APPENDIX D6:

HYDROLOGY

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APPENDIX D6 HYDROLOGY

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D6.1 SURFACE WATER

The Appendix D6 Hydrology pages, table, figure and exhibits are sequentially numbered of in this section, such as D6-1. The addendums are numbered by the sub-section, such as Figure D6B.1-1.

D6.1.1 DRAINAGE BASIN DESCRIPTION

The Nichols Ranch ISR Project areas exist in the Cottonwood and Willow Creek drainage areas. The Nichols Ranch Unit is located in the Cottonwood Creek drainage while the Hank Unit is located in the Willow Creek drainage.

The Nichols Ranch Unit is located near the confluence of the Cottonwood Creek drainage with the Dry Fork of the Powder River. Figure D6-1 shows the Cottonwood drainage area. The majority of the Nichols Unit drains directly to Cottonwood Creek while a portion of the northern part of the area drains to Tex Draw which is a tributary to the Dry Fork of the Powder River. Cottonwood Creek is a tributary to the Dry Fork of the Powder River and its confluence is located approximately ½ mile downstream of the project area. Tex Draw also enters the Dry Fork of the Powder River approximately 2.0 miles downstream of the project area.

Area of the Cottonwood Creek drainage basin is 80.2 square miles. Dry Fork of the Powder River is a tributary to Powder River which is a tributary to the Yellowstone River, which is a part of the Missouri River drainage basin. Land surface elevation in Cottonwood Creek drainage varies from 5,974 to 4,590 ft-msl at the mouth. The channel elevation varies from 4,622 to 4,660ft-msl in the project area. Cottonwood Creek channel is flat at a gradient of approximately 0.003 ft/ft.

The Tex Draw drainage area is 5.2 square miles and its elevation varies from a peak of 5,085 to an elevation of 4,540 ft-msl at its confluence with the Dry Fork of the Powder River. None of the Tex Draw channel exists within the Nichols Ranch Unit area but the northwestern portion of the project area drains to Tex Draw. Tex Draw has a much steeper gradient due to being a smaller ephemeral channel and has an approximate gradient of 0.01 ft/ft just north of the project area.

The local drainages in Cottonwood Creek in the Nichols Ranch Unit have been divided into 6 small drainage basins. These drainage basins are presented on Figure D6-1 and have been named NDA-1 through NDA-6. Table D6-1 presents the areas of these drainage basins. The slopes of these drainages vary from 1.5 to 2.9%.

The Hank Unit is located in the Dry Willow and Willow Creek drainages. Dry Willow is a tributary to Willow Creek which is a tributary of the Powder River. Dry Willow and a portion of Willow Creek drainage upstream of the Dry Willow confluence are shown in Figure D6-1. The Hank Unit is roughly 16 miles upstream of the confluence of Willow Creek and the Powder River. Willow Creek is oriented in a westerly direction through the northern end of the unit.

The area of the Willow Creek drainage basin above the Dry Willow Creek confluence is approximately 13.2 square miles. Elevation in the Willow Creek drainage varies from 6,052 to 4,795 ft-msl at the confluence of Dry Willow Creek. The short reach of the Willow Creek channel within the unit boundary ranges in elevation from 5,015 to 5,040 ft-msl.

The gradient of the stream channel within the Hank Unit is about 0.008 ft/ft, and the active stream channel width varies from a few feet to several tens of feet.

The drainage area of Dry Willow Creek is 12.2 square miles. The maximum elevation in this drainage basin is 6,018 ft and the elevation at the confluence is 4,795 ft. The elevation of the channel in the Hank Unit area of Dry Willow Creek varies from 4,995 ft to 5,085 ft-msl. The stream channel in this area has a gradient slightly greater than 0.01ft/ft.

The local drainages in Dry Willow Creek at the Hank Unit site have been divided into 8 subbasins. These small subbasins have been labeled HDA-1 through HDA-8 on Figure D6-1. Table D6-1 shows that the channel bottoms for these drainages vary from 2.8 to 4%.

D6.1.2 SURFACE-WATER FLOW

Dry Willow, Willow and Cottonwood Creeks and Tex Draw are classified as ephemeral streams in the project area. Stream flows only occur in response to heavy snow melt and to large rainstorms. Runoff flows are typically intermittent in the spring and early summer and the stream channels are dry the remainder of the year except during major thunderstorms in the area.

The estimated peak flows for various recurrence intervals for Cottonwood, Tex, Dry Willow and Willow Creek drainages are presented in Table D6-1. The technique that was used to estimate the peak flows is presented in Lowham (1976).

The predicted peak flows in Table D6-1 vary from 454 cubic feet per second (csf) for a 2 year recurrence interval to 7,500 csf for a hundred year recurrence interval for Cottonwood Creek drainage. The peak flows for Tex Draw vary from 170 to 2,720 csf for the 2 and 100 year recurrence intervals.

The predicted peak flows for the Dry Willow Creek and Willow Creek above Dry Willow Creek vary from a low of 231 csf for the 2 year recurrence interval for Dry Willow up to a peak of 3,840 for the 100 year recurrence interval. The estimates for Dry Willow and Willow Creek are very similar due to similarity in drainage area.

The smaller drainages at the Nichols Unit were divided into drainages NDA1-NDA6. The Craig-Rankl method (1978) for small drainage basins in Wyoming was used to estimate the peak discharges for the small subbasins. Each of these drainages drain to the north side of Cottonwood Creek. The 25-year peak flows from these drainages vary from a low of 172 to a high of 950 csf. Eight subbasins were divided for the Hank Unit. These subbasins are labeled HDA1-HDA8 and are shown on Figure D6-1. Table D6-1 presents the peak flows for these subbasins with a 25-year flood varying from 109 to 384 csf using the Craig-Rankl method (1978).

The flow velocities for the 25-year peak discharges are calculated to present an estimate of the channel velocities during a significant runoff event. The bottom half of Table D6-1 presents the calculation of the flow velocities based on typical channel slope and the 25-year peak

discharge. The 25-year peak discharge was selected as representing a reasonable design period for the life of this operation. These 25-year peaks are calculated for the confluence of the drainages and therefore are a very conservative representation of the peak at the project location. The peak velocities for Cottonwood Creek are smaller due to the wide flood plane and the milder channel slope. Cottonwood Creek does have an incised pilot channel which has been dammed and, therefore, runoff flow during any significant event will be spread over a very significant width of the flood plane. The velocities in Tex Draw, Dry Willow and Willow Creek will be much greater due to the steeper channel slope and are near 10 ft/sec.

The flow velocity over the 25-year peak discharge for the smaller subbasins is also presented in Table D6-1. The velocities for the Nichols Ranch Unit vary from a low of 8.2 to a high of 12.1 ft/sec. Flow velocities were also calculated for the 8 subbasins for the Hank Unit and those flood velocities vary from 9.8 to 13.8 ft/sec.

The 25-year peaks and conveyance from Table D6-1 were used to define the flood inundated areas for the Nichols Ranch permit areas. Figure D6-1a shows the Nichols Ranch Unit inundated areas. A pattern is shown over the Cottonwood Creek inundated area. This entire area should be flooded during the 25-year peak runoff event. The 25-year peak runoffs for the incised small tributaries within the Nichols Ranch Unit will be confined to these channels and the approximate flooded area is shown by the narrow channel lines presented on Figure D6-1a.

Figure D6-1b presents the twenty-five year flood inundated areas for the Hank Unit. This figure shows the areas where a 25-year flood will cause the inundation of the incised channels at the Hank Unit.

The upgradient side of the plant will contain a ditch and berm which will have the conveyance to drain the 25-year flood around the plant facility.

D6.1.3 SURFACE-WATER QUALITY

The surface water quality from the Cottonwood, Tex, Dry Willow and Willow Creek drainages is generally very good in the upper channel reaches of these areas. A typical TDS is 200 mg/l. Water quality generally deteriorates as the surface water flows further down stream and is in contact with the streambed for longer periods of time.

The U. S. Geological Survey has monitored the Dead Horse Creek drainage which is approximately 30 miles north of the confluence of the Dry Fork with the Powder River and roughly 20 miles north of the confluence of Willow Creek with the Powder River. Dead Horse Creek drainage area is 151 square miles, which is significantly greater than the local drainages of the mining area. Limited water quality data from this gauging station shows that ion concentrations are significant with conductivity greater than 2,000 mhos/cm.

Table D6A.1-1 in Addendum D6A presents water quality data available from surface water samples within the drainages in the project. Figure D6-1 shows the location of surface water quality samples. These surface water results should be representative of conditions in 2007 because CBM discharges in this area have not started. Discharges to Tex Draw are expected to start in 2008 but a large portion of this area will not have CBM discharges because one of the major CBM producers is piping water to a deep injection well. The three surface water samples in early 2008 also should be representative of pre-CBM discharges because no CBM surface discharges have occurred in these drainages. The Dry Willow Reservoir which is upstream of the Hank Unit had a TDS of 174 mg/l. The Brown Water Pond also had a very low TDS due to the pond proximity to the drainage divide. This pond captures water after it has moved only a relatively short distance. The Dry Willow Reservoir and Brown Water Pond were dry in September of 2007 and early 2008. Additional samples on Dry Willow Creek and Cottonwood Creek show that the TDS can exceed 2,000 mg/l in the surface runoff. The spring of 2008 TDS from Dry Willow Creek and Cottonwood Creek downstream (D) of Nichols Unit are much lower while the TDS from the Cottonwood Creek upstream (U) of Nichols which is similar to the late 1970 higher values. This data shows that the surface water quality can naturally vary greatly. Surface runoff water quality is generally dominated by bicarbonate concentrates but increase concentrations of calcium and sulfate are observed with increasing exposure time in channels.

D6.2 GROUND-WATER HYDROLOGY

The regional ground-water setting has been defined by Hodson and others, 1973. The Nichols Ranch permit area is located in the south-central Powder River Basin, to the west of the Middle Pumpkin Butte. Geologic structure in the permit area is relatively flat with a gentle dip to the southwest toward the basin axis. The Wasatch Formation is the uppermost geologic unit in the area of the Nichols Ranch Permit. The sands within the Wasatch Formation create regional aquifers in this area. Whitehead, 1996 also presents information relative to the regional groundwater setting in this area. Ground water in the Wasatch aquifers generally flows to the north and northwest in this area. The water quality in these aquifers would also generally be good, with a TDS concentration typically from <1000 mg/l to <2,000 mg/l. The aquifers of interest in this area are sands within the Wasatch Formation. The confining units between the aquifers are also within the Wasatch Formation.

The sandstones and the coal seams form aquifers in the Fort Union Formation. The aquifers will be deeper than the Wasatch aquifers but the general flow in the aquifer would be expected to be in the similar direction as the flow in the Wasatch aquifers. Whitehead, 1996 indicates that some of the flow between the aquifers is upwards in this region. Ground-water quality of the Fort Union aquifers would also be expected to be relatively good with TDS generally less than 2,000 mg/l.

The Lance Formation consists mainly of very fine to fine grain sandstone shale and coal beds. The ground-water flow direction in the Lance Formation in this area is expected to be to the north. Water quality data is very limited on the Lance Formation in this area but the TDS would be expected to be >2000 mg/l based on the limited data. The TDS is less toward the outcrop area to the southwest. TDS concentrations near the outcrops have been reported to be <1000 mg/l.

The Foxhills Sandstone exists below the base of the Lance Formation. Foxhills is mainly a fine to medium grain sandstone. The ground-water flow direction in the Foxhills would be expected to be to the north in this area based on a map presented in Whitehead, 1996. The TDS of the Foxhills is likely to be >2000 mg/l in this area based on the limited data available for this aquifer. The TDS in the outcrop area to the southwest has been measured to be from 1000 to >2000 mg/l.

The Lewis Shale underlies the Foxhill aquifer and is mainly an aquitard. This shale contains some lenses of fine grained sandstone but is generally not a very significant producer of water. The water quality in the Lewis Shale would be expected to be very poor. TDS in the Lewis Shale is likely to exceed 5000 mg/l in this area.

D6.2.1 GEOLOGIC SETTING AND WELL CONSTRUCTION

The Nichols Ranch ISR Project is located in the outcrop of the Wasatch Formation. The stratigraphy of the Wasatch at this site consists of alternating layers of sand and shale with lignite marker beds. The mineable ore exists in two sand members, designated as the A Sand at the Nichols Ranch Unit and F Sand at the Hank Unit. These two sand members are typically separated by the B and C Sands and adjacent aquitards.

The aquifer and aquitard sequence at the project area is shown in Figure D6-2. This shows labeled sands from the 1, A, B, C, F, G, and H Sands. This figure also shows the aquitards that exist between the different sands and those aquitards are labeled as by the combination of labels for the two adjacent sands. These sands are the same names that are used at Power Resources North Butte permit which exists just north of the Hank Unit site.

The majority of the wells completed in the Nichols Ranch Unit are completed in the A Sand because this is the ore bearing sand in this area. Figure D6-3 shows the locations of the Nichols Ranch Unit wells and Exhibit D6-1 shows the locations of wells within three miles of the Nichols Ranch Unit. Table D6-2 presents the tabulation of the well data for the Nichols Unit wells. This table shows that eleven of the wells have been completed in the A Sand with one well completed in each of the 1, B and C Sands while two wells have been completed in the F Sand and one well in the Cottonwood alluvium. Wells MN-1, MN-2, URZNB-1 and URZN1-2 are completed as open-hole completions, while the remainder wells have well screens in their completion interval. Addendum D6L gives the Uranium Data Submission Spreadsheets which contain additional information on the wells.

Table D6-3 presents the basic well data for the Hank Unit wells while Figure D6-4 shows the location of the Hank Unit wells. Exhibit D6-2 shows the locations of wells within three miles of the Hank Unit. Eleven of these wells are completed in the F Sand because this is the ore bearing sand in this area. Four of the wells are completed in the overlying G Sand while one of the wells is completed in the underlying C Sand. In areas where the C Sand does not exist, the B Sand is the underlying aquifer and seven of the wells in this area are completed in the B Sand. Additionally, four existing stock wells are completed across a combination of the sands.

D6.2.2 SUMMARY OF AQUIFER AND AQUITARD PROPERTIES

Numerous single-well pump tests and multi-well pump tests were conducted at the Nichols Ranch and Hank Units to define the aquifer properties. The detailed hydrologic analyses and supporting data are contained in Addendums D6B and D6C for Nichols Ranch Unit and Hank Unit respectively. Three multi-well pump tests were conducted at the Nichols Unit site and are referred to in this report as the MN-1, MN-2 and MN-6 tests. Three multi-well tests were performed at the Hank Unit site. These tests are referred to as the URZHF-1, URZHF-5 and SS1F tests. Tables D6-3 and D6-4 present the basic well data for wells used to define the aquifer properties for the Nichols Ranch and Hank Units respectively. Addendum D6J presents the aquifer test theory used to analyze the pump tests.

D6.2.2.1 AQUIFER PROPERTIES

In addition to determining the aquifer properties from the multi-well test, numerous single-well tests were conducted to define the aquifer properties. Several pump tests were previously conducted by Cleveland-Cliffs and Uranerz and the results of these tests were analyzed and included in the general hydrologic analysis.

Table D6-4 presents a summary of the aquifer properties for the Nichols Ranch Unit. This table shows a summary of the aquifer properties for the A, B, C, F and 1 Sands for the Nichols Ranch Unit. For the A Sand, the single-well pump tests are presented first and then the results for the three multi-well pump tests are presented. Transmissivities

for the A Sand aquifer vary from a low of 101 to a high of 460 gal/day/ft. A value of 350 gal/day/ft is thought to best represent the A Sand in the Nichols Unit area. The hydraulic

conductivity (horizontal permeability) varies from 0.18 to slightly greater than 0.7 ft/day (0.08 to 0.36 Darcy), and a value of 0.5 ft/day is thought to best represent the A Sand. Average storage coefficient for the A Sand was 1.8E-4.

The one single-well pump test in the B Sand produced a transmissivity of 174 gal/day/ft and a horizontal permeability of 0.37 ft/day. The single-well pump tests for the 1 Sand produced a transmissivity of 88 and 101 gal/day/ft for the 1 Sand. A significantly higher transmissivity was obtained from the single-well test for the F Sand well at 1,410 gal/day/ft and a hydraulic conductivity of 3.6 ft/day. A small transmissivity of 45 gal/day/ft and hydraulic conductivity of 0.099 ft/day were determined for the C Sand.

Table D6-5 presents the summary of aquifer properties for the Hank Unit. This table presents results of aquifer properties testing for the F, A, B, C and G aquifers in the Hank Unit area.

The properties in the F Sand vary greatly in the Hank Unit area. The transmissivities vary from a low of 18 to a high of 6,670 gal/day/ft. Hydraulic conductivity varies from a low of 0.14 ft/day to a high of 9.4 ft/day (0.07 to 4.5 Darcy). A transmissivity of 400 gal/day/ft is thought to best represent the majority of the F Sand in the Hank Unit and the hydraulic conductivity of 0.6 ft/day is also thought to best represent the F Sand. A storage coefficient of 6.8E-5 was determined for the F Sand at the SS1-F site. The water level in the ore zone of the Hank Unit is near the top of the sand and therefore the F Sand is not fully saturated and is therefore an unconfined aquifer at the Hank Unit. The primary storage property for an unconfined aquifer is specific yield and a specific yield of 0.05 is thought to best represent the F Sand in this area.

Similar tests were conducted on two G Sand wells. The transmissivities of this G Sand varied from 0.4 to 2.9 gal/day/ft with hydraulic conductivities varying from 0.005 to 0.022 ft/day.

The aquifer properties for the underlying sands were determined for the C, B and A Sands. The aquifer properties for the C Sand were a low transmissivity of 1.9 gal/day/ft and a hydraulic conductivity of 0.025 ft/day. The transmissivities for the B and A Sand varied over a much larger range from 264 to 1,300 gal/day/ft. Hydraulic conductivities for the B and A Sand varied from 0.38 to 2.2 ft/day.

D6.2.2.2 AQUITARD PROPERTIES

The vertical permeabilities of the aquitard in the Powder River Basin have been defined at numerous locations. These permeabilities have been measured in multi-well pump tests with the Neuman-Witherspoon (1972) method, determined from the results from the leaky aquifer pump test analysis with the modified Hantush (1960) method, and from laboratory measurements. This data has shown that the vertical permeability of these aquitards is low enough that site specific measurements of the aquitard permeabilities are not necessary. Aquitard permeabilities were measured in the area just north of the Hank Unit in Power Resources North Butte permit. This permit presents aquitards evaluated with

the Neuman-Witherspoon field test for the aquitard between the F and C Sands. The vertical permeability of this material was 3.8E-8 cm/sec (3.5E-2 ft/yr). A second multi-well test at the North Butte site defined the aquitard permeability between the A Sand and the 1 Sand. The results of this test were 4.1E-8 cm/sec (4.2E-2 ft/yr). Additional field tests were evaluated using the modified Hantush method to define the vertical permeability of the aquitard. These calculated permeabilities varied from a low of 6.7E-9 to a high of 6.9E-8 cm/sec. Laboratory permeabilities were also measured on two samples of the aquitards at the North Butte permit and these permeabilities varied from 6.4E-9 to 1.3E-8 cm/sec. This data shows that the aquitards in this area have sufficiently small vertical permeabilities to restrict the movement of ground water from one aquifer to the next. Aquifer confinement will be further defined for each of the wellfields during the wellfield multi-well pump test.

D6.2.3 GROUND-WATER FLOW

Water levels have been measured in the wells in the Nichols Ranch ISR Project area to define the direction and gradient of the ground water movement and define water-level changes in the aquifers in this area. Addendum D6D presents the water-level plots and tabulation of ground-water levels. Addendum D6L also presents a tabulation of the water levels in the Uranium Data Submission Spreadsheets.

The historical and current water-level elevation maps for the aquifers in this area are essentially the same. Water-level plots show that historically only small changes have occurred in these water levels since the late 1970s. Also, the coal bed methane production in the immediate area has not started and therefore the 2007 piezometric surface maps can be used as historical water-level elevations.

The water level elevation for the A Sand, which is the production sand at the Nichols Ranch Unit, is presented in Figure D6-5. This water-level elevation map shows that the ground water in the A Sand is flowing to the northwest with an average gradient of 0.0033 ft/ft. This gradient, an effective porosity of 0.05 and an average hydraulic conductivity of 0.5 ft/day indicates that the ground water in the A Sand is flowing at an average rate of 0.033 ft/day (12 ft/yr).

The regional piezometric surface of the A Sand aquifer is developed from the Nichols Unit A Sand wells and from three additional A Sand wells in this region. Figure D6-5a presents the regional water-level elevation map for the A Sand. This map shows that the regional ground water flow direction is the same as that in the Nichols Unit area. The regional ground-water velocity would be expected to be similar to the local ground-water velocity in the Nichols Unit area.

An F Sand well was added at the Nichols Ranch Unit to define the shallow ground water at this site. Figure D6-6 shows the water-level elevation for F Sand well URZNF-3. The water-level elevation of this shallow sand is roughly 25 feet higher than the water-level

elevation than the A Sand at this location. An additional shallow monitoring well was installed at the Nichols Ranch Unit in the Cottonwood alluvium. This monitoring well is located on the downstream edge of the Nichols Ranch Unit area (see Figure D6-3 for location). Completion information for this well is presented in Table D6-3 and the well has a water-level elevation of 4,629 ft-msl. This water-level elevation is approximately 35 feet below the water-level elevation of the A Sand in this area.

Figure D6-6 shows the water-level elevation for the F Sand for the Nichols Ranch ISR Project area. This map includes wells in both the Nichols Ranch and Hank Units. The ground-water elevation shows that the water in the F Sand is flowing west with an average gradient of 0.005 ft/ft. This gradient, along with an average hydraulic conductivity of 0.6 ft/day and an effective porosity of 0.05, indicates that the ground water velocity is moving at 0.06 ft/day (22 ft/yr). Ground water in the F Sand flows into the Cottonwood alluvium in the area of the Nichols Ranch Unit.

A water-level elevation for the 1 Sand, the underlying aquifer to the Nichols Ranch A Sand production, is presented in Figure D6-6a. This water-level elevation map shows that the ground-water flow in the 1 Sand is mainly to the northwest. The gradient of the 1 Sand piezometric surface is 0.006 ft/ft and this gradient, and a hydraulic conductivity of 0.26 ft/day and an effective porosity of 0.05 indicates ground water in the 1 Sand is moving at 0.03 ft/day (11 ft/yr).

The water-level elevation for the F Sand in the area of the Hank Unit is presented in more detail in Figure D6-6b. The gradient of the F Sand in the Hank wellfield area is generally 0.005 ft/ft. This gradient steepens to the east of the wellfield to a gradient of 0.01 ft/ft.

Figure D6-7 presents the water-level elevations for wells that are completed in the B and C Sands. The water-level elevations in these sands indicate that the gradient is to the west in the Nichols Ranch ISR Project area for both the Nichols Ranch and Hank Units (see Figure D6-7). The piezometric gradient in the groundwater systems has a north-northwest gradient further to the north of the Hank Unit. Similar gradients are observed in the B and C Sand aquifers as in the A and F Sand aquifers.

The depth to water in the surficial aquifer for the Nichols Ranch Unit is presented in Figure D6-7a. This figure shows a pattern in the cottonwood alluvial area where the depth to water is less than 10 feet. The blue contours present the depth to water in the F Sand. The F Sand is the surficial aquifer in the southern portion of the wellfields. This figure shows that the depth to water gets to greater than 100 feet in the F Sand in the central portion of the Nichols Ranch wellfields. An additional well is proposed to be added in the F Sand to be defined as the surficial aquifer in the F Sand in this area (see Figure D6-7a for location). The G Sand is likely to be the surficial aquifer in the northern portion of the wellfield. Estimated depths to water in the G Sand are presented with the red contours. The G Sand is expected to become the surficial aquifer north of the 100 foot contour for the G Sand in areas where the sand is adequately developed. The G Sand may not be the surficial aquifer in some of this area due to the sand pinching out. A G Sand well is proposed to be added to define the G Sand in the northern portion of the Nichols Ranch. The location of the G Sand well will be moved if the drilling indicates that the G Sand is dry at the selected location.

The H Sand is the surficial aquifer in the area of the Hank Unit. The BLM has monitored the Dry Willow alluvial wells which have recently been dry. The one alluvial well in Willow Creek is also dry, therefore; the alluvial aquifer is not considered the surficial aquifer in any of the Hank Unit. Figure D6-7b presents the depth to water for the H Sand. This shows that the H Sand depth to water is typically 100 feet in the wellfield area. The depths are less than 50 feet in the southwestern portion of the Hank Unit and greater than 200 feet in the eastern portion of the Hank Unit. Two additional H Sand wells are proposed to be installed at the Hank Unit to further define the H Sand as the surficial aquifer in this area.

The shallow sands in the Hank Unit area are more likely to be affected by local topography changes than the deeper sands. Figure D6-8 presents a water-level elevation map for the G and H Sands which are the overlying sands for the F Sand in the Hank Unit. These piezometric contours are for the G Sand and show a much steeper gradient of 0.014 ft/ft to the west. This gradient, an average hydraulic conductivity of 0.005 ft/day and an effective porosity of 0.05 indicate that the ground water in these sands is moving at an average rate of 0.0014 ft/day (0.5 ft/year).

The head in H Sand well URZHH-7 is shown on Figure D6-8 with a water-level elevation of 5,072.9 ft-msl. H Sand well URZHH-7 was installed to define the shallow groundwater at the Hank Site. This well is completed in the H Sand which is above the G Sand. The H Sand has a water-level elevation approximately 150 feet higher than the G Sand in this area of the Hank Unit.

The head in the A Sand is 14 feet higher than the head in the B Sand at the Nichols Unit at well MN-1. These head differences indicate a gradient of 0.2 ft/ft across the 70 feet of

aquitard at this location. The actual gradient in the aquitard is expected to be mainly controlled by the higher head in the A Sand and therefore, based on observation of head measurements in aquitards in the Powder River Basin the actual gradient in the overlying aquitard at the Nichols Unit is likely to be roughly 0.1 ft/ft. The head in the underlying aquifer 1 Sand in this location is approximately 15 feet less than the head in the A Sand, therefore; a downward gradient exists between the A Sand and the underlying 1 Sand. This indicates a gradient across the aquitard that is greater than 0.3 ft/ft. The higher head in the A Sand is expected to mainly control the head in the aquitard until you reach the very few feet adjacent to the 1 Sand. Therefore, the gradient in the underlying aquitard is expected to be near 0.1 ft/ft at the Nichols Ranch Unit.

The head in the overlying G Sand at the Hank Unit is greater than 50 feet higher than the head in the F Sand at URZHF-1. This head difference indicates a gradient of greater than 1 ft/ft in the overlying aquitard. The actual head in the overlying aquitard will be mainly governed by the higher head in the G sand and therefore, the actual gradient in the overlying aquitard is expected to be near 0.1 ft/ft. A downward gradient exists in the lower aquitard at the Hank Unit where the head at URZHF-1 is 11 feet higher than the head in the underlying C Sand. These head differences indicate a downward gradient of greater than 0.3 ft/ft in the underlying aquitard. The actual gradient in the underlying aquitard is expected to be controlled by the head in the F Sand at the Hank Unit and therefore the actual gradient in the aquitard is expected to be near 0.1 ft/ft.

D6.2.3.1 NICHOLS RANCH UNIT WATER LEVEL CHANGES

The water-level elevations have been measured on the Nichols Ranch ISR Project wells and are presented in Addendum D6D. Table D6D.1-1 in Addendum D6D presents the water-level data tabulation for the Nichols Ranch Unit wells while Table D6D.2-1 presents the water-level data collected for the Hank Unit wells. Figures D6D.1-1 through D6D.1-3 in Addendum D6D present the water-level elevations; versus time for the Nichols Ranch Unit wells. Water levels for the A Sand wells for 2007 were fairly steady with a gradual rise observed in 2008.

Water-level elevations for the B Sand well URZNB-1 and the 1 Sand well URZN1-2 are slightly less than the water level elevation in adjacent A Sand well MN-1. The vertical head difference between these two aquifers and the A Sand is approximately 10 feet. Water levels have varied similarly in the B Sand and 1 Sand in the Nichols Ranch Unit area to those in the A Sand.

Water-level changes in the DW-4 cluster of wells to the northeast of the Nichols Ranch Unit have also been fairly steady. These water levels were also measured in 1978 and 1979 and were slightly lower than the recent water levels. The comparison in head between the F Sand, C Sand and A Sand and a comparison of the historical 1978 and 1979 data to the recent data are presented for the DW-4 site. Water levels are about 55 feet higher in the F Sand than those observed in the C and A Sands.

D6.2.3.2 HANK UNIT WATER LEVEL CHANGES

The water-level changes for the Hank Unit wells are presented in Figures D6A.2-1 through D6D.2-5 in Addendum D6D, while Table D6D.2-1 in Addendum D6D lists the water levels. The water-level changes for the Hank 1, Dry Willow #1, URZHF-1, URZHC-2, and URZHG-3 wells are presented in Figure D6A.2-1 Addendum D6D. The recent water levels in the F Sand in Hank 1 and Dry Willow #1 wells have been fairly steady with a small increase in 2008. The recent water levels in the Hank 1 well are approximately 14 feet higher than the 1979 measurement. Water levels in the Dry Willow well are approximately five feet lower than they were in 1979.

Figure D6D.2-2 in Addendum D6D presents the water levels measured for the second new well cluster including, G Sand well URZHG-4, F Sand well URZHF-5 and B Sand well URZHB-6. The head in the G Sand in this area is approximately 35 feet higher than the head in the F Sand while the F Sand head is similarly higher than the B Sand head.

The BR wells are presented in Figure D6D.2-3 in Addendum D6D and these wells are located on the northern side of the Hank Unit. These wells were monitored in the early 1980s for a period of slightly more than two years. Recent water levels in F Sand wells BR-B and BR-G are similar to those that were measured in the early 1980s.

Figure D6D.2-4 in Addendum D6D presents the plot of water levels for F Sand well WC-MN1. This well is monitored continuously by the BLM in conjunction with to their coal bed methane monitoring program. A plot of data for this well shows that in 1999 through early 2000 the water level was rising in this well and then gradually declined for the next 6-7 years. During the last several months of monitoring, the water levels in well WC-WN1 have declined at a faster rate than the previous years. Monitoring in March and April in 2007 shows a gradual water-level rise. This plot also shows one data point that was measured in 1979 which is a slightly lower water level than the present level.

The BLM has also monitored three alluvial wells in the Dry Willow alluvial system. The water levels for these wells are shown in Figure D6D.2-5 in Addendum D6D with alluvial wells DRYMW1 showing saturation in portions of 2000 through 2001 and well DRYMW3 having some saturation in late 2003. Both of these wells were dry in August of 2007 and through the majority of the monitoring period.

D6.2.3.3 COAL BED PRODUCTION EFFECTS ON WATER LEVELS

This section presents the potential effects of the coal bed water production on the ore sands. Coal bed methane (CBM) production has been underway for more than 10 years in the Powder River Basin. The CBM production in this uranium in-situ recovery (ISR) project area is presently in the process of being developed. The CBM wells typically produce a few tens of gallons per minute (gpm) and then production rates significantly decrease with time. This

water production has typically resulted in several hundred feet of drawdown in the coal aquifer. The potential effect of the drawdowns on the ISR operation is discussed in this section.

Exhibit D6-5 shows the spacing from the base with the A Sand at the Nichols Ranch Unit to the top of the coal which is 765 feet. The base of the F Sand to the top of the coal of the Hank Unit is 1,160 feet (see Exhibit D6-5). The fluvial deposition of the sandstones creates areas where a sandstone has direct connection with other sandstones. The thickest layer of sandstone that has been observed from the logs in the Powder River Basin is approximately 150 feet. Therefore, the large zone between the ore sands and the first major coal seam should always contain some layers of shale where drawdowns from the coal should be greatly attenuated and unlikely to reach the sandstones in the interval of the coal.

Artificial connections through the shales above the first major CBM coal seam could be developed through deep exploration drill holes or deep wells which penetrate the coal seam. Typically, drill holes in the Nichols Ranch permit area are drilled only down into the 1 Sand. A few deeper exploration drill holes were drilled and a very few penetrated the coal seam. Figure D6-8a presents the location of the deep drill holes in this area that extend below 800 feet deep. This figure presents the ID name of the drill hole and the total depth for each of the holes. Drill hole CC-4-6 is the only exploration hole that extends down to the first major coal seam. The seal in drill hole CC-4-6 and drill holes CC-65 through CC-68, CC-74, CC-78 and CC-79 in the northeast portion of the wellfield will be evaluated to determine if these holes are adequately abandoned. The remainder of the other deep drill holes are far enough from the well field that they should not create a potential problem relative to ISR containment of solutions.

