EXHIBIT RMP___(CAT-3.2)

Jim Bridger Power Plant
Geology/Hydrogeology

PacifiCorp Jim Bridger Power Plant
Point of Rocks, Wyoming

May, 2011

PERCo
PacifiCorp Environmental Remediation Company

1407 West North Temple, Suite 280
Salt Lake City, Utah 84116
Tel 801.220.2989

Water & Environmental Technologies

Moonlight Professional Building
480 East Park Street, Suite 200
Butte, MT 59701
Tel 406.782.5220

Table of Contents

List of Figures

List of Appendices

1.0 Introduction

1.1. Facility Description

The PacifiCorp Jim Bridger Power Plant (JBPP or plant) is located approximately seven miles north of Point of Rocks, Wyoming (**Figure 1**). The plant has been in operation since 1974 producing electricity through coal-fired generation from four boilers. The plant uses sulfur dioxide scrubbers to remove contaminants (sulfur and others) from plant stack emissions (Hydro Geo Chem, 1997). Blowdown waters from the cooling towers are discharged into the Evaporation Pond located about one half mile north of the plant.

Air pollution scrubbers were installed at the plant in 1979 and spent FGD solutions from the scrubbers have been discharged into two ponds located adjacent to the Evaporation Pond, north of the plant. FGD Pond 1 (**Figure 2**) was constructed in 1979 and operated through 2002 when it reached capacity. The pond was constructed with the western portion of the pond overlying the Almond sandstone and the eastern portion overlying the Lewis shale. In areas that overlay the Almond, this pond is lined with compacted native material (clay) to minimize the seepage of FGD solutions through its bottom. In 2003, liquid was no longer present at the surface of FGD Pond 1; therefore, this pond was removed from the sampling program. JBPP has submitted a closure plan for FGD Pond 1, which was approved by WDEQ in spring of 2009. Closure activities are on-going.

1.2. Geology

The Jim Bridger Power Plant is situated along the northeastern flank of the Rock Springs Uplift. The Uplift is a north-south trending structural anticline formed during the Laramide Orogeny. The structure consists of gently tilted sedimentary beds with a northeasterly dip of approximately 5 degrees. These units were formed in response to regional uplift that resulted in extensive deltaic depositional sequences. These sequences are highly gradational, due to the transgressive-regressive nature of the depositional environment. The sediments are composed of late Cretaceous age sandstones, siltstones, shales, clays and coal beds. Specifically, the formations encountered at the facility include the upper Cretaceous Fox Hills sandstone, Lewis shale and Almond sandstone.

Five cross-sections presenting the underlying geology were created from site monitoring well lithologic logs. These cross-sections and their corresponding location map (**Figure A-1**) are shown in Appendix A. The cross-sections illustrate each of the principal aquifers of concern (alluvium, Fox Hills, weathered Lewis, Lewis and Almond) beneath the Jim Bridger Power Plant facility. A short description of each cross-section follows, as well as a description of the principal geologic formations encountered:

Cross-Section A-A' (**Figure A-2**) originates in the unconfined Almond at JB-WA-6 and extends (sub-parallel to formation dip) across FGD Ponds 1 and 2, terminating at the edge of the Coal Ash Landfill. The Almond piezometric surface indicates increasing confining pressure to the northeast, culminating in a pressure head above ground surface in JB-N6-A. The piezometric surface for the weathered Lewis is shown at nested well JB-N6 with the weathered Lewis surface approximately 60 ft. lower than the underlying

Almond hydraulic head. Perched zones in the Fox Hills are shown in 192-WL and 592-WL. Both of the Fox Hills surfaces are above the water level in the weathered Lewis. Investigation borings, JB-4 and JB-9, were added to this cross section. These wells provide more detail on FGD Pond 1 waste thicknesses. They were drilled in conjunction with the on-going closure of FGD Pond 1. Well JB-F4 was drilled to investigate possible contaminant migration along fault pathways north of FGD Pond 1. This work was also completed as part of the closure process.

The lithologic logs for the Superior No. 17 and No. 18 wells were projected west into the plane of the cross-section. They provide information at depth on the Almond, Ericson and Rock Springs formations.

Cross-Section B-B' (**Figure A-3**) extends from monitoring well WA-3 across Potash Wash and the Coal Ash Landfill (parallel to formation dip) to monitoring well 392-WL. It is a representation of the relationship of the alluvium, Fox Hills, Lewis and Almond. Please note the three different piezometric surfaces associated with the Lewis, Fox Hills and Almond on this cross-section. The Fox Hills piezometric surface represents a perched layer within this formation that most likely intersects with the Lewis piezometric surface to the east of the landfill. The Lewis ground water surface slopes to the northeast indicating ground water movement in the Lewis beneath the Coal Ash Landfill. The Almond piezometric surface progresses from unconfined in WA-3 to confined beneath the Lewis shale. The effects of the FGD Pond 1 pumpback system are shown by the drawdown cone of depression at pumpback wells PB-12 and PB-13.

Cross-Section C-C' (**Figure A-4**) represents the northeast-southwest (parallel to formation strike) aspect beneath the Coal Ash Landfill. This cross-section illustrates the convergence of water from the perched Fox Hills, weathered Lewis and unweathered Lewis shale beneath the Coal Ash Landfill. Note the inferred mixing zone between perched Fox Hills ground water and underlying Lewis ground water. Mounding of ground water is evident, but may be stratigraphically controlled in the Fox Hills/Lewis. The contact between these formations is highly gradational and perching of ground water is evident in many landfill monitoring wells.

Cross-Section D-D' (**Figure A-5**) illustrates the relationship between the alluvium and the underlying weathered Lewis, Lewis and Almond. Note that the ground water elevation in JB-N2-WL is elevated in relation to both JB-N1-WL and JB-N3-WL. This indicates ground water mounding related to FGD Pond 2 in the weathered Lewis. Because of the mounding, ground water in this area moves to the northeast, east and southeast.

Mounding is also evident in the deeper unweathered Lewis shale (JB-N2-L), although sulfate (and other water quality) concentrations indicate no corresponding increase in water quality parameter concentrations, indicative of contact with FGD Pond water. This mound is believed to be due to structural or stratigraphic permeability variations, as evidenced by increased permeability in pumpback wells PB-4, PB-4a and PB-4b.

Cross-Section E-E' (**Figure A-6**) is sub-parallel to formation dip and originates in the unconfined Almond at 566-WA, extends across the Evaporation Pond and to the east to Deadman Wash. The Almond becomes more hydraulically confined to the northeast and the deep Lewis piezometric surface reflects probable stratigraphic/structural mounding with a relatively steep ground water hydraulic gradient to the southeast in the area of JB-N8-L to JB-N7-L. The steep gradient is indicative of water moving from a permeable fracture zone (mound area) downgradient into the relatively impermeable Lewis shale.

FGD Pond 1 pumpback system operation is shown by September 2010 water levels in the pumpback wells (PB-11, PB-12 and PB-13). A drawdown cone is evident in PB-12, as the other two wells were offline for maintenance in September 2010.

1.2.1 Quaternary Alluvium

The Fox Hills, Lewis and Almond are overlain in the drainage bottoms (i.e. Potash Wash and Deadman Wash) by Quaternary-aged alluvium derived from the weathering of exposed sections of these formations. The alluvium is composed of clay and silt with minor sand. Gravel size material is reported in some downgradient areas of the main drainage bottoms. The alluvium varies in depth across the site from nonexistent on the ridge tops to greater than 100 ft. in Deadman Wash.

1.2.2 Fox Hills Sandstone

Published geologic reports (Reference section) list the Fox Hills sandstone as approximately 150 to 300 feet thick. It is composed principally of sandstone with lesser amounts of siltstone, shale and some coal beds. Lithologic logs from monitoring wells completed in the Fox Hills sandstone indicate that the contact between the Fox Hills and the underlying Lewis shale is gradational. The amount of siltstone and shale interbedded with sandstone increases with depth until the sediments become predominantly Lewis shale.

1.2.3 Lewis Shale

The Lewis shale conformably overlies the Almond sandstone, while its contact with the overlying Fox Hills sandstone is gradational. The approximate surface contact between these formations is shown in **Figure 2**. The Lewis shale consists of calcareous, silty, gypsum shale with occasional thin beds of limestone, siltstone, bentonite and dark carbonaceous shale. It is thin-bedded and ranges from moderately indurated and brittle to relatively plastic. Where exposed, the upper 1 to 60 feet of the Lewis is commonly weathered to silty clay or clayey silt. The formation strikes to the northwest and dips gently to the northeast at 5°.

1.2.4 Almond Formation

The Almond is a fine to medium-grained massive quartz sandstone. This thin-bedded formation is calcareous, friable and moderately cemented. Sporadically, strongly indurated beds occur. The total stratigraphic thickness of the Almond in nearby measured sections is approximately 700 ft. The formation strikes to the northwest and dips gently to the northeast at approximately 5°.

1.2.5 Ericson Formation

The Ericson conformably underlies the Almond and is predominantly composed of massive sandstones with interbedded shales and clays. Several of the Town of Superior's public water supply wells, located 2.5 miles north of the Plant, are screened in this formation. From their lithologic logs, the Ericson is approximately six hundred feet thick.

