	-	-	-	0.249	-	-	0.25	U	-	
YVD-03	YVD-03-140602	06/02/2014	N	SXF0008	3.86	-	-	0.2	U	-	36	-	-	-	-	-	0.1	U	-	0.261	-	-	
YVD-03	YVD-03-140923	09/23/2014	N	SXI0158	3.97	-	-	0.2	U	-	34.7	-	-	-	-	-	0.1	R	MSD	0.25	U	-	
YVD-03	YVD-D3-140923	09/23/2014	FD	SXI0158	4.04	-	-	0.2	U	-	34.4	-	-	-	-	-	0.1	R	MSD	0.25	U	-	
YVD-03	YVD-03-141215	12/15/2014	N	SXL0108	4.27	-	-	0.2	U	-	37	-	-	-	-	-	0.1	U	-	0.4	-	-	
YVD-03	YVD-03-150316	03/16/2015	N	5904541	4.1	J-	MSD	0.2	U	-	33	J-	MSD	-	-	-	0.1	U	-	0.25	UJ	MSD	
YVD-03	YVD-03-150616	06/16/2015	N	59010751	4	-	-	0.2	U	-	41	J-	MSD	-	-	-	0.12	-	-	0.25	UJ	MSD	
YVD-03	YVD-03-150922	09/22/2015	N	59020141	4.9	-	-	0.2	U	-	51	-	-	-	-	-	0.1	U	-	0.25	UJ	MSD	
YVD-03	YVD-03-151214	12/14/2015	N	59025351	4.9	-	-	0.2	U	-	51	-	-	-	-	-	0.1	R	MSD	0.25	UJ	MSD	
YVD-03	YVD-03-160307	03/07/2016	N	59029521	4.6	-	-	0.2	U	-	47	-	-	-	-	-	0.1	UJ	RPD	0.25	UJ	MSD	
YVD-03	YVD-03-160620	6/20/2016	N	59037151	4.6	-	-	0.2	U	-	61	-	-	-	-	-	0.1	U	-	0.25	U	-	
YVD-03	YVD-03-160929	9/29/2016	N	K1611758	4.39	-	-	0.10	U	-	44.4	-	-	-	-	-	0.050	U	MBK	0.5	U	-	
YVD-03	YVD-03-161213	12/13/2016	N	K1615045	4.47	-	-	0.10	U	-	43.3	-	-	-	-	-	0.050	U	-	0.5	U	-	
YVD-03	YVD-030617-02	3/6/2017	N	K1702228	4.42	-	-	0.10	U	-	40.7	-	-	-	-	-	0.050	U	-	0.5	U	-	
YVD-03	YVD-030617-03	3/6/2017	FD	K1702228	4.48	-	-	0.10	U	-	40.7	-	-	-	-	-	0.050	U	-	0.5	U	-	
YVD-03	YVD-060517-13	6/5/2017	N	K1705702	4.61	-	-	0.10	U	-	46.4	-	-	-	-	-	0.050	U	-	0.5	U	-	
YVD-03	YVD-092517-05	9/25/2017	N	K1710274	4.45	-	-	0.10	U	-	46.3	-	-	-	-	-	0.050	U	-	0.5	U	-	
YVD-03	YVD-120517-19	12/5/2017	N	K1713091	4.52	-	-	0.10	U	-	50.8	-	-	-	-	-	0.050	U	-	0.5	UJ	MSD	
YVD-03	YVD-060518-27	6/5/2018	N	874860	4.70	-	-	0.05	U	-	41.7	-	-	0.07	U	-	-	-	-	0.5	UJ	MSD	
YVD-04	YVD-04-130916	09/16/2013	N	SWI0113	4.45	-	-	0.2	U	-	39.1	-	-	-	-	-	0.1	U	-	0.25	U	-	
YVD-04	YVD-04-131210	12/10/2013	N	SWL0063	4.64	-	-	0.4	U	-	42.2	J-	MSD	-	-	-	0.02	R	MSD	0.2	U	-	
YVD-04	YVD-04-140317	03/17/2014	N	SXC0081	4.03	-	-	0.2	U	-	35.2	-	-	-	-	-	0.1	U	-	0.25	U	-	
YVD-04	YVD-04-140602	06/02/2014	N	SXF0008	3.78	-	-	0.4	U	-	36.2	-	-	-	-	-	0.113	-	-	0.25	U	-	
YVD-04	YVD-04-140923	09/23/2014	N	SXI0158	3.87	-	-	0.2	U	-	35.8	-	-	-	-	-	0.1	R	MSD	0.25	U	-	
YVD-04	YVD-04-141215	12/15/2014	N	SXL0108	3.81	-	-	0.2	U	-	35.8	-	-	-	-	-	0.1	U	-	0.25	U	-	
YVD-04	YVD-04-150315	03/15/2015	N	5904471	4.3	-	-	0.2	U	-	34	-	-	-	-	-	0.1	U	-	0.25	UJ	MSD	

Table 8
Historical Groundwater Analytical Results

Analyte					Phosphorus			Phosphorus			Phosphorus			Phosphorus			Alkalinity, Bicarbonate (as CaCO3)			Alkalinity, Total (as CaCO3)		
Analytical Method					EPA 365.1			EPA 365.3			EPA 365.4			SM4500 P-E			SM2320B			SM2320B		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
YVD-02	YVD-02-151214	12/14/2015	N	59025351	0.68	-	-	-	-	-	-	-	-	-	-	-	100	-	-	100	-	-
YVD-02	YVD-02-160308	03/08/2016	N	59029521	0.59	-	-	-	-	-	-	-	-	-	-	-	110	J	FDP	110	J	FDP
YVD-02	YVD-02-160620	6/20/2016	N	59037101	0.52	-	-	-	-	-	-	-	-	-	-	-	75	-	-	75	-	-
YVD-02	YVD-02-160928	9/28/2016	N	K1611629	-	-	-	0.092	-	-	-	-	-	-	-	-	72	-	-	72	-	-
YVD-02	YVD-030817-15	3/8/2017	N	K1702324	-	-	-	0.099	-	-	-	-	-	-	-	-	103	-	-	103	-	-
YVD-02	YVD-060617-14	6/6/2017	N	K1705754	-	-	-	0.093	-	-	-	-	-	-	-	-	81	-	-	81	-	-
YVD-02	YVD-060617-16	6/6/2017	FD	K1705754	-	-	-	0.081	-	-	-	-	-	-	-	-	67	-	-	67	-	-
YVD-02	YVD-092617-20	9/26/2017	N	K1710333	-	-	-	0.09	-	-	-	-	-	-	-	-	75	-	-	75	-	-
YVD-02	YVD-120417-02	12/4/2017	N	K1713026	-	-	-	0.080	-	-	-	-	-	-	-	-	89	-	-	89	-	-
YVD-02	YVD-120417-04	12/4/2017	FD	K1713026	-	-	-	0.074	-	-	-	-	-	-	-	-	93	-	-	93	-	-
YVD-02	YVD-061218-32	6/12/2018	N	875438	-	-	-	-	-	-	-	-	-	-	R	NR	-	R	NR	-	R	NR
YVD-03	YVD-03-130916	09/16/2013	N	SWI0113	-	-	-	-	-	-	0.89	-	-	-	-	-	209	-	-	210	-	-
YVD-03	YVD-03-131210	12/10/2013	N	SWL0063	-	-	-	-	-	-	-	-	-	1.02	-	-	214	-	-	215	-	-
YVD-03	YVD-03-140317	03/17/2014	N	SXC0081	0.23	-	-	-	-	-	-	-	-	-	-	-	219	-	-	220	-	-
YVD-03	YVD-03-140602	06/02/2014	N	SXF0008	0.3	-	-	-	-	-	-	-	-	-	-	-	206	-	-	208	-	-
YVD-03	YVD-03-140923	09/23/2014	N	SXI0158	0.33	J	FDP	-	-	-	-	-	-	-	-	-	199	-	-	200	-	-
YVD-03	YVD-D3-140923	09/23/2014	FD	SXI0158	0.24	J	FDP	-	-	-	-	-	-	-	-	-	199	-	-	200	-	-
YVD-03	YVD-03-141215	12/15/2014	N	SXL0108	0.76	-	-	-	-	-	-	-	-	-	-	-	199	-	-	200	-	-
YVD-03	YVD-03-150316	03/16/2015	N	5904541	0.25	U	-	-	-	-	-	-	-	-	-	-	210	-	-	210	-	-
YVD-03	YVD-03-150616	06/16/2015	N	59010751	0.59	-	-	-	-	-	-	-	-	-	-	-	200	-	-	200	-	-
YVD-03	YVD-03-150922	09/22/2015	N	59020141	0.25	U	-	-	-	-	-	-	-	-	-	-	220	-	-	220	-	-
YVD-03	YVD-03-151214	12/14/2015	N	59025351	0.78	-	-	-	-	-	-	-	-	-	-	-	230	-	-	230	-	-
YVD-03	YVD-03-160307	03/07/2016	N	59029521	0.34	-	-	-	-	-	-	-	-	-	-	-	150	J	FDP	150	J	FDP
YVD-03	YVD-03-160620	6/20/2016	N	59037151	0.47	-	-	-	-	-	-	-	-	-	-	-	190	-	-	190	-	-
YVD-03	YVD-03-160929	9/29/2016	N	K1611758	-	-	-	0.047	-	-	-	-	-	-	-	-	196	-	-	196	-	-
YVD-03	YVD-03-161213	12/13/2016	N	K1615045	-	-	-	0.11	-	-	-	-	-	-	-	-	189	-	-	189	-	-
YVD-03	YVD-030617-02	3/6/2017	N	K1702228	-	-	-	0.083	J	FDP	-	-	-	-	-	-	190	-	-	190	-	-
YVD-03	YVD-030617-03	3/6/2017	FD	K1702228	-	-	-	0.061	J	FDP	-	-	-	-	-	-	192	-	-	192	-	-
YVD-03	YVD-060517-13	6/5/2017	N	K1705702	-	-	-	0.045	-	-	-	-	-	-	-	-	189	-	-	189	-	-
YVD-03	YVD-092517-05	9/25/2017	N	K1710274	-	-	-	0.038	-	-	-	-	-	-	-	-	193	-	-	193	-	-
YVD-03	YVD-120517-19	12/5/2017	N	K1713091	-	-	-	0.047	-	-	-	-	-	-	-	-	181	-	-	181	-	-
YVD-03	YVD-060518-27	6/5/2018	N	874860	-	-	-	-	-	-	-	-	-	0.07	U	-	188	-	-	188	-	-
YVD-04	YVD-04-130916	09/16/2013	N	SWI0113	-	-	-	-	-	-	0.1	U	-	-	-	-	184	-	-	185	-	-
YVD-04	YVD-04-131210	12/10/2013	N	SWL0063	-	-	-	-	-	-	-	-	-	0.112	-	-	203	-	-	205	-	-
YVD-04	YVD-04-140317	03/17/2014	N	SXC0081	0.078	-	-	-	-	-	-	-	-	-	-	-	209	-	-	210	-	-
YVD-04	YVD-04-140602	06/02/2014	N	SXF0008	0.053	-	-	-	-	-	-	-	-	-	-	-	191	-	-	193	-	-
YVD-04	YVD-04-140923	09/23/2014	N	SXI0158	0.061	-	-	-	-	-	-	-	-	-	-	-	188	-	-	190	-	-
YVD-04	YVD-04-141215	12/15/2014	N	SXL0108	0.1	U	-	-	-	-	-	-	-	-	-	-	188	-	-	190	-	-
YVD-04	YVD-04-150315	03/15/2015	N	5904471	0.25	UJ	MSD	-	-	-	-	-	-	-	-	-	190	-	-	190	-	-

Table 8
Historical Groundwater Analytical Results

Analyte					Calcium			Magnesium			Potassium			Sodium			Chloride			Fluoride		
Analytical Method					EPA 200.7			EPA 200.7			EPA 200.7			EPA 200.7			EPA 300			EPA 300.0		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
YVD-04	YVD-04-150615	06/15/2015	N	59010751	38.0	J+	MSD	8.5	J+	MSD	4.70	J+	MSD	49.0	J+	MSD	15	-	-	0.5	U	-
YVD-04	YVD-04-150922	09/22/2015	N	59020141	36.0	-	-	11.0	-	-	4.60	-	-	51.0	-	-	15	-	-	0.5	U	-
YVD-04	YVD-04-151213	12/13/2015	N	59025351	39.0	-	-	12.0	-	-	4.90	-	-	53.0	-	-	15	-	-	0.5	U	-
YVD-04	YVD-04-160307	03/07/2016	N	59029521	36.0	-	-	12.0	-	-	4.60	-	-	51.0	-	-	14	-	-	0.5	U	-
YVD-04	YVD-04-160620	6/20/2016	N	59037101	36.0	-	-	12.0	-	-	4.80	-	-	53.0	-	-	15	-	-	0.5	U	-
YVD-04	YVD-D1-160620	6/20/2016	FD	59037101	35.0	-	-	12.0	-	-	4.50	-	-	51.0	-	-	15	-	-	0.5	U	-
YVD-04	YVD-04-160928	9/28/2016	N	K1611629	34.7	-	-	10.7	-	-	4.42	-	-	48.5	-	-	13.2	-	-	0.21	-	-
YVD-04	YVD-04-D3-160928	9/28/2016	FD	K1611629	34.7	-	-	10.9	-	-	4.49	-	-	49.9	-	-	13.2	-	-	0.20	-	-
YVD-04	YVD-04-161213	12/13/2016	N	K1615045	35.2	-	-	10.9	-	-	4.43	-	-	47.5	-	-	13.2	-	-	0.23	-	-
YVD-04	YVD-031017-28	3/10/2017	N	K1702448	37.8	-	-	10.9	-	-	4.25	-	-	46.7	-	-	13.2	-	-	0.21	-	-
YVD-04	YVD-060517-11	6/5/2017	N	K1705702	36.5	-	-	9.85	-	-	4.05	-	-	44.4	-	-	13.0	-	-	0.22	-	-
YVD-04	YVD-092517-07	9/25/2017	N	K1710274	37.2	-	-	11.7	-	-	4.62	-	-	51.1	-	-	12.9	-	-	0.21	-	-
YVD-04	YVD-120417-13	12/4/2017	N	K1713091	36.5	-	-	10.9	-	-	4.29	-	-	49.9	-	-	13.2	-	-	0.24	-	-
YVD-04	YVD-060418-21	6/4/2018	N	874662	37.0	-	-	11.65	-	-	4.46	-	-	51.0	-	-	12.3	-	-	0.19	-	-
YVD-05	YVD-05-130917	09/17/2013	N	SWI0113	66.0	-	-	31.0	-	-	6.95	-	-	46.2	-	-	10.2	-	-	0.5	U	-
YVD-05	YVD-05-131211	12/11/2013	N	SWL0063	41.5	-	-	17.0	-	-	3.33	-	-	45.5	-	-	10	-	-	1	U	-
YVD-05	YVD-05-140317	03/17/2014	N	SXC0081	33.7	-	-	13.5	-	-	2.75	-	-	43.1	-	-	8.4	-	-	1.3	-	-
YVD-05	YVD-05-140601	06/01/2014	N	SXF0008	30.8	-	-	13.2	-	-	2.84	-	-	43.9	-	-	8.4	-	-	1	U	-
YVD-05	YVD-05-140922	09/22/2014	N	SXI0148	31.6	-	-	13.7	-	-	2.75	-	-	45.1	-	-	7.6	-	-	1	U	-
YVD-05	YVD-05-141215	12/15/2014	N	SXL0103	36.9	-	-	17.0	-	-	4.21	-	-	45.5	-	-	4.56	J+	MSD, FD	1	U	-
YVD-05	YVD-D1-141215	12/15/2014	FD	SXL0103	34.2	-	-	15.0	-	-	3.54	-	-	44.9	-	-	7.8	J+	MSD, FD	0.5	U	-
YVD-05	YVD-05-150316	03/16/2015	N	5904471	33.0	-	-	15.0	-	-	3.60	-	-	47.0	-	-	8	-	-	1	U	-
YVD-05	YVD-05-150616	06/16/2015	N	59010751	35.0	J+	MSD	16.0	J+	MSD	4.00	J+	MSD	47.0	J+	MSD	8.9	-	-	1	U	-
YVD-05	YVD-05-150922	09/22/2015	N	59020281	42.0	-	-	20.0	-	-	4.90	-	-	51.0	-	-	8.8	-	-	1	U	-
YVD-05	YVD-05-151214	12/14/2015	N	59025351	37.0	-	-	17.0	-	-	4.30	-	-	52.0	-	-	7.9	-	-	1	U	-
YVD-05	YVD-05-160307	03/07/2016	N	59029521	32.0	-	-	15.0	-	-	3.60	-	-	48.0	-	-	8.3	-	-	1	U	-
YVD-05	YVD-D1-160307	03/07/2016	FD	59029521	32.0	-	-	15.0	-	-	3.60	-	-	48.0	-	-	8.7	-	-	0.59	-	-
YVD-05	YVD-05-160620	6/20/2016	N	59037151	31.0	-	-	14.0	-	-	3.40	-	-	48.0	-	-	9.1	-	-	1	U	-
YVD-05	YVD-05-160928	9/28/2016	N	K1611698	32.1	-	-	13.8	-	-	3.54	-	-	48.5	-	-	8.37	-	-	0.44	-	-
YVD-05	YVD-05-161215	12/15/2016	N	K1615174	33.3	-	-	13.1	-	-	3.37	-	-	46.5	-	-	8.30	-	-	0.48	-	-
YVD-05	YVD-031317-32	3/13/2017	N	K1702489	31.4	-	-	14.1	-	-	3.44	-	-	46.0	-	-	7.89	-	-	0.49	-	-
YVD-05	YVD-031317-34	3/13/2017	FD	K1702489	31.4	-	-	14.0	-	-	3.38	-	-	45.6	-	-	7.92	-	-	0.48	-	-
YVD-05	YVD-060617-23	6/6/2017	N	K1705754	31.6	-	-	13.9	-	-	3.51	-	-	48.1	-	-	8.12	-	-	0.47	-	-
YVD-05	YVD-092517-09	9/25/2017	N	K1710274	35.3	-	-	14.6	-	-	3.61	-	-	48.4	-	-	8.01	-	-	0.47	-	-
YVD-05	YVD-120517-15	12/5/2017	N	K1713091	31.3	-	-	13.5	-	-	3.36	-	-	46.5	-	-	7.92	-	-	0.51	-	-
YVD-05	YVD-060518-29	6/5/2018	N	874860	31.6	-	-	14.15	-	-	3.58	-	-	46.4	-	-	8.29	-	-	0.44	-	-
YVD-06	YVD-06-130917	09/17/2013	N	SWI0113	46.0	-	-	12.8	-	-	4.07	-	-	17.6	-	-	3.13	-	-	0.5	U	-
YVD-06	YVD-06-131209	12/09/2013	N	SWL0055	31.2	J	FDP	5.3	J	FDP	1.76	-	-	13.0	J	FDP	2.73	-	-	0.5	U	-
YVD-06	YVD-D1-131209	12/09/2013	FD	SWL0055	38.9	J	FDP	6.6	J	FDP	2.24	-	-	16.5	J	FDP	8	U	-	5	U	-

Table 8
Historical Groundwater Analytical Results

Analyte					Nitrate (as N)			Nitrite (as N)			Sulfate			Ammonia (as N)			Ammonia (as N)			Total Kjeldahl Nitrogen (TKN)		
Analytical Method					EPA 300.0			EPA 300.0			EPA 300.0			SM4500 NH3-G			EPA 350.1			EPA 351.2		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
YVD-04	YVD-04-150615	06/15/2015	N	59010751	4	-	-	0.2	U	-	34	J-	MSD	-	-	-	0.1	U	-	0.25	UJ	MSD
YVD-04	YVD-04-150922	09/22/2015	N	59020141	3.9	-	-	0.2	U	-	35	-	-	-	-	-	0.13	-	-	0.25	UJ	MSD
YVD-04	YVD-04-151213	12/13/2015	N	59025351	4.1	-	-	0.2	U	-	36	-	-	-	-	-	0.1	R	MSD	0.25	UJ	MSD
YVD-04	YVD-04-160307	03/07/2016	N	59029521	3.7	-	-	0.2	U	-	34	-	-	-	-	-	0.1	UJ	RPD	0.25	UJ	MSD
YVD-04	YVD-04-160620	6/20/2016	N	59037101	4	-	-	0.2	U	-	35	J-	MSD	-	-	-	0.1	U	-	0.25	UJ	MSD
YVD-04	YVD-D1-160620	6/20/2016	FD	59037101	4	-	-	0.2	U	-	36	J-	MSD	-	-	-	0.1	U	-	0.25	UJ	MSD
YVD-04	YVD-04-160928	9/28/2016	N	K1611629	3.67	-	-	0.10	U	-	31.4	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-04	YVD-04-D3-160928	9/28/2016	FD	K1611629	3.68	-	-	0.10	U	-	32.2	-	-	-	-	-	0.050	U	MBK	0.5	U	-
YVD-04	YVD-04-161213	12/13/2016	N	K1615045	3.74	-	-	0.10	U	-	31.7	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-04	YVD-031017-28	3/10/2017	N	K1702448	3.70	-	-	0.10	U	-	32.9	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-04	YVD-060517-11	6/5/2017	N	K1705702	3.53	-	-	0.10	U	-	33.4	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-04	YVD-092517-07	9/25/2017	N	K1710274	3.57	-	-	0.10	U	-	32.7	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-04	YVD-120417-13	12/4/2017	N	K1713091	3.79	-	-	0.10	U	-	32.5	-	-	-	-	-	0.050	U	-	0.5	UJ	MSD
YVD-04	YVD-060418-21	6/4/2018	N	874662	4.10	-	-	0.05	U	-	30.4	-	-	0.08	U	FBK	-	-	-	0.5	UJ	MSD
YVD-05	YVD-05-130917	09/17/2013	N	SWI0113	4.9	-	-	0.2	U	-	76.8	-	-	-	-	-	0.112	-	-	0.435	-	-
YVD-05	YVD-05-131211	12/11/2013	N	SWL0063	4.36	-	-	0.4	U	-	68.4	J-	MSD	-	-	-	0.02	R	MSD	0.2	U	-
YVD-05	YVD-05-140317	03/17/2014	N	SXC0081	3.3	-	-	0.4	U	-	52.7	-	-	-	-	-	0.1	U	-	0.25	U	-
YVD-05	YVD-05-140601	06/01/2014	N	SXF0008	3	-	-	0.4	U	-	50.5	-	-	-	-	-	0.1	U	-	0.25	U	-
YVD-05	YVD-05-140922	09/22/2014	N	SXI0148	2.82	-	-	0.4	U	-	48.1	-	-	-	-	-	0.1	U	-	0.259	-	-
YVD-05	YVD-05-141215	12/15/2014	N	SXL0103	1.5	J	DP, DU	0.4	U	-	27.7	J+	MSD, FDP, DUP	-	-	-	0.1	U	-	0.272	-	-
YVD-05	YVD-D1-141215	12/15/2014	FD	SXL0103	2.65	J	DP, DU	0.2	U	-	46	J+	MSD, FDP, DUP	-	-	-	0.1	U	-	0.264	-	-
YVD-05	YVD-05-150316	03/16/2015	N	5904471	2.8	-	-	0.4	U	-	47	-	-	-	-	-	0.1	U	-	0.25	UJ	-
YVD-05	YVD-05-150616	06/16/2015	N	59010751	3.1	-	-	0.4	U	-	49	J-	MSD	-	-	-	0.1	U	-	0.25	UJ	-
YVD-05	YVD-05-150922	09/22/2015	N	59020281	3	-	-	0.4	U	-	51	-	-	-	-	-	0.1	U	-	0.25	R	MSD
YVD-05	YVD-05-151214	12/14/2015	N	59025351	2.8	-	-	0.4	U	-	48	-	-	-	-	-	0.1	R	MSD	0.6	J-	MSD
YVD-05	YVD-05-160307	03/07/2016	N	59029521	2.7	-	-	0.4	U	-	47	-	-	-	-	-	0.1	UJ	RPD	0.25	UJ	MSD
YVD-05	YVD-D1-160307	03/07/2016	FD	59029521	2.9	-	-	0.2	U	-	48	-	-	-	-	-	0.1	UJ	RPD	0.25	UJ	MSD
YVD-05	YVD-05-160620	6/20/2016	N	59037151	3	-	-	0.4	U	-	49	-	-	-	-	-	0.1	U	-	0.25	U	MSD
YVD-05	YVD-05-160928	9/28/2016	N	K1611698	3.12	-	-	0.10	U	-	46.7	-	-	-	-	-	0.050	U	MBK	0.5	R	MSD
YVD-05	YVD-05-161215	12/15/2016	N	K1615174	3.15	-	-	0.10	U	-	49.0	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-05	YVD-031317-32	3/13/2017	N	K1702489	2.88	-	-	0.10	U	-	41.5	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-05	YVD-031317-34	3/13/2017	FD	K1702489	2.91	-	-	0.10	U	-	41.4	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-05	YVD-060617-23	6/6/2017	N	K1705754	2.90	-	-	0.10	U	-	48.0	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-05	YVD-092517-09	9/25/2017	N	K1710274	2.82	-	-	0.10	U	-	46.6	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-05	YVD-120517-15	12/5/2017	N	K1713091	2.81	-	-	0.10	U	-	41.8	-	-	-	-	-	0.050	U	MBK	0.5	UJ	MSD
YVD-05	YVD-060518-29	6/5/2018	N	874860	2.79	-	-	0.05	U	-	43.6	-	-	0.07	U	-	-	-	-	0.5	UJ	MSD
YVD-06	YVD-06-130917	09/17/2013	N	SWI0113	0.51	-	-	0.2	U	-	8.14	-	-	-	-	-	0.1	U	-	0.4	-	-
YVD-06	YVD-06-131209	12/09/2013	N	SWL0055	0.49	J	FDP	0.2	U	-	8.53	-	-	-	-	-	0.02	UJ	MSD	0.62	J	BK,MSD,FD
YVD-06	YVD-D1-131209	12/09/2013	FD	SWL0055	6.4	J	FDP	2	U	-	9.1	-	-	-	-	-	0.02	UJ	MSD	0.4	J	BK,MSD,FD

Table 8
Historical Groundwater Analytical Results

Analyte					Phosphorus			Phosphorus			Phosphorus			Phosphorus			Alkalinity, Bicarbonate (as CaCO3)			Alkalinity, Total (as CaCO3)			
Analytical Method					EPA 365.1			EPA 365.3			EPA 365.4			SM4500 P-E			SM2320B			SM2320B			
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	
YVD-04	YVD-04-150615	06/15/2015	N	59010751	0.25	U	-	-	-	-	-	-	-	-	-	-	190	-	-	190	-	-	
YVD-04	YVD-04-150922	09/22/2015	N	59020141	0.25	U	-	-	-	-	-	-	-	-	-	-	200	-	-	200	-	-	
YVD-04	YVD-04-151213	12/13/2015	N	59025351	0.39	-	-	-	-	-	-	-	-	-	-	-	200	-	-	200	-	-	
YVD-04	YVD-04-160307	03/07/2016	N	59029521	0.25	U	-	-	-	-	-	-	-	-	-	-	250	J	FDP	250	J	FDP	
YVD-04	YVD-04-160620	6/20/2016	N	59037101	0.25	U	-	-	-	-	-	-	-	-	-	-	190	-	-	190	-	-	
YVD-04	YVD-D1-160620	6/20/2016	FD	59037101	0.25	U	-	-	-	-	-	-	-	-	-	-	180	-	-	180	-	-	
YVD-04	YVD-04-160928	9/28/2016	N	K1611629	-	-	-	0.014	-	-	-	-	-	-	-	-	187	-	-	187	-	-	
YVD-04	YVD-04-D3-160928	9/28/2016	FD	K1611629	-	-	-	0.008	J	-	-	-	-	-	-	-	185	-	-	185	-	-	
YVD-04	YVD-04-161213	12/13/2016	N	K1615045	-	-	-	0.026	-	-	-	-	-	-	-	-	181	-	-	181	-	-	
YVD-04	YVD-031017-28	3/10/2017	N	K1702448	-	-	-	0.018	-	-	-	-	-	-	-	-	167	-	-	167	-	-	
YVD-04	YVD-060517-11	6/5/2017	N	K1705702	-	-	-	0.006	J	-	-	-	-	-	-	-	182	-	-	182	-	-	
YVD-04	YVD-092517-07	9/25/2017	N	K1710274	-	-	-	0.026	-	-	-	-	-	-	-	-	188	-	-	188	-	-	
YVD-04	YVD-120417-13	12/4/2017	N	K1713091	-	-	-	0.013	-	-	-	-	-	-	-	-	185	-	-	185	-	-	
YVD-04	YVD-060418-21	6/4/2018	N	874662	-	-	-	-	-	-	-	-	-	0.07	U	-	179	-	-	179	-	-	
YVD-05	YVD-05-130917	09/17/2013	N	SWI0113	-	-	-	-	-	-	1.62	-	-	-	-	-	184	-	-	185	-	-	
YVD-05	YVD-05-131211	12/11/2013	N	SWL0063	-	-	-	-	-	-	-	-	-	0.462	-	-	174	-	-	175	-	-	
YVD-05	YVD-05-140317	03/17/2014	N	SXC0081	0.14	-	-	-	-	-	-	-	-	-	-	-	174	-	-	175	-	-	
YVD-05	YVD-05-140601	06/01/2014	N	SXF0008	0.15	-	-	-	-	-	-	-	-	-	-	-	164	-	-	165	-	-	
YVD-05	YVD-05-140922	09/22/2014	N	SXI0148	0.2	-	-	-	-	-	-	-	-	-	-	-	159	-	-	160	-	-	
YVD-05	YVD-05-141215	12/15/2014	N	SXL0103	0.29	J	FDP	-	-	-	-	-	-	-	-	-	154	-	-	155	-	-	
YVD-05	YVD-D1-141215	12/15/2014	FD	SXL0103	0.44	J	FDP	-	-	-	-	-	-	-	-	-	153	-	-	155	-	-	
YVD-05	YVD-05-150316	03/16/2015	N	5904471	0.25	UJ	MSD	-	-	-	-	-	-	-	-	-	160	-	-	160	-	-	
YVD-05	YVD-05-150616	06/16/2015	N	59010751	0.51	-	-	-	-	-	-	-	-	-	-	-	170	-	-	170	-	-	
YVD-05	YVD-05-150922	09/22/2015	N	59020281	0.8	-	-	-	-	-	-	-	-	-	-	-	160	-	-	160	-	-	
YVD-05	YVD-05-151214	12/14/2015	N	59025351	0.65	-	-	-	-	-	-	-	-	-	-	-	180	-	-	180	-	-	
YVD-05	YVD-05-160307	03/07/2016	N	59029521	0.25	U	-	-	-	-	-	-	-	-	-	-	160	J	FDP	160	J	FDP	
YVD-05	YVD-D1-160307	03/07/2016	FD	59029521	0.25	U	-	-	-	-	-	-	-	-	-	-	170	J	FDP	170	J	FDP	
YVD-05	YVD-05-160620	6/20/2016	N	59037151	0.25	U	-	-	-	-	-	-	-	-	-	-	170	-	-	170	-	-	
YVD-05	YVD-05-160928	9/28/2016	N	K1611698	-	-	-	0.01	-	-	-	-	-	-	-	-	171	-	-	171	-	-	
YVD-05	YVD-05-161215	12/15/2016	N	K1615174	-	-	-	0.04	-	-	-	-	-	-	-	-	163	-	-	163	-	-	
YVD-05	YVD-031317-32	3/13/2017	N	K1702489	-	-	-	0.03	-	-	-	-	-	-	-	-	166	-	-	166	-	-	
YVD-05	YVD-031317-34	3/13/2017	FD	K1702489	-	-	-	0.02	-	-	-	-	-	-	-	-	168	-	-	168	-	-	
YVD-05	YVD-060617-23	6/6/2017	N	K1705754	-	-	-	0.016	-	-	-	-	-	-	-	-	168	-	-	168	-	-	
YVD-05	YVD-092517-09	9/25/2017	N	K1710274	-	-	-	0.012	-	-	-	-	-	-	-	-	173	-	-	173	-	-	
YVD-05	YVD-120517-15	12/5/2017	N	K1713091	-	-	-	0.015	-	-	-	-	-	-	-	-	171	-	-	171	-	-	
YVD-05	YVD-060518-29	6/5/2018	N	874860	-	-	-	-	-	-	-	-	-	0.07	U	-	170	-	-	170	-	-	
YVD-06	YVD-06-130917	09/17/2013	N	SWI0113	-	-	-	-	-	-	0.41	-	-	-	-	-	149	-	-	150	-	-	
YVD-06	YVD-06-131209	12/09/2013	N	SWL0055	-	-	-	-	-	-	-	-	-	0.06	U	-	154	-	-	155	-	-	
YVD-06	YVD-D1-131209	12/09/2013	FD	SWL0055	-	-	-	-	-	-	-	-	-	0.06	U	-	159	-	-	160	-	-	

Table 8
Historical Groundwater Analytical Results

Analyte					Calcium			Magnesium			Potassium			Sodium			Chloride			Fluoride		
Analytical Method					EPA 200.7			EPA 200.7			EPA 200.7			EPA 200.7			EPA 300			EPA 300.0		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
YVD-06	YVD-06-140316	03/16/2014	N	SXC0081	40.1	-	-	7.6	-	-	2.68	-	-	16.2	-	-	3.47	-	-	0.58	-	-
YVD-06	YVD-D1-140316	03/16/2014	FD	SXC0081	40.5	-	-	7.8	-	-	2.74	-	-	16.6	-	-	3.16	-	-	0.55	-	-
YVD-06	YVD-06-140601	06/01/2014	N	SXF0008	37.8	-	-	6.5	-	-	2.28	-	-	16.7	-	-	2.88	J	DUP	0.5	U	-
YVD-06	YVD-D1-140601	06/01/2014	FD	SXF0008	38.3	-	-	6.6	-	-	2.30	-	-	16.9	-	-	2.95	-	-	0.5	U	-
YVD-06	YVD-06-140921	09/21/2014	N	SXI0148	41.3	-	-	8.5	-	-	2.69	-	-	17.4	-	-	2.45	-	-	0.5	U	-
YVD-06	YVD-06-141215	12/15/2014	N	SXL0103	40.3	-	-	7.8	-	-	2.58	-	-	16.9	-	-	2.5	J+	MSD	0.5	U	-
YVD-06	YVD-06-150316	03/16/2015	N	5904471	38.0	-	-	6.8	-	-	2.20	-	-	17.0	-	-	2.8	-	-	0.5	U	-
YVD-06	YVD-06-150616	06/16/2015	N	59010751	40.0	J+	MSD	7.0	J+	MSD	2.20	J+	MSD	17.0	J+	MSD	2.7	-	-	0.5	U	-
YVD-06	YVD-06-150922	09/22/2015	N	59020141	41.0	-	-	9.8	-	-	3.10	-	-	17.0	-	-	2.8	-	-	0.5	U	-
YVD-06	YVD-06-151214	12/14/2015	N	59025351	42.0	-	-	7.3	-	-	2.40	-	-	18.0	-	-	2.4	-	-	0.5	U	-
YVD-06	YVD-06-160307	03/07/2016	N	59029521	38.0	-	-	7.2	-	-	2.50	-	-	17.0	-	-	2.8	-	-	0.5	U	-
YVD-06	YVD-06-160620	6/20/2016	N	59037151	37.0	-	-	6.6	-	-	2.30	-	-	17.0	-	-	3.1	-	-	0.5	U	-
YVD-06	YVD-06-160929	9/29/2016	N	K1611704	35.7	-	-	6.1	-	-	2.26	-	-	17.1	-	-	2.64	-	-	0.20	-	-
YVD-06	YVD-06-161215	12/15/2016	N	K1615126	33.5	-	-	5.7	-	-	2.12	-	-	17.1	-	-	3.14	-	-	0.23	-	-
YVD-06	YVD-030617-04	3/6/2017	N	K1702228	35.2	-	-	5.8	-	-	2.20	-	-	17.0	-	-	2.83	-	-	0.29	-	-
YVD-06	YVD-060617-21	6/6/2017	N	K1705754	36.9	-	-	6.07	-	-	2.17	-	-	16.3	-	-	2.54	-	-	0.19	J	-
YVD-06	YVD-092617-17	9/26/2017	N	K1710333	35.0	-	-	5.82	-	-	1.97	-	-	15.6	-	-	2.94	-	-	0.23	-	-
YVD-06	YVD-092617-18	9/26/2017	FD	K1710333	34.6	-	-	5.77	-	-	2.03	-	-	16.1	-	-	2.95	-	-	0.22	-	-
YVD-06	YVD-120517-17	12/5/2017	N	K1713091	34.7	-	-	5.81	-	-	2.11	-	-	17.3	-	-	3.23	-	-	0.25	-	-
YVD-06	YVD-060318-15	6/3/2018	N	874568	37.5	-	-	6.45	-	-	2.36	-	-	17.3	-	-	2.69	-	-	0.18	-	-
YVD-07	YVD-07-130923	09/23/2013	N	SWI0178	27.7	-	-	16.2	-	-	5.03	-	-	37.7	-	-	-	-	-	-	-	-
YVD-07	YVD-07-130926	09/26/2013	N	SWI0190	-	-	-	-	-	-	-	-	-	-	-	-	7.53	-	-	0.5	U	-
YVD-07	YVD-07-131210	12/10/2013	N	SWL0055	99.2	-	-	16.0	-	-	1.00	U	-	40.4	-	-	8.46	-	-	0.55	-	-
YVD-07	YVD-07-140316	03/16/2014	N	SXC0081	33.4	-	-	14.1	-	-	4.45	-	-	42.5	-	-	11.6	-	-	0.83	-	-
YVD-07	YVD-07-140604	06/04/2014	N	SXF0025	38.4	-	-	18.3	-	-	5.57	-	-	44.5	-	-	9.74	-	-	1	U	-
YVD-07	YVD-07-140922	09/22/2014	N	SXI0158	31.4	-	-	12.7	-	-	4.05	-	-	42.7	J+	MSD	10.3	-	-	1	U	-
YVD-07	YVD-07-141216	12/16/2014	N	SXL0108	29.9	-	-	12.2	-	-	3.83	-	-	40.6	-	-	8.76	-	-	1	U	-
YVD-07	YVD-07-150316	03/16/2015	N	5904541	37.0	-	-	15.0	-	-	4.30	-	-	50.0	-	-	15	-	-	1	U	-
YVD-07	YVD-D2-150316	03/16/2015	FD	5904541	35.0	-	-	14.0	-	-	4.30	-	-	48.0	-	-	16	-	-	0.65	-	-
YVD-07	YVD-07-150616	06/16/2015	N	59010751	34.0	J+	MSD	14.0	J+	MSD	4.20	J+	MSD	43.0	J+	MSD	13	-	-	0.5	U	-
YVD-07	YVD-D1-150616	06/16/2015	FD	59010751	35.0	J+	MSD	14.0	J+	MSD	4.20	J+	MSD	44.0	J+	MSD	14	-	-	0.5	U	-
YVD-07	YVD-07-150923	09/23/2015	N	59020281	33.0	-	-	14.0	-	-	4.20	-	-	48.0	-	-	9.9	-	-	1	U	-
YVD-07	YVD-07-151214	12/14/2015	N	59025431	30.0	-	-	13.0	-	-	4.50	-	-	48.0	-	-	6.7	-	-	1	U	-
YVD-07	YVD-07-160308	03/08/2016	N	59029711	25.0	-	-	11.0	-	-	4.00	-	-	42.0	-	-	6.7	-	-	1	U	-
YVD-07	YVD-07-160621	6/21/2016	N	59037151	19.0	-	-	9.0	-	-	3.50	-	-	37.0	-	-	6.2	-	-	1	U	-
YVD-07	YVD-07-160929	9/29/2016	N	K1611704	17.8	-	-	7.14	-	-	3.31	-	-	34.0	-	-	5.3	-	-	0.40	-	-
YVD-07	YVD-07-161213	12/13/2016	N	K1615083	25.9	-	-	10.2	-	-	3.59	-	-	36.6	-	-	6.38	-	-	0.40	-	-
YVD-07	YVD-030717-07	3/7/2017	N	K1702324	17.6	-	-	6.47	-	-	2.83	-	-	31.4	-	-	5.34	-	-	0.43	-	-
YVD-07	YVD-060517-15	6/5/2017	N	K1705754	19.4	-	-	7.31	-	-	2.98	-	-	32.9	-	-	6.07	-	-	0.39	-	-
YVD-07	YVD-092617-21	9/26/2017	N	K1710333	25.4	-	-	9.27	-	-	3.26	-	-	34.0	-	-	7.45	-	-	0.35	-	-