The State Engineer's records have been searched for permitted wells and all wells that exceed a total depth of 800 feet and not an oil and gas well are posted on Figure D6-8a. The majority of wells in this area that are greater than 800 feet depth are oil and gas wells. Figure D6-8a shows the location of eight deep permitted wells that are not oil and gas wells. The total depth of these deep wells is shown on Figure D6-8a adjacent to the well name. All of these wells are shallow enough that they would not penetrate the CBM coal seam but two of these wells may be within a couple hundred feet of the coal seam. If the CBM drawdowns propagate up into a deeper sand which is within the completion interval of one of these wells, there is a potential for further propagation of drawdown to shallower sands depending on the well completions. Some shales should be present between the Nichols Ranch ore sands and the completion top of the most of these wells. These shales should still retard drawdowns and prevent impacts on the ore sand aquifer water levels. However, the North Dry Willow #1 well will allow the drawdowns that reach the lower sands in this well to propagate up to the ore sand at Hank. This well will be abandoned or at a minimum, the ore zone sand of the well will be sealed off prior to ISR operation in this area.

This portion of this section presents water-level changes that have been observed relative to CBM drawdowns.

The BLM has monitored water levels in the coal aquifers and sand aquifers above the coal for the last several years. The network of monitoring wells is used to define the effects of water extraction from the coal bed production zone on water levels in the coal and overlying aquifer. The monitoring well locations, drawdown and footage between the bottom of the sand completion and the top of the CBM completion is presented on Figure D6-8b. The nearest monitoring site to the Hank Unit is a coal well approximately 5 miles due north of the northern boundary of the Hank Unit. Figure D6D.3-1 of Addendum D6D presents the water-level elevations of the Pistol Coal Well. Water levels in this coal aquifer well started to greatly decline in 2007 and had only varied over a range of slightly greater than 10 feet for the previous ten years. This well did not show a significant effect from the production of water from the coal aquifer until 2007.

The Bullwacker Sand and Coal wells, which are located approximately 6 miles southwest of the Nichols Ranch Unit, have been monitored since 2002. Figure D6D.3-2 in Addendum D6D presents the water level changes for the 2 Bullwacker wells. The sand well, which is completed 100 feet above the coal, has had approximately 170 feet of water level decline through early 2008. The coal well, which has also been monitored over this same period of time, shows a decline in water level starting in 2002 with a drop of approximately 600 feet by early 2008. This indicates that, at the Bullwacker site, the coal has had a large amount of drawdown and the sand water level appears to be declining steadily with the coal. This sand unit must be hydraulically connected with the coal or some well completion is allowing connection between the coal and this sand.

The coal and sand are monitored by the BLM at a location 10 miles west of Nichols Ranch Unit at the Streeter site. Figure D6D.3-3 in Addendum D6D presents the water-level elevation for the Streeter Sand and Coal wells. This figure shows that the water level in the Streeter Sand well has been steady in the last two years. This sand is 621 feet above the top of the coal. The water levels from the Streeter Coal well were fairly steady from late 2004 through mid 2005 when water levels started to gradually decline. Water levels from this well have declined approximately 62 feet from mid 2005 through early 2008. The early change in the water level from the Streeter Sand well is unusual because the water level initially declined and then became steady. The recent steady water levels in the sand well indicate that the sand aquifer has not been affected by the CBM production.

The sand well in the All Night Creek area is completed 124 feet above the coal. These two wells (completed in the sand and coal) are approximately 10 miles to the southwest of the Hank Unit. Figure D6D.3-4 in Addendum D6D presents the water level changes for the All Night Creek wells. The water level changes in the coal are greater than 600 feet while the water levels have not changed significantly in the sand well.

The Beaver Federal Sand and Coal wells are located approximately 19 miles north-northeast of the Hank Unit. Figure D6D.3-5 of Addendum D6D presents the water levels for the Beaver Federal Sand and Coal wells. The water level has not changed appreciably in the

Beaver Federal Sand well, while the coal's water level has declined greater than 450 feet. This sand is 561 feet above the coal, similar to the A Sand completion above the coal. The response of the ore sand water levels in the Nichols Ranch project to coal bed production should be similar to the response in this well.

The sixth cluster of CBM monitoring wells is located to the northwest of the Nichols Ranch ISR project. The Juniper well group water-level changes are presented on Figure D6D.3-6 in Addendum D6D. The water-level elevations do not show a significant change in the sand well which is completed 418 feet above the top of the coal. The coal water-level declines are greater than 500 feet in this area.

The CBM water-level monitoring shows that sand wells completed a few hundred feet above the coal in this area have not exhibited drawdowns. The exception to this is the drawdowns observed in the Bullwhacker Sand well which is completed only 100 feet above the top of the coal. It is likely that the drawdown in this sand well is caused by some artificial connection between the sand and the coal in this area.

The drawdown in the coal seam(s) for CBM production has the potential to cause hydrologic impacts in adjacent stratigraphic layers. The magnitude of drawdown in the coal for CBM production can be large, and thus the propagation of this drawdown into and through adjacent layers is of concern for other water or mineral extraction operations within these potentially affected strata. For uranium ISR operations in the vicinity of CBM activities, both the well field operation and lixiviant control could potentially be affected by significant water level changes due to external stresses.

In the Powder River Basin (PRB), the uranium production sand/sandstones are within the Wasatch Formation and are separated from the CBM production coal seams by a substantial thickness of sand/sandstone and silt/shale sequences. The fine-grained silt or shale layers act as aquitards and greatly restrict or preclude the vertical movement of ground water. This in turn limits the vertical propagation of drawdown. In order to evaluate the potential hydrologic impacts of CBM production on the uranium ore-bearing sands in the PRB, a multi-layer MODFLOW model was constructed to represent a typical stratigraphic column at the Nichols Ranch project area. The modeled 13 layer stratigraphic column extends from the coal seam up through a sandstone representing a likely uranium production sand in order to evaluate the hydrologic impacts on the sequence of layers from the coal to the uranium production sand. The horizontal modeled area was set as a rectangle 15,000 feet by 5,000 feet. This quasi-strip configuration facilitated the placement of a separate constant head boundary for each layer at one end of the strip to represent the regional supporting aquifer system. The boundary condition at the other end of the strip was set as a variable head boundary. Well extraction stresses were placed in the coal seam layer approximately one-third of the total strip dimension from the variable head boundary end of the strip. In order to evaluate drawdown impacts, the resulting drawdown in the coal and overlying layers was analyzed for a location directly over the area where the well stresses were applied.

All layers in the model were established as confined aquifers with a uniform storage coefficient of 1.0 E-05. The top layer was a 40 foot thick sand layer with a transmissivity of 424 gal/day/ft which corresponds to a hydraulic conductivity of 5.0 E-04 cm/sec. Shale/silt

intervals were broken into two layers for modeling purposes to further refine estimates of drawdown within the finer grained material where large gradients could potentially develop. Layers 2 and 3 were 50 foot thick shale layers with a transmissivity of 0.5 gal/day/foot. Layers 4, 5, and 6 repeated the thickness and properties sequence of layers 1 through 3. Layers 7, 8, and 9 also repeated this sequence. Layer 10 was modeled as a 40 foot thick sand with a modest transmissivity of 21 gal/day/foot. Layers 11 and 12 were 20 foot thick shale intervals with a transmissivity of 0.5 gal/day/foot. Layer 13 was a 40 foot thick coal seam with a transmissivity of 21 gal/day/foot. The total sequence thickness is 500 feet and can generally be described as the uranium production ore sand (top) and CBM production coal seam (bottom) separated by an alternating sequence comprised of four shale layers and three intermediate sand layers.

The initial water level elevation (hereafter termed head) for each layer was scaled in a generally linear manner from an arbitrary value of 500 feet for the coal seam (layer 13) to 560 feet for the upper sand aquifer (layer 1). The difference between the head in the upper and lower layers represents the likely condition of progressively higher head in overlying aquifers. A simulation was also conducted with a much larger differential in initial head between upper and lower aquifers and the results were generally similar to those presented in the following discussion.

The model simulation period was 20 years in 15 stress periods. The stress period intervals were selected to provide complete definition of the transient drawdown response for the coal and adjacent layers. The magnitude of the wells stresses in the coal seam was varied to produce a large drawdown in the coal at the end of the simulation. The vertical conveyance between layers (termed Vcont in MODFLOW) was set as a uniform value for the interface between all layers and was then varied to produce total drawdown in layers 12 and 11 that was similar in magnitude to that predicted by the Neuman-Witherspoon (1972) method. This method allows calculation of drawdown in an adjacent aquitard based on the predicted drawdown in an aquifer.

The results of the MODFLOW simulation are presented for a selected model cell in Figure D6-8c. Only the results for layers 7 through 13 are presented because there were no significant changes in head for layers 1 through 6. A large degree of drawdown (493 feet) was produced in the coal seam (layer 13). Layers 12 and 11 are shale layers directly above the coal and the magnitude of predicted drawdown in these layers is still large at 291 feet and 154 feet, respectively. These drawdowns compare favorably with those predicted by the Neuman-Witherspoon (1972) method and were used in evaluating the Vcont. The predicted drawdown in the sand layer nearest to the coal seam (layer 10) was greatly muted at 32 feet. The progressively diminishing drawdown the shale/sand sequences in general reflects the very small quantities of ground water that are actually conveyed vertically in the very low permeability shales. This tiny vertical conveyance produces only a very small stress on the sand aquifer (layer 10), and thus the magnitude of drawdown rapidly decreases with increasing distance from the coal seam.

The predicted drawdown in layers 9 and 8 (shale layers overlying the deepest sand in the sequence) is 19 feet and 9.1 feet respectively, which continues the trend of rapidly diminishing drawdown while moving upward through the strata sequence. The predicted

drawdown in the next sand aquifer (layer 7) is an insignificant 0.1 feet. As mentioned previously, there were no significant predicted changes in head for layers above layer 7.

A summary of the model results is that a large drawdown in the coal seam resulting from CBM production may cause significant drawdown in the adjacent aquitard(s). This drawdown may also propagate into and through aquifers located in close vertical proximity to the coal seam, but will be greatly muted by even modestly transmissive layers within the sequence. For multiple shale/sand sequences above the coal, the drawdown is progressively attenuated and will not propagate beyond one or two alternating sequences above the coal seam. The attenuation of drawdown within a shale layer is very large, so the presence of even thin continuous aquitards above the coal will greatly dampen the propagation of drawdown to overlying layers. However, any strata that has a permeability similar to or greater than that in the coal, and is in direct contact with the coal, will exhibit a drawdown response that is similar to that of the coal. With the typical lithology present in the Nichols Ranch project area, the CBM induced drawdown will not have a measurable impact on ore sand water levels unless there is an artificial connection through an improperly completed well or improperly abandoned bore hole.

The CBM drawdowns in the coal aquifer should not increase the potential for vertical excursions. The numerous aquitards between the coal and the ore sands should prevent the occurrence of significant drawdowns in the ore sands from CBM production. An artificial connection between the ore sand and the coal aquifer through a deep drill hole or deep well is the most likely pathway for a vertical excursion and thus the potential for such a connection should be evaluated.

CBM drawdowns could potentially cause drawdown in an ore sand if there are artificial connections with the production coal. In most cases, this CBM induced drawdown is not expected to appreciably affect gradients within a mine unit and therefore will not significantly increase the potential for horizontal excursions. Unless the artificial connection is directly within a mine unit, the changes in the piezometric surface should affect the mining in a relatively uniform manner. If drawdown occurs within a mine unit it is due to an artificial connection, this actually reduces the potential for horizontal excursion while, as previously noted, raising concerns for vertical excursion.

The modeling of the vertical propagation of CBM drawdown through the shale and sand layers shows that the first continuous shale will greatly dampen the drawdowns in the aquifers above the shale. Some drawdown is likely to occur in the first aquifer above the coal aquifer but drawdowns should be very small beyond the first sand. Some of the sands near the coal aquifer may have direct connection with the coal at some locations and, therefore, significant drawdown may develop in these connected aquifers. Ore sands, which are several hundred feet above the top of the coal, should not exhibit drawdown from the coal bed production unless artificial connections between the sand and the coal aquifer. It will be very important to determine if artificial connections exist within an ISR well field area and to correct any potential connections. Artificial connections that exist at some distance from the well field should not affect the potential for vertical or horizontal excursions.

D6.2.4 GROUND-WATER QUALITY

The ground-water quality at the Nichols Ranch ISR Project areas has been defined by sampling numerous wells in several aquifers in this area. Addendum D6E contains a

tabulation of all ground-water quality. Addendum D6L also presents the water quality data in the Uranium Data Submission Spreadsheets. Some of the older water quality results were deemed not representative of the aquifer and are not used in the summary calculations of water quality. A criterium was established whereby the largest measured constituent concentration was deemed an outlier if it was greater than five times the next highest value in the data set. These outlier water quality results are highlighted in the water quality table in Addendum D6E.

Table D6-6 presents the summary of the ground-water quality. These summaries are grouped for the A Sand, F Sand, B and C Sands together, then the G and H Sands and finally the 1 Sand. The values in Addendum D6E that are highlighted are not included in Table D6-6 calculations. Three sets of parameters are listed in the upper half of the first page in Table D6-6. The A Sand wells MN-1, MN-2, MN-3, MN-4, MN-5, MN-6 and DW-4L were used to calculate the average concentrations for the A Sand. The first row presents the number of samples followed by the average of those samples for that particular constituent. The maximum, mean and standard deviation are also given in the summary tabulations. The A Sand water typically has very low TDS, (less than 500 mg/l), with its major components being sodium, sulfate and bicarbonate.

For the twenty-nine samples, the TDS varies from a minimum of 289 to 370 mg/l with a standard deviation of 23 mg/l. The sulfate concentrations for the twenty-nine samples vary from 85 to 183 mg/l while the chloride concentrations vary from 4 to 16 mg/l. Variations are 84 to 130 mg/l for sodium and 5.3 to 11 mg/l for calcium. The variation of uranium concentrations are over a small range from less than detection values to a maximum 0.027 mg/l. These A Sand wells are fully penetrating wells and therefore the uranium and radium concentrations will be significantly less for the average of the aquifer than within the ore zone. Radium concentrations from the A Sand vary from less than detection to 36.3 pCi/l. The radium-226 concentrations would likely be in a few hundred pCi/l for a partially penetrating well completed only in the ore zone.

The second group of three sets of summary parameters is for the F Sand wells DW-4U, Hank 1, Dry Willow #1, WC-MN1, BR-B, C #1, SS1F, URZHF-1, URZHF-5 and URZNF-3. F Sand wells BR-G and OW43756 were not included in summary calculations because their water level elevations indicate that they are receiving water from an aquifer with a higher head. Thirty-six samples have been collected from the F Sand wells, with the average TDS concentration greater than 1,000 mg/l. The range in TDS concentration is from 710 to 1,860 mg/l. Sodium, calcium, bicarbonate and sulfate are the major dissolved constituents in this water.

The sulfate concentrations varied over a large range from 418 to 981 mg/l while the chloride concentrations are low in the F Sand water with a variation of less than detection to 33 mg/l. The cations with the largest concentrations are sodium with a variation from 94 to 245 mg/l and calcium which varies from 44 to 293 mg/l. Uranium concentrations varied from less than detection to a high of 5.25 mg/l in this ore bearing sand. Radium concentrations have varied from less than detection to 562 pCi/l.

The two sands that are typically between the A and F production sands are the B and C Sands. The water quality data for these two sands were grouped together in water quality tabulations, and these two sands are connected in some areas. The second page of Table D6-6 presents the summary of the water quality for the B and C Sands. This analysis includes wells BR-Q, BR-T, NBHW-13, DW-4M, F. Brown #1, Brown #5, SS1-M, SS1-U, URZNB-1, URZHC-2 and URZHB-6. TDS concentrations for these aquifers are typically above 600 mg/l with the larger major constituent concentrations being those of sodium, bicarbonate and sulfate.

The TDS of this water ranges from 278 to 966 mg/l. Sodium is the major cation in this water with concentration variations of 85 to 250 mg/l. Sulfate is a major anion with concentrated variation from 121 to 620 mg/l. These sands do show low concentrations of uranium in some areas that is attributed to limited mineralization. The radium concentrations in the B and C aquifers vary from less than detection to a maximum of 128 pCi/l.

The second group of parameters on the second page of Table D6-6 is for the G and H Sands which are the overlying sands for the F Sand in the Hank Unit area. This summary was made from water quality from BR-I, BR-F and BR-H wells. This tabulation shows that, on average, the TDS is near 500 mg/l with a range of 225 to 696 mg/l. The major constituents with the highest concentrations are sodium, sulfate and bicarbonate. Well BR-I could not be located and there is no recent sample.

The uranium concentrations in the G and H Sands varied from less than detection to 0.018 mg/l for uranium and from less than detection up to 1.9 pCi/l for radium-226. This data indicates that the wells completed in the G and H Sands are not near mineralized areas.

The third page of Table D6-6 presents the summary of water quality for the 1 Sand well URZN1-2 in the Nichols Ranch Unit area. This data shows that the TDS is slightly greater than 200 mg/l with sodium and bicarbonate being the major components of this water quality. The sulfate and chloride concentrations for the 1 Sand vary over a very small range. Sodium concentrations vary from 92 to 104 mg/l. Bicarbonate is the major anion in this water with very low levels of uranium and radium indicating no mineralization near this 1 Sand well. No other constituent concentrations are significant in the water from the 1 Sand.

D6.3 WATER RIGHTS

Surface and ground-water rights on, adjacent to, and within 3 miles of the Nichols Ranch ISR Project are listed in Table D6F.1-1 in Addendum F and Table D6F.2-1 for the surface water and Tables D6G.1-1, D6G.1-2, D6G.2-1 and D6G.2-2 for the Nichols Ranch Unit and Hank Unit permitted water wells. Table D6G.1-1 lists the wells within the Nichols Ranch Unit while Table D6G.1-2 in Addendum D6G list wells in and within three miles of the Nichols Ranch Unit. Table D6F.1-2 in Addendum D6F lists the abbreviations used by the State Engineers Office for both the surface and ground-water

rights. Figures D6-9 and D6-10 present the locations of the Nichols Ranch Unit and Hank Unit surface rights respectively. Exhibits D6-1 and D6-2 show the locations of the permitted wells within three miles of the Nichols Ranch Unit and Hank Unit respectively. No adjudicated surface water rights are located in or adjacent to (within ½ mile of the project unit) the Nichols Ranch ISR Project. The surface water rights that do exist within the proposed mining project area are limited to stock/storage ponds and ephemeral creeks. Ground-water rights in the Nichols Ranch ISR Project area are mainly associated with the old monitoring wells and stock wells. No other adjudicated water rights are in the project area and lands adjacent to the project area according to the Wyoming State Engineers Office. Uranerz Energy Corporation also does not hold any adjudicated water rights in the project area. Most wells that are located within the Nichols Ranch ISR Project area were previously installed by uranium exploration companies, the T-Chair Livestock Company, or coal bed methane companies. Several additional wells have been completed in the project areas by Uranerz Energy Corporation for use in collecting base line ground water quality data.

The current regional ground water use in this area is mainly wells for wildlife and livestock. A few domestic wells exist at the ranch houses. The production of water from coal bed methane has been occurring in the region for slightly greater than 10 years but is expected to start in the permit area in the near future.

Wells in the area of the proposed project area are uniformly distributed over the area excluding monitoring/sampling wells that are permitted by Uranerz Energy Corporation. Most of the wells are used for livestock watering through the use of windmills or electric well pumps. Well depths vary from 180 feet to 1,000 feet in depth, and most wells are completed in sands other than the ore bearing sands. Those wells that are completed in the ore bearing sand will be abandoned using acceptable WDEQ methods or will be used as monitoring wells if not completed in multiple sands. No wells in or adjacent to the project area are used for domestic water consumption. A domestic water supply well is found on the Pfister Ranch (BR-T), located approximately 0.6 miles north of the northern boundary of the Hank Unit. This well is completed at a depth that is stratigraphically below the zones planned for the ISR mining at the Hank Unit. Additionally, the well is located at a large distance from any Hank planned wellfield areas and in the B Sand. It is unlikely that any mining activities that take place in the Hank area will affect this well because of the physical separation of the well from the ore zone. The extensive ground-water monitoring program utilized during the mining project will detect any problems prior to this well being adversely affected by mining activity.

Six permitted wells exist within ½ mile of the Hank Unit area. These wells consist of the Connie #2 well which is nearly ½ mile east of the project area. This well is used to supply water for stock and has a depth of 350 ft. This well is thought to be in the top portion of the F Sand. The Paden #1 and North Dry Willow #1 wells are very near the mineralized areas near the Hank Unit. The North Dry Willow #1 well is completed in the F Sand through sands down below the 1 Sand and will have to be abandoned before a wellfield pump test in this area. The Paden #1 well is also very near the ore zone in this area and is completed in the C, B and A Sands. This well will have to be monitored

during pump testing to determine if it has any connection with the F Sand. If the Paden #1 well has connection with the F Sand it will also need to be replaced. The Brown-WS well is completed in the C, B and A Sands. It is located greater than 1,000 feet west of the mineralized area in Hank Unit. The Brown #5 stock well is located just north of the northern edge of the Hank Unit area. This well has a depth of 540 feet and is completed

in the B Sand. The distance of the ISR operation from this well makes it unlikely that mining operations will affect its water level or water quality. The sixth permitted well at the Hank Unit is the Means #1 well, which is used for stock watering and is 700 feet deep and also likely extends down to the A Sand.

Six permitted wells that are not related to the mining operations also exist within ½ mile of Nichols Ranch Unit. The Red Spring Artesian #1 well is located just north of the northwest corner of the project area. This well is completed to 740 feet deep and was a flowing well. The well was not flowing in August of 2007. This well likely extends to sands below the A Sand.

The other five wells are in the southern portion of the project area. The Brown 20-9 well is within the Nichols Ranch Unit. This well is thought to be completed in the A Sand and has a total depth of 740 feet with perforations from 495 to 695 feet.

The Dry Fork #3 well is completed to a depth of 360 feet. With this depth, the well completion interval should be significantly shallower than the A Sand.

The N1, 11894 well, which is located in Section 19, is completed down to a depth of 310 feet. This well is likely completed in the C Sand.

D6.4 COAL BED METHANE WELLS AND OIL/GAS WELLS

Wells permitted for coal bed methane production are presented on Exhibits D6-3 and D6-4 for the Nichols Ranch Unit and Hank Unit respectively. The tabulation of the coal bed methane wells is presented in Addendum D6H. Exhibit D6-5 shows the footage between the base of the ore sand for each of the two sites and the top of the coal bed methane coal.

The coal bed methane wells in the area of the Nichols Ranch are expected to start water production in 2008. Presently no coal bed methane water is being discharged to the stream channels but it is expected to start in 2008 into Tex Draw. The majority of the coal bed methane wells in this area are planned to be pumped to a deep injection well.

Oil/Gas wells are shown on Exhibit D6-6 for the combined Nichols Ranch Project. Tabulation of the oil/gas wells is presented in Addendum D6H.

D6.5 EXPLORATION DRILL HOLES

The areas surrounding the Nichols Ranch ISR Project have been historically drilled by several different companies over the past 50 years. Companies such as Cleveland-Cliff Iron Company, American Nuclear Company, Texas Eastern Nuclear, Everest Minerals Corporation, Rio Algom Mining, and Silver King Mines have historically drilled in the Pumpkin Buttes Mining District. A search of the drill hole database maintained by Uranerz Energy Corporation resulted in a total of 546 abandoned exploration drill holes located within the Nichols Ranch ISR Project boundaries that were drilled by Cleveland Cliff Iron Company (CC), Rio Algom (RAM), Texas Eastern Nuclear (TE), and Uranerz

Energy Corporation (U). Holes drilled from 1997 through 2007 have been plugged in accordance with current State of Wyoming regulations. A reasonable inspection of the project area showed that these abandoned holes were marked with a stake or pin flag after plugging was completed. To the best of Uranerz Energy Corporations knowledge all holes drilled prior to 1997 were sealed and surface plugged in compliance with the State of Wyoming regulations in effect at the time of drilling. No problems are anticipated with past abandoned drill holes.

All known abandoned drill holes are listed in Tables D6I.1-1, D6I.1-2, D6I.2-1 and D6I.2-2. The first letters of the drill holes (historic and current) denote the company that drilled the hole as seen after the company name in the previous paragraph. The location and density of all drill holes is shown on Exhibits D6-7 and D6-8.

Abandonment methods used for exploration holes drilled prior to 1997 were sealed and surface plugged in compliance with the State of Wyoming regulations in effect at the time of drilling. The methods utilized prior to 1997 mostly consisted of drilling and abandoning drill holes with drill and natural mud. No additional materials were added to increase the solids or viscosity. After 1977 bentonite was added if needed in abandoning drill holes. Drill holes abandoned by this method are denoted by a "1" in Tables D6I.1-2 and D6I.2-2. Drill holes that have a "2" are denoted for abandonment method in Tables D6I.1-1, D6I.1-2, D6I.2-1, and D6I.2-2 have been abandoned in accordance to current Wyoming Statue §35-11-404 and Wyoming Department of Environmental Quality – Land Quality Division (WDEQ-LQD) Noncoal Rules and Regulations, Chapter 8. These drill holes are abandoned by sealing the drill hole with additional high solids (fortified) bentonite circulated at total depth or abandonment muds as specified in Wyoming Statue §35-11-404 and Chapter 8 of the WDEQ-LQD Noncoal Rules and Regulations. All drill holes were surface sealed and marked for identification.

D6.6 REFERENCES

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TABLE D6-1. SURFACE DRAINAGE PROPERTIES, ESTIMATED PEAK FLOWS AND VELOCITIES

SITE	DRAINAGE AREA (sq. mi)	ESTIMATED PEAK FLOWS (CFS) RECURRENCE INTERVAL (YRS) 2-YR	5-YR	10-YR	25-YR	50-YR	100-YR
Cottonwood Creek	80.2	454	1220	2150	3760	5420	7500
Tex Draw	5.2	170	456	782	1370	1970	2720
Dry Willow Creek	12.2	231	620	1070	1870	2700	3730
Willow Creek	13.2	231	638	1100	1930	2780	3840
NDA1	0.25	43	85	122	177	224	277
NDA2	0.33	50	101	145	212	271	337
NDA3	0.24	42	83	119	172	218	270
NDA4	0.3	48	96	137	199	254	315
NDA5	0.65	75	153	223	332	429	541
NDA6	3.2	189	407	611	950	1268	1648
HDA1	0.12	28	55	77	109	136	166
HDA2	0.4	56	114	164	241	309	385
HDA3	0.25	43	85	122	177	224	277
HDA4	0.48	63	127	184	272	350	438
HDA5	0.34	51	103	148	216	277	344
HDA6	0.81	85	175	256	384	499	631
HDA7	0.49	64	129	187	275	354	444
HDA8	0.2	38	75	106	152	193	237

25-YEAR VELOCITIES

Channel Station (ft)	Base Width (ft)	Side Slope (?H:1V)	Bottom Slope (ft/ft)	Discharge (cfs)	Normal Flow Depth (ft)	Flow Area (ft^2)
CTW CRK	100	2	0.0030	3760	4.768	522.3
Tex DRW	10	2	0.0100	1370	5.681	121.3
DRY WIL	20	2	0.0100	1870	5.211	158.5
WIL CRK	20	2	0.0080	1930	5.621	175.6
NDA1	5	2	0.0250	177	2.056	18.7
NDA2	5	2	0.0150	212	2.552	25.8
NDA3	5	2	0.0290	172	1.952	17.4
NDA4	5	2	0.0290	199	2.101	19.3
NDA5	5	2	0.0170	332	3.075	34.3
NDA6	5	2	0.0150	950	5.139	78.5
HDA1	5	2	0.0400	109	1.419	11.1
HDA2	5	2	0.0400	241	2.133	19.8
HDA3	5	2	0.0400	177	1.825	15.8
HDA4	5	2	0.0400	272	2.266	21.6
HDA5	5	2	0.0400	216	2.019	18.2
HDA6	5	2	0.0400	384	2.684	27.8

TABLE D6-1. SURFACE DRAINAGE PROPERTIES, ESTIMATED PEAK FLOWS AND VELOCITIES

Channel Station (ft)	Wetted Perimeter (ft)	Hydraulic Radius (ft)	Flow Velocity (fps)	Top Width (ft)	Froude Number	Unit Discharge (cfs/ft)
CTW CRK	121.32	4.30	7.20	119.07	0.61	34.33
Tex DRW	35.40	3.43	11.29	32.72	1.03	64.14
DRY WIL	43.30	3.66	11.80	40.84	1.06	61.47
WIL CRK	45.14	3.89	10.99	42.49	0.95	61.77
NDA1	14.19	1.32	9.45	13.22	1.40	19.43
NDA2	16.41	1.57	8.22	15.21	1.11	20.98
NDA3	13.73	1.27	9.90	12.81	1.50	19.32
NDA4	14.39	1.34	10.29	13.40	1.51	21.63
NDA5	18.75	1.83	9.68	17.30	1.21	29.78
NDA6	27.98	2.81	12.10	25.56	1.22	62.18
HDA1	11.35	0.98	9.80	10.68	1.69	13.91
HDA2	14.54	1.36	12.19	13.53	1.78	26.01
HDA3	13.16	1.20	11.21	12.30	1.74	20.46
HDA4	15.13	1.43	12.59	14.06	1.79	28.53
HDA5	14.03	1.30	11.84	13.08	1.77	23.90
HDA6	17.00	1.64	13.80	15.74	1.83	37.03

TABLE D6-6. SUMMARY OF THE GROUND-WATER QUALITY

A SAND WELLS: MN-1, MN-2, MN-3, MN-4, MN-5, MN-6 and DW-4L

	Ca	Cl	CO3	HCO3	K	Mg	Na	SO4	Temp	TDS	Cond	Cond(f)	pH	pH(f)
No. of Samples	29	29	29	29	29	29	29	29	25	29	24	26	24	28
Average	7.61	8.06	4.41	138.86	2.23	0.57	113.62	135.03	15.43	333.14	564.13	574.23	8.48	8.42
Maximum	11	16	24	156	5.7	1	130	183	20	370	643	720	8.74	9.5
Minimum	5.3	4	0.5	80	1.7	0.4	84	85	13.6	289	489	507	7.41	7.26
Standard Deviation	1.47	2.96	5.08	20.51	0.78	0.16	9.00	22.92	1.63	22.68	35.69	55.85	0.26	0.45

	Fe	Mn	NH3	NO3+NO2	F	Al	As	Ba	Cr	Cu	B	Cd	Hg	Mo
No. of Samples	29	28	29	24	29	28	28	28	28	28	28	28	29	28
Average	0.07	0.01	0.09	0.05	0.24	0.05	0.00	0.05	0.02	0.01	0.08	0.00	0.00	0.07
Maximum	0.65	0.03	0.57	0.05	0.3	0.05	0.009	0.05	0.025	0.005	0.5	0.005	0.0007	0.5
Minimum	0.005	0.005	0.02	0.05	0.1	0.05	0.0005	0.05	0.005	0.005	0.05	0.0025	0.00015	0.05
Standard Deviation	0.13	0.01	0.13	0.00	0.07	0.00	0.00	0.00	0.01	0.00	0.11	0.00	0.00	0.09

	Ni	Pb	Se	Unat	V	Zn	Ra226	Ra226(e)
No. of Samples	28	29	29	29	28	29	28	28
Average	0.02	0.01	0.00	0.01	0.05	0.01	5.02	0.66
Maximum	0.025	0.08	0.0015	0.027	0.05	0.04	36.3	3
Minimum	0.005	0.0005	0.0005	0.00015	0.05	0.005	0.1	0.2
Standard Deviation	0.01	0.02	0.00	0.01	0.00	0.01	9.35	0.64

F SAND WELLS: DW-4U, HANK 1, DRY WILLOW #1, WC-MN1, BR-B, C #1, SS1-F, URZHF-1, URZHF-5 and URZNF-3

	Ca	Cl	CO3	HCO3	K	Mg	Na	SO4	Temp	TDS	Cond	Cond(f)	pH	pH(f)
No. of Samples	40	40	30	40	40	39	40	40	34	39	28	37	29	38
Average	99.77	5.53	0.63	171.43	7.12	24.37	185.73	597.33	12.37	1020.95	1426.96	1528.30	7.82	7.71
Maximum	293	33	4.3	421	14	96	255	981	17.1	1860	1880	3370	8.5	10.4
Minimum	44	0.5	0.5	45	5	10	94	418	9	710	994	995	7.16	6.47
Standard Deviation	46.52	5.11	0.69	77.62	1.81	15.96	32.78	135.23	1.92	240.94	214.07	425.11	0.30	0.74

	Fe	Mn	NH3	NO3+NO2	F	Al	As	Ba	Cr	Cu	B	Cd	Hg	Mo
No. of Samples	40	40	39	23	40	37	37	35	37	37	40	37	37	36
Average	0.30	0.07	0.05	0.05	0.15	0.05	0.0068	0.05	0.02	0.02	0.08	0.0034	0.0005	0.05
Maximum	3.9	0.26	0.13	0.1	0.5	0.4	0.188	0.05	0.03	0.33	0.5	0.014	0.0013	0.05
Minimum	0.005	0.005	0.005	0.05	0.01	0.005	0.0005	0.015	0.005	0.005	0.005	0.001	0.00015	0.05
Standard Deviation	0.71	0.06	0.03	0	0.09	0.06	0.0307	0.01	0.01	0.06	0.09	0.0022	0.0002	0