1.2.6 Regional Faulting

Major normal faulting has been mapped several miles west of the plant and generally trends northeasterly from the anticlinal axis. A number of linear drainages near JBPP also trend to the northeast and a mapped northeast trending fault in shown on **Figure 2** southeast of the plant site. The fault interpretation is strengthened by the aquifer testing results in wells completed in the linear drainage bottoms. These wells generally show an increase in transmissivity of one to two orders of magnitude, compared to wells completed out of the drainages. This is consistent with faulted, fine-grained material in an extensional setting.

1.3 Hydrogeology

Surface stream flow in the area is primarily ephemeral with the majority of flow occurring in the spring to early summer months or in response to major precipitation events. Deadman Wash (**Figure 2**) is the principal drainage and flows to the southeast across the site. It joins with Bitter Creek, a tributary of the Green River, south of the facility. The upper reaches of Deadman Wash are ephemeral in nature, but the wash becomes swampy, southeast of the Plant. Ground water levels in monitoring wells near the ponds have increased over the approximate twenty-year life of the ponds. Generally, the increase in ground water elevations is greatest near the ponds and decreases with increasing distance from the ponds.

There are four major water-bearing units, which control the hydrogeology beneath the Jim Bridger Power Plant site. They are the Quaternary alluvium, Fox Hills sandstone, Lewis shale and upper Almond sandstone. **Figure 2** shows the approximate surface location of the geologic contacts between the Almond sandstone, Lewis shale and Fox Hills sandstone. The alluvium is mostly limited to drainages incised into the Fox Hills sandstone, Lewis shale and Almond sandstone.

1.3.1 Quaternary Alluvium

The Fox Hills, Lewis and Almond are overlain in the drainage bottoms (i.e. Potash Wash and Deadman Wash) by alluvium derived from the weathering of exposed sections of these formations. The alluvium varies in thickness across the site from nonexistent to greater than 100 feet in Deadman Wash. Measured transmissivities in the alluvium are reportedly 6 to 300 ft^2/day (HGC, 1984). The December 2001 transmissivity measured in monitoring well JB-N2-AL, which was completed in the alluvium in Potash Wash, was 0.003 ft^2/day. This is significantly less than the previously reported values.

Ground water elevations in the alluvium for the 2010 semi-annual monitoring events are shown on **Figures 3 and 4** (purple contours). Depths to ground water in the alluvial wells generally range from fifteen to thirty feet below ground surface and the average hydraulic gradient of 0.004 ft/ft is flatter than other aquifers at JBPP. The gradient steepens where Potash and Ninemile Wash converge with Deadman Wash. The ground water flow direction in Deadman Wash and Potash Wash is to the southeast, while flow in the alluvium in Ninemile Wash is to the southwest until it converges with Deadman Wash.

1.3.2 Fox Hills Sandstone

The Fox Hills sandstone overlies the Lewis shale east of the Fox Hills/Lewis contact. The Coal Ash Landfill is located upon the Fox Hills sandstone. Ground water levels in the monitoring wells for the landfill indicate a perched ground water zone in the Fox Hills, which shows no pond impacts. The perched zone merges with ground water in the underlying Lewis shale to the east. This provides a conduit for pond water to move through the Lewis and alluvium, beneath the perched Fox Hills and contact wells in the Fox Hills sandstone (684 and 483 series wells), below the perched zone.

The Fox Hills sandstone underlies the Coal Ash Landfill north of FGD Pond 2. The Fox Hills sandstone and the underlying Lewis shale were deposited along the western shores of the interior seaway. Late in the Cretaceous, the western shoreline repeatedly transgressed westward and regressed eastward in response to tectonism and eustatic changes. **Figure 5** illustrates intertonguing of the Lewis shale and overlying Fox Hills sandstone and indicates that the contact of these units is gradational (Roehler, 1993).

Beneath the landfill at JBPP, there is a perched aquifer within the Fox Hills sandstone. Ground water elevation contours in **Figures 3 and 4** map the flow direction to the northeast with a hydraulic gradient of 0.033 ft/ft in this layer. As shown at the eastern edge of the perched layer, perched ground water mixes with the underlying ground water which may have been contacted by pond solutions.

1.3.3 Lewis Shale

The stratigraphic thickness of the Lewis shale varies across the site from nonexistent west of the Lewis/Almond contact to greater than 400 ft in monitoring wells JB-N2-A, JB-N3-A and JB-N7-A. Generally, the shale has a low transmissivity (~2 ft^2/day), but may locally have much greater transmissibility where it is weathered and/or fractured (~100 ft^2/day). The Lewis can be considered two different water-bearing units - the upper weathered and/or fractured Lewis and the deeper less permeable unweathered Lewis shale. Generally, the weathered Lewis has a higher transmissivity than the unweathered Lewis.

Ground water elevation contour maps were prepared for the alluvium, Fox Hills and weathered Lewis, using spring and fall 2010 monitoring data. The maps (**Figures 3 and 4)** show a general ground water flow direction in the alluvium to the southeast. Ground water moves from the weathered Lewis into the alluvium and to the southeast down Deadman Wash. There is also a component of ground water flow in the weathered Lewis shale to the northeast beneath the Coal Ash Landfill. Ground water flux in this direction most likely intersects ground water in the Fox Hills, near the 684 and 483 series wells east of the Coal Ash Landfill.

The ground water piezometric surfaces for wells completed in the weathered Lewis shale are shown on **Figures 3 and 4** (brown contours). Ground water in these sediments moves generally to the northeast, with mounding evident north of FGD Pond 2. Along the eastern edge of the pond, ground water moves due east. Hydraulic gradients in the mapped portions of the weathered Lewis have a relatively high gradient of 0.04 to 0.06 ft/ft.

1.3.4 Almond Sandstone

The Almond sandstone, west of its contact with the Lewis, (shown in **Figure 2**) is unconfined with a northeastern trending hydraulic gradient of approximately 0.02 ft/ft. East of this contact, the Almond becomes confined beneath the Lewis shale and exhibits an upward hydraulic gradient toward the overlying Lewis shale. At this point, the ground water flow direction in the Almond changes from a northeasterly direction to a southeasterly direction due to increasing confining pressure to the northeast. Transmissivity values in the Almond vary depending on the monitoring well location. Overall, the Almond water-bearing unit is primarily sandstone with measured transmissivities in the range of 5 to 470 ft^2/day.

Ground water elevation contour maps for the Almond sandstone were prepared using spring and fall 2010 monitoring data. The contour maps are shown in **Figures 6 and 7**. The unconfined portion of the Almond (west of the Lewis/Almond contact) has a flow direction to the northeast with a gradient of 0.02 ft/ft. East of the Lewis/Almond contact, the Almond ground water becomes confined and the flow direction changes to southeast with a gradient of approximately 0.004 ft/ft.

Ground water flow in the Almond sandstone is shown for fall and spring 2010 in **Figures 6 and 7**. In the unconfined portion of the Almond (west of Almond/Lewis contact) flow is to the northeast with a hydraulic gradient of 0.020 ft/ft. As the Almond sandstone becomes confined beneath the overlying Lewis shale (east of the Almond/Lewis contact) ground water flow direction changes to southeast with a shallower gradient of 0.004 ft/ft. **Figures 6 and 7** show the effects of the pumpback system on ground water elevations around JB-N5-A. The pumpback system is designed to capture pond impacted ground water and reduce pond impacts to the aquifer.

1.3.5 Ericson Formation

The Ericson underlies the Almond beneath the Jim Bridger Power Plant site. Near the facility, the only wells completed in this formation are two public water supply wells (Sup#17 and Sup#18) for the Town of Superior. Sup#19 is completed in the lower Almond Formation. Hydraulic head in Sup#17 and Sup#18 is within forty feet of the ground surface, indicating this formation is confined with a strong upward (vertical) gradient (+1000 ft.; shallowest screened interval is 1018 ft. in Sup-18). Although, ground water in the vicinity of FGD Pond 1 (Almond) has shown some impacts from the ponds, the affected water remains confined to the uppermost portions of the Almond sandstone and away from the Superior public water supply wells for five main reasons:

- The strong upward (vertical) gradient in the confined portion of the Almond and Ericson prevents downward migration of contaminants,

- The overlying relatively impermeable Lewis shale restricts downward migration of contaminants,
- The southeasterly ground water flow direction in the confined portion of the Almond (away from the Superior wells) moves pond contaminants away from the Superior wells,
- The Almond's thickness of 700 ft. provides protection for deeper water sources, and
- FGD Pond 1 and 2 Pumpback systems intercept pond seepage.

2.0 References

Hydro Geo Chem, 1997. Assessment of Groundwater Impacts due to Continuing Pond Operations at the Jim Bridger Power Plant, Point of Rocks, Wyoming. February 26, 1997.

PacifiCorp Environmental Remediation Company (PERCo), 1999. Interpretative Report, FGD and Evaporation Pond Ground Water Monitoring Program. April 8, 1999.

