

State of Colorado
Oil and Gas Conservation Commission

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FOR OGCC USE ONLY

SITE INVESTIGATION AND REMEDIATION WORKPLAN

This form shall be submitted to the Director for approval prior to the initiation of site investigation and remediation activities. Form 27 is intended to be used whenever possible. Additional documentation will be required when large volumes of soil and groundwater have been impacted or involve large facilities with multiple source areas. See Rule 910. Attach as many pages as needed to fully describe the proposed work.

OGCC Employee:

Spill Complaint
Inspection NOAV

Tracking No:

CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED

Spill or Release Plug & Abandon Central Facility Closure Site/Facility Closure Other (describe): _____

OGCC Operator Number: _____

Name of Operator: _____

Address: _____

City: _____ State: _____ Zip: _____

Contact Name and Telephone: _____

No: _____

Fax: _____

API Number: _____

County: _____

Facility Name: _____

Facility Number: _____

Well Name: _____

Well Number: _____

Location: (QtrQtr, Sec, Twp, Rng, Meridian): _____ Latitude: _____ Longitude: _____

TECHNICAL CONDITIONS

Type of Waste Causing Impact (crude oil, condensate, produced water, etc): _____

Site Conditions: Is location within a sensitive area (according to Rule 901e)? Y N If yes, attach evaluation.

Adjacent land use (cultivated, irrigated, dry land farming, industrial, residential, etc.): _____

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: _____

Potential receptors (water wells within 1/4 mi, surface waters, etc.): _____

Description of Impact (if previously provided, refer to that form or document):

Impacted Media (check): Extent of Impact: How Determined:

Soils _____ _____

Vegetation _____ _____

Groundwater _____ _____

Surface Water _____ _____

REMEDIALTION WORKPLAN

Describe initial action taken (if previously provided, refer to that form or document):

Describe how source is to be removed:

Describe how remediation of existing impacts is to be accomplished, including removal and disposal at an injection well or licensed facility, land treatment on site, removal of impacted groundwater, insitu bioremediation, burning of oily vegetation, etc.:



Tracking Number: _____
Name of Operator: _____
OGCC Operator No: _____
Received Date: _____
Well Name & No: _____
Facility Name & No: _____

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REMEDIATION WORKPLAN (Cont.)

OGCC Employee: _____

If groundwater has been impacted, describe proposed monitoring plan (# of wells or sample points, sampling schedule, analytical methods, etc.):

Available information indicates that the uppermost groundwater bearing zone is greater than 100 feet below the ground surface. Soil samples were collected for laboratory analysis of subliner material to confirm no groundwater impact potential exists (see Table 1 and 3A)

Describe reclamation plan. Discuss existing and new grade recontouring; method and testing of compaction alleviation; and reseeding program, including location of new seed, seed mix and noxious weed prevention. Attach diagram or drawing. Use additional sheet for description if required.

Please see Attachment I and II

Attach samples and analytical results taken to verify remediation of impacts. Show locations of samples on an onsite schematic or drawing.

Is further site investigation required? ☒ Y ☐ N If yes, describe:

Based on subliner sample results no additional assessment will be necessary beneath the Freshwater, Reserve, North Reserve, and Cuttings Pits. Assessment of the FWL-2 and RPL-9 boring locations are currently underway (see Tables 2, 2A, 2B and 3), upon completion confirmation samples will be collected to ensure Table 910-1 compliance.

Final disposition of E&P waste (landtreated and disposed onsite, name of licensed disposal facility, recycling, reuse, etc.):

Synthetic liners and contents from the Freshwater, Reserve, North Reserve and Cuttings Pits were removed and transported for offsite disposal to both ECDC Environmental Landfill in Utah and Wray Gulch Landfill in Meeker, CO. Freshwater, Reserve and Cuttings Pit excavated materials and stockpile materials have been removed and will be either crushed, mix/blend processed to below Table 910-1 concentration levels or transported offsite to a permitted disposal/recycling facility. Mix/blend processed material that passes Table 910-1 concentration levels will be used for onsite fill.

IMPLEMENTATION SCHEDULE

Date Site Investigation Began: 12/22/09 Date Site Investigation Completed: TBD Date Remediation Plan Submitted: 5/24/10
Remediation Start Date: 5/19/14 Anticipated Completion Date: pending approval Actual Completion Date: TBD

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct, and complete.

Print Name: Jessica Dooling

Signed: _____

Title: Piceance EH&S Supervisor

Date: 9/27/2015

OGCC Approved: _____ Title: _____ Date: _____

ATTACHMENT I

PCU T75X-3G Pit Closure Workplan, Form 27 Page 1

Background Arsenic:

XTO Energy herein requests consideration of site-specific background Arsenic levels as an alternative to the Table 910-1 value for the PCU T75X-3G location. COGCC Table 910-1 Concentration Levels list the allowable concentration level for Arsenic in soil at 0.39 mg/kg. Footnote 1 of Table 910-1 states "Consideration shall be given to background levels in native soils and ground water". At other locations COGCC has approved the determination of allowable levels based upon a 10% variability factor applied to background soil concentration values where the maximum allowable level is computed by multiplying the highest detected background concentration by 1.1.