	Ni	Pb	Se	Unat	V	Zn	Ra226	Ra226(e)
No. of Samples	37	37	37	40	37	39	38	33
Average	0.02	0.01	0.02	0.15	0.05	0.02	44.60	1.89
Maximum	0.025	0.05	0.574	5.25	0.05	0.32	562	7.2
Minimum	0.005	0.0005	0.0005	0.0005	0.025	0.005	0.1	0.2
Standard Deviation	0.01	0.01	0.09	0.83	0	0.05	97.21	1.64

TABLE D6-6. SUMMARY OF THE GROUND-WATER QUALITY

B and C SAND WELLS: BR-Q, BR-T, DW-4M, F. Brown #1, Brown #5, NBHW-13, SS1-M, SS1-U, URZNB-1, URZHC-2 and URZHB-6

	Ca	Cl	CO3	HCO3	K	Mg	Na	SO4	Temp	TDS	Cond	Cond(f)	pH	pH(f)
No. of Samples	60	60	41	60	59	60	49	63	48	62	37	54	46	46
Average	53.22	7.48	3.43	120.65	6.89	10.94	189.49	466.24	13.15	797.11	1162.68	1226.22	8.15	8.10
Maximum	117	80	26	242	41	22	250	620	18	966	1450	2100	9.63	10.07
Minimum	5	1	0.5	26	3	0.5	85	121	3	278	537	535	7.16	6.84
Standard Deviation	25.11	10.43	5.72	38.00	5.17	4.68	40.45	132.98	3.16	179.92	275.84	336.45	0.59	0.71

	Fe	Mn	NH3	NO3+NO2	F	Al	As	Ba	Cr	Cu	B	Cd	Hg	Mo
No. of Samples	59	59	59	24	56	60	59	59	59	59	57	59	58	48
Average	0.109	0.025	0.627	0.069	0.174	0.095	0.002	0.052	0.016	0.012	0.110	0.004	0.001	0.069
Maximum	1	0.09	26	0.5	0.88	0.7	0.007	0.15	0.025	0.2	0.7	0.02	0.00425	0.5
Minimum	0.005	0.005	0.02	0.05	0.01	0.025	0.0005	0.015	0.0025	0.005	0.005	0.0005	0.00005	0.05
Standard Deviation	0.19	0.02	3.50	0.09	0.17	0.12	0.00	0.03	0.01	0.03	0.16	0.00	0.00	0.08

	Ni	Pb	Se	Unat	V	Zn	Ra226	Ra226(e)
No. of Samples	59	59	59	57	59	58	52	39
Average	0.02	0.01	0.00	0.06	0.05	0.23	15.44	1.67
Maximum	0.07	0.13	0.025	2.16	0.2	3.19	128	9
Minimum	0.005	0.0005	0.0005	0.00015	0.0025	0.005	0.1	0.2
Standard Deviation	0.01	0.02	0.00	0.29	0.04	0.59	29.05	1.86

G and H SAND WELLS: BR-F, BR-H, BR-I and URZHH-7

	Ca	Cl	CO3	HCO3	K	Mg	Na	SO4	Temp	TDS	Cond	Cond(f)	pH	pH(f)
No. of Samples	15	15	15	15	15	15	15	15	14	15	13	15	15	11
Average	48.6	7.6	8.8	151.1	6.0	9.8	110.9	243.1	12.2	504.4	804.9	710.1	8.4	8.4
Maximum	104	27	48	270	13	28	190	610	16.7	1010	1430	1886	10.9	10.24
Minimum	8	3	0.5	13	2	0.5	8	9	7.9	225	400	7.6	7.1	6.49
Standard Deviation	30.50	6.88	15.33	76.62	3.17	8.50	66.88	208.43	2.40	283.07	387.57	473.06	1.16	1.16

	Fe	Mn	NH3	NO3+NO2	F	Al	As	Ba	Cr	Cu	B	Cd	Hg	Mo
No. of Samples	15	15	15	8	14	14	14	14	14	14	14	14	14	8
Average	0.499	0.051	0.103	0.05	0.2486	0.425	0.0033	0.055357	0.0221	0.00714	0.24643	0.00329	0.00047	0.05
Maximum	2.16	0.22	0.66	0.05	0.4	1.6	0.007	0.25	0.025	0.01	1	0.005	0.0005	0.05
Minimum	0.015	0.005	0.025	0.05	0.1	0.05	0.0005	0.025	0.005	0.005	0.05	0.001	0.0001	0.05
Standard Deviation	0.7424	0.0666	0.1584	7.418E-18	0.0961	0.518	0.0022	0.057327	0.0073	0.00257	0.3003	0.00138	0.00011	7E-18

	Ni	Pb	Se	Unat	V	Zn	Ra226	Ra226(e)
No. of Samples	14	14	14	14	14	13	10	9
Average	0.0232	0.0231	0.0026	0.009475	0.0363	0.021	0.73	0.277778
Maximum	0.025	0.117	0.005	0.0462	0.05	0.1	2	0.6
Minimum	0.02	0.0005	0.0005	0.00015	0.0025	0.005	0.1	0.2
Standard Deviation	0.0025	0.038	0.002	0.015613	0.0178	0.028	0.8551	0.139443

TABLE D6-6. SUMMARY OF THE GROUND-WATER QUALITY

1 SAND WELL: URZN1-2

	Ca	Cl	CO3	HCO3	K	Mg	Na	SO4	Temp	TDS	Cond	Cond(f)	pH	pH(f)
No. of Samples	4	4	4	4	4	4	4	4	2	4	4	4	4	4
Average	3.75	5.00	15.75	233.75	2.25	0.50	99.50	1.50	15.20	232.00	411.50	416.00	8.63	8.94
Maximum	4	6	24	246	3	0.5	104	2	16.3	248	425	421	9.39	9.15
Minimum	3	4	12	209	2	0.5	92	1	14.1	204	393	409	7.07	8.78
Standard Deviation	0.50	0.82	5.56	16.82	0.50	0.00	5.26	0.58	1.56	20.33	13.38	5.03	1.05	0.17

	Fe	Mn	NH3	NO3+NO2	F	Al	As	Ba	Cr	Cu	B	Cd	Hg	Mo
No. of Samples	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Average	0.015	0.005	0.07	0.05	0.65	0.05	0.0005	0.05	0.025	0.005	0.05	0.0025	0.0005	0.05
Maximum	0.015	0.005	0.09	0.05	0.7	0.05	0.0005	0.05	0.025	0.005	0.05	0.0025	0.0005	0.05
Minimum	0.015	0.005	0.05	0.05	0.6	0.05	0.0005	0.05	0.025	0.005	0.05	0.0025	0.0005	0.05
Standard Deviation	0	0	0.02	0.00	0.06	0	0	0	0	0	0	0	0	0

	Ni	Pb	Se	Unat	V	Zn	Ra226	Ra226(e)
No. of Samples	4	4	4	4	4	4	4	4
Average	0.025	0.0005	0.0005	0.00015	0.05	0.005	0.1	0.2
Maximum	0.025	0.0005	0.0005	0.00015	0.05	0.005	0.1	0.2
Minimum	0.025	0.0005	0.0005	0.00015	0.05	0.005	0.1	0.2
Standard Deviation	0	0	0	0	0	0	0	0

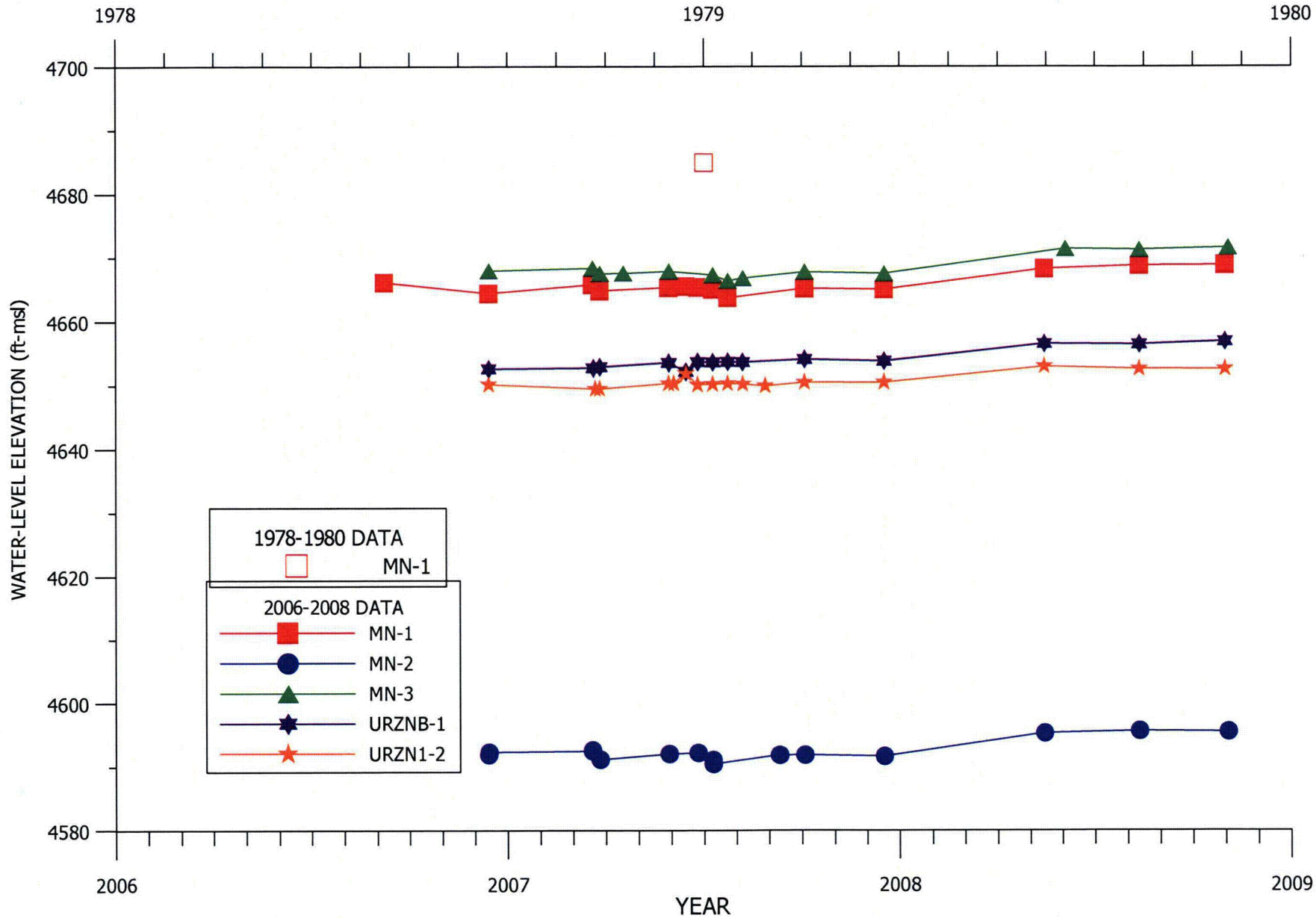

FIGURE D6D.1-1. WATER-LEVEL ELEVATION VERSUS TIME FOR WELLS MN-1, MN-2, MN-3, URZNB-1 AND URZN1-2

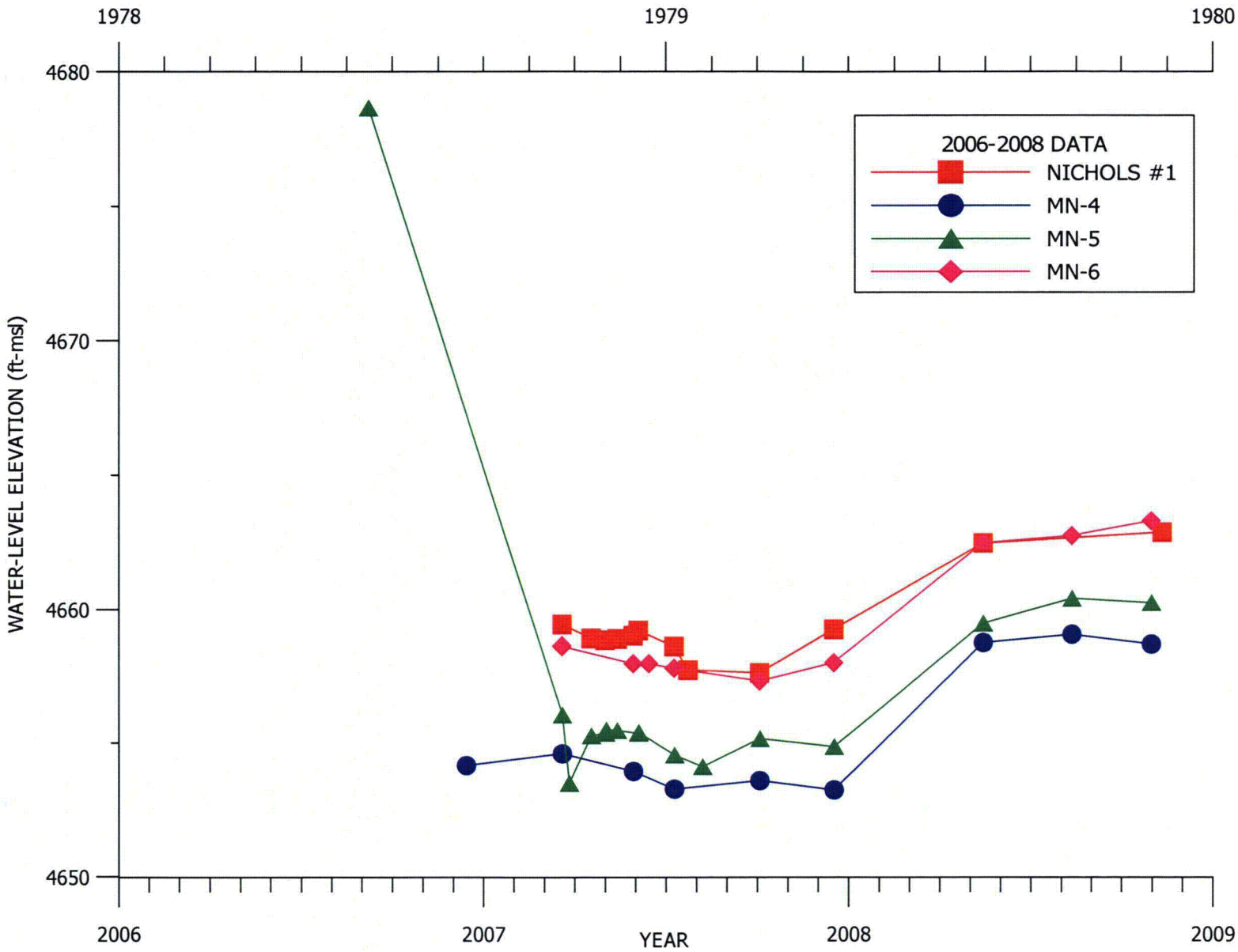

FIGURE D6D.1-2. WATER-LEVEL ELEVATION VERSUS TIME FOR WELLS NICHOLS #1, MN-4, MN-5 and MN-6

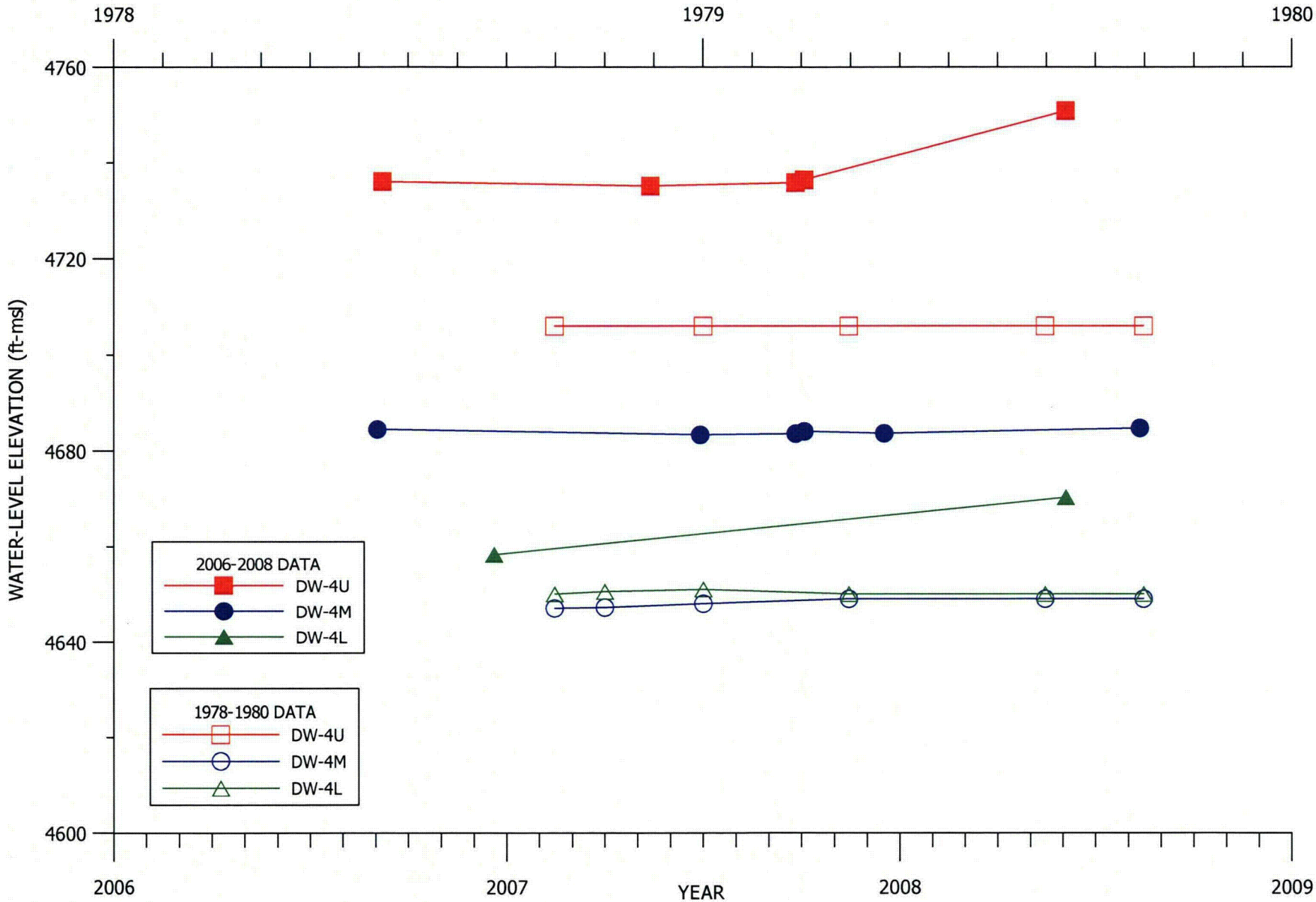

FIGURE D6D.1-3. WATER-LEVEL ELEVATION VERSUS TIME FOR WELLS DW-4U, DW-4M and DW-4L

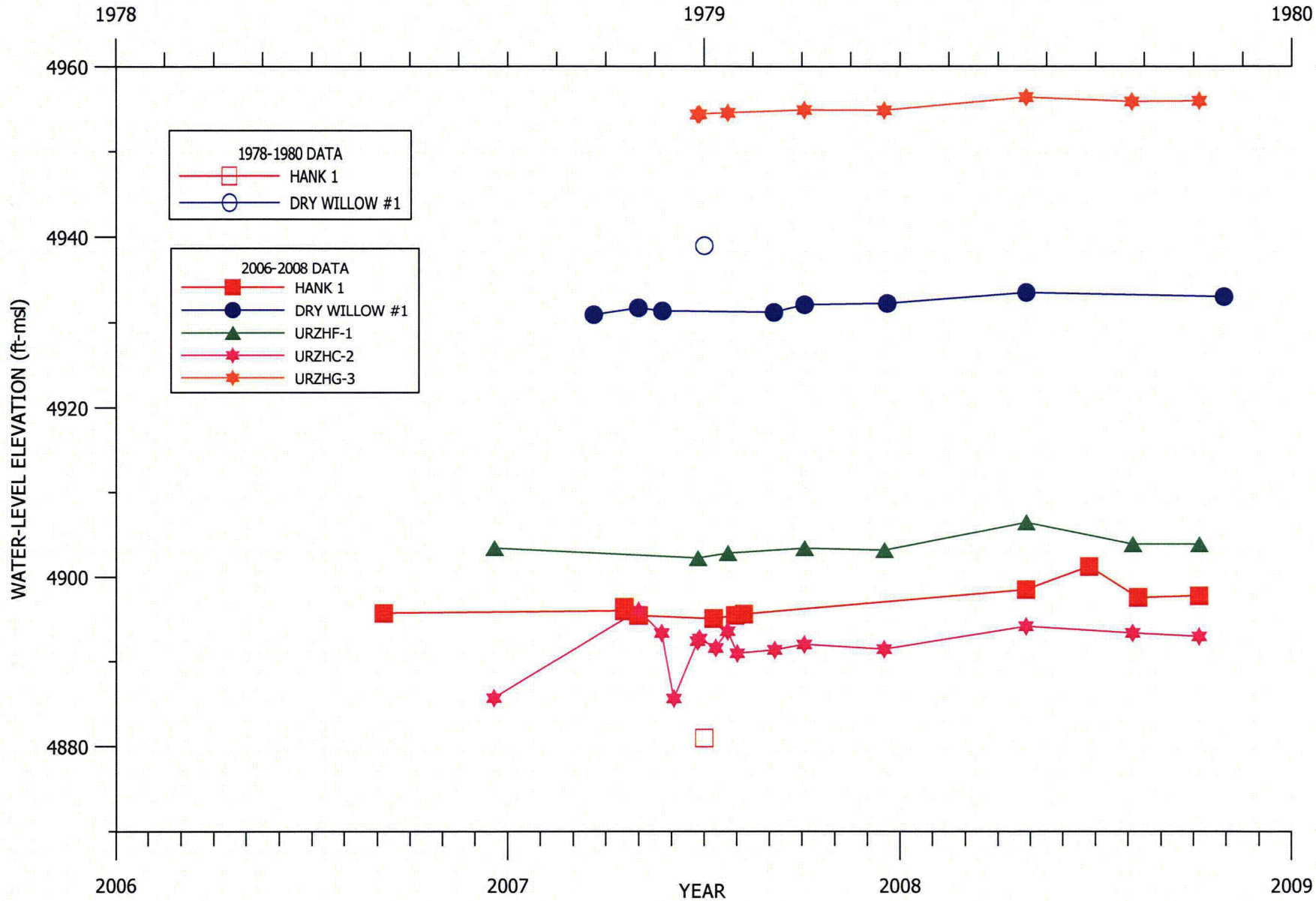

FIGURE D6D.2-1. WATER-LEVEL ELEVATION VERSUS TIME FOR WELLS HANK 1, DRY WILLOW #1, URZHF-1, URZHC-2 and URZHG-3

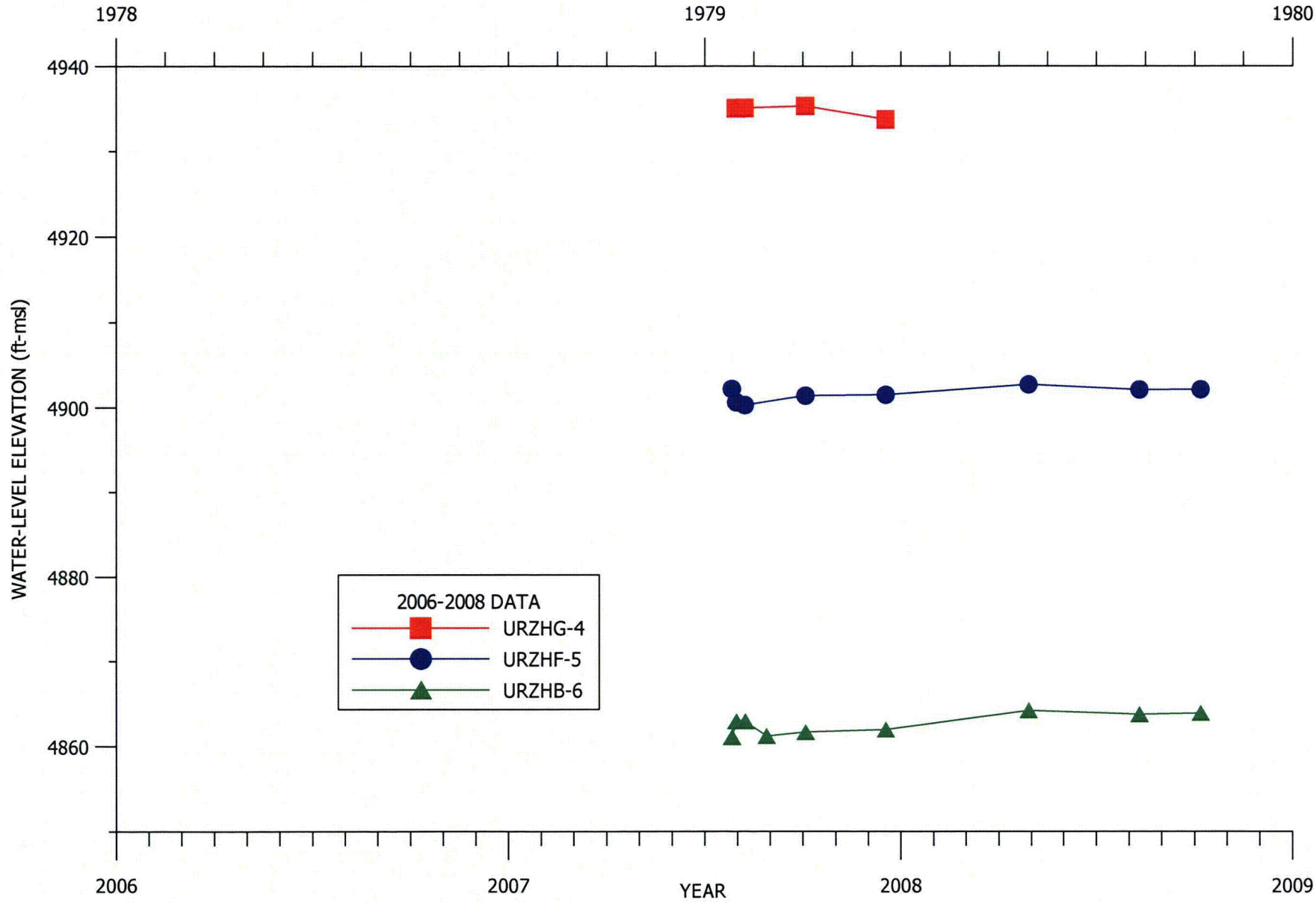

FIGURE D6D.2-2. WATER-LEVEL ELEVATION VERSUS TIME FOR WELLS URZHG-4, URZHF-5, URZHB-6

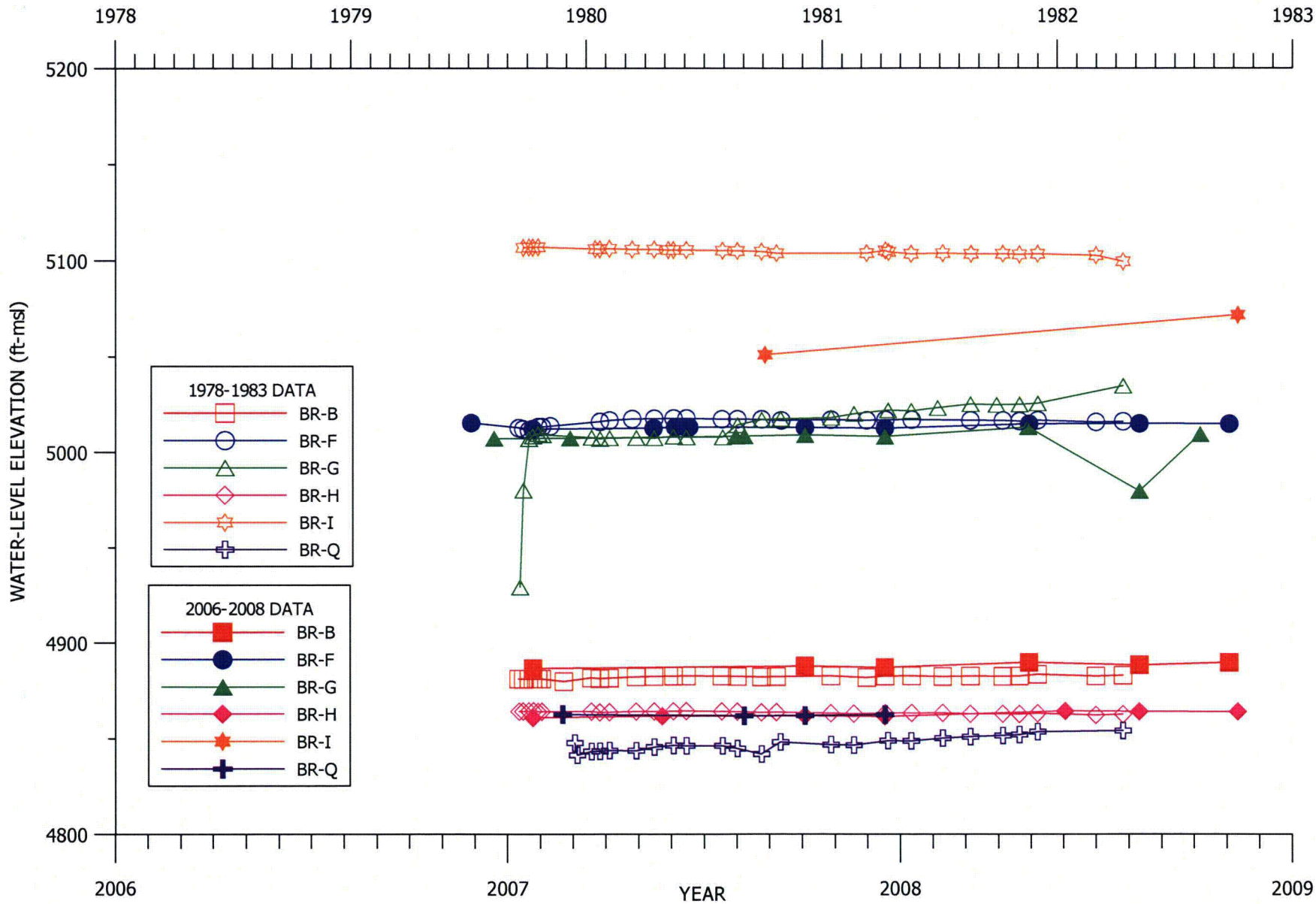

FIGURE D6D.2-3. WATER-LEVEL ELEVATION VERSUS TIME FOR WELLS BR-B, BR-F, BR-G, BR-H, BR-I and BR-Q

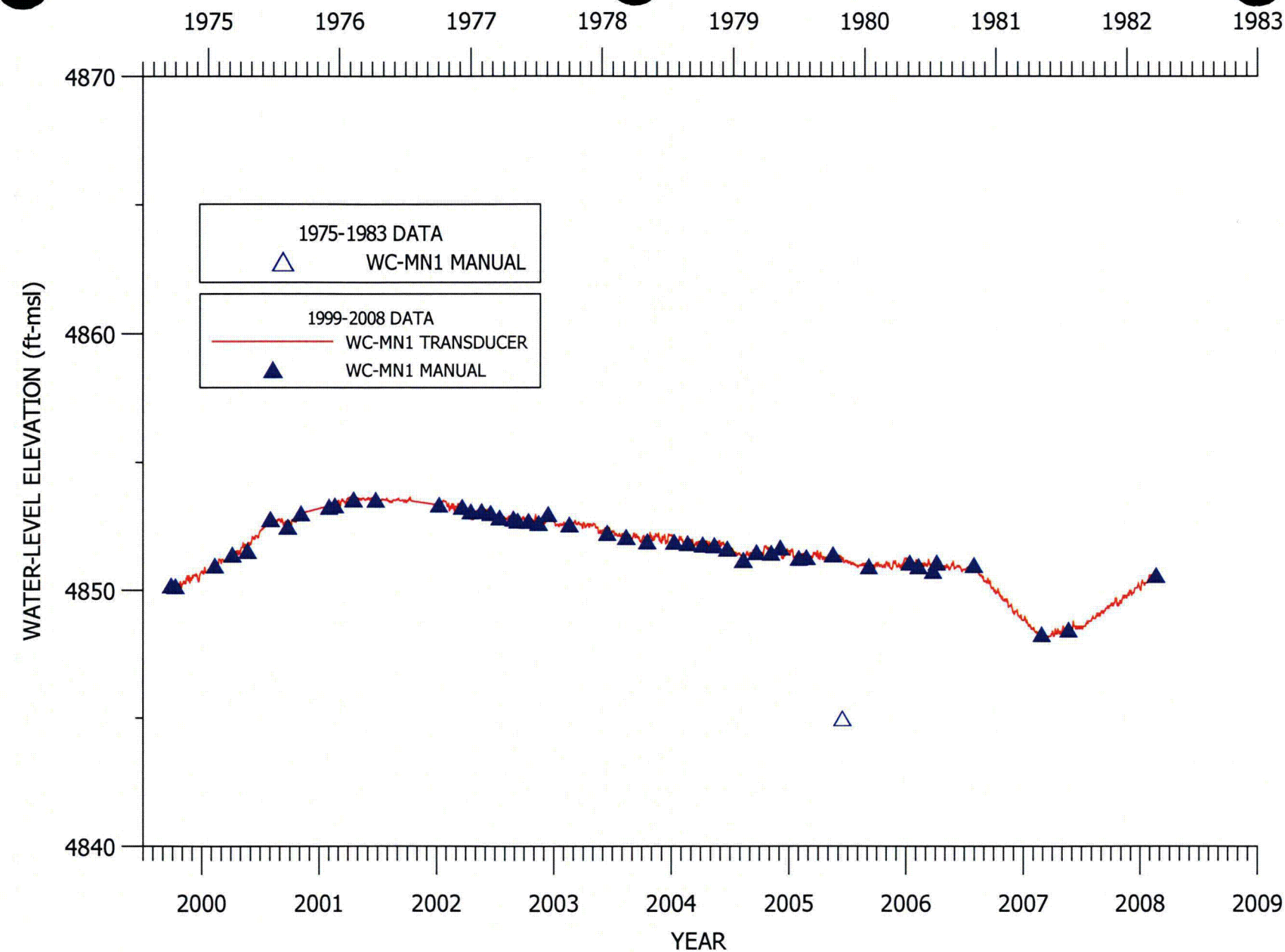

FIGURE D6D.2-4. WATER-LEVEL ELEVATION VERSUS TIME FOR DRY WILLOW SAND WELL (WC-MN1)