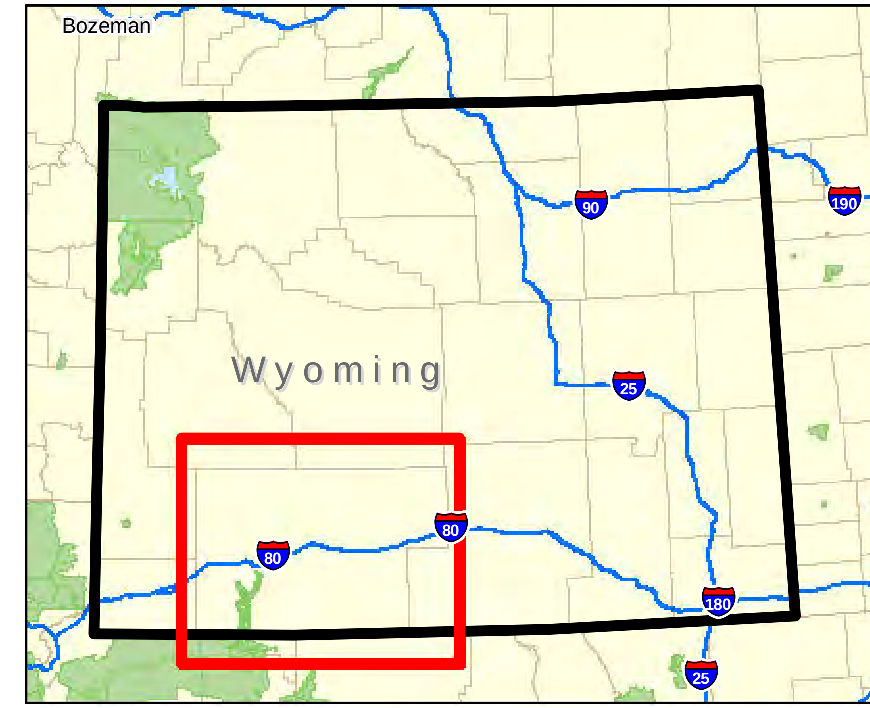
PacifiCorp Environmental Remediation Company (PERCo), 2002. 2003 Annual Report FGD and Evaporation Pond Ground Water Monitoring Program.

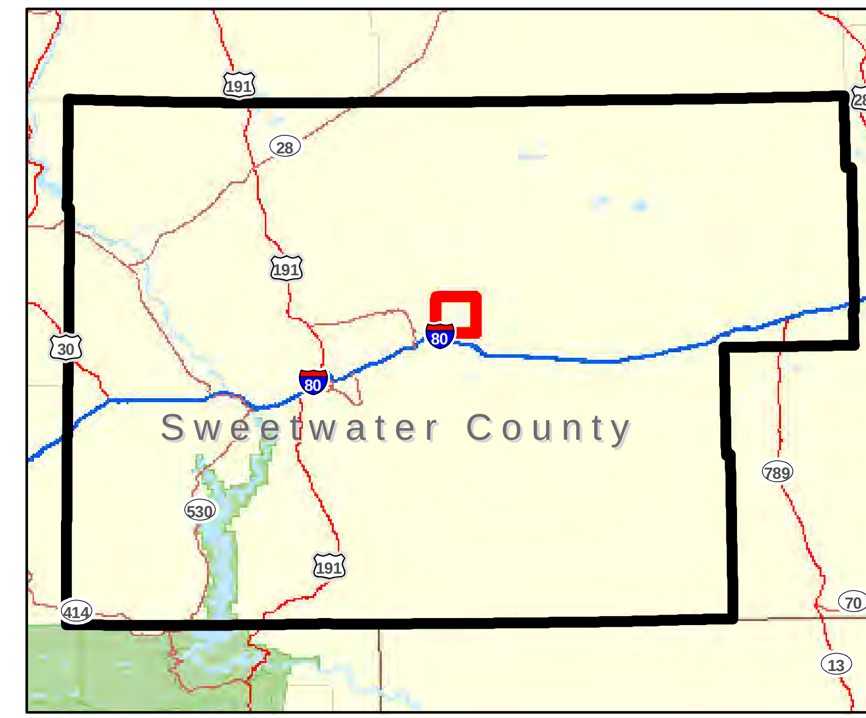
Roehler, H.W. Stratigraphy of the Upper Cretaceous Fox Hills Sandstone and Adjacent Parts of the Lewis Shale and Lance Formation, East Flank of the Rock Springs Uplift, Southwest Wyoming. USGS Professional Paper 1532, 1993.

Water and Environmental Technologies (WET), 2001. Jim Bridger Power Plant, FGD Pond Expansion Permit, Vols 1 & 2. March 13, 2001.

Water and Environmental Technologies (WET), 2001. Jim Bridger Power Plant, FGD Pond Expansion Model Results. May 3, 2001.

Figures





Note: Background map is 2009 1 meter true color aerial photo source NAIP/NRIS

WATER & ENVIRONMENTAL TECHNOLOGIES, PC

PACIFICORP

SITE LOCATION MAP

Jim Bridger Power Plant
Point of Rocks Wyoming

Job#: PercM14

Date: 3/4/11

FIGURE 1

Legend
Alluvium Wells
Almond Formation Wells
Fox Hills Wells
Lewis Wells
Weathered Lewis Formation Wells
Pumpback Well
Superior Wells
Surface Water
Geologic Formation Contacts
Background is 2009 NAIP Natural Color Imagery for Wyoming acquired between July 5, 2009 and August 28, 2009. Resolution 1m
FoxHills - Lewis
Lance - FoxHills
Lewis-Almond
1384-WA
B-22-21
583-WL
285-WA
183-WA
B-22-16
1284-WL
685-WL
1184-WA
885-WA
1084-WA
JB-N9-AL
JB-N9-FX
JB-N9-L
592-WL
192-WL
684-L
684-SH
684-WL
JB-FX-3
Sup-#18
Sup-#19
Sup-#17
392-WL
492-WL
JB-AL-2
683-WA
B-22-19
JB-N6-AL
JB-N6-L
JB-N6-WL
JB-N6-A
JB-N1-AL
JB-N1-WL
JB-N1-L
JB-N1-A
JB-FX-1
292-WLR
PB-1
483-WL
483-FX
JB-WL-4
PB-2
PB-3
PB-4
PB-4a
PB-4b
AL-1
PB-5
JB-N2-L
JB-N2-A
JB-N2-WL
JB-N2-AL
PB-6
JB-WL-5
JB-FX-2
JB-N3-WL
JB-N3-L
JB-N3-A
JB-N3-AL
WL-2
FGD Pond 2
WA-2
984-WA
PB-7
PB-8
PB-9
PB-10
PB-12
JB-N7-AL
JB-N7-WL
JB-N7-L
JB-N7-A
FGD Pond 1
PB-13
PB-11
JB-N8-AL
JB-N8-L
JB-N8-A
WL-3
566-WA
JB-N5-A
JB-WA-6
JB-N4-A
JB-N4-L
WA-3
Evaporation Pond
LHM-7
WA-4
WL-4
W-4
SW-1
SW-2
W-5
283-WA
N
W
E
S
1 inch = 2,000 Feet
0
1,000
2,000
4,000
6,000
WATER & ENVIRONMENTAL TECHNOLOGIES, PC
PACIFICORP
GROUND WATER MONITORING NETWORK
Jim Bridger Power Plant
Point of Rocks Wyoming
Job#: PercM14
Date: 3/4/11
FIGURE 2

WATER & ENVIRONMENTAL TECHNOLOGIES, PC

PACIFICORP

Ground Water Contour Map Alluvial, Weathered Lewis & Fox Hills Formations Spring 2010

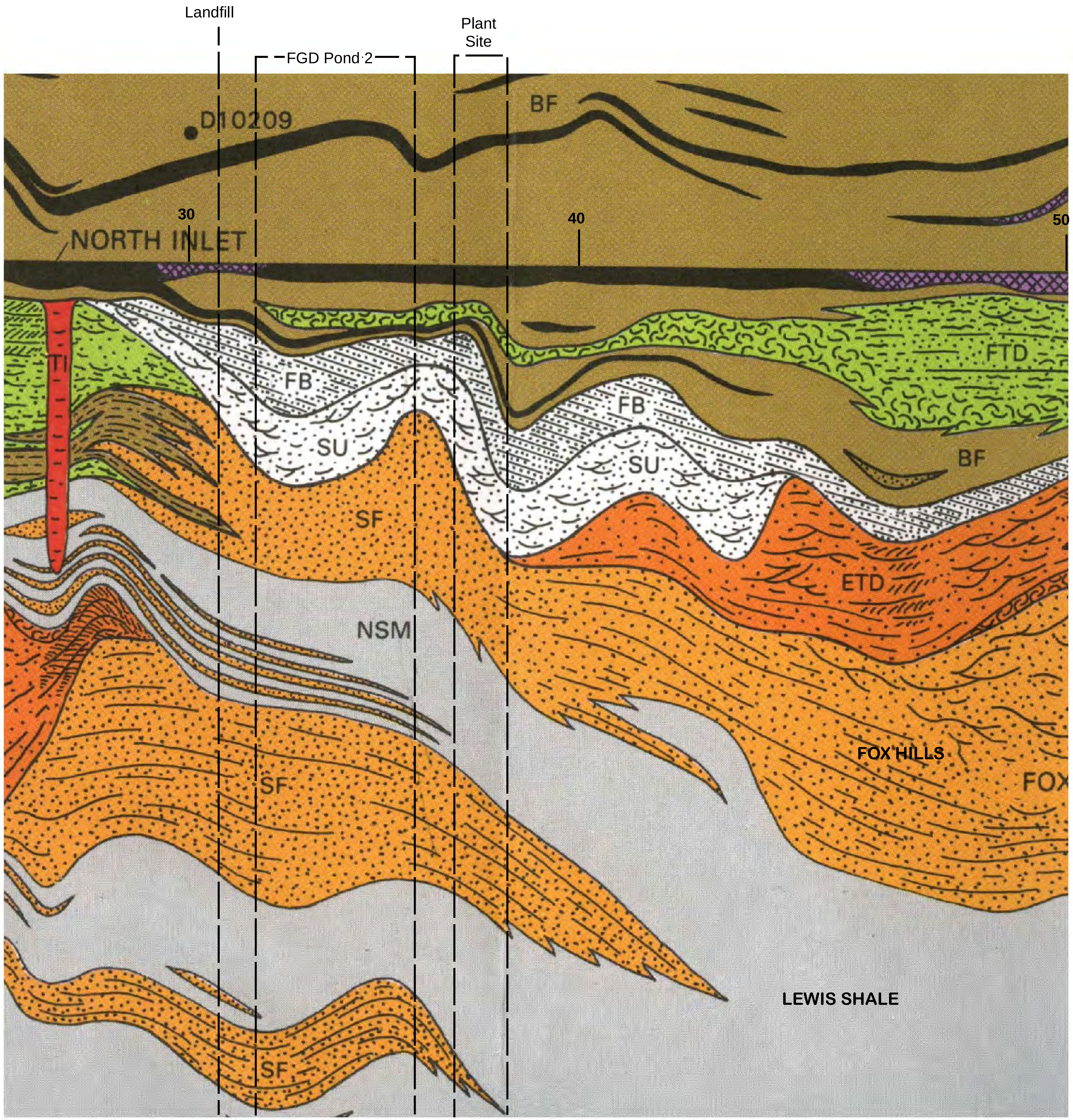
Jim Bridger Power Plant
Point of Rocks Wyoming