Table 8
Historical Groundwater Analytical Results

Analyte					Nitrate (as N)			Nitrite (as N)			Sulfate			Ammonia (as N)			Ammonia (as N)			Total Kjeldahl Nitrogen (TKN)			
Analytical Method					EPA 300.0			EPA 300.0			EPA 300.0			SM4500 NH3-G			EPA 350.1			EPA 351.2			
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	
YVD-06	YVD-06-140316	03/16/2014	N	SXC0081	0.61	-	-	0.2	U	-	8.33	-	-	-	-	-	0.1	U	-	0.297	-	-	
YVD-06	YVD-D1-140316	03/16/2014	FD	SXC0081	0.62	-	-	0.2	U	-	8.18	-	-	-	-	-	0.1	U	-	0.25	U	-	
YVD-06	YVD-06-140601	06/01/2014	N	SXF0008	0.51	-	-	0.2	U	-	7.59	-	-	-	-	-	0.172	-	-	0.25	U	-	
YVD-06	YVD-D1-140601	06/01/2014	FD	SXF0008	0.56	-	-	0.2	U	-	7.63	-	-	-	-	-	0.1	U	-	0.25	U	-	
YVD-06	YVD-06-140921	09/21/2014	N	SXI0148	0.44	-	-	0.2	U	-	7.98	-	-	-	-	-	0.139	-	-	0.359	-	-	
YVD-06	YVD-06-141215	12/15/2014	N	SXL0103	0.45	J	DUP	0.2	U	-	7.47	J+	MSD, DUP	-	-	-	0.1	U	-	0.25	U	-	
YVD-06	YVD-06-150316	03/16/2015	N	5904471	0.99	-	-	0.2	U	-	10	-	-	-	-	-	0.1	U	-	0.25	UJ	MSD	
YVD-06	YVD-06-150616	06/16/2015	N	59010751	0.53	-	-	0.2	U	-	7.9	J-	MSD	-	-	-	0.1	U	-	0.25	UJ	MSD	
YVD-06	YVD-06-150922	09/22/2015	N	59020141	0.51	-	-	0.2	U	-	7.9	-	-	-	-	-	0.11	-	-	0.25	UJ	MSD	
YVD-06	YVD-06-151214	12/14/2015	N	59025351	0.51	-	-	0.2	U	-	8	-	-	-	-	-	0.1	R	MSD	0.57	J-	MSD	
YVD-06	YVD-06-160307	03/07/2016	N	59029521	0.51	-	-	0.2	U	-	7.8	-	-	-	-	-	0.1	UJ	RPD	0.25	UJ	MSD	
YVD-06	YVD-06-160620	6/20/2016	N	59037151	0.53	-	-	0.2	U	-	8.1	-	-	-	-	-	0.1	U	-	0.42	-	-	
YVD-06	YVD-06-160929	9/29/2016	N	K1611704	0.55	-	-	0.10	U	-	8.55	-	-	-	-	-	0.050	U	MBK	0.5	U	-	
YVD-06	YVD-06-161215	12/15/2016	N	K1615126	0.70	-	-	0.10	U	-	10.2	-	-	-	-	-	0.050	U	-	0.5	U	-	
YVD-06	YVD-030617-04	3/6/2017	N	K1702228	0.61	-	-	0.10	U	-	8.38	-	-	-	-	-	0.021	J	-	0.5	U	FBK	
YVD-06	YVD-060617-21	6/6/2017	N	K1705754	0.51	-	-	0.10	U	-	8.44	-	-	-	-	-	0.050	U	-	0.5	U	-	
YVD-06	YVD-092617-17	9/26/2017	N	K1710333	0.62	-	-	0.10	U	-	9.61	-	-	-	-	-	0.050	U	-	0.5	U	-	
YVD-06	YVD-092617-18	9/26/2017	FD	K1710333	0.62	-	-	0.10	U	-	9.58	-	-	-	-	-	0.050	U	-	0.5	U	-	
YVD-06	YVD-120517-17	12/5/2017	N	K1713091	0.73	-	-	0.10	U	-	9.87	-	-	-	-	-	0.050	U	MBK	0.5	UJ	MSD	
YVD-06	YVD-060318-15	6/3/2018	N	874568	0.56	-	-	0.05	U	-	7.86	-	-	0.09	U	FBK	-	-	-	0.5	U	-	
YVD-07	YVD-07-130923	09/23/2013	N	SWI0178	-	-	-	-	-	-	-	-	-	-	-	-	0.1	U	-	0.395	-	-	
YVD-07	YVD-07-130926	09/26/2013	N	SWI0190	4.4	-	-	0.2	U	-	37.4	-	-	-	-	-	-	-	-	-	-	-	
YVD-07	YVD-07-131210	12/10/2013	N	SWL0055	5.3	-	-	0.2	U	-	50	-	-	-	-	-	0.02	UJ	MSD	0.2	UJ	MSD	
YVD-07	YVD-07-140316	03/16/2014	N	SXC0081	3.9	-	-	0.2	U	-	69.2	-	-	-	-	-	0.116	-	-	0.25	U	-	
YVD-07	YVD-07-140604	06/04/2014	N	SXF0025	3.36	-	-	0.4	U	-	57	-	-	-	-	-	0.1	U	-	0.348	J-	MSD	
YVD-07	YVD-07-140922	09/22/2014	N	SXI0158	5.52	-	-	0.4	U	-	51.8	-	-	-	-	-	0.1	R	MSD	0.25	U	-	
YVD-07	YVD-07-141216	12/16/2014	N	SXL0108	2.92	-	-	0.4	U	-	51.2	-	-	-	-	-	0.1	U	-	0.25	U	-	
YVD-07	YVD-07-150316	03/16/2015	N	5904541	4	J-	MSD	0.4	U	-	73	J-	MSD	-	-	-	0.1	U	-	0.25	UJ	MSD	
YVD-07	YVD-D2-150316	03/16/2015	FD	5904541	4.2	J-	MSD	0.2	U	-	70	J-	MSD	-	-	-	0.1	U	-	0.25	UJ	MSD	
YVD-07	YVD-07-150616	06/16/2015	N	59010751	3.3	-	-	0.4	U	-	74	J-	MSD	-	-	-	0.1	U	-	0.25	UJ	MSD	
YVD-07	YVD-D1-150616	06/16/2015	FD	59010751	3.5	-	-	0.2	U	-	74	J-	MSD	-	-	-	0.1	U	-	0.25	UJ	MSD	
YVD-07	YVD-07-150923	09/23/2015	N	59020281	4.7	-	-	0.4	U	-	68	-	-	-	-	-	0.22	-	-	0.25	R	MSD	
YVD-07	YVD-07-151214	12/14/2015	N	59025431	2.4	-	-	0.4	U	-	59	-	-	-	-	-	0.1	R	MSD	0.25	R	MSD	
YVD-07	YVD-07-160308	03/08/2016	N	59029711	1.8	-	-	0.4	U	-	49	J+	MSD	-	-	-	1.1	J+	FBK, FDP	0.25	U	-	
YVD-07	YVD-07-160621	6/21/2016	N	59037151	1.2	-	-	0.4	U	-	31	-	-	-	-	-	0.1	U	-	0.25	U	-	
YVD-07	YVD-07-160929	9/29/2016	N	K1611704	1.37	-	-	0.10	U	-	37.1	-	-	-	-	-	0.050	U	MBK	0.5	U	-	
YVD-07	YVD-07-161213	12/13/2016	N	K1615083	2.15	-	-	0.10	U	-	64.0	-	-	-	-	-	0.050	U	-	0.5	U	-	
YVD-07	YVD-030717-07	3/7/2017	N	K1702324	1.74	J	HTQ	0.10	UJ	HTQ	25.4	-	-	-	-	-	1	U	-	0.5	U	-	
YVD-07	YVD-060517-15	6/5/2017	N	K1705754	2.07	-	-	0.10	U	-	33.5	-	-	-	-	-	0.050	U	-	0.5	U	-	
YVD-07	YVD-092617-21	9/26/2017	N	K1710333	3.47	-	-	0.10	U	-	51.0	-	-	-	-	-	0.050	U	-	0.5	U	-	

Table 8
Historical Groundwater Analytical Results

Analyte					Phosphorus			Phosphorus			Phosphorus			Phosphorus			Alkalinity, Bicarbonate (as CaCO3)			Alkalinity, Total (as CaCO3)			
Analytical Method					EPA 365.1			EPA 365.3			EPA 365.4			SM4500 P-E			SM2320B			SM2320B			
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	
YVD-06	YVD-06-140316	03/16/2014	N	SXC0081	0.14	-	-	-	-	-	-	-	-	-	-	-	174	-	-	175	-	-	
YVD-06	YVD-D1-140316	03/16/2014	FD	SXC0081	0.13	-	-	-	-	-	-	-	-	-	-	-	159	-	-	160	-	-	
YVD-06	YVD-06-140601	06/01/2014	N	SXF0008	0.064	-	-	-	-	-	-	-	-	-	-	-	156	-	-	158	-	-	
YVD-06	YVD-D1-140601	06/01/2014	FD	SXF0008	0.057	-	-	-	-	-	-	-	-	-	-	-	153	-	-	155	-	-	
YVD-06	YVD-06-140921	09/21/2014	N	SXI0148	0.18	-	-	-	-	-	-	-	-	-	-	-	149	-	-	150	-	-	
YVD-06	YVD-06-141215	12/15/2014	N	SXL0103	0.1	U	-	-	-	-	-	-	-	-	-	-	149	-	-	150	-	-	
YVD-06	YVD-06-150316	03/16/2015	N	5904471	0.25	UJ	MSD	-	-	-	-	-	-	-	-	-	150	-	-	150	-	-	
YVD-06	YVD-06-150616	06/16/2015	N	59010751	0.25	U	-	-	-	-	-	-	-	-	-	-	150	-	-	150	-	-	
YVD-06	YVD-06-150922	09/22/2015	N	59020141	0.25	U	-	-	-	-	-	-	-	-	-	-	170	-	-	170	-	-	
YVD-06	YVD-06-151214	12/14/2015	N	59025351	0.25	U	-	-	-	-	-	-	-	-	-	-	170	-	-	170	-	-	
YVD-06	YVD-06-160307	03/07/2016	N	59029521	0.25	U	-	-	-	-	-	-	-	-	-	-	160	J	FDP	160	J	FDP	
YVD-06	YVD-06-160620	6/20/2016	N	59037151	0.25	U	-	-	-	-	-	-	-	-	-	-	150	-	-	150	-	-	
YVD-06	YVD-06-160929	9/29/2016	N	K1611704	-	-	-	0.022	-	-	-	-	-	-	-	-	145	-	-	145	-	-	
YVD-06	YVD-06-161215	12/15/2016	N	K1615126	-	-	-	0.010	-	-	-	-	-	-	-	-	136	-	-	136	-	-	
YVD-06	YVD-030617-04	3/6/2017	N	K1702228	-	-	-	0.014	-	-	-	-	-	-	-	-	142	-	-	142	-	-	
YVD-06	YVD-060617-21	6/6/2017	N	K1705754	-	-	-	0.010	J	-	-	-	-	-	-	-	144	-	-	144	-	-	
YVD-06	YVD-092617-17	9/26/2017	N	K1710333	-	-	-	0.009	J	-	-	-	-	-	-	-	140	-	-	140	-	-	
YVD-06	YVD-092617-18	9/26/2017	FD	K1710333	-	-	-	0.010	J	-	-	-	-	-	-	-	140	-	-	140	-	-	
YVD-06	YVD-120517-17	12/5/2017	N	K1713091	-	-	-	0.021	-	-	-	-	-	-	-	-	137	-	-	137	-	-	
YVD-06	YVD-060318-15	6/3/2018	N	874568	-	-	-	-	-	-	-	-	-	0.07	U	-	138	-	-	138	-	-	
YVD-07	YVD-07-130923	09/23/2013	N	SWI0178	-	-	-	-	-	-	0.516	-	-	-	-	-	79.4	-	-	80	-	-	
YVD-07	YVD-07-130926	09/26/2013	N	SWI0190	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
YVD-07	YVD-07-131210	12/10/2013	N	SWL0055	-	-	-	-	-	-	-	-	-	0.06	U	-	135	-	-	135	-	-	
YVD-07	YVD-07-140316	03/16/2014	N	SXC0081	0.22	-	-	-	-	-	-	-	-	-	-	-	134	-	-	135	-	-	
YVD-07	YVD-07-140604	06/04/2014	N	SXF0025	0.69	-	-	-	-	-	-	-	-	-	-	-	137	-	-	138	-	-	
YVD-07	YVD-07-140922	09/22/2014	N	SXI0158	0.2	-	-	-	-	-	-	-	-	-	-	-	134	-	-	135	-	-	
YVD-07	YVD-07-141216	12/16/2014	N	SXL0108	0.1	U	-	-	-	-	-	-	-	-	-	-	133	-	-	135	-	-	
YVD-07	YVD-07-150316	03/16/2015	N	5904541	0.25	U	-	-	-	-	-	-	-	-	-	-	140	-	-	140	-	-	
YVD-07	YVD-D2-150316	03/16/2015	FD	5904541	0.25	U	-	-	-	-	-	-	-	-	-	-	140	-	-	140	-	-	
YVD-07	YVD-07-150616	06/16/2015	N	59010751	0.25	U	-	-	-	-	-	-	-	-	-	-	150	-	-	150	-	-	
YVD-07	YVD-D1-150616	06/16/2015	FD	59010751	0.25	U	-	-	-	-	-	-	-	-	-	-	140	-	-	140	-	-	
YVD-07	YVD-07-150923	09/23/2015	N	59020281	0.25	U	-	-	-	-	-	-	-	-	-	-	160	-	-	160	-	-	
YVD-07	YVD-07-151214	12/14/2015	N	59025431	0.97	J	FDP	-	-	-	-	-	-	-	-	-	140	J	FDP	140	J	FDP	
YVD-07	YVD-07-160308	03/08/2016	N	59029711	0.25	U	-	-	-	-	-	-	-	-	-	-	140	-	-	140	-	-	
YVD-07	YVD-07-160621	6/21/2016	N	59037151	0.25	U	-	-	-	-	-	-	-	-	-	-	100	-	-	100	-	-	
YVD-07	YVD-07-160929	9/29/2016	N	K1611704	-	-	-	0.020	-	-	-	-	-	-	-	-	113	-	-	113	-	-	
YVD-07	YVD-07-161213	12/13/2016	N	K1615083	-	-	-	0.010	J	-	-	-	-	-	-	-	120	-	-	120	-	-	
YVD-07	YVD-030717-07	3/7/2017	N	K1702324	-	-	-	0.019	-	-	-	-	-	-	-	-	107	-	-	107	-	-	
YVD-07	YVD-060517-15	6/5/2017	N	K1705754	-	-	-	0.004	J	-	-	-	-	-	-	-	105	-	-	105	-	-	
YVD-07	YVD-092617-21	9/26/2017	N	K1710333	-	-	-	0.022	-	-	-	-	-	-	-	-	116	-	-	116	-	-	

Table 8
Historical Groundwater Analytical Results

Analyte					Calcium			Magnesium			Potassium			Sodium			Chloride			Fluoride		
Analytical Method					EPA 200.7			EPA 200.7			EPA 200.7			EPA 200.7			EPA 300			EPA 300.0		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
YVD-07	YVD-120417-11	12/4/2017	N	K1713026	29.5	-	-	11.1	-	-	3.56	-	-	36.1	-	-	8.32	-	-	0.37	-	-
YVD-07	YVD-060418-23	6/4/2018	N	874662	34.0	-	-	13.35	-	-	3.76	-	-	39.4	-	-	10.5	-	-	0.30	-	-
YVD-08	YVD-08-130919	09/19/2013	N	SWI0138	126	-	-	43.8	-	-	6.03	-	-	88.3	-	-	145	-	-	5	U	-
YVD-08	YVD-08-131211	12/11/2013	N	SWL0063	134	-	-	53.8	-	-	7.55	-	-	82.2	-	-	123	-	-	5	U	-
YVD-08	YVD-08-140317	03/17/2014	N	SXC0095	122	-	-	42.0	-	-	5.30	-	-	75.1	-	-	128	-	-	5	U	-
YVD-08	YVD-08-140602	06/02/2014	N	SXF0017	138	-	-	64.6	-	-	11.20	-	-	78.3	-	-	118	-	-	2	U	-
YVD-08	YVD-08-140923	09/23/2014	N	SXI0173	103	-	-	36.3	-	-	5.87	-	-	76.9	-	-	122	-	-	2.5	U	-
YVD-08	YVD-08-141216	12/16/2014	N	SXL0108	111	-	-	41.4	-	-	5.92	-	-	77.2	-	-	126	-	-	2.5	U	-
YVD-08	YVD-08-150317	03/17/2015	N	5904541	110	-	-	40.0	-	-	5.90	-	-	77.0	-	-	120	-	-	2.5	U	-
YVD-08	YVD-D3-150317	03/17/2015	FD	5904541	100	-	-	39.0	-	-	5.70	-	-	76.0	-	-	130	-	-	0.5	U	-
YVD-08	YVD-08-150617	06/17/2015	N	59010961	110	-	-	40.0	-	-	6.00	J+	MSD	82.0	J+	MSD	120	-	-	2.5	U	-
YVD-08	YVD-D3-150617	06/17/2015	FD	59010961	110	-	-	39.0	-	-	5.70	J+	MSD	77.0	J+	MSD	140	-	-	5	U	-
YVD-08	YVD-08-150924	09/24/2015	N	59020391	110	-	-	44.0	-	-	5.60	-	-	82.0	-	-	120	-	-	2.5	U	-
YVD-08	YVD-08-151215	12/15/2015	N	59025501	120	-	-	44.0	-	-	6.20	-	-	85.0	-	-	120	-	-	2.5	U	-
YVD-08	YVD-D3-151215	12/15/2015	FD	59025501	120	-	-	46.0	-	-	6.20	-	-	85.0	-	-	110	-	-	5	U	-
YVD-08	YVD-08-160310	03/10/2016	N	59029941	120	-	-	44.0	-	-	5.60	-	-	87.0	-	-	120	-	-	2.5	U	-
YVD-08	YVD-08-160622	6/22/2016	N	59037271	120	-	-	46.0	-	-	5.90	-	-	87.0	-	-	110	-	-	2.5	U	-
YVD-08	YVD-D3-160622	6/22/2016	FD	59037271	120	-	-	46.0	-	-	6.00	-	-	88.0	-	-	120	-	-	0.5	U	-
YVD-08	YVD-08-160927	9/27/2016	N	K1611565	120	-	-	47.0	-	-	4.95	-	-	84.7	-	-	96.0	-	-	0.18	J	-
YVD-08	YVD-08-161213	12/13/2016	N	K1615045	122	-	-	41.9	-	-	5.10	-	-	84.5	-	-	89.3	-	-	0.23	-	-
YVD-08	YVD-030917-24	3/9/2017	N	K1702448	136	-	-	44.4	-	-	4.95	-	-	83.4	-	-	95.2	-	-	0.20	J	-
YVD-08	YVD-060717-29	6/7/2017	N	K1705833	139	-	-	48.3	-	-	5.13	-	-	92.1	-	-	94.3	-	-	0.17	J	-
YVD-08	YVD-092617-19	9/26/2017	N	K1710333	137	-	-	44.3	-	-	5.12	-	-	89.3	-	-	98.0	-	-	0.19	J	-
YVD-08	YVD-120517-23	12/5/2017	N	K1713157	147	-	-	48.1	-	-	5.23	-	-	93.2	-	-	98.8	-	-	0.20	J	-
YVD-08	YVD-031918-15	3/19/2018	N	870634	134	-	-	45.95	-	-	5.40	-	-	90.5	-	-	103	-	-	0.15	-	-
YVD-08	YVD-060518-31	6/5/2018	N	874860	136	-	-	47.45	-	-	5.55	-	-	98.0	-	-	99.0	-	-	0.16	-	-
YVD-08	YVD-090918-04	9/9/2018	N	880601	146	-	-	49.15	-	-	5.70	-	-	99.5	-	-	103	-	-	0.18	-	-
YVD-09	YVD-09-130919	09/19/2013	N	SWI0138	107	-	-	39.3	-	-	8.21	-	-	189	-	-	96.3	-	-	5	U	-
YVD-09	YVD-09-131212	12/12/2013	N	SWL0078	109	-	-	42.0	-	-	9.21	-	-	176	-	-	87.2	-	-	5	U	-
YVD-09	YVD-09-140319	03/19/2014	N	SXC0107	109	-	-	40.8	-	-	9.33	-	-	173	-	-	104	-	-	5.5		-
YVD-09	YVD-09-140603	06/03/2014	N	SXF0025	113	-	-	44.5	-	-	10.10	-	-	193	-	-	89.8	-	-	5	U	-
YVD-09	YVD-09-140924	09/24/2014	N	SXI0173	118	-	-	41.7	-	-	8.88	-	-	203	-	-	68.2	-	-	5	U	-
YVD-09	YVD-09-141217	12/17/2014	N	SXL0121	130	-	-	56.3	-	-	12.90	-	-	187	-	-	85	-	-	5	U	-
YVD-09	YVD-09-150318	03/18/2015	N	5904651	110	-	-	46.0	-	-	9.30	J-	MSD	190	-	-	74	-	-	5	U	-
YVD-09	YVD-09-150617	06/17/2015	N	59010961	110	-	-	43.0	-	-	9.80	J+	MSD	190	J+	MSD	89	-	-	5	U	-
YVD-09	YVD-09-150923	09/23/2015	N	59020391	110	-	-	46.0	-	-	9.60	-	-	180	-	-	78	-	-	0.5	U	-
YVD-09	YVD-09-151215	12/15/2015	N	59025501	110	-	-	42.0	-	-	9.60	-	-	190	-	-	77	-	-	5	U	-
YVD-09	YVD-09-160310	03/10/2016	N	59029941	110	-	-	42.0	-	-	9.20	-	-	190	-	-	72	-	-	5	U	-
YVD-09	YVD-09-160622	6/22/2016	N	59037271	100	-	-	42.0	-	-	8.90	-	-	190	-	-	76	-	-	5	U	-

Table 8
Historical Groundwater Analytical Results

Analyte					Nitrate (as N)			Nitrite (as N)			Sulfate			Ammonia (as N)			Ammonia (as N)			Total Kjeldahl Nitrogen (TKN)		
Analytical Method					EPA 300.0			EPA 300.0			EPA 300.0			SM4500 NH3-G			EPA 350.1			EPA 351.2		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
YVD-07	YVD-120417-11	12/4/2017	N	K1713026	4.40	-	-	0.10	U	-	56.5	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-07	YVD-060418-23	6/4/2018	N	874662	3.34	-	-	0.05	U	-	63.5	-	-	0.47	U	FBK	-	-	-	0.5	UJ	MSD
YVD-08	YVD-08-130919	09/19/2013	N	SWI0138	8	-	-	2	U	-	105	-	-	-	-	-	0.1	U	-	0.935	J+	FBK
YVD-08	YVD-08-131211	12/11/2013	N	SWL0063	22.5	-	-	2	U	-	273	J-	MSD	-	-	-	0.02	R	MSD	0.75	U	ERL
YVD-08	YVD-08-140317	03/17/2014	N	SXC0095	14.3	-	-	2	U	-	173	J-	MSD	-	-	-	0.146	-	-	0.702	-	-
YVD-08	YVD-08-140602	06/02/2014	N	SXF0017	14.7	-	-	0.8	U	-	175	J-	MSD	-	-	-	0.1	U	-	1.12	-	-
YVD-08	YVD-08-140923	09/23/2014	N	SXI0173	8.1	-	-	1	U	-	107	-	-	-	-	-	0.1	U	-	0.867	J+	MSD
YVD-08	YVD-08-141216	12/16/2014	N	SXL0108	14	-	-	1	U	-	140	-	-	-	-	-	0.1	U	-	0.369	-	-
YVD-08	YVD-08-150317	03/17/2015	N	5904541	13	J-	MSD	1	U	-	130	J-	MSD	-	-	-	0.1	U	-	0.39	J-	MSD
YVD-08	YVD-D3-150317	03/17/2015	FD	5904541	14	J-	MSD	0.2	U	-	150	J-	MSD	-	-	-	0.1	U	-	0.25	UJ	MSD
YVD-08	YVD-08-150617	06/17/2015	N	59010961	19	-	-	1	U	-	140	-	-	-	-	-	0.14	-	-	0.26	J-	MSD, FDP
YVD-08	YVD-D3-150617	06/17/2015	FD	59010961	19	-	-	0.2	U	-	170	-	-	-	-	-	0.1	U	-	0.86	J-	MSD, FDP
YVD-08	YVD-08-150924	09/24/2015	N	59020391	20	J+	MSD	1	U	-	170	J-	MSD	-	-	-	0.1	UJ	MSD	0.25	UJ	MSD
YVD-08	YVD-08-151215	12/15/2015	N	59025501	26	-	-	1	U	-	190	-	-	-	-	-	0.1	R	MSD	0.25	R	MSD
YVD-08	YVD-D3-151215	12/15/2015	FD	59025501	26	-	-	0.2	U	-	180	-	-	-	-	-	0.15	J-	MSD	0.25	R	MSD
YVD-08	YVD-08-160310	03/10/2016	N	59029941	32	-	-	1	U	-	210	J	DUP	-	-	-	0.1	U	-	0.25	UJ	FDP, MSD
YVD-08	YVD-08-160622	6/22/2016	N	59037271	34	-	-	1	U	-	200	-	-	-	-	-	0.1	UJ	MSD	0.25	R	MSD
YVD-08	YVD-D3-160622	6/22/2016	FD	59037271	34	-	-	0.2	U	-	200	-	-	-	-	-	0.1	UJ	FBK, MSD	0.25	R	MSD
YVD-08	YVD-08-160927	9/27/2016	N	K1611565	30.6	-	-	0.10	U	-	193	-	-	-	-	-	0.050	U	MBK	0.5	R	MSD
YVD-08	YVD-08-161213	12/13/2016	N	K1615045	34.5	J	HTQ	0.10	U	-	182	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-08	YVD-030917-24	3/9/2017	N	K1702448	37.3	J	HTQ	0.10	U	-	203	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-08	YVD-060717-29	6/7/2017	N	K1705833	44.0	-	-	0.10	U	-	194	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-08	YVD-092617-19	9/26/2017	N	K1710333	38.6	J	HTQ	0.10	U	-	213	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-08	YVD-120517-23	12/5/2017	N	K1713157	49.3	-	-	0.10	U	-	184	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-08	YVD-031918-15	3/19/2018	N	870634	46.3	-	-	0.05	U	-	183	-	-	0.07	U	-	-	-	-	0.5	U	-
YVD-08	YVD-060518-31	6/5/2018	N	874860	53.0	-	-	0.05	U	-	197	-	-	0.07	U	-	-	-	-	0.5	UJ	MSD
YVD-08	YVD-090918-04	9/9/2018	N	880601	54.4	-	-	0.05	U	-	195	-	-	0.07	U	-	-	-	-	0.5	R	MSD
YVD-09	YVD-09-130919	09/19/2013	N	SWI0138	74.7	-	-	2	U	-	236	-	-	-	-	-	0.1	U	-	0.533	R	FBK
YVD-09	YVD-09-131212	12/12/2013	N	SWL0078	64.4	-	-	2	U	-	193	-	-	-	-	-	0.02	U	-	0.661	U	ERL
YVD-09	YVD-09-140319	03/19/2014	N	SXC0107	62.4	-	-	2	U	-	214	-	-	-	-	-	0.1	U	-	0.653	J-	MSD
YVD-09	YVD-09-140603	06/03/2014	N	SXF0025	57.1	-	-	2	U	-	214	-	-	-	-	-	0.1	U	-	0.613	J-	MSD
YVD-09	YVD-09-140924	09/24/2014	N	SXI0173	48	-	-	2	U	-	166	-	-	-	-	-	0.1	U	-	0.502	J+	MSD
YVD-09	YVD-09-141217	12/17/2014	N	SXL0121	53.9	-	-	2	U	-	223	-	-	-	-	-	0.1	U	-	0.25	UJ	MSD
YVD-09	YVD-09-150318	03/18/2015	N	5904651	47	-	-	2	U	-	190	-	-	-	-	-	0.14	-	-	0.25	UJ	MSD
YVD-09	YVD-09-150617	06/17/2015	N	59010961	54	-	-	2	U	-	230	-	-	-	-	-	0.14	-	-	0.37	J-	MSD
YVD-09	YVD-09-150923	09/23/2015	N	59020391	56	J+	MSD	0.2	U	-	270	J-	MSD	-	-	-	0.21	J	MSD	0.26	J-	MSD
YVD-09	YVD-09-151215	12/15/2015	N	59025501	52	-	-	2	U	-	250	-	-	-	-	-	0.1	R	MSD	0.25	R	MSD
YVD-09	YVD-09-160310	03/10/2016	N	59029941	48	-	-	2	U	-	250	J	DUP	-	-	-	0.12	-	-	0.25	UJ	FDP, MSD
YVD-09	YVD-09-160622	6/22/2016	N	59037271	49	-	-	2	U	-	260	-	-	-	-	-	0.1	UJ	MSD	0.25	R	MSD

Table 8
Historical Groundwater Analytical Results

Analyte					Phosphorus			Phosphorus			Phosphorus			Phosphorus			Alkalinity, Bicarbonate (as CaCO3)			Alkalinity, Total (as CaCO3)		
Analytical Method					EPA 365.1			EPA 365.3			EPA 365.4			SM4500 P-E			SM2320B			SM2320B		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
YVD-07	YVD-120417-11	12/4/2017	N	K1713026	-	-	-	0.022	-	-	-	-	-	-	-	-	130	-	-	130	-	-
YVD-07	YVD-060418-23	6/4/2018	N	874662	-	-	-	-	-	-	-	-	-	0.07	U	-	126	-	-	126	-	-
YVD-08	YVD-08-130919	09/19/2013	N	SWI0138	-	-	-	-	-	-	0.1	U	-	-	-	-	354	-	-	355	-	-
YVD-08	YVD-08-131211	12/11/2013	N	SWL0063	-	-	-	-	-	-	-	-	-	1.46	-	-	259	-	-	260	-	-
YVD-08	YVD-08-140317	03/17/2014	N	SXC0095	0.13	-	-	-	-	-	-	-	-	-	-	-	294	-	-	295	-	-
YVD-08	YVD-08-140602	06/02/2014	N	SXF0017	2.7	-	-	-	-	-	-	-	-	-	-	-	279	-	-	280	-	-
YVD-08	YVD-08-140923	09/23/2014	N	SXI0173	0.35	-	-	-	-	-	-	-	-	-	-	-	249	-	-	250	-	-
YVD-08	YVD-08-141216	12/16/2014	N	SXL0108	0.34	-	-	-	-	-	-	-	-	-	-	-	264	-	-	265	-	-
YVD-08	YVD-08-150317	03/17/2015	N	5904541	0.67	-	-	-	-	-	-	-	-	-	-	-	230	-	-	230	-	-
YVD-08	YVD-D3-150317	03/17/2015	FD	5904541	0.49	-	-	-	-	-	-	-	-	-	-	-	240	-	-	240	-	-
YVD-08	YVD-08-150617	06/17/2015	N	59010961	0.53	-	-	-	-	-	-	-	-	-	-	-	280	J	FDP	280	J	FDP
YVD-08	YVD-D3-150617	06/17/2015	FD	59010961	0.39	-	-	-	-	-	-	-	-	-	-	-	220	J	FDP	220	J	FDP
YVD-08	YVD-08-150924	09/24/2015	N	59020391	0.31	-	-	-	-	-	-	-	-	-	-	-	260	-	-	260	-	-
YVD-08	YVD-08-151215	12/15/2015	N	59025501	0.33	J-	MSD	-	-	-	-	-	-	-	-	-	260	-	-	260	-	-
YVD-08	YVD-D3-151215	12/15/2015	FD	59025501	0.27	J-	MSD	-	-	-	-	-	-	-	-	-	250	-	-	250	-	-
YVD-08	YVD-08-160310	03/10/2016	N	59029941	0.25	U	-	-	-	-	-	-	-	-	-	-	240	-	-	240	-	-
YVD-08	YVD-08-160622	6/22/2016	N	59037271	0.31	-	-	-	-	-	-	-	-	-	-	-	230	-	-	230	-	-
YVD-08	YVD-D3-160622	6/22/2016	FD	59037271	0.28	-	-	-	-	-	-	-	-	-	-	-	230	-	-	230	-	-
YVD-08	YVD-08-160927	9/27/2016	N	K1611565	-	-	-	0.049	-	-	-	-	-	-	-	-	239	-	-	239	-	-
YVD-08	YVD-08-161213	12/13/2016	N	K1615045	-	-	-	0.058	-	-	-	-	-	-	-	-	222	-	-	222	-	-
YVD-08	YVD-030917-24	3/9/2017	N	K1702448	-	-	-	0.018	-	-	-	-	-	-	-	-	263	-	-	263	-	-
YVD-08	YVD-060717-29	6/7/2017	N	K1705833	-	-	-	0.025	-	-	-	-	-	-	-	-	236	-	-	236	-	-
YVD-08	YVD-092617-19	9/26/2017	N	K1710333	-	-	-	0.01	-	-	-	-	-	-	-	-	271	-	-	271	-	-
YVD-08	YVD-120517-23	12/5/2017	N	K1713157	-	-	-	0.013	-	-	-	-	-	-	-	-	233	-	-	233	-	-
YVD-08	YVD-031918-15	3/19/2018	N	870634	-	-	-	-	-	-	-	-	-	0.07	U	-	250	-	-	250	-	-
YVD-08	YVD-060518-31	6/5/2018	N	874860	-	-	-	-	-	-	-	-	-	0.07	U	-	238	-	-	238	-	-
YVD-08	YVD-090918-04	9/9/2018	N	880601	-	-	-	-	-	-	-	-	-	0.07	U	-	237	-	-	237	-	-
YVD-09	YVD-09-130919	09/19/2013	N	SWI0138	-	-	-	-	-	-	0.232	R	FBK	-	-	-	369	-	-	370	-	-
YVD-09	YVD-09-131212	12/12/2013	N	SWL0078	-	-	-	-	-	-	-	-	-	0.647	-	-	384	-	-	385	-	-
YVD-09	YVD-09-140319	03/19/2014	N	SXC0107	0.53	-	-	-	-	-	-	-	-	-	-	-	388	-	-	390	-	-
YVD-09	YVD-09-140603	06/03/2014	N	SXF0025	0.72	-	-	-	-	-	-	-	-	-	-	-	367	-	-	368	-	-
YVD-09	YVD-09-140924	09/24/2014	N	SXI0173	0.32	J+	FBK	-	-	-	-	-	-	-	-	-	359	-	-	360	-	-
YVD-09	YVD-09-141217	12/17/2014	N	SXL0121	1.3	-	-	-	-	-	-	-	-	-	-	-	359	-	-	360	-	-
YVD-09	YVD-09-150318	03/18/2015	N	5904651	0.38	-	-	-	-	-	-	-	-	-	-	-	350	-	-	350	-	-
YVD-09	YVD-09-150617	06/17/2015	N	59010961	0.36	-	-	-	-	-	-	-	-	-	-	-	350	-	-	350	-	-
YVD-09	YVD-09-150923	09/23/2015	N	59020391	0.27	-	-	-	-	-	-	-	-	-	-	-	330	-	-	330	-	-
YVD-09	YVD-09-151215	12/15/2015	N	59025501	0.25	J-	MSD	-	-	-	-	-	-	-	-	-	340	-	-	340	-	-
YVD-09	YVD-09-160310	03/10/2016	N	59029941	0.33	-	-	-	-	-	-	-	-	-	-	-	360	-	-	360	-	-
YVD-09	YVD-09-160622	6/22/2016	N	59037271	0.29	-	-	-	-	-	-	-	-	-	-	-	350	-	-	350	-	-

Table 8
Historical Groundwater Analytical Results

Analyte					Calcium			Magnesium			Potassium			Sodium			Chloride			Fluoride		
Analytical Method					EPA 200.7			EPA 200.7			EPA 200.7			EPA 200.7			EPA 300			EPA 300.0		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
YVD-09	YVD-09-160929	9/29/2016	N	K1611704	103	-	-	41.2	-	-	7.62	-	-	184	-	-	66.7	-	-	0.34	-	-
YVD-09	YVD-09-161213	12/13/2016	N	K1615045	107	-	-	38.1	-	-	8.42	-	-	185	-	-	59.8	-	-	0.40	-	-
YVD-09	YVD-D2-161213	12/13/2016	FD	K1615045	108	-	-	37.1	-	-	8.04	-	-	181	-	-	61.4	-	-	0.40	-	-
YVD-09	YVD-031317-35	3/13/2017	N	K1702489	108	-	-	39.2	-	-	7.78	-	-	185	-	-	63.9	-	-	0.37	-	-
YVD-09	YVD-060517-08	6/5/2017	N	K1705702	110	-	-	39.4	-	-	6.98	-	-	163	-	-	62.6	-	-	0.39	-	-
YVD-09	YVD-092617-29	9/26/2017	N	K1710381	109	-	-	37.2	-	-	8.07	-	-	175	-	-	61.0	-	-	0.38	-	-
YVD-09	YVD-092617-30	9/26/2017	FD	K1710381	109	-	-	37.4	-	-	8.11	-	-	176	-	-	61.1	-	-	0.38	-	-
YVD-09	YVD-120517-21	12/5/2017	N	K1713091	108	-	-	35.9	-	-	7.27	-	-	174	-	-	63.0	-	-	0.38	-	-
YVD-09	YVD-031918-18	3/19/2018	N	870634	108	-	-	35.90	-	-	7.80	-	-	166	-	-	69.2	-	-	0.34	-	-
YVD-09	YVD-060318-13	6/3/2018	N	874568	107	-	-	37.75	-	-	8.35	-	-	182	-	-	63.4	-	-	0.36	-	-
YVD-09	YVD-090918-06	9/9/2018	N	880601	108	-	-	35.90	-	-	8.10	-	-	174	-	-	71.0	-	-	0.35	-	-
YVD-10	YVD-10-130917	09/17/2013	N	SWI0123	216	-	-	51.8	-	-	3.28	-	-	104	-	-	95.4	-	-	5	U	-
YVD-10	YVD-10-131212	12/12/2013	N	SWL0078	202	-	-	55.6	-	-	4.49	-	-	102	-	-	91.4	-	-	5	U	-
YVD-10	YVD-10-140319	03/19/2014	N	SXC0107	218	-	-	54.0	-	-	3.93	-	-	96.8	-	-	86.8	-	-	5	U	-
YVD-10	YVD-10-140603	06/03/2014	N	SXF0025	232	-	-	58.6	-	-	4.07	-	-	103	-	-	94.3	-	-	5	U	-
YVD-10	YVD-10-140924	09/24/2014	N	SXI0173	276	-	-	65.8	-	-	3.86	-	-	116	-	-	115	-	-	5	U	-
YVD-10	YVD-10-141217	12/17/2014	N	SXL0144	248	-	-	60.4	-	-	3.88	-	-	110	-	-	97.9	-	-	5	U	-
YVD-10	YVD-10-150318	03/18/2015	N	5904651	400	-	-	92.0	-	-	4.00	J-	MSD	130	-	-	180	-	-	5	U	-
YVD-10	YVD-10-150617	06/17/2015	N	59010961	390	-	-	95.0	-	-	4.60	J+	MSD	130	J+	MSD	39	-	-	5	U	-
YVD-10	YVD-10-150923	09/23/2015	N	59020391	330	-	-	89.0	-	-	4.30	-	-	120	-	-	160	-	-	5	U	-
YVD-10	YVD-10-151214	12/14/2015	N	59025351	350	-	-	84.0	-	-	4.30	-	-	120	-	-	150	-	-	5	U	-
YVD-10	YVD-10-160309	03/09/2016	N	59029711	310	-	-	73.0	-	-	4.10	-	-	120	-	-	140	-	-	5	U	-
YVD-10	YVD-10-160621	6/21/2016	N	59037271	270	-	-	73.0	-	-	4.50	-	-	110	-	-	120	-	-	5	U	-
YVD-10	YVD-10-160929	9/29/2016	N	K1611698	286	-	-	63.1	-	-	2.48	-	-	114	-	-	105	-	-	0.2	U	MBK
YVD-10	YVD-10-161212	12/12/2016	N	K1615029	303	-	-	66.9	-	-	2.68	-	-	118	-	-	141	-	-	0.10	J	-
YVD-10	YVD-030917-27	3/9/2017	N	K1702448	569	-	-	128	-	-	2.89	-	-	133	-	-	173	-	-	0.09	J	-
YVD-10	YVD-060617-22	6/6/2017	N	K1705754	349	-	-	76.7	-	-	2.57	-	-	119	-	-	125	-	-	0.14	J	-
YVD-10	YVD-092617-31	9/26/2017	N	K1710381	316	-	-	66.7	-	-	2.56	-	-	111	-	-	113	-	-	0.09	J	-
YVD-10	YVD-120517-30	12/5/2017	N	K1713091	327	-	-	67.3	-	-	2.37	-	-	114	-	-	128	-	-	0.11	J	-
YVD-10	YVD-031818-06	3/18/2018	N	870610	296	-	-	61.00	-	-	2.60	-	-	123	-	-	121	-	-	0.10	U	-
YVD-10	YVD-060318-06	6/3/2018	N	874568	298	-	-	65.00	-	-	2.93	-	-	118	-	-	122	-	-	0.10	U	-
YVD-10	YVD-090918-13	9/9/2018	N	880601	308	-	-	63.50	-	-	2.58	-	-	114	-	-	128	-	-	0.10	-	-
YVD-11	YVD-11-130923	09/23/2013	N	SWI0178	183	-	-	51.9	-	-	5.44	J	FDP	23.2	-	-	-	-	-	-	-	-
YVD-11	YVD-D2-130923	09/23/2013	FD	SWI0178	175	-	-	46.0	-	-	3.60	J	FDP	23.0	-	-	-	-	-	-	-	-
YVD-11	YVD-11-130926	09/26/2013	N	SWI0190	-	-	-	-	-	-	-	-	-	-	-	-	54.7	-	-	5	U	-
YVD-11	YVD-D3-130926	09/26/2013	FD	SWI0190	-	-	-	-	-	-	-	-	-	-	-	-	61.4	-	-	5	U	-
YVD-11	YVD-11-131212	12/12/2013	N	SWL0073	171	-	-	43.4	-	-	3.37	-	-	23.2	-	-	58.7	-	-	5	U	-
YVD-11	YVD-11-140318	03/18/2014	N	SXC0107	183	-	-	44.4	-	-	3.15	-	-	22.2	-	-	61.6	-	-	5	U	-
YVD-11	YVD-11-140603	06/03/2014	N	SXF0017	176	-	-	50.3	-	-	5.38	-	-	26.1	-	-	67.2	-	-	5	U	-