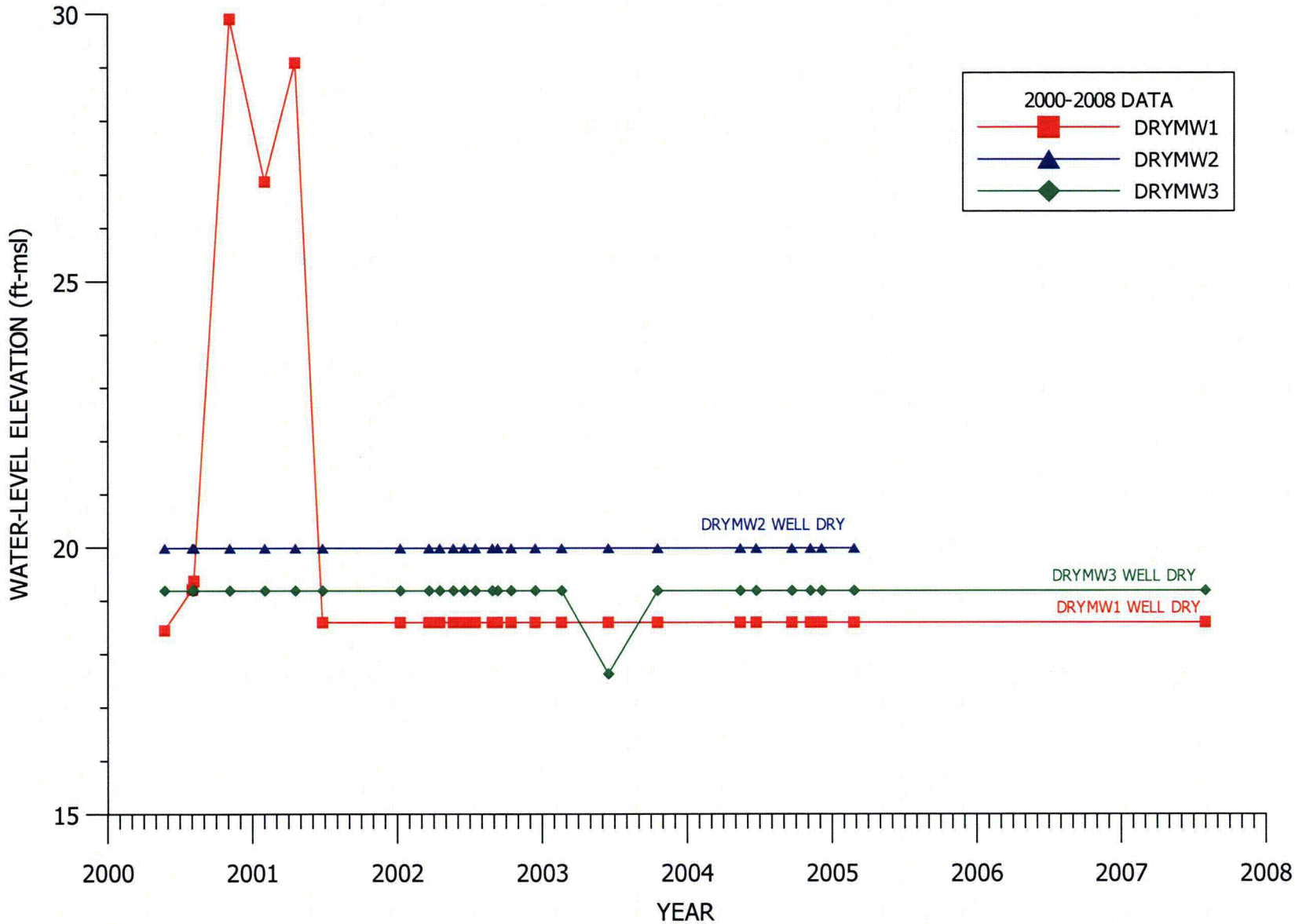

FIGURE D6D.2-5. WATER-LEVEL ELEVATION VERSUS TIME FOR DRY WILLOW ALLUVIAL WELLS DRYMW1, DRYMW2 and DRYMW3

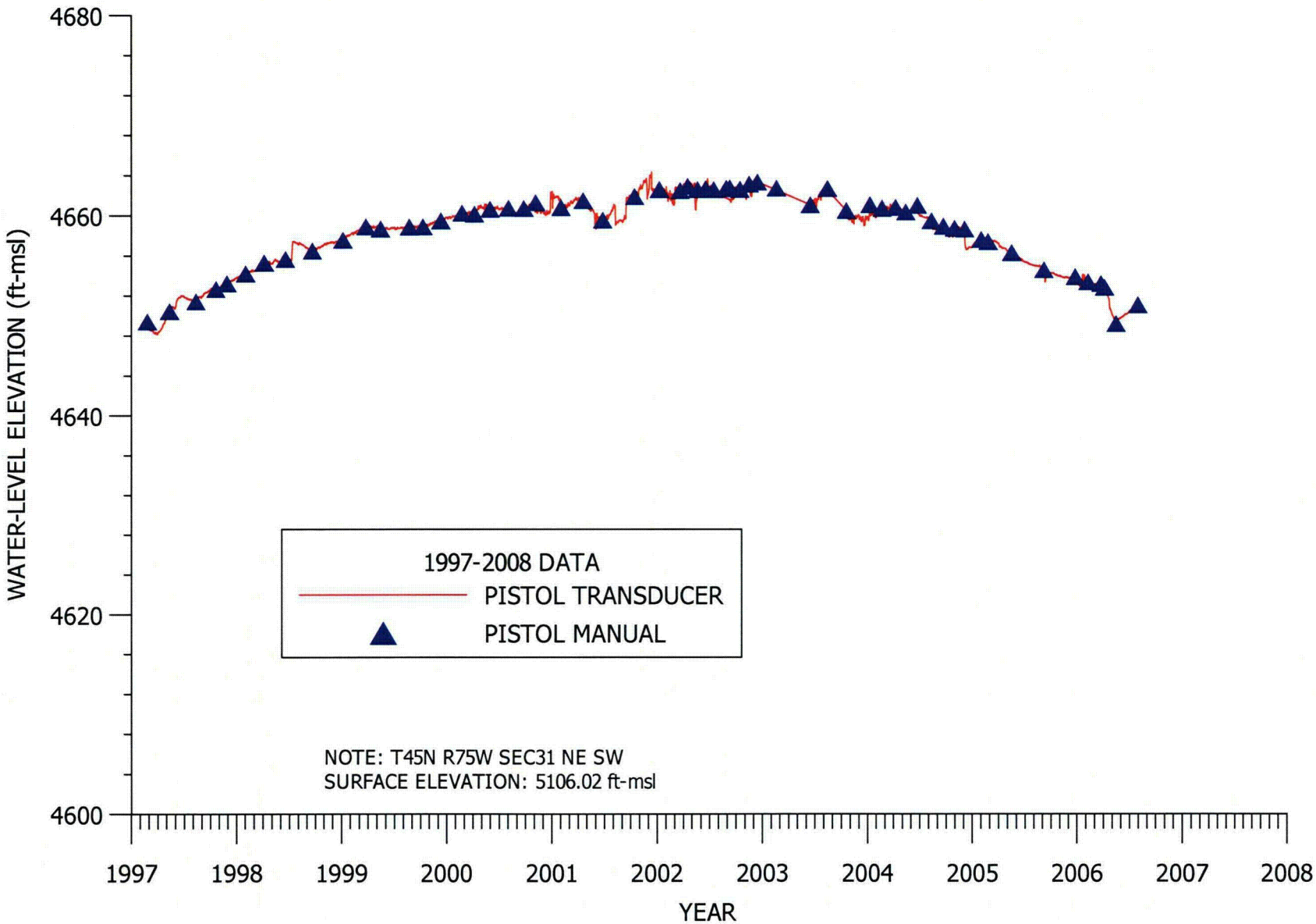

FIGURE D6D.3-1. WATER-LEVEL ELEVATION VERSUS TIME FOR PISTOL COAL WELL

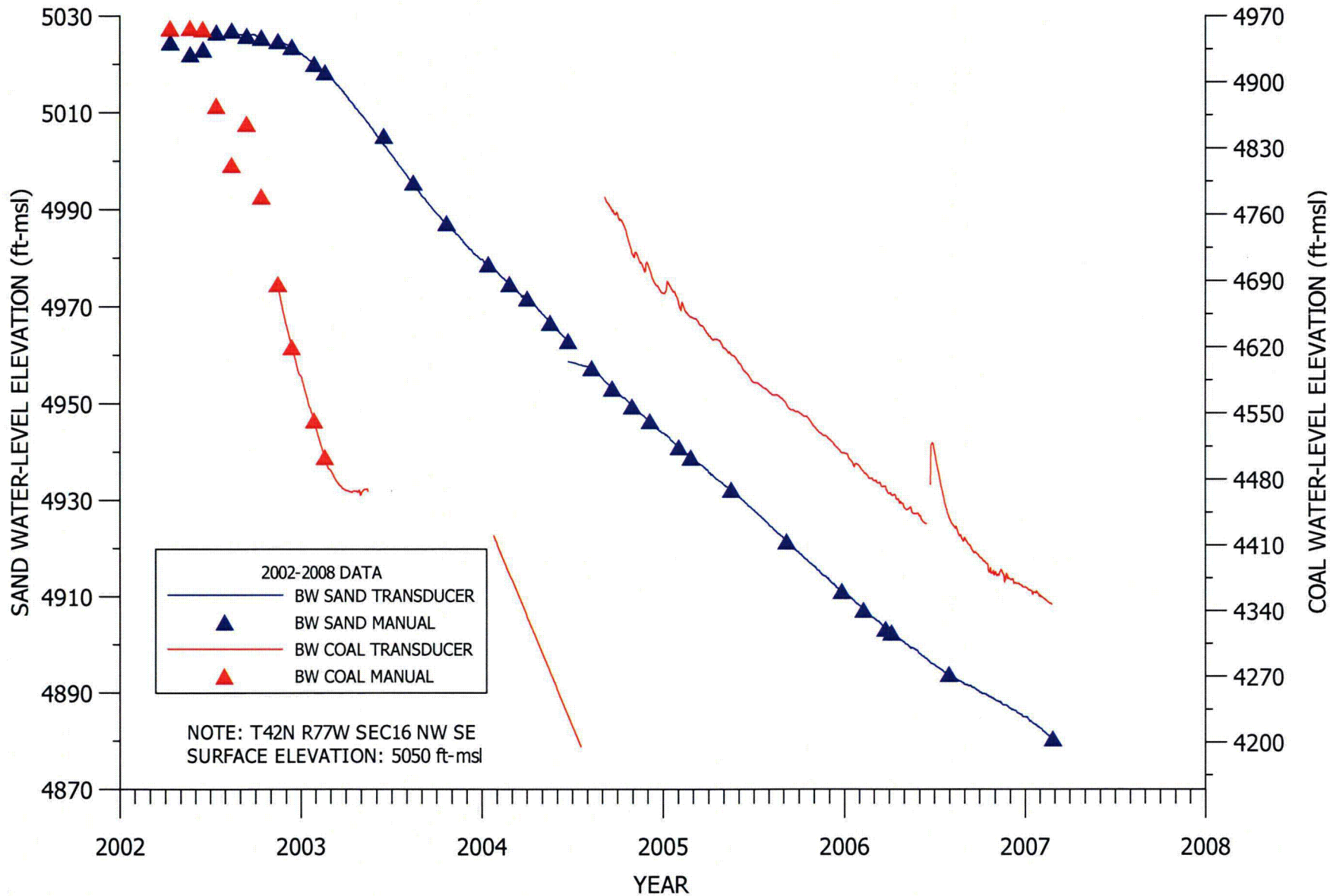

FIGURE D6D.3-2. WATER-LEVEL ELEVATION VERSUS TIME FOR BULLWACKER SAND and COAL WELLS

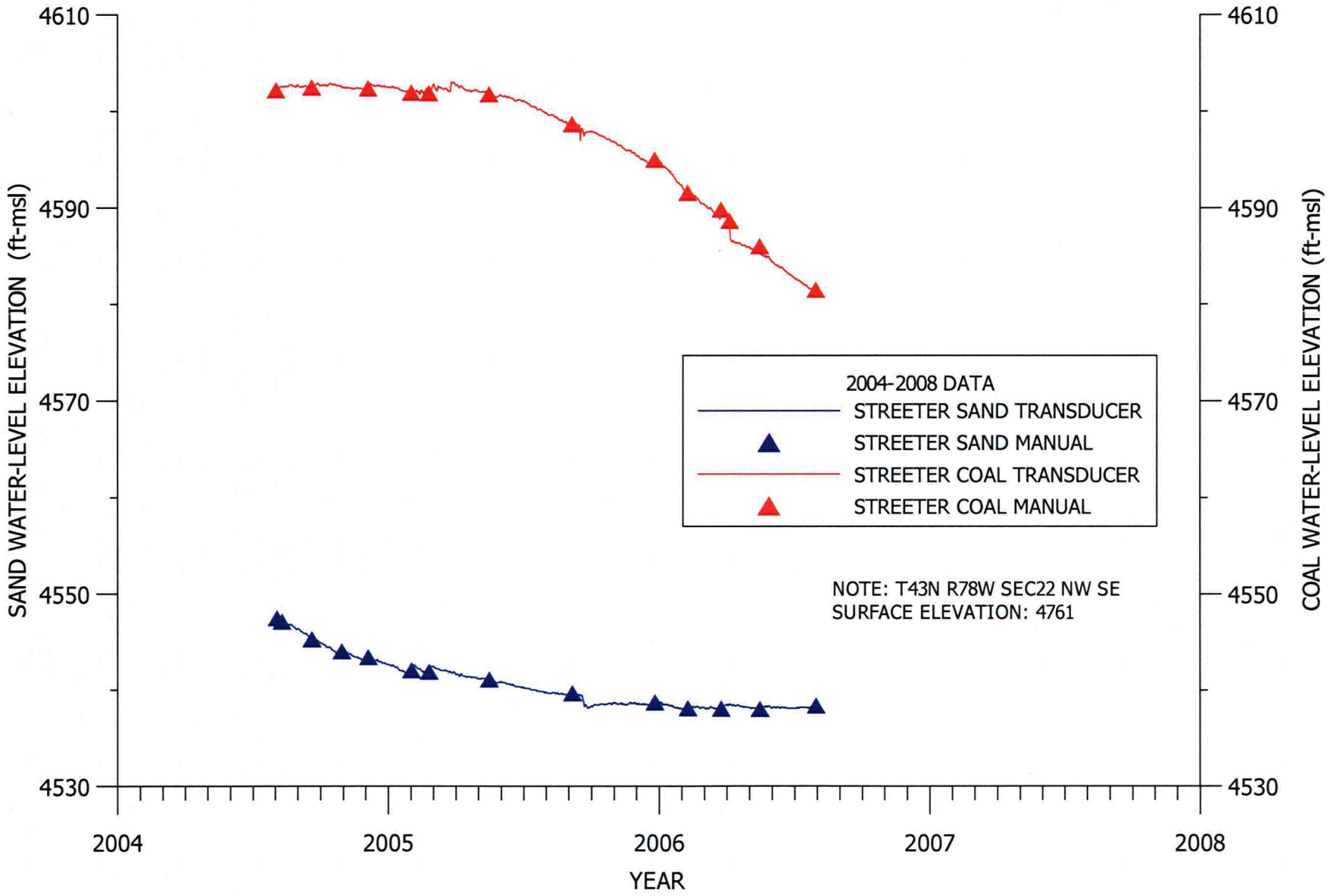

FIGURE D6D.3-3. WATER-LEVEL ELEVATION VERSUS TIME FOR STREETER SAND and COAL WELLS

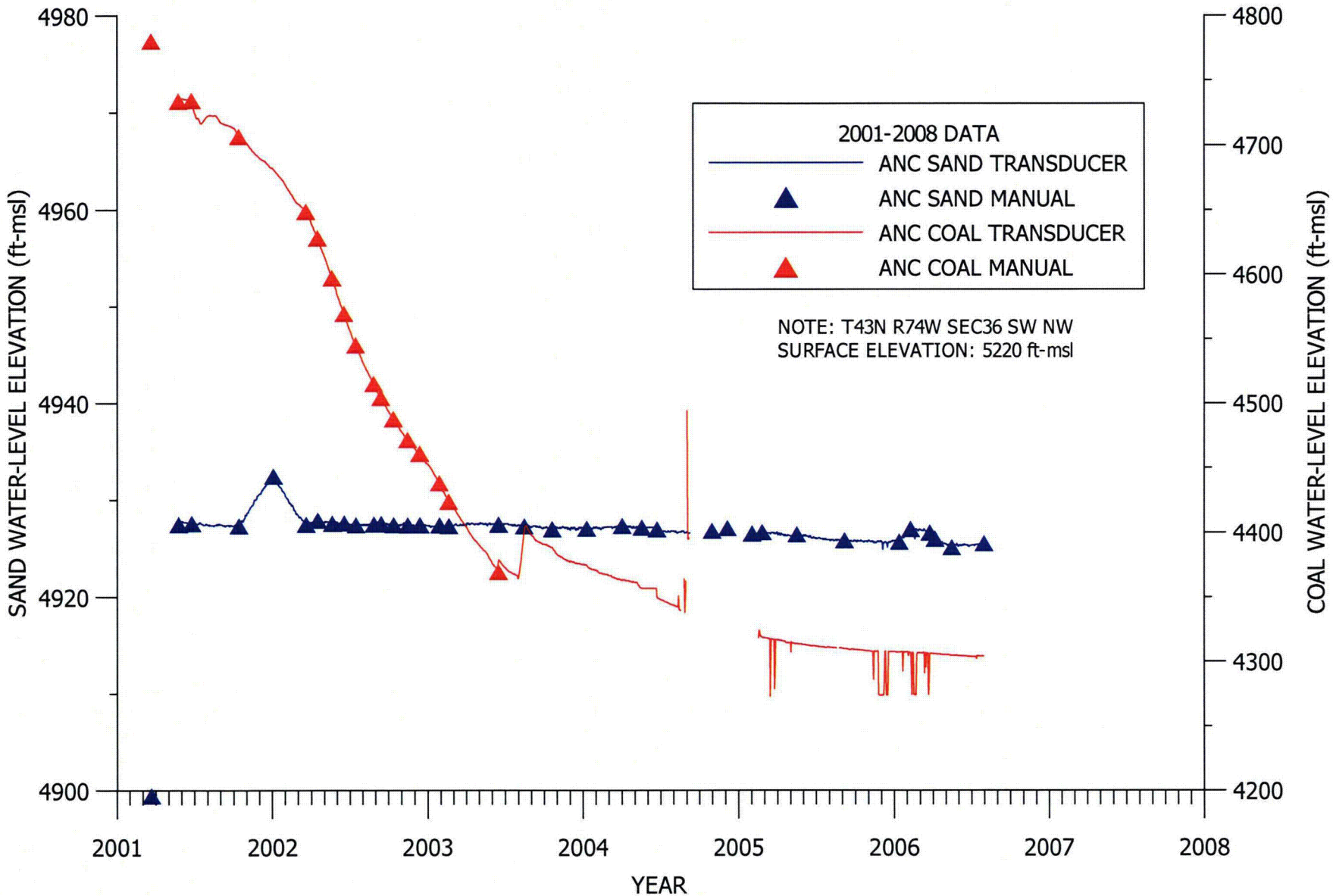

FIGURE D6D.3-4. WATER-LEVEL ELEVATION VERSUS TIME FOR ALL NIGHT CREEK SAND and COAL WELLS

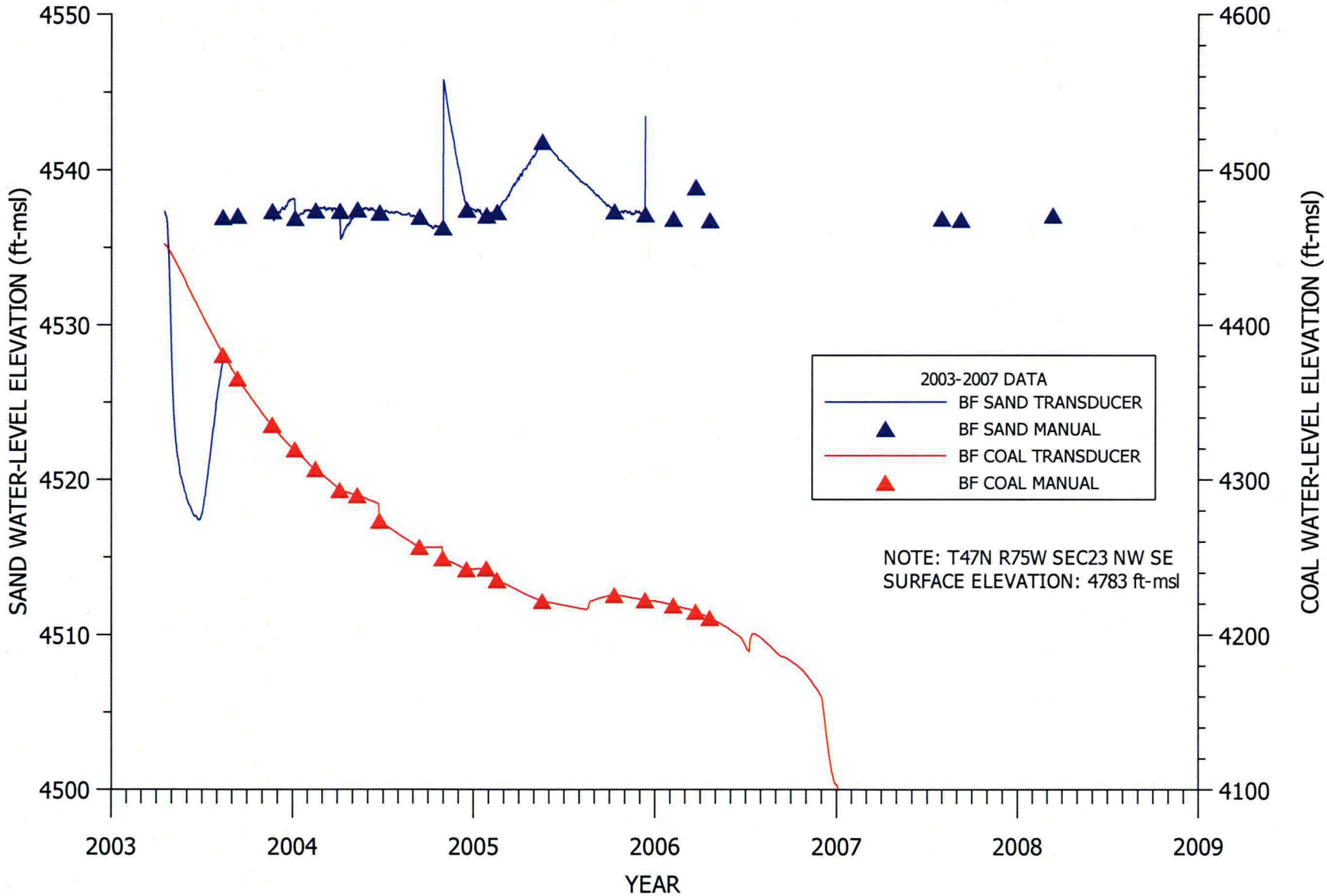

FIGURE D6D.3-5. WATER-LEVEL ELEVATION VERSUS TIME FOR BEAVER FEDERAL SAND and COAL WELLS

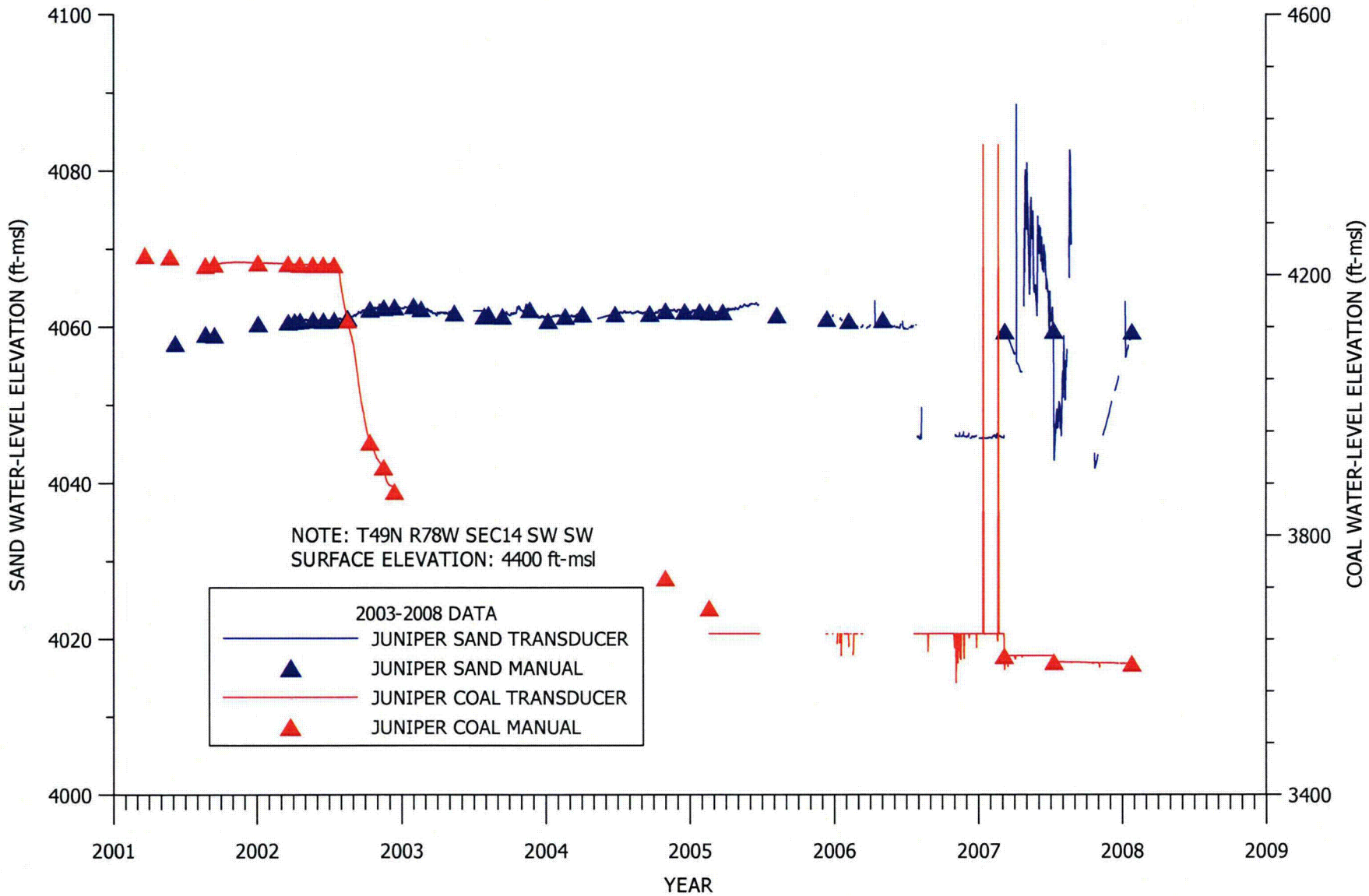

FIGURE D6D.3-6. WATER-LEVEL ELEVATION VERSUS TIME FOR JUNIPER SAND and COAL WELLS

TABLE D6D.1-1 WATER-LEVEL DATA FOR NICHOLS RANCH UNIT WELLS

WATER-LEVEL ELEVATION (FT-MSL)

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
DW-4L		
10/1/1978	289.00	4680.73
11/1/1978	288.50	4681.23
1/1/1979	288.00	4681.73
4/1/1979	289.00	4680.73
8/1/1979	289.00	4680.73
10/1/1979	289.00	4680.73
12/20/2006	311.48	4658.25
6/4/2008	299.44	4670.29
DW-4M		
10/1/1978	292.00	4678.17
11/1/1978	291.80	4678.37
1/1/1979	291.00	4679.17
4/1/1979	290.00	4680.17
8/1/1979	290.00	4680.17
10/1/1979	290.00	4680.17
9/2/2006	285.69	4684.48
6/29/2007	286.86	4683.31
9/26/2007	286.60	4683.57
10/4/2007	286.14	4684.03
12/17/2007	286.53	4683.64
8/12/2008	285.47	4684.70
DW-4U		
10/1/1978	233.00	4733.75
1/1/1979	233.00	4733.75
4/1/1979	233.00	4733.75
8/1/1979	233.00	4733.75
10/1/1979	233.00	4733.75
9/7/2006	230.55	4736.20
5/14/2007	231.53	4735.22
9/26/2007	230.80	4735.95
10/4/2007	230.24	4736.51
6/4/2008	215.87	4750.88
MN-1		
1/1/1979	29.00	4686.14
9/7/2006	48.87	4666.27
12/14/2006	50.62	4664.52
3/20/2007	49.24	4665.90
3/27/2007	50.20	4664.94
5/30/2007	49.73	4665.41
6/15/2007	49.55	4665.59
6/26/2007	49.71	4665.43
7/10/2007	49.99	4665.15
7/24/2007	51.33	4663.81
10/4/2007	49.83	4665.31
12/17/2007	50.00	4665.14
5/15/2008	46.78	4668.36
8/12/2008	46.25	4668.89
10/31/2008	46.17	4668.97
MN-2		
12/14/2006	178.97	4592.03
12/14/2006	178.58	4592.42
3/20/2007	178.42	4592.58
3/20/2007	178.23	4592.77
3/27/2007	179.71	4591.29
5/30/2007	178.84	4592.16
6/26/2007	178.68	4592.32
7/10/2007	179.78	4591.22
7/10/2007	180.41	4590.59
9/10/2007	179.02	4591.98
10/4/2007	179.00	4592.00
12/17/2007	179.21	4591.79
5/15/2008	175.62	4595.38
8/12/2008	175.28	4595.72
11/3/2008	175.38	4595.62
MN-3		
12/14/2006	96.51	4668.13
3/20/2007	96.10	4668.54
3/27/2007	96.94	4667.70
4/18/2007	96.91	4667.73
5/30/2007	96.59	4668.05
7/10/2007	97.18	4667.46
7/24/2007	98.06	4666.58
8/7/2007	97.67	4666.97
10/4/2007	96.65	4667.99
12/17/2007	96.96	4667.68
6/4/2008	93.10	4671.54
8/12/2008	93.24	4671.40
11/3/2008	92.90	4671.74
MN-4		
12/14/2006	146.18	4654.18
3/20/2007	145.74	4654.62
5/30/2007	146.40	4653.96
7/10/2007	147.06	4653.30
10/4/2007	146.75	4653.61
12/17/2007	147.10	4653.26
5/15/2008	141.60	4658.76
8/12/2008	141.29	4659.07
10/31/2008	141.66	4658.70
MN-5		
9/7/2006	204.61	4678.67
3/20/2007	227.22	4656.06
3/27/2007	229.77	4653.51
4/18/2007	227.99	4655.29
5/2/2007	227.90	4655.38
5/3/2007	227.77	4655.51
5/14/2007	227.79	4655.49
6/4/2007	227.90	4655.38
6/4/2007	227.86	4655.42
7/10/2007	228.71	4654.57
8/7/2007	229.15	4654.13
10/4/2007	228.10	4655.18
12/17/2007	228.40	4654.88
5/15/2008	223.80	4659.48
8/12/2008	222.87	4660.41
10/31/2008	223.04	4660.24
MN-6		
3/20/2007	102.53	4658.65
3/20/2007	102.56	4658.62
5/30/2007	103.20	4657.98
6/15/2007	103.20	4657.98
7/10/2007	103.37	4657.81
10/4/2007	103.85	4657.33
12/17/2007	103.17	4658.01
5/15/2008	98.70	4662.48
8/12/2008	98.43	4662.75
10/31/2008	97.88	4663.30
Nichols #1		
3/20/2007	99.44	4659.44
4/18/2007	99.96	4658.92
5/2/2007	100.02	4658.86
5/14/2007	99.98	4658.90
5/30/2007	99.85	4659.03
6/4/2007	99.67	4659.21
7/10/2007	100.26	4658.62
7/24/2007	101.14	4657.74
10/4/2007	101.25	4657.63
12/17/2007	99.63	4659.25
5/15/2008	96.41	4662.47
11/11/2008	96.01	4662.87
URZN1-2		
12/14/2006	64.10	4650.21
3/23/2007	64.79	4649.52
3/27/2007	64.80	4649.51
5/30/2007	63.96	4650.35
6/4/2007	63.95	4650.36
6/15/2007	62.35	4651.96
6/26/2007	64.17	4650.14
7/10/2007	64.08	4650.23
7/24/2007	63.94	4650.37
8/7/2007	64.04	4650.27
8/28/2007	64.31	4650.00
10/4/2007	63.78	4650.53
12/17/2007	63.79	4650.52
5/15/2008	61.28	4653.03
8/12/2008	61.68	4652.63
10/31/2008	61.70	4652.61
URZNB-1		
12/14/2006	63.67	4652.69
3/21/2007	63.50	4652.86
3/27/2007	63.35	4653.01
5/30/2007	62.67	4653.69
5/30/2007	62.72	4653.64
6/15/2007	64.13	4652.23
6/26/2007	62.60	4653.76
7/10/2007	62.61	4653.75
7/24/2007	62.55	4653.81
8/7/2007	62.60	4653.76
10/4/2007	62.14	4654.22
12/17/2007	62.45	4653.91
5/15/2008	59.74	4656.62
8/12/2008	59.83	4656.53
10/31/2008	59.37	4656.99
URZNF-3		
9/10/2007	89.57	4639.30
10/4/2007	89.20	4639.67
12/17/2007	89.42	4639.45
3/12/2008	86.60	4642.27
6/25/2008	88.55	4640.32
8/12/2008	86.68	4642.19
10/31/2008	86.91	4641.96