Job#: PercM14

Date: 3/4/11

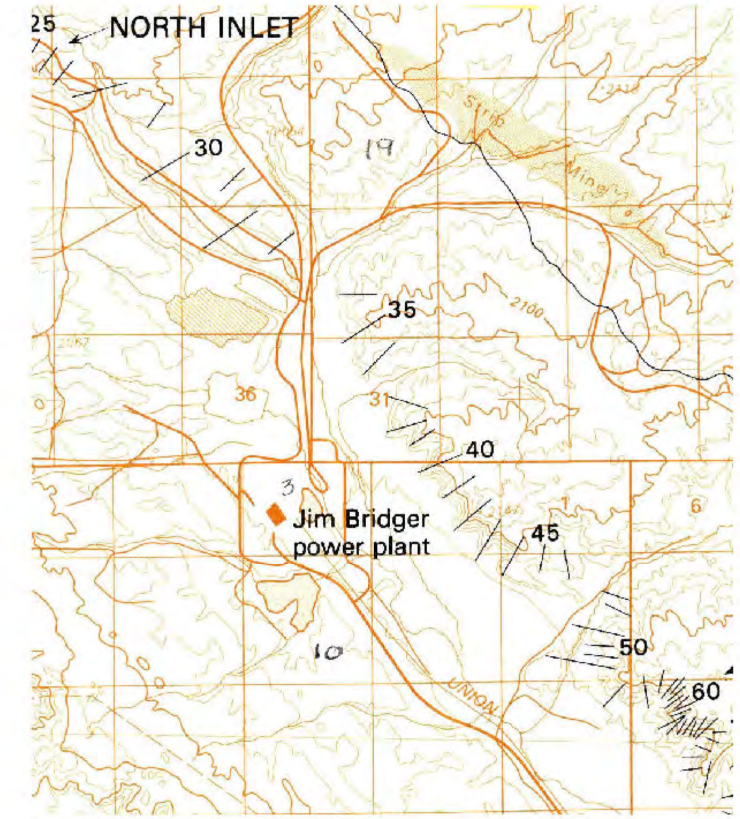
FIGURE 3

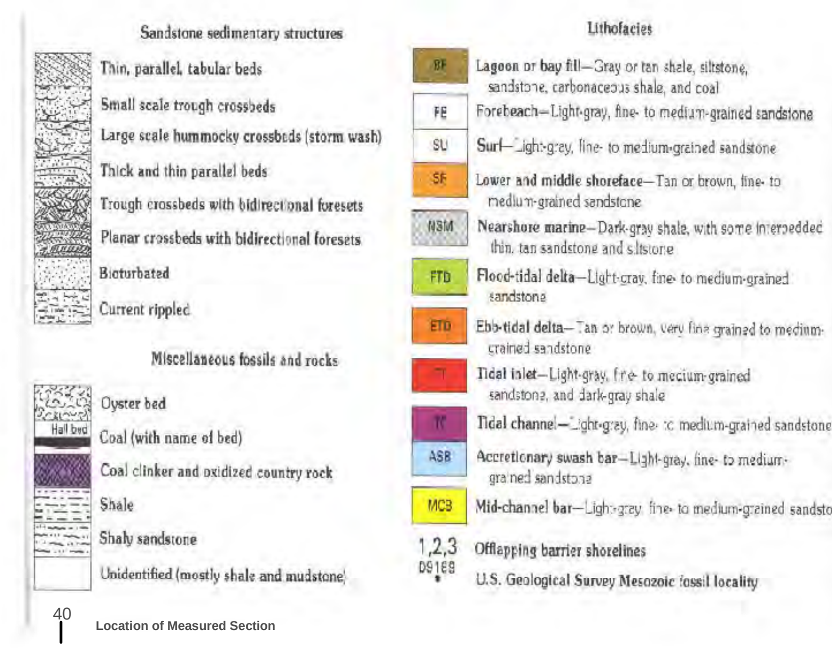
FGD Pond 2
FGD Pond 1
Evaporation Pond
1 inch = 1,000 feet
Feet
0 500 1,000 2,000
1 inch = 300 Feet
Legend
Alluvial Wells
Fox Hills Wells
Weathered Lewis Wells
Pumpback Well
(6,692.751) = Ground Water Elevation (ft)
(1,640)= Sulfate Concentration (mg/L)
Alluvial Ground Water Contour (5' CI)
Inferred Alluvial Ground Water Contour (5' CI)
Fox Hills Ground Water Contour (10' CI)
Pumpback Ground Water Contour (25' CI)
Lewis Ground Water Contour (5' CI)
Background is 2009 NAIP Natural Color Imagery for Wyoming acquired between July 5, 2009 and August 28, 2009. Resolution 1m
WATER & ENVIRONMENTAL TECHNOLOGIES, PC
PACIFICORP
Ground Water Contour Map Alluvial, Weathered Lewis & Fox Hills Formations Fall 2010
Jim Bridger Power Plant
Point of Rocks Wyoming
Job#: PercM14
Date: 3/4/11
FIGURE 4



REFERENCE: Cross Section taken from USGS Prof. Paper 1532 (plate 2) Henry Roehler, 1993