Table 8
Historical Groundwater Analytical Results

Analyte					Nitrate (as N)			Nitrite (as N)			Sulfate			Ammonia (as N)			Ammonia (as N)			Total Kjeldahl Nitrogen (TKN)		
Analytical Method					EPA 300.0			EPA 300.0			EPA 300.0			SM4500 NH3-G			EPA 350.1			EPA 351.2		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
YVD-09	YVD-09-160929	9/29/2016	N	K1611704	43.2	-	-	0.10	U	-	243	-	-	-	-	-	0.050	U	MBK	0.5	U	-
YVD-09	YVD-09-161213	12/13/2016	N	K1615045	42.8	J	HTQ	0.10	U	-	238	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-09	YVD-D2-161213	12/13/2016	FD	K1615045	43.3	J	HTQ	0.10	U	-	240	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-09	YVD-031317-35	3/13/2017	N	K1702489	44.3	-	-	0.04	J	-	225	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-09	YVD-060517-08	6/5/2017	N	K1705702	44.6	-	-	0.10	U	-	237	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-09	YVD-092617-29	9/26/2017	N	K1710381	44.1	J	HTQ	0.10	U	-	223	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-09	YVD-092617-30	9/26/2017	FD	K1710381	44.1	J	HTQ	0.10	U	-	224	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-09	YVD-120517-21	12/5/2017	N	K1713091	46.9	-	-	0.10	U	-	211	-	-	-	-	-	0.050	U	-	0.5	UJ	MSD
YVD-09	YVD-031918-18	3/19/2018	N	870634	48.5	-	-	0.05	U	-	180	-	-	0.07	U	-	-	-	-	0.5	U	-
YVD-09	YVD-060318-13	6/3/2018	N	874568	50.6	-	-	0.05	U	-	182	-	-	0.07	U	-	-	-	-	0.5	U	-
YVD-09	YVD-090918-06	9/9/2018	N	880601	51.4	-	-	0.05	U	-	172	-	-	0.07	U	-	-	-	-	0.5	R	MSD
YVD-10	YVD-10-130917	09/17/2013	N	SWI0123	95		-	2	U	-	199	-	-	-	-	-	0.1	U	-	0.25	U	-
YVD-10	YVD-10-131212	12/12/2013	N	SWL0078	86.9	-	-	2	U	-	174	-	-	-	-	-	0.02	U	-	0.6495	U	ERL
YVD-10	YVD-10-140319	03/19/2014	N	SXC0107	77.6	-	-	2	U	-	163	-	-	-	-	-	0.109	-	-	0.507	J-	MSD
YVD-10	YVD-10-140603	06/03/2014	N	SXF0025	86.1	-	-	2	U	-	188	-	-	-	-	-	0.105	-	-	0.577	J-	MSD
YVD-10	YVD-10-140924	09/24/2014	N	SXI0173	97.2	-	-	2	U	-	217	-	-	-	-	-	0.1	U	-	0.443	J+	MSD
YVD-10	YVD-10-141217	12/17/2014	N	SXL0144	78.7	-	-	2	U	-	180	-	-	-	-	-	0.5	U	-	0.25	R	MSD
YVD-10	YVD-10-150318	03/18/2015	N	5904651	120	-	-	2	U	-	370	-	-	-	-	-	0.1	U	-	0.25	UJ	MSD
YVD-10	YVD-10-150617	06/17/2015	N	59010961	20	-	-	2	U	-	110	-	-	-	-	-	0.12	-	-	0.44	J-	MSD
YVD-10	YVD-10-150923	09/23/2015	N	59020391	120	J+	MSD	2	U	-	370	J-	MSD	-	-	-	0.72	J	MSD	0.25	UJ	MSD
YVD-10	YVD-10-151214	12/14/2015	N	59025351	120	-	-	2	U	-	360	-	-	-	-	-	0.1	R	MSD	0.25	UJ	MSD
YVD-10	YVD-10-160309	03/09/2016	N	59029711	98	-	-	2	U	-	280	J+	MSD	-	-	-	0.1	UJ	FDP	0.25	R	MSD
YVD-10	YVD-10-160621	6/21/2016	N	59037271	96	-	-	2	U	-	240	-	-	-	-	-	0.11	J-	MSD	0.25	R	MSD
YVD-10	YVD-10-160929	9/29/2016	N	K1611698	84	-	-	0.10	U	-	223	-	-	-	-	-	0.050	U	MBK	0.5	R	MSD
YVD-10	YVD-10-161212	12/12/2016	N	K1615029	109	J	HTQ	0.10	U	-	191	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-10	YVD-030917-27	3/9/2017	N	K1702448	123	J	HTQ	0.10	U	-	799	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-10	YVD-060617-22	6/6/2017	N	K1705754	99.4	-	-	0.10	U	-	368	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-10	YVD-092617-31	9/26/2017	N	K1710381	93.9	J	HTQ	0.10	U	-	265	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-10	YVD-120517-30	12/5/2017	N	K1713091	109	J	HTQ	0.10	U	-	224	-	-	-	-	-	0.050	U	-	0.5	UJ	MSD
YVD-10	YVD-031818-06	3/18/2018	N	870610	91.4	-	-	0.05	U	-	202	-	-	0.07	U	-	-	-	-	0.5	U	-
YVD-10	YVD-060318-06	6/3/2018	N	874568	92.0	-	-	0.05	U	-	208	-	-	0.08	U	FBK	-	-	-	0.5	U	-
YVD-10	YVD-090918-13	9/9/2018	N	880601	90.0	-	-	0.05	U	-	238	-	-	0.07	U	-	-	-	-	0.5	R	MSD
YVD-11	YVD-11-130923	09/23/2013	N	SWI0178	-	-	-	-	-	-	-	-	-	-	-	-	0.1	U	-	0.25	U	-
YVD-11	YVD-D2-130923	09/23/2013	FD	SWI0178	-	-	-	-	-	-	-	-	-	-	-	-	0.1	U	-	0.25	U	-
YVD-11	YVD-11-130926	09/26/2013	N	SWI0190	38.4	-	-	2	U	-	207	-	-	-	-	-	-	-	-	-	-	-
YVD-11	YVD-D3-130926	09/26/2013	FD	SWI0190	46.2	-	-	2	U	-	228	-	-	-	-	-	-	-	-	-	-	-
YVD-11	YVD-11-131212	12/12/2013	N	SWL0073	49.9	-	-	2	U	-	208	-	-	-	-	-	0.02	UJ	MSD	0.2	UJ	MSD
YVD-11	YVD-11-140318	03/18/2014	N	SXC0107	43.7	-	-	2	U	-	193	-	-	-	-	-	0.1	U	-	0.503	J-	MSD
YVD-11	YVD-11-140603	06/03/2014	N	SXF0017	49.1	-	-	2	U	-	203	J-	MSD	-	-	-	0.1	U	-	0.564	-	-

Table 8
Historical Groundwater Analytical Results

Analyte					Phosphorus			Phosphorus			Phosphorus			Phosphorus			Alkalinity, Bicarbonate (as CaCO3)			Alkalinity, Total (as CaCO3)			
Analytical Method					EPA 365.1			EPA 365.3			EPA 365.4			SM4500 P-E			SM2320B			SM2320B			
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	
YVD-09	YVD-09-160929	9/29/2016	N	K1611704	-	-	-	0.016	-	-	-	-	-	-	-	-	347	-	-	347	-	-	
YVD-09	YVD-09-161213	12/13/2016	N	K1615045	-	-	-	0.048	-	-	-	-	-	-	-	-	340	-	-	340	-	-	
YVD-09	YVD-D2-161213	12/13/2016	FD	K1615045	-	-	-	0.078	-	-	-	-	-	-	-	-	340	-	-	340	-	-	
YVD-09	YVD-031317-35	3/13/2017	N	K1702489	-	-	-	0.025	-	-	-	-	-	-	-	-	329	-	-	329	-	-	
YVD-09	YVD-060517-08	6/5/2017	N	K1705702	-	-	-	0.007	J	-	-	-	-	-	-	-	341	-	-	341	-	-	
YVD-09	YVD-092617-29	9/26/2017	N	K1710381	-	-	-	0.029	-	-	-	-	-	-	-	-	351	-	-	351	-	-	
YVD-09	YVD-092617-30	9/26/2017	FD	K1710381	-	-	-	0.039	-	-	-	-	-	-	-	-	415	-	-	415	-	-	
YVD-09	YVD-120517-21	12/5/2017	N	K1713091	-	-	-	0.009	J	-	-	-	-	-	-	-	351	-	-	351	-	-	
YVD-09	YVD-031918-18	3/19/2018	N	870634	-	-	-	-	-	-	-	-	-	0.07	U	-	350	-	-	350	-	-	
YVD-09	YVD-060318-13	6/3/2018	N	874568	-	-	-	-	-	-	-	-	-	0.07	U	-	348	-	-	348	-	-	
YVD-09	YVD-090918-06	9/9/2018	N	880601	-	-	-	-	-	-	-	-	-	0.07	U	-	354	-	-	354	-	-	
YVD-10	YVD-10-130917	09/17/2013	N	SWI0123	-	-	-	-	-	-	0.148	-	-	-	-	-	464	-	-	465	-	-	
YVD-10	YVD-10-131212	12/12/2013	N	SWL0078	-	-	-	-	-	-	-	-	-	1.4	-	-	459	-	-	460	-	-	
YVD-10	YVD-10-140319	03/19/2014	N	SXC0107	0.77	-	-	-	-	-	-	-	-	-	-	-	489	-	-	490	-	-	
YVD-10	YVD-10-140603	06/03/2014	N	SXF0025	0.8	-	-	-	-	-	-	-	-	-	-	-	487	-	-	488	-	-	
YVD-10	YVD-10-140924	09/24/2014	N	SXI0173	0.48	J+	FBK	-	-	-	-	-	-	-	-	-	523	-	-	525	-	-	
YVD-10	YVD-10-141217	12/17/2014	N	SXL0144	0.69	J-	MSD	-	-	-	-	-	-	-	-	-	503	-	-	505	-	-	
YVD-10	YVD-10-150318	03/18/2015	N	5904651	0.42	-	-	-	-	-	-	-	-	-	-	-	590	-	-	590	-	-	
YVD-10	YVD-10-150617	06/17/2015	N	59010961	0.72	-	-	-	-	-	-	-	-	-	-	-	600	-	-	600	-	-	
YVD-10	YVD-10-150923	09/23/2015	N	59020391	0.56	-	-	-	-	-	-	-	-	-	-	-	620	-	-	620	-	-	
YVD-10	YVD-10-151214	12/14/2015	N	59025351	0.58	-	-	-	-	-	-	-	-	-	-	-	600	-	-	600	-	-	
YVD-10	YVD-10-160309	03/09/2016	N	59029711	0.42	-	-	-	-	-	-	-	-	-	-	-	520	-	-	520	-	-	
YVD-10	YVD-10-160621	6/21/2016	N	59037271	0.71	-	-	-	-	-	-	-	-	-	-	-	510	-	-	510	-	-	
YVD-10	YVD-10-160929	9/29/2016	N	K1611698	-	-	-	0.028	-	-	-	-	-	-	-	-	513	-	-	513	-	-	
YVD-10	YVD-10-161212	12/12/2016	N	K1615029	-	-	-	0.074	-	-	-	-	-	-	-	-	524	-	-	524	-	-	
YVD-10	YVD-030917-27	3/9/2017	N	K1702448	-	-	-	0.066	-	-	-	-	-	-	-	-	637	-	-	637	-	-	
YVD-10	YVD-060617-22	6/6/2017	N	K1705754	-	-	-	0.036	-	-	-	-	-	-	-	-	525	-	-	525	-	-	
YVD-10	YVD-092617-31	9/26/2017	N	K1710381	-	-	-	0.011	-	-	-	-	-	-	-	-	523	-	-	523	-	-	
YVD-10	YVD-120517-30	12/5/2017	N	K1713091	-	-	-	0.023	-	-	-	-	-	-	-	-	540	-	-	540	-	-	
YVD-10	YVD-031818-06	3/18/2018	N	870610	-	-	-	-	-	-	-	-	-	0.07	U	-	527	-	-	527	-	-	
YVD-10	YVD-060318-06	6/3/2018	N	874568	-	-	-	-	-	-	-	-	-	0.07	U	-	543	-	-	543	-	-	
YVD-10	YVD-090918-13	9/9/2018	N	880601	-	-	-	-	-	-	-	-	-	0.07	U	-	557	-	-	557	-	-	
YVD-11	YVD-11-130923	09/23/2013	N	SWI0178	-	-	-	-	-	-	0.1	UJ	FDP	-	-	-	254	J	FDP	255	J	FDP	
YVD-11	YVD-D2-130923	09/23/2013	FD	SWI0178	-	-	-	-	-	-	0.753	J	FDP	-	-	-	199	J	FDP	200	J	FDP	
YVD-11	YVD-11-130926	09/26/2013	N	SWI0190	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
YVD-11	YVD-D3-130926	09/26/2013	FD	SWI0190	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
YVD-11	YVD-11-131212	12/12/2013	N	SWL0073	-	-	-	-	-	-	-	-	-	0.245	-	-	294	-	-	295	-	-	
YVD-11	YVD-11-140318	03/18/2014	N	SXC0107	0.17	-	-	-	-	-	-	-	-	-	-	-	324	-	-	325	-	-	
YVD-11	YVD-11-140603	06/03/2014	N	SXF0017	0.84	-	-	-	-	-	-	-	-	-	-	-	312	-	-	313	-	-	

Table 8
Historical Groundwater Analytical Results

Analyte					Calcium			Magnesium			Potassium			Sodium			Chloride			Fluoride		
Analytical Method					EPA 200.7			EPA 200.7			EPA 200.7			EPA 200.7			EPA 300			EPA 300.0		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
YVD-11	YVD-11-140924	09/24/2014	N	SXI0173	193	-	-	47.9	-	-	3.86	-	-	25.6	-	-	67.2	-	-	2.5	U	-
YVD-11	YVD-11-141217	12/17/2014	N	SXL0121	198	-	-	53.6	-	-	4.77	-	-	25.6	-	-	72.1	-	-	5	U	-
YVD-11	YVD-11-150317	03/17/2015	N	5904651	190	-	-	51.0	-	-	4.30	J-	MSD	26.0	-	-	76	-	-	5	U	-
YVD-11	YVD-11-150616	06/16/2015	N	59010961	200	-	-	50.0	-	-	3.20	J+	MSD	27.0	J+	MSD	86	-	-	5	U	-
YVD-11	YVD-11-150923	09/23/2015	N	59020281	200	-	-	55.0	-	-	3.40	-	-	25.0	-	-	90	-	-	5	U	-
YVD-11	YVD-11-151215	12/15/2015	N	59025431	210	-	-	60.0	-	-	5.20	-	-	25.0	-	-	100	-	-	5	U	-
YVD-11	YVD-D2-151215	12/15/2015	FD	59025431	210	-	-	58.0	-	-	4.90	-	-	25.0	-	-	98	-	-	0.5	U	-
YVD-11	YVD-11-160309	03/09/2016	N	59029711	200	-	-	53.0	-	-	3.30	-	-	25.0	-	-	99	-	-	5	U	-
YVD-11	YVD-11-160621	6/21/2016	N	59037151	200	-	-	56.0	-	-	3.50	-	-	27.0	-	-	120	-	-	5	U	-
YVD-11	YVD-11-160927	9/27/2016	N	K1611629	204	-	-	52.6	-	-	3.13	-	-	26.1	-	-	82.0	-	-	0.18	J	-
YVD-11	YVD-11-161214	12/14/2016	N	K1615126	209	-	-	57.8	-	-	4.82	-	-	25.6	-	-	82.5	-	-	0.19	J	-
YVD-11	YVD-031317-37	3/13/2017	N	K1702489	235	-	-	62.1	-	-	3.02	-	-	25.5	-	-	102	-	-	0.21	-	-
YVD-11	YVD-060517-10	6/5/2017	N	K1705702	271	-	-	69.1	-	-	2.98	-	-	24.9	-	-	129	-	-	0.18	J	-
YVD-11	YVD-092617-26	9/26/2017	N	K1710381	276	-	-	68.6	-	-	3.24	-	-	28.8	-	-	135	-	-	0.17	J	-
YVD-11	YVD-120417-06	12/4/2017	N	K1713026	248	-	-	58.6	-	-	2.78	-	-	25.8	-	-	110	-	-	0.16	J	-
YVD-11	YVD-031918-12	3/19/2018	N	870634	223	-	-	51.50	-	-	2.98	-	-	26.0	-	-	91.4	-	-	0.11	-	-
YVD-11	YVD-031918-14	3/19/2018	FD	870634	222	-	-	50.50	-	-	2.94	-	-	25.8	-	-	89.1	-	-	0.12	-	-
YVD-11	YVD-060418-14	6/4/2018	N	874662	224	-	-	57.00	-	-	3.26	-	-	28.4	-	-	114	-	-	0.12	-	-
YVD-11	YVD-060418-16	6/4/2018	FD	874662	231	-	-	57.50	-	-	3.28	-	-	28.9	-	-	114	-	-	0.12	-	-
YVD-11	YVD-090918-05	9/9/2018	N	880601	223	-	-	53.00	-	-	3.05	-	-	28.2	-	-	102	-	-	0.20	-	-
YVD-12	YVD-12-130919	09/19/2013	N	SWI0142	98.6	-	-	37.5	-	-	3.14	-	-	77.3	-	-	98.2	-	-	5	U	-
YVD-12	YVD-12-130925	09/25/2013	N	SWI0175	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
YVD-12	YVD-12-131211	12/11/2013	N	SWL0073	93.5	-	-	36.2	-	-	3.63	-	-	73.2	-	-	97	-	-	5	U	-
YVD-12	YVD-12-140318	03/18/2014	N	SXC0095	92.9	-	-	35.9	-	-	3.27	-	-	73.4	-	-	95.2	-	-	5	U	-
YVD-12	YVD-12-140603	06/03/2014	N	SXF0017	92.6	-	-	34.9	-	-	2.96	-	-	70.7	-	-	8.33	-	-	0.5	U	-
YVD-12	YVD-12-140922	09/22/2014	N	SXI0148	98.4	-	-	39.1	-	-	3.13	-	-	77.9	-	-	78.5	-	-	5	U	-
YVD-12	YVD-D2-140922	09/22/2014	FD	SXI0148	99.3	-	-	39.0	-	-	3.00	-	-	77.8	-	-	82.4	-	-	2	U	-
YVD-12	YVD-12-141216	12/16/2014	N	SXL0121	99.3	-	-	39.6	-	-	3.23	-	-	71.8	-	-	84.1	-	-	5	U	-
YVD-12	YVD-12-150317	03/17/2015	N	5904541	93.0	-	-	37.0	-	-	3.60	-	-	73.0	-	-	75	-	-	5	U	-
YVD-12	YVD-12-150617	06/17/2015	N	59010961	90.0	-	-	35.0	-	-	2.60	J+	MSD	83.0	J+	MSD	84	-	-	5	U	-
YVD-12	YVD-12-150924	09/24/2015	N	59020391	92.0	-	-	39.0	-	-	3.50	-	-	73.0	-	-	78	-	-	5	U	-
YVD-12	YVD-12-151216	12/16/2015	N	59025501	95.0	-	-	37.0	-	-	3.10	-	-	74.0	-	-	76	-	-	5	U	-
YVD-12	YVD-12-160309	03/09/2016	N	59029941	95.0	-	-	35.0	-	-	2.60	-	-	73.0	-	-	73	-	-	5	U	-
YVD-12	YVD-D3-160309	03/09/2016	FD	59029941	95.0	-	-	36.0	-	-	2.50	-	-	72.0	-	-	79	-	-	0.5	U	-
YVD-12	YVD-12-160622	6/22/2016	N	59037271	89.0	-	-	36.0	-	-	2.90	-	-	72.0	-	-	90	-	-	5	U	-
YVD-12	YVD-12-160929	9/29/2016	N	K1611704	88.9	-	-	37.2	-	-	2.28	-	-	67.7	-	-	83.5	-	-	0.33	-	-
YVD-12	YVD-12-161213	12/13/2016	N	K1615083	93.4	-	-	33.6	-	-	2.29	-	-	67.9	-	-	81.7	-	-	0.33	-	-
YVD-12	YVD-030917-20	3/9/2017	N	K1702404	97.3	-	-	35.4	-	-	2.27	-	-	67.4	-	-	91.7	-	-	0.38	-	-
YVD-12	YVD-060617-25	6/6/2017	N	K1705833	98.4	-	-	35.8	-	-	2.24	-	-	66.5	-	-	94.1	-	-	0.32	-	-
YVD-12	YVD-092517-15	9/25/2017	N	K1710333	97.6	-	-	34.2	-	-	2.27	-	-	64.4	-	-	94.7	-	-	0.34	-	-

Table 8
Historical Groundwater Analytical Results

Analyte					Nitrate (as N)			Nitrite (as N)			Sulfate			Ammonia (as N)			Ammonia (as N)			Total Kjeldahl Nitrogen (TKN)			
Analytical Method					EPA 300.0			EPA 300.0			EPA 300.0			SM4500 NH3-G			EPA 350.1			EPA 351.2			
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	
YVD-11	YVD-11-140924	09/24/2014	N	SXI0173	46.6	-	-	1	U	-	159	-	-	-	-	-	0.1	U	-	0.453	J+	MSD	
YVD-11	YVD-11-141217	12/17/2014	N	SXL0121	49.1	-	-	2	U	-	158	-	-	-	-	-	0.1	U	-	0.25	UJ	MSD	
YVD-11	YVD-11-150317	03/17/2015	N	5904651	52	-	-	2	U	-	150	-	-	-	-	-	0.1	U	-	0.25	UJ	MSD	
YVD-11	YVD-11-150616	06/16/2015	N	59010961	56	-	-	2	U	-	140	-	-	-	-	-	0.1	U	-	0.31	J-	MSD	
YVD-11	YVD-11-150923	09/23/2015	N	59020281	66	-	-	2	U	-	130	-	-	-	-	-	0.12	-	-	0.25	R	MSD	
YVD-11	YVD-11-151215	12/15/2015	N	59025431	74	-	-	2	U	-	140	-	-	-	-	-	0.1	R	MSD	0.25	R	MSD	
YVD-11	YVD-D2-151215	12/15/2015	FD	59025431	70	-	-	0.2	U	-	130	-	-	-	-	-	0.1	R	MSD	0.25	R	MSD	
YVD-11	YVD-11-160309	03/09/2016	N	59029711	65	-	-	2	U	-	140	J+	MSD	-	-	-	0.14	J	FDP	0.25	R	MSD	
YVD-11	YVD-11-160621	6/21/2016	N	59037151	71	-	-	2	U	-	130	-	-	-	-	-	0.1	U	-	0.25	U	-	
YVD-11	YVD-11-160927	9/27/2016	N	K1611629	48.9	J	HTQ	0.10	U	-	100	-	-	-	-	-	0.050	U	MBK	0.5	U	-	
YVD-11	YVD-11-161214	12/14/2016	N	K1615126	55.5	-	-	0.10	U	-	104	-	-	-	-	-	0.050	U	-	0.5	U	-	
YVD-11	YVD-031317-37	3/13/2017	N	K1702489	77.3	-	-	0.06	J	-	99.8	-	-	-	-	-	0.050	U	-	0.5	U	-	
YVD-11	YVD-060517-10	6/5/2017	N	K1705702	97.1	-	-	0.10	U	-	133	-	-	-	-	-	0.050	U	-	0.5	U	-	
YVD-11	YVD-092617-26	9/26/2017	N	K1710381	103	J	HTQ	0.10	UJ	HTQ	219	-	-	-	-	-	0.050	U	-	0.5	U	-	
YVD-11	YVD-120417-06	12/4/2017	N	K1713026	84.8	-	-	0.10	U	-	124	-	-	-	-	-	0.050	U	-	0.5	U	-	
YVD-11	YVD-031918-12	3/19/2018	N	870634	61.8	-	-	0.05	U	-	103	-	-	0.07	U	-	-	-	-	0.5	U	-	
YVD-11	YVD-031918-14	3/19/2018	FD	870634	61.2	-	-	0.05	U	-	100	-	-	0.07	U	-	-	-	-	-	-	-	
YVD-11	YVD-060418-14	6/4/2018	N	874662	68.6	-	-	0.05	U	-	91.2	-	-	0.34	U	FBK	-	-	-	0.5	UJ	MSD	
YVD-11	YVD-060418-16	6/4/2018	FD	874662	68.2	-	-	0.05	U	-	90.0	-	-	0.08	U	FBK	-	-	-	0.6	J	MSD	
YVD-11	YVD-090918-05	9/9/2018	N	880601	62.8	-	-	0.05	U	-	90.6	-	-	0.07	U	-	-	-	-	0.5	R	MSD	
YVD-12	YVD-12-130919	09/19/2013	N	SWI0142	-	-	-	-	-	-	245	-	-	-	-	-	0.1	U	-	0.608	R	FBK	
YVD-12	YVD-12-130925	09/25/2013	N	SWI0175	15	-	-	2	U	-	-	-	-	-	-	-	-	-	-	-	-	-	
YVD-12	YVD-12-131211	12/11/2013	N	SWL0073	20.1	-	-	2	U	-	262	-	-	-	-	-	0.02	UJ	MSD	0.23	R	MSD, FBK	
YVD-12	YVD-12-140318	03/18/2014	N	SXC0095	17	-	-	2	U	-	236	J-	MSD	-	-	-	0.248	-	-	0.564	-	-	
YVD-12	YVD-12-140603	06/03/2014	N	SXF0017	1.44	-	-	0.2	U	-	21.3	J-	MSD	-	-	-	0.1	U	-	0.415	-	-	
YVD-12	YVD-12-140922	09/22/2014	N	SXI0148	13.3	-	-	2	U	-	200	-	-	-	-	-	0.1	U	-	0.669	-	-	
YVD-12	YVD-D2-140922	09/22/2014	FD	SXI0148	15.5	-	-	0.8	U	-	200	-	-	-	-	-	0.1	U	-	0.653	-	-	
YVD-12	YVD-12-141216	12/16/2014	N	SXL0121	15.1	-	-	2	U	-	228	-	-	-	-	-	0.1	U	-	0.25	UJ	MSD	
YVD-12	YVD-12-150317	03/17/2015	N	5904541	14	J-	MSD	2	U	-	190	J-	MSD	-	-	-	0.1	U	-	0.56	J-	MSD	
YVD-12	YVD-12-150617	06/17/2015	N	59010961	12	-	-	2	U	-	180	-	-	-	-	-	0.1	U	-	0.35	J-	MSD	
YVD-12	YVD-12-150924	09/24/2015	N	59020391	15	J+	MSD	2	U	-	210	J-	MSD	-	-	-	0.1	UJ	MSD	0.25	UJ	MSD	
YVD-12	YVD-12-151216	12/16/2015	N	59025501	14	-	-	2	U	-	180	-	-	-	-	-	0.1	R	MSD	0.58	J-	MSD	
YVD-12	YVD-12-160309	03/09/2016	N	59029941	13	-	-	2	U	-	170	J	DUP	-	-	-	0.1	U	-	0.25	UJ	MSD	
YVD-12	YVD-D3-160309	03/09/2016	FD	59029941	15	-	-	0.2	U	-	180	J	DUP	-	-	-	0.1	U	-	0.25	UJ	MSD	
YVD-12	YVD-12-160622	6/22/2016	N	59037271	14	-	-	2	U	-	180	-	-	-	-	-	0.1	UJ	MSD	0.25	R	MSD	
YVD-12	YVD-12-160929	9/29/2016	N	K1611704	13.5	-	-	0.10	U	-	158	-	-	-	-	-	0.050	U	MBK	0.5	U	-	
YVD-12	YVD-12-161213	12/13/2016	N	K1615083	12.2	-	-	0.10	U	-	150	-	-	-	-	-	0.050	U	-	0.5	U	-	
YVD-12	YVD-030917-20	3/9/2017	N	K1702404	13.4	-	-	0.10	U	-	227	-	-	-	-	-	0.050	U	-	0.5	UJ	MSD	
YVD-12	YVD-060617-25	6/6/2017	N	K1705833	13.6	-	-	0.10	U	-	155	-	-	-	-	-	0.050	U	-	0.5	U	-	
YVD-12	YVD-092517-15	9/25/2017	N	K1710333	14.0	-	-	0.10	U	-	177	-	-	-	-	-	0.050	U	-	0.5	U	-	

Table 8
Historical Groundwater Analytical Results

Analyte					Phosphorus			Phosphorus			Phosphorus			Phosphorus			Alkalinity, Bicarbonate (as CaCO3)			Alkalinity, Total (as CaCO3)			
Analytical Method					EPA 365.1			EPA 365.3			EPA 365.4			SM4500 P-E			SM2320B			SM2320B			
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	
YVD-11	YVD-11-140924	09/24/2014	N	SXI0173	0.17	J+	FBK	-	-	-	-	-	-	-	-	-	294	-	-	295	-	-	
YVD-11	YVD-11-141217	12/17/2014	N	SXL0121	0.46	-	-	-	-	-	-	-	-	-	-	-	289	-	-	290	-	-	
YVD-11	YVD-11-150317	03/17/2015	N	5904651	0.3	-	-	-	-	-	-	-	-	-	-	-	290	-	-	290	-	-	
YVD-11	YVD-11-150616	06/16/2015	N	59010961	0.25	U	-	-	-	-	-	-	-	-	-	-	290	-	-	290	-	-	
YVD-11	YVD-11-150923	09/23/2015	N	59020281	0.25	U	-	-	-	-	-	-	-	-	-	-	310	-	-	310	-	-	
YVD-11	YVD-11-151215	12/15/2015	N	59025431	0.59	J	FDP	-	-	-	-	-	-	-	-	-	110	J	FDP	110	J	FDP	
YVD-11	YVD-D2-151215	12/15/2015	FD	59025431	1.5	J	FDP	-	-	-	-	-	-	-	-	-	360	J	FDP	360	J	FDP	
YVD-11	YVD-11-160309	03/09/2016	N	59029711	0.25	U	-	-	-	-	-	-	-	-	-	-	340	-	-	340	-	-	
YVD-11	YVD-11-160621	6/21/2016	N	59037151	0.25	U	-	-	-	-	-	-	-	-	-	-	340	-	-	340	-	-	
YVD-11	YVD-11-160927	9/27/2016	N	K1611629	-	-	-	0.071	-	-	-	-	-	-	-	-	375	-	-	375	-	-	
YVD-11	YVD-11-161214	12/14/2016	N	K1615126	-	-	-	0.421	-	-	-	-	-	-	-	-	352	-	-	352	-	-	
YVD-11	YVD-031317-37	3/13/2017	N	K1702489	-	-	-	0.016	-	-	-	-	-	-	-	-	353	-	-	353	-	-	
YVD-11	YVD-060517-10	6/5/2017	N	K1705702	-	-	-	0.029	-	-	-	-	-	-	-	-	341	-	-	341	-	-	
YVD-11	YVD-092617-26	9/26/2017	N	K1710381	-	-	-	0.006	J	-	-	-	-	-	-	-	347	-	-	347	-	-	
YVD-11	YVD-120417-06	12/4/2017	N	K1713026	-	-	-	0.015	U	MBK	-	-	-	-	-	-	361	-	-	361	-	-	
YVD-11	YVD-031918-12	3/19/2018	N	870634	-	-	-	-	-	-	-	-	-	0.07	U	-	386	-	-	386	-	-	
YVD-11	YVD-031918-14	3/19/2018	FD	870634	-	-	-	-	-	-	-	-	-	0.07	U	-	387	-	-	387	-	-	
YVD-11	YVD-060418-14	6/4/2018	N	874662	-	-	-	-	-	-	-	-	-	0.07	U	-	377	-	-	377	-	-	
YVD-11	YVD-060418-16	6/4/2018	FD	874662	-	-	-	-	-	-	-	-	-	0.07	U	-	380	-	-	380	-	-	
YVD-11	YVD-090918-05	9/9/2018	N	880601	-	-	-	-	-	-	-	-	-	0.07	U	-	395	-	-	395	-	-	
YVD-12	YVD-12-130919	09/19/2013	N	SWI0142	-	-	-	-	-	-	0.356	J+	FBK	-	-	-	204	-	-	205	-	-	
YVD-12	YVD-12-130925	09/25/2013	N	SWI0175	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
YVD-12	YVD-12-131211	12/11/2013	N	SWL0073	-	-	-	-	-	-	-	-	-	0.218	-	-	194	-	-	195	-	-	
YVD-12	YVD-12-140318	03/18/2014	N	SXC0095	0.22	-	-	-	-	-	-	-	-	-	-	-	204	-	-	205	-	-	
YVD-12	YVD-12-140603	06/03/2014	N	SXF0017	0.28	J+	FBK	-	-	-	-	-	-	-	-	-	199	-	-	200	-	-	
YVD-12	YVD-12-140922	09/22/2014	N	SXI0148	0.25	-	-	-	-	-	-	-	-	-	-	-	189	-	-	190	-	-	
YVD-12	YVD-D2-140922	09/22/2014	FD	SXI0148	0.2	-	-	-	-	-	-	-	-	-	-	-	194	-	-	195	-	-	
YVD-12	YVD-12-141216	12/16/2014	N	SXL0121	0.25	-	-	-	-	-	-	-	-	-	-	-	194	-	-	195	-	-	
YVD-12	YVD-12-150317	03/17/2015	N	5904541	0.31	-	-	-	-	-	-	-	-	-	-	-	190	-	-	190	-	-	
YVD-12	YVD-12-150617	06/17/2015	N	59010961	0.25	U	-	-	-	-	-	-	-	-	-	-	190	-	-	190	-	-	
YVD-12	YVD-12-150924	09/24/2015	N	59020391	0.25	U	-	-	-	-	-	-	-	-	-	-	190	-	-	190	-	-	
YVD-12	YVD-12-151216	12/16/2015	N	59025501	0.25	UJ	MSD	-	-	-	-	-	-	-	-	-	210	-	-	210	-	-	
YVD-12	YVD-12-160309	03/09/2016	N	59029941	0.25	U	-	-	-	-	-	-	-	-	-	-	210	-	-	210	-	-	
YVD-12	YVD-D3-160309	03/09/2016	FD	59029941	0.25	U	-	-	-	-	-	-	-	-	-	-	200	-	-	200	-	-	
YVD-12	YVD-12-160622	6/22/2016	N	59037271	0.25	U	-	-	-	-	-	-	-	-	-	-	190	-	-	190	-	-	
YVD-12	YVD-12-160929	9/29/2016	N	K1611704	-	-	-	0.026	-	-	-	-	-	-	-	-	188	-	-	188	-	-	
YVD-12	YVD-12-161213	12/13/2016	N	K1615083	-	-	-	0.018	-	-	-	-	-	-	-	-	183	-	-	183	-	-	
YVD-12	YVD-030917-20	3/9/2017	N	K1702404	-	-	-	0.008	J	-	-	-	-	-	-	-	132	-	-	132	-	-	
YVD-12	YVD-060617-25	6/6/2017	N	K1705833	-	-	-	0.010	J	-	-	-	-	-	-	-	183	-	-	183	-	-	
YVD-12	YVD-092517-15	9/25/2017	N	K1710333	-	-	-	0.010	U	-	-	-	-	-	-	-	188	-	-	188	-	-	

Table 8
Historical Groundwater Analytical Results

Analyte					Calcium			Magnesium			Potassium			Sodium			Chloride			Fluoride		
Analytical Method					EPA 200.7			EPA 200.7			EPA 200.7			EPA 200.7			EPA 300			EPA 300.0		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
YVD-12	YVD-120417-03	12/4/2017	N	K1713026	89.7	-	-	32.9	-	-	2.06	-	-	70.8	-	-	85.4	-	-	0.41	-	-
YVD-12	YVD-031918-13	3/19/2018	N	870610	98.0	-	-	35.25	-	-	2.30	-	-	70.5	-	-	97.7	-	-	0.35	-	-
YVD-12	YVD-060318-11	6/3/2018	N	874568	103	-	-	38.35	-	-	2.58	-	-	68.0	-	-	100	-	-	0.34	-	-
YVD-12	YVD-090918-16	9/9/2018	N	880601	110	-	-	38.65	-	-	2.52	-	-	67.0	-	-	105	-	-	0.33	-	-
YVD-13	YVD-13-130919	09/19/2013	N	SWI0138	102	-	-	29.9	-	-	4.30	-	-	114	-	-	90.3	-	-	5	U	-
YVD-13	YVD-13-131211	12/11/2013	N	SWL0073	101	-	-	29.4	-	-	4.16	-	-	110	-	-	77.8	-	-	5	U	-
YVD-13	YVD-13-140318	03/18/2014	N	SXC0095	102	-	-	29.3	-	-	4.27	-	-	106	-	-	80.3	-	-	5	U	-
YVD-13	YVD-13-140603	06/03/2014	N	SXF0017	94.8	-	-	27.7	-	-	3.70	-	-	113	-	-	39.7	-	-	2	U	-
YVD-13	YVD-13-140923	09/23/2014	N	SXI0173	104	-	-	29.0	-	-	4.40	-	-	118	-	-	81.7	-	-	5	U	-
YVD-13	YVD-13-141217	12/17/2014	N	SXL0121	114	-	-	33.1	-	-	4.74	-	-	119	-	-	86.5	-	-	5	U	-
YVD-13	YVD-13-150317	03/17/2015	N	5904541	100	-	-	30.0	-	-	4.00	-	-	120	-	-	72	-	-	5	U	-
YVD-13	YVD-13-150617	06/17/2015	N	59010961	110	-	-	30.0	-	-	4.40	J+	MSD	120	J+	MSD	81	-	-	5	U	-
YVD-13	YVD-13-150924	09/24/2015	N	59020391	98.0	-	-	31.0	-	-	4.10	-	-	110	-	-	70	-	-	5	U	-
YVD-13	YVD-13-151216	12/16/2015	N	59025501	100	-	-	30.0	-	-	4.30	-	-	120	-	-	69	-	-	5	U	-
YVD-13	YVD-13-160309	03/09/2016	N	59029941	100	-	-	29.0	-	-	4.20	-	-	120	-	-	85	-	-	5	U	-
YVD-13	YVD-13-160622	6/22/2016	N	59037271	100	-	-	30.0	-	-	4.20	-	-	120	-	-	76	-	-	5	U	-
YVD-13	YVD-13-160928	9/28/2016	N	K1611698	101	-	-	28.1	-	-	3.91	-	-	113	-	-	60.0	-	-	0.30	-	-
YVD-13	YVD-13-161214	12/13/2016	N	K1615083	100	-	-	27.5	-	-	4.02	-	-	111	-	-	57.3	-	-	0.33	-	-
YVD-13	YVD-030717-08	3/7/2017	N	K1702324	96.9	-	-	26.7	-	-	3.63	-	-	105	-	-	52.8	-	-	0.35	-	-
YVD-13	YVD-030717-10	3/7/2017	FD	K1702324	97.3	-	-	27.1	-	-	3.71	-	-	107	-	-	53.6	-	-	0.37	-	-
YVD-13	YVD-060717-33	6/7/2017	N	K1705833	99.0	-	-	27.9	-	-	3.83	-	-	114	-	-	54.6	-	-	0.30	-	-
YVD-13	YVD-092617-25	9/26/2017	N	K1710333	94.9	-	-	24.5	-	-	3.66	-	-	105	-	-	52.8	-	-	0.33	-	-
YVD-13	YVD-120417-07	12/4/2017	N	K1713026	93.4	-	-	24.5	-	-	3.41	-	-	102	-	-	53.9	-	-	0.36	-	-
YVD-13	YVD-031918-19	3/19/2018	N	870634	96.0	-	-	25.45	-	-	3.82	-	-	102	-	-	63.0	-	-	0.34	-	-
YVD-13	YVD-060318-09	6/3/2018	N	874568	91.0	-	-	25.90	-	-	4.01	-	-	108	-	-	63.3	-	-	0.35	-	-
YVD-13	YVD-090918-14	9/9/2018	N	880601	92.0	-	-	24.55	-	-	3.90	-	-	104	-	-	66.6	-	-	0.34	-	-
YVD-14	YVD-14-130918	09/18/2013	N	SWI0123	260	-	-	65.4	-	-	3.45	-	-	110	-	-	118	-	-	5	U	-
YVD-14	YVD-14-131212	12/12/2013	N	SWL0078	249	-	-	65.6	-	-	3.29	-	-	108	-	-	104	-	-	5	U	-
YVD-14	YVD-14-140319	03/19/2014	N	SXC0107	248	-	-	64.5	-	-	3.37	-	-	102	-	-	108	-	-	5	U	-
YVD-14	YVD-14-140604	06/04/2014	N	SXF0025	240	-	-	63.2	-	-	3.46	-	-	112	-	-	109	-	-	5	U	-
YVD-14	YVD-14-140924	09/24/2014	N	SXI0173	268	-	-	72.0	-	-	4.10	-	-	124	-	-	110	-	-	5	U	-
YVD-14	YVD-14-141217	12/17/2014	N	SXL0121	252	-	-	70.9	-	-	3.83	-	-	113	-	-	110	-	-	5	U	-
YVD-14	YVD-14-150318	03/18/2015	N	5904651	260	-	-	70.0	-	-	3.60	J-	MSD	130	-	-	110	-	-	5	U	-
YVD-14R	YVD-14R-151216	12/16/2015	N	59025501	250	-	-	69.0	-	-	4.40	-	-	120	-	-	110	-	-	5	U	-
YVD-14R	YVD-14R-160309	03/09/2016	N	59029941	250	-	-	67.0	-	-	4.40	-	-	130	-	-	110	-	-	5	U	-
YVD-14R	YVD-14R-160622	6/22/2016	N	59037271	230	-	-	67.0	-	-	4.30	-	-	130	-	-	110	-	-	5	U	-
YVD-14R	YVD-14R-160928	9/28/2016	N	K1611698	252	-	-	65.9	-	-	4.05	-	-	126	-	-	95.7	-	-	0.16	J	-
YVD-14R	YVD-14R-161212	12/12/2016	N	K1615029	251	-	-	65.7	-	-	4.09	-	-	119	-	-	94.7	-	-	0.24	-	-
YVD-14R	YVD-D1-161212	12/12/2016	FD	K1615029	255	-	-	66.5	-	-	4.17	-	-	121	-	-	93.3	-	-	0.19	-	-