Abandoned well

TABLE D6D.1-1 WATER-LEVEL DATA FOR NICHOLS RANCH UNIT WELLS (cont'd)

WATER-LEVEL ELEVATION (FT-MSL)

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)	Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)	Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)	Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
URZNQ-4											
9/10/2007	9.20	4629.24									
10/4/2007	9.33	4629.11									
12/17/2007	8.52	4629.92									
3/12/2008	6.28	4632.16									
6/4/2008	4.86	4633.58									
6/24/2008	7.31	4631.13									
8/12/2008	6.85	4631.59									
10/31/2008	6.90	4631.54									
W. of WW1											
9/26/2007	372.30	4707.70									
6/4/2008	358.18	4721.82									
8/12/2008	356.26	4723.74									
11/3/2008	357.21	4722.79									

Abandoned well

- W. of WW1

TABLE D6D.2-1 WATER-LEVEL DATA FOR HANK UNIT WELLS

WATER-LEVEL ELEVATION (FT-MSL)

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
BR-B		
9/18/1979	142.74	4886.96
9/25/1979	142.80	4886.90
10/4/1979	142.74	4886.96
10/10/1979	142.76	4886.94
10/18/1979	142.78	4886.92
10/24/1979	142.74	4886.96
11/27/1979	144.10	4885.60
1/9/1980	142.20	4887.50
1/22/1980	142.55	4887.15
2/6/1980	142.29	4887.41
3/18/1980	141.58	4888.12
4/15/1980	141.45	4888.25
5/15/1980	141.30	4888.40
6/4/1980	141.15	4888.55
7/29/1980	141.22	4888.48
8/22/1980	141.45	4888.25
9/29/1980	141.70	4888.00
10/22/1980	141.53	4888.17
1/14/1981	141.20	4888.50
3/11/1981	142.04	4887.66
4/9/1981	141.33	4888.37
5/20/1981	141.15	4888.55
7/7/1981	141.56	4888.14
8/19/1981	141.33	4888.37
10/8/1981	141.47	4888.23
11/3/1981	141.31	4888.39
12/1/1981	140.40	4889.30
3/2/1982	141.27	4888.43
4/13/1982	140.85	4888.85
1/24/2007	142.95	4886.75
10/4/2007	141.61	4888.09
12/17/2007	142.42	4887.28
4/30/2008	139.79	4889.91
8/11/2008	141.10	4888.60
11/3/2008	139.84	4889.86
BR-F		
9/18/1979	69.29	5012.96
9/25/1979	69.82	5012.43
10/4/1979	70.52	5011.73
10/10/1979	70.32	5011.93
10/18/1979	68.69	5013.56
10/24/1979	68.67	5013.58
11/6/1979	68.35	5013.90
1/22/1980	65.97	5016.28
2/6/1980	65.26	5016.99
3/12/1980	64.54	5017.71
4/15/1980	64.41	5017.84
5/15/1980	64.25	5018.00
6/4/1980	64.25	5018.00
7/29/1980	64.69	5017.56
8/22/1980	64.70	5017.55
9/29/1980	64.76	5017.49
10/29/1980	65.27	5016.98
1/14/1981	65.00	5017.25
3/11/1981	65.27	5016.98
4/9/1981	65.04	5017.21
5/20/1981	65.00	5017.25
8/19/1981	65.31	5016.94
10/8/1981	65.42	5016.83
11/3/1981	65.77	5016.48
12/1/1981	65.24	5017.01
3/2/1982	66.25	5016.00
4/13/1982	65.90	5016.35
11/28/2006	66.86	5015.39
1/24/2007	70.00	5012.25
5/16/2007	69.56	5012.69
6/5/2007	69.02	5013.23
6/15/2007	69.13	5013.12
6/18/2007	69.05	5013.20
10/4/2007	69.25	5013.00
12/17/2007	69.67	5012.58
4/30/2008	67.40	5014.85
8/11/2008	67.17	5015.08
11/3/2008	67.36	5014.89
BR-G		
9/20/1979	242.55	4914.72
9/25/1979	191.84	4965.43
10/4/1979	164.95	4992.32
10/10/1979	163.59	4993.68
10/18/1979	162.23	4995.04
10/25/1979	162.91	4994.36
1/9/1980	164.21	4993.06
1/22/1980	164.84	4992.43
2/6/1980	164.49	4992.78
3/18/1980	164.40	4992.87
4/15/1980	164.53	4992.74
5/15/1980	163.66	4993.61
6/4/1980	164.07	4993.20
7/30/1980	164.04	4993.23
8/22/1980	157.72	4999.55
9/29/1980	154.92	5002.35
10/28/1980	154.49	5002.78
1/14/1981	153.90	5003.37
2/19/1981	151.95	5005.32
4/13/1981	150.00	5007.27
5/19/1981	150.33	5006.94
6/29/1981	148.83	5008.44
8/19/1981	146.85	5010.42
9/28/1981	147.20	5010.07
11/3/1981	146.97	5010.30
12/1/1981	146.50	5010.77
4/13/1982	137.25	5020.02
12/19/2006	150.01	5007.26
2/27/2007	149.90	5007.37
7/31/2007	148.96	5008.31
8/8/2007	148.82	5008.45
10/4/2007	148.19	5009.08
12/17/2007	149.04	5008.23
4/29/2008	144.17	5013.10
8/11/2008	177.56	4979.71
10/7/2008	147.81	5009.46
BR-H		
9/19/1979	90.83	4866.73
9/25/1979	90.75	4866.81
10/4/1979	90.70	4866.86
10/11/1979	90.62	4866.94
10/18/1979	90.97	4866.59
10/24/1979	90.94	4866.62
1/9/1980	90.89	4866.67
1/22/1980	91.29	4866.27
2/6/1980	91.14	4866.42
3/18/1980	90.88	4866.68
4/15/1980	90.79	4866.77
5/15/1980	90.73	4866.83
6/4/1980	90.62	4866.94
7/29/1980	90.75	4866.81
8/22/1980	90.96	4866.60
9/29/1980	91.31	4866.25
10/22/1980	91.13	4866.43
1/14/1981	91.70	4865.86
2/19/1981	91.94	4865.62
4/9/1981	91.75	4865.81
5/20/1981	91.64	4865.92
7/7/1981	91.60	4865.96
8/19/1981	92.07	4865.49
10/8/1981	92.10	4865.46
11/3/1981	92.26	4865.30
12/1/1981	91.88	4865.68
3/2/1982	92.71	4864.85
4/13/1982	92.37	4865.19
1/24/2007	96.70	4860.86
5/24/2007	95.80	4861.76
10/4/2007	95.56	4862.00
12/17/2007	96.06	4861.50
6/3/2008	93.21	4864.35
8/11/2008	93.44	4864.12
11/11/2008	93.47	4864.09
BR-I		
9/25/1979	49.30	5081.58
10/4/1979	49.10	5081.78
10/10/1979	49.18	5081.70
10/18/1979	49.04	5081.84
1/15/1980	49.88	5081.00
1/22/1980	50.01	5080.87
2/6/1980	49.79	5081.09
3/12/1980	50.15	5080.73
4/15/1980	50.16	5080.72
5/7/1980	50.47	5080.41
5/15/1980	50.47	5080.41
6/4/1980	50.49	5080.39
7/30/1980	50.81	5080.07
8/22/1980	50.99	5079.89
9/29/1980	51.26	5079.62
10/22/1980	52.13	5078.75
3/11/1981	52.13	5078.75
4/9/1981	50.77	5080.11
4/14/1981	51.55	5079.33
5/19/1981	52.50	5078.38
7/7/1981	52.23	5078.65
8/20/1981	52.51	5078.37
10/8/1981	52.48	5078.40
11/3/1981	52.83	5078.05
12/1/1981	52.48	5078.40
3/2/1982	53.30	5077.58
4/13/1982	56.45	5074.43
8/28/2007	> 80.00	< 5050.88
11/11/2008	59.16	5071.72

Abandoned well

- BR-I

TABLE D6D.2-1 WATER-LEVEL DATA FOR HANK UNIT WELLS (cont'd)

WATER-LEVEL ELEVATION (FT-MSL)

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
BR-K		
9/25/1979	116.75	5076.25
10/4/1979	120.04	5072.96
10/5/1979	122.62	5070.38
10/10/1979	122.41	5070.59
10/18/1979	122.24	5070.76
9/28/2007	> 129.95	< 5063.05
6/3/2008	124.00	5069.00
8/11/2008	124.00	5069.00
11/3/2008	124.00	5069.00
Brown #5		
9/26/2007	215.60	4846.16
9/26/2007	215.60	4846.16
Brown-WS		
2/21/2007	266.62	4879.38
12/6/2007	266.77	4879.23
4/29/2008	264.21	4881.79
8/11/2008	264.64	4881.36
10/30/2008	264.55	4881.45
BR-Q		
12/14/1979	302.25	4851.97
12/18/1979	308.57	4845.65
1/9/1980	306.62	4847.60
1/22/1980	306.51	4847.71
2/6/1980	306.13	4848.09
3/18/1980	306.20	4848.02
4/15/1980	304.35	4849.87
5/15/1980	303.51	4850.71
6/4/1980	303.77	4850.45
7/30/1980	303.77	4850.45
8/22/1980	305.21	4849.01
9/29/1980	308.06	4846.16
10/28/1980	301.73	4852.49
1/14/1981	303.10	4851.12
2/19/1981	303.39	4850.83
4/13/1981	301.03	4853.19
5/19/1981	301.17	4853.05
7/7/1981	299.71	4854.51
8/19/1981	298.99	4855.23
10/8/1981	298.34	4855.88
11/3/1981	297.95	4856.27
12/1/1981	296.42	4857.80
4/13/1982	295.80	4858.42
2/21/2007	291.50	4862.72
8/8/2007	292.19	4862.03
10/4/2007	292.08	4862.14
12/17/2007	291.61	4862.61
BR-T		
12/12/1979	199.70	4833.30
1/15/1980	205.69	4827.31
3/18/1980	204.68	4828.32
5/15/1980	200.55	4832.45
6/4/1980	201.29	4831.71
8/22/1980	196.04	4836.96
9/29/1980	208.78	4824.22
10/29/1980	190.88	4842.12
3/11/1981	196.50	4836.50
BR-U		
11/14/1979	6.74	4976.44
11/30/1979	6.84	4976.34
1/9/1980	6.89	4976.29
2/6/1980	6.83	4976.35
3/12/1980	6.67	4976.51
4/15/1980	6.78	4976.40
5/15/1980	6.83	4976.35
6/4/1980	7.40	4975.78
7/30/1980	8.25	4974.93
8/22/1980	8.06	4975.12
9/29/1980	8.57	4974.61
10/22/1980	8.50	4974.68
1/14/1981	9.10	4974.08
2/19/1981	8.85	4974.33
4/9/1981	9.03	4974.15
5/12/1981	9.15	4974.03
7/7/1981	9.63	4973.55
8/19/1981	10.15	4973.03
10/8/1981	10.94	4972.24
11/3/1981	11.23	4971.95
4/13/1982	11.86	4971.32
C #1		
1/1/1979	194.00	4943.00
8/2/2007	192.22	4944.78
10/4/2007	191.95	4945.05
6/4/2008	191.71	4945.29
8/5/2008	184.86	4952.14
10/30/2008	191.32	4945.68
Dry Willow #1		
1/1/1979	228.00	4926.19
3/22/2007	223.27	4930.92
5/2/2007	222.46	4931.73
5/24/2007	222.83	4931.36
9/5/2007	223.00	4931.19
10/4/2007	222.10	4932.09
12/20/2007	221.97	4932.22
4/28/2008	220.68	4933.51
10/30/2008	221.18	4933.01
DRYMW1		
10/4/2007	> 19.20	< 4910.80
DRYMW3		
10/4/2007	> 18.60	< 4901.40
F. Brown #1		
10/4/2007	198.04	4691.96
6/4/2008	193.77	4696.23
8/5/2008	193.48	4696.52
10/31/2008	192.63	4697.37
Hank 1		
1/1/1979	369.00	4882.01
9/7/2006	355.26	4895.75
4/19/2007	354.96	4896.05
4/19/2007	354.54	4896.47
5/2/2007	355.52	4895.49
7/11/2007	355.87	4895.14
7/31/2007	355.48	4895.53
8/8/2007	355.35	4895.66
4/28/2008	352.47	4898.54
6/26/2008	349.76	4901.25
8/11/2008	353.40	4897.61
10/7/2008	353.21	4897.80
Means #1		
11/16/2006	354.00	4905.86
9/26/2007	338.60	4921.26
4/28/2008	344.98	4914.88
8/5/2008	340.28	4919.58
10/30/2008	343.28	4916.58
NBHW-13		
11/28/2006	132.77	4837.09
2/21/2007	132.00	4837.86
5/16/2007	130.96	4838.90
7/25/2007	130.96	4838.90
10/4/2007	130.63	4839.23
12/17/2007	130.87	4838.99
6/3/2008	127.57	4842.29
8/11/2008	127.73	4842.13
11/3/2008	127.14	4842.72
Old Maid #1		
6/6/2007	197.40	4882.60
6/3/2008	196.76	4883.24
8/11/2008	197.55	4882.45
11/3/2008	197.33	4882.67
OW43756		
9/26/2007	146.40	4905.60
9/26/2007	146.40	4905.60
10/4/2007	146.80	4905.20
4/28/2008	136.80	4915.20
8/6/2008	143.28	4908.72
10/7/2008	144.66	4907.34
Paden #1		
2/21/2007	310.00	4885.85
4/28/2008	299.12	4896.73
8/6/2008	307.80	4888.05
10/7/2008	308.04	4887.81
SS1-F		
6/15/2007	116.00	4859.00
6/18/2007	115.74	4859.26
6/26/2007	116.02	4858.98
11/11/2008	113.51	4861.49
SS1-FPU		
6/15/2007	117.31	4858.69
6/18/2007	116.98	4859.02
6/26/2007	117.26	4858.74
6/4/2008	202.31	4773.69
8/11/2008	202.30	4773.70
11/3/2008	200.08	4775.92

Abandoned well

- SS1-FPU

TABLE D6D.2-1 WATER-LEVEL DATA FOR HANK UNIT WELLS (cont'd)

WATER-LEVEL ELEVATION (FT-MSL)

Date	Water Level (ft-MP)	Water Level Elevation (ft-MSL)
SS1-L		
10/12/1978	148.92	4825.08
11/1/1978	149.00	4825.00
1/1/1979	146.00	4828.00
8/1/1979	203.00	4771.00
10/26/1979	140.50	4833.50
6/5/2007	140.72	4833.28
6/18/2007	140.67	4833.33
7/25/2007	140.93	4833.07
6/3/2008	138.36	4835.64
8/11/2008	138.41	4835.59
11/3/2008	137.61	4836.39
SS1-M		
11/1/1978	151.00	4823.00
1/1/1979	146.00	4828.00
8/1/1979	139.00	4835.00
10/1/1979	140.50	4833.50
6/15/2007	140.71	4833.29
6/18/2007	140.00	4834.00
6/26/2007	140.41	4833.59
6/3/2008	137.28	4836.72
8/11/2008	137.35	4836.65
11/3/2008	136.67	4837.33
SS1-PU		
11/1/1978	160.00	4816.00
1/1/1979	145.00	4831.00
6/15/2007	139.32	4836.68
6/18/2007	138.97	4837.03
6/26/2007	139.57	4836.43
SS1-U		
10/1/1978	149.00	4826.00
11/1/1978	160.00	4815.00
1/1/1979	144.00	4831.00
8/1/1979	140.00	4835.00
10/1/1979	139.00	4836.00
6/15/2007	138.04	4836.96
6/18/2007	138.01	4836.99
6/3/2008	135.48	4839.52
8/11/2008	135.55	4839.45
11/3/2008	134.82	4840.18
URZHB-6		
7/27/2007	352.69	4861.09
7/31/2007	350.82	4862.96
8/8/2007	350.82	4862.96
8/28/2007	352.54	4861.24
10/4/2007	352.08	4861.70
12/17/2007	351.78	4862.00
4/29/2008	349.52	4864.26
8/11/2008	350.00	4863.78
10/7/2008	349.85	4863.93
URZHC-2		
12/19/2006	349.01	4885.75
5/2/2007	338.70	4896.06
5/24/2007	341.32	4893.44
6/4/2007	349.09	4885.67
6/26/2007	342.30	4892.46
6/28/2007	341.98	4892.78
7/13/2007	343.09	4891.67
7/24/2007	341.12	4893.64
8/2/2007	343.73	4891.03
9/6/2007	343.32	4891.44
10/4/2007	342.68	4892.08
12/17/2007	343.25	4891.51
4/28/2008	340.54	4894.22
8/6/2008	341.35	4893.41
10/7/2008	341.76	4893.00
URZHF-1		
12/19/2006	328.30	4903.43
6/26/2007	329.50	4902.23
7/24/2007	328.91	4902.82
10/4/2007	328.33	4903.40
12/17/2007	328.57	4903.16
4/28/2008	325.28	4906.45
8/6/2008	327.86	4903.87
10/7/2008	327.88	4903.85
URZHF-5		
7/27/2007	315.51	4902.16
7/31/2007	317.09	4900.58
8/8/2007	317.41	4900.26
10/4/2007	316.30	4901.37
12/17/2007	316.21	4901.46
4/29/2008	315.00	4902.67
8/11/2008	315.61	4902.06
10/7/2008	315.58	4902.09
URZHF-8		
6/20/2008	354.47	4895.53
URZHG-3		
6/26/2007	274.43	4954.39
6/28/2007	274.38	4954.44
7/24/2007	274.22	4954.60
10/4/2007	273.88	4954.94
12/17/2007	273.93	4954.89
4/28/2008	272.38	4956.44
8/5/2008	272.88	4955.94
10/7/2008	272.81	4956.01
URZHG-4		
7/31/2007	280.67	4935.11
8/8/2007	280.63	4935.15
10/4/2007	280.39	4935.39
12/17/2007	282.00	4933.78
URZHH-7		
9/5/2007	96.43	5072.94
10/4/2007	96.68	5072.69
12/17/2007	95.50	5073.87
3/12/2008	92.42	5076.95
4/28/2008	92.20	5077.17
8/5/2008	92.19	5077.18
10/7/2008	92.19	5077.18
WC-MN1		
10/29/1979	97.00	4845.00
1/1/1999	99.00	4843.00
10/12/1999	93.83	4848.17
2/11/2000	93.02	4848.98
4/6/2000	92.59	4849.41
5/24/2000	92.45	4849.55
8/4/2000	91.21	4850.79
9/27/2000	91.51	4850.49
11/8/2000	90.98	4851.02
2/1/2001	90.73	4851.27
2/20/2001	90.67	4851.33
4/18/2001	90.44	4851.56
6/26/2001	90.45	4851.55
1/7/2002	90.64	4851.36
3/19/2002	90.73	4851.27
4/16/2002	90.91	4851.09
5/20/2002	90.90	4851.10
6/18/2002	90.97	4851.03
7/16/2002	91.15	4850.85
8/29/2002	91.19	4850.81
9/12/2002	91.27	4850.73
10/16/2002	91.28	4850.72
11/18/2002	91.36	4850.64
12/17/2002	91.02	4850.98
2/18/2003	91.42	4850.58
8/15/2003	91.91	4850.09
10/20/2003	92.08	4849.92
1/8/2004	92.09	4849.91
2/20/2004	92.15	4849.85
4/7/2004	92.20	4849.80
5/13/2004	92.23	4849.77
6/23/2004	92.36	4849.64
8/12/2004	92.81	4849.19
9/23/2004	95.50	4846.50
11/9/2004	92.53	4849.47
12/8/2004	92.32	4849.68
1/31/2005	92.73	4849.27
2/25/2005	92.70	4849.30
5/16/2005	92.59	4849.41
9/8/2005	93.05	4848.95
1/11/2006	93.24	4848.76
2/8/2006	93.05	4848.95
3/23/2006	93.24	4848.76
4/5/2006	92.91	4849.09
6/16/2006	91.75	4850.25
7/31/2006	93.01	4848.99
2/26/2007	95.71	4846.29
5/21/2007	95.53	4846.47
12/20/2007	221.97	4720.03

Abandoned well

TABLE D6E.1-1. NICHOLS RANCH UNIT GROUND-WATER QUALITY DATA.

Well Name	Date	Ca (mg/l)	Cl (mg/l)	CO3 (mg/l)	HCO3 (mg/l)	K (mg/l)	Mg (mg/l)	Na (mg/l)	SO4 (mg/l)	Fe (mg/l)
20-9	11/16/2006	5.0	3.0	8.0	269	2.0	< 1.0	108	18.0	< 0.03
	5/18/2007	5.0	1.0	5.0	291	2.0	< 1.0	107	19.0	< 0.03
CALVING #1	3/20/2007	12.0	6.0	2.0	153	3.0	< 1.0	100.0	109	0.05
	8/22/2007	10.0	5.0	< 1.0	158	2.0	< 1.0	96.0	110	< 0.03
DW-4L	11/2/1978	7.7	15.0	24.0	83	3.8	1.0	106	134	< 0.01
	4/21/1979	5.8	11.8	17.0	80	5.7	0.6	118	167	0.25
	10/28/1979	7.5	10.4	13.0	95	2.5	0.7	129	167	0.08
	7/7/2006	9.2	9.0	3.0	118	1.9	0.9	108	166	0.65
	9/7/2006	8.9	8.0	< 1.0	137	1.9	1.0	123	183	0.25
	12/20/2006	9.0	10.0	3.0	127	2.0	< 1.0	130	170	0.08
	5/17/2007	8.0	10.0	3.0	128	1.9	0.9	112	155	0.10
DW-4M	11/1/1978	6.6	15.0	189.0	32	6.2	1.0	90.0	< 5.00	0.17
	4/20/1979	2.4	12.6	72.0	112	6.2	0.3	67.0	24.0	1.45
	10/29/1979	17.0	9.0	13.0	149	4.0	2.5	150	230	0.05
	12/20/2006	43.0	9.0	3.0	181	4.0	6.0	160	282	< 0.03
	5/18/2007	49.0	1.0	< 1.0	193	4.0	7.0	172	324	< 0.03
DW-4U	11/8/1978	38.0	6.0	4.0	29	31.0	11.0	192	563	0.02
	4/21/1979	90.0	5.5	< 1.0	135	10.0	22.0	200	637	0.01
	10/29/1979	98.0	5.0	< 1.0	145	8.3	22.0	212	631	0.02
	12/21/2006	105.0	3.0	< 1.0	143	7.0	25.0	187	650	< 0.03
	5/14/2007	102.0	3.0	< 1.0	154	7.0	26.0	204	655	< 0.03
	5/17/2007	104.0	6.0	< 1.0	151	7.0	26.0	198	649	< 0.03
GARDEN	3/20/2007	15.0	4.0	2.0	140	3.0	1.0	112	155	0.10
	8/22/2007	14.0	5.0	1.0	145	2.0	1.0	110	157	0.14
MN-1	11/18/1978	5.3	6.0	4.0	151	1.7	0.5	84.0	85.0	0.12
	4/19/1979	5.3	6.6	7.2	152	2.4	0.4	102	108	0.08
	12/14/2006	6.0	6.0	4.0	140	2.0	< 1.0	100.0	102	< 0.03
	5/2/2007	6.0	4.0	2.8	150	2.0	< 1.0	105	111	< 0.03
	7/13/2007	6.0	8.0	3.0	153	2.0	< 1.0	114	111	< 0.03
MN-2	12/14/2006	8.0	7.0	3.0	137	2.0	< 1.0	111	108	< 0.03
	4/18/2007	8.0	8.0	2.0	152	2.0	< 1.0	118	132	< 0.03
	6/29/2007	8.0	6.0	< 1.0	156	2.0	< 1.0	117	136	< 0.03
	9/10/2007	8.0	5.0	4.0	151	2.0	< 1.0	111	141	< 0.03
	9/10/2007	7.0	7.0	4.0	151	2.0	< 1.0	109	139	< 0.03
MN-3	12/14/2006	11.0	14.0	3.0	146	2.0	< 1.0	115	129	< 0.03
	1/25/2007	10.0	7.0	2.0	148	3.0	< 1.0	113	149	< 0.03
	4/18/2007	10.0	7.0	2.0	151	2.0	< 1.0	122	145	< 0.03
	8/7/2007	10.0	16.0	2.0	152	2.0	< 1.0	122	152	< 0.03

TABLE D6E.1-1. NICHOLS RANCH UNIT GROUND-WATER QUALITY DATA. (cont'd.)

Well Name	Date	Ca (mg/l)	Cl (mg/l)	CO3 (mg/l)	HCO3 (mg/l)	K (mg/l)	Mg (mg/l)	Na (mg/l)	SO4 (mg/l)	Fe (mg/l)
MN-4	12/14/2006	7.0	8.0	3.0	133	2.0	< 1.0	113	119	< 0.03
	1/25/2007	7.0	7.0	3.0	141	2.0	< 1.0	113	138	< 0.03
	4/18/2007	7.0	7.0	2.0	147	2.0	< 1.0	117	135	< 0.03
	7/10/2007	7.0	6.0	2.0	148	2.0	< 1.0	121	136	< 0.03
MN-5	4/18/2007	7.0	6.0	3.0	149	2.0	< 1.0	115	126	< 0.03
	5/30/2007	7.0	6.0	2.0	147	2.0	< 1.0	117	125	< 0.03
	8/7/2007	7.0	5.0	2.0	152	2.0	< 1.0	115	133	< 0.03
MN-6	3/23/2007	7.0	7.0	4.0	152	2.0	< 1.0	115	114	< 0.03
N1, 11894	11/16/2006	7.0	5.0	< 1.0	152	2.0	< 1.0	100.0	104	< 0.03
	5/18/2007	7.0	5.0	2.0	152	1.0	< 1.0	98.0	105	< 0.03
URZN1-2	12/20/2006	4.0	5.0	14.0	238	2.0	< 1.0	102	2.00	< 0.03
	3/23/2007	4.0	4.0	24.0	209	3.0	< 1.0	104	2.00	< 0.03
	6/4/2007	4.0	6.0	13.0	242	2.0	< 1.0	100.0	1.000	< 0.03
	8/29/2007	3.0	5.0	12.0	246	2.0	< 1.0	92.0	1.000	< 0.03
URZNB-1	12/22/2006	6.0	5.0	13.0	124	3.0	< 1.0	109	124	< 0.03
	3/21/2007	6.0	7.0	26.0	110	4.0	< 1.0	118	125	< 0.03
	5/30/2007	6.0	6.0	18.0	116	4.0	< 1.0	116	121	< 0.03
	8/7/2007	5.0	6.0	15.0	123	4.0	< 1.0	116	128	< 0.03
URZNF-3	9/10/2007	107.0	5.0	< 1.0	135	5.0	25.0	245	734	0.10
	6/25/2008	116.0	5.0	< 1.0	196	5.0	24.0	255	817	< 0.03
	9/9/2008	114.0	6.0	< 1.0	193	5.0	25.0	237	747	< 0.03
URZNQ-4	12/17/2007	480.0	31.0	< 1.0	499	11.0	139.0	426	2340	3.31
	6/24/2008	480.0	28.0	< 1.0	467	9.0	136.0	403	2370	1.13
	9/9/2008	527.0	33.0	< 1.0	470	8.0	152.0	404	2500	0.68
W. of WW1	3/15/2007	100.0	3.0	< 1.0	194	6.0	31.0	121	518	0.53
	6/6/2007	100.0	3.0	< 1.0	198	6.0	29.0	128	517	0.06

TABLE D6E.1-1. NICHOLS RANCH UNIT GROUND-WATER QUALITY DATA. (cont'd.)

Well Name	Date	Temp (deg. C)	TDS (mg/l)	Cond (µmhos)	Cond(f) (µmhos)	pH (units)	pH(f) (std.	Mn (mg/l)	NH3 (mg/l)	NO3+NO2 (mg/l)
20-9	11/16/2006	12.4	298	509	503	8.73	8.34	0.01	0.06	< 0.1
	5/18/2007	13.4	268	491	505	8.54	8.66	0.01	0.12	< 0.1
CALVING #1	3/20/2007	---	298	516	---	8.34	---	< 0.01	< 0.05	< 0.1
	8/22/2007	19.8	292	477	501	8.12	8.12	< 0.01	< 0.05	< 0.1
DW-4L	11/2/1978	20.0	310	---	690	---	9.50	< 0.01	0.33	---
	4/21/1979	14.0	348	---	74.0	---	9.10	---	< 0.10	---
	10/28/1979	14.0	370	---	690	---	9.00	< 0.01	0.04	---
	7/7/2006	---	364	613	---	8.71	---	0.02	< 0.05	< 0.1
	9/7/2006	16.4	332	643	575	8.18	8.57	0.02	< 0.05	< 0.1
	12/20/2006	14.5	352	610	614	8.64	8.54	0.03	0.07	< 0.1
	5/17/2007	16.4	360	605	619	8.67	8.88	0.01	< 0.05	< 0.1
DW-4M	11/1/1978	22.0	202	---	523	---	9.10	< 0.01	0.18	---
	4/20/1979	13.0	167	---	460	---	10.20	0.01	---	---
	10/29/1979	---	490	---	---	8.70	---	< 0.01	0.07	---
	12/20/2006	10.9	536	924	933	8.39	8.10	0.04	0.08	< 0.1
	5/18/2007	14.7	618	994	1005	8.26	8.34	0.04	0.05	< 0.1
DW-4U	11/8/1978	14.0	982	---	1720	---	9.80	< 0.01	0.02	---
	4/21/1979	12.0	105	---	1740	---	7.70	0.06	< 0.10	---
	10/29/1979	---	1060	---	---	---	7.90	0.05	0.08	---
	12/21/2006	11.9	1050	1480	1483	8.01	7.41	0.06	< 0.05	< 0.1
	5/14/2007	---	1050	1560	1291	7.87	7.00	0.05	< 0.05	< 0.1
	5/17/2007	12.3	1030	1460	1484	7.90	7.78	0.05	< 0.05	< 0.1
GARDEN	3/20/2007	---	362	582	---	8.47	---	0.02	< 0.05	< 0.1
	8/22/2007	14.1	350	576	601	8.31	8.65	0.02	0.07	< 0.1
MN-1	11/18/1978	18.0	306	---	2290	---	8.60	< 0.01	0.02	---
	4/19/1979	14.0	289	---	720	---	8.50	< 0.01	< 0.10	---
	12/14/2006	14.1	296	489	512	8.68	8.68	< 0.01	< 0.05	< 0.1
	5/2/2007	15.6	322	533	517	8.59	7.26	< 0.01	< 0.05	< 0.1
	7/13/2007	17.7	294	515	508	8.60	8.41	< 0.01	< 0.05	< 0.1
MN-2	12/14/2006	13.6	334	534	554	8.57	8.45	< 0.01	< 0.05	< 0.1
	4/18/2007	14.8	348	580	569	8.45	7.56	0.01	< 0.05	< 0.1
	6/29/2007	17.1	310	577	534	7.41	8.25	< 0.01	< 0.05	< 0.1
	9/10/2007	14.7	312	549	583	8.34	8.77	0.01	< 0.05	< 0.1
	9/10/2007	14.7	320	550	583	8.32	8.77	< 0.01	< 0.05	< 0.1
MN-3	12/14/2006	13.7	350	585	595	8.53	8.25	< 0.01	0.57	< 0.1
	1/25/2007	13.8	362	581	560	8.43	8.26	< 0.01	0.32	< 0.1
	4/18/2007	---	346	595	583	8.51	8.23	< 0.01	0.18	< 0.1
	8/7/2007	16.7	358	579	583	8.46	8.26	< 0.01	0.18	< 0.1

TABLE D6E.1-1. NICHOLS RANCH UNIT GROUND-WATER QUALITY DATA. (cont'd.)