NOT TO SCALE





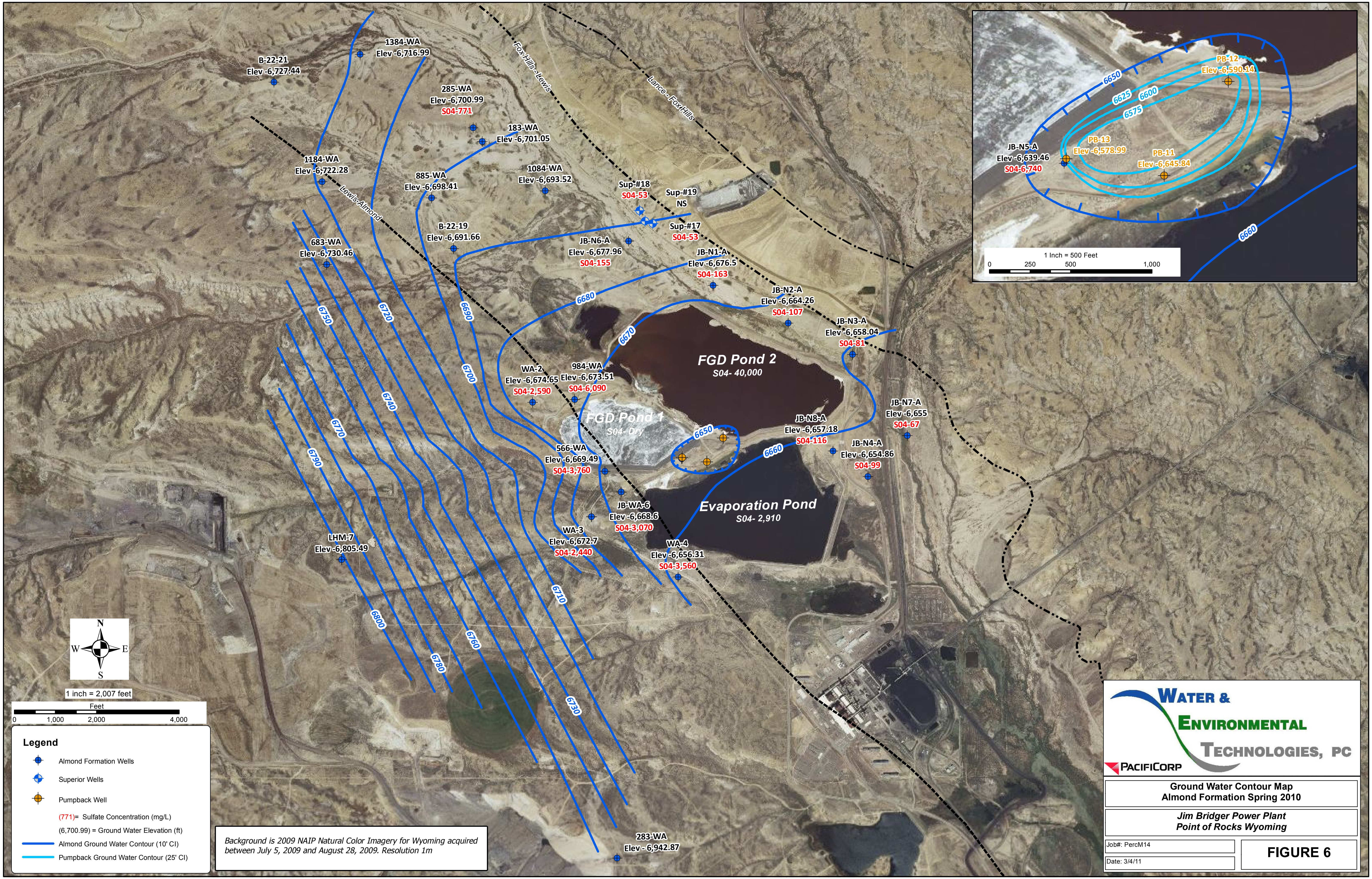
WATER & ENVIRONMENTAL TECHNOLOGIES, PC

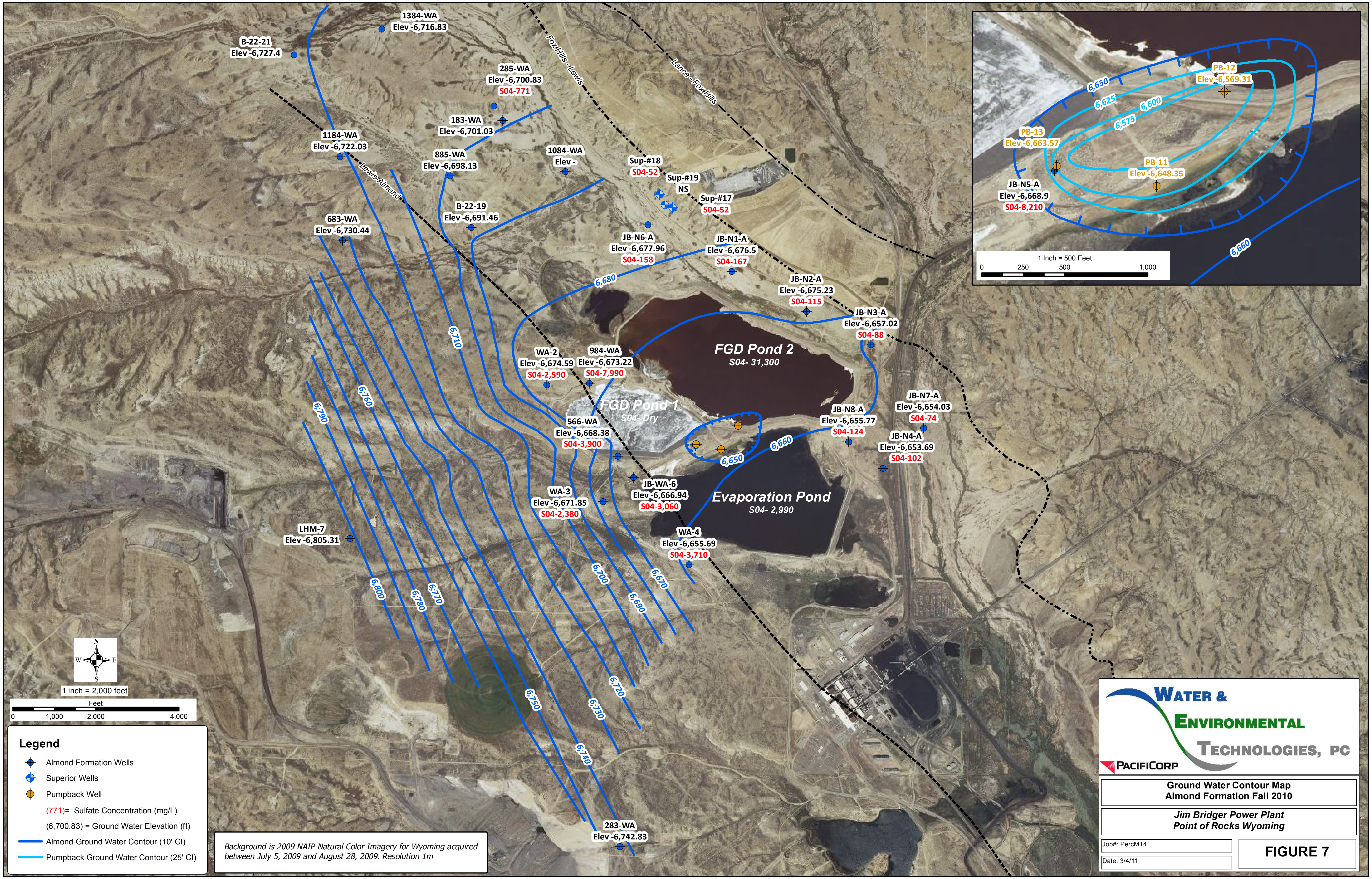
PACIFICORP

Stratigraphic Cross Section

Jim Bridger Power Plant
Point of Rocks Wyoming

Job#: PercM14	FIGURE 5
Date: 4/11/2011	


1384-WA
Elev -6,716.99
B-22-21
Elev -6,727.44
285-WA
Elev -6,700.99
S04-771
183-WA
Elev -6,701.05
1184-WA
Elev -6,722.28
885-WA
Elev -6,698.41
1084-WA
Elev -6,693.52
Sup-#18
S04-53
Sup-#19
NS
Sup-#17
S04-53
B-22-19
Elev -6,691.66
683-WA
Elev -6,730.46
JB-N6-A
Elev -6,677.96
S04-155
JB-N1-A
Elev -6,676.5
S04-163
JB-N2-A
Elev -6,664.26
S04-107
JB-N3-A
Elev -6,658.04
S04-81
WA-2
Elev -6,674.65
S04-2,590
984-WA
Elev -6,673.51
S04-6,090
FGD Pond 2
S04- 40,000
FGD Pond 1
S04- Dry
JB-N7-A
Elev -6,655
S04-67
JB-N8-A
Elev -6,657.18
S04-116
JB-N4-A
Elev -6,654.86
S04-99
566-WA
Elev -6,669.49
S04-3,760
JB-WA-6
Elev -6,668.6
S04-3,070
Evaporation Pond
S04- 2,910
WA-3
Elev -6,672.7
S04-2,440
WA-4
Elev -6,656.31
S04-3,560
LHM-7
Elev -6,805.49
283-WA
Elev - 6,942.87
Fox Hills - Lewis
Lance - Fox Hills
Lewis-Almond
6650
6660
6670
6680
6690
6700
6710
6720
6730
6740
6750
6760
6770
6780
6790
6800
N
W
E
S
1 inch = 2,007 feet
Feet
0
1,000
2,000
4,000
Legend
Almond Formation Wells
Superior Wells
Pumpback Well
(771)= Sulfate Concentration (mg/L)
(6,700.99) = Ground Water Elevation (ft)
Almond Ground Water Contour (10' CI)
Pumpback Ground Water Contour (25' CI)
Background is 2009 NAIP Natural Color Imagery for Wyoming acquired between July 5, 2009 and August 28, 2009. Resolution 1m
JB-N5-A
Elev -6,639.46
S04-6,740
PB-12
Elev -6,590.14
PB-13
Elev -6,578.99
PB-11
Elev -6,645.84
6575
6600
6625
6650
6660
1 Inch = 500 Feet
0
250
500
1,000
WATER & ENVIRONMENTAL TECHNOLOGIES, PC
PACIFICORP
Ground Water Contour Map
Almond Formation Spring 2010
Jim Bridger Power Plant
Point of Rocks Wyoming
Job#: PercM14
Date: 3/4/11
FIGURE 6