Table 8
Historical Groundwater Analytical Results

Analyte					Nitrate (as N)			Nitrite (as N)			Sulfate			Ammonia (as N)			Ammonia (as N)			Total Kjeldahl Nitrogen (TKN)		
Analytical Method					EPA 300.0			EPA 300.0			EPA 300.0			SM4500 NH3-G			EPA 350.1			EPA 351.2		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
YVD-12	YVD-120417-03	12/4/2017	N	K1713026	13.4	-	-	0.10	U	-	169	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-12	YVD-031918-13	3/19/2018	N	870610	13.6	-	-	0.05	U	-	167	-	-	0.07	U	-	-	-	-	0.5	U	-
YVD-12	YVD-060318-11	6/3/2018	N	874568	15.1	-	-	0.05	U	-	171	-	-	0.07	U	FBK	-	-	-	0.5	U	-
YVD-12	YVD-090918-16	9/9/2018	N	880601	15.8	-	-	0.05	U	-	180	-	-	0.07	U	-	-	-	-	0.5	R	MSD
YVD-13	YVD-13-130919	09/19/2013	N	SWI0138	27.6	-	-	2	U	-	365	-	-	-	-	-	0.1	U	-	0.395	R	FBK
YVD-13	YVD-13-131211	12/11/2013	N	SWL0073	21.7	-	-	2	U	-	278	-	-	-	-	-	0.02	UJ	MSD	0.2	UJ	MSD
YVD-13	YVD-13-140318	03/18/2014	N	SXC0095	24.2	-	-	2	U	-	312	J-	MSD	-	-	-	0.288		-	0.613	-	-
YVD-13	YVD-13-140603	06/03/2014	N	SXF0017	12.4	-	-	0.8	U	-	151	J-	MSD	-	-	-	0.103		-	0.727	-	-
YVD-13	YVD-13-140923	09/23/2014	N	SXI0173	26.7	-	-	2	U	-	328	-	-	-	-	-	0.1	U	-	9.13	J+	MSD
YVD-13	YVD-13-141217	12/17/2014	N	SXL0121	27.3	-	-	2	U	-	355	-	-	-	-	-	0.1	U	-	0.25	UJ	MSD
YVD-13	YVD-13-150317	03/17/2015	N	5904541	24	J-	MSD	2	U	-	290	J-	MSD	-	-	-	0.1	U	-	0.25	UJ	MSD
YVD-13	YVD-13-150617	06/17/2015	N	59010961	27	-	-	2	U	-	310	-	-	-	-	-	0.1	U	-	0.68	J-	MSD
YVD-13	YVD-13-150924	09/24/2015	N	59020391	26	J+	MSD	2	U	-	330	J-	MSD	-	-	-	0.1	UJ	MSD	0.25	UJ	MSD
YVD-13	YVD-13-151216	12/16/2015	N	59025501	26	-	-	2	U	-	310	-	-	-	-	-	0.1	R	MSD	0.25	R	MSD
YVD-13	YVD-13-160309	03/09/2016	N	59029941	32	-	-	2	U	-	390	J	DUP	-	-	-	0.1	U	-	0.25	UJ	FDP, MSD
YVD-13	YVD-13-160622	6/22/2016	N	59037271	28	-	-	2	U	-	390	-	-	-	-	-	0.1	UJ	MSD	0.25	R	MSD
YVD-13	YVD-13-160928	9/28/2016	N	K1611698	23.5	J	HTQ	0.10	U	-	321	-	-	-	-	-	0.050	U	MBK	0.5	R	MSD
YVD-13	YVD-13-161214	12/13/2016	N	K1615083	23.1	-	-	0.10	U	-	313	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-13	YVD-030717-08	3/7/2017	N	K1702324	23.3	J	HTQ	0.05	J	HTQ	277	-	-	-	-	-	1	U	-	0.5	U	-
YVD-13	YVD-030717-10	3/7/2017	FD	K1702324	23.7	J	HTQ	0.04	J	HTQ	280	-	-	-	-	-	1	U	-	0.5	U	-
YVD-13	YVD-060717-33	6/7/2017	N	K1705833	22.7	-	-	0.10	U	-	282	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-13	YVD-092617-25	9/26/2017	N	K1710333	23.2	-	-	0.10	U	-	298	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-13	YVD-120417-07	12/4/2017	N	K1713026	24.3	-	-	0.10	U	-	271	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-13	YVD-031918-19	3/19/2018	N	870634	25.8	-	-	0.05	U	-	249	-	-	0.07	U	-	-	-	-	0.5	U	-
YVD-13	YVD-060318-09	6/3/2018	N	874568	25.2	-	-	0.05	U	-	235	-	-	0.07	U	-	-	-	-	0.5	U	-
YVD-13	YVD-090918-14	9/9/2018	N	880601	26.1	-	-	0.05	U	-	222	-	-	0.07	U	-	-	-	-	0.5	R	MSD
YVD-14	YVD-14-130918	09/18/2013	N	SWI0123	112	-	-	2	U	-	213	-	-	-	-	-	0.1	U	-	0.25	U	-
YVD-14	YVD-14-131212	12/12/2013	N	SWL0078	105	-	-	2	U	-	186	-	-	-	-	-	0.02	U	-	0.7957	U	ERL
YVD-14	YVD-14-140319	03/19/2014	N	SXC0107	101	-	-	2	U	-	190	-	-	-	-	-	0.1	U	-	0.562	J-	MSD
YVD-14	YVD-14-140604	06/04/2014	N	SXF0025	102	-	-	2	U	-	191	-	-	-	-	-	0.1	U	-	0.25	UJ	MSD
YVD-14	YVD-14-140924	09/24/2014	N	SXI0173	96.7	-	-	2	U	-	178	-	-	-	-	-	0.107	-	-	0.25	U	-
YVD-14	YVD-14-141217	12/17/2014	N	SXL0121	96.1	-	-	2	U	-	185	-	-	-	-	-	0.1	U	-	0.25	UJ	MSD
YVD-14	YVD-14-150318	03/18/2015	N	5904651	91	-	-	2	U	-	180	-	-	-	-	-	0.11	-	-	0.25	UJ	MSD
YVD-14R	YVD-14R-151216	12/16/2015	N	59025501	98	-	-	2	U	-	160	-	-	-	-	-	0.1	R	MSD	0.25	R	MSD
YVD-14R	YVD-14R-160309	03/09/2016	N	59029941	100	-	-	2	U	-	180	J	DUP	-	-	-	0.1	U	-	0.25	UJ	FDP, MSD
YVD-14R	YVD-14R-160622	6/22/2016	N	59037271	110	-	-	2	U	-	150	-	-	-	-	-	0.1	UJ	MSD	0.25	R	MSD
YVD-14R	YVD-14R-160928	9/28/2016	N	K1611698	92.1	J	HTQ	0.10	U	-	140	-	-	-	-	-	0.050	U	MBK	0.5	R	MSD
YVD-14R	YVD-14R-161212	12/12/2016	N	K1615029	92.3	J	HTQ	0.10	UJ	HTQ	158	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-14R	YVD-D1-161212	12/12/2016	FD	K1615029	92.3	J	HTQ	0.10	UJ	HTQ	155	-	-	-	-	-	0.050	U	-	0.5	U	-

Table 8
Historical Groundwater Analytical Results

Analyte					Phosphorus			Phosphorus			Phosphorus			Phosphorus			Alkalinity, Bicarbonate (as CaCO3)			Alkalinity, Total (as CaCO3)		
Analytical Method					EPA 365.1			EPA 365.3			EPA 365.4			SM4500 P-E			SM2320B			SM2320B		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
YVD-12	YVD-120417-03	12/4/2017	N	K1713026	-	-	-	0.013	U	MBK	-	-	-	-	-	-	186	-	-	186	-	-
YVD-12	YVD-031918-13	3/19/2018	N	870610	-	-	-	-	-	-	-	-	-	0.07	U	-	181	-	-	181	-	-
YVD-12	YVD-060318-11	6/3/2018	N	874568	-	-	-	-	-	-	-	-	-	0.07	U	-	178	-	-	178	-	-
YVD-12	YVD-090918-16	9/9/2018	N	880601	-	-	-	-	-	-	-	-	-	0.07	U	-	185	-	-	185	-	-
YVD-13	YVD-13-130919	09/19/2013	N	SWI0138	-	-	-	-	-	-	0.175	R	FBK	-	-	-	134	-	-	135	-	-
YVD-13	YVD-13-131211	12/11/2013	N	SWL0073	-	-	-	-	-	-	-	-	-	0.11	-	-	139	-	-	140	-	-
YVD-13	YVD-13-140318	03/18/2014	N	SXC0095	0.17	-	-	-	-	-	-	-	-	-	-	-	134	-	-	135	-	-
YVD-13	YVD-13-140603	06/03/2014	N	SXF0017	0.078	J+	FBK	-	-	-	-	-	-	-	-	-	129	-	-	130	-	-
YVD-13	YVD-13-140923	09/23/2014	N	SXI0173	0.05	U	-	-	-	-	-	-	-	-	-	-	124	-	-	125	-	-
YVD-13	YVD-13-141217	12/17/2014	N	SXL0121	0.1	U	-	-	-	-	-	-	-	-	-	-	124	-	-	125	-	-
YVD-13	YVD-13-150317	03/17/2015	N	5904541	0.25	U	-	-	-	-	-	-	-	-	-	-	130	-	-	130	-	-
YVD-13	YVD-13-150617	06/17/2015	N	59010961	0.25	U	-	-	-	-	-	-	-	-	-	-	140	-	-	140	-	-
YVD-13	YVD-13-150924	09/24/2015	N	59020391	0.25	U	-	-	-	-	-	-	-	-	-	-	150	-	-	150	-	-
YVD-13	YVD-13-151216	12/16/2015	N	59025501	0.25	UJ	MSD	-	-	-	-	-	-	-	-	-	140	-	-	140	-	-
YVD-13	YVD-13-160309	03/09/2016	N	59029941	0.25	U	-	-	-	-	-	-	-	-	-	-	140	-	-	140	-	-
YVD-13	YVD-13-160622	6/22/2016	N	59037271	0.25	U	-	-	-	-	-	-	-	-	-	-	130	-	-	130	-	-
YVD-13	YVD-13-160928	9/28/2016	N	K1611698	-	-	-	0.014	-	-	-	-	-	-	-	-	133	-	-	133	-	-
YVD-13	YVD-13-161214	12/13/2016	N	K1615083	-	-	-	0.047	-	-	-	-	-	-	-	-	132	-	-	132	-	-
YVD-13	YVD-030717-08	3/7/2017	N	K1702324	-	-	-	0.010	J	-	-	-	-	-	-	-	138	-	-	138	-	-
YVD-13	YVD-030717-10	3/7/2017	FD	K1702324	-	-	-	0.009	J	-	-	-	-	-	-	-	139	-	-	139	-	-
YVD-13	YVD-060717-33	6/7/2017	N	K1705833	-	-	-	0.014	-	-	-	-	-	-	-	-	134	-	-	134	-	-
YVD-13	YVD-092617-25	9/26/2017	N	K1710333	-	-	-	0.010	U	-	-	-	-	-	-	-	142	-	-	142	-	-
YVD-13	YVD-120417-07	12/4/2017	N	K1713026	-	-	-	0.015	U	MBK	-	-	-	-	-	-	141	-	-	141	-	-
YVD-13	YVD-031918-19	3/19/2018	N	870634	-	-	-	-	-	-	-	-	-	0.07	U	-	138	-	-	138	-	-
YVD-13	YVD-060318-09	6/3/2018	N	874568	-	-	-	-	-	-	-	-	-	0.07	U	-	137	-	-	137	-	-
YVD-13	YVD-090918-14	9/9/2018	N	880601	-	-	-	-	-	-	-	-	-	0.07	U	-	140	-	-	140	-	-
YVD-14	YVD-14-130918	09/18/2013	N	SWI0123	-	-	-	-	-	-	0.1	U	-	-	-	-	605	-	-	605	-	-
YVD-14	YVD-14-131212	12/12/2013	N	SWL0078	-	-	-	-	-	-	-	-	-	0.06	U	-	544	-	-	545	-	-
YVD-14	YVD-14-140319	03/19/2014	N	SXC0107	0.05	U	-	-	-	-	-	-	-	-	-	-	634	-	-	635	-	-
YVD-14	YVD-14-140604	06/04/2014	N	SXF0025	0.078	-	-	-	-	-	-	-	-	-	-	-	569	-	-	570	-	-
YVD-14	YVD-14-140924	09/24/2014	N	SXI0173	0.087	J+	FBK	-	-	-	-	-	-	-	-	-	554	-	-	555	-	-
YVD-14	YVD-14-141217	12/17/2014	N	SXL0121	0.1	U	-	-	-	-	-	-	-	-	-	-	539	-	-	540	-	-
YVD-14	YVD-14-150318	03/18/2015	N	5904651	0.25	U	-	-	-	-	-	-	-	-	-	-	530	-	-	530	-	-
YVD-14R	YVD-14R-151216	12/16/2015	N	59025501	0.25	UJ	MSD	-	-	-	-	-	-	-	-	-	550	-	-	550	-	-
YVD-14R	YVD-14R-160309	03/09/2016	N	59029941	0.25	U	-	-	-	-	-	-	-	-	-	-	600	-	-	600	-	-
YVD-14R	YVD-14R-160622	6/22/2016	N	59037271	0.25	U	-	-	-	-	-	-	-	-	-	-	490	-	-	490	-	-
YVD-14R	YVD-14R-160928	9/28/2016	N	K1611698	-	-	-	0.015	-	-	-	-	-	-	-	-	535	-	-	535	-	-
YVD-14R	YVD-14R-161212	12/12/2016	N	K1615029	-	-	-	0.058	-	-	-	-	-	-	-	-	578	-	-	578	-	-
YVD-14R	YVD-D1-161212	12/12/2016	FD	K1615029	-	-	-	0.092	-	-	-	-	-	-	-	-	571	-	-	571	-	-

Table 8
Historical Groundwater Analytical Results

Analyte					Calcium			Magnesium			Potassium			Sodium			Chloride			Fluoride		
Analytical Method					EPA 200.7			EPA 200.7			EPA 200.7			EPA 200.7			EPA 300			EPA 300.0		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
YVD-14R	YVD-030917-19	3/9/2017	N	K1702404	257	-	-	66.1	-	-	3.80	-	-	117	-	-	97.0	-	-	0.18	J	-
YVD-14R	YVD-030917-21	3/9/2017	FD	K1702404	251	-	-	65.2	-	-	3.75	-	-	115	-	-	95.0	-	-	0.19	J	-
YVD-14R	YVD-060517-06	6/5/2017	N	K1705702	243	-	-	62.3	-	-	3.53	-	-	110	-	-	98.4	-	-	0.20	-	-
YVD-14R	YVD-092517-14	9/25/2017	N	K1710333	238	-	-	61.2	-	-	3.85	-	-	121	-	-	99.8	-	-	0.18	J	-
YVD-14R	YVD-120417-12	12/4/2017	N	K1713026	230	-	-	59.3	-	-	3.54	-	-	116	-	-	98.3	-	-	0.22	-	-
YVD-14R	YVD-031818-11	3/18/2018	N	870610	232	-	-	60.00	-	-	3.96	-	-	127	-	-	102	-	-	0.13	-	-
YVD-14R	YVD-060318-04	6/3/2018	N	874568	233	-	-	63.00	-	-	4.18	-	-	130	-	-	105	-	-	0.15	-	-
YVD-14R	YVD-090918-09	9/9/2018	N	880601	250	-	-	63.50	-	-	4.09	-	-	130	-	-	115	-	-	0.18	-	-
YVD-15	YVD-15-130917	09/17/2013	N	SWI0123	125	-	-	51.6	-	-	2.73	-	-	127	-	-	62.8	-	-	5	U	-
YVD-15	YVD-15-131212	12/12/2013	N	SWL0078	131	-	-	59.4	-	-	4.48	-	-	114	-	-	120	-	-	5	U	-
YVD-15	YVD-15-140319	03/19/2014	N	SXC0107	124	-	-	57.9	-	-	5.23	-	-	93.5	-	-	54.9	-	-	5	U	-
YVD-15	YVD-15-140603	06/03/2014	N	SXF0025	138	-	-	64.7	-	-	5.20	-	-	110	-	-	82.5	-	-	5	U	-
YVD-15	YVD-15-140924	09/24/2014	N	SXI0173	132	-	-	56.9	-	-	3.11	-	-	135	-	-	58.7	-	-	5	U	-
YVD-15	YVD-15-141217	12/17/2014	N	SXL0121	175	-	-	81.6	-	-	3.67	-	-	60.3	-	-	57.6	-	-	5	U	-
YVD-15	YVD-15-150317	03/17/2015	N	5904651	280	-	-	130.0	-	-	8.40	J-	MSD	160	-	-	65	-	-	5	U	-
YVD-15	YVD-15-150617	06/17/2015	N	59011021	140	-	-	66.0	J	RPD	4.60	J	RPD	110	J	RPD	42	-	-	0.5	U	-
YVD-15	YVD-15-150925	09/25/2015	N	59020431	98.0	-	-	46.0	-	-	3.90	-	-	80.0	-	-	22	-	-	5	U	-
YVD-15	YVD-15-151215	12/15/2015	N	59025431	120	-	-	59.0	-	-	4.10	-	-	80.0	-	-	37	-	-	5	U	-
YVD-15	YVD-15-160309	03/09/2016	N	59029711	120	-	-	60.0	-	-	4.20	-	-	75.0	-	-	32	-	-	5	U	-
YVD-15	YVD-15-160621	6/21/2016	N	59037271	110	-	-	56.0	-	-	3.50	-	-	74.0	-	-	26	-	-	5	U	-
YVD-15	YVD-15-160928	9/28/2016	N	K1611629	112	-	-	50.9	-	-	3.15	-	-	66.2	-	-	22.5	-	-	0.29	-	-
YVD-15	YVD-15-161215	12/15/2016	N	K1615126	113	-	-	50.4	-	-	3.40	-	-	59.1	-	-	22.1	-	-	0.32	-	-
YVD-15	YVD-030917-23	3/9/2017	N	K1702404	119	-	-	52.9	-	-	2.95	-	-	55.3	-	-	23.0	-	-	0.34	-	-
YVD-15	YVD-060617-20	6/6/2017	N	K1705754	126	-	-	54.6	-	-	2.98	-	-	62.9	-	-	21.8	-	-	0.32	-	-
YVD-15	YVD-092517-10	9/25/2017	N	K1710333	112	-	-	50.2	-	-	3.21	-	-	74.5	-	-	22.1	-	-	0.35	-	-
YVD-15	YVD-120517-28	12/5/2017	N	K1713091	112	-	-	48.0	-	-	2.89	-	-	78.6	-	-	21.8	-	-	0.34	-	-
YVD-15	YVD-031818-09	3/18/2018	N	870610	104	-	-	46.60	-	-	3.25	-	-	94.5	-	-	21.7	-	-	0.32	-	-
YVD-15	YVD-060318-08	6/3/2018	N	874568	100	-	-	45.50	-	-	3.36	-	-	97.5	-	-	22.0	-	-	0.34	-	-
YVD-15	YVD-090918-11	9/9/2018	N	880601	97.5	-	-	42.70	-	-	3.18	-	-	99.0	-	-	22.8	-	-	0.35	-	-
YVD-16	YVD-16-130923	09/23/2013	N	SWI0178	85.0	-	-	32.9	-	-	6.16	-	-	81.7	-	-	-	-	-	-	-	-
YVD-16	YVD-16-130926	09/26/2013	N	SWI0190	-	-	-	-	-	-	-	-	-	-	-	-	44.1	-	-	5	U	-
YVD-16	YVD-16-131212	12/12/2013	N	SWL0073	87.7	-	-	32.1	-	-	5.25	-	-	79.8	-	-	46.7	-	-	5	U	-
YVD-16	YVD-16-140318	03/18/2014	N	SXC0107	105.0	-	-	53.2	-	-	15.00	-	-	75.5	-	-	46.1	-	-	5	U	-
YVD-16	YVD-16-140603	06/03/2014	N	SXF0017	86.3	-	-	37.0	-	-	8.47	-	-	78.4	-	-	36.7	-	-	2	U	-
YVD-16	YVD-16-140923	09/23/2014	N	SXI0173	99.2	-	-	38.9	-	-	7.48	-	-	94.1	-	-	38	-	-	2.5	U	-
YVD-16	YVD-16-141217	12/17/2014	N	SXL0121	94.9	-	-	37.1	-	-	6.77	-	-	83.7	-	-	37.9	-	-	2.5	U	-
YVD-16	YVD-D3-141217	12/17/2014	FD	SXL0121	92.9	-	-	36.2	-	-	6.27	-	-	81.7	-	-	39.9	-	-	0.5	U	-
YVD-16	YVD-16-150317	03/17/2015	N	5904651	93.0	-	-	34.0	-	-	6.10	J-	MSD	87.0	-	-	39	-	-	2.5	U	-
YVD-16	YVD-16-150616	06/16/2015	N	59010961	96.0	-	-	35.0	-	-	6.20	J+	MSD	91.0	J+	MSD	43	-	-	2.5	U	-

Table 8
Historical Groundwater Analytical Results

Analyte					Nitrate (as N)			Nitrite (as N)			Sulfate			Ammonia (as N)			Ammonia (as N)			Total Kjeldahl Nitrogen (TKN)		
Analytical Method					EPA 300.0			EPA 300.0			EPA 300.0			SM4500 NH3-G			EPA 350.1			EPA 351.2		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
YVD-14R	YVD-030917-19	3/9/2017	N	K1702404	91.1	-	-	0.10	U	-	147	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-14R	YVD-030917-21	3/9/2017	FD	K1702404	92.2	J	HTQ	0.10	U	-	151	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-14R	YVD-060517-06	6/5/2017	N	K1705702	95.7	-	-	0.10	U	-	142	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-14R	YVD-092517-14	9/25/2017	N	K1710333	97.3	-	-	0.10	U	-	138	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-14R	YVD-120417-12	12/4/2017	N	K1713026	96.7	-	-	0.10	U	-	124	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-14R	YVD-031818-11	3/18/2018	N	870610	90.2	-	-	0.05	U	-	128	-	-	0.17	-	-	-	-	-	0.5	U	-
YVD-14R	YVD-060318-04	6/3/2018	N	874568	96.5	-	-	0.05	U	-	123	-	-	0.19	U	FBK	-	-	-	0.5	U	-
YVD-14R	YVD-090918-09	9/9/2018	N	880601	115	-	-	0.05	U	-	125	-	-	0.07	U	-	-	-	-	0.5	R	MSD
YVD-15	YVD-15-130917	09/17/2013	N	SWI0123	72.5	-	-	2	U	-	51.5	-	-	-	-	-	0.1	U	-	0.25	U	-
YVD-15	YVD-15-131212	12/12/2013	N	SWL0078	71.2	-	-	2	U	-	114	-	-	-	-	-	0.02	U	-	0.2	U	-
YVD-15	YVD-15-140319	03/19/2014	N	SXC0107	47.4	-	-	2	U	-	44.7	-	-	-	-	-	0.112	-	-	0.553	J-	MSD
YVD-15	YVD-15-140603	06/03/2014	N	SXF0025	88.1	-	-	2	U	-	39	-	-	-	-	-	0.1	U	-	0.475	J-	MSD
YVD-15	YVD-15-140924	09/24/2014	N	SXI0173	54.8	-	-	2	U	-	50.7	-	-	-	-	-	0.246	-	-	1.19	J+	MSD
YVD-15	YVD-15-141217	12/17/2014	N	SXL0121	66.9	-	-	2	U	-	53.4	-	-	-	-	-	0.1	U	-	0.414	J-	MSD
YVD-15	YVD-15-150317	03/17/2015	N	5904651	67	-	-	2	U	-	53	-	-	-	-	-	0.1	U	-	0.25	UJ	MSD
YVD-15	YVD-15-150617	06/17/2015	N	59011021	39	J-	MSD, HT	0.2	U	-	59	-	-	-	-	-	0.1	U	-	0.25	R	MSD
YVD-15	YVD-15-150925	09/25/2015	N	59020431	14	-	-	2	U	-	47	-	-	-	-	-	0.1	U	-	2.5	U	-
YVD-15	YVD-15-151215	12/15/2015	N	59025431	38	-	-	2	U	-	40	-	-	-	-	-	0.1	R	MSD	0.25	R	MSD
YVD-15	YVD-15-160309	03/09/2016	N	59029711	36	-	-	2	U	-	65	J+	MSD	-	-	-	0.1	UJ	FDP	0.25	R	MSD
YVD-15	YVD-15-160621	6/21/2016	N	59037271	31	-	-	2	U	-	86	-	-	-	-	-	0.13	J-	MSD	0.25	R	MSD
YVD-15	YVD-15-160928	9/28/2016	N	K1611629	26.6	-	-	0.10	U	-	108	-	-	-	-	-	0.050	U	MBK	0.5	U	-
YVD-15	YVD-15-161215	12/15/2016	N	K1615126	25.5	-	-	0.10	U	-	108	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-15	YVD-030917-23	3/9/2017	N	K1702404	25.0	J	HTQ	0.10	U	-	125	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-15	YVD-060617-20	6/6/2017	N	K1705754	23.0	-	-	0.10	U	-	143	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-15	YVD-092517-10	9/25/2017	N	K1710333	21.8	-	-	0.10	U	-	167	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-15	YVD-120517-28	12/5/2017	N	K1713091	22.7	J	HTQ	0.10	U	-	145	-	-	-	-	-	0.050	U	-	0.5	UJ	MSD
YVD-15	YVD-031818-09	3/18/2018	N	870610	24.4	-	-	0.05	U	-	129	-	-	0.07	U	-	-	-	-	0.5	U	-
YVD-15	YVD-060318-08	6/3/2018	N	874568	27.0	-	-	0.05	U	-	118	-	-	0.07	U	FBK	-	-	-	0.5	U	-
YVD-15	YVD-090918-11	9/9/2018	N	880601	24.4	-	-	0.05	U	-	110	-	-	0.07	U	-	-	-	-	0.5	R	MSD
YVD-16	YVD-16-130923	09/23/2013	N	SWI0178	-	-	-	-	-	-	-	-	-	-	-	-	0.1	U	-	0.375	-	-
YVD-16	YVD-16-130926	09/26/2013	N	SWI0190	28.8	-	-	2	U	-	140	-	-	-	-	-	-	-	-	-	-	-
YVD-16	YVD-16-131212	12/12/2013	N	SWL0073	28.8	-	-	2	U	-	163	-	-	-	-	-	0.02	UJ	MSD	0.2	UJ	MSD
YVD-16	YVD-16-140318	03/18/2014	N	SXC0107	23.5	-	-	2	U	-	130	-	-	-	-	-	0.1	U	-	1.01	J-	MSD
YVD-16	YVD-16-140603	06/03/2014	N	SXF0017	21.9	-	-	0.8	U	-	131	J-	MSD	-	-	-	0.1	U	-	0.741	-	-
YVD-16	YVD-16-140923	09/23/2014	N	SXI0173	21.4	-	-	1	U	-	114	-	-	-	-	-	0.1	U	-	0.747	J+	MSD
YVD-16	YVD-16-141217	12/17/2014	N	SXL0121	20.6	-	-	1	U	-	118	-	-	-	-	-	0.1	U	-	0.25	UJ	MSD
YVD-16	YVD-D3-141217	12/17/2014	FD	SXL0121	22.4	-	-	0.2	U	-	130	-	-	-	-	-	0.1	U	-	0.29	J-	MSD
YVD-16	YVD-16-150317	03/17/2015	N	5904651	22	-	-	1	U	-	120	-	-	-	-	-	0.11	-	-	0.29	J-	MSD
YVD-16	YVD-16-150616	06/16/2015	N	59010961	23	-	-	1	U	-	120	-	-	-	-	-	0.1	-	-	0.25	UJ	MSD

Table 8
Historical Groundwater Analytical Results

Analyte					Phosphorus			Phosphorus			Phosphorus			Phosphorus			Alkalinity, Bicarbonate (as CaCO3)			Alkalinity, Total (as CaCO3)			
Analytical Method					EPA 365.1			EPA 365.3			EPA 365.4			SM4500 P-E			SM2320B			SM2320B			
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	
YVD-14R	YVD-030917-19	3/9/2017	N	K1702404	-	-	-	0.020	-	-	-	-	-	-	-	-	526	-	-	526	-	-	
YVD-14R	YVD-030917-21	3/9/2017	FD	K1702404	-	-	-	0.019	-	-	-	-	-	-	-	-	514	-	-	514	-	-	
YVD-14R	YVD-060517-06	6/5/2017	N	K1705702	-	-	-	0.038	-	-	-	-	-	-	-	-	505	-	-	505	-	-	
YVD-14R	YVD-092517-14	9/25/2017	N	K1710333	-	-	-	0.018	-	-	-	-	-	-	-	-	515	-	-	515	-	-	
YVD-14R	YVD-120417-12	12/4/2017	N	K1713026	-	-	-	0.024	-	-	-	-	-	-	-	-	504	-	-	504	-	-	
YVD-14R	YVD-031818-11	3/18/2018	N	870610	-	-	-	-	-	-	-	-	-	0.07	U	-	514	-	-	514	-	-	
YVD-14R	YVD-060318-04	6/3/2018	N	874568	-	-	-	-	-	-	-	-	-	0.07	U	-	521	-	-	521	-	-	
YVD-14R	YVD-090918-09	9/9/2018	N	880601	-	-	-	-	-	-	-	-	-	0.07	U	-	532	-	-	532	-	-	
YVD-15	YVD-15-130917	09/17/2013	N	SWI0123	-	-	-	-	-	-	0.1	U	-	-	-	-	514	-	-	515	-	-	
YVD-15	YVD-15-131212	12/12/2013	N	SWL0078	-	-	-	-	-	-	-	-	-	0.238	-	-	494	-	-	495	-	-	
YVD-15	YVD-15-140319	03/19/2014	N	SXC0107	0.22	-	-	-	-	-	-	-	-	-	-	-	534	-	-	535	-	-	
YVD-15	YVD-15-140603	06/03/2014	N	SXF0025	0.31	-	-	-	-	-	-	-	-	-	-	-	509	-	-	510	-	-	
YVD-15	YVD-15-140924	09/24/2014	N	SXI0173	0.072	J+	FBK	-	-	-	-	-	-	-	-	-	541	-	-	545	-	-	
YVD-15	YVD-15-141217	12/17/2014	N	SXL0121	0.17	-	-	-	-	-	-	-	-	-	-	-	518	-	-	520	-	-	
YVD-15	YVD-15-150317	03/17/2015	N	5904651	0.27	-	-	-	-	-	-	-	-	-	-	-	550	-	-	550	-	-	
YVD-15	YVD-15-150617	06/17/2015	N	59011021	0.25	U	-	-	-	-	-	-	-	-	-	-	550	-	-	550	-	-	
YVD-15	YVD-15-150925	09/25/2015	N	59020431	0.25	U	-	-	-	-	-	-	-	-	-	-	480	-	-	480	-	-	
YVD-15	YVD-15-151215	12/15/2015	N	59025431	0.25	UJ	FDP	-	-	-	-	-	-	-	-	-	540	J	FDP	540	J	FDP	
YVD-15	YVD-15-160309	03/09/2016	N	59029711	0.25	U	-	-	-	-	-	-	-	-	-	-	520	-	-	520	-	-	
YVD-15	YVD-15-160621	6/21/2016	N	59037271	0.25	U	-	-	-	-	-	-	-	-	-	-	430	-	-	430	-	-	
YVD-15	YVD-15-160928	9/28/2016	N	K1611629	-	-	-	0.023	-	-	-	-	-	-	-	-	401	-	-	401	-	-	
YVD-15	YVD-15-161215	12/15/2016	N	K1615126	-	-	-	0.095	-	-	-	-	-	-	-	-	395	-	-	395	-	-	
YVD-15	YVD-030917-23	3/9/2017	N	K1702404	-	-	-	0.011	-	-	-	-	-	-	-	-	395	-	-	395	-	-	
YVD-15	YVD-060617-20	6/6/2017	N	K1705754	-	-	-	0.017	-	-	-	-	-	-	-	-	399	-	-	399	-	-	
YVD-15	YVD-092517-10	9/25/2017	N	K1710333	-	-	-	0.010	U	-	-	-	-	-	-	-	412	-	-	412	-	-	
YVD-15	YVD-120517-28	12/5/2017	N	K1713091	-	-	-	0.013	-	-	-	-	-	-	-	-	414	-	-	414	-	-	
YVD-15	YVD-031818-09	3/18/2018	N	870610	-	-	-	-	-	-	-	-	-	0.07	U	-	397	-	-	397	-	-	
YVD-15	YVD-060318-08	6/3/2018	N	874568	-	-	-	-	-	-	-	-	-	0.07	U	-	401	-	-	401	-	-	
YVD-15	YVD-090918-11	9/9/2018	N	880601	-	-	-	-	-	-	-	-	-	0.07	U	-	395	-	-	395	-	-	
YVD-16	YVD-16-130923	09/23/2013	N	SWI0178	-	-	-	-	-	-	0.1	U	-	-	-	-	189	-	-	190	-	-	
YVD-16	YVD-16-130926	09/26/2013	N	SWI0190	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
YVD-16	YVD-16-131212	12/12/2013	N	SWL0073	-	-	-	-	-	-	-	-	-	0.06	U	-	309	-	-	310	-	-	
YVD-16	YVD-16-140318	03/18/2014	N	SXC0107	1.4	-	-	-	-	-	-	-	-	-	-	-	298	-	-	300	-	-	
YVD-16	YVD-16-140603	06/03/2014	N	SXF0017	0.83	-	-	-	-	-	-	-	-	-	-	-	287	-	-	288	-	-	
YVD-16	YVD-16-140923	09/23/2014	N	SXI0173	0.22	-	-	-	-	-	-	-	-	-	-	-	303	-	-	305	-	-	
YVD-16	YVD-16-141217	12/17/2014	N	SXL0121	0.25	J	FDP	-	-	-	-	-	-	-	-	-	298	-	-	300	-	-	
YVD-16	YVD-D3-141217	12/17/2014	FD	SXL0121	0.1	J	FDP	-	-	-	-	-	-	-	-	-	308	-	-	310	-	-	
YVD-16	YVD-16-150317	03/17/2015	N	5904651	0.25	U	-	-	-	-	-	-	-	-	-	-	310	-	-	310	-	-	
YVD-16	YVD-16-150616	06/16/2015	N	59010961	0.25	U	-	-	-	-	-	-	-	-	-	-	310	-	-	310	-	-	

Table 8
Historical Groundwater Analytical Results

Analyte					Calcium			Magnesium			Potassium			Sodium			Chloride			Fluoride		
Analytical Method					EPA 200.7			EPA 200.7			EPA 200.7			EPA 200.7			EPA 300			EPA 300.0		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
YVD-16	YVD-16-150923	09/23/2015	N	59020281	88.0	-	-	37.0	-	-	6.50	-	-	85.0	-	-	39	-	-	2.5	U	-
YVD-16	YVD-16-151215	12/15/2015	N	59025431	89.0	-	-	34.0	-	-	5.70	-	-	85.0	-	-	38	-	-	2.5	U	-
YVD-16	YVD-16-160309	03/09/2016	N	59029711	90.0	-	-	36.0	-	-	7.40	-	-	86.0	-	-	39	-	-	2.5	U	-
YVD-16	YVD-16-160621	6/21/2016	N	59037151	85.0	-	-	33.0	-	-	5.90	-	-	86.0	-	-	42	-	-	2.5	U	-
YVD-16	YVD-D2-160621	6/21/2016	FD	59037151	86.0	-	-	34.0	-	-	6.00	-	-	88.0	-	-	40	-	-	0.5	U	-
YVD-16	YVD-16-160928	9/28/2016	N	K1611629	92.4	-	-	33.2	-	-	5.69	-	-	90.2	-	-	33.3	-	-	0.22	-	-
YVD-16	YVD-16-161215	12/15/2016	N	K1615126	88.4	-	-	31.1	-	-	5.59	-	-	82.5	-	-	33.7	-	-	0.24	-	-
YVD-16	YVD-030917-22	3/9/2017	N	K1702404	87.1	-	-	31.2	-	-	5.16	-	-	79.8	-	-	33.9	-	-	0.25	-	-
YVD-16	YVD-060517-12	6/5/2017	N	K1705754	86.8	-	-	31.6	-	-	5.08	-	-	83.0	-	-	33.6	-	-	0.25	-	-
YVD-16	YVD-092617-28	9/26/2017	N	K1710381	89	-	-	31.7	-	-	5.44	-	-	84.1	-	-	32.8	-	-	0.23	-	-
YVD-16	YVD-120517-22	12/5/2017	N	K1713091	87.9	-	-	30.1	-	-	5.17	-	-	80.1	-	-	33.3	-	-	0.24	-	-
YVD-16	YVD-031918-16	3/19/2018	N	870634	88.5	-	-	30.25	-	-	5.25	-	-	79.0	-	-	34.4	-	-	0.20	-	-
YVD-16	YVD-060318-10	6/3/2018	N	874568	90.0	-	-	32.80	-	-	5.55	-	-	88.0	-	-	34.9	-	-	0.22	-	-
YVD-16	YVD-090918-07	9/9/2018	N	880601	89.5	-	-	30.55	-	-	5.20	-	-	83.5	-	-	35.7	-	-	0.21	-	-
YVD-17	YVD-17-130919	09/19/2013	N	SWI0142	72.7	-	-	35.8	-	-	8.32	-	-	12.2	-	-	3.1	-	-	0.5	U	-
YVD-17	YVD-17-130924	09/24/2013	N	SWI0175	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
YVD-17	YVD-17-131210	12/10/2013	N	SWL0055	54.2	-	-	28.4	-	-	5.25	-	-	7.9	-	-	2.98	-	-	0.5	U	-
YVD-17	YVD-17-140316	03/16/2014	N	SXC0081	36.0	-	-	17.6	-	-	1.73	-	-	6.1	-	-	3.45	-	-	0.65	-	-
YVD-17	YVD-17-140601	06/01/2014	N	SXF0008	42.3	-	-	18.5	-	-	2.22	-	-	8.7	-	-	3.17	-	-	0.5	U	-
YVD-17	YVD-17-140922	09/22/2014	N	SXI0148	47.5	-	-	21.2	-	-	2.91	-	-	9.9	-	-	2.87	-	-	0.5	U	-
YVD-17	YVD-17-141215	12/15/2014	N	SXL0103	42.1	-	-	17.8	-	-	1.84	-	-	9.2	-	-	2.99	J+	MSD	0.5	U	-
YVD-17	YVD-17-150316	03/16/2015	N	5904471	33.0	-	-	17.0	-	-	1.40	-	-	6.3	-	-	3.5	-	-	0.5	-	-
YVD-17	YVD-D1-150316	03/16/2015	FD	5904471	33.0	-	-	17.0	-	-	1.50	-	-	6.2	-	-	3.5	-	-	0.51	-	-
YVD-17	YVD-17-150617	06/17/2015	N	59010961	41.0	-	-	18.0	-	-	1.80	J+	MSD	8.7	J+	MSD	3	-	-	0.5	U	-
YVD-17	YVD-17-150924	09/24/2015	N	59020391	40.0	-	-	18.0	-	-	2.00	-	-	9.0	-	-	3.1	-	-	0.6	-	-
YVD-17	YVD-17-151216	12/16/2015	N	59025501	38.0	-	-	17.0	-	-	1.40	-	-	8.0	-	-	2.6	-	-	0.5	U	-
YVD-17	YVD-17-160310	03/10/2016	N	59029941	35.0	-	-	16.0	-	-	1.20	-	-	6.4	-	-	2.8	-	-	0.5	U	-
YVD-17	YVD-17-160623	6/23/2016	N	59037371	39.0	-	-	18.0	-	-	1.60	-	-	8.3	-	-	3.4	-	-	0.5	U	-
YVD-17	YVD-17-160926	9/26/2016	N	K1611565	40.8	-	-	17.3	-	-	1.59	-	-	8.3	-	-	2.91	-	-	0.32	-	-
YVD-17	YVD-17-161215	12/15/2016	N	K1615174	39.6	-	-	15.8	-	-	1.46	-	-	7.4	-	-	2.42	-	-	0.34	-	-
YVD-17	YVD-031017-29	3/10/2017	N	K1702448	36.6	-	-	15.7	-	-	0.26	-	-	5.4	-	-	2.65	-	-	0.33	-	-
YVD-17	YVD-060617-24	6/6/2017	N	K1705754	40.2	-	-	15.8	-	-	1.16	-	-	7.81	-	-	2.40	-	-	0.35	-	-
YVD-17	YVD-092517-08	9/25/2017	N	K1710274	43.1	-	-	16.4	-	-	1.73	-	-	9.5	-	-	2.89	-	-	0.37	-	-
YVD-17	YVD-120517-26	12/5/2017	N	K1713091	43.6	-	-	15.4	-	-	1.55	-	-	9.87	-	-	2.71	-	-	0.39	-	-
YVD-17	YVD-060418-20	6/4/2018	N	874662	39.1	-	-	16.5	-	-	0.78	-	-	7.20	-	-	2.87	-	-	0.30	-	-
YVD-18	YVD-18-130919	09/19/2013	N	SWI0142	42.9	-	-	13.7	-	-	3.22	-	-	78.3	-	-	61.4	-	-	5	U	-
YVD-18	YVD-18-130925	09/25/2013	N	SWI0175	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
YVD-18	YVD-18-131211	12/11/2013	N	SWL0073	50.4	-	-	17.1	-	-	3.02	-	-	71.3	-	-	62.9	-	-	5	U	-
YVD-18	YVD-D2-131211	12/11/2013	FD	SWL0073	50.2	-	-	16.7	-	-	3.06	-	-	70.9	-	-	66.5	-	-	5	U	-