Well Name	Date	Temp (deg. C)	TDS (mg/l)	Cond (µmhos)	Cond(f) (µmhos)	pH (units)	pH(f) (std.	Mn (mg/l)	NH3 (mg/l)	NO3+NO2 (mg/l)
MN-4	12/14/2006	14.9	330	571	565	8.67	8.48	< 0.01	0.05	< 0.1
	1/25/2007	14.0	338	551	541	8.49	8.41	< 0.01	0.09	< 0.1
	4/18/2007	14.9	356	577	568	8.48	7.61	< 0.01	< 0.05	< 0.1
	7/10/2007	17.0	344	559	559	8.47	8.20	< 0.01	< 0.05	< 0.1
MN-5	4/18/2007	---	334	540	554	8.51	8.39	< 0.01	< 0.05	< 0.1
	5/30/2007	14.9	328	552	512	8.51	8.20	< 0.01	< 0.05	< 0.1
	8/7/2007	16.2	338	533	535	8.46	8.27	< 0.01	< 0.05	< 0.1
MN-6	3/23/2007	---	310	518	507	8.74	8.31	< 0.01	0.16	< 0.1
N1, 11894	11/16/2006	11.1	298	509	502	8.11	8.68	< 0.01	< 0.05	< 0.1
	5/18/2007	12.5	274	492	505	8.49	8.78	< 0.01	< 0.05	< 0.1
URZN1-2	12/20/2006	14.1	230	414	421	9.01	8.78	< 0.01	0.09	< 0.1
	3/23/2007	---	246	414	417	9.39	8.99	< 0.01	0.08	< 0.1
	6/4/2007	---	204	425	409	9.05	8.82	< 0.01	0.05	< 0.1
	8/29/2007	16.3	248	393	417	7.07	9.15	< 0.01	0.06	< 0.1
URZNB-1	12/22/2006	13.4	324	540	541	9.26	9.14	< 0.01	< 0.05	< 0.1
	3/21/2007	---	278	541	535	9.63	9.43	< 0.01	< 0.05	< 0.1
	5/30/2007	---	318	557	549	9.52	9.51	< 0.01	< 0.05	< 0.1
	8/7/2007	15.8	312	537	548	9.41	9.62	< 0.01	< 0.05	< 0.1
	12/22/2007	13.4	---	---	541	---	9.14	---	---	---
URZNF-3	9/10/2007	13.7	1170	1710	1716	8.07	8.36	0.17	0.06	< 0.1
	6/25/2008	15.6	1280	1790	1868	7.69	6.47	0.14	< 0.10	0.1
	9/9/2008	13.2	1250	1810	1777	7.85	7.76	0.14	< 0.05	0.1
URZNQ-4	12/17/2007	10.7	3900	4440	2710	7.34	6.95	1.95	0.34	< 0.1
	6/24/2008	11.3	3910	4170	4270	7.19	6.83	1.84	0.20	< 0.1
	9/9/2008	10.9	3820	4360	4310	7.31	6.93	1.87	0.22	< 0.1
W. of WW1	3/15/2007	12.9	884	1260	1239	7.82	7.46	0.07	< 0.05	< 0.1
	6/6/2007	13.0	872	1390	1282	7.83	7.64	0.07	< 0.05	< 0.1

TABLE D6E.1-1. NICHOLS RANCH UNIT GROUND-WATER QUALITY DATA. (cont'd.)

Well Name	Date	F (mg/l)	Al (mg/l)	As (mg/l)	Ba (mg/l)	Cr (mg/l)	Cu (mg/l)	B (mg/l)	Cd (mg/l)	Hg (mg/l)
20-9	11/16/2006	0.80	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	5/18/2007	0.70	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
CALVING #1	3/20/2007	0.30	< 0.10	< 0.001	0.20	< 0.050	0.02	< 0.10	< 0.005	< 0.0010
	8/22/2007	0.30	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
DW-4L	11/2/1978	0.14	< 0.10	< 0.003	< 0.10	< 0.010	< 0.01	0.40	< 0.010	< 0.0005
	4/21/1979	0.10	---	---	---	---	---	---	---	0.0005
	10/28/1979	0.18	< 0.10	< 0.002	< 0.10	< 0.020	< 0.01	< 0.10	< 0.010	< 0.0003
	7/7/2006	0.20	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	9/7/2006	0.10	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	12/20/2006	0.20	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	5/17/2007	0.20	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.010	< 0.0010
DW-4M	11/1/1978	1.40	< 0.10	< 0.003	< 0.10	< 0.010	< 0.01	0.60	< 0.010	0.0005
	4/20/1979	0.70	---	---	---	0.030	0.07	---	---	---
	10/29/1979	0.52	< 0.10	< 0.002	< 0.10	< 0.020	< 0.01	0.10	< 0.010	< 0.0005
	12/20/2006	0.50	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	5/18/2007	0.40	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
DW-4U	11/8/1978	0.07	< 0.10	< 0.003	< 0.10	< 0.010	< 0.01	< 0.10	< 0.010	< 0.0005
	4/21/1979	< 0.02	---	---	---	---	---	0.30	---	---
	10/29/1979	0.07	< 0.10	< 0.002	< 0.10	< 0.020	< 0.01	0.10	< 0.010	< 0.0020
	12/21/2006	< 0.10	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	5/14/2007	0.10	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	5/17/2007	< 0.10	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
GARDEN	3/20/2007	0.20	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	8/22/2007	0.20	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
MN-1	11/18/1978	0.29	< 0.10	< 0.003	< 0.10	< 0.010	< 0.01	0.50	< 0.010	< 0.0005
	4/19/1979	0.30	< 0.10	0.002	< 0.10	< 0.010	< 0.01	< 0.10	< 0.010	0.0007
	12/14/2006	0.30	< 0.10	0.002	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	5/2/2007	0.30	< 0.10	0.002	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	7/13/2007	0.30	< 0.10	0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
MN-2	12/14/2006	0.30	< 0.10	0.002	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	4/18/2007	0.20	< 0.10	0.002	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	6/29/2007	0.20	< 0.10	0.003	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	9/10/2007	0.30	< 0.10	0.009	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	9/10/2007	0.20	< 0.10	0.008	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
MN-3	12/14/2006	0.20	< 0.10	0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	1/25/2007	0.20	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	4/18/2007	0.30	< 0.10	0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	8/7/2007	0.30	< 0.10	0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010

TABLE D6E.1-1. NICHOLS RANCH UNIT GROUND-WATER QUALITY DATA. (cont'd.)

Well Name	Date	F (mg/l)	Al (mg/l)	As (mg/l)	Ba (mg/l)	Cr (mg/l)	Cu (mg/l)	B (mg/l)	Cd (mg/l)	Hg (mg/l)
MN-4	12/14/2006	0.30	< 0.10	0.003	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	1/25/2007	0.30	< 0.10	0.003	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	4/18/2007	0.20	< 0.10	0.003	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	7/10/2007	0.30	< 0.10	0.002	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
MN-5	4/18/2007	0.30	< 0.10	0.002	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	5/30/2007	0.20	< 0.10	0.003	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	8/7/2007	0.30	< 0.10	0.002	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
MN-6	3/23/2007	0.30	< 0.10	0.002	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
N1, 11894	11/16/2006	0.30	< 0.10	0.004	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	5/18/2007	0.40	< 0.10	0.004	< 0.10	< 0.050	0.01	< 0.10	< 0.005	< 0.0010
URZN1-2	12/20/2006	0.60	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	3/23/2007	0.70	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	6/4/2007	0.60	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	8/29/2007	0.70	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
URZNB-1	12/22/2006	0.30	< 0.10	0.007	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	3/21/2007	0.30	< 0.10	0.007	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	5/30/2007	0.30	< 0.10	0.007	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	8/7/2007	0.30	< 0.10	0.007	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
URZNF-3	9/10/2007	0.50	0.40	0.015	< 0.10	< 0.050	0.02	< 0.10	< 0.005	< 0.0010
	6/25/2008	0.20	< 0.10	0.188	< 0.10	< 0.050	0.33	< 0.10	< 0.005	< 0.0010
	9/9/2008	0.23	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
URZNQ-4	12/17/2007	0.20	< 0.10	0.005	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	6/24/2008	0.20	< 0.10	0.005	< 0.10	< 0.050	< 0.01	0.10	< 0.005	< 0.0010
	9/9/2008	0.17	< 0.10	0.002	< 0.10	< 0.050	< 0.01	0.10	< 0.005	< 0.0010
W. of WW1	3/15/2007	0.10	< 0.10	0.005	< 0.10	< 0.050	0.03	< 0.10	< 0.005	< 0.0010
	6/6/2007	< 0.10	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010

TABLE D6E.1-1. NICHOLS RANCH UNIT GROUND-WATER QUALITY DATA. (cont'd.)

Well Name	Date	Mo (mg/l)	Ni (mg/l)	Pb (mg/l)	Se (mg/l)	Unat (mg/l)	V (mg/l)	Zn (mg/l)
20-9	11/16/2006	< 0.1	< 0.050	< 0.001	< 0.001	0.0017	< 0.100	< 0.01
	5/18/2007	< 0.1	< 0.050	< 0.001	< 0.001	< 0.0003	< 0.100	< 0.01
CALVING #1	3/20/2007	< 0.1	< 0.050	0.007	< 0.001	0.0003	< 0.100	0.07
	8/22/2007	< 0.1	< 0.050	< 0.001	< 0.001	< 0.0003	< 0.100	< 0.01
DW-4L	11/2/1978	< 0.1	< 0.010	< 0.010	< 0.003	0.0006	< 0.100	< 0.01
	4/21/1979	---	---	0.080	0.001	< 0.0010	---	0.04
	10/28/1979	< 0.1	< 0.010	< 0.020	< 0.002	0.0010	< 0.100	0.02
	7/7/2006	< 0.1	< 0.050	< 0.050	< 0.001	< 0.0003	< 0.100	< 0.01
	9/7/2006	< 0.1	< 0.050	< 0.050	< 0.001	< 0.0003	< 0.100	< 0.01
	12/20/2006	< 0.1	< 0.050	< 0.001	< 0.001	< 0.0003	< 0.100	< 0.01
	5/17/2007	< 0.1	< 0.050	< 0.050	< 0.001	< 0.0003	< 0.100	< 0.01
DW-4M	11/1/1978	< 0.1	< 0.010	< 0.010	< 0.003	0.0011	< 0.100	< 0.01
	4/20/1979	---	---	0.020	---	< 0.0010	---	0.07
	10/29/1979	< 0.1	< 0.010	< 0.030	< 0.002	< 0.0010	< 0.100	< 0.01
	12/20/2006	< 0.1	< 0.050	< 0.001	0.001	< 0.0003	< 0.100	< 0.01
	5/18/2007	< 0.1	< 0.050	< 0.001	< 0.001	< 0.0003	< 0.100	< 0.01
DW-4U	11/8/1978	< 0.1	< 0.010	0.020	0.004	0.0170	< 0.100	0.06
	4/21/1979	---	0.010	---	---	0.0650	---	---
	10/29/1979	< 0.1	< 0.010	< 0.030	< 0.002	0.0880	< 0.100	0.03
	12/21/2006	< 0.1	< 0.050	< 0.001	< 0.001	0.0906	< 0.100	< 0.01
	5/14/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0938	< 0.100	< 0.01
	5/17/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0963	< 0.100	< 0.01
GARDEN	3/20/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0113	< 0.100	< 0.01
	8/22/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0088	< 0.100	< 0.01
MN-1	11/18/1978	0.5	< 0.010	< 0.010	< 0.003	0.0270	< 0.100	< 0.01
	4/19/1979	< 0.1	< 0.010	< 0.010	< 0.003	0.0020	< 0.100	< 0.01
	12/14/2006	< 0.1	< 0.050	< 0.001	< 0.001	0.0120	< 0.100	< 0.01
	5/2/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0114	< 0.100	< 0.01
	7/13/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0113	< 0.100	< 0.01
MN-2	12/14/2006	< 0.1	< 0.050	< 0.001	< 0.001	0.0214	< 0.100	< 0.01
	4/18/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0169	< 0.100	< 0.01
	6/29/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0226	< 0.100	< 0.01
	9/10/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0222	< 0.100	0.01
	9/10/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0204	< 0.100	< 0.01
MN-3	12/14/2006	< 0.1	< 0.050	< 0.001	< 0.001	0.0028	< 0.100	< 0.01
	1/25/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0021	< 0.100	< 0.01
	4/18/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0023	< 0.100	< 0.01
	8/7/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0027	< 0.100	< 0.01

TABLE D6E.1-1. NICHOLS RANCH UNIT GROUND-WATER QUALITY DATA. (cont'd.)

Well Name	Date	Mo (mg/l)	Ni (mg/l)	Pb (mg/l)	Se (mg/l)	Unat (mg/l)	V (mg/l)	Zn (mg/l)
MN-4	12/14/2006	< 0.1	< 0.050	< 0.001	< 0.001	0.0056	< 0.100	< 0.01
	1/25/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0051	< 0.100	< 0.01
	4/18/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0044	< 0.100	< 0.01
	7/10/2007	< 0.1	< 0.050	< 0.001	< 0.002	0.0051	< 0.100	< 0.01
MN-5	4/18/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0106	< 0.100	< 0.01
	5/30/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0122	< 0.100	< 0.01
	8/7/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0128	< 0.100	< 0.01
MN-6	3/23/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0094	< 0.100	< 0.01
N1, 11894	11/16/2006	< 0.1	< 0.050	< 0.001	< 0.001	0.0301	< 0.100	< 0.01
	5/18/2007	< 0.1	< 0.050	0.001	< 0.001	0.0279	< 0.100	< 0.01
URZN1-2	12/20/2006	< 0.1	< 0.050	< 0.001	< 0.001	< 0.0003	< 0.100	< 0.01
	3/23/2007	< 0.1	< 0.050	< 0.001	< 0.001	< 0.0003	< 0.100	< 0.01
	6/4/2007	< 0.1	< 0.050	< 0.001	< 0.001	< 0.0003	< 0.100	< 0.01
	8/29/2007	< 0.1	< 0.050	< 0.001	< 0.001	< 0.0003	< 0.100	< 0.01
URZNB-1	12/22/2006	< 0.1	< 0.050	< 0.001	< 0.001	0.0252	< 0.100	< 0.01
	3/21/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0203	< 0.100	< 0.01
	5/30/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0194	< 0.100	< 0.01
	8/7/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0205	< 0.100	< 0.01
URZNF-3	9/10/2007	< 0.1	< 0.050	< 0.001	0.001	0.0589	< 0.100	0.08
	6/25/2008	< 0.1	< 0.050	< 0.001	0.002	0.0562	< 0.100	< 0.01
	9/9/2008	< 0.1	< 0.050	< 0.001	< 0.001	0.0513	< 0.100	< 0.01
URZNQ-4	12/17/2007	< 0.1	< 0.050	< 0.001	0.002	0.0946	< 0.100	< 0.01
	6/24/2008	< 0.1	< 0.050	< 0.001	0.001	0.0832	< 0.100	< 0.01
	9/9/2008	< 0.1	< 0.050	< 0.001	< 0.001	0.0867	< 0.100	< 0.01
W. of WW1	3/15/2007	< 0.1	< 0.050	0.001	0.001	0.0205	< 0.100	0.15
	6/6/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0219	< 0.100	< 0.01

TABLE D6E.1-1. NICHOLS RANCH UNIT GROUND-WATER QUALITY DATA. (cont'd)

Well Name	Date	Ra226 (pCi/l)	Ra226(e) (pCi/l)	Ra228 (pCi/l)	Ra228(e) (pCi/l)	Alpha (pCi/l)	Beta (pCi/l)
20-9	11/16/2006	< 0.2	± 0.2	< 1.0	---	< 1.0	< 2.0
	5/18/2007	< 0.2	± 0.2	< 1.0	---	1.0	< 2.0
CALVING #1	3/20/2007	< 0.2	± 0.0	2.0	± 1.0	1.1	< 2.0
	8/22/2007	1.3	± 0.5	< 1.0	---	1.6	2.3
DW-4L	11/2/1978	< 0.2	± 0.4	---	---	---	---
	4/21/1979	< 0.2	± 0.6	---	---	---	---
	7/7/2006	4.3	± 0.6	---	---	---	---
	9/7/2006	< 0.2	± 0.2	< 1.0	---	< 1.0	2.6
	12/20/2006	1.3	± 0.5	< 1.0	---	3.0	2.8
	5/17/2007	< 0.2	± 0.2	< 1.0	---	< 1.0	< 2.0
DW-4M	11/1/1978	0.9	± 0.8	---	---	---	---
	4/20/1979	< 0.2	± 0.5	---	---	---	---
	12/20/2006	< 0.2	± 0.2	1.9	± 0.8	1.3	3.3
	5/18/2007	< 0.2	± 0.2	< 1.0	---	< 1.0	< 2.0
DW-4U	11/8/1978	3.7	± 1.5	---	---	---	---
	4/21/1979	2.7	± 1.1	---	---	---	---
	12/21/2006	< 0.2	± 0.2	< 1.0	---	76.9	25.5
	5/14/2007	0.6	± 0.3	< 1.0	---	66.3	27.7
	5/17/2007	< 0.2	± 0.2	< 1.0	---	61.3	20.4
GARDEN	3/20/2007	< 0.2	± 0.0	< 1.0	---	6.8	2.7
	8/22/2007	< 0.2	± 0.2	< 1.0	---	8.6	< 2.0
MN-1	11/18/1978	19.0	± 3.0	---	---	---	---
	4/19/1979	< 0.2	± 0.3	---	---	---	---
	12/14/2006	19.4	± 1.3	< 1.0	---	68.4	100.0
	5/2/2007	30.4	± 1.8	< 1.0	---	75.9	145.0
	7/13/2007	36.3	± 2.1	1.9	± 0.9	88.2	84.0
MN-2	12/14/2006	0.9	± 0.3	< 1.0	---	18.8	11.0
	4/18/2007	1.4	± 0.4	< 1.0	---	19.7	5.1
	6/29/2007	0.9	± 0.4	< 1.0	---	24.8	8.4
	9/10/2007	0.7	± 0.3	< 1.0	---	26.2	6.1
	9/10/2007	0.8	± 0.3	3.6	---	27.4	9.9
MN-3	12/14/2006	0.8	± 0.3	< 1.0	---	5.1	6.7
	1/25/2007	1.1	± 0.4	< 1.0	---	5.1	< 2.0
	4/18/2007	0.8	± 0.4	4.2	± 1.4	6.2	5.9
	8/7/2007	0.7	± 0.3	< 1.0	---	3.7	2.2
MN-4	12/14/2006	2.3	± 0.5	< 1.0	---	11.6	31.3
	1/25/2007	2.9	± 0.6	< 1.0	---	15.5	32.5
	4/18/2007	3.1	± 0.6	< 1.0	---	12.5	11.9

TABLE D6E.1-1. NICHOLS RANCH UNIT GROUND-WATER QUALITY DATA. (cont'd)

Well Name	Date	Ra226 (pCi/l)	Ra226(e) (pCi/l)	Ra228 (pCi/l)	Ra228(e) (pCi/l)	Alpha (pCi/l)	Beta (pCi/l)
MN-4	7/10/2007	2.9	± 0.6	< 1.0	---	13.3	20.6
MN-5	4/18/2007	2.6	± 0.6	< 1.0	---	20.4	18.4
	5/30/2007	3.3	± 0.7	< 1.0	---	16.4	10.9
	8/7/2007	2.4	± 0.5	< 1.0	---	20.8	16.1
MN-6	3/23/2007	1.7	± 0.4	< 1.0	---	11.1	30.2
N1, 11894	11/16/2006	< 0.2	± 0.2	< 1.0	---	22.3	6.6
	5/18/2007	< 0.2	± 0.2	< 1.0	---	21.1	5.7
URZN1-2	12/20/2006	< 0.2	± 0.2	< 1.0	---	< 1.0	2.3
	3/23/2007	< 0.2	± 0.2	< 1.0	---	< 1.0	< 2.0
	6/4/2007	< 0.2	± 0.2	< 1.0	---	< 1.0	< 2.0
	8/29/2007	< 0.2	± 0.2	< 1.0	---	< 1.0	< 2.0
URZNB-1	12/22/2006	< 0.2	± 0.2	< 1.0	---	19.7	9.9
	3/21/2007	< 0.2	± 0.2	< 1.0	---	13.9	8.5
	5/30/2007	3.2	± 1.2	< 1.0	---	19.4	7.2
	8/7/2007	< 0.2	± 0.2	< 1.0	---	11.3	6.5
URZNF-3	9/10/2007	5.0	± 0.7	< 1.0	---	50.7	19.1
	6/25/2008	17.0	± 0.9	0.3	± 0.7	63.4	27.6
	9/9/2008	2.9	± 0.3	2.3	± 0.8	73.0	23.3
URZNQ-4	12/17/2007	0.7	± 0.3	< 1.0	---	72.6	25.8
	6/24/2008	0.6	± 0.1	0.3	± 0.7	113.0	27.8
	9/9/2008	0.4	± 0.2	1.4	± 0.8	114.0	19.6
W. of WW1	3/15/2007	4.7	± 1.0	< 1.0	---	19.3	9.3
	6/6/2007	0.9	± 0.3	2.7	± 1.0	21.0	9.1

TABLE D6E.2-1. HANK UNIT GROUND-WATER QUALITY DATA.

Well Name	Date	Ca (mg/l)	Cl (mg/l)	CO3 (mg/l)	HCO3 (mg/l)	K (mg/l)	Mg (mg/l)	Na (mg/l)	SO4 (mg/l)	Fe (mg/l)
BR-B	10/11/1979	135.0	8.0	< 1.0	244	9.0	38.0	180	600	0.02
	4/15/1980	19.0	16.0	< 1.0	151	3.0	4.0	136	220	0.24
	11/9/2006	108.0	2.0	< 1.0	271	7.4	33.5	160	528	0.35
	1/24/2007	102.0	4.0	< 1.0	273	6.8	32.0	149	553	0.05
	4/25/2007	116.0	4.0	< 1.0	278	8.0	35.0	157	539	< 0.03
BR-F	11/8/1979	78.0	20.0	24.0	99	13.0	< 1.0	93.0	84.0	0.08
	4/16/1980	10.0	6.0	48.0	83	9.0	3.0	85.0	92.0	0.60
	11/28/2006	8.0	3.0	10.0	63	3.0	2.0	80.0	126	< 0.03
	1/25/2007	8.0	3.0	38.0	13	5.0	< 1.0	74.0	129	< 0.03
	5/16/2007	14.0	3.0	< 1.0	151	6.0	2.0	83.0	99.0	0.43
BR-G	10/10/1979	220.0	16.0	< 1.0	122	11.0	51.0	310	1300	0.18
	4/16/1980	155.0	10.0	< 1.0	150	18.0	42.0	265	1090	0.57
	4/16/1980	190.0	12.0	< 1.0	151	10.0	53.0	290	1150	1.20
	7/30/1980	143.0	6.0	< 1.0	150	11.0	40.0	311	962	0.85
	10/28/1980	180.0	10.0	< 1.0	110	8.8	37.0	230	1100	0.51
	2/19/1981	201.0	7.0	< 1.0	136	7.9	42.0	255	1140	0.49
	6/29/1981	200.0	7.0	< 1.0	133	8.5	44.0	250	1120	0.42
	9/28/1981	204.0	11.0	< 1.0	124	8.4	46.0	260	1020	0.36
	4/20/1982	195.0	7.0	< 1.0	140	8.8	45.0	240	1160	1.60
	12/19/2006	204.0	8.0	< 1.0	117	10.0	51.0	284	1200	0.50
	2/27/2007	210.0	9.0	< 1.0	120	10.0	51.0	294	1260	0.57
	5/16/2007	211.0	8.0	< 1.0	117	10.0	52.0	289	1230	0.52
BR-H	10/12/1979	46.0	8.0	4.8	129	5.0	10.0	190	400	0.79
	4/15/1980	38.0	8.0	< 1.0	151	11.0	6.0	163	344	2.04
	11/21/2006	47.0	27.0	3.0	164	5.0	8.0	168	353	< 0.03
	1/24/2007	53.0	8.0	< 1.0	190	5.0	10.0	185	399	< 0.03
	4/25/2007	51.0	5.0	< 1.0	194	5.0	9.0	168	379	< 0.03
BR-I	11/30/1979	64.0	8.0	< 1.0	266	2.0	16.0	10.00	12.0	0.08
	4/16/1980	62.0	4.0	< 1.0	268	3.0	13.0	8.00	9.00	2.16
	7/30/1980	47.0	3.0	< 1.0	270	2.7	13.0	14.0	12.0	1.20
Brown #5	9/5/2007	80.0	5.0	< 1.0	109	6.0	13.0	164	495	< 0.03
Brown-WS	9/7/2006	49.2	5.0	< 1.0	95	5.1	14.4	183	522	---
	12/6/2006	45.0	5.0	< 1.0	94	5.0	13.0	176	447	0.14
	2/21/2007	48.0	7.0	< 1.0	95	5.1	13.6	186	488	0.16
	5/16/2007	50.0	5.0	< 1.0	96	6.0	14.0	192	488	0.16
BR-Q	1/9/1980	40.0	30.0	48.0	< 1	23.0	1.0	213	360	< 0.01
	4/16/1980	36.0	9.0	40.0	< 1	15.0	10.0	175	332	0.30
	4/16/1980	26.0	16.0	34.0	< 1	10.0	1.0	184	365	0.72

TABLE D6E.2-1. HANK UNIT GROUND-WATER QUALITY DATA. (cont'd.)

Well Name	Date	Ca (mg/l)	Cl (mg/l)	CO3 (mg/l)	HCO3 (mg/l)	K (mg/l)	Mg (mg/l)	Na (mg/l)	SO4 (mg/l)	Fe (mg/l)
BR-Q	12/19/2006	74.0	5.0	< 1.0	101	6.0	14.0	215	558	0.08
	2/27/2007	78.0	3.0	< 1.0	100	7.0	13.0	223	620	0.09
	5/16/2007	78.0	4.0	< 1.0	104	6.0	13.0	224	610	0.08
	8/8/2007	68.0	3.0	< 1.0	107	6.0	12.0	204	611	0.09
	8/8/2007	69.0	5.0	< 1.0	109	6.0	12.0	208	612	0.11
BR-T	1/8/1980	67.0	7.0	< 1.0	181	18.0	22.0	85.0	360	0.03
	2/22/1980	---	---	---	---	---	---	---	604	---
	2/27/1980	85.0	8.0	< 1.0	142	7.0	19.0	---	568	0.84
	2/27/1980	60.0	6.0	< 1.0	207	5.0	13.0	---	312	---
	2/27/1980	---	---	---	---	---	---	---	603	---
	2/27/1980	---	---	---	---	---	---	---	573	---
	2/27/1980	---	---	---	---	---	---	---	420	---
	4/15/1980	84.0	10.0	< 1.0	129	7.0	16.0	---	560	0.48
	4/15/1980	60.0	4.0	< 1.0	120	13.0	14.0	---	527	0.32
	4/15/1980	79.0	7.0	< 1.0	89	6.8	16.0	---	---	0.01
	4/15/1980	79.0	8.0	6.0	104	12.0	9.0	---	540	0.27
	3/11/1981	73.0	5.0	< 1.0	168	6.9	14.0	---	509	< 0.05
	6/30/1981	69.0	4.0	< 1.0	110	5.7	15.0	---	526	0.20
	9/29/1981	85.0	5.0	< 1.0	84	5.7	16.0	---	546	0.18
	1/14/1982	75.0	4.0	< 1.0	108	6.3	14.0	---	506	1.00
	4/20/1982	66.0	4.0	< 1.0	130	5.6	13.0	---	294	0.17
	9/8/1988	80.2	5.7	0.0	109	6.6	16.1	187	580	0.08
	3/20/2007	62.0	4.0	< 1.0	145	5.0	13.0	158	439	< 0.03
	8/22/2007	80.0	3.0	< 1.0	109	6.0	17.0	178	609	< 0.03
BR-U	11/30/1979	224.0	14.0	< 1.0	278	7.0	53.0	106	700	0.07
	4/15/1980	216.0	24.0	< 1.0	273	7.0	72.0	97.0	766	6.24
	7/30/1980	154.0	4.0	< 1.0	280	7.2	50.0	89.0	589	0.35
C #1	11/17/1978	228.0	33.0	---	421	9.1	96.0	110	918	3.90
	4/29/1979	293.0	4.7	0.0	398	11.0	70.0	159	916	1.19
Dry Willow #1	11/8/1978	53.0	16.0	---	144	5.5	12.0	156	428	0.15
	5/1/1979	60.0	2.9	< 1.0	150	5.9	10.0	174	457	1.45
	3/22/2007	70.0	4.0	< 1.0	144	6.0	14.0	182	464	0.09
	5/2/2007	64.0	1.0	< 1.0	150	6.0	14.0	167	474	< 0.03
	5/24/2007	60.0	2.0	< 1.0	159	6.0	12.0	175	472	< 0.03
	9/5/2007	61.0	3.0	< 1.0	121	6.0	12.0	169	418	0.15
F. Brown #1	11/7/1978	48.0	26.0	---	242	6.6	9.1	130	292	< 0.01
	4/21/1979	56.0	80.0	0.0	230	4.9	7.9	180	273	0.04
Hank 1	11/17/1978	72.0	5.8	---	111	5.3	20.0	204	640	< 0.01
	5/1/1979	75.0	6.4	< 1.0	103	6.7	13.4	205	638	0.05

TABLE D6E.2-1. HANK UNIT GROUND-WATER QUALITY DATA. (cont'd.)

Well Name	Date	Ca (mg/l)	Cl (mg/l)	CO3 (mg/l)	HCO3 (mg/l)	K (mg/l)	Mg (mg/l)	Na (mg/l)	SO4 (mg/l)	Fe (mg/l)
Hank 1	6/27/2006	77.0	5.0	< 1.0	110	7.1	15.4	190	573	1.46
	6/29/2006	77.4	5.0	< 1.0	107	5.2	16.9	200	565	0.76
	12/20/2006	77.0	9.0	< 1.0	109	6.0	16.0	200	477	1.15
	1/25/2007	77.0	6.0	< 1.0	112	6.0	16.0	186	590	< 0.03
	5/2/2007	74.0	4.0	< 1.0	110	6.0	17.0	192	585	< 0.03
	6/26/2008	76.0	6.0	< 1.0	114	6.0	15.0	188	575	0.03
Means #1	11/16/2006	142.0	3.0	< 1.0	121	8.0	28.0	181	671	0.13
	3/12/2007	145.0	3.0	< 1.0	120	8.0	28.0	189	793	< 0.03
	6/6/2007	138.0	6.0	< 1.0	124	8.0	25.0	188	790	< 0.03
	9/5/2007	125.0	5.0	< 1.0	125	8.0	24.0	177	660	2.14
NBHW-13	11/28/2006	44.0	7.0	< 1.0	105	5.0	11.0	210	473	< 0.03
	2/23/2007	47.0	5.0	< 1.0	105	5.0	12.0	226	537	< 0.03
	5/16/2007	48.0	4.0	< 1.0	107	5.0	12.0	222	539	< 0.03
	7/25/2007	44.0	4.0	< 1.0	103	5.0	11.0	231	541	< 0.03
Old Maid #1	3/12/2007	83.0	3.0	< 1.0	171	6.0	20.0	124	461	< 0.03
OW43756	6/21/2007	182.0	4.0	< 1.0	200	9.0	57.0	87.0	722	0.24
Paden #1	12/6/2006	234.0	8.0	< 1.0	156	10.0	64.0	182	1120	< 0.03
	2/27/2007	243.0	8.0	< 1.0	151	10.0	64.0	202	1180	< 0.03
	6/6/2007	233.0	8.0	< 1.0	151	9.0	60.0	189	1170	< 0.03
	9/5/2007	204.0	9.0	< 1.0	156	9.0	55.0	172	965	< 0.03
SS1-F	10/23/1980	88.0	3.0	0.0	220	8.0	22.0	206	554	0.07
	1/20/1981	102.0	4.0	0.0	195	8.0	2.0	217	540	0.11
	4/29/1981	94.0	8.0	0.0	219	9.0	22.0	205	556	0.10
	7/29/1981	92.0	4.0	0.0	215	9.0	21.0	194	532	0.02
	4/15/1988	98.4	4.8	0.0	212	6.8	26.2	226	669	0.02
	6/21/2007	89.0	5.0	< 1.0	233	7.0	24.0	194	544	< 0.03
SS1-L	10/12/1978	41.0	4.2	7.0	115	4.6	8.8	198	495	< 0.01
	2/14/1979	37.0	9.0	0.0	193	38.0	7.3	186	344	0.07
	4/17/1979	40.0	4.6	< 1.0	127	3.9	8.4	200	476	0.10
	8/6/1979	42.0	3.6	7.0	120	4.4	10.0	240	501	< 0.01
	10/26/1979	49.0	4.0	5.0	111	4.5	10.0	233	504	< 0.01
	10/23/1980	44.0	5.0	0.0	122	5.0	12.0	198	460	0.03
	1/14/1981	42.0	5.0	0.0	117	5.0	12.0	228	542	0.10
	4/29/1981	41.0	7.0	0.0	146	7.0	11.0	206	458	0.11
	7/29/1981	42.0	5.0	0.0	136	7.0	14.0	191	443	0.02
	4/15/1988	45.3	4.4	0.0	131	4.4	10.8	219	500	< 0.05
	4/27/2007	53.0	4.0	< 1.0	132	5.0	14.0	227	528	< 0.03
	6/5/2007	50.0	4.0	< 1.0	142	5.0	13.0	231	536	< 0.03

TABLE D6E.2-1. HANK UNIT GROUND-WATER QUALITY DATA. (cont'd.)