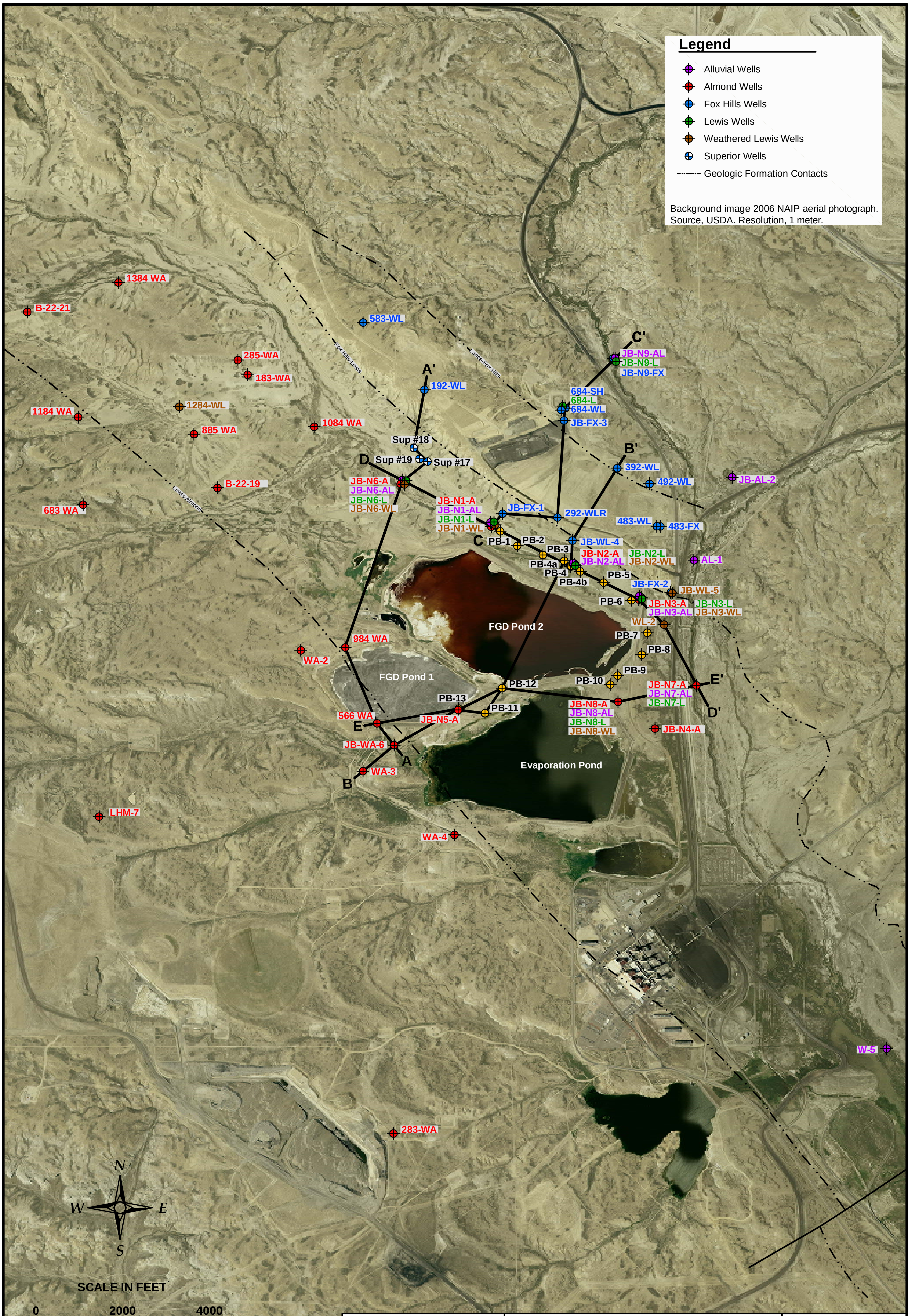


1384-WA
Elev -6,716.83
B-22-21
Elev -6,727.4
285-WA
Elev -6,700.83
S04-771
183-WA
Elev -6,701.03
1184-WA
Elev -6,722.03
885-WA
Elev -6,698.13
1084-WA
Elev -
Sup-#18
S04-52
Sup-#19
NS
Sup-#17
S04-52
B-22-19
Elev -6,691.46
683-WA
Elev -6,730.44
JB-N6-A
Elev -6,677.96
S04-158
JB-N1-A
Elev -6,676.5
S04-167
JB-N2-A
Elev -6,675.23
S04-115
JB-N3-A
Elev -6,657.02
S04-88
WA-2
Elev -6,674.59
S04-2,590
984-WA
Elev -6,673.22
S04-7,990
FGD Pond 2
S04- 31,300
FGD Pond 1
S04- Dry
566-WA
Elev -6,668.38
S04-3,900
JB-N8-A
Elev -6,655.77
S04-124
JB-N7-A
Elev -6,654.03
S04-74
JB-N4-A
Elev -6,653.69
S04-102
JB-WA-6
Elev -6,666.94
S04-3,060
WA-3
Elev -6,671.85
S04-2,380
Evaporation Pond
S04- 2,990
WA-4
Elev -6,655.69
S04-3,710
LHM-7
Elev -6,805.31
283-WA
Elev -6,742.83
Fox Hills - Lewis
Lance - Fox Hills
Lewis-Almond
6,680
6,710
6,760
6,790
6,650
6,660
6,700
6,690
6,670
6,800
6,780
6,770
6,750
6,730
6,720
6,740
PB-12
Elev -6,569.31
PB-13
Elev -6,663.57
PB-11
Elev -6,648.35
JB-N5-A
Elev -6,668.9
S04-8,210
6,650
6,625
6,600
6,575
6,660
1 Inch = 500 Feet
0 250 500 1,000
N
W E
S
1 inch = 2,000 feet
Feet
0 1,000 2,000 4,000
Legend
Almond Formation Wells
Superior Wells
Pumpback Well
(771)= Sulfate Concentration (mg/L)
(6,700.83) = Ground Water Elevation (ft)
Almond Ground Water Contour (10' CI)
Pumpback Ground Water Contour (25' CI)
Background is 2009 NAIP Natural Color Imagery for Wyoming acquired between July 5, 2009 and August 28, 2009. Resolution 1m
WATER & ENVIRONMENTAL TECHNOLOGIES, PC
PACIFICORP
Ground Water Contour Map
Almond Formation Fall 2010
Jim Bridger Power Plant
Point of Rocks Wyoming
Job#: PercM14
Date: 3/4/11
FIGURE 7

Appendix A

Geologic Cross Sections

C:\drafting\Drafting\Dwgs\PERC\Jim_Bridger_M14\PERC-M14 2009\JB_PERC-M14 crs-sec-loc.dwg, cs-loc, 4/19/2010 10:49:54 AM



WATER & ENVIRONMENTAL TECHNOLOGIES, PC

Jim Bridger Power Plant, Wyoming

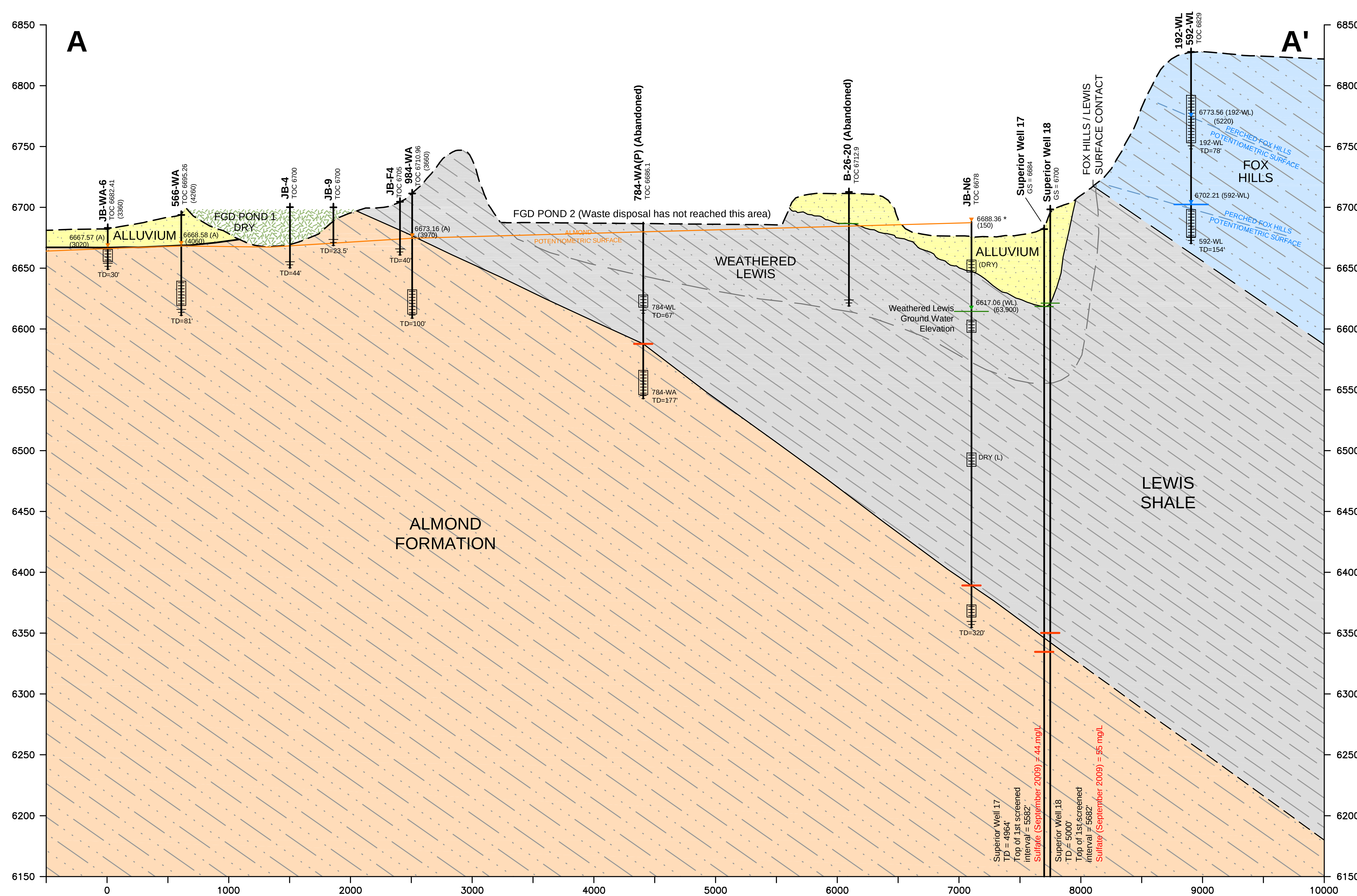
PACIFICORP ENERGY

JB_PERC-M14 crs-sec-loc.dwg

DATE: 4/14/10

CROSS SECTION LOCATION MAP

Figure No. A-1



Horizontal Scale / Vertical Scale = 10

Almond Formation
Lewis Formation
Fox Hills Formation
Alluvium
FGD Pond Waste

6617.81 (WL) September 2009 Ground Water Elevation
(55,500) Sulfate Concentration (mg/L)
* May 2009 Ground Water Elevation