Table 8
Historical Groundwater Analytical Results

Analyte					Nitrate (as N)			Nitrite (as N)			Sulfate			Ammonia (as N)			Ammonia (as N)			Total Kjeldahl Nitrogen (TKN)		
Analytical Method					EPA 300.0			EPA 300.0			EPA 300.0			SM4500 NH3-G			EPA 350.1			EPA 351.2		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
YVD-16	YVD-16-150923	09/23/2015	N	59020281	23	-	-	1	U	-	130	-	-	-	-	-	0.1	U	-	0.25	R	MSD
YVD-16	YVD-16-151215	12/15/2015	N	59025431	22	-	-	1	U	-	120	-	-	-	-	-	0.1	R	MSD	0.25	R	MSD
YVD-16	YVD-16-160309	03/09/2016	N	59029711	23	-	-	1	U	-	130	J+	MSD	-	-	-	0.15	J	FDP	0.25	R	MSD
YVD-16	YVD-16-160621	6/21/2016	N	59037151	22	-	-	1	U	-	120	-	-	-	-	-	0.1	U	-	0.25	U	-
YVD-16	YVD-D2-160621	6/21/2016	FD	59037151	22	-	-	0.2	U	-	120	-	-	-	-	-	0.1	U	-	0.25	U	-
YVD-16	YVD-16-160928	9/28/2016	N	K1611629	19.7	-	-	0.10	U	-	110	-	-	-	-	-	0.050	U	MBK	0.5	U	-
YVD-16	YVD-16-161215	12/15/2016	N	K1615126	19.7	-	-	0.10	U	-	112	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-16	YVD-030917-22	3/9/2017	N	K1702404	20.1	J	HTQ	0.10	U	-	113	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-16	YVD-060517-12	6/5/2017	N	K1705754	19.7	-	-	0.10	U	-	117	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-16	YVD-092617-28	9/26/2017	N	K1710381	19.1	J	HTQ	0.10	U	-	115	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-16	YVD-120517-22	12/5/2017	N	K1713091	19.8	J	HTQ	0.10	U	-	110	-	-	-	-	-	0.050	U	-	0.5	UJ	MSD
YVD-16	YVD-031918-16	3/19/2018	N	870634	20.3	-	-	0.05	U	-	106	-	-	0.07	U	-	-	-	-	0.5	U	-
YVD-16	YVD-060318-10	6/3/2018	N	874568	20.7	-	-	0.05	U	-	104	-	-	0.07	U	FBK	-	-	-	0.5	U	-
YVD-16	YVD-090918-07	9/9/2018	N	880601	21.4	-	-	0.05	U	-	107	-	-	0.07	U	-	-	-	-	0.5	R	MSD
YVD-17	YVD-17-130919	09/19/2013	N	SWI0142	-	-	-	-	-	-	6.48	-	-	-	-	-	0.1	U	-	2.5	U	-
YVD-17	YVD-17-130924	09/24/2013	N	SWI0175	0.8	-	-	0.2	U	-	-	-	-	-	-	-	-	-	-	-	-	-
YVD-17	YVD-17-131210	12/10/2013	N	SWL0055	0.68	-	-	0.2	U	-	6.64	-	-	-	-	-	0.02	UJ	MSD	0.29	R	FBK, MSD
YVD-17	YVD-17-140316	03/16/2014	N	SXC0081	1.07	-	-	0.2	U	-	6.42	-	-	-	-	-	0.166	-	-	0.25	U	-
YVD-17	YVD-17-140601	06/01/2014	N	SXF0008	0.67	-	-	0.2	U	-	5.74	-	-	-	-	-	0.1	U	-	0.287	-	-
YVD-17	YVD-17-140922	09/22/2014	N	SXI0148	0.96	-	-	0.2	U	-	5.08	-	-	-	-	-	0.1	U	-	0.293	-	-
YVD-17	YVD-17-141215	12/15/2014	N	SXL0103	0.66	J	DUP	0.2	U	-	6.01	J+	MSD, DUP	-	-	-	0.1	U	-	0.25	U	-
YVD-17	YVD-17-150316	03/16/2015	N	5904471	1.1	-	-	0.2	U	-	5.7	-	-	-	-	-	0.1	U	-	0.25	UJ	MSD
YVD-17	YVD-D1-150316	03/16/2015	FD	5904471	1.2	-	-	0.2	U	-	5.7	-	-	-	-	-	0.1	U	-	0.25	UJ	MSD
YVD-17	YVD-17-150617	06/17/2015	N	59010961	0.59	-	-	0.2	U	-	5.4	-	-	-	-	-	0.1	U	-	0.25	UJ	MSD
YVD-17	YVD-17-150924	09/24/2015	N	59020391	0.2	U	-	1.2	-	-	5.6	J-	MSD	-	-	-	0.1	UJ	MSD	0.25	UJ	MSD
YVD-17	YVD-17-151216	12/16/2015	N	59025501	0.55	-	-	0.2	U	-	5.4	-	-	-	-	-	0.1	R	MSD	0.25	R	MSD
YVD-17	YVD-17-160310	03/10/2016	N	59029941	0.32	-	-	0.2	U	-	4.8	J	DUP	-	-	-	0.1	U	-	0.25	UJ	FDP
YVD-17	YVD-17-160623	6/23/2016	N	59037371	0.55	-	-	0.2	U	-	5.3	-	-	-	-	-	0.1	R	MSD	0.25	U	-
YVD-17	YVD-17-160926	9/26/2016	N	K1611565	1.16	-	-	0.10	U	-	7.9	-	-	-	-	-	0.050	U	MBK	0.5	R	MSD
YVD-17	YVD-17-161215	12/15/2016	N	K1615174	0.59	-	-	0.10	U	-	6.0	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-17	YVD-031017-29	3/10/2017	N	K1702448	0.42	-	-	0.10	U	-	6.3	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-17	YVD-060617-24	6/6/2017	N	K1705754	0.50	-	-	0.10	U	-	6.02	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-17	YVD-092517-08	9/25/2017	N	K1710274	0.99	-	-	0.10	U	-	7.17	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-17	YVD-120517-26	12/5/2017	N	K1713091	0.71	-	-	0.10	U	-	7.53	-	-	-	-	-	0.050	U	-	0.5	UJ	MSD
YVD-17	YVD-060418-20	6/4/2018	N	874662	0.66	-	-	0.05	U	-	6.54	-	-	0.09	U	FBK	-	-	-	0.5	UJ	MSD
YVD-18	YVD-18-130919	09/19/2013	N	SWI0142	-	-	-	-	-	-	122	-	-	-	-	-	0.1	U	-	0.456	R	FBK
YVD-18	YVD-18-130925	09/25/2013	N	SWI0175	13.6	-	-	2	U	-	-	-	-	-	-	-	-	-	-	-	-	-
YVD-18	YVD-18-131211	12/11/2013	N	SWL0073	14.2	J	FDP	2	U	-	116	-	-	-	-	-	0.02	UJ	MSD	1.5	UJ	MSD
YVD-18	YVD-D2-131211	12/11/2013	FD	SWL0073	23.5	J	FDP	2	U	-	129	-	-	-	-	-	0.02	UJ	MSD	0.2	UJ	MSD

Table 8
Historical Groundwater Analytical Results

Analyte					Phosphorus			Phosphorus			Phosphorus			Phosphorus			Alkalinity, Bicarbonate (as CaCO3)			Alkalinity, Total (as CaCO3)			
Analytical Method					EPA 365.1			EPA 365.3			EPA 365.4			SM4500 P-E			SM2320B			SM2320B			
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	
YVD-16	YVD-16-150923	09/23/2015	N	59020281	0.25	U	-	-	-	-	-	-	-	-	-	-	330	-	-	330	-	-	
YVD-16	YVD-16-151215	12/15/2015	N	59025431	0.25	UJ	FDP	-	-	-	-	-	-	-	-	-	350	J	FDP	350	J	FDP	
YVD-16	YVD-16-160309	03/09/2016	N	59029711	0.27	-	-	-	-	-	-	-	-	-	-	-	300	-	-	300	-	-	
YVD-16	YVD-16-160621	6/21/2016	N	59037151	0.25	U	-	-	-	-	-	-	-	-	-	-	300	-	-	300	-	-	
YVD-16	YVD-D2-160621	6/21/2016	FD	59037151	0.25	U	-	-	-	-	-	-	-	-	-	-	300	-	-	300	-	-	
YVD-16	YVD-16-160928	9/28/2016	N	K1611629	-	-	-	0.016	-	-	-	-	-	-	-	-	301	-	-	301	-	-	
YVD-16	YVD-16-161215	12/15/2016	N	K1615126	-	-	-	0.068	-	-	-	-	-	-	-	-	298	-	-	298	-	-	
YVD-16	YVD-030917-22	3/9/2017	N	K1702404	-	-	-	0.045	-	-	-	-	-	-	-	-	295	-	-	295	-	-	
YVD-16	YVD-060517-12	6/5/2017	N	K1705754	-	-	-	0.021	-	-	-	-	-	-	-	-	298	-	-	298	-	-	
YVD-16	YVD-092617-28	9/26/2017	N	K1710381	-	-	-	0.016	-	-	-	-	-	-	-	-	309	-	-	309	-	-	
YVD-16	YVD-120517-22	12/5/2017	N	K1713091	-	-	-	0.048	-	-	-	-	-	-	-	-	294	-	-	294	-	-	
YVD-16	YVD-031918-16	3/19/2018	N	870634	-	-	-	-	-	-	-	-	-	0.07	U	-	297	-	-	297	-	-	
YVD-16	YVD-060318-10	6/3/2018	N	874568	-	-	-	-	-	-	-	-	-	0.07	U	-	314	-	-	314	-	-	
YVD-16	YVD-090918-07	9/9/2018	N	880601	-	-	-	-	-	-	-	-	-	0.07	U	-	309	-	-	309	-	-	
YVD-17	YVD-17-130919	09/19/2013	N	SWI0142	-	-	-	-	-	-	3.64	-	-	-	-	-	213	-	-	215	-	-	
YVD-17	YVD-17-130924	09/24/2013	N	SWI0175	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
YVD-17	YVD-17-131210	12/10/2013	N	SWL0055	-	-	-	-	-	-	-	-	-	1.61	-	-	169	-	-	170	-	-	
YVD-17	YVD-17-140316	03/16/2014	N	SXC0081	0.3	-	-	-	-	-	-	-	-	-	-	-	144	-	-	145	-	-	
YVD-17	YVD-17-140601	06/01/2014	N	SXF0008	0.52	-	-	-	-	-	-	-	-	-	-	-	169	-	-	170	-	-	
YVD-17	YVD-17-140922	09/22/2014	N	SXI0148	0.36	-	-	-	-	-	-	-	-	-	-	-	183	-	-	185	-	-	
YVD-17	YVD-17-141215	12/15/2014	N	SXL0103	0.19	-	-	-	-	-	-	-	-	-	-	-	168	-	-	170	-	-	
YVD-17	YVD-17-150316	03/16/2015	N	5904471	0.25	UJ	MSD	-	-	-	-	-	-	-	-	-	130	-	-	130	-	-	
YVD-17	YVD-D1-150316	03/16/2015	FD	5904471	0.25	UJ	MSD	-	-	-	-	-	-	-	-	-	130	-	-	130	-	-	
YVD-17	YVD-17-150617	06/17/2015	N	59010961	0.25	-	-	-	-	-	-	-	-	-	-	-	160	-	-	160	-	-	
YVD-17	YVD-17-150924	09/24/2015	N	59020391	0.26	-	-	-	-	-	-	-	-	-	-	-	170	-	-	170	-	-	
YVD-17	YVD-17-151216	12/16/2015	N	59025501	0.25	UJ	MSD	-	-	-	-	-	-	-	-	-	180	-	-	180	-	-	
YVD-17	YVD-17-160310	03/10/2016	N	59029941	0.25	U	-	-	-	-	-	-	-	-	-	-	150	-	-	150	-	-	
YVD-17	YVD-17-160623	6/23/2016	N	59037371	0.25	U	-	-	-	-	-	-	-	-	-	-	170	-	-	170	-	-	
YVD-17	YVD-17-160926	9/26/2016	N	K1611565	-	-	-	0.095	-	-	-	-	-	-	-	-	182	-	-	182	-	-	
YVD-17	YVD-17-161215	12/15/2016	N	K1615174	-	-	-	0.103	-	-	-	-	-	-	-	-	154	-	-	157	J	-	
YVD-17	YVD-031017-29	3/10/2017	N	K1702448	-	-	-	0.038	-	-	-	-	-	-	-	-	142	-	-	156	J	-	
YVD-17	YVD-060617-24	6/6/2017	N	K1705754	-	-	-	0.055	-	-	-	-	-	-	-	-	167	-	-	167	-	-	
YVD-17	YVD-092517-08	9/25/2017	N	K1710274	-	-	-	0.046	-	-	-	-	-	-	-	-	179	-	-	179	-	-	
YVD-17	YVD-120517-26	12/5/2017	N	K1713091	-	-	-	0.036	-	-	-	-	-	-	-	-	187	-	-	187	-	-	
YVD-17	YVD-060418-20	6/4/2018	N	874662	-	-	-	-	-	-	-	-	-	0.07	U	-	160	-	-	160	-	-	
YVD-18	YVD-18-130919	09/19/2013	N	SWI0142	-	-	-	-	-	-	0.1	U	-	-	-	-	119	-	-	120	-	-	
YVD-18	YVD-18-130925	09/25/2013	N	SWI0175	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
YVD-18	YVD-18-131211	12/11/2013	N	SWL0073	-	-	-	-	-	-	-	-	-	0.06	U	-	109	-	-	110	-	-	
YVD-18	YVD-D2-131211	12/11/2013	FD	SWL0073	-	-	-	-	-	-	-	-	-	0.06	U	-	114	-	-	115	-	-	

Table 8
Historical Groundwater Analytical Results

Analyte					Calcium			Magnesium			Potassium			Sodium			Chloride			Fluoride		
Analytical Method					EPA 200.7			EPA 200.7			EPA 200.7			EPA 200.7			EPA 300			EPA 300.0		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
YVD-18	YVD-18-140318	03/18/2014	N	SXC0095	51.7	-	-	16.5	-	-	3.30	-	-	77.5	-	-	66.7	-	-	5	U	-
YVD-18	YVD-D2-140318	03/18/2014	FD	SXC0095	52.0	-	-	16.6	-	-	3.26	-	-	78.0	-	-	62.1	-	-	5	U	-
YVD-18	YVD-18-140603	06/03/2014	N	SXF0017	46.8	-	-	15.4	-	-	3.24	-	-	77.7	-	-	64	-	-	2	U	-
YVD-18	YVD-18-140923	09/23/2014	N	SXI0173	48.5	-	-	15.6	-	-	3.80	-	-	81.6	-	-	54.7	-	-	2.5	U	-
YVD-18	YVD-18-141216	12/16/2014	N	SXL0121	52.7	-	-	17.7	-	-	3.63	-	-	81.8	-	-	59.6	-	-	2.5	U	-
YVD-18	YVD-18-150317	03/17/2015	N	5904541	56.0	-	-	19.0	-	-	3.50	-	-	87.0	-	-	64	-	-	2.5	U	-
YVD-18	YVD-18-150617	06/17/2015	N	59010961	55.0	-	-	18.0	-	-	4.10	J+	MSD	86.0	J+	MSD	65	-	-	2.5	U	-
YVD-18	YVD-18-150924	09/24/2015	N	59020391	52.0	-	-	19.0	-	-	3.50	-	-	77.0	-	-	63	-	-	2.5	U	-
YVD-18	YVD-18-151216	12/16/2015	N	59025501	60.0	-	-	20.0	-	-	4.00	-	-	91.0	-	-	66	-	-	2.5	U	-
YVD-18	YVD-18-160309	03/09/2016	N	59029941	62.0	-	-	21.0	-	-	3.80	-	-	89.0	-	-	63	-	-	2.5	U	-
YVD-18	YVD-18-160622	6/22/2016	N	59037271	55.0	-	-	19.0	-	-	3.70	-	-	86.0	-	-	61	-	-	2.5	U	-
YVD-18	YVD-18-160928	9/28/2016	N	K1611629	58.2	-	-	19.7	-	-	3.75	-	-	83.8	-	-	56.8	-	-	0.36	-	-
YVD-18	YVD-18-161214	12/14/2016	N	K1615083	62.5	-	-	19.6	-	-	3.69	-	-	82.5	-	-	56.3	-	-	0.38	-	-
YVD-18	YVD-D3-161214	12/14/2016	FD	K1615083	60.6	-	-	20.1	-	-	3.82	-	-	84.0	-	-	56.4	-	-	0.37	-	-
YVD-18	YVD-030617-05	3/6/2017	N	K1702324	65.4	-	-	20.5	-	-	3.39	-	-	78.8	-	-	55.9	-	-	0.40	-	-
YVD-18	YVD-060717-31	6/7/2017	N	K1705833	65.2	-	-	21.4	-	-	3.82	-	-	81.8	-	-	57.0	-	-	0.34	-	-
YVD-18	YVD-092617-27	9/26/2017	N	K1710333	58.5	-	-	18.3	-	-	3.64	-	-	77.0	-	-	54.8	-	-	0.38	-	-
YVD-18	YVD-120417-05	12/4/2017	N	K1713026	62.6	-	-	20.0	-	-	3.62	-	-	81.6	-	-	58.9	-	-	0.40	-	-
YVD-18	YVD-031918-17	3/19/2018	N	870634	67.5	-	-	22.00	-	-	3.78	-	-	83.0	-	-	68.2	-	-	0.34	-	-
YVD-18	YVD-060318-07	6/3/2018	N	874568	70.0	-	-	23.30	-	-	4.18	-	-	88.5	-	-	65.9	-	-	0.33	-	-
YVD-18	YVD-090918-12	9/9/2018	N	880601	67.5	-	-	22.05	-	-	4.20	-	-	78.0	-	-	67.1	-	-	0.35	-	-
Equipment Blank	YVD-EB-130918	09/18/2013	EB	SWI0123	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Equipment Blank	YVD-EB-130925	09/25/2013	EB	SWI0175	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Equipment Blank	YVD-EB-131212	12/12/2013	EB	SWL0078	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Equipment Blank	YVD-EB-140317	03/17/2014	EB	SXC0081	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Equipment Blank	YVD-EB-140318	03/18/2014	EB	SXC0095	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Equipment Blank	YVD-EB-140319	03/19/2014	EB	SXC0107	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Equipment Blank	YVD-EB-140604	06/04/2014	EB	SXF0025	1	U	-	0.5	U	-	1	U	-	0.5	U	-	1.46	-	-	0.5	U	-
Equipment Blank	YVD-EB-140924	09/24/2014	EB	SXI0173	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Equipment Blank	YVD-EB-141217	12/17/2014	EB	SXL0144	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.9	-	-	0.5	U	-
Equipment Blank	YVD-EB-150617	06/17/2015	EB	59011021	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Equipment Blank	YVD-EB-150925	09/25/2015	EB	59020431	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Equipment Blank	YVD-EB-151216	12/16/2015	EB	59025501	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Equipment Blank	YVD-EB-160310	03/10/2016	EB	59029941	1	U	-	0.5	U	-	1	U	-	1.1	-	-	1.1	-	-	0.67	-	-
Equipment Blank	YVD-EB-160623	6/23/2016	EB	59037371	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Equipment Blank	YVD-EB-160926	9/26/2016	EB	K1611506	0.097	-	-	0.0346	-	-	0.1	J	-	0.13	J	-	0.2	U	-	0.2	U	-
Equipment Blank	YVD-EB-160927	9/27/2016	EB	K1611629	0.011	J	-	0.0004	J	-	0.2	U	-	0.04	J	-	0.1	U	-	0.1	U	-
Equipment Blank	YVD-EB-160928	9/28/2016	EB	K1611629	0.05	J	-	0.05	U	-	0.2	U	-	0.04	J	-	0.03	J	-	0.1	U	-
Equipment Blank	YVD-EB1-161214	12/14/2016	EB	K1615083	0.021	U	MBK	0.0053	U	MBK	0.21	U	-	0.21	U	-	0.2	U	-	0.2	U	-
Equipment Blank	YVD-EB2-161215	12/15/2016	EB	K1615126	0.021	U	MBK	0.0053	U	MBK	0.21	U	-	0.21	U	MBK	0.2	U	-	0.2	U	-

Table 8
Historical Groundwater Analytical Results

Analyte					Nitrate (as N)			Nitrite (as N)			Sulfate			Ammonia (as N)			Ammonia (as N)			Total Kjeldahl Nitrogen (TKN)		
Analytical Method					EPA 300.0			EPA 300.0			EPA 300.0			SM4500 NH3-G			EPA 350.1			EPA 351.2		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
YVD-18	YVD-18-140318	03/18/2014	N	SXC0095	18.8	-	-	2	U	-	147	J-	MSD	-	-	-	0.134	J	FDP	0.358	-	-
YVD-18	YVD-D2-140318	03/18/2014	FD	SXC0095	17.1	-	-	2	U	-	140	J-	MSD	-	-	-	0.28	J	FDP	0.342	-	-
YVD-18	YVD-18-140603	06/03/2014	N	SXF0017	16.9	-	-	0.8	U	-	135	J-	MSD	-	-	-	0.1	U	-	0.796	-	-
YVD-18	YVD-18-140923	09/23/2014	N	SXI0173	13.8	-	-	1	U	-	111	-	-	-	-	-	0.1	U	-	0.335	J+	MSD
YVD-18	YVD-18-141216	12/16/2014	N	SXL0121	16.5	-	-	1	U	-	131	-	-	-	-	-	0.1	U	-	0.25	UJ	MSD
YVD-18	YVD-18-150317	03/17/2015	N	5904541	20	J-	MSD	1	U	-	140	J-	MSD	-	-	-	0.1	U	-	0.25	UJ	MSD
YVD-18	YVD-18-150617	06/17/2015	N	59010961	17	-	-	1	U	-	120	-	-	-	-	-	0.1	U	-	0.25	UJ	MSD
YVD-18	YVD-18-150924	09/24/2015	N	59020391	20	J+	MSD	1	U	-	140	J-	MSD	-	-	-	0.1	UJ	MSD	0.25	UJ	MSD
YVD-18	YVD-18-151216	12/16/2015	N	59025501	23	-	-	1	U	-	150	-	-	-	-	-	0.1	R	MSD	0.25	R	MSD
YVD-18	YVD-18-160309	03/09/2016	N	59029941	22	-	-	1	U	-	150	J	DUP	-	-	-	0.1	U	-	0.25	UJ	FDP, MSD
YVD-18	YVD-18-160622	6/22/2016	N	59037271	21	-	-	1	U	-	140	-	-	-	-	-	0.1	UJ	MSD	0.25	R	MSD
YVD-18	YVD-18-160928	9/28/2016	N	K1611629	20.5	-	-	0.10	U	-	135	-	-	-	-	-	0.050	U	MBK	0.5	U	-
YVD-18	YVD-18-161214	12/14/2016	N	K1615083	21.5	-	-	0.10	U	-	139	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-18	YVD-D3-161214	12/14/2016	FD	K1615083	21.5	-	-	0.10	U	-	142	-	-	-	-	-	0.115	-	-	0.5	U	-
YVD-18	YVD-030617-05	3/6/2017	N	K1702324	23.7	J	HTQ	0.04	J	HTQ	140	-	-	-	-	-	1	U	-	0.5	U	-
YVD-18	YVD-060717-31	6/7/2017	N	K1705833	22.9	-	-	0.10	U	-	135	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-18	YVD-092617-27	9/26/2017	N	K1710333	21.6	-	-	0.10	U	-	137	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-18	YVD-120417-05	12/4/2017	N	K1713026	24.4	-	-	0.10	U	-	144	-	-	-	-	-	0.050	U	-	0.5	U	-
YVD-18	YVD-031918-17	3/19/2018	N	870634	27.7	-	-	0.05	U	-	161	-	-	0.07	U	-	-	-	-	0.5	U	-
YVD-18	YVD-060318-07	6/3/2018	N	874568	26.3	-	-	0.05	U	-	147	-	-	0.07	U	-	-	-	-	0.5	U	-
YVD-18	YVD-090918-12	9/9/2018	N	880601	26.0	-	-	0.05	U	-	127	-	-	0.07	U	-	-	-	-	0.5	R	MSD
Equipment Blank	YVD-EB-130918	09/18/2013	EB	SWI0123	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Equipment Blank	YVD-EB-130925	09/25/2013	EB	SWI0175	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Equipment Blank	YVD-EB-131212	12/12/2013	EB	SWL0078	0.2	U	-	0.2	U	-	0.5	U	-	0.02	U	-	0.02	U	-	0.2	U	-
Equipment Blank	YVD-EB-140317	03/17/2014	EB	SXC0081	0.2	U	-	0.2	U	-	0.5	U	-	0.124	-	-	0.124	-	-	0.25	U	-
Equipment Blank	YVD-EB-140318	03/18/2014	EB	SXC0095	0.2	U	-	0.2	U	-	0.5	U	-	0.13	-	-	0.13	-	-	0.25	U	-
Equipment Blank	YVD-EB-140319	03/19/2014	EB	SXC0107	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Equipment Blank	YVD-EB-140604	06/04/2014	EB	SXF0025	0.2	U	-	0.2	U	-	1.24	-	-	0.1	U	-	0.1	U	-	0.25	U	-
Equipment Blank	YVD-EB-140924	09/24/2014	EB	SXI0173	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	1.2	-	-
Equipment Blank	YVD-EB-141217	12/17/2014	EB	SXL0144	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Equipment Blank	YVD-EB-150617	06/17/2015	EB	59011021	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.37	-	-
Equipment Blank	YVD-EB-150925	09/25/2015	EB	59020431	0.2	U	-	0.2	U	-	0.5	U	-	0.1	-	-	0.1	-	-	0.38	-	-
Equipment Blank	YVD-EB-151216	12/16/2015	EB	59025501	0.2	U	-	0.2	U	-	0.5	U	-	0.12	J-	MSD	0.12	J-	MSD	0.25	U	-
Equipment Blank	YVD-EB-160310	03/10/2016	EB	59029941	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	1.9	-	-
Equipment Blank	YVD-EB-160623	6/23/2016	EB	59037371	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.43	-	-
Equipment Blank	YVD-EB-160926	9/26/2016	EB	K1611506	0.1	U	-	0.10	U	-	0.2	U	-	0.050	U	MBK	0.050	U	MBK	0.5	R	MSD
Equipment Blank	YVD-EB-160927	9/27/2016	EB	K1611629	0.05	UJ	HTQ	0.05	UJ	HTQ	0.08	J	-	0.050	U	MBK	0.050	U	MBK	0.5	U	-
Equipment Blank	YVD-EB-160928	9/28/2016	EB	K1611629	0.05	U	-	0.05	U	-	0.51	-	-	0.050	U	MBK	0.050	U	MBK	0.5	U	-
Equipment Blank	YVD-EB1-161214	12/14/2016	EB	K1615083	0.1	U	-	0.10	U	-	0.2	U	-	0.050	U	-	0.050	U	-	0.5	U	-
Equipment Blank	YVD-EB2-161215	12/15/2016	EB	K1615126	0.1	U	-	0.10	U	-	0.2	U	-	0.050	U	-	0.050	U	-	0.5	U	-

Table 8
Historical Groundwater Analytical Results

Analyte					Phosphorus			Phosphorus			Phosphorus			Phosphorus			Alkalinity, Bicarbonate (as CaCO3)			Alkalinity, Total (as CaCO3)			
Analytical Method					EPA 365.1			EPA 365.3			EPA 365.4			SM4500 P-E			SM2320B			SM2320B			
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	
YVD-18	YVD-18-140318	03/18/2014	N	SXC0095	0.068	-	-	-	-	-	-	-	-	-	-	-	119	-	-	120	-	-	
YVD-18	YVD-D2-140318	03/18/2014	FD	SXC0095	0.082	-	-	-	-	-	-	-	-	-	-	-	124	-	-	125	-	-	
YVD-18	YVD-18-140603	06/03/2014	N	SXF0017	0.071	J+	FBK	-	-	-	-	-	-	-	-	-	117	-	-	118	-	-	
YVD-18	YVD-18-140923	09/23/2014	N	SXI0173	0.086	-	-	-	-	-	-	-	-	-	-	-	114	-	-	115	-	-	
YVD-18	YVD-18-141216	12/16/2014	N	SXL0121	0.1	U	-	-	-	-	-	-	-	-	-	-	114	-	-	115	-	-	
YVD-18	YVD-18-150317	03/17/2015	N	5904541	0.25	U	-	-	-	-	-	-	-	-	-	-	110	-	-	110	-	-	
YVD-18	YVD-18-150617	06/17/2015	N	59010961	0.25	U	-	-	-	-	-	-	-	-	-	-	110	-	-	110	-	-	
YVD-18	YVD-18-150924	09/24/2015	N	59020391	0.25	U	-	-	-	-	-	-	-	-	-	-	120	-	-	120	-	-	
YVD-18	YVD-18-151216	12/16/2015	N	59025501	0.25	UJ	MSD	-	-	-	-	-	-	-	-	-	120	-	-	120	-	-	
YVD-18	YVD-18-160309	03/09/2016	N	59029941	0.25	U	-	-	-	-	-	-	-	-	-	-	120	-	-	120	-	-	
YVD-18	YVD-18-160622	6/22/2016	N	59037271	0.25	U	-	-	-	-	-	-	-	-	-	-	130	-	-	130	-	-	
YVD-18	YVD-18-160928	9/28/2016	N	K1611629	-	-	-	0.013	-	-	-	-	-	-	-	-	114	-	-	114	-	-	
YVD-18	YVD-18-161214	12/14/2016	N	K1615083	-	-	-	0.043	-	-	-	-	-	-	-	-	111	-	-	111	-	-	
YVD-18	YVD-D3-161214	12/14/2016	FD	K1615083	-	-	-	0.019	-	-	-	-	-	-	-	-	111	-	-	111	-	-	
YVD-18	YVD-030617-05	3/6/2017	N	K1702324	-	-	-	0.024	-	-	-	-	-	-	-	-	110	-	-	110	-	-	
YVD-18	YVD-060717-31	6/7/2017	N	K1705833	-	-	-	0.018	-	-	-	-	-	-	-	-	114	-	-	114	-	-	
YVD-18	YVD-092617-27	9/26/2017	N	K1710333	-	-	-	0.018	-	-	-	-	-	-	-	-	115	-	-	115	-	-	
YVD-18	YVD-120417-05	12/4/2017	N	K1713026	-	-	-	0.017	U	MBK	-	-	-	-	-	-	114	-	-	114	-	-	
YVD-18	YVD-031918-17	3/19/2018	N	870634	-	-	-	-	-	-	-	-	-	0.07	U	-	111	-	-	111	-	-	
YVD-18	YVD-060318-07	6/3/2018	N	874568	-	-	-	-	-	-	-	-	-	0.07	U	-	110	-	-	110	-	-	
YVD-18	YVD-090918-12	9/9/2018	N	880601	-	-	-	-	-	-	-	-	-	0.07	U	-	112	-	-	112	-	-	
Equipment Blank	YVD-EB-130918	09/18/2013	EB	SWI0123	-	-	-	-	-	-	0.1	U	-	-	-	-	4	U	-	4	U	-	
Equipment Blank	YVD-EB-130925	09/25/2013	EB	SWI0175	-	-	-	-	-	-	0.1	U	-	-	-	-	4	U	-	4	U	-	
Equipment Blank	YVD-EB-131212	12/12/2013	EB	SWL0078	-	-	-	-	-	-	-	-	-	0.06	U	-	4	U	-	4	U	-	
Equipment Blank	YVD-EB-140317	03/17/2014	EB	SXC0081	-	-	-	0.05	U	-	-	-	-	-	-	-	4	U	-	4	U	-	
Equipment Blank	YVD-EB-140318	03/18/2014	EB	SXC0095	-	-	-	0.05	-	-	-	-	-	-	-	-	4	U	-	4	U	-	
Equipment Blank	YVD-EB-140319	03/19/2014	EB	SXC0107	-	-	-	0.05	U	-	-	-	-	-	-	-	4	U	-	4	U	-	
Equipment Blank	YVD-EB-140604	06/04/2014	EB	SXF0025	-	-	-	0.05	U	-	-	-	-	-	-	-	4	U	-	4	U	-	
Equipment Blank	YVD-EB-140924	09/24/2014	EB	SXI0173	-	-	-	0.062	-	-	-	-	-	-	-	-	4	U	-	4	U	-	
Equipment Blank	YVD-EB-141217	12/17/2014	EB	SXL0144	-	-	-	0.1	U	-	-	-	-	-	-	-	4	U	-	4	U	-	
Equipment Blank	YVD-EB-150617	06/17/2015	EB	59011021	-	-	-	0.25	U	-	-	-	-	-	-	-	5	-	-	5	-	-	
Equipment Blank	YVD-EB-150925	09/25/2015	EB	59020431	-	-	-	0.25	U	-	-	-	-	-	-	-	4	U	-	4	U	-	
Equipment Blank	YVD-EB-151216	12/16/2015	EB	59025501	-	-	-	0.25	U	-	-	-	-	-	-	-	5	-	-	5	-	-	
Equipment Blank	YVD-EB-160310	03/10/2016	EB	59029941	-	-	-	0.25	U	-	-	-	-	-	-	-	15	-	-	15	-	-	
Equipment Blank	YVD-EB-160623	6/23/2016	EB	59037371	-	-	-	0.25	U	-	-	-	-	-	-	-	5	-	-	5	-	-	
Equipment Blank	YVD-EB-160926	9/26/2016	EB	K1611506	-	-	-	0.01	U	-	-	-	-	-	-	-	2	U	-	2	U	-	
Equipment Blank	YVD-EB-160927	9/27/2016	EB	K1611629	-	-	-	0.01	U	-	-	-	-	-	-	-	2	U	-	2	U	-	
Equipment Blank	YVD-EB-160928	9/28/2016	EB	K1611629	-	-	-	0.01	U	-	-	-	-	-	-	-	2	U	-	2	U	-	
Equipment Blank	YVD-EB1-161214	12/14/2016	EB	K1615083	-	-	-	0.01	U	-	-	-	-	-	-	-	2	U	-	2	U	-	
Equipment Blank	YVD-EB2-161215	12/15/2016	EB	K1615126	-	-	-	0.01	U	-	-	-	-	-	-	-	2	U	-	2	U	-	

Table 8
Historical Groundwater Analytical Results

Analyte					Calcium			Magnesium			Potassium			Sodium			Chloride			Fluoride		
Analytical Method					EPA 200.7			EPA 200.7			EPA 200.7			EPA 200.7			EPA 300			EPA 300.0		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
Equipment Blank	YVD-EB3-161216	12/16/2016	EB	K1615174	0.035	U	MBK	0.0053	U	MBK	0.21	U	-	0.21	U	MBK	0.2	U	-	0.2	U	-
Field Blank	YVD-F1-130916	09/16/2013	FB	SWI0113	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F2-130917	09/17/2013	FB	SWI0113	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F3-130918	09/18/2013	FB	SWI0123	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F4-130918	09/18/2013	FB	SWI0138	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F5-130919	09/19/2013	FB	SWI0142	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F6-130923	09/23/2013	FB	SWI0178	1	U	-	0.5	U	-	1	U	-	0.5	U	-	-	-	-	-	-	-
Field Blank	YVD-F7-130924	09/24/2013	FB	SWI0175	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F7-130926	09/26/2013	FB	SWI0190	-	-	-	-	-	-	-	-	-	-	-	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F1-131209	12/09/2013	FB	SWL0055	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F2-131210	12/10/2013	FB	SWL0063	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F3-131211	12/11/2013	FB	SWL0073	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F4-131212	12/12/2013	FB	SWL0078	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F1-140316	03/16/2014	FB	SXC0081	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F2-140317	03/17/2014	FB	SXC0095	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F3-140318	03/18/2014	FB	SXC0107	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F4-140319	03/19/2014	FB	SXC0107	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F1-140601	06/01/2014	FB	SXF0008	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F2-140602	06/02/2014	FB	SXF0017	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F3-140603	06/03/2014	FB	SXF0025	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F1-140921	09/21/2014	FB	SXI0148	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F2-140922	09/22/2014	FB	SXI0148	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F3-140923	09/23/2014	FB	SXI0158	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F4-140924	09/24/2014	FB	SXI0173	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F1-141215	12/15/2014	FB	SXL0103	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F2-141215	12/15/2014	FB	SXL0108	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F3-141216	12/16/2014	FB	SXL0121	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F4-141217	12/17/2014	FB	SXL0144	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F1-150315	03/15/2015	FB	5904471	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F2-150316	03/16/2015	FB	5904541	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F3-150317	03/17/2015	FB	5904651	1.2	-	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F1-150615	06/15/2015	FB	59010751	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F2-150616	06/16/2015	FB	59010961	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F3-150617	06/17/2015	FB	59011021	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F1-150922	09/22/2015	FB	59020141	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F2-150923	09/23/2015	FB	59020281	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F3-150923	09/23/2015	FB	59020391	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F4-150924	09/24/2015	FB	59020391	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F5-150925	09/25/2015	FB	59020431	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F1-151213	12/13/2015	FB	59025351	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-

Table 8
Historical Groundwater Analytical Results

Analyte					Nitrate (as N)			Nitrite (as N)			Sulfate			Ammonia (as N)			Ammonia (as N)			Total Kjeldahl Nitrogen (TKN)		
Analytical Method					EPA 300.0			EPA 300.0			EPA 300.0			SM4500 NH3-G			EPA 350.1			EPA 351.2		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
Equipment Blank	YVD-EB3-161216	12/16/2016	EB	K1615174	0.1	U	-	0.10	U	-	0.4	-	-	0.050	U	-	0.050	U	-	0.5	U	-
Field Blank	YVD-F1-130916	09/16/2013	FB	SWI0113	0.2	U	-	0.2	U	-	0.53	-	-	0.1	U	-	0.1	U	-	0.25	U	-
Field Blank	YVD-F2-130917	09/17/2013	FB	SWI0113	0.2	U	-	0.2	U	-	0.51	-	-	0.1	U	-	0.1	U	-	0.25	U	-
Field Blank	YVD-F3-130918	09/18/2013	FB	SWI0123	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Field Blank	YVD-F4-130918	09/18/2013	FB	SWI0138	0.2	U	-	0.2	U	-	0.5	U	-	0.12	-	-	0.12	-	-	0.25	U	-
Field Blank	YVD-F5-130919	09/19/2013	FB	SWI0142	-	-	-	-	-	-	0.5	U	-	0.1	U	-	0.1	U	-	0.373	-	-
Field Blank	YVD-F6-130923	09/23/2013	FB	SWI0178	-	-	-	-	-	-	-	-	-	0.1	U	-	0.1	U	-	0.25	U	-
Field Blank	YVD-F7-130924	09/24/2013	FB	SWI0175	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Field Blank	YVD-F7-130926	09/26/2013	FB	SWI0190	0.2	U	-	0.2	U	-	0.5	U	-	-	-	-	-	-	-	-	-	-
Field Blank	YVD-F1-131209	12/09/2013	FB	SWL0055	0.2	U	-	0.2	U	-	0.5	U	-	0.02	U	-	0.02	U	-	0.33	-	-
Field Blank	YVD-F2-131210	12/10/2013	FB	SWL0063	0.2	U	-	0.2	U	-	0.5	U	-	0.02	U	-	0.02	U	-	3.7	-	-
Field Blank	YVD-F3-131211	12/11/2013	FB	SWL0073	0.2	U	-	0.2	U	-	0.5	U	-	0.02	U	-	0.02	U	-	0.43	-	-
Field Blank	YVD-F4-131212	12/12/2013	FB	SWL0078	0.2	U	-	0.2	U	-	0.5	U	-	0.02	U	-	0.02	U	-	0.2	U	-
Field Blank	YVD-F1-140316	03/16/2014	FB	SXC0081	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Field Blank	YVD-F2-140317	03/17/2014	FB	SXC0095	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Field Blank	YVD-F3-140318	03/18/2014	FB	SXC0107	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Field Blank	YVD-F4-140319	03/19/2014	FB	SXC0107	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Field Blank	YVD-F1-140601	06/01/2014	FB	SXF0008	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Field Blank	YVD-F2-140602	06/02/2014	FB	SXF0017	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Field Blank	YVD-F3-140603	06/03/2014	FB	SXF0025	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Field Blank	YVD-F1-140921	09/21/2014	FB	SXI0148	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Field Blank	YVD-F2-140922	09/22/2014	FB	SXI0148	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Field Blank	YVD-F3-140923	09/23/2014	FB	SXI0158	0.2	U	-	0.2	U	-	0.5	U	-	0.128	-	-	0.128	-	-	0.25	U	-
Field Blank	YVD-F4-140924	09/24/2014	FB	SXI0173	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Field Blank	YVD-F1-141215	12/15/2014	FB	SXL0103	0.2	UJ	DUP	0.2	U	-	0.5	UJ	DUP	0.1	U	-	0.1	U	-	0.25	U	-
Field Blank	YVD-F2-141215	12/15/2014	FB	SXL0108	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Field Blank	YVD-F3-141216	12/16/2014	FB	SXL0121	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Field Blank	YVD-F4-141217	12/17/2014	FB	SXL0144	0.2	R	HTQ	0.2	R	HTQ	0.5	U	-	0.101	-	-	0.101	-	-	0.25	U	-
Field Blank	YVD-F1-150315	03/15/2015	FB	5904471	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Field Blank	YVD-F2-150316	03/16/2015	FB	5904541	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Field Blank	YVD-F3-150317	03/17/2015	FB	5904651	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Field Blank	YVD-F1-150615	06/15/2015	FB	59010751	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Field Blank	YVD-F2-150616	06/16/2015	FB	59010961	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Field Blank	YVD-F3-150617	06/17/2015	FB	59011021	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Field Blank	YVD-F1-150922	09/22/2015	FB	59020141	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.26	-	-
Field Blank	YVD-F2-150923	09/23/2015	FB	59020281	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Field Blank	YVD-F3-150923	09/23/2015	FB	59020391	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Field Blank	YVD-F4-150924	09/24/2015	FB	59020391	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Field Blank	YVD-F5-150925	09/25/2015	FB	59020431	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Field Blank	YVD-F1-151213	12/13/2015	FB	59025351	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-