Well Name	Date	Ca (mg/l)	Cl (mg/l)	CO3 (mg/l)	HCO3 (mg/l)	K (mg/l)	Mg (mg/l)	Na (mg/l)	SO4 (mg/l)	Fe (mg/l)
SS1-L	7/25/2007	50.0	12.0	< 1.0	137	5.0	12.0	236	555	< 0.03
SS1-M	11/8/1978	38.0	9.0	---	120	41.0	12.0	182	511	0.23
	2/14/1979	37.0	5.8	0.0	104	8.8	10.0	232	512	0.33
	4/17/1979	41.0	4.5	0.0	111	5.7	8.9	208	522	0.08
	8/6/1979	47.0	3.5	7.0	115	4.9	11.0	250	532	0.01
	10/24/1979	56.0	4.2	4.0	119	5.1	14.0	233	528	< 0.01
	10/23/1980	47.0	5.0	0.0	112	5.0	10.0	197	465	0.02
	1/20/1981	52.0	4.0	0.0	120	5.0	10.0	234	563	0.03
	4/28/1981	47.0	11.0	0.0	171	7.0	14.0	205	480	0.08
	7/29/1981	51.0	5.0	0.0	127	8.0	10.0	191	453	0.01
	4/15/1988	43.8	4.4	0.0	112	4.3	9.6	221	530	< 0.05
SS1-U	10/13/1978	41.0	4.6	---	111	5.8	10.0	221	506	< 0.01
	2/14/1979	36.0	9.1	0.0	37	13.0	7.3	230	502	0.08
	4/17/1979	29.0	4.6	0.0	85	66.0	7.8	209	505	0.03
	8/6/1979	37.0	3.4	5.0	97	5.1	11.0	240	514	0.07
	10/26/1979	42.0	4.0	4.0	96	4.8	13.0	230	508	< 0.01
	10/23/1980	43.0	4.0	0.0	124	6.0	12.0	194	450	0.03
	1/20/1981	40.0	5.0	0.0	105	5.0	11.0	213	501	0.24
	4/29/1981	38.0	8.0	0.0	146	7.0	10.0	212	450	0.06
	7/29/1981	37.0	6.0	0.0	115	7.0	13.0	215	500	0.01
	4/15/1988	38.9	5.1	0.0	104	4.2	9.3	216	500	< 0.05
	6/20/2007	41.0	5.0	2.0	120	4.0	11.0	203	508	< 0.03
URZHB-6	8/28/2007	103.0	26.0	< 1.0	120	8.0	15.0	169	576	< 0.03
	3/13/2008	102.0	4.0	< 1.0	126	8.0	14.0	159	577	< 0.03
	3/13/2008	101.0	4.0	< 1.0	127	8.0	13.0	155	573	< 0.03
	9/10/2008	117.0	4.0	< 1.0	117	8.0	16.0	170	557	0.60
URZHC-2	8/7/2007	11.0	10.0	4.0	26	6.0	1.0	131	281	< 0.03
	9/7/2007	7.0	11.0	7.0	46	8.0	1.0	135	271	0.04
URZHF-1	7/27/2007	171.0	< 1.0	< 1.0	45	14.0	30.0	204	981	< 0.03
URZHF-5	8/2/2007	44.0	4.0	4.3	91	6.0	10.0	181	468	< 0.03
	9/17/2008	48.0	4.0	< 1.0	95	6.0	10.0	191	438	< 0.03
URZHH-7	6/26/2008	99.0	4.0	< 1.0	113	8.0	26.0	162	610	< 0.03
	9/17/2008	104.0	4.0	< 1.0	112	8.0	28.0	180	599	< 0.03
WC-MN1	11/14/1978	93.0	4.0	---	168	7.3	23.0	94.0	470	0.47
	4/18/1979	130.0	4.3	< 1.0	145	6.4	25.0	123	497	0.18
	10/29/1979	150.0	5.2	< 1.0	138	7.8	34.0	153	714	0.02

TABLE D6E.2-1. HANK UNIT GROUND-WATER QUALITY DATA. (cont'd.)

Well Name	Date	Temp (deg. C)	TDS (mg/l)	Cond (µmhos)	Cond(f) (µmhos)	pH (units)	pH(f) (std.	Mn (mg/l)	NH3 (mg/l)	NO3+NO2 (mg/l)
BR-B	10/11/1979	11.1	1118	1590	1450	7.90	7.80	0.05	< 0.01	---
	4/15/1980	---	446	---	---	---	---	0.05	< 0.10	---
	5/7/1980	11.8	---	---	1060	---	---	---	---	---
	11/9/2006	10.8	1000	1430	1391	7.82	7.52	0.04	0.09	< 0.1
	1/24/2007	11.2	988	1400	1348	7.82	7.36	< 0.01	0.08	< 0.1
	4/25/2007	11.6	988	1430	1422	7.70	6.89	< 0.01	0.06	< 0.1
BR-F	10/5/1979	10.00	---	---	5150	---	---	---	---	---
	10/24/1979	14.5	---	---	2740	---	---	---	---	---
	11/8/1979	---	438	670	---	10.90	---	0.01	< 0.10	---
	1/11/1980	7.90	---	---	440	---	9.90	---	---	---
	4/16/1980	10.7	264	490	480	9.10	---	0.03	< 0.10	---
	11/28/2006	10.3	236	451	451	9.57	9.24	< 0.01	< 0.05	< 0.1
	1/25/2007	11.6	248	445	414	10.50	10.24	< 0.01	< 0.05	< 0.1
	5/16/2007	---	274	489	465	8.26	8.86	< 0.01	< 0.05	< 0.1
BR-G	10/10/1979	13.2	2004	2470	2380	7.80	7.59	0.29	< 0.10	---
	4/16/1980	---	1880	2260	---	7.80	---	0.20	< 0.05	---
	4/16/1980	---	1820	2280	---	7.10	---	0.21	< 0.10	---
	5/7/1980	12.1	---	---	2430	---	---	---	---	---
	7/30/1980	13.9	1730	---	2520	7.33	---	0.21	< 0.20	---
	10/28/1980	11.8	1800	---	2030	8.52	---	0.22	0.20	---
	2/19/1981	11.8	1870	---	2420	7.40	5.90	0.18	< 0.20	---
	6/29/1981	16.0	1850	---	1110	7.60	5.70	0.22	< 0.20	---
	9/28/1981	14.0	1790	---	2400	7.50	6.13	0.16	< 0.20	---
	4/20/1982	10.00	1800	---	1250	7.80	6.00	0.21	< 0.20	---
	12/19/2006	12.1	1860	2360	2400	7.81	7.37	0.20	0.10	< 0.1
	2/27/2007	13.0	1880	2360	2440	7.90	7.75	0.18	< 0.05	< 0.1
	5/16/2007	13.4	1880	2500	2390	7.80	7.60	0.20	< 0.05	< 0.1
BR-H	10/12/1979	13.4	680	1040	910	7.60	8.50	0.11	< 0.10	---
	4/15/1980	---	648	---	---	7.10	---	0.22	< 0.10	---
	5/7/1980	11.3	---	---	1060	---	---	---	---	---
	11/21/2006	12.6	686	1060	1098	8.47	7.98	0.05	0.10	< 0.1
	1/24/2007	14.8	688	1040	1006	8.21	7.94	0.08	0.16	< 0.1
	4/25/2007	12.5	696	1080	1886	8.09	7.06	0.02	0.10	< 0.1
BR-I	11/29/1979	9.10	---	---	380	---	7.50	---	---	---
	11/30/1979	---	248	439	---	7.60	---	0.03	0.66	---
	4/16/1980	---	225	400	---	7.10	---	0.17	< 0.10	---
	5/7/1980	11.6	---	---	430	---	---	---	---	---
	7/30/1980	12.8	231	---	420	7.36	---	0.02	< 0.20	---
Brown #5	9/5/2007	13.9	912	1420	1380	7.92	7.93	0.01	< 0.05	< 0.1

TABLE D6E.2-1. HANK UNIT GROUND-WATER QUALITY DATA. (cont'd.)

Well Name	Date	Temp (deg. C)	TDS (mg/l)	Cond (µmhos)	Cond(f) (µmhos)	pH (units)	pH(f) (std.	Mn (mg/l)	NH3 (mg/l)	NO3+NO2 (mg/l)
Brown-WS	9/7/2006	13.8	736	1190	1023	7.99	7.77	< 0.01	0.07	< 0.1
	12/6/2006	11.7	764	1180	1160	8.10	7.80	< 0.01	< 0.05	< 0.1
	2/21/2007	11.6	750	1150	1119	6.34	8.46	< 0.01	< 0.05	< 0.1
	5/16/2007	12.6	750	1220	1174	8.23	8.37	0.01	< 0.05	< 0.1
BR-Q	12/16/1979	14.0	---	---	1240	---	---	---	---	---
	1/9/1980	11.1	824	---	1730	---	---	< 0.01	0.14	---
	1/11/1980	---	---	---	---	---	12.10	---	---	---
	4/16/1980	---	642	1380	---	11.30	---	0.10	0.06	---
	4/16/1980	---	472	1320	---	10.70	---	0.04	< 0.10	---
	12/19/2006	13.6	934	1390	1351	8.26	8.10	0.07	0.31	< 0.1
	2/27/2007	13.5	958	1400	1326	8.02	8.30	0.07	< 0.05	< 0.1
	5/16/2007	12.6	932	1450	1174	8.12	8.37	0.07	< 0.05	< 0.1
	8/8/2007	17.7	938	1380	1171	7.86	7.14	0.06	< 0.05	< 0.1
	8/8/2007	17.7	950	1380	1171	7.83	7.14	0.06	0.06	< 0.1
BR-T	1/8/1980	10.00	796	1130	1110	7.70	8.00	0.05	0.11	---
	2/21/1980	13.5	---	---	800	---	---	---	---	---
	2/22/1980	13.5	944	---	1370	---	---	---	---	---
	2/27/1980	13.5	---	---	780	7.40	---	0.02	---	---
	2/27/1980	7.50	598	---	560	7.90	---	---	< 0.10	---
	2/27/1980	---	899	---	1570	---	---	---	---	---
	2/27/1980	---	924	---	1280	---	---	---	---	---
	2/27/1980	---	966	---	860	---	---	---	---	---
	4/15/1980	---	814	---	1370	8.10	---	0.04	< 0.10	---
	4/15/1980	8.20	907	1290	---	---	---	0.05	0.07	---
	4/15/1980	---	---	1382	---	8.30	---	0.05	< 0.10	---
	4/15/1980	---	948	1180	---	8.20	---	0.09	0.05	---
	3/11/1981	---	918	---	---	---	---	< 0.05	0.40	---
	6/30/1981	---	899	---	---	7.80	---	< 0.05	< 0.20	---
	9/29/1981	---	926	---	---	7.60	---	< 0.01	< 0.20	---
	1/14/1982	---	864	---	---	7.70	---	0.05	0.20	---
	4/20/1982	---	843	---	---	8.10	---	0.03	< 0.20	---
	9/8/1988	14.2	916	1311	1281	7.97	6.84	0.04	< 0.05	---
	3/20/2007	---	698	1120	---	7.16	---	0.04	< 0.05	< 0.1
	8/22/2007	15.8	916	1360	1351	8.00	7.89	0.04	< 0.05	< 0.1
BR-U	11/30/1979	---	1380	1760	---	7.00	---	1.43	0.16	---
	1/11/1980	6.50	---	---	1520	---	7.40	---	---	---
	4/15/1980	---	1330	1810	---	7.00	---	1.68	< 0.10	---
	5/7/1980	7.70	---	---	1810	---	---	---	---	---
	7/30/1980	14.4	1180	---	1760	---	7.16	0.98	0.70	---

TABLE D6E.2-1. HANK UNIT GROUND-WATER QUALITY DATA. (cont'd.)

Well Name	Date	Temp (deg. C)	TDS (mg/l)	Cond (µmhos)	Cond(f) (µmhos)	pH (units)	pH(f) (std.	Mn (mg/l)	NH3 (mg/l)	NO3+NO2 (mg/l)
C #1	11/17/1978	9.00	1860	---	3370	---	7.60	0.26	0.13	---
	4/29/1979	11.0	1710	---	2280	---	6.70	0.23	0.06	---
Dry Willow #1	11/8/1978	14.0	820	---	1440	---	7.50	0.04	0.02	---
	5/1/1979	11.0	804	---	1440	---	7.80	0.01	0.10	---
	3/22/2007	11.3	718	1150	1162	8.12	7.15	0.03	< 0.05	< 0.1
	5/2/2007	---	798	1210	1067	8.10	7.17	0.03	< 0.05	< 0.1
	5/24/2007	13.2	804	994	1100	7.93	7.01	0.03	< 0.05	< 0.1
	9/5/2007	11.3	754	1200	1202	7.21	8.07	0.02	< 0.05	< 0.1
F. Brown #1	11/7/1978	14.0	638	---	1360	---	7.60	0.05	26.00	---
	4/21/1979	13.0	667	---	1390	---	7.90	0.03	7.50	---
Hank 1	11/17/1978	10.00	1110	---	2100	---	10.40	0.09	0.03	---
	5/1/1979	13.0	1020	---	1940	---	7.40	0.07	0.08	---
	6/27/2006	---	926	1340	---	7.36	---	0.07	0.08	< 0.1
	6/29/2006	---	924	1340	---	8.04	---	0.06	---	< 0.1
	12/20/2006	13.2	868	1340	1341	8.01	7.81	0.08	0.07	< 0.1
	1/25/2007	13.1	936	1350	1269	7.16	7.78	0.07	< 0.05	< 0.1
	5/2/2007	---	944	1400	1174	7.97	7.30	0.07	< 0.05	< 0.1
	6/26/2008	15.9	884	1350	1284	7.91	7.30	0.06	< 0.10	< 0.1
Means #1	11/16/2006	12.1	1200	1680	1661	8.03	7.31	0.03	< 0.05	< 0.1
	3/12/2007	13.5	1110	1630	1563	7.87	7.02	0.03	< 0.05	< 0.1
	6/6/2007	12.1	1190	1790	1631	7.80	7.73	0.07	< 0.05	< 0.1
	9/5/2007	12.4	1100	1670	1641	7.25	7.75	0.12	< 0.05	< 0.1
NBHW-13	11/28/2006	11.6	794	1260	1271	8.34	7.65	0.01	< 0.05	< 0.1
	2/23/2007	13.0	832	1240	1239	8.13	8.12	0.01	< 0.05	< 0.1
	5/16/2007	---	842	1350	1167	8.20	7.54	0.01	< 0.05	< 0.1
	7/25/2007	15.2	850	1290	1121	8.20	7.82	0.01	< 0.05	< 0.1
Old Maid #1	3/12/2007	13.0	722	1140	1113	8.03	6.97	0.04	0.06	< 0.1
OW43756	6/21/2007	15.0	1170	1570	1310	7.66	7.08	0.14	0.12	< 0.1
Paden #1	12/6/2006	12.3	1840	2250	2270	7.62	7.18	< 0.01	0.05	0.1
	2/27/2007	11.8	1740	2130	2260	7.82	7.50	< 0.01	< 0.05	< 0.1
	6/6/2007	12.8	1780	2370	2230	7.63	7.36	< 0.01	< 0.05	1.1
	9/5/2007	13.0	1710	2270	219	7.67	7.38	< 0.01	< 0.05	< 0.1
SS1-F	10/23/1980	10.00	1054	1386	1524	7.70	7.60	0.06	< 0.05	---
	1/20/1981	11.5	1088	1541	1494	7.36	7.55	0.07	0.12	---
	4/29/1981	11.0	1028	---	1526	7.75	7.60	0.08	< 0.05	---
	7/29/1981	11.2	958	1490	1779	7.79	7.60	0.03	< 0.05	---
	4/15/1988	11.8	1214	1634	1527	7.77	7.83	0.07	0.05	---
	6/21/2007	12.2	964	1410	1220	7.75	7.36	0.06	< 0.05	< 0.1

TABLE D6E.2-1. HANK UNIT GROUND-WATER QUALITY DATA. (cont'd.)

Well Name	Date	Temp (deg. C)	TDS (mg/l)	Cond (µmhos)	Cond(f) (µmhos)	pH (units)	pH(f) (std.	Mn (mg/l)	NH3 (mg/l)	NO3+NO2 (mg/l)
SS1-L	10/12/1978	11.0	912	---	1680	---	9.30	< 0.01	0.09	---
	2/14/1979	3.00	688	---	1740	---	7.50	0.05	0.04	---
	4/17/1979	12.0	828	---	1440	---	7.80	0.01	< 0.10	---
	8/6/1979	16.0	847	---	1450	---	7.90	< 0.01	0.11	---
	10/26/1979	14.0	852	---	1610	---	9.20	< 0.01	0.03	---
	10/23/1980	10.8	856	1195	1272	7.66	7.60	< 0.01	< 0.05	---
	1/14/1981	11.0	901	1314	1348	7.51	7.94	< 0.01	0.14	---
	4/29/1981	11.4	806	---	1280	6.79	7.50	0.02	< 0.05	---
	7/29/1981	11.3	779	1240	1501	7.71	7.70	0.01	< 0.05	---
	4/15/1988	11.6	870	1358	1222	7.98	8.08	0.01	0.05	---
	4/27/2007	12.1	882	1360	1331	8.15	7.31	0.01	0.09	< 0.1
	6/5/2007	14.0	856	1470	1178	8.16	7.66	0.01	< 0.05	< 0.1
	7/25/2007	14.2	884	1350	1199	8.14	7.74	0.01	0.05	< 0.1
SS1-M	11/8/1978	18.0	902	---	1500	---	8.00	< 0.01	0.02	---
	2/14/1979	3.00	866	---	2100	---	7.80	0.03	0.03	---
	4/17/1979	14.0	862	---	1380	---	8.10	0.01	0.10	---
	8/6/1979	16.0	891	---	1490	---	8.30	< 0.01	0.12	---
	10/24/1979	18.0	897	---	1500	---	7.20	< 0.01	0.03	---
	10/23/1980	9.00	794	1217	1303	7.73	7.40	< 0.01	< 0.05	---
	1/20/1981	12.5	937	1310	1325	7.58	7.96	< 0.01	< 0.05	---
	4/28/1981	12.5	838	---	1431	7.95	8.10	0.03	< 0.05	---
	7/29/1981	12.0	808	1260	1475	7.63	7.70	0.01	< 0.05	---
	4/15/1988	11.6	908	1332	1230	7.98	8.07	< 0.01	0.05	---
SS1-U	10/13/1978	13.0	920	---	1635	---	9.10	< 0.01	0.19	---
	2/14/1979	3.00	797	---	2010	---	8.40	< 0.01	0.07	---
	4/17/1979	14.0	820	---	1415	---	7.20	0.01	< 0.10	---
	8/6/1979	17.0	833	---	1380	---	8.10	< 0.01	0.13	---
	10/26/1979	16.0	848	---	1560	---	7.30	< 0.01	0.05	---
	10/23/1980	11.0	814	1161	1292	7.78	7.60	< 0.01	< 0.05	---
	1/20/1981	13.0	847	1258	1309	7.65	8.20	0.01	< 0.05	---
	4/29/1981	11.5	826	---	1331	8.07	8.00	0.02	< 0.05	---
	7/29/1981	11.8	855	1140	1483	7.84	7.90	0.01	< 0.05	---
	4/15/1988	13.0	864	1282	1206	7.99	8.19	< 0.01	0.05	---
	6/20/2007	14.9	832	1280	1159	8.53	7.81	< 0.01	< 0.05	< 0.1
URZHB-6	8/28/2007	14.7	904	1340	1361	7.76	7.97	0.04	< 0.05	< 0.1
	3/13/2008	14.5	918	1280	1236	7.76	7.24	0.04	< 0.05	< 0.1
	3/13/2008	14.1	894	1290	1240	7.84	7.26	0.04	< 0.05	< 0.1
	9/10/2008	14.9	891	1310	1291	7.89	7.97	0.07	< 0.10	< 0.1
URZHC-2	8/7/2007	16.3	410	699	670	9.53	9.67	< 0.01	< 0.05	< 0.1

TABLE D6E.2-1. HANK UNIT GROUND-WATER QUALITY DATA. (cont'd.)

Well Name	Date	Temp (deg. C)	TDS (mg/l)	Cond (µmhos)	Cond(f) (µmhos)	pH (units)	pH(f) (std.	Mn (mg/l)	NH3 (mg/l)	NO3+NO2 (mg/l)
URZHC-2	9/7/2007	16.8	440	724	751	9.45	10.07	< 0.01	< 0.05	< 0.1
URZHF-1	7/27/2007	17.1	1440	1880	1393	8.50	9.21	0.01	< 0.05	< 0.1
URZHF-5	8/2/2007	15.5	710	1140	995	7.49	8.76	< 0.01	< 0.05	< 0.1
	9/17/2008	16.0	735	1140	1120	8.37	8.40	< 0.01	< 0.10	< 0.1
URZHH-7	6/26/2008	15.4	1010	1430	1204	7.90	6.49	< 0.01	< 0.10	< 0.1
	9/17/2008	16.7	994	1430	760	7.92	8.80	< 0.01	< 0.10	< 0.1
WC-MN1	11/14/1978	10.00	880	---	1670	---	8.00	0.08	0.03	---
	4/18/1979	13.0	894	---	1390	---	7.10	0.05	< 0.10	---
	10/29/1979	12.0	988	---	1770	---	9.20	0.07	0.05	---

TABLE D6E.2-1. HANK UNIT GROUND-WATER QUALITY DATA. (cont'd.)

Well Name	Date	F (mg/l)	Al (mg/l)	As (mg/l)	Ba (mg/l)	Cr (mg/l)	Cu (mg/l)	B (mg/l)	Cd (mg/l)	Hg (mg/l)
BR-B	10/11/1979	0.12	0.05	< 0.010	< 0.05	< 0.010	< 0.01	< 1.00	< 0.002	< 0.0010
	4/15/1980	0.41	< 0.10	< 0.010	< 0.05	< 0.050	< 0.02	< 1.00	< 0.010	< 0.0010
	11/9/2006	< 0.10	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	1/24/2007	0.10	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.010	< 0.0010
	4/25/2007	0.20	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
BR-F	11/8/1979	0.20	0.10	< 0.010	< 0.05	< 0.050	< 0.02	< 1.00	< 0.010	< 0.0010
	4/16/1980	0.19	0.20	< 0.010	< 0.05	< 0.050	< 0.02	< 1.00	< 0.010	< 0.0010
	11/28/2006	0.30	< 0.10	0.007	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	1/25/2007	0.30	0.50	0.003	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	5/16/2007	0.20	0.60	0.003	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
BR-G	10/10/1979	< 1.00	< 0.05	< 0.010	< 0.05	< 0.010	< 0.01	---	< 0.002	< 0.0010
	4/16/1980	0.10	< 0.20	0.006	< 0.10	---	0.02	---	---	< 0.0010
	4/16/1980	0.10	0.20	< 0.010	< 0.05	< 0.050	< 0.02	< 1.00	< 0.010	< 0.0010
	7/30/1980	0.17	0.70	< 0.003	< 0.20	< 0.010	0.02	< 0.10	< 0.010	0.0002
	10/28/1980	0.20	< 0.50	< 0.002	< 0.10	< 0.010	0.01	0.20	< 0.010	0.0002
	2/19/1981	0.10	< 0.50	0.006	< 0.20	< 0.020	< 0.02	< 0.10	0.010	< 0.0001
	6/29/1981	0.10	< 0.50	< 0.005	< 0.20	< 0.020	0.02	0.10	0.010	0.0010
	9/28/1981	---	< 0.50	< 0.005	< 0.20	0.010	0.01	< 0.10	0.012	0.0001
	4/20/1982	---	< 0.50	< 0.005	< 0.20	< 0.005	< 0.01	0.10	0.012	< 0.0001
	12/19/2006	0.10	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	2/27/2007	0.10	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	5/16/2007	0.20	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
BR-H	10/12/1979	0.37	0.70	< 0.010	< 0.05	< 0.010	0.01	< 1.00	< 0.002	< 0.0010
	4/15/1980	0.20	0.80	< 0.010	< 0.05	< 0.050	< 0.02	1.00	< 0.010	< 0.0010
	11/21/2006	0.40	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	1/24/2007	0.30	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	4/25/2007	0.40	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
BR-I	11/30/1979	0.15	< 0.10	< 0.010	< 0.05	< 0.050	< 0.02	< 1.00	< 0.010	< 0.0010
	4/16/1980	0.10	1.60	< 0.010	< 0.05	< 0.050	< 0.02	< 1.00	< 0.010	< 0.0010
	7/30/1980	0.16	1.30	< 0.002	< 0.50	< 0.010	< 0.02	< 0.10	< 0.010	0.0001
Brown #5	9/5/2007	0.10	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
Brown-WS	9/7/2006	0.20	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	---	< 0.005	< 0.0010
	12/6/2006	0.20	< 0.10	0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	2/21/2007	0.30	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	5/16/2007	0.30	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
BR-Q	1/9/1980	0.30	< 0.10	< 0.010	< 0.05	< 0.050	< 0.02	< 1.00	< 0.010	< 0.0010
	4/16/1980	0.60	0.40	0.006	< 0.10	< 0.020	< 0.02	---	0.010	< 0.0010
	4/16/1980	0.39	0.40	< 0.010	< 0.05	< 0.050	< 0.02	< 1.00	< 0.010	< 0.0010

TABLE D6E.2-1. HANK UNIT GROUND-WATER QUALITY DATA. (cont'd.)

Well Name	Date	F (mg/l)	Al (mg/l)	As (mg/l)	Ba (mg/l)	Cr (mg/l)	Cu (mg/l)	B (mg/l)	Cd (mg/l)	Hg (mg/l)
BR-Q	12/19/2006	0.10	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	2/27/2007	0.10	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	5/16/2007	0.10	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	8/8/2007	0.10	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	8/8/2007	0.10	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
BR-T	1/8/1980	0.11	< 0.10	< 0.010	< 0.05	---	< 0.02	< 1.00	< 0.010	< 0.0010
	2/27/1980	---	---	---	---	---	< 0.02	---	---	< 0.0010
	2/27/1980	0.15	< 0.10	< 0.010	< 0.05	< 0.050	---	< 1.00	< 0.010	---
	4/15/1980	0.07	< 0.10	< 0.010	< 0.05	< 0.050	< 0.02	< 1.00	< 0.010	< 0.0010
	4/15/1980	< 0.10	< 0.20	0.006	< 0.10	< 0.020	< 0.02	---	0.010	< 0.0010
	4/15/1980	0.01	0.20	< 0.010	< 0.10	0.004	0.07	0.20	< 0.001	< 0.0040
	4/15/1980	< 0.10	0.10	< 0.002	< 0.03	< 0.020	< 0.02	< 0.01	< 0.010	---
	1/8/1981	---	---	---	---	< 0.050	---	---	---	---
	3/11/1981	0.10	< 0.50	< 0.005	< 0.20	< 0.050	< 0.05	< 0.10	0.010	< 0.0004
	4/15/1981	---	< 0.10	---	---	---	---	---	---	---
	6/30/1981	0.20	< 0.50	< 0.005	< 0.20	< 0.020	< 0.02	0.20	0.020	< 0.0001
	9/29/1981	---	< 0.50	< 0.005	< 0.20	< 0.007	0.01	< 0.10	< 0.005	0.0001
	1/14/1982	---	< 0.50	< 0.005	< 0.20	< 0.010	0.03	0.10	< 0.005	0.0001
	4/20/1982	---	< 0.50	< 0.005	< 0.20	< 0.005	< 0.01	< 0.10	0.010	0.0001
	9/8/1988	< 0.10	< 0.10	0.002	< 0.10	< 0.050	< 0.01	< 0.10	< 0.010	< 0.0010
	3/20/2007	0.10	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	8/22/2007	0.10	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
BR-U	11/30/1979	0.31	0.10	< 0.001	< 0.05	< 0.050	0.03	< 1.00	< 0.010	< 0.0010
	4/15/1980	0.24	2.70	< 0.010	< 0.05	< 0.050	< 0.02	< 1.00	< 0.010	< 0.0010
	7/30/1980	0.69	< 0.20	0.008	0.20	< 0.010	0.02	< 0.10	< 0.010	0.0002
C #1	11/17/1978	0.03	< 0.10	< 0.003	< 0.10	< 0.010	< 0.01	< 0.10	< 0.010	< 0.0005
	4/29/1979	0.10	< 0.10	< 0.003	---	---	---	< 0.10	< 0.010	< 0.0005
Dry Willow #1	11/8/1978	0.15	< 0.10	< 0.003	< 0.10	< 0.010	< 0.01	0.20	< 0.010	< 0.0005
	5/1/1979	0.16	---	---	---	0.030	0.07	0.10	---	---
	3/22/2007	0.20	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	5/2/2007	0.20	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	5/24/2007	0.20	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	9/5/2007	0.20	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
F. Brown #1	11/7/1978	0.88	< 0.10	< 0.003	< 0.10	< 0.010	< 0.01	0.30	< 0.010	< 0.0095
	4/21/1979	0.70	< 0.10	< 0.003	< 0.10	< 0.010	< 0.01	< 0.10	< 0.010	< 0.0095
Hank 1	11/17/1978	0.04	< 0.10	< 0.003	< 0.10	< 0.010	< 0.01	< 0.10	< 0.010	< 0.0005
	5/1/1979	0.21	< 0.10	< 0.003	< 0.10	< 0.010	< 0.01	< 0.10	< 0.010	0.0013
	6/27/2006	0.20	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	6/29/2006	0.20	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010

TABLE D6E.2-1. HANK UNIT GROUND-WATER QUALITY DATA. (cont'd.)