WATER & ENVIRONMENTAL TECHNOLOGIES, PC

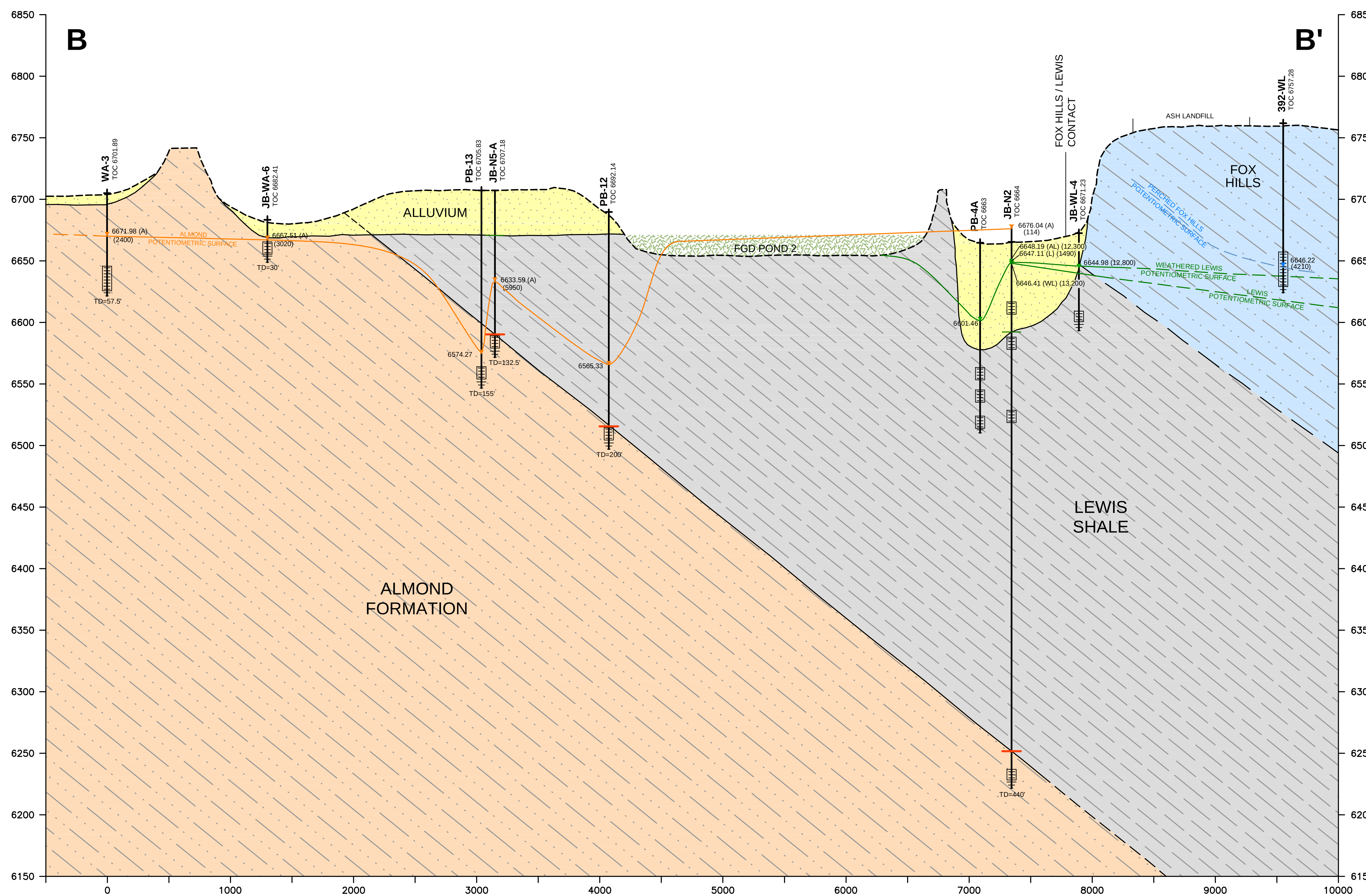
JIM BRIDGER POWER PLANT

Cross Section A - A'

JB_PERC-M14 crs-sec.dwg
DATE: 4/14/10

Figure No. A-2

C:\drafting\Drafting\Dwgs\PERC\Jim_Bridger_M14\PERC-M14 2009\JB_PERC-M14 crs-sec.dwg, Section A-A', 5/11/2010 1:25:28 PM



Horizontal Scale / Vertical Scale = 10

Almond Formation
Lewis Formation
Fox Hills Formation
Alluvium
FGD Pond Waste

6617.81 (WL) September 2009 Ground Water Elevation
(55,500) Sulfate Concentration (mg/L)

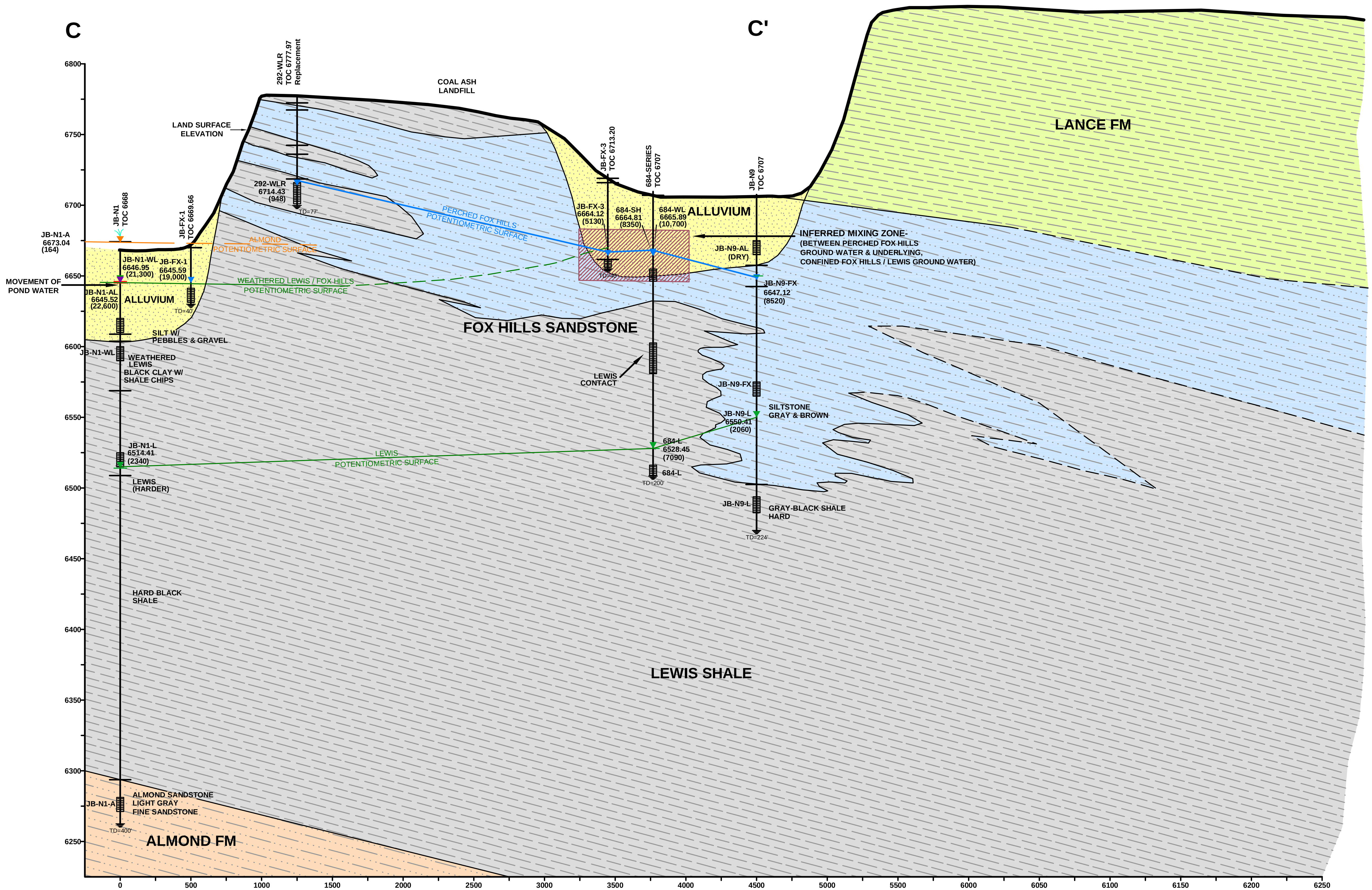
WATER & ENVIRONMENTAL TECHNOLOGIES, PC

JIM BRIDGER POWER PLANT

Cross Section B - B'

JB_PERC-M14 crs-sec.dwg
DATE: 4/14/10

Figure No. A-3



Horizontal Scale / Vertical Scale = 10

Almond Formation
Lewis Formation
Fox Hills Formation
Lance Formation
Alluvium

6617.81 (WL) September 2009 Ground Water Elevation
(55,500) Sulfate Concentration (mg/L)