Table 8
Historical Groundwater Analytical Results

Analyte					Phosphorus			Phosphorus			Phosphorus			Phosphorus			Alkalinity, Bicarbonate (as CaCO3)			Alkalinity, Total (as CaCO3)		
Analytical Method					EPA 365.1			EPA 365.3			EPA 365.4			SM4500 P-E			SM2320B			SM2320B		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
Equipment Blank	YVD-EB3-161216	12/16/2016	EB	K1615174	-	-	-	0.01	U	-	-	-	-	-	-	-	2	U	-	2	U	-
Field Blank	YVD-F1-130916	09/16/2013	FB	SWI0113	-	-	-	-	-	-	0.1	U	-	-	-	-	4	U	-	4	U	-
Field Blank	YVD-F2-130917	09/17/2013	FB	SWI0113	-	-	-	-	-	-	0.1	U	-	-	-	-	4	U	-	4	U	-
Field Blank	YVD-F3-130918	09/18/2013	FB	SWI0123	-	-	-	-	-	-	0.1	U	-	-	-	-	4	U	-	4	U	-
Field Blank	YVD-F4-130918	09/18/2013	FB	SWI0138	-	-	-	-	-	-	0.1	U	-	-	-	-	4	U	-	4	U	-
Field Blank	YVD-F5-130919	09/19/2013	FB	SWI0142	-	-	-	-	-	-	0.243	-	-	-	-	-	4	U	-	4	U	-
Field Blank	YVD-F6-130923	09/23/2013	FB	SWI0178	-	-	-	-	-	-	0.1	U	-	-	-	-	4	U	-	4	U	-
Field Blank	YVD-F7-130924	09/24/2013	FB	SWI0175	-	-	-	-	-	-	0.1	U	-	-	-	-	4	U	-	4	U	-
Field Blank	YVD-F7-130926	09/26/2013	FB	SWI0190	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Field Blank	YVD-F1-131209	12/09/2013	FB	SWL0055	-	-	-	-	-	-	-	-	-	0.06	U	-	4	U	-	4	U	-
Field Blank	YVD-F2-131210	12/10/2013	FB	SWL0063	-	-	-	-	-	-	-	-	-	0.06	U	-	4	U	-	4	U	-
Field Blank	YVD-F3-131211	12/11/2013	FB	SWL0073	-	-	-	-	-	-	-	-	-	0.06	U	-	4	U	-	4	U	-
Field Blank	YVD-F4-131212	12/12/2013	FB	SWL0078	-	-	-	-	-	-	-	-	-	0.06	U	-	4	U	-	4	U	-
Field Blank	YVD-F1-140316	03/16/2014	FB	SXC0081	-	-	-	0.05	U	-	-	-	-	-	-	-	4	U	-	4	U	-
Field Blank	YVD-F2-140317	03/17/2014	FB	SXC0095	-	-	-	0.05	U	-	-	-	-	-	-	-	4	U	-	4	U	-
Field Blank	YVD-F3-140318	03/18/2014	FB	SXC0107	-	-	-	0.05	U	-	-	-	-	-	-	-	4	U	-	4	U	-
Field Blank	YVD-F4-140319	03/19/2014	FB	SXC0107	-	-	-	0.05	U	-	-	-	-	-	-	-	4	U	-	4	U	-
Field Blank	YVD-F1-140601	06/01/2014	FB	SXF0008	-	-	-	0.05	U	-	-	-	-	-	-	-	4.25	-	-	4.25	-	-
Field Blank	YVD-F2-140602	06/02/2014	FB	SXF0017	-	-	-	0.061	-	-	-	-	-	-	-	-	4	U	-	4	U	-
Field Blank	YVD-F3-140603	06/03/2014	FB	SXF0025	-	-	-	0.05	U	-	-	-	-	-	-	-	4	U	-	4	U	-
Field Blank	YVD-F1-140921	09/21/2014	FB	SXI0148	-	-	-	0.05	U	-	-	-	-	-	-	-	4	U	-	4	U	-
Field Blank	YVD-F2-140922	09/22/2014	FB	SXI0148	-	-	-	0.05	U	-	-	-	-	-	-	-	4	U	-	4	U	-
Field Blank	YVD-F3-140923	09/23/2014	FB	SXI0158	-	-	-	0.05	U	-	-	-	-	-	-	-	4	U	-	4	U	-
Field Blank	YVD-F4-140924	09/24/2014	FB	SXI0173	-	-	-	0.054	-	-	-	-	-	-	-	-	4	U	-	4	U	-
Field Blank	YVD-F1-141215	12/15/2014	FB	SXL0103	-	-	-	0.1	U	-	-	-	-	-	-	-	4	U	-	4	U	-
Field Blank	YVD-F2-141215	12/15/2014	FB	SXL0108	-	-	-	0.1	U	-	-	-	-	-	-	-	4	U	-	4	U	-
Field Blank	YVD-F3-141216	12/16/2014	FB	SXL0121	-	-	-	0.1	U	-	-	-	-	-	-	-	4	U	-	4	U	-
Field Blank	YVD-F4-141217	12/17/2014	FB	SXL0144	-	-	-	0.1	U	-	-	-	-	-	-	-	4	U	-	4	U	-
Field Blank	YVD-F1-150315	03/15/2015	FB	5904471	-	-	-	0.25	U	-	-	-	-	-	-	-	15	-	-	15	-	-
Field Blank	YVD-F2-150316	03/16/2015	FB	5904541	-	-	-	0.25	U	-	-	-	-	-	-	-	7.5	-	-	7.5	-	-
Field Blank	YVD-F3-150317	03/17/2015	FB	5904651	-	-	-	0.25	U	-	-	-	-	-	-	-	4.5	-	-	4.5	-	-
Field Blank	YVD-F1-150615	06/15/2015	FB	59010751	-	-	-	0.25	U	-	-	-	-	-	-	-	10	-	-	10	-	-
Field Blank	YVD-F2-150616	06/16/2015	FB	59010961	-	-	-	0.25	U	-	-	-	-	-	-	-	5	-	-	5	-	-
Field Blank	YVD-F3-150617	06/17/2015	FB	59011021	-	-	-	0.25	U	-	-	-	-	-	-	-	5	-	-	5	-	-
Field Blank	YVD-F1-150922	09/22/2015	FB	59020141	-	-	-	0.25	U	-	-	-	-	-	-	-	4	U	-	4	U	-
Field Blank	YVD-F2-150923	09/23/2015	FB	59020281	-	-	-	0.26	-	-	-	-	-	-	-	-	4	U	-	4	U	-
Field Blank	YVD-F3-150923	09/23/2015	FB	59020391	-	-	-	0.25	U	-	-	-	-	-	-	-	4	U	-	4	U	-
Field Blank	YVD-F4-150924	09/24/2015	FB	59020391	-	-	-	0.25	U	-	-	-	-	-	-	-	4	U	-	4	U	-
Field Blank	YVD-F5-150925	09/25/2015	FB	59020431	-	-	-	0.25	U	-	-	-	-	-	-	-	4	U	-	4	U	-
Field Blank	YVD-F1-151213	12/13/2015	FB	59025351	-	-	-	0.25	U	-	-	-	-	-	-	-	5	-	-	5	-	-

Table 8
Historical Groundwater Analytical Results

Analyte					Calcium			Magnesium			Potassium			Sodium			Chloride			Fluoride		
Analytical Method					EPA 200.7			EPA 200.7			EPA 200.7			EPA 200.7			EPA 300			EPA 300.0		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
Field Blank	YVD-F2-151214	12/14/2015	FB	59025431	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F3-151215	12/15/2015	FB	59025501	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F4-151216	12/16/2015	FB	59025501	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F1-160307	03/07/2016	FB	59029521	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F2-160308	03/08/2016	FB	59029711	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F3-160309	03/09/2016	FB	59029941	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F4-160310	03/10/2016	FB	59029941	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F1-160620	6/20/2016	FB	59037101	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F2-160621	6/21/2016	FB	59037151	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F3-160622	6/22/2016	FB	59037271	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-F4-160623	6/23/2016	FB	59037371	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Field Blank	YVD-FB-160926	9/26/2016	FB	K1611506	0.02	U	MBK	0.0025	J	-	0.08	J	-	0.03	J	-	0.2	U	-	0.2	U	-
Field Blank	YVD-FB-160927	9/27/2016	FB	K1611565	0.02	U	MBK	0.05	U	-	0.2	U	-	0.2	U	-	0.2	U	-	0.2	U	-
Field Blank	YVD-FB-160928	9/28/2016	FB	K1611629	0.05	J	-	0.05	U	-	0.2	U	-	0.05	J	-	0.1	U	-	0.1	U	-
Field Blank	YVD-FB-160929	9/29/2016	FB	K1611698	0.07	J	-	0.05	U	-	0.2	U	-	0.05	J	-	0.2	U	-	0.2	U	-
Field Blank	YVD-FB1-161212	12/12/2016	FB	K1615029	0.021	U	MBK	0.0053	U	MBK	0.21	U	-	0.21	U	MBK	0.2	U	-	0.2	U	-
Field Blank	YVD-FB2-161213	12/13/2016	FB	K1615045	0.021	U	MBK	0.0053	U	MBK	0.21	U	-	0.21	U	MBK	0.2	U	-	0.2	U	-
Field Blank	YVD-FB3-161214	12/14/2016	FB	K1615083	0.021	U	MBK	0.0053	U	-	0.21	U	-	0.21	U	MBK	0.2	U	-	0.2	U	-
Field Blank	YVD-FB4-161215	12/15/2016	FB	K1615126	0.021	U	MBK	0.0053	U	MBK	0.21	U	-	0.21	U	MBK	0.2	U	-	0.2	U	-
Field Blank	YVD-FB5-161216	12/16/2016	FB	K1615174	0.021	U	MBK	0.0053	U	MBK	0.21	U	-	0.21	U	MBK	0.2	U	-	0.2	U	-
Field Blank	YVD-030617-01	3/6/2017	FB	K1702228	0.021	U	MBK	0.0053	U	MBK	0.08	J	-	0.04	J	-	0.2	U	-	0.2	U	-
Field Blank	YVD-030717-06	3/7/2017	FB	K1702324	0.021	U	MBK	0.0053	U	MBK	0.21	U	-	0.21	U	-	0.2	U	-	0.2	U	-
Field Blank	YVD-030817-11	3/8/2017	FB	K1702324	0.021	U	MBK	0.0053	U	MBK	0.21	U	-	0.21	U	-	0.2	U	-	0.2	U	-
Field Blank	YVD-030917-17	3/9/2017	FB	K1702404	0.021	U	MBK	0.0053	U	MBK	0.21	U	-	0.21	U	-	0.2	U	-	0.2	U	-
Field Blank	YVD-031017-26	3/10/2017	FB	K1702448	0.021	U	MBK	0.0053	U	MBK	0.21	U	-	0.21	U	-	0.2	U	-	0.2	U	-
Field Blank	YVD-031317-30	3/13/2017	FB	K1702489	0.021	U	MBK	0.0053	U	MBK	0.21	U	-	0.21	U	-	0.2	U	-	0.2	U	-
Field Blank	YVD-060417-01	6/4/2017	FB	K1705702	0.025	U	MBK	0.0053	U	MBK	0.021	U	-	0.11	J	-	21	U	-	0.2	U	-
Field Blank	YVD-060517-07	6/5/2017	FB	K1705702	0.029	U	MBK	0.0053	U	MBK	0.06	J	-	0.11	J	-	0.2	U	-	0.2	U	-
Field Blank	YVD-060617-17	6/6/2017	FB	K1705754	0.021	U	MBK	0.0053	U	MBK	0.21	U	-	0.21	U	-	0.2	U	-	0.2	U	-
Field Blank	YVD-060717-28	6/7/2017	FB	K1705833	0.021	U	MBK	0.0053	U	MBK	0.21	U	-	0.02	J	-	0.2	U	-	0.2	U	-
Field Blank	YVD-092517-01	9/25/2017	FB	K1710274	0.021	U	MBK	0.0018	J	-	0.21	U	MBK	0.21	U	MBK	0.20	U	-	0.20	U	-
Field Blank	YVD-092617-16	9/26/2017	FB	K1710333	0.026	U	MBK	0.0076	U	MBK	0.09	J	-	0.21	U	MBK	0.20	U	-	0.20	U	-
Field Blank	YVD-120417-01	12/4/2017	FB	K1713026	0.021	U	MBK	0.0053	U	MBK	0.21	U	-	0.21	U	-	0.20	U	-	0.20	U	-
Field Blank	YVD-120517-32	12/5/2017	FB	K1713091	0.021	U	MBK	0.0053	U	MBK	0.21	U	-	0.07	J	-	0.42	-	-	0.20	U	-
Field Blank	YVD-120617-25	12/6/2017	FB	K1713157	0.021	U	MBK	0.0053	U	MBK	0.21	U	-	0.21	U	MBK	0.20	U	-	0.20	U	-
Field Blank	YVD-031818-01	3/18/2018	FB	870610	0.4	U	-	0.06	U	-	0.62	U	-	0.7	U	-	0.1	U	-	0.1	U	-
Field Blank	YVD-031918-10	3/19/2018	FB	870634	0.4	U	-	0.06	U	-	0.62	U	-	0.7	U	-	0.1	U	-	0.1	U	-
Field Blank	YVD-060318-01	6/3/2018	FB	874568	0.4	U	-	0.06	U	-	0.62	U	-	0.7	U	-	0.1	U	-	0.1	U	-
Field Blank	YVD-060418-12	6/4/2018	FB	874568	0.4	U	-	0.06	U	-	0.62	U	-	0.7	U	-	0.1	U	-	0.1	U	-
Field Blank	YVD-060518-26	6/5/2018	FB	874860	0.4	U	-	0.06	U	-	0.62	U	-	0.7	U	-	0.1	U	-	0.1	U	-

Table 8
Historical Groundwater Analytical Results

Analyte					Nitrate (as N)			Nitrite (as N)			Sulfate			Ammonia (as N)			Ammonia (as N)			Total Kjeldahl Nitrogen (TKN)		
Analytical Method					EPA 300.0			EPA 300.0			EPA 300.0			SM4500 NH3-G			EPA 350.1			EPA 351.2		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
Field Blank	YVD-F2-151214	12/14/2015	FB	59025431	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Field Blank	YVD-F3-151215	12/15/2015	FB	59025501	0.2	U	-	0.2	U	-	0.5	U	-	0.1	R	MSD	0.1	R	MSD	0.25	U	-
Field Blank	YVD-F4-151216	12/16/2015	FB	59025501	0.2	U	-	0.2	U	-	0.5	U	-	0.1	R	MSD	0.1	R	MSD	0.25	U	-
Field Blank	YVD-F1-160307	03/07/2016	FB	59029521	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Field Blank	YVD-F2-160308	03/08/2016	FB	59029711	0.2	U	-	0.2	U	-	0.5	U	-	0.19	-	-	0.19	-	-	0.25	U	-
Field Blank	YVD-F3-160309	03/09/2016	FB	59029941	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.3	-	-
Field Blank	YVD-F4-160310	03/10/2016	FB	59029941	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Field Blank	YVD-F1-160620	6/20/2016	FB	59037101	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Field Blank	YVD-F2-160621	6/21/2016	FB	59037151	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Field Blank	YVD-F3-160622	6/22/2016	FB	59037271	0.2	U	-	0.2	U	-	0.5	U	-	0.22	-	-	0.22	-	-	0.36	-	-
Field Blank	YVD-F4-160623	6/23/2016	FB	59037371	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Field Blank	YVD-FB-160926	9/26/2016	FB	K1611506	0.1	U	-	0.10	U	-	0.2	U	-	0.050	U	MBK	0.050	U	MBK	0.5	R	MSD
Field Blank	YVD-FB-160927	9/27/2016	FB	K1611565	0.1	U	-	0.10	U	-	0.2	U	-	0.050	U	MBK	0.050	U	MBK	0.5	R	MSD
Field Blank	YVD-FB-160928	9/28/2016	FB	K1611629	0.05	U	-	0.05	U	-	3.61	-	-	0.050	U	MBK	0.050	U	MBK	0.5	U	-
Field Blank	YVD-FB-160929	9/29/2016	FB	K1611698	0.1	U	-	0.10	U	-	0.2	U	-	0.050	U	MBK	0.050	U	MBK	0.5	R	MSD
Field Blank	YVD-FB1-161212	12/12/2016	FB	K1615029	0.1	U	HTQ	0.10	UJ	HTQ	0.2	U	MBK	0.050	U	-	0.050	U	-	0.5	U	-
Field Blank	YVD-FB2-161213	12/13/2016	FB	K1615045	0.1	U	-	0.10	U	-	0.2	U	-	0.050	U	-	0.050	U	-	0.5	U	-
Field Blank	YVD-FB3-161214	12/14/2016	FB	K1615083	0.1	U	-	0.10	U	-	0.35	-	-	0.050	U	-	0.050	U	-	0.5	U	-
Field Blank	YVD-FB4-161215	12/15/2016	FB	K1615126	0.1	U	-	0.10	U	-	0.2	U	-	0.050	U	-	0.050	U	-	0.5	U	-
Field Blank	YVD-FB5-161216	12/16/2016	FB	K1615174	0.1	U	-	0.10	U	-	0.2	U	-	0.050	U	-	0.050	U	-	0.5	U	-
Field Blank	YVD-030617-01	3/6/2017	FB	K1702228	0.1	U	-	0.10	U	-	0.2	U	-	0.050	U	-	0.050	U	-	0.2	J	-
Field Blank	YVD-030717-06	3/7/2017	FB	K1702324	0.1	UJ	HTQ	0.10	UJ	HTQ	0.2	U	-	1	U	-	1	U	-	0.5	U	-
Field Blank	YVD-030817-11	3/8/2017	FB	K1702324	0.1	U	-	0.10	U	-	0.03	J	-	1	U	-	1	U	-	0.5	U	-
Field Blank	YVD-030917-17	3/9/2017	FB	K1702404	0.1	U	-	0.10	U	-	0.2	U	-	0.050	U	-	0.050	U	-	0.5	U	-
Field Blank	YVD-031017-26	3/10/2017	FB	K1702448	0.1	U	-	0.10	U	-	0.26	-	-	0.050	U	-	0.050	U	-	0.5	U	-
Field Blank	YVD-031317-30	3/13/2017	FB	K1702489	0.1	U	-	0.10	U	-	0.2	U	-	0.050	U	-	0.050	U	-	0.5	U	-
Field Blank	YVD-060417-01	6/4/2017	FB	K1705702	5.3	U	-	21	U	-	5.3	U	-	0.050	U	-	0.050	U	-	0.7	-	-
Field Blank	YVD-060517-07	6/5/2017	FB	K1705702	0.1	U	-	0.10	U	-	0.25	-	-	0.050	U	-	0.050	U	-	0.5	U	-
Field Blank	YVD-060617-17	6/6/2017	FB	K1705754	0.1	U	-	0.10	U	-	0.2	U	-	0.050	U	-	0.050	U	-	0.5	U	-
Field Blank	YVD-060717-28	6/7/2017	FB	K1705833	0.1	U	-	0.10	U	-	0.2	U	-	0.050	U	-	0.050	U	-	0.5	U	-
Field Blank	YVD-092517-01	9/25/2017	FB	K1710274	0.10	U	-	0.10	U	-	0.20	U	-	0.050	U	-	0.050	U	-	0.5	U	-
Field Blank	YVD-092617-16	9/26/2017	FB	K1710333	0.10	U	-	0.10	U	-	0.86	-	-	0.050	U	-	0.050	U	-	0.5	U	-
Field Blank	YVD-120417-01	12/4/2017	FB	K1713026	0.10	U	-	0.10	U	-	0.20	U	-	0.050	U	-	0.050	U	-	0.5	U	-
Field Blank	YVD-120517-32	12/5/2017	FB	K1713091	0.10	U	HTQ	0.10	UJ	HTQ	0.71	-	-	0.050	U	-	0.050	U	-	0.5	UJ	MSD
Field Blank	YVD-120617-25	12/6/2017	FB	K1713157	0.10	U	-	0.10	U	-	0.20	U	-	0.050	U	MBK	0.050	U	MBK	0.5	U	-
Field Blank	YVD-031818-01	3/18/2018	FB	870610	0.05	U	-	0.05	U	-	0.1	U	-	0.07	U	-	-	-	-	0.5	U	-
Field Blank	YVD-031918-10	3/19/2018	FB	870634	0.05	U	-	0.05	U	-	0.1	U	-	0.07	U	-	-	-	-	0.5	U	-
Field Blank	YVD-060318-01	6/3/2018	FB	874568	0.05	U	-	0.05	U	-	0.1	U	-	0.18	-	-	-	-	-	0.5	U	-
Field Blank	YVD-060418-12	6/4/2018	FB	874568	0.05	U	-	0.05	U	-	0.1	U	-	0.08	-	-	-	-	-	0.5	U	-
Field Blank	YVD-060518-26	6/5/2018	FB	874860	0.05	U	-	0.05	U	-	0.1	U	-	0.07	U	-	-	-	-	0.5	UJ	MSD

Table 8
Historical Groundwater Analytical Results

Analyte					Phosphorus			Phosphorus			Phosphorus			Phosphorus			Alkalinity, Bicarbonate (as CaCO3)			Alkalinity, Total (as CaCO3)		
Analytical Method					EPA 365.1			EPA 365.3			EPA 365.4			SM4500 P-E			SM2320B			SM2320B		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
Field Blank	YVD-F2-151214	12/14/2015	FB	59025431	-	-	-	0.25	U	-	-	-	-	-	-	-	5	-	-	5	-	-
Field Blank	YVD-F3-151215	12/15/2015	FB	59025501	-	-	-	0.25	U	-	-	-	-	-	-	-	5	-	-	5	-	-
Field Blank	YVD-F4-151216	12/16/2015	FB	59025501	-	-	-	0.25	U	-	-	-	-	-	-	-	5	-	-	5	-	-
Field Blank	YVD-F1-160307	03/07/2016	FB	59029521	-	-	-	0.25	U	-	-	-	-	-	-	-	4	U	-	4	U	-
Field Blank	YVD-F2-160308	03/08/2016	FB	59029711	-	-	-	0.25	U	-	-	-	-	-	-	-	4	U	-	4	U	-
Field Blank	YVD-F3-160309	03/09/2016	FB	59029941	-	-	-	0.25	U	-	-	-	-	-	-	-	4	U	-	4	U	-
Field Blank	YVD-F4-160310	03/10/2016	FB	59029941	-	-	-	0.25	U	-	-	-	-	-	-	-	13	-	-	13	-	-
Field Blank	YVD-F1-160620	6/20/2016	FB	59037101	-	-	-	0.25	U	-	-	-	-	-	-	-	5	-	-	5	-	-
Field Blank	YVD-F2-160621	6/21/2016	FB	59037151	-	-	-	0.25	U	-	-	-	-	-	-	-	4	U	-	4	U	-
Field Blank	YVD-F3-160622	6/22/2016	FB	59037271	-	-	-	0.25	U	-	-	-	-	-	-	-	5	-	-	5	-	-
Field Blank	YVD-F4-160623	6/23/2016	FB	59037371	-	-	-	0.25	U	-	-	-	-	-	-	-	10	-	-	10	-	-
Field Blank	YVD-FB-160926	9/26/2016	FB	K1611506	-	-	-	0.01	U	-	-	-	-	-	-	-	2	U	-	2	U	-
Field Blank	YVD-FB-160927	9/27/2016	FB	K1611565	-	-	-	0.01	U	-	-	-	-	-	-	-	2	U	-	2	U	-
Field Blank	YVD-FB-160928	9/28/2016	FB	K1611629	-	-	-	0.01	U	-	-	-	-	-	-	-	15	U	-	15	U	-
Field Blank	YVD-FB-160929	9/29/2016	FB	K1611698	-	-	-	0.01	U	-	-	-	-	-	-	-	2	U	-	2	U	-
Field Blank	YVD-FB1-161212	12/12/2016	FB	K1615029	-	-	-	0.01	U	-	-	-	-	-	-	-	2	U	-	2	U	-
Field Blank	YVD-FB2-161213	12/13/2016	FB	K1615045	-	-	-	0.01	U	-	-	-	-	-	-	-	2	U	-	2	U	-
Field Blank	YVD-FB3-161214	12/14/2016	FB	K1615083	-	-	-	0.01	U	-	-	-	-	-	-	-	2	U	-	2	U	-
Field Blank	YVD-FB4-161215	12/15/2016	FB	K1615126	-	-	-	0.01	U	-	-	-	-	-	-	-	2	U	-	2	U	-
Field Blank	YVD-FB5-161216	12/16/2016	FB	K1615174	-	-	-	0.01	U	-	-	-	-	-	-	-	2	U	-	2	U	-
Field Blank	YVD-030617-01	3/6/2017	FB	K1702228	-	-	-	0.01	U	-	-	-	-	-	-	-	2	U	-	2	U	-
Field Blank	YVD-030717-06	3/7/2017	FB	K1702324	-	-	-	0.01	U	-	-	-	-	-	-	-	2	U	-	2	U	-
Field Blank	YVD-030817-11	3/8/2017	FB	K1702324	-	-	-	0.01	U	-	-	-	-	-	-	-	2	U	-	2	U	-
Field Blank	YVD-030917-17	3/9/2017	FB	K1702404	-	-	-	0.01	U	-	-	-	-	-	-	-	2	U	-	2	U	-
Field Blank	YVD-031017-26	3/10/2017	FB	K1702448	-	-	-	0.01	U	-	-	-	-	-	-	-	2	U	-	2	U	-
Field Blank	YVD-031317-30	3/13/2017	FB	K1702489	-	-	-	0.01	U	-	-	-	-	-	-	-	2	U	-	2	U	-
Field Blank	YVD-060417-01	6/4/2017	FB	K1705702	-	-	-	0.01	U	-	-	-	-	-	-	-	2	U	-	2	U	-
Field Blank	YVD-060517-07	6/5/2017	FB	K1705702	-	-	-	0.01	U	-	-	-	-	-	-	-	2	U	-	2	U	-
Field Blank	YVD-060617-17	6/6/2017	FB	K1705754	-	-	-	0.01	U	-	-	-	-	-	-	-	2	U	-	2	U	-
Field Blank	YVD-060717-28	6/7/2017	FB	K1705833	-	-	-	0.01	U	-	-	-	-	-	-	-	2	U	-	2	U	-
Field Blank	YVD-092517-01	9/25/2017	FB	K1710274	-	-	-	0.010	U	-	-	-	-	-	-	-	2.0	U	-	2.0	U	-
Field Blank	YVD-092617-16	9/26/2017	FB	K1710333	-	-	-	0.010	U	-	-	-	-	-	-	-	2.0	U	-	2.0	U	-
Field Blank	YVD-120417-01	12/4/2017	FB	K1713026	-	-	-	0.010	U	-	-	-	-	-	-	-	15	U	MBK	15	U	-
Field Blank	YVD-120517-32	12/5/2017	FB	K1713091	-	-	-	0.010	U	-	-	-	-	-	-	-	15	U	MBK	15	U	-
Field Blank	YVD-120617-25	12/6/2017	FB	K1713157	-	-	-	0.010	U	-	-	-	-	-	-	-	15	U	MBK	15	U	-
Field Blank	YVD-031818-01	3/18/2018	FB	870610	-	-	-	-	-	-	-	-	-	0.07	U	-	5	U	-	5	U	-
Field Blank	YVD-031918-10	3/19/2018	FB	870634	-	-	-	-	-	-	-	-	-	0.07	U	-	5	U	-	5	U	-
Field Blank	YVD-060318-01	6/3/2018	FB	874568	-	-	-	-	-	-	-	-	-	0.07	U	-	5	U	-	5	U	-
Field Blank	YVD-060418-12	6/4/2018	FB	874568	-	-	-	-	-	-	-	-	-	0.07	U	-	5	U	-	5	U	-
Field Blank	YVD-060518-26	6/5/2018	FB	874860	-	-	-	-	-	-	-	-	-	0.07	U	-	5	U	-	5	U	-

Table 8
Historical Groundwater Analytical Results

Analyte					Calcium			Magnesium			Potassium			Sodium			Chloride			Fluoride		
Analytical Method					EPA 200.7			EPA 200.7			EPA 200.7			EPA 200.7			EPA 300			EPA 300.0		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
Field Blank	YVD-061218-33	6/12/2018	FB	875438	0.4	U	-	0.06	U	-	0.62	U	-	0.7	U	-	0.1	U	-	0.1	U	-
Field Blank	YVD-090918-01	9/9/2018	FB	880601	0.4	U	-	0.06	U	-	0.62	U	-	0.7	U	-	0.1	U	-	0.1	U	-
Blank Check	WW-1	4/25/2016	BC	59032861	1.7	U	-	0.83	U	-	190	-	-	400	-	-	160	U	-	100	U	-
Blank Check	DW-1	4/25/2016	BC	59032861	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-
Blank Check	DI-1	4/25/2016	BC	59032861	1	U	-	0.5	U	-	1	U	-	0.5	U	-	0.8	U	-	0.5	U	-

Table 8
Historical Groundwater Analytical Results

Analyte					Nitrate (as N)			Nitrite (as N)			Sulfate			Ammonia (as N)			Ammonia (as N)			Total Kjeldahl Nitrogen (TKN)		
Analytical Method					EPA 300.0			EPA 300.0			EPA 300.0			SM4500 NH3-G			EPA 350.1			EPA 351.2		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
Field Blank	YVD-061218-33	6/12/2018	FB	875438	0.05	U	-	0.05	U	-	0.1	U	-	0.07	U	-	-	-	-	0.5	U	-
Field Blank	YVD-090918-01	9/9/2018	FB	880601	0.05	U	-	0.05	U	-	0.1	U	-	0.07	U	-	-	-	-	0.5	R	MSD
Blank Check	WW-1	4/25/2016	BC	59032861	40	U	-	40	U	-	100	U	-	0.33	-	-	0.33	-	-	1.4	-	-
Blank Check	DW-1	4/25/2016	BC	59032861	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-
Blank Check	DI-1	4/25/2016	BC	59032861	0.2	U	-	0.2	U	-	0.5	U	-	0.1	U	-	0.1	U	-	0.25	U	-

Table 8
Historical Groundwater Analytical Results

Analyte					Phosphorus			Phosphorus			Phosphorus			Phosphorus			Alkalinity, Bicarbonate (as CaCO3)			Alkalinity, Total (as CaCO3)		
Analytical Method					EPA 365.1			EPA 365.3			EPA 365.4			SM4500 P-E			SM2320B			SM2320B		
Well ID	Sample Name	Sample Date	Sample Type	Sample Group	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code	Result (mg/L)	Qualifier	Validation Code
Field Blank	YVD-061218-33	6/12/2018	FB	875438	-	-	-	-	-	-	-	-	-	0.07	U	-	5	U	-	5	U	-
Field Blank	YVD-090918-01	9/9/2018	FB	880601	-	-	-	-	-	-	-	-	-	0.07	U	-	5	U	-	5	U	-
Blank Check	WW-1	4/25/2016	BC	59032861	-	-	-	0.25	U	-	-	-	-	-	-	-	110	-	-	110	-	-
Blank Check	DW-1	4/25/2016	BC	59032861	-	-	-	0.25	U	-	-	-	-	-	-	-	4	U	-	4	U	-
Blank Check	DI-1	4/25/2016	BC	59032861	-	-	-	0.25	U	-	-	-	-	-	-	-	4	U	-	4	U	-

Table 8
Historical Groundwater Analytical Results

Notes:

Bold: detected result

- : not applicable

(as N): reported as nitrogen

(as CaCO3): reported as calcium carbonate

BC: blank check

DUP: Laboratory duplicate relative percent difference was outside acceptance limits.

EB: equipment blank

EPA: U.S. Environmental Protection Agency

ERL: elevated reporting limit

FB: field blank

FBK: field blank contamination

FD: field duplicate

FDP: Field duplicate relative percent difference exceeded acceptance limits.

HTQ: holding time violation

J: The compound was positively identified; however, the associated numerical value is an estimated concentration.

J-: The result is an estimated quantity, but the result may be biased low.

J+: The result is an estimated quantity, but the result may be biased high.

MBK: method blank contamination

mg/L: milligrams per liter

MSD: Matrix spike/matrix spike duplicate percent recoveries were outside acceptance limits.

N: normal sample

NR: Sample did not meet collection criteria; not a representative sample.

PRS: Incorrect sample preservation.

R: The sample results are rejected as unusable. The compound may or may not be present in the sample.

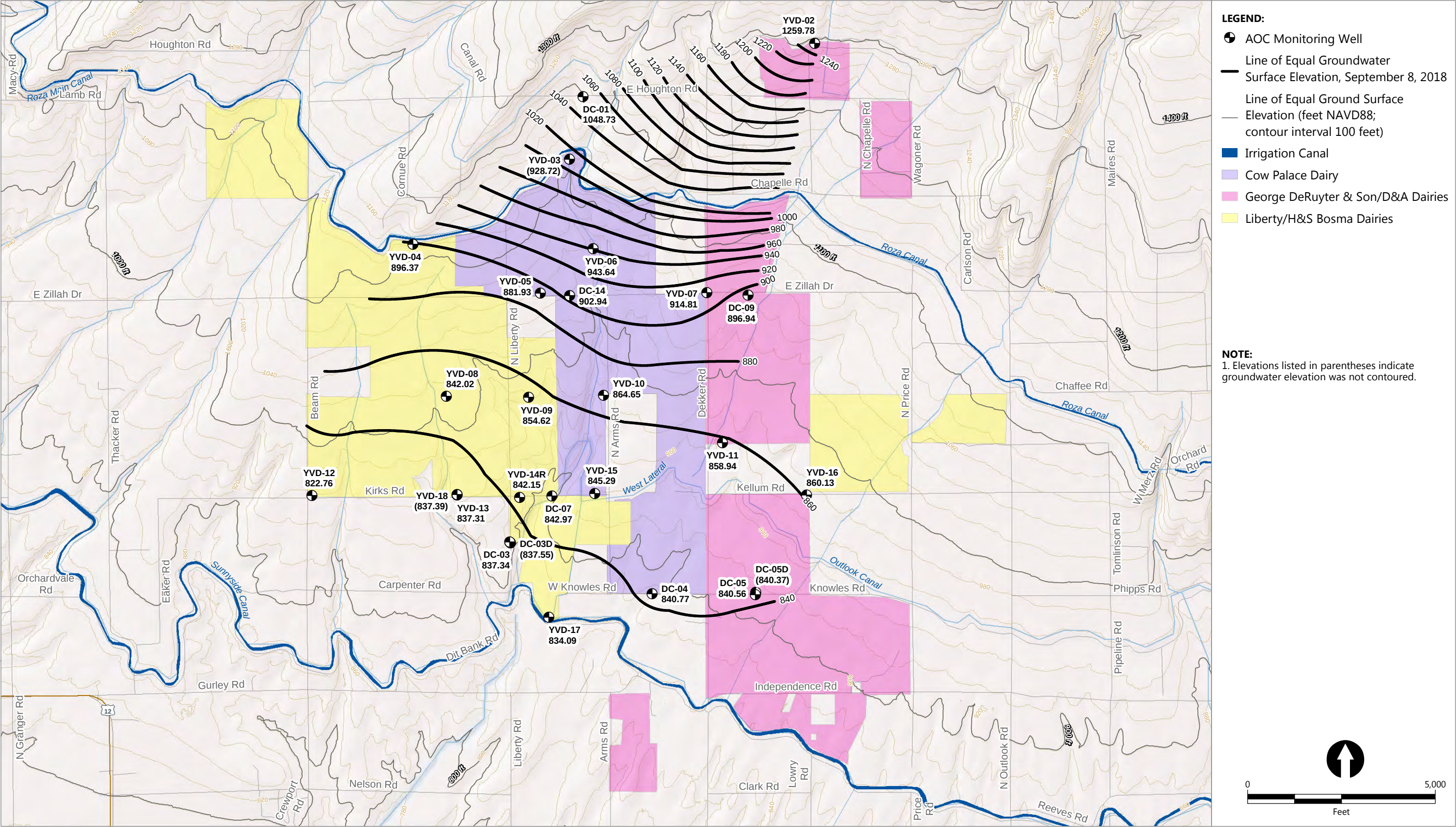
RPD: Relative percent difference was outside acceptance limits.

SM: Standard Method

U: The compound was analyzed for but not detected. The associated value is the compound reporting limit, or the compound is considered non-detect at the listed value due to associated blank contamination.

UJ: The compound was not detected above the reported sample reporting limit; however, the reporting limit is approximate and may or may not represent the actual limit of quantitation.