Well Name	Date	F (mg/l)	Al (mg/l)	As (mg/l)	Ba (mg/l)	Cr (mg/l)	Cu (mg/l)	B (mg/l)	Cd (mg/l)	Hg (mg/l)
Hank 1	12/20/2006	0.20	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	1/25/2007	0.20	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	5/2/2007	0.20	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	6/26/2008	0.10	< 0.10	0.003	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
Means #1	11/16/2006	0.10	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	3/12/2007	0.10	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	6/6/2007	0.10	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	9/5/2007	0.10	< 0.10	0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
NBHW-13	11/28/2006	< 0.10	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	2/23/2007	0.10	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	5/16/2007	0.10	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	7/25/2007	0.10	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
Old Maid #1	3/12/2007	0.10	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
OW43756	6/21/2007	0.20	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
Paden #1	12/6/2006	0.20	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	2/27/2007	0.20	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	0.20	< 0.005	< 0.0010
	6/6/2007	0.20	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	9/5/2007	0.20	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
SS1-F	10/23/1980	< 0.10	0.09	< 0.005	---	< 0.010	< 0.01	< 0.01	0.014	< 0.0005
	1/20/1981	< 0.10	< 0.05	< 0.005	< 0.03	< 0.010	0.01	< 0.01	0.002	< 0.0005
	4/29/1981	0.17	< 0.05	< 0.005	< 0.03	< 0.010	0.01	< 0.01	< 0.002	< 0.0005
	7/29/1981	0.14	< 0.05	< 0.005	< 0.03	< 0.010	< 0.01	< 0.01	< 0.002	< 0.0005
	4/15/1988	0.11	< 0.10	0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.010	< 0.0010
	6/21/2007	0.20	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
SS1-L	10/12/1978	0.10	< 0.10	< 0.003	< 0.10	< 0.010	0.02	0.30	< 0.010	< 0.0005
	2/14/1979	0.39	0.20	< 0.003	< 0.10	< 0.020	< 0.01	0.60	< 0.010	< 0.0005
	4/17/1979	0.10	< 0.10	< 0.003	< 0.10	< 0.020	< 0.01	< 0.10	< 0.010	< 0.0005
	8/6/1979	0.12	< 0.30	< 0.002	< 0.30	< 0.020	< 0.01	0.10	< 0.010	< 0.0010
	10/26/1979	0.08	< 0.10	< 0.002	< 0.10	< 0.020	0.03	0.20	< 0.010	0.0004
	10/23/1980	< 0.10	0.15	< 0.005	< 0.03	< 0.010	< 0.01	< 0.01	0.004	< 0.0005
	1/14/1981	0.27	< 0.05	< 0.005	< 0.03	< 0.010	< 0.01	< 0.01	0.005	< 0.0005
	4/29/1981	0.14	< 0.05	< 0.005	< 0.03	< 0.010	0.01	< 0.01	< 0.002	< 0.0005
	7/29/1981	0.14	< 0.05	< 0.005	< 0.03	< 0.010	0.02	< 0.01	< 0.002	< 0.0005
	4/15/1988	0.10	< 0.10	0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.010	< 0.0010
	4/27/2007	0.20	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	6/5/2007	0.10	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	7/25/2007	0.10	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
SS1-M	11/8/1978	0.11	< 0.10	< 0.003	< 0.10	< 0.010	0.04	< 0.10	< 0.010	< 0.0005

TABLE D6E.2-1. HANK UNIT GROUND-WATER QUALITY DATA. (cont'd.)

Well Name	Date	F (mg/l)	Al (mg/l)	As (mg/l)	Ba (mg/l)	Cr (mg/l)	Cu (mg/l)	B (mg/l)	Cd (mg/l)	Hg (mg/l)
SS1-M	2/14/1979	0.17	0.70	< 0.002	< 0.03	< 0.010	0.20	< 0.10	< 0.010	< 0.0003
	4/17/1979	0.20	< 0.10	< 0.002	< 0.03	< 0.020	< 0.01	< 0.10	< 0.010	< 0.0010
	8/6/1979	0.08	< 0.30	< 0.002	< 0.30	< 0.020	< 0.01	0.10	< 0.010	< 0.0010
	10/24/1979	0.06	< 0.10	< 0.002	< 0.10	< 0.020	< 0.01	< 0.10	< 0.010	< 0.0003
	10/23/1980	< 0.10	0.13	< 0.005	< 0.03	< 0.010	0.02	< 0.01	0.010	< 0.0005
	1/20/1981	0.26	< 0.05	< 0.005	< 0.03	< 0.010	< 0.01	< 0.01	0.004	< 0.0005
	4/28/1981	0.12	< 0.05	< 0.005	< 0.03	< 0.010	< 0.01	< 0.01	< 0.002	< 0.0005
	7/29/1981	0.15	< 0.05	< 0.005	< 0.03	< 0.010	< 0.01	< 0.01	< 0.002	< 0.0005
	4/15/1988	0.10	< 0.10	0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.010	< 0.0010
SS1-U	10/13/1978	0.09	< 0.10	< 0.003	< 0.10	< 0.010	< 0.01	0.60	< 0.010	< 0.0005
	2/14/1979	0.12	0.20	< 0.003	< 0.10	< 0.010	0.03	0.40	< 0.010	< 0.0005
	4/17/1979	0.07	< 0.10	< 0.002	< 0.30	< 0.020	< 0.01	< 0.10	< 0.010	< 0.0010
	8/6/1979	0.08	< 0.30	< 0.002	< 0.30	< 0.020	< 0.01	0.70	< 0.010	< 0.0010
	10/26/1979	0.07	< 0.10	< 0.002	< 0.10	0.020	< 0.01	0.30	< 0.010	< 0.0003
	10/23/1980	< 0.10	0.15	< 0.005	< 0.03	< 0.010	< 0.01	< 0.01	0.006	< 0.0005
	1/20/1981	0.18	< 0.05	< 0.005	< 0.03	< 0.010	< 0.01	< 0.01	0.003	< 0.0005
	4/29/1981	0.17	< 0.05	< 0.005	< 0.03	< 0.010	< 0.01	< 0.01	< 0.002	< 0.0005
	7/29/1981	0.17	< 0.05	< 0.005	< 0.03	< 0.010	< 0.01	< 0.01	< 0.002	< 0.0005
	4/15/1988	0.10	< 0.10	0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.010	< 0.0010
	6/20/2007	0.10	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
URZHB-6	8/28/2007	0.20	< 0.10	0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	3/13/2008	< 0.10	< 0.10	0.002	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	3/13/2008	< 0.10	< 0.10	0.002	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	9/10/2008	< 0.10	0.50	0.002	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
URZHC-2	8/7/2007	0.40	< 0.10	< 0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	9/7/2007	0.40	< 0.10	0.002	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
URZHF-1	7/27/2007	0.20	< 0.10	0.005	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
URZHF-5	8/2/2007	0.30	< 0.10	0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	9/17/2008	0.20	< 0.10	0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
URZHH-7	6/26/2008	0.20	< 0.10	0.004	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
	9/17/2008	0.20	< 0.10	0.001	< 0.10	< 0.050	< 0.01	< 0.10	< 0.005	< 0.0010
WC-MN1	11/14/1978	0.05	< 0.10	< 0.003	< 0.10	< 0.010	< 0.01	< 0.10	< 0.010	< 0.0005
	4/18/1979	< 0.02	---	---	---	---	---	0.20	---	---
	10/29/1979	0.06	< 0.10	< 0.002	< 0.10	< 0.020	0.08	< 0.30	< 0.010	< 0.0003

TABLE D6E.2-1. HANK UNIT GROUND-WATER QUALITY DATA. (cont'd.)

Well Name	Date	Mo (mg/l)	Ni (mg/l)	Pb (mg/l)	Se (mg/l)	V (mg/l)	Zn (mg/l)	Unat (mg/l)
BR-B	10/11/1979	---	< 0.040	< 0.050	< 0.010	0.0060	< 0.050	< 0.01
	4/15/1980	---	< 0.040	< 0.100	< 0.010	< 0.0010	< 0.050	0.07
	11/9/2006	< 0.1	< 0.050	< 0.001	< 0.001	0.0073	< 0.100	< 0.01
	1/24/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0073	< 0.100	< 0.01
	4/25/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0074	< 0.100	< 0.01
BR-F	11/8/1979	---	< 0.040	< 0.050	< 0.010	< 0.0010	< 0.050	0.01
	4/16/1980	---	< 0.004	< 0.050	< 0.010	< 0.0010	< 0.050	0.01
	11/28/2006	< 0.1	< 0.050	< 0.001	< 0.001	< 0.0003	< 0.100	< 0.01
	1/25/2007	< 0.1	< 0.050	< 0.001	< 0.001	< 0.0003	< 0.100	< 0.01
	5/16/2007	< 0.1	< 0.050	0.003	< 0.001	< 0.0003	< 0.100	0.01
BR-G	10/10/1979	---	< 0.040	< 0.050	< 0.010	0.0050	< 0.050	0.01
	4/16/1980	---	< 0.050	0.008	< 0.005	0.0120	0.017	0.01
	4/16/1980	---	< 0.040	0.100	< 0.010	< 0.0010	< 0.050	0.04
	7/30/1980	---	< 0.050	0.067	< 0.050	0.0100	< 0.005	0.01
	10/28/1980	---	< 0.020	0.011	< 0.005	0.0060	0.006	1.30
	2/19/1981	---	< 0.050	0.005	0.030	0.0110	< 0.005	1.20
	6/29/1981	---	0.050	0.009	0.005	0.0060	0.005	1.05
	9/28/1981	---	< 0.020	< 0.005	< 0.005	0.0160	< 0.005	1.03
	4/20/1982	---	0.020	< 0.016	< 0.005	0.0210	< 0.005	3.60
	12/19/2006	< 0.1	< 0.050	< 0.001	0.001	0.0005	< 0.100	< 0.01
	2/27/2007	< 0.1	< 0.050	< 0.001	< 0.002	0.0005	< 0.100	< 0.01
	5/16/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0005	< 0.100	< 0.01
BR-H	10/12/1979	---	< 0.040	< 0.050	< 0.010	0.0090	< 0.050	0.02
	4/15/1980	---	< 0.040	0.100	< 0.010	< 0.0010	< 0.050	0.12
	11/21/2006	< 0.1	< 0.050	< 0.001	0.001	0.0006	< 0.100	< 0.01
	1/24/2007	< 0.1	< 0.050	< 0.001	< 0.001	< 0.0003	< 0.100	< 0.01
	4/25/2007	< 0.1	< 0.050	< 0.001	< 0.001	< 0.0003	< 0.100	< 0.01
BR-I	11/30/1979	---	< 0.040	< 0.050	< 0.010	0.0180	< 0.010	0.06
	4/16/1980	---	< 0.040	< 0.050	< 0.010	0.0080	< 0.050	0.10
	7/30/1980	---	< 0.050	0.117	< 0.005	0.0070	< 0.005	< 0.01
Brown #5	9/5/2007	< 0.1	< 0.050	0.001	< 0.001	0.0129	< 0.100	0.02
Brown-WS	9/7/2006	< 0.1	< 0.050	< 0.050	< 0.001	0.0103	< 0.100	0.02
	12/6/2006	< 0.1	< 0.050	< 0.001	< 0.001	0.0090	< 0.100	0.07
	2/21/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0096	< 0.100	0.12
	5/16/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0092	< 0.100	0.06
BR-Q	1/9/1980	---	< 0.040	1.860	< 0.010	< 0.0010	< 0.010	< 0.01
	4/16/1980	---	< 0.050	0.650	< 0.005	< 0.0010	0.017	0.15
	4/16/1980	---	< 0.040	0.800	< 0.010	< 0.0010	< 0.050	0.19

TABLE D6E.2-1. HANK UNIT GROUND-WATER QUALITY DATA. (cont'd.)

Well Name	Date	Mo (mg/l)	Ni (mg/l)	Pb (mg/l)	Se (mg/l)	V (mg/l)	Zn (mg/l)	Unat (mg/l)
BR-Q	12/19/2006	< 0.1	< 0.050	0.001	0.002	0.0089	< 0.100	< 0.01
	2/27/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0107	< 0.100	< 0.01
	5/16/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0109	< 0.100	< 0.01
	8/8/2007	< 0.1	< 0.050	< 0.001	< 0.002	0.0104	< 0.100	< 0.01
	8/8/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0111	< 0.100	< 0.01
BR-T	1/8/1980	---	< 0.040	< 0.050	< 0.010	0.0060	< 0.050	< 0.01
	2/27/1980	---	< 0.040	< 0.050	< 0.010	0.0100	< 0.050	1.23
	4/15/1980	---	< 0.040	< 0.050	< 0.010	0.0110	< 0.050	1.28
	4/15/1980	---	< 0.050	0.002	< 0.005	0.0120	< 0.005	1.90
	4/15/1980	---	0.020	0.009	< 0.010	---	< 0.020	1.94
	4/15/1980	---	< 0.050	< 0.050	0.003	0.0150	< 0.100	1.21
	3/11/1981	---	< 0.050	< 0.005	< 0.005	0.0200	< 0.005	0.17
	6/30/1981	---	< 0.050	< 0.010	< 0.005	< 0.0010	< 0.005	0.21
	9/29/1981	---	< 0.020	< 0.005	< 0.005	0.0200	< 0.005	---
	1/14/1982	---	< 0.020	< 0.005	< 0.005	0.0220	< 0.005	0.52
	4/20/1982	---	< 0.020	< 0.005	< 0.005	0.2000	< 0.005	0.24
	9/8/1988	< 0.1	< 0.050	< 0.050	0.007	0.0104	< 0.100	0.08
	3/20/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0163	< 0.100	3.19
	8/22/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0139	< 0.100	0.04
BR-U	11/30/1979	---	0.040	< 0.050	< 0.010	0.0720	< 0.050	0.04
	4/15/1980	---	< 0.040	< 0.050	< 0.010	0.0690	< 0.050	0.06
	7/30/1980	---	< 0.050	0.040	0.014	0.0520	< 0.005	< 0.01
C #1	11/17/1978	< 0.1	< 0.010	< 0.010	< 0.003	0.0160	< 0.100	0.03
	4/29/1979	< 0.1	---	---	< 0.003	0.0260	< 0.100	0.05
Dry Willow #1	11/8/1978	< 0.1	< 0.010	0.050	0.004	0.0081	< 0.100	< 0.01
	5/1/1979	---	---	0.020	---	< 0.0010	---	0.07
	3/22/2007	< 0.1	< 0.050	< 0.001	< 0.010	0.0040	< 0.100	< 0.01
	5/2/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0035	< 0.100	< 0.01
	5/24/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0053	< 0.100	< 0.01
	9/5/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0033	< 0.100	< 0.01
F. Brown #1	11/7/1978	0.5	< 0.010	< 0.010	< 0.003	2.1600	< 0.100	< 0.01
	4/21/1979	< 0.1	< 0.010	< 0.010	< 0.003	0.2350	< 0.100	< 0.01
Hank 1	11/17/1978	< 0.1	< 0.010	0.010	< 0.003	< 0.0010	< 0.100	< 0.01
	5/1/1979	< 0.1	< 0.010	< 0.010	< 0.003	< 0.0010	< 0.100	0.01
	6/27/2006	< 0.1	< 0.050	< 0.050	< 0.001	0.0043	< 0.100	< 0.01
	6/29/2006	< 0.1	< 0.050	< 0.050	< 0.001	0.0043	< 0.100	< 0.01
	12/20/2006	< 0.1	< 0.050	< 0.001	0.002	0.0034	< 0.100	< 0.01
	1/25/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0028	< 0.100	< 0.01
	5/2/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0031	< 0.100	< 0.01

TABLE D6E.2-1. HANK UNIT GROUND-WATER QUALITY DATA. (cont'd.)

Well Name	Date	Mo (mg/l)	Ni (mg/l)	Pb (mg/l)	Se (mg/l)	V (mg/l)	Zn (mg/l)	Unat (mg/l)
Hank 1	6/26/2008	< 0.1	< 0.050	< 0.001	< 0.001	0.0028	< 0.100	< 0.01
Means #1	11/16/2006	< 0.1	< 0.050	< 0.001	< 0.001	0.0272	< 0.100	0.07
	3/12/2007	< 0.1	< 0.050	< 0.001	0.003	0.0214	< 0.100	0.06
	6/6/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0253	< 0.100	0.09
	9/5/2007	< 0.1	< 0.050	0.007	0.001	0.0283	< 0.100	0.18
NBHW-13	11/28/2006	< 0.1	< 0.050	< 0.001	< 0.001	0.0167	< 0.100	< 0.01
	2/23/2007	< 0.1	< 0.050	< 0.001	0.001	0.0146	< 0.100	0.01
	5/16/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0147	< 0.100	0.05
	7/25/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0148	< 0.100	< 0.01
Old Maid #1	3/12/2007	< 0.1	< 0.050	< 0.001	< 0.002	< 0.0003	< 0.100	0.22
OW43756	6/21/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0058	< 0.100	< 0.01
Paden #1	12/6/2006	< 0.1	< 0.050	< 0.001	0.032	0.2170	< 0.100	< 0.01
	2/27/2007	< 0.1	< 0.050	< 0.001	0.029	0.2680	< 0.100	< 0.01
	6/6/2007	< 0.1	< 0.050	< 0.001	0.024	0.2850	< 0.100	< 0.01
	9/5/2007	< 0.1	< 0.050	0.005	0.017	0.2940	< 0.100	0.16
SS1-F	10/23/1980	< 0.1	< 0.020	< 0.010	< 0.005	0.0160	< 0.050	0.04
	1/20/1981	< 0.1	< 0.020	< 0.010	< 0.005	0.0020	< 0.050	0.01
	4/29/1981	< 0.1	< 0.020	< 0.010	< 0.005	0.0010	< 0.050	0.02
	7/29/1981	< 0.1	< 0.020	< 0.010	< 0.005	0.0020	< 0.050	0.01
	4/15/1988	< 0.1	< 0.050	< 0.050	0.010	0.0028	< 0.100	< 0.01
	6/21/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0018	< 0.100	< 0.01
SS1-L	10/12/1978	< 0.1	0.020	< 0.010	< 0.003	0.0140	< 0.100	< 0.01
	2/14/1979	< 0.1	0.030	0.030	< 0.003	0.0010	< 0.100	0.09
	4/17/1979	< 0.1	< 0.010	0.020	< 0.003	0.0020	< 0.100	< 0.01
	8/6/1979	< 0.2	0.020	0.040	< 0.001	0.0060	< 0.700	0.02
	10/26/1979	< 0.1	< 0.010	< 0.020	< 0.002	0.0060	< 0.100	0.17
	10/23/1980	< 0.1	< 0.020	< 0.010	< 0.005	0.0080	< 0.050	0.01
	1/14/1981	< 0.1	< 0.020	< 0.010	< 0.005	0.0030	< 0.050	0.01
	4/29/1981	< 0.1	< 0.020	< 0.010	< 0.001	0.0050	< 0.050	0.03
	7/29/1981	< 0.1	< 0.020	< 0.010	< 0.005	0.0060	< 0.050	0.06
	4/15/1988	< 0.1	< 0.050	< 0.050	0.011	0.0101	< 0.100	< 0.01
	4/27/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0146	< 0.100	< 0.01
	6/5/2007	< 0.1	< 0.050	< 0.001	---	---	< 0.100	< 0.01
	7/25/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0147	< 0.100	< 0.01
SS1-M	11/8/1978	0.4	< 0.010	< 0.010	< 0.003	0.0230	< 0.100	0.03
	2/14/1979	< 0.1	0.070	0.130	< 0.002	0.0120	< 0.400	0.19
	4/17/1979	< 0.1	< 0.010	0.040	< 0.001	0.0140	< 0.100	< 0.01
	8/6/1979	< 0.2	0.020	0.020	< 0.001	0.0140	< 0.400	0.04

TABLE D6E.2-1. HANK UNIT GROUND-WATER QUALITY DATA. (cont'd.)

Well Name	Date	Mo (mg/l)	Ni (mg/l)	Pb (mg/l)	Se (mg/l)	V (mg/l)	Zn (mg/l)	Unat (mg/l)
SS1-M	10/24/1979	< 0.1	< 0.010	< 0.020	< 0.002	0.0150	< 0.100	0.17
	10/23/1980	< 0.1	< 0.020	< 0.010	< 0.005	0.0230	< 0.050	0.01
	1/20/1981	< 0.1	< 0.020	< 0.010	< 0.005	0.0070	< 0.050	0.01
	4/28/1981	< 0.1	< 0.020	< 0.010	< 0.050	0.0160	< 0.050	0.01
	7/29/1981	< 0.1	< 0.020	< 0.010	< 0.005	0.0050	< 0.050	0.10
	4/15/1988	< 0.1	< 0.050	< 0.050	< 0.001	0.0183	< 0.100	< 0.01
SS1-U	10/13/1978	< 0.1	0.020	< 0.010	0.008	---	< 0.100	< 0.01
	2/14/1979	< 0.1	0.030	0.030	< 0.002	0.0110	< 0.100	0.04
	4/17/1979	< 0.1	< 0.020	< 0.020	< 0.001	0.0100	< 0.100	< 0.01
	8/6/1979	< 0.2	< 0.020	0.040	< 0.001	0.0120	< 0.400	0.06
	10/26/1979	< 0.1	< 0.010	< 0.020	< 0.002	0.0090	< 0.100	0.10
	10/23/1980	< 0.1	< 0.020	< 0.010	< 0.005	0.0180	< 0.050	0.18
	1/20/1981	< 0.1	< 0.020	< 0.010	< 0.005	0.0240	< 0.050	0.01
	4/29/1981	< 0.1	< 0.020	< 0.010	< 0.005	0.0130	< 0.050	< 0.01
	7/29/1981	< 0.1	< 0.020	< 0.010	< 0.005	0.0060	< 0.050	0.08
	4/15/1988	< 0.1	< 0.050	< 0.050	< 0.001	0.0079	< 0.100	< 0.01
	6/20/2007	< 0.1	< 0.050	0.001	< 0.001	0.0130	< 0.100	< 0.01
URZHB-6	8/28/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0196	< 0.100	< 0.01
	3/13/2008	< 0.1	< 0.050	< 0.001	< 0.001	0.0200	< 0.100	< 0.01
	3/13/2008	< 0.1	< 0.050	< 0.001	< 0.001	0.0176	< 0.100	< 0.01
	9/10/2008	< 0.1	< 0.050	0.003	< 0.001	0.0195	< 0.100	0.02
URZHC-2	8/7/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0030	< 0.100	< 0.01
	9/7/2007	< 0.1	< 0.050	< 0.001	0.003	0.0008	< 0.100	< 0.01
URZHF-1	7/27/2007	< 0.1	< 0.050	< 0.001	0.574	5.2500	< 0.100	< 0.01
URZHF-5	8/2/2007	< 0.1	< 0.050	< 0.001	< 0.001	0.0051	< 0.100	< 0.01
	9/17/2008	< 0.1	< 0.050	< 0.001	< 0.001	0.0036	< 0.100	0.01
URZHH-7	6/26/2008	< 0.1	< 0.050	< 0.001	0.002	0.0462	< 0.100	0.02
	9/17/2008	< 0.1	< 0.050	< 0.001	0.003	0.0421	< 0.100	0.02
WC-MN1	11/14/1978	< 0.1	< 0.010	< 0.010	< 0.003	0.0054	< 0.100	< 0.01
	4/18/1979	---	---	---	---	< 0.0010	---	0.02
	10/29/1979	< 0.1	< 0.010	< 0.020	< 0.002	0.0020	< 0.100	0.32

TABLE D6E.2-1. HANK UNIT GROUND-WATER QUALITY DATA. (cont'd)

Well Name	Date	Ra226 (pCi/l)	Ra226(e) (pCi/l)	Ra228 (pCi/l)	Ra228(e) (pCi/l)	Alpha (pCi/l)	Beta (pCi/l)
BR-B	10/11/1979	2.3	± 0.4	---	---	---	---
	11/9/2006	1.2	± 0.5	< 1.0	---	8.5	5.0
	1/24/2007	1.6	± 0.4	< 1.0	---	11.4	12.6
	4/25/2007	2.2	± 0.5	< 1.0	---	7.6	10.0
BR-F	11/28/2006	< 0.2	± 0.2	< 1.0	---	< 1.0	< 2.0
	1/25/2007	< 0.2	---	< 1.0	---	1.2	3.1
	5/16/2007	< 0.2	± 0.2	< 1.0	---	1.4	5.6
BR-G	10/10/1979	2.0	± 0.5	---	---	---	---
	4/16/1980	0.2	± 0.8	---	---	---	---
	7/30/1980	0.8	± 0.6	---	---	---	---
	10/28/1980	0.6	± 0.5	---	---	---	---
	2/19/1981	1.1	± 0.6	---	---	---	---
	6/29/1981	1.7	± 0.9	---	---	---	---
	9/28/1981	0.3	± 0.4	---	---	---	---
	4/20/1982	1.1	± 0.5	---	---	---	---
	12/19/2006	< 0.2	± 0.2	< 1.0	---	8.1	8.4
	2/27/2007	1.3	± 0.5	< 1.0	---	4.4	18.4
	5/16/2007	0.6	± 0.3	< 1.0	---	4.8	10.4
BR-H	11/21/2006	< 0.2	± 0.2	< 1.0	---	3.9	5.3
	1/24/2007	< 0.2	± 0.2	< 1.0	---	< 1.0	3.0
	4/25/2007	< 0.2	± 0.2	< 1.0	---	< 1.0	3.4
BR-I	11/30/1979	1.9	± 0.4	---	---	---	---
	7/30/1980	1.0	± 0.6	---	---	---	---
Brown #5	9/5/2007	< 0.2	± 0.2	< 1.0	---	14.7	< 2.0
Brown-WS	9/7/2006	< 0.2	± 0.2	< 1.0	---	9.0	12.8
	12/6/2006	< 0.2	± 0.2	< 1.0	---	7.9	8.6
	2/21/2007	< 0.2	± 0.2	< 1.0	---	6.8	6.0
	5/16/2007	< 0.2	± 0.2	< 1.0	---	7.6	8.4
BR-Q	1/9/1980	0.4	± 0.1	---	---	---	---
	4/16/1980	1.3	± 1.0	---	---	---	---
	12/19/2006	< 0.2	± 0.2	< 1.0	---	10.9	10.1
	2/27/2007	0.8	± 0.4	< 1.0	---	9.3	10.0
	5/16/2007	< 0.2	± 0.2	< 1.0	---	6.6	9.3
	8/8/2007	0.6	± 0.2	< 1.0	---	8.1	8.4
	8/8/2007	< 0.2	± 0.2	1.1	± 0.8	8.7	9.2
BR-T	1/8/1980	15.4	± 1.0	---	---	---	---
	2/27/1980	29.0	± 2.1	---	---	---	---
	2/27/1980	3.9	---	---	---	---	---

TABLE D6E.2-1. HANK UNIT GROUND-WATER QUALITY DATA. (cont'd)

Well Name	Date	Ra226 (pCi/l)	Ra226(e) (pCi/l)	Ra228 (pCi/l)	Ra228(e) (pCi/l)	Alpha (pCi/l)	Beta (pCi/l)
BR-T	4/15/1980	6.3	± 3.1	---	---	---	---
	4/15/1980	20.3	---	---	---	---	---
	3/11/1981	16.0	± 3.0	---	---	---	---
	6/30/1981	9.3	± 4.2	---	---	---	---
	9/29/1981	3.9	± 1.1	---	---	---	---
	1/14/1982	11.0	± 2.0	---	---	---	---
	4/20/1982	6.8	± 1.5	---	---	---	---
	9/8/1988	23.7	---	---	---	---	---
	3/20/2007	8.7	± 1.2	< 1.0	---	16.1	18.1
	8/22/2007	2.2	± 0.6	< 1.0	---	16.2	6.3
BR-U	11/30/1979	0.4	± 0.3	---	---	---	---
	7/30/1980	0.6	± 0.5	---	---	---	---
C #1	11/17/1978	21.0	± 5.0	---	---	---	---
	4/29/1979	6.2	± 1.0	---	---	---	---
Dry Willow #1	11/8/1978	33.0	± 4.0	---	---	---	---
	5/1/1979	9.1	± 1.4	---	---	---	---
	3/22/2007	44.4	± 1.9	< 1.0	---	49.3	35.2
	5/2/2007	44.1	± 2.1	< 1.0	---	47.4	31.9
	5/24/2007	42.1	± 2.1	< 1.0	---	132.0	50.1
	9/5/2007	47.7	± 2.5	< 1.0	---	103.0	46.8
F. Brown #1	11/7/1978	128.0	± 9.0	---	---	---	---
	4/21/1979	24.0	± 4.5	---	---	---	---
Hank 1	11/17/1978	10.0	± 3.0	---	---	---	---
	5/1/1979	7.7	± 1.1	---	---	---	---
	6/27/2006	40.4	± 1.9	---	---	---	---
	6/29/2006	102.0	± 2.9	---	---	---	---
	12/20/2006	119.0	± 4.3	< 1.0	---	326.0	193.0
	1/25/2007	137.0	± 3.8	< 1.0	---	338.0	210.0
	5/2/2007	153.0	± 3.9	< 1.0	---	181.0	173.0
	6/26/2008	165.0	± 2.0	0.8	± 0.7	592.0	192.0
Means #1	11/16/2006	0.6	± 0.0	< 1.0	---	18.0	16.6
	3/12/2007	2.2	± 0.7	< 1.0	---	16.1	13.3
	6/6/2007	0.6	± 0.3	3.6	± 1.0	20.6	8.9
	9/5/2007	0.7	± 0.4	< 1.0	---	24.2	10.6
NBHW-13	11/28/2006	55.3	± 2.3	2.0	± 0.7	185.0	109.0
	2/23/2007	99.5	± 3.0	< 1.0	---	305.0	141.0
	5/16/2007	99.8	± 3.1	< 1.0	---	404.0	169.0
	7/25/2007	95.4	± 2.9	< 1.0	---	320.0	130.0

TABLE D6E.2-1. HANK UNIT GROUND-WATER QUALITY DATA. (cont'd)

Well Name	Date	Ra226 (pCi/l)	Ra226(e) (pCi/l)	Ra228 (pCi/l)	Ra228(e) (pCi/l)	Alpha (pCi/l)	Beta (pCi/l)
Old Maid #1	3/12/2007	6.3	± 0.8	< 1.0	---	11.2	11.4
OW43756	6/21/2007	1.0	± 0.4	< 1.0	---	6.0	9.6
Paden #1	12/6/2006	3.7	± 0.6	3.3	± 0.9	180.0	54.8
	2/27/2007	3.6	± 0.8	< 1.0	---	193.0	64.1
	6/6/2007	3.3	± 0.6	3.5	± 1.0	189.0	47.7
	9/5/2007	3.8	± 0.7	< 1.0	---	206.0	75.8
SS1-F	10/23/1980	1.5	---	---	---	---	---
	1/20/1981	5.7	---	---	---	---	---
	4/29/1981	4.2	---	---	---	---	---
	7/29/1981	4.2	---	---	---	---	---
	4/15/1988	5.1	---	---	---	---	---
	6/21/2007	0.7	± 0.3	< 1.0	---	8.5	7.9
SS1-L	10/12/1978	53.0	± 6.0	---	---	---	---
	2/14/1979	0.0	± 0.5	---	---	---	---
	4/17/1979	1.0	± 0.4	---	---	---	---
	10/23/1980	2.7	---	---	---	---	---
	1/14/1981	5.0	---	---	---	---	---
	4/29/1981	1.2	---	---	---	---	---
	7/29/1981	1.7	---	---	---	---	---
	4/15/1988	82.4	---	---	---	---	---
	4/27/2007	148.0	± 4.0	1.8	± 0.8	662.0	393.0
	6/5/2007	143.0	± 5.1	3.2	---	426.0	179.0
	7/25/2007	148.0	± 3.6	< 1.0	---	492.0	247.0
SS1-M	11/8/1978	3.3	± 1.5	---	---	---	---
	2/14/1979	0.0	± 0.7	---	---	---	---
	4/17/1979	0.2	± 2.5	---	---	---	---
	10/23/1980	1.1	---	---	---	---	---
	1/20/1981	2.7	---	---	---	---	---
	4/28/1981	1.3	---	---	---	---	---
	7/29/1981	7.8	---	---	---	---	---
	4/15/1988	2.8	---	---	---	---	---
SS1-U	10/13/1978	54.0	± 6.0	---	---	---	---
	2/14/1979	6.1	± 1.4	---	---	---	---
	4/17/1979	15.6	± 2.1	---	---	---	---
	10/23/1980	1.1	---	---	---	---	---
	1/20/1981	2.7	---	---	---	---	---
	4/29/1981	1.1	---	---	---	---	---
	7/29/1981	2.1	---	---	---	---	---
	4/15/1988	16.2	---	---	---	---	---

TABLE D6E.2-1. HANK UNIT GROUND-WATER QUALITY DATA. (cont'd)

Well Name	Date	Ra226 (pCi/l)	Ra226(e) (pCi/l)	Ra228 (pCi/l)	Ra228(e) (pCi/l)	Alpha (pCi/l)	Beta (pCi/l)
SS1-U	6/20/2007	12.1	± 1.2	< 1.0	---	57.7	32.4
URZHB-6	8/28/2007	1.3	± 0.5	< 1.0	---	16.9	10.2
	3/13/2008	0.8	---	1.4	---	35.7	12.3
	3/13/2008	0.8	---	0.8	---	34.5	4.8
	9/10/2008	1.0	± 0.2	1.8	± 0.8	33.9	11.9
URZHC-2	8/7/2007	5.5	± 0.7	< 1.0	---	12.2	10.4
	9/7/2007	< 0.2	± 0.2	< 1.0	---	1.6	4.7
URZHF-1	7/27/2007	562.0	± 7.2	4.0	± 1.0	5090.0	1540.0
URZHF-5	8/2/2007	40.3	± 2.1	< 1.0	---	96.8	50.7
	9/17/2008	43.0	± 1.2	0.7	± 0.7	139.0	74.8
URZHH-7	6/26/2008	2.0	± 0.2	0.0	± 0.7	89.0	23.8
	9/17/2008	1.8	± 0.3	0.5	± 0.7	71.5	26.4
WC-MN1	11/14/1978	6.1	± 2.1	---	---	---	---
	4/18/1979	4.5	± 1.1	---	---	---	---