WATER & ENVIRONMENTAL TECHNOLOGIES, PC

JIM BRIDGER POWER PLANT

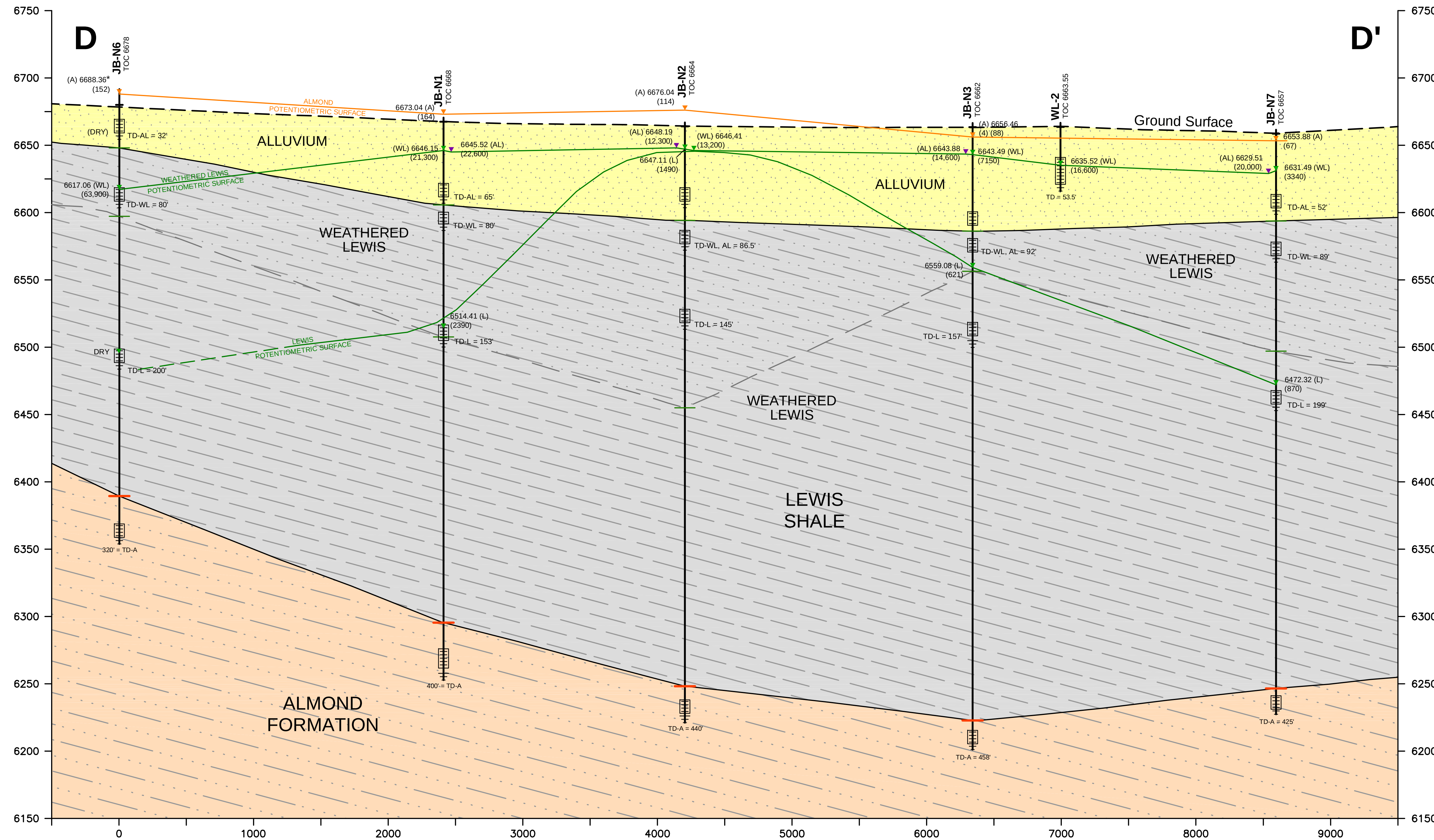
Cross Section C - C'

JB_PERC-M14 crs-sec.dwg

DATE: 4/14/10

Figure No. A-4

C:\drafting\Drafting\Dwgs\PERC\Jim_Bridger_M14\PERC-M14 2009\JB_PERC-M14 crs-sec.dwg, Section C-C', 4/15/2010 8:28:14 PM



Horizontal Scale / Vertical Scale = 10

Almond Formation	6617.81 (WL) September 2009 Ground Water Elevation
Lewis Formation	(55,500) Sulfate Concentration (mg/L)
Alluvium	* May 2009 Ground Water Elevation

WATER & ENVIRONMENTAL TECHNOLOGIES, PC

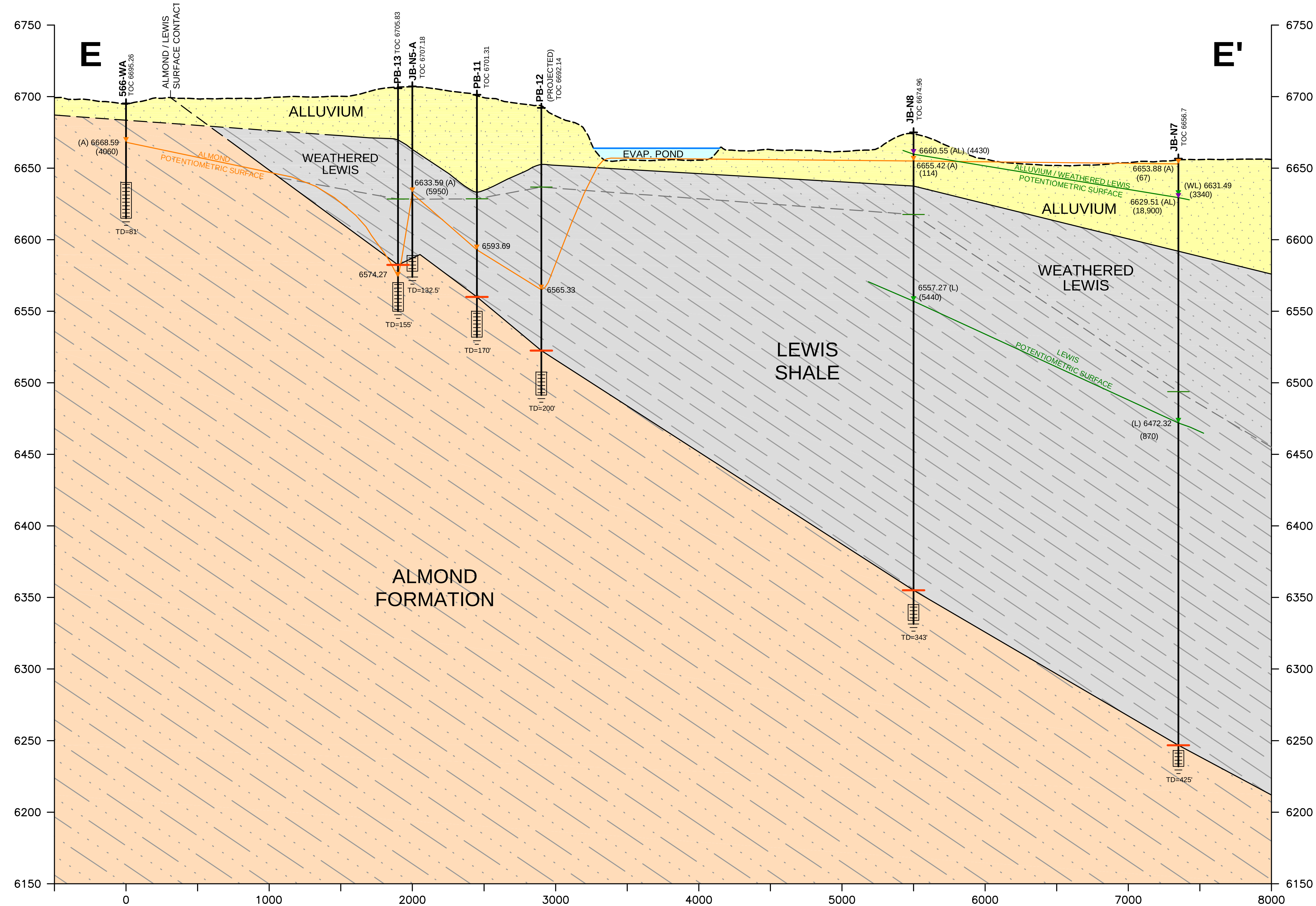
JIM BRIDGER POWER PLANT

Cross Section D - D'

JB_PERC-M14 crs-sec.dwg

DATE: 4/14/10

Figure No. A-5



Horizontal Scale / Vertical Scale = 10

Almond Formation
Lewis Formation
Alluvium

6617.81 (WL) September 2009 Ground Water Elevation
(55,500) Sulfate Concentration (mg/L)

WATER & ENVIRONMENTAL TECHNOLOGIES, PC

JIM BRIDGER POWER PLANT

Cross Section E - E'

JB_PERC-M14 crs-sec.dwg
DATE: 4/14/10

Figure No. A-6

C:\drafting\Drafting\Dwgs\PERC\Jim_Bridger_M14\PERC-M14 2009\JB_PERC-M14 crs-sec.dwg, Section E-E', 4/15/2010 8:55:28 PM