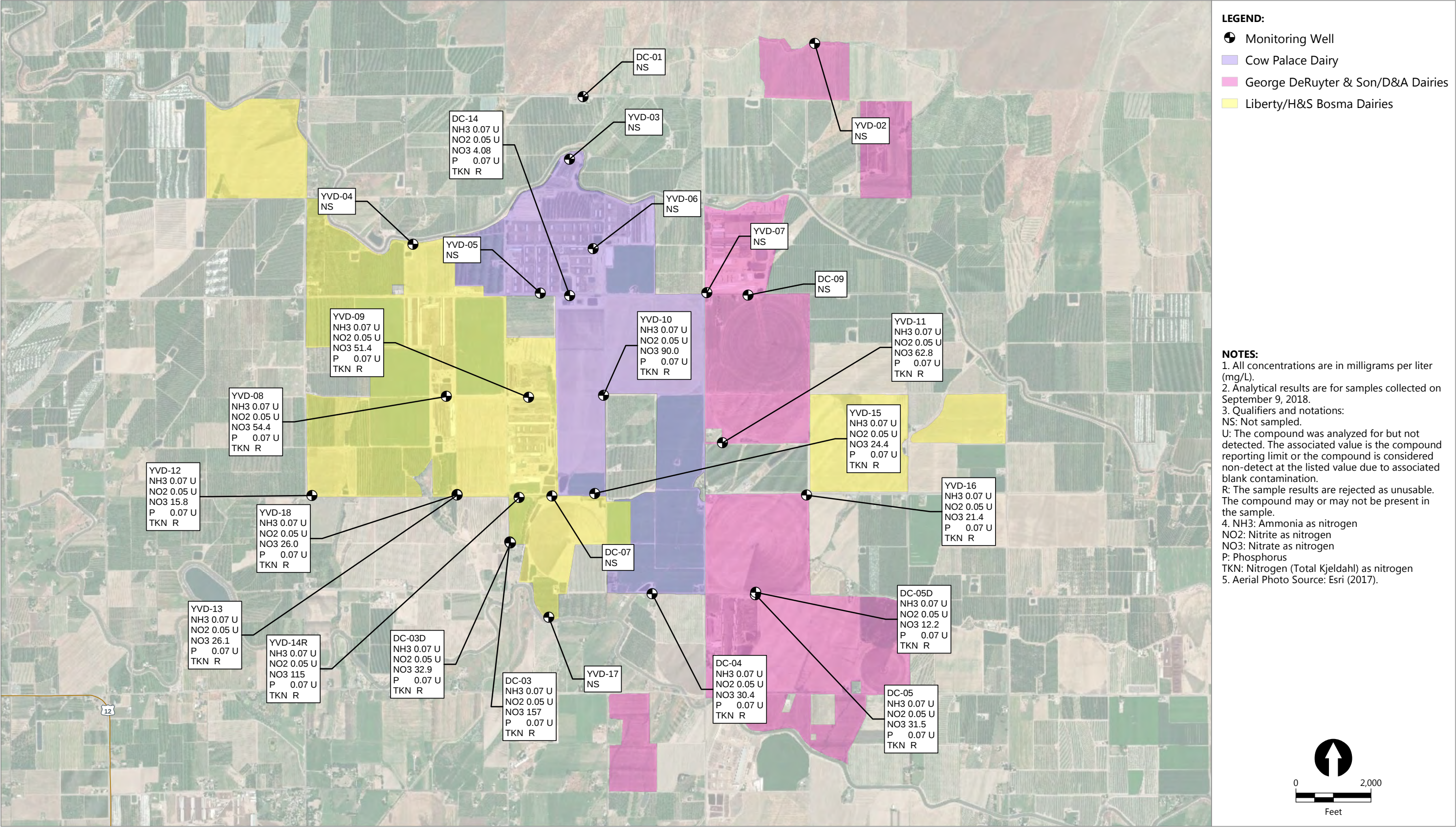
Figures



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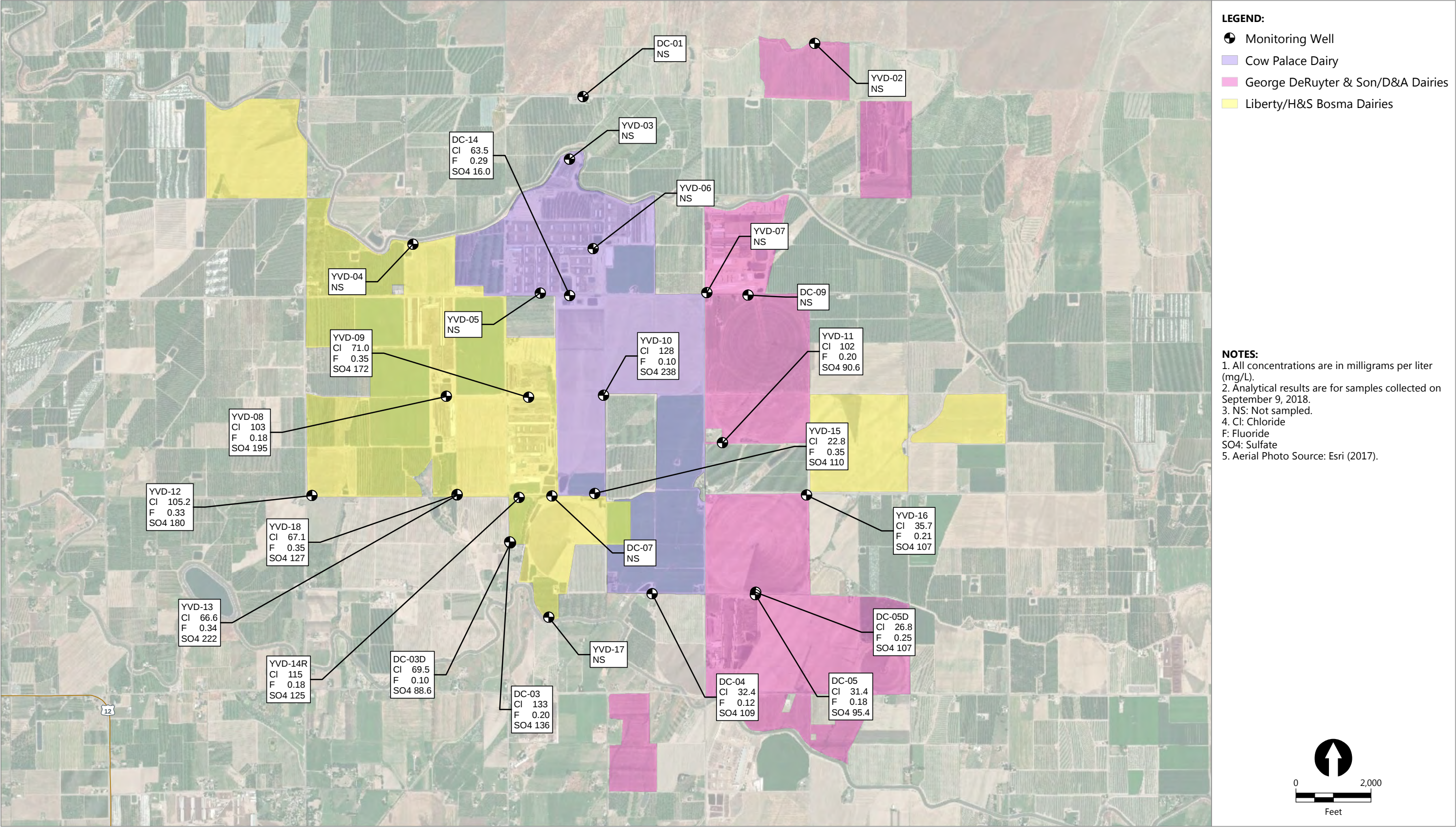
Figure 1
Surficial Aquifer Groundwater Elevation Contour Map Third Quarter 2018
Groundwater Monitoring Data Report – Third Quarter 2018
Yakima Valley Dairies



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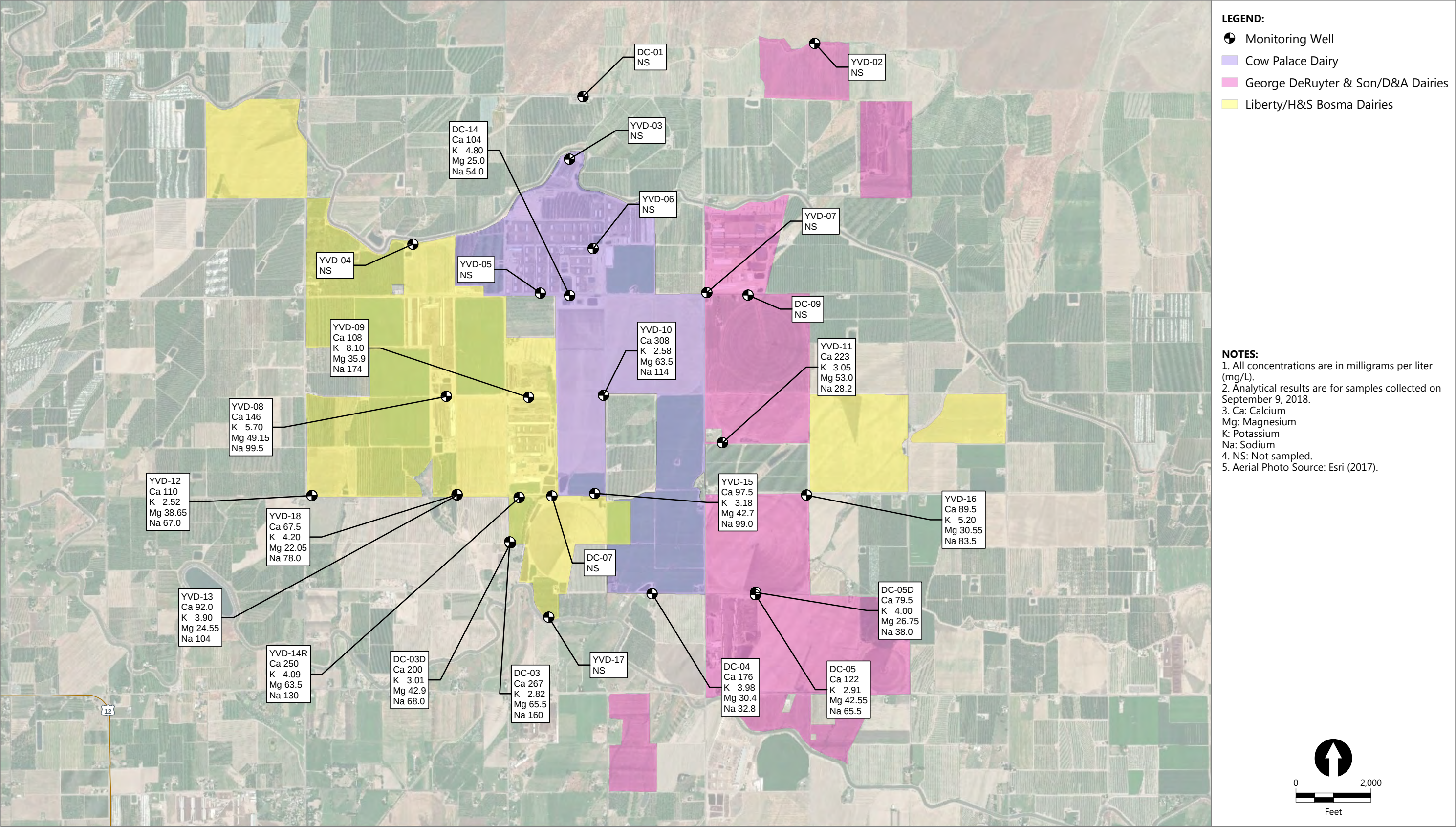
Figure 2
Nutrient Concentrations in Groundwater Third Quarter 2018
Groundwater Monitoring Data Report – Third Quarter 2018
Yakima Valley Dairies



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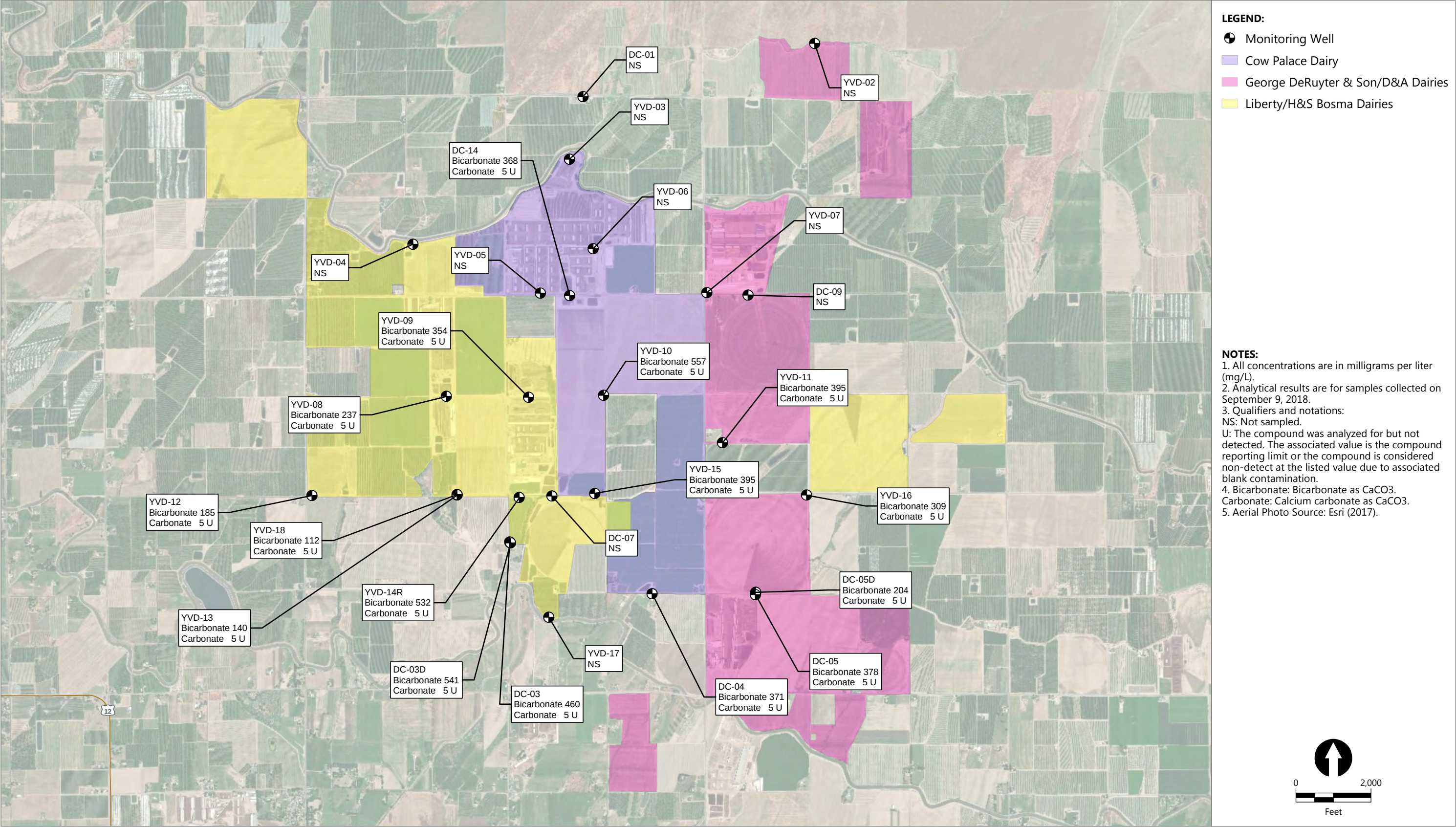
Figure 3
Anion Concentrations in Groundwater Third Quarter 2018
Groundwater Monitoring Data Report – Third Quarter 2018
Yakima Valley Dairies



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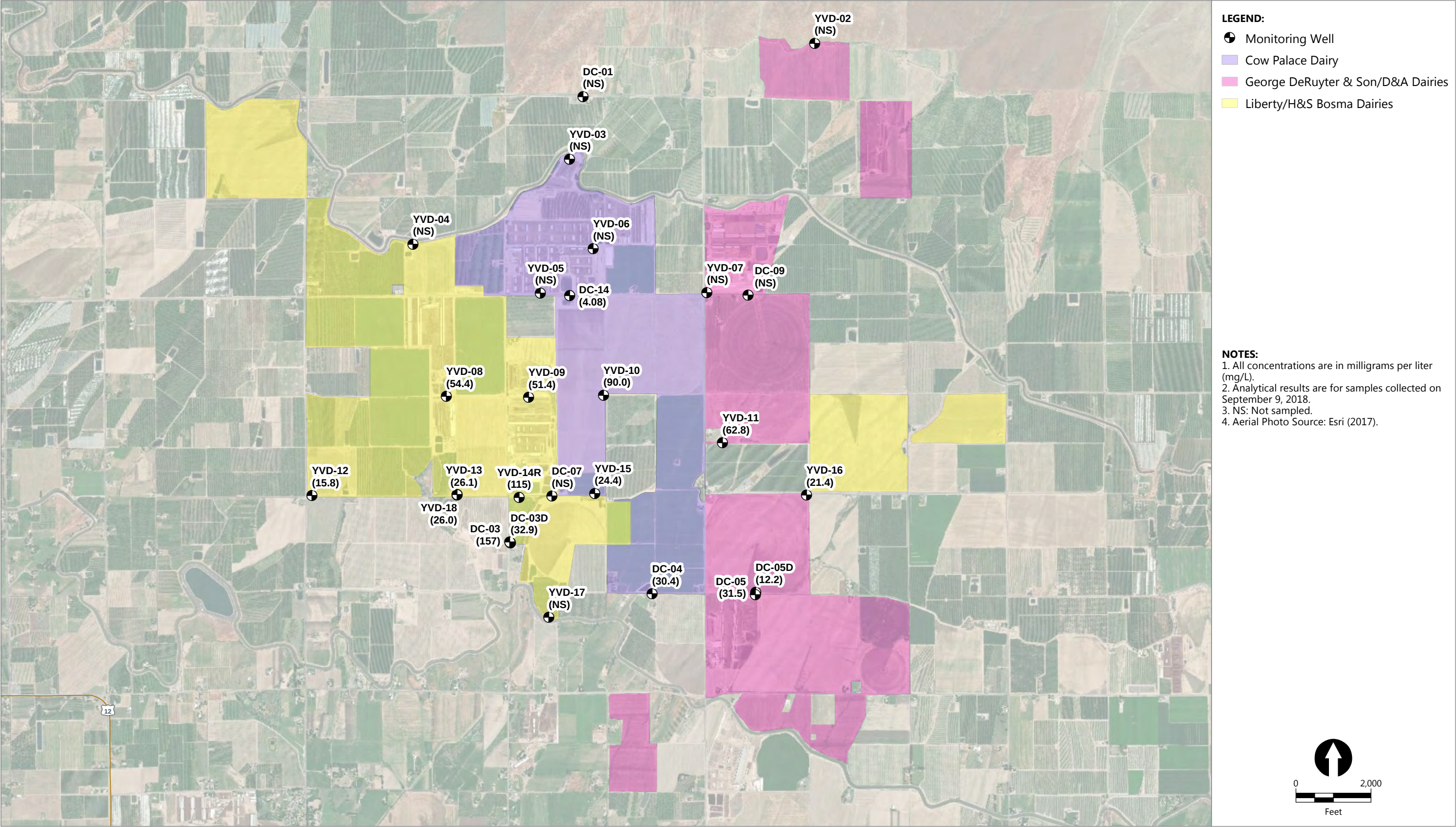
Figure 4
Metals Concentrations in Groundwater Third Quarter 2018
Groundwater Monitoring Data Report – Third Quarter 2018
Yakima Valley Dairies



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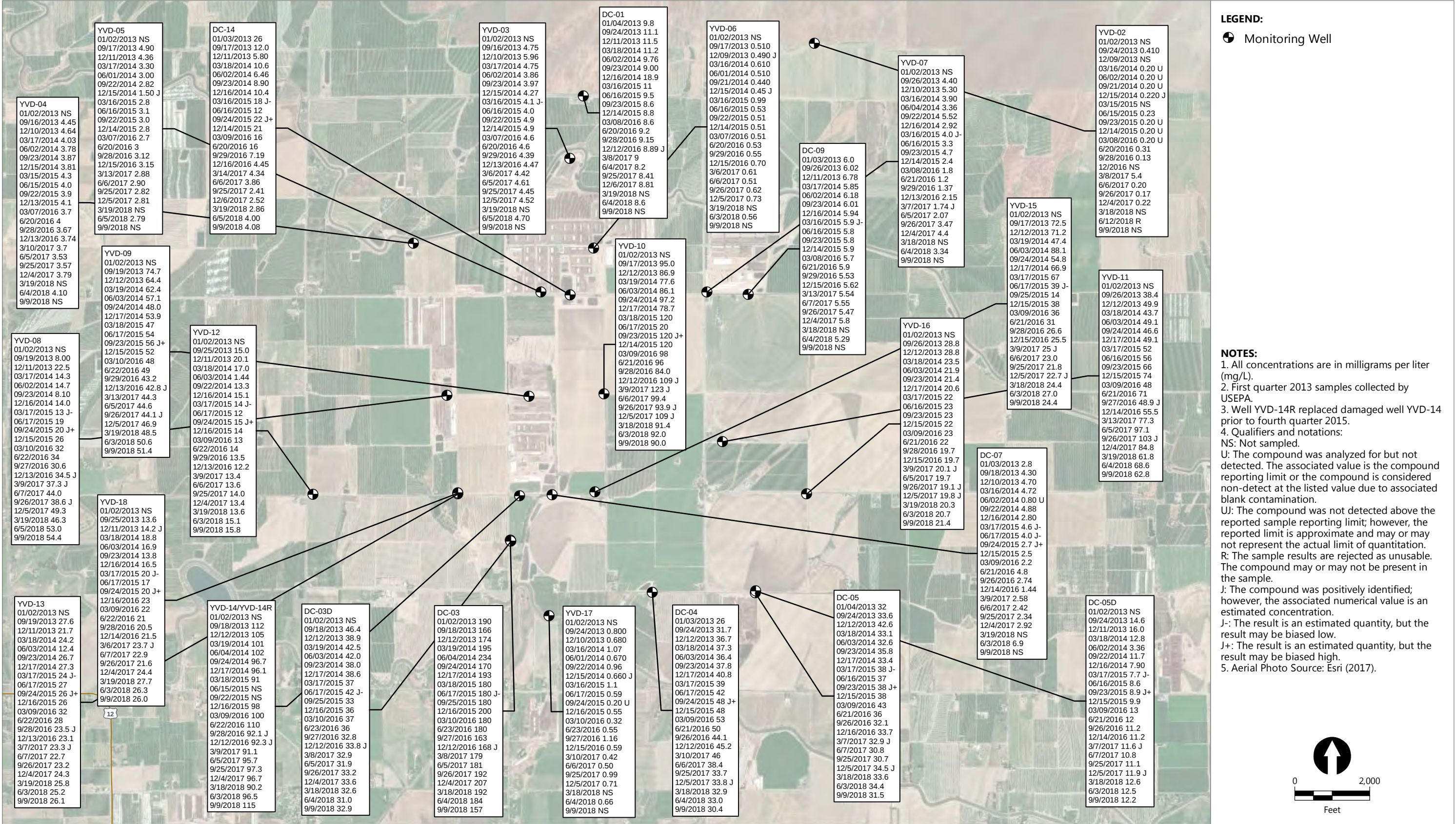
Figure 5
Alkalinity Concentrations in Groundwater Third Quarter 2018
Groundwater Monitoring Data Report – Third Quarter 2018
Yakima Valley Dairies



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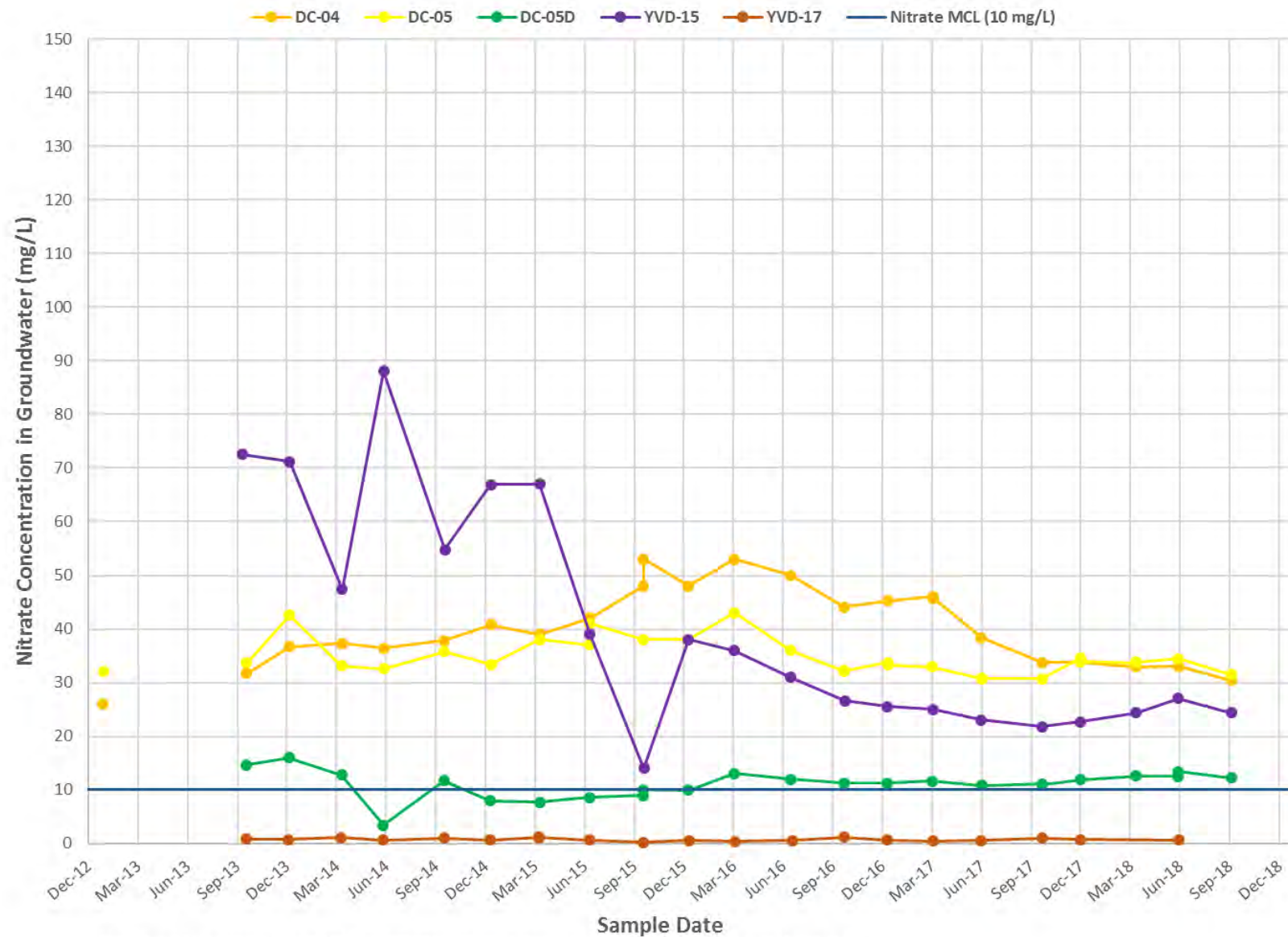
Figure 6A
Nitrate Concentrations in Groundwater Third Quarter 2018
Groundwater Monitoring Data Report – Third Quarter 2018
Yakima Valley Dairies



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Figure 6B
Historical Nitrate Concentrations in Groundwater
Groundwater Monitoring Data Report – Third Quarter 2018
Yakima Valley Dairies

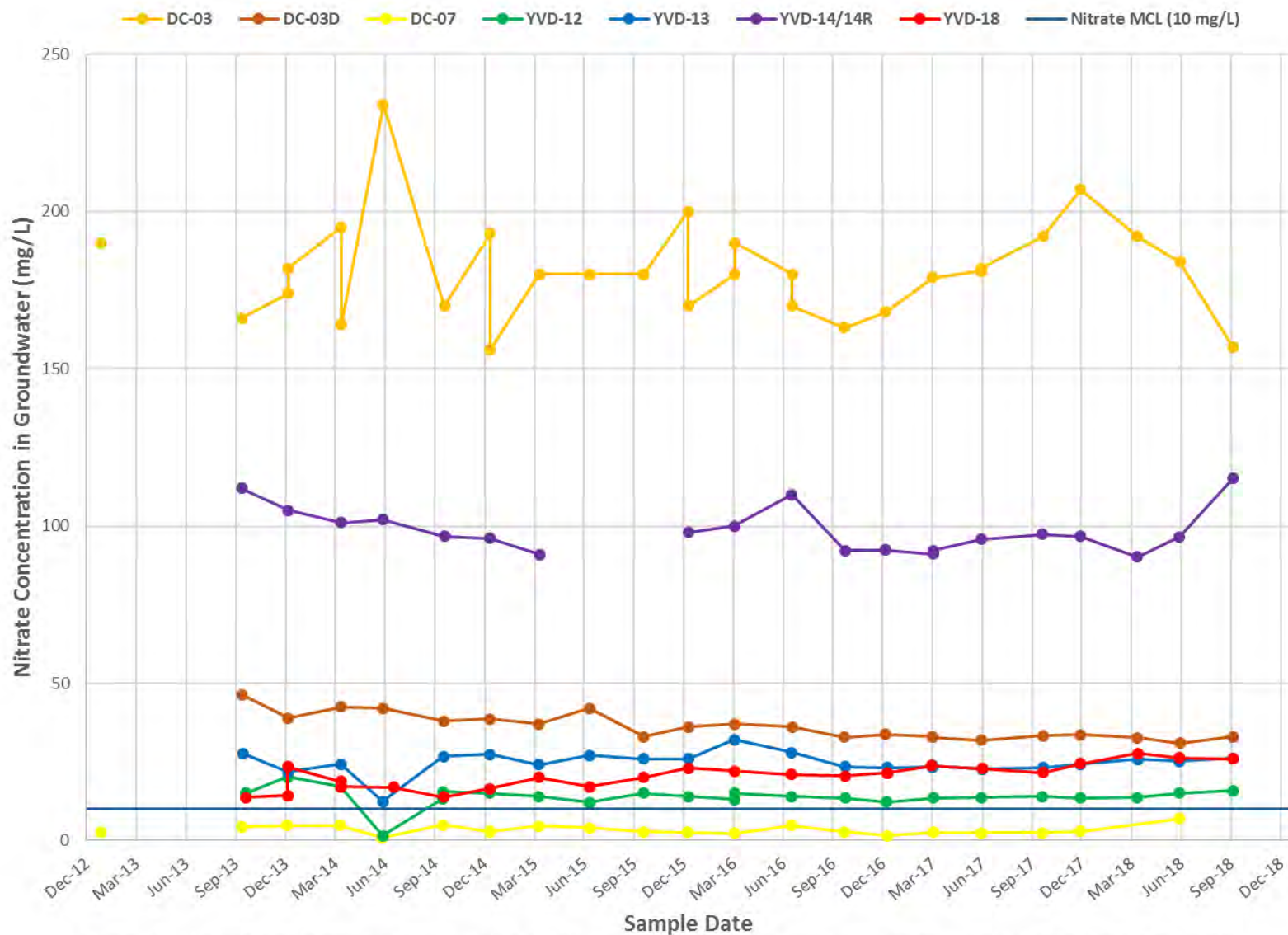


Note: Consistent with the 2018 QAPP, well YVD-17 is not sampled in the first, third, and fourth quarters of each year.

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Figure 7
Nitrate Concentrations – East Downgradient Wells
 Groundwater Monitoring Data Report – Third Quarter 2018
 Yakima Valley Dairies

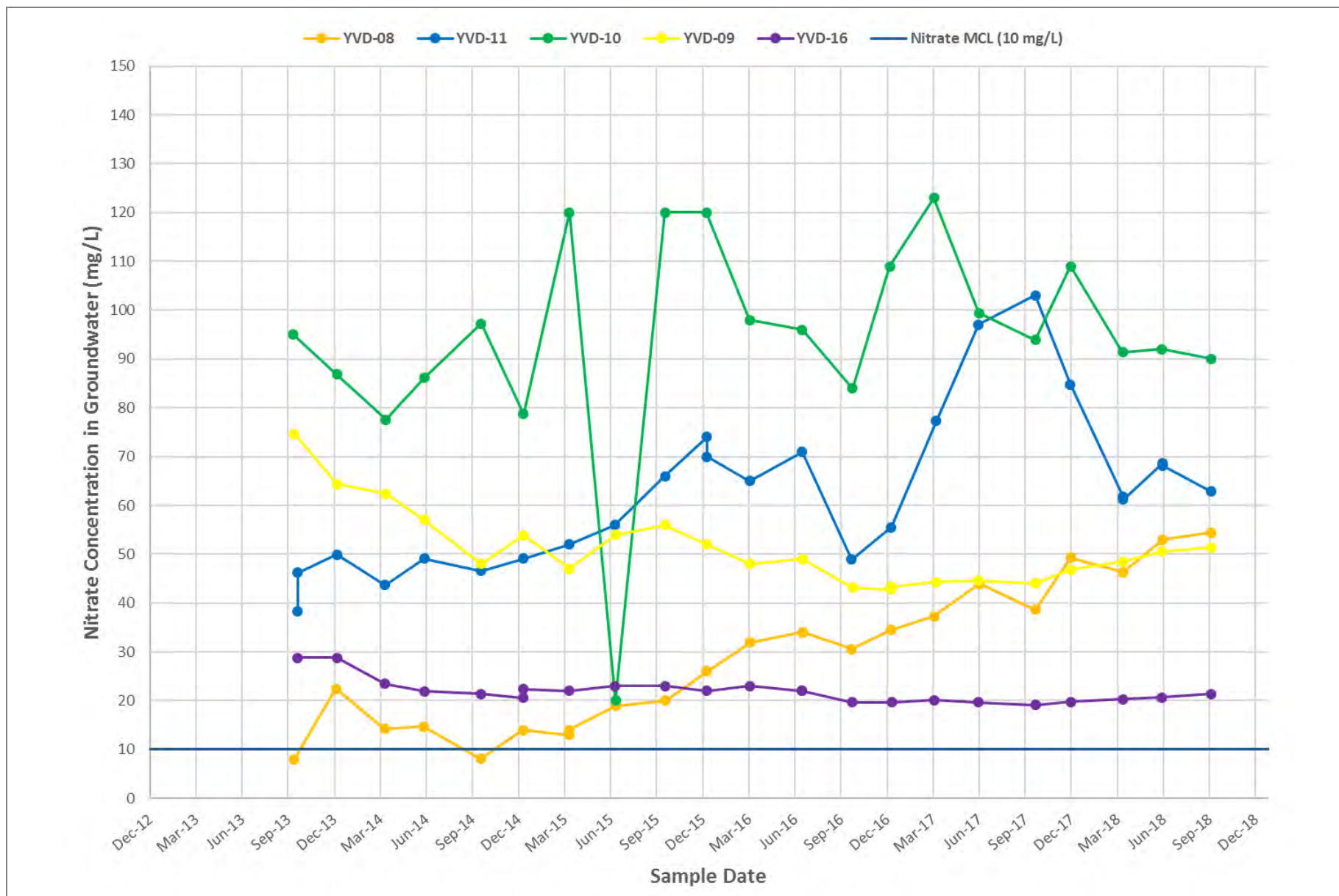


Notes: In December 2015, YVD-14R was installed approximately 20 feet to the west of YVD-14, which was decommissioned. Consistent with the 2018 QAPP, well DC-07 is not sampled in the first, third, and fourth quarters of each year.

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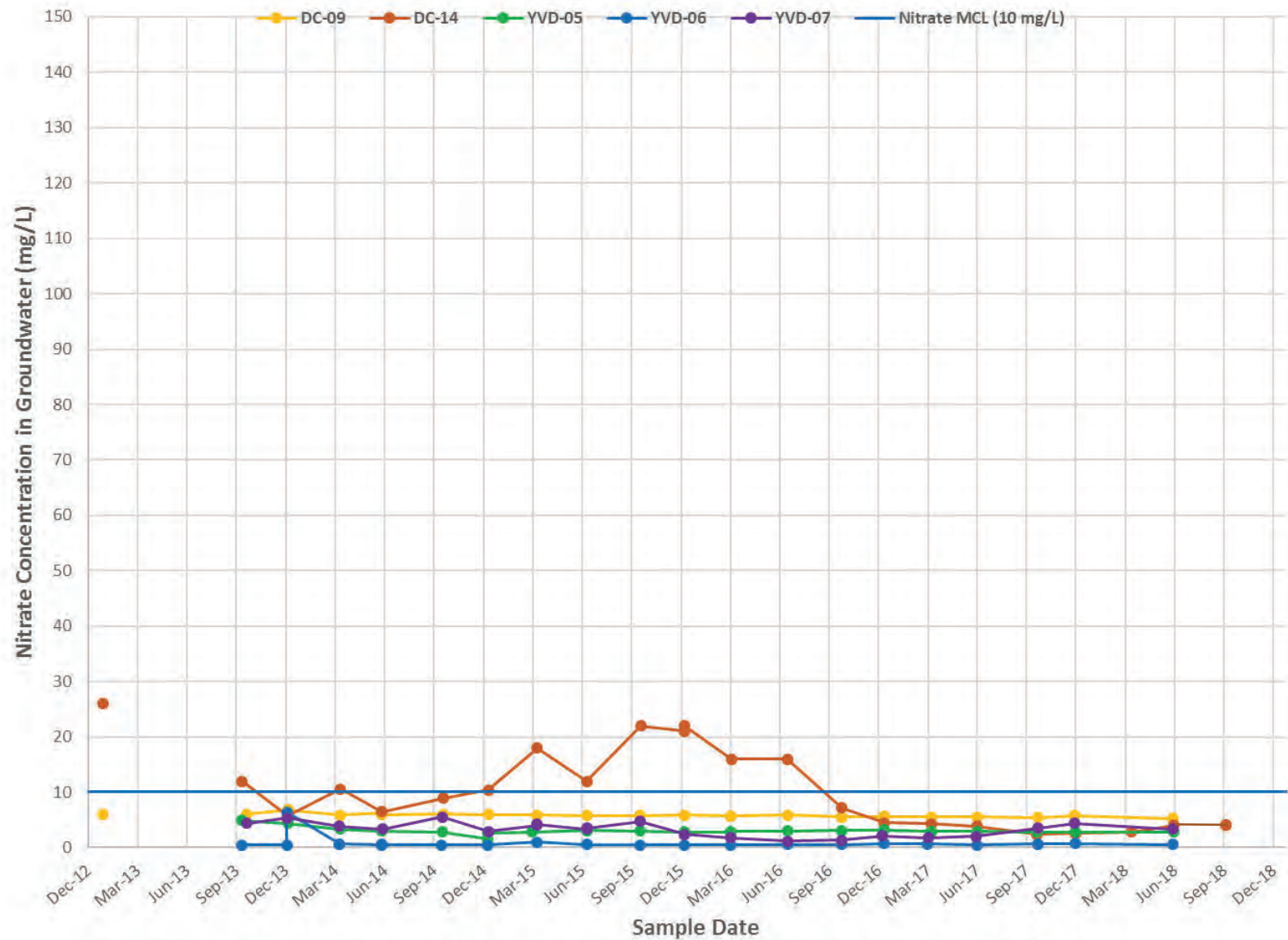
Figure 8
Nitrate Concentrations – West Downgradient Wells
 Groundwater Monitoring Data Report – Third Quarter 2018
 Yakima Valley Dairies



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Figure 9
Nitrate Concentrations – Central Wells
 Groundwater Monitoring Data Report – Third Quarter 2018
 Yakima Valley Dairies

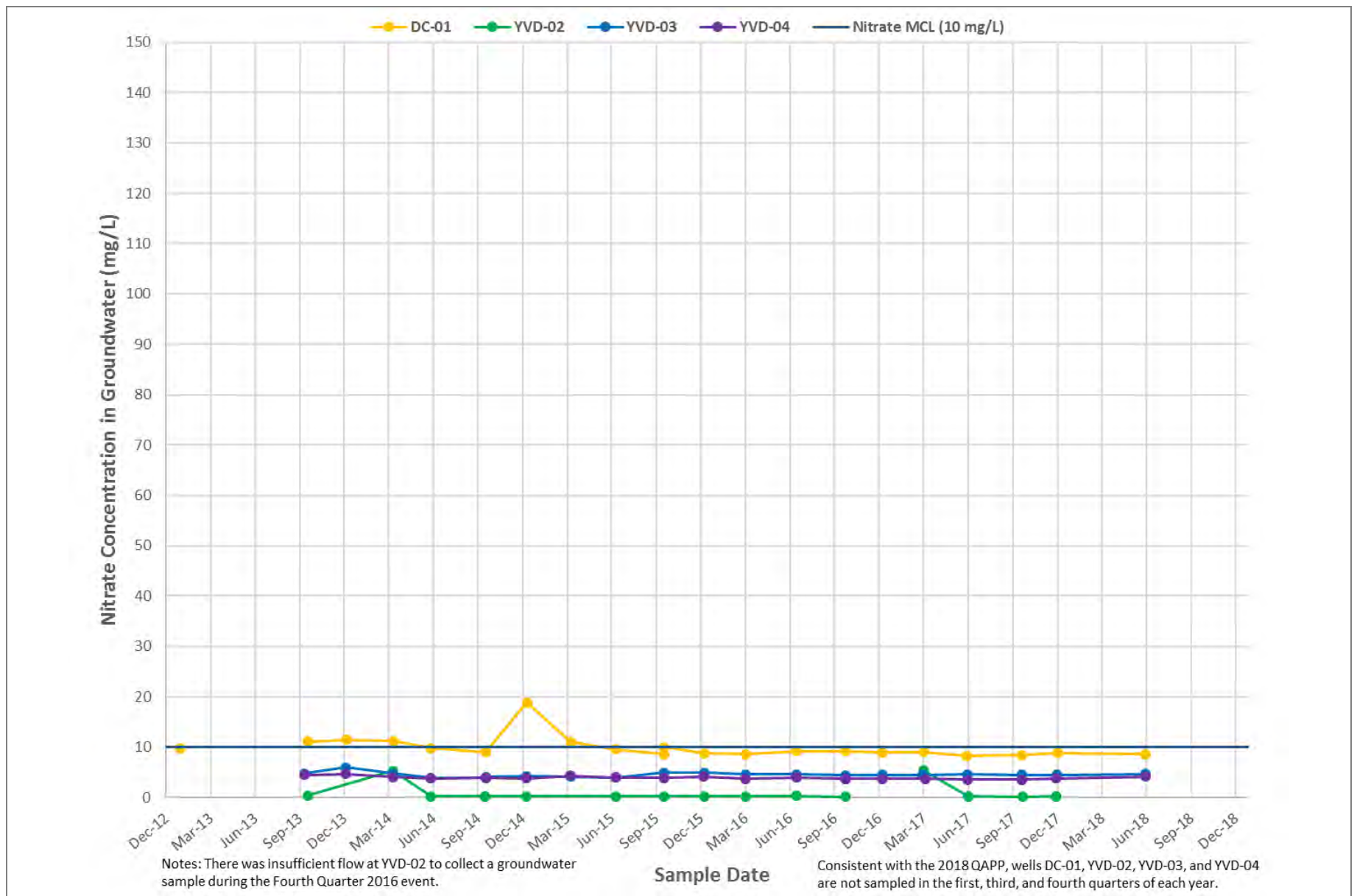


Note: Consistent with the 2018 QAPP, wells DC-09, YVD-05, YVD-06, and YVD-07 are not sampled in the first, third, and fourth quarters of each year.