1. Eight representative background samples were collected from areas adjacent to the subject location. Arsenic concentrations in those samples ranged from 3.3 mg/kg to 8.4 mg/kg. Applying the 10% variability factor to the highest concentration detected results in an allowable Arsenic concentration level of 9.2 mg/kg. (See Table 1 and Figure 1 for results and sample locations)
2. Subliner Arsenic samples were collected from the Freshwater Pit (2.5 mg/kg), Reserve Pit (2.7 mg/kg and 3.4 mg/kg), North Reserve Pit (2.4 mg/kg to 3.1 mg/kg), and Cuttings Pit (2.2 mg/kg and 3.4 mg/kg). These subliner Arsenic concentrations are within the allowable background Arsenic concentration of 9.2 mg/kg (see Table 1).
3. Arsenic samples were collected from stockpile material that will be buried in place. Arsenic results for the Freshwater Pit Excavated Material (4.5 mg/kg), Reserve Pit Excavated Material (4.1 mg/kg), Cuttings Pit Excavated Material (3.1 mg/kg), and Crushed Stockpile (2.5 mg/kg to 3.6 mg/kg) are within allowable background Arsenic concentration of 9.2 mg/kg (see Table 5).

ATTACHMENT II

PCU T75X-3G Pit Closure Workplan, Form 27

Describe initial action taken:

The site consists of Freshwater, Reserve, North Reserve, and Cuttings Pits (see Figure 1).

Below is an update to the Site Investigation and Remediation Workplan (REM# 5030, DOC# 2606887) COGCC approved on 5/26/2010, updated on 5/9/2014 via Form 27A DOC# 2146887 and Form 19 DOC# 400597491. See attachment I, Tables 1 through 5B (29 total) and Figures 1 through 5E (21 total).

1. Freshwater Pit

- Freshwater pit contents (de minimis) and associated synthetic liners were removed and transported to ECDC Environmental in Utah and Wray Gulch Landfill in Meeker, CO.
- Freshwater Pit subliner samples were collected and analyzed for TPH. Results exceeded Table 910-1 concentration levels and ranged from 3042 mg/kg (#2) to 5551 mg/kg (#3). (see Table 1 and Figures 1 and 3A)

Initial Freshwater Pit Subliner Assessment

- Initial Freshwater Pit assessment was completed in February 2011 via hollow stem drilling to assess vertical and lateral extent of impacts beneath and surrounding the Freshwater Pit. Five vertical (FWV) and three lateral (FWL) borehole intervals had TPH results exceeding Table 910-1 concentration levels (see Table 2 and Figure 3):
 - FWV-1 at -4' to -9' TPH: 1351 mg/kg
 - FWV-2 at -2' to -4' TPH: 4626 mg/kg
 - FWV-2 at -4' to -9' TPH: 689 mg/kg
 - FWV-3 at 0 to -2' TPH: 1917 mg/kg
 - FWV-3 at -2' to -4' TPH: 837 mg/kg
 - FWL-1 at -14' to -19' TPH: 650 mg/kg
 - FWL-2 at 0 to -2' TPH: 564 mg/kg
 - FWL-2 at -2' to -4' TPH: 734 mg/kg

Note: FWV (vertical) sample depths are relative to the bottom of the pit. FWL (lateral) sample depths are relative to the location surface.

- The Freshwater Vertical (FWV) samples identified subliner impacts to a depth of approximately 9 feet below the Freshwater Pit bottom.
- Impacted soils/rock were excavated and removed from beneath the Freshwater Pit to a depth of approximately 10 feet below pit bottom surface. A Freshwater Pit Subliner -10' confirmation sample was collected and analyzed for Table 910-1 parameters. Results were below Table 910-1 concentration levels with the exception of EC (7.39 mmhos/cm) and Arsenic (2.5 mg/kg) (see Table 1 and Figure 3A).
 - This Freshwater Pit excavation removed impacts previously identified in boreholes FWV-1, FWV-2, and FWV-3.
- Freshwater Lateral (FWL) samples (FWL-1 and FWL-2) identified impacts west of the Freshwater Pit.
 - **FWL-1 (lateral)** at -14' to -19' TPH: 650 mg/kg. This sample was a composite of the hollow stem drilling borehole from -14' to -19' bgs.
 - Based on assessment in and around this area, it appears that this is a limited and discrete impacted interval within fractured bedrock (see Table 2 and Figures 3 and 3E).
 - All potential source materials have been removed from the Freshwater Pit
 - Pit contents and synthetic liners have been removed and transported for offsite disposal.
 - Subliner and sidewall TPH confirmation sample results (See Freshwater Pit Sidewall Assessment Section) are below Table 910-1 concentration levels.
 - The TPH concentrations of samples collected and analyzed from the FWL-1 borehole are summarized below:

DEPTH (ft.)	TPH (mg/kg)
4-9	242
9-14	101
14-19	650 mg/kg
19-24	32.9

- The arithmetic mean of the four hydrocarbon samples collected and analyzed from FWL-1 is below Table 910-1 concentration levels; 256.5 mg/kg.
- It is inconclusive as to whether this is residual evidence of a release within the bedrock fractures in the area of the Freshwater Pit, or possibly associated with naturally occurring oil shale deposits known to exist in the Piceance Basin (***USGS Geologic Map of the Northern Part of the Piceance Creek Basin, Northwestern Colorado; dated 1994***).
- **FWL-2 (lateral)** at -0' to -2' TPH: 564 mg/kg; and -2' to -4' TPH: 734 mg/kg. These samples were composites of the hollow stem drilling borehole from -0' to -2' bgs and -2 to -4' bgs, respectively.
 - This boring identified shallow impacts west of the Fresh Water Pit. An area of approximately 35 feet by 35 feet by 4 vertical feet of impacted material was initially excavated and removed from this area. Confirmation samples were collected from the base and sidewalls of the excavation and analyzed for Table 910-1 parameters.
 - Results were below Table 910-1 concentration levels for FWL-2 (-4'), South and East Sidewalls with the exception of SAR (12.4 at FWL-2 at -4'), pH (ranging from 9.4 to 10.2), and Arsenic (ranging from 6.9 mg/kg to 10.9 mg/kg) (see Table 2 and 2G and Figure 3B).
 - North and West sidewall confirmation results exceeded Table 910-1 concentration levels for the North and West Sidewalls for TPH (752 mg/kg and 1099 mg/kg), SAR (18.9 – West SW), pH (9.55 and 11.16), and Arsenic (5.4 mg/kg and 4.7 mg/kg), respectively (see Tables 2A and 2B and Figure 3B).
 - Additional delineation of this area is currently underway. Upon completion confirmation samples will be collected and analyzed for Table 910-1 parameters.

Additional Freshwater Pit Assessment

- Additional Freshwater Pit assessment was completed in August and December 2011 with samples collected via hollow stem drilling and test pits to further assess the vertical and lateral extent of impacts not fully defined by the previous assessment or excavation. Two lateral boreholes (FWL) and two test pits (FWTP) identified TPH results exceeding Table 910-1 concentration levels (see Table 2 and Figure 3).

- FWL-6 at -19' to -25' TPH: 1904 mg/kg
- FWL-9 at -24' to -29' TPH: 697 mg/kg
- FWTP-4 at -11' to -17' TPH: 775 mg/kg
- FWTP-5 at -11' to -17' TPH: 1865 mg/kg

Note: These sample depths are relative to the location surface.

- FWL-6 and FWL-9 borings identified TPH results exceeding Table 910-1 concentration levels east of the Freshwater Pit.
 - **FWL-6 (lateral)** at -19' to -25' TPH: 1904 mg/kg. This sample was a composite of the hollow stem drilling borehole from -19' to -25' bgs.
 - **FWL-9 (lateral)** at -24' to -29' TPH: 697 mg/kg. This sample was a composite of the hollow stem drilling borehole from -24' to -29' bgs.
 - Based on assessment in and around this area, it appears that these are limited and discrete impacted intervals within fractured bedrock (see Table 2 and Figures 3 and 3E).
 - All potential source materials have been removed from the Freshwater Pit
 - Pit contents and synthetic liners have been removed and transported for offsite disposal.
 - Subliner and sidewall TPH confirmation sample results (See Freshwater Pit Sidewall Assessment Section) are below Table 910-1 concentration levels.
 - The TPH concentrations of samples collected and analyzed from these and surrounding boreholes are summarized below:

LOCATION	DEPTH (ft.)	TPH (mg/kg)
FWL-3	9-14	11.3
FWL-6	19-25	1904
FWL-7	24-29	12.2
FWL-8	19-24	14.0
FWL-9	24-29	697
FWL-9	29-34	14.4

- The arithmetic mean of these six hydrocarbon samples collected and analyzed from the FWL-6/FWL-9 area is below Table 910-1 concentration levels; 442.2 mg/kg.
 - It is inconclusive as to whether this is residual evidence of a release within the bedrock fractures in the area of the Freshwater Pit, or possibly associated with naturally occurring oil shale deposits known to exist in the Piceance Basin (***USGS Geologic Map of the Northern Part of the Piceance Creek Basin, Northwestern Colorado; dated 1994***).
- Test Pits (TP) FWTP-4 and FWTP-5 identified impacts along the North and East Sidewalls of the Freshwater Pit, respectively.
 - These impacts were removed during Freshwater Pit Sidewall Assessment and are discussed in sections following.

Freshwater Pit Sidewall Assessment

- Freshwater Pit Sidewall samples were collected from each of the four sidewalls from -0 to -10' below ground surface (bgs) and from -10' to -20' bgs to evaluate potential impact.
- Additional assessment and confirmation samples were collected to address impacted areas identified