Filepath: \\FUJI\Anchor\Projects\Yakima Dairies\SDWA AOC\Deliverables\07 - Groundwater\Quarterly Data Summary Reports\2018\3Q2018 GW Monitoring Report\Figures\Word Files\Figure 10.docx



Figure 10
Nitrate Concentrations – Northern Wells
 Groundwater Monitoring Data Report – Third Quarter 2018
 Yakima Valley Dairies

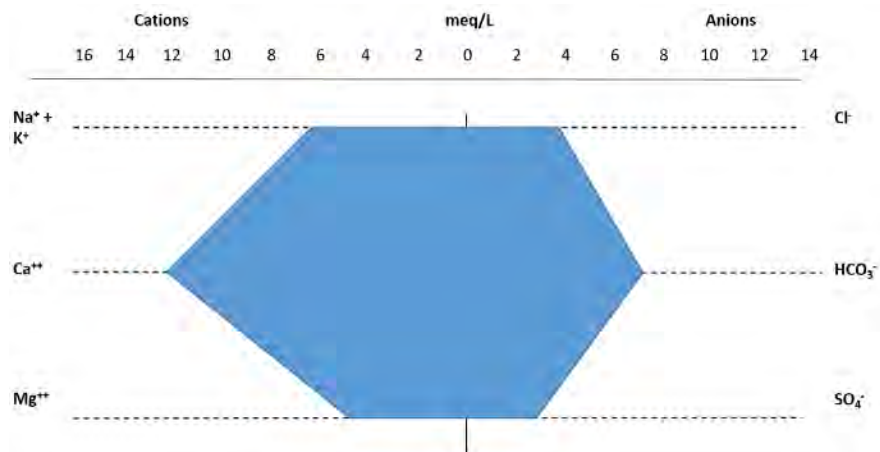


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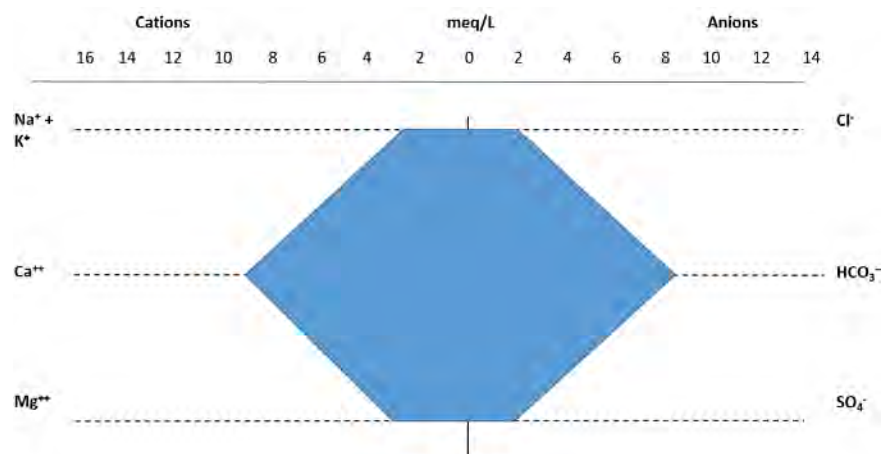


Figure 11
Nitrate Concentrations – Upgradient Wells
 Groundwater Monitoring Data Report – Third Quarter 2018
 Yakima Valley Dairies

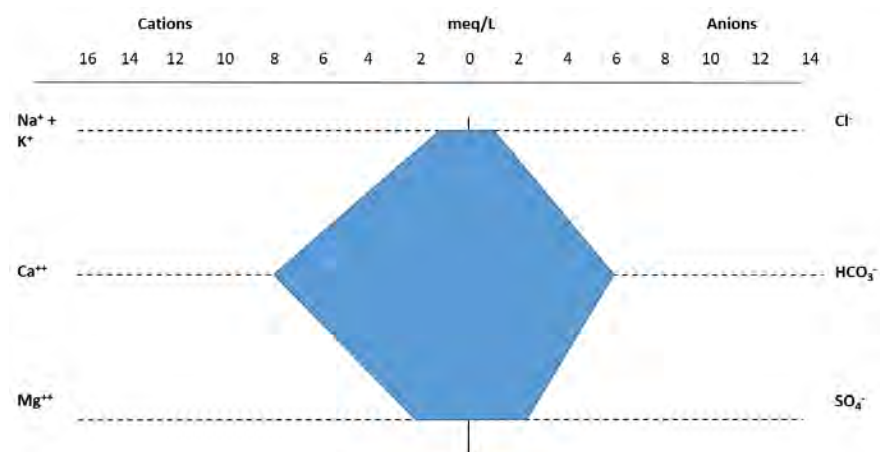
DC-03



DC-03D



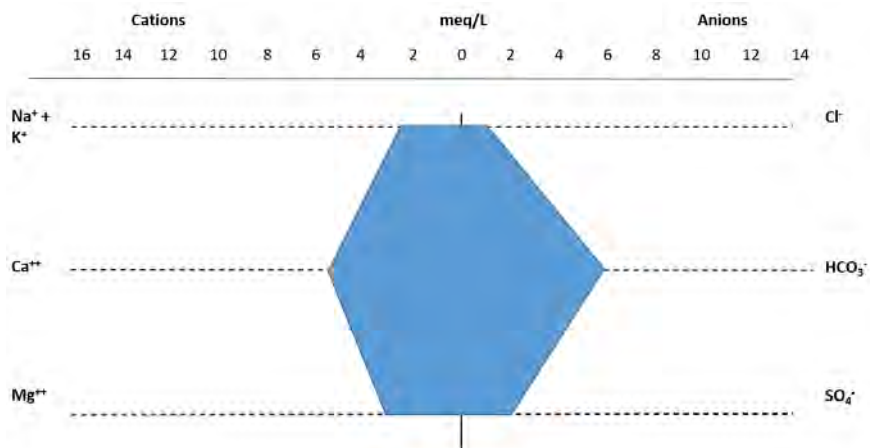
DC-04



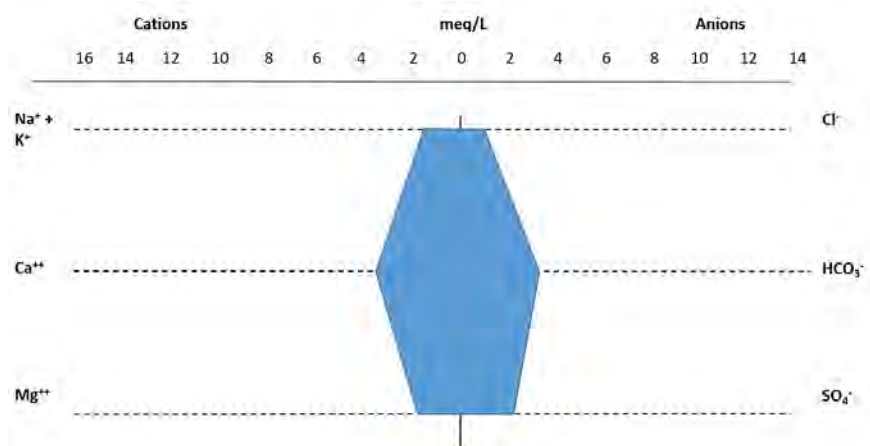
NOTE: meq/l: milliequivalents per liter

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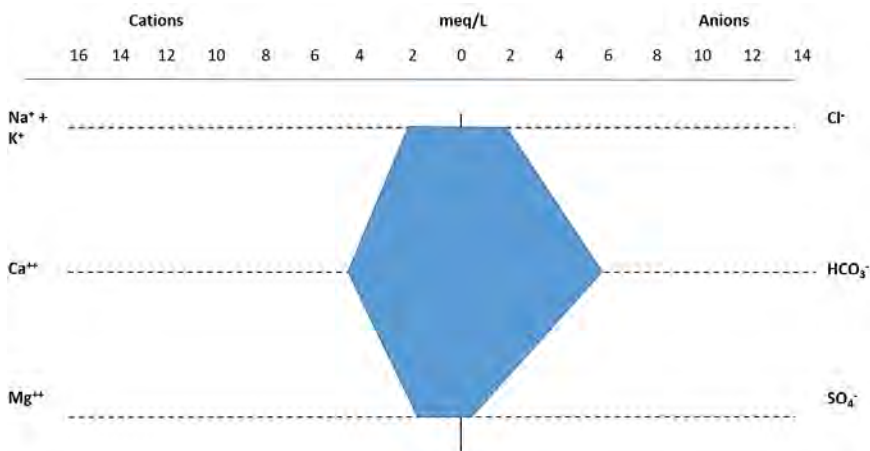
DC-05



DC-05D



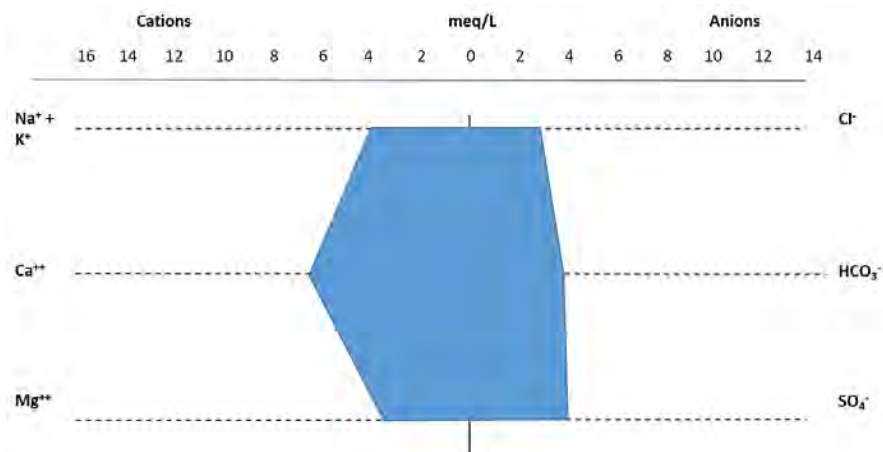
DC-14



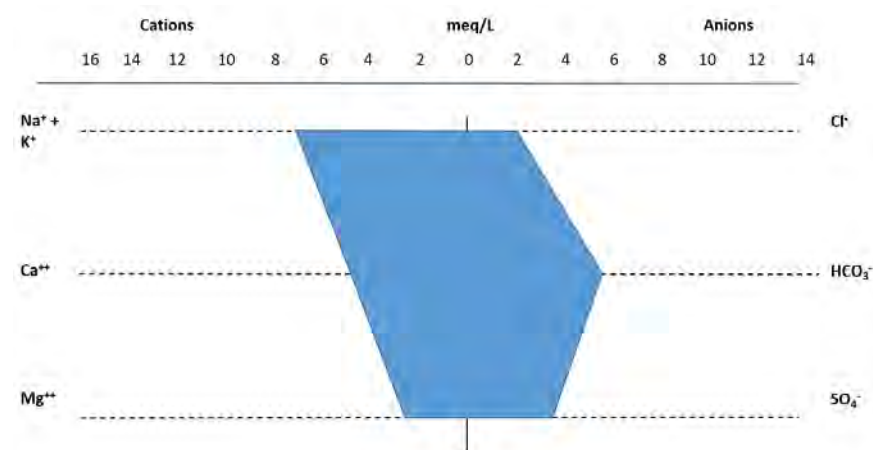
NOTE: meq/l: milliequivalents per liter

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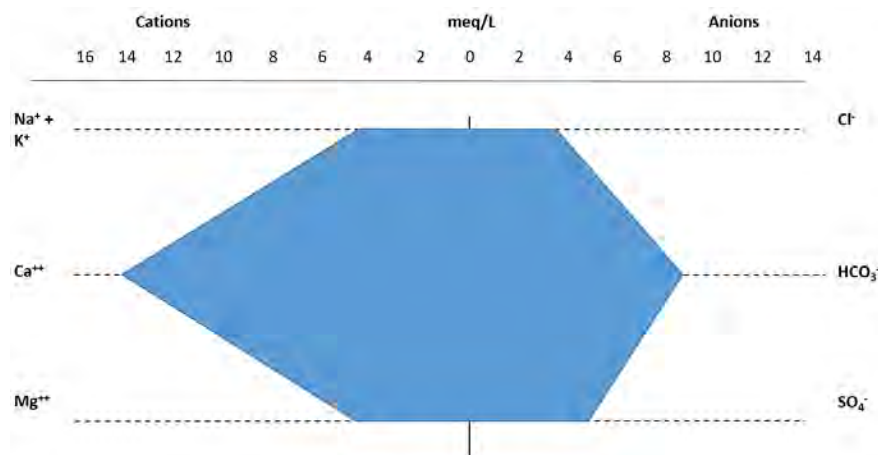
YVD-08



YVD-09



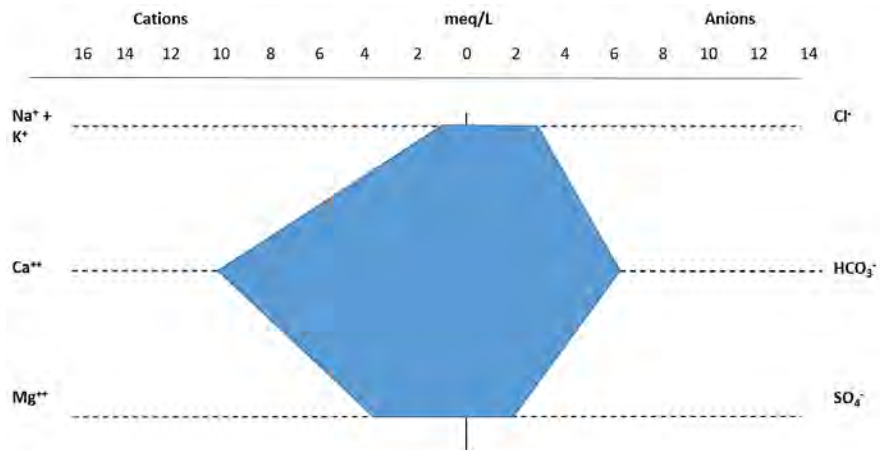
YVD-10



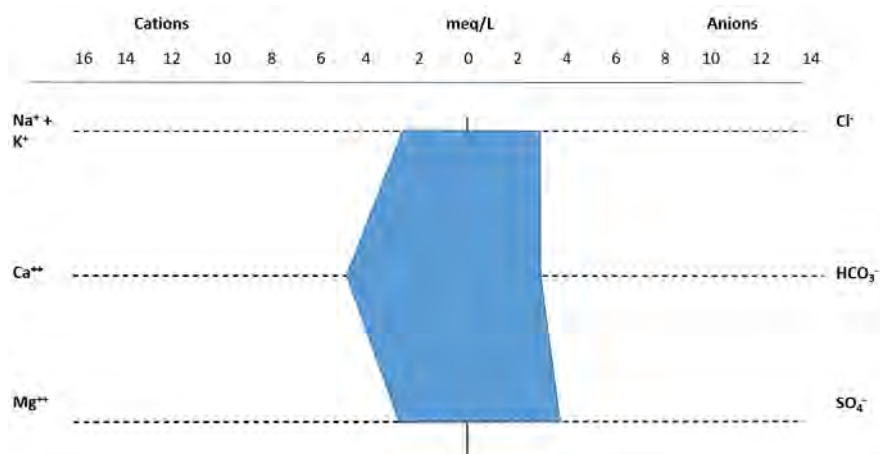
NOTE: meq/L: milliequivalents per liter

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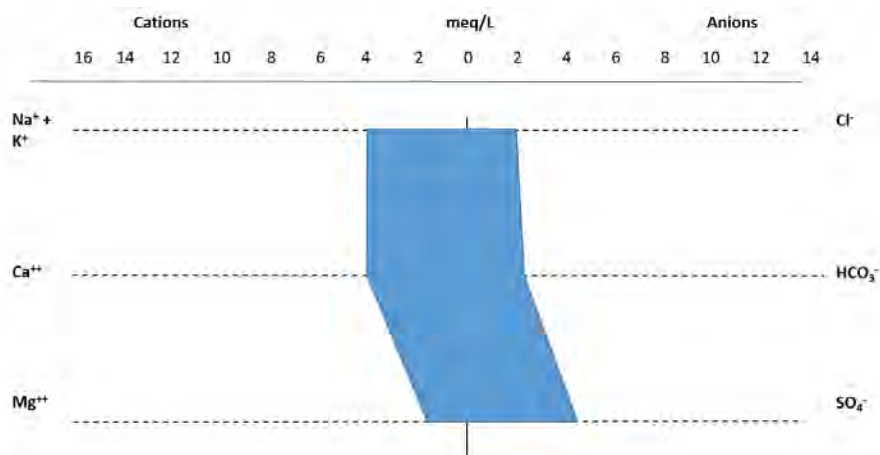
YVD-11



YVD-12



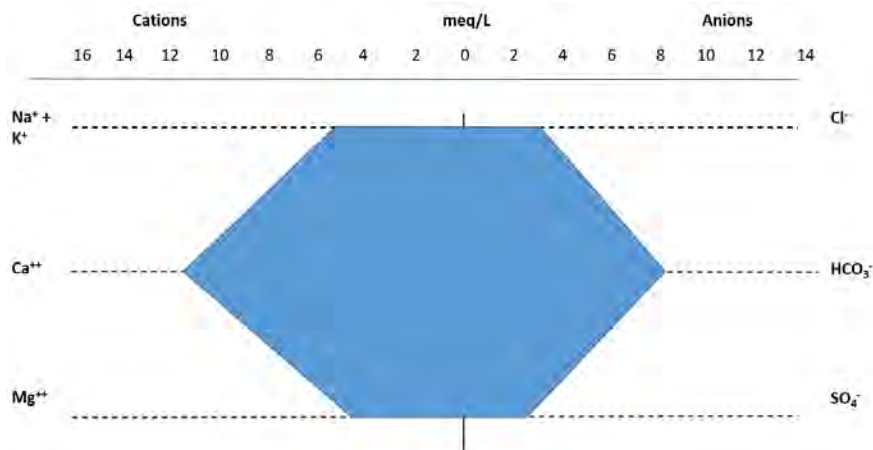
YVD-13



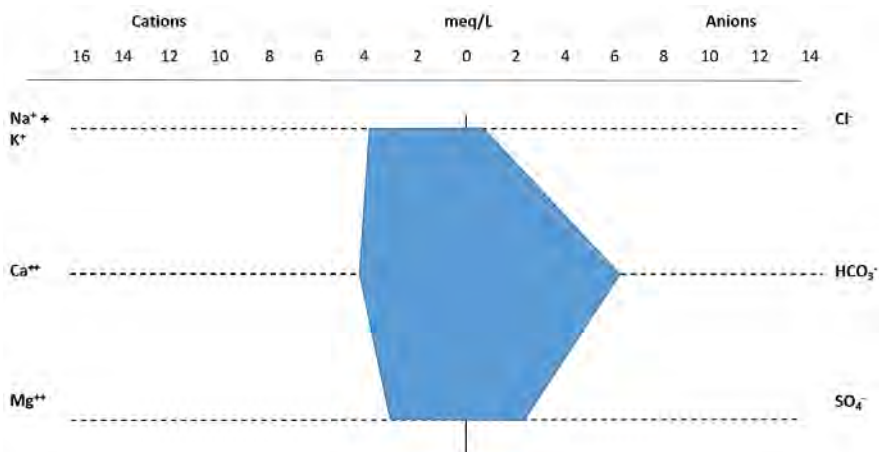
NOTE: meq/l: milliequivalents per liter

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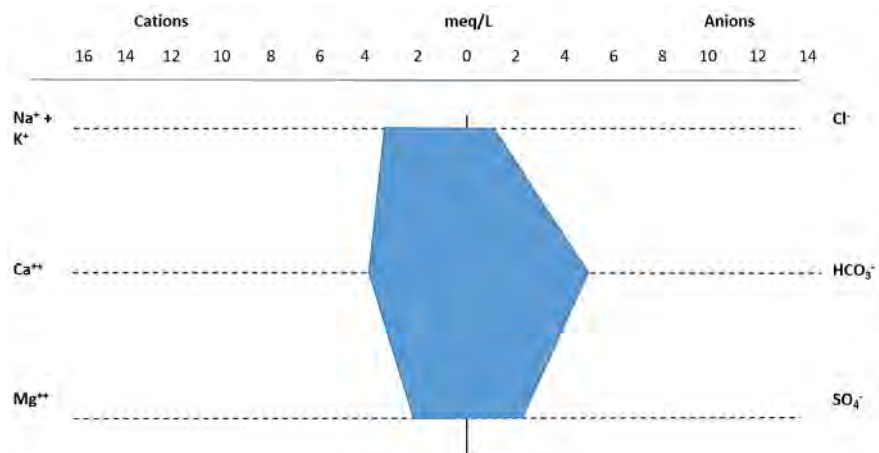
YVD-14R



YVD-15



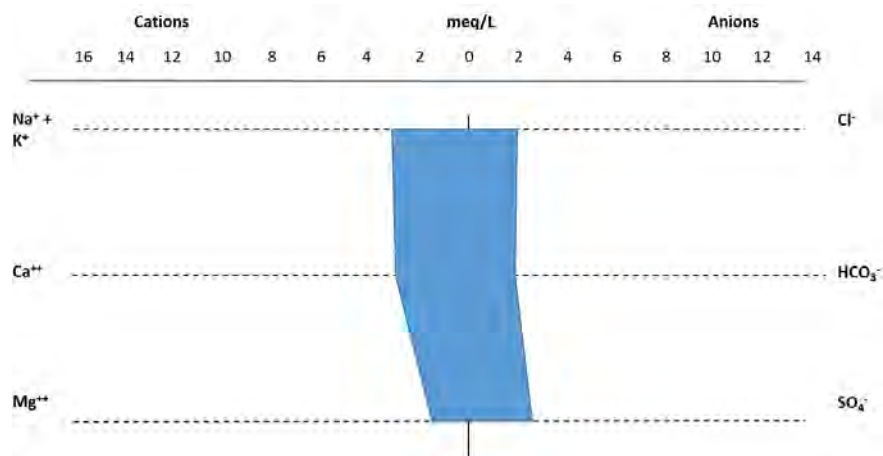
YVD-16



NOTE: meq/l: milliequivalents per liter

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YVD-18

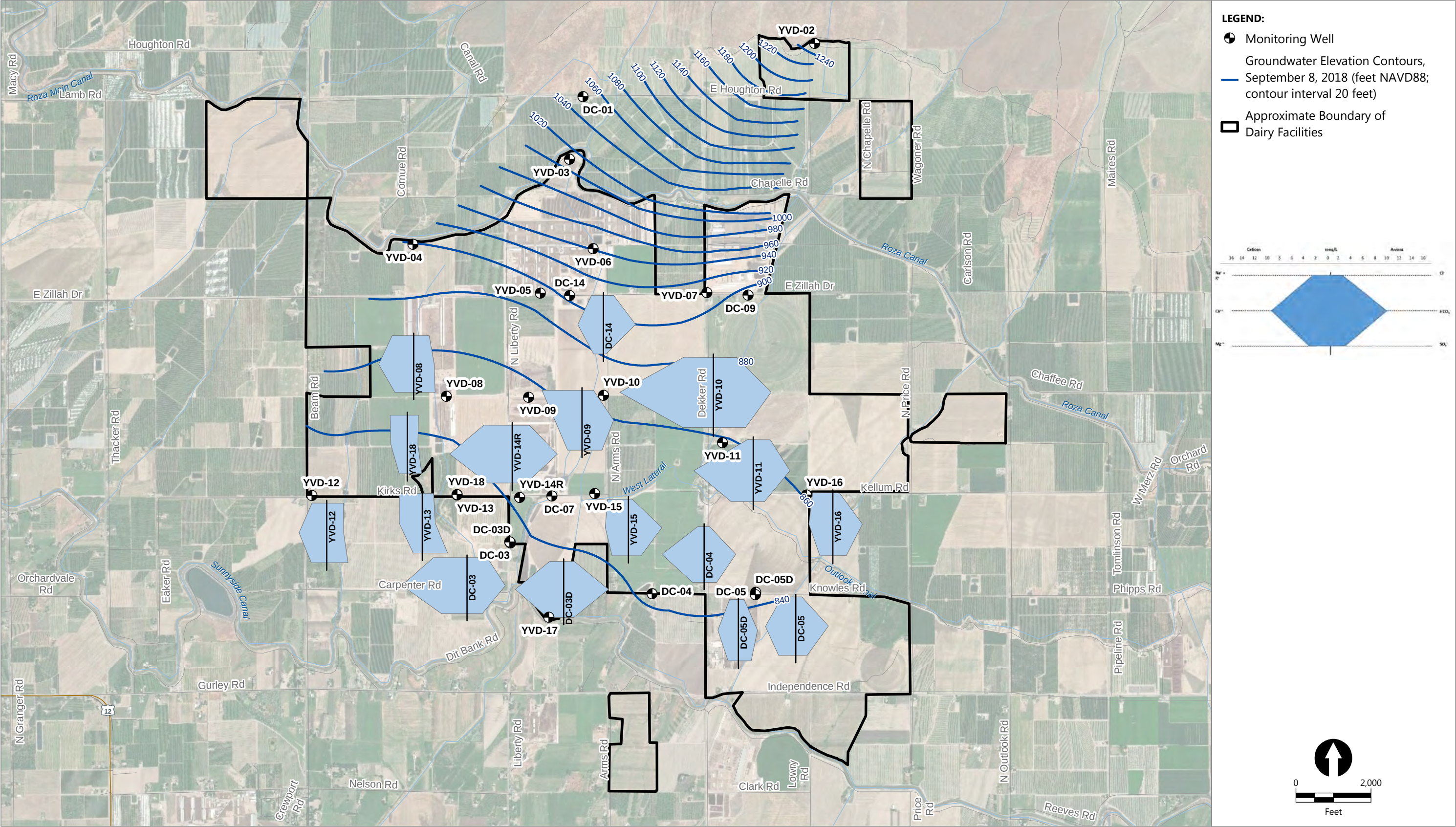


NOTE: meq/l: milliequivalents per liter

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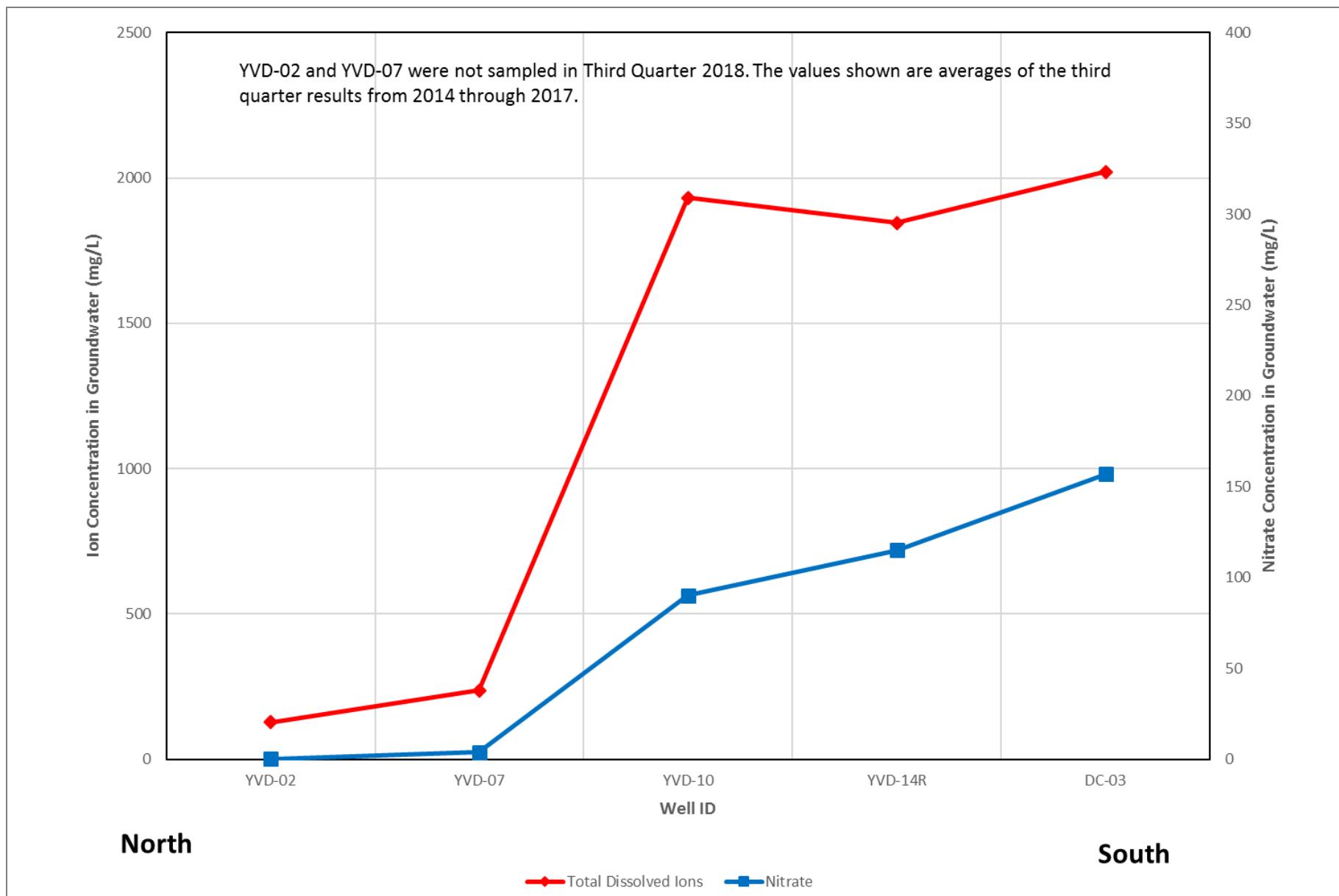
Figure 12F
Stiff Diagram – YVD-18



Publish Date: 2018/10/23, 9:41 AM | User: ckiblinger
Filepath: \\orcas\gis\Jobs\PerkinsCoie_0996\YakimaDairies\Maps\GW_Monitoring\3Q_2018\YVD_Stiff_Diagrams_3Q2018.mxd



Figure 13
Stiff Diagrams and Groundwater Elevation Contour Map
Groundwater Monitoring Data Report – Third Quarter 2018
Yakima Valley Dairies



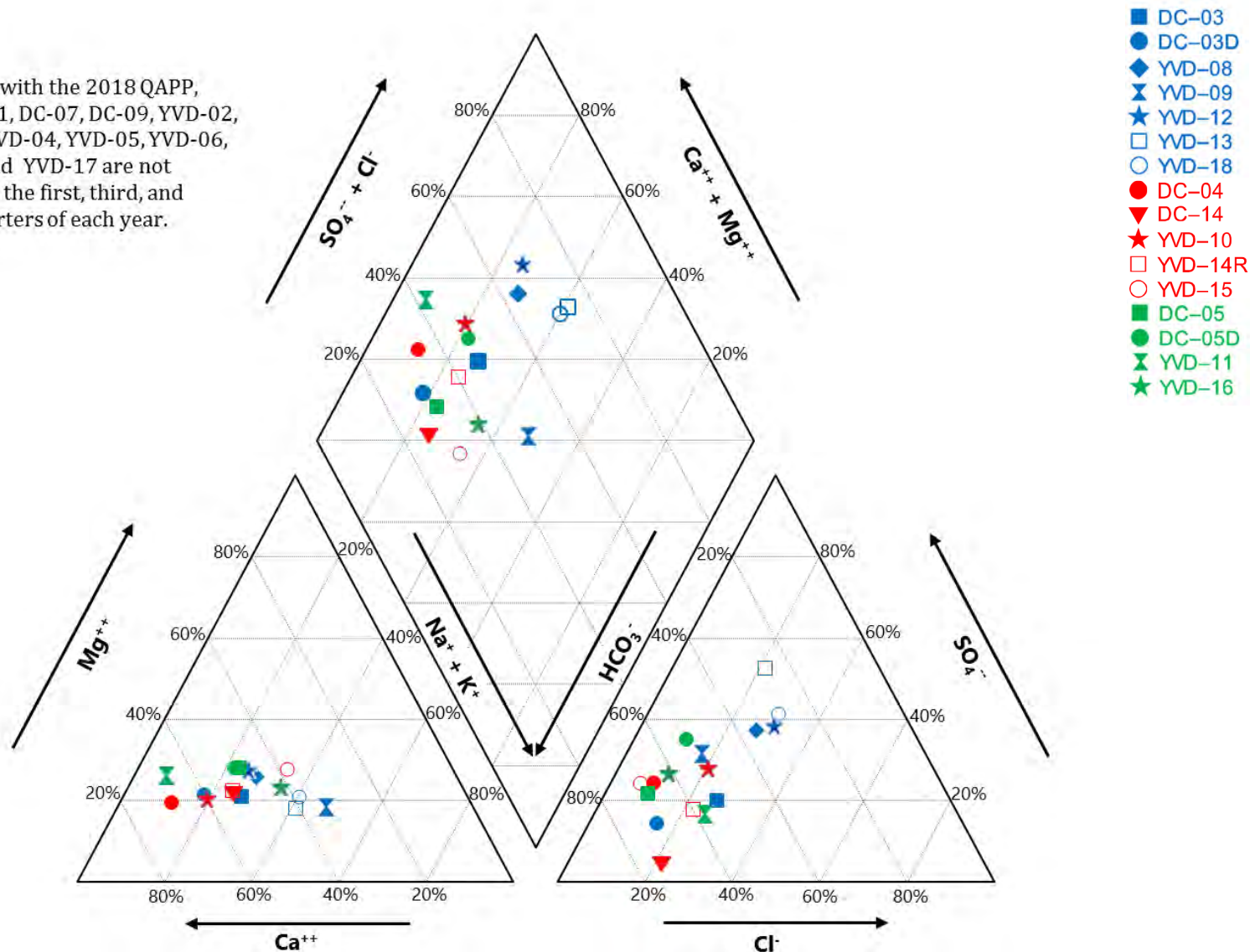
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Figure 14
Nitrate and Total Dissolved Ion Concentration Along North-South Transect
 Groundwater Monitoring Data Report – Third Quarter 2018
 Yakima Valley Dairies

Note:

Consistent with the 2018 QAPP, wells DC-01, DC-07, DC-09, YVD-02, YVD-03, YVD-04, YVD-05, YVD-06, YVD-07, and YVD-17 are not sampled in the first, third, and fourth quarters of each year.



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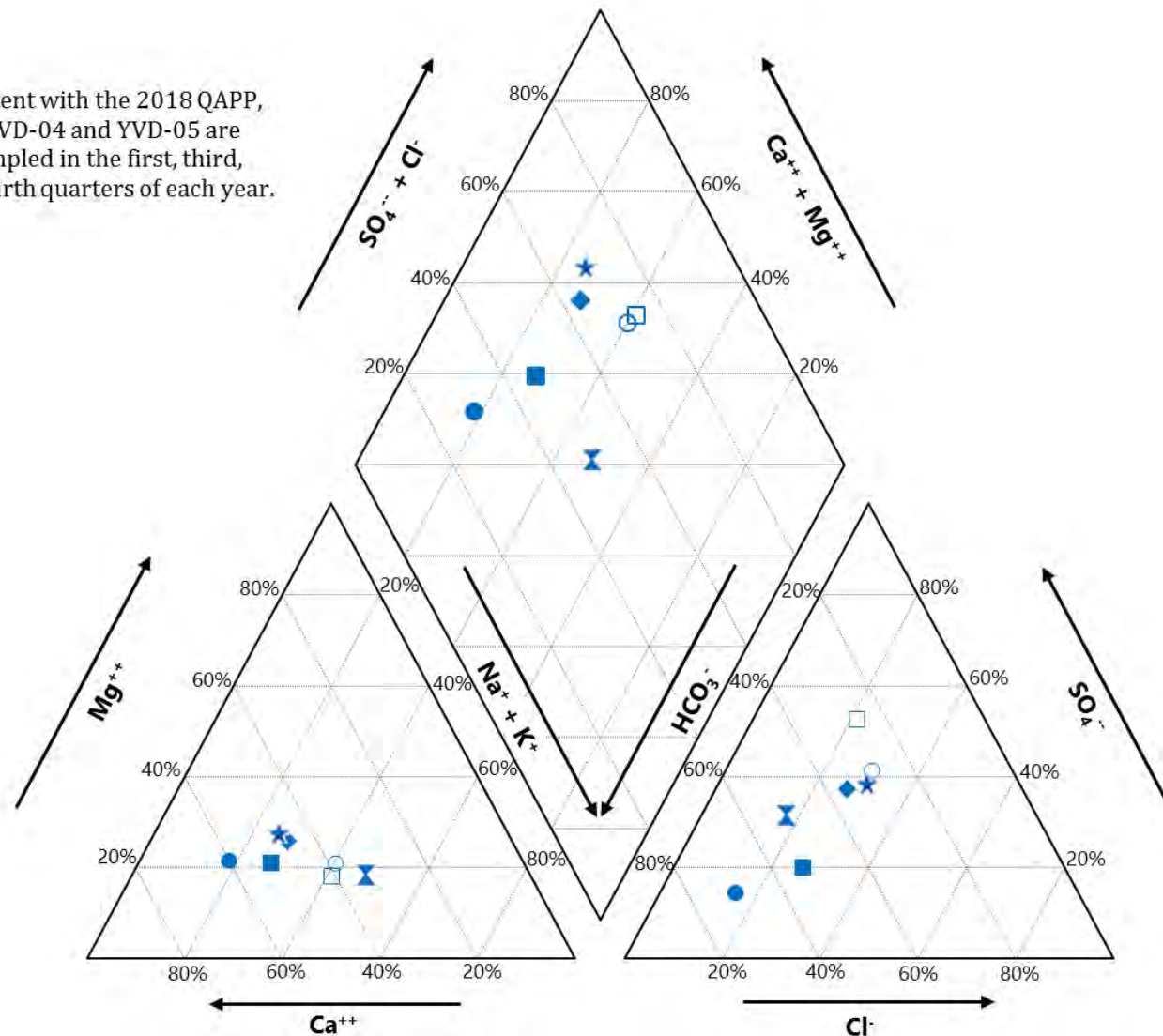
Figure 15

Piper Diagram – All Wells

Groundwater Monitoring Data Report – Third Quarter 2018
Yakima Valley Dairies

Note:
Consistent with the 2018 QAPP,
wells YVD-04 and YVD-05 are
not sampled in the first, third,
and fourth quarters of each year.

- DC-03
- DC-03D
- ◆ YVD-08
- ✕ YVD-09
- ★ YVD-12
- YVD-13
- YVD-18



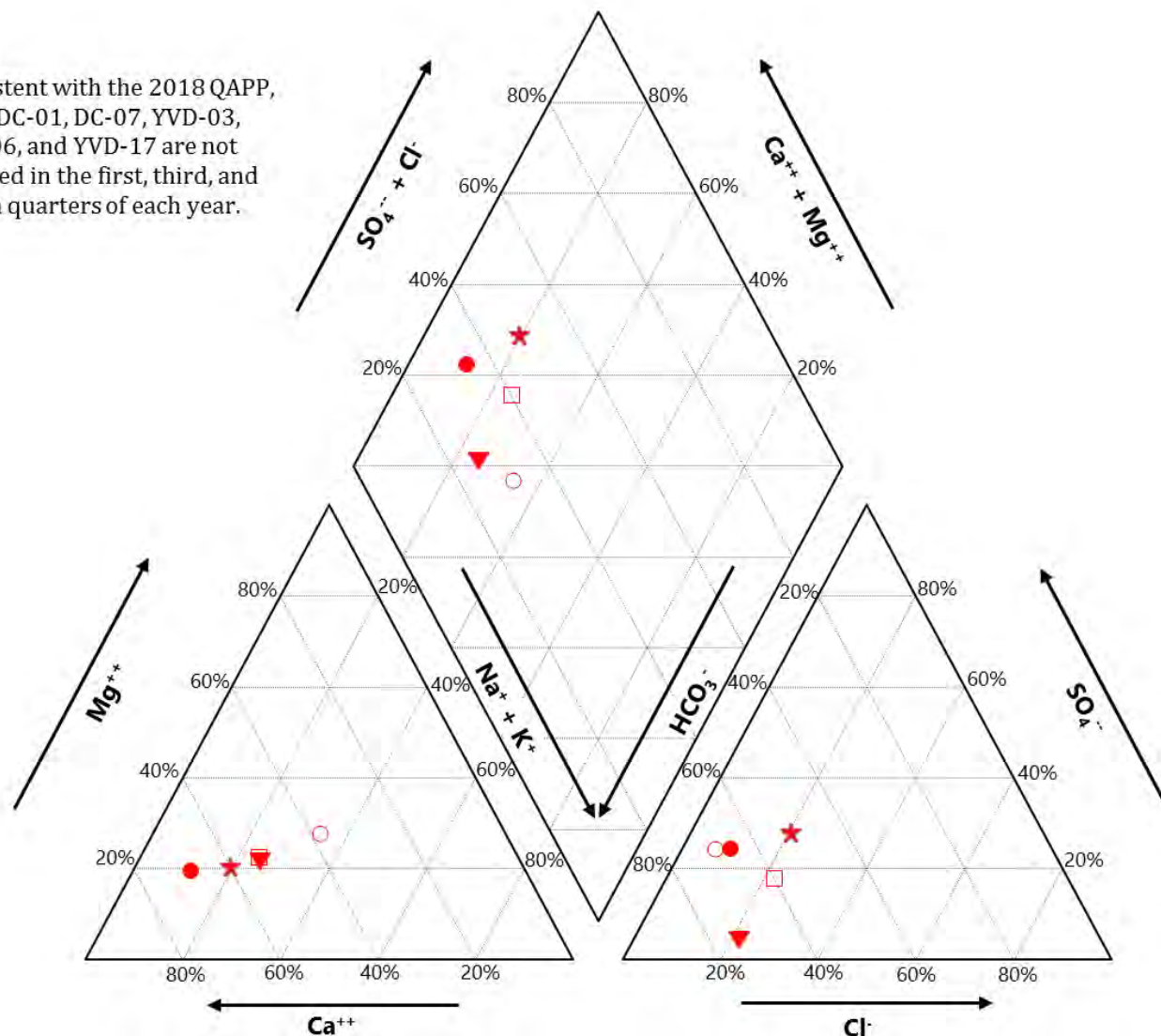
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Figure 16
Piper Diagram – Group 1 Wells
Groundwater Monitoring Data Report – Third Quarter 2018
Yakima Valley Dairies

Note:
Consistent with the 2018 QAPP,
wells DC-01, DC-07, YVD-03,
YVD-06, and YVD-17 are not
sampled in the first, third, and
fourth quarters of each year.

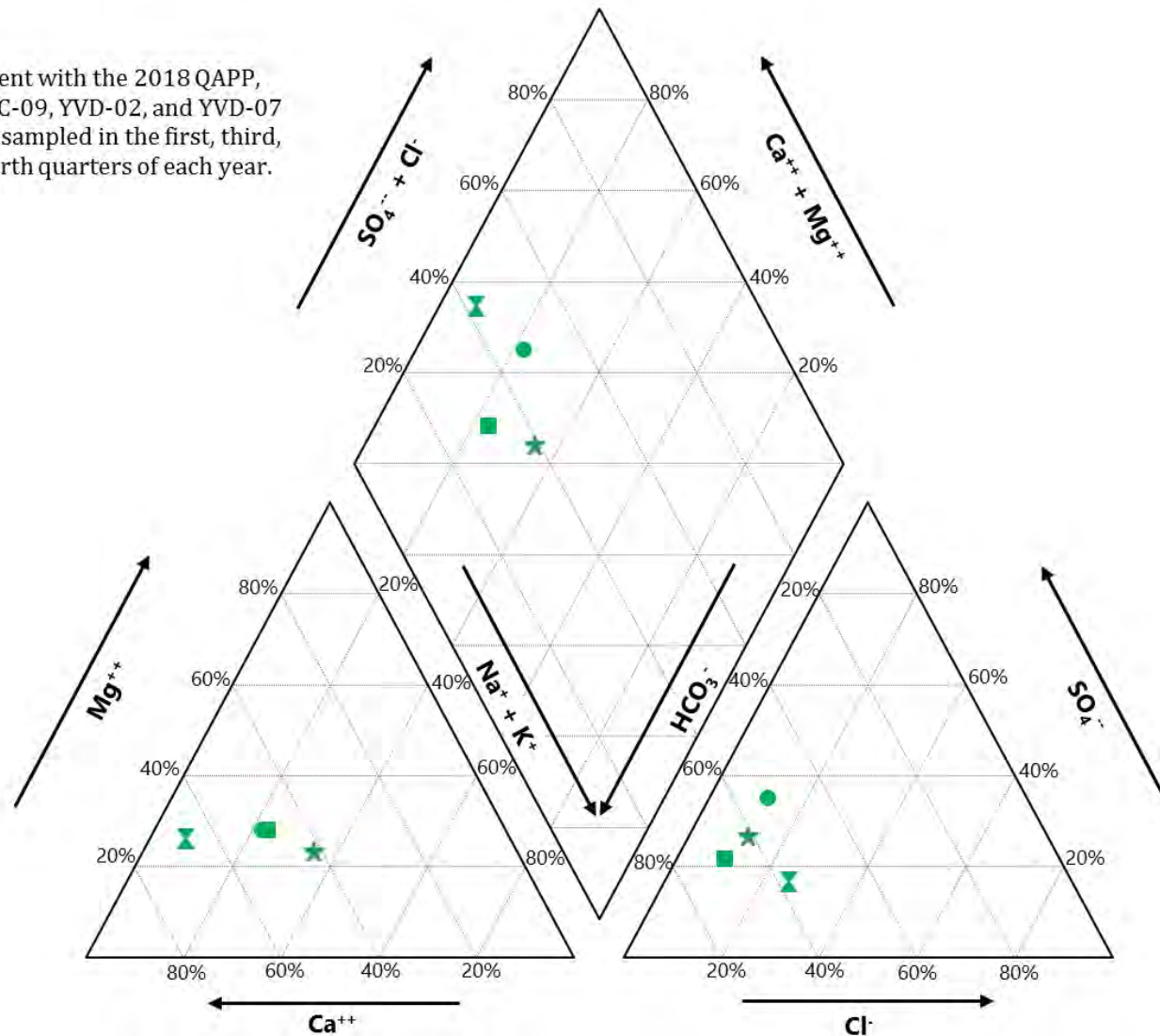
- DC-04
- ▼ DC-14
- ★ YVD-10
- YVD-14R
- YVD-15



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Note:
Consistent with the 2018 QAPP,
wells DC-09, YVD-02, and YVD-07
are not sampled in the first, third,
and fourth quarters of each year.

- DC-05
- DC-05D
- ⌵ YVD-11
- ★ YVD-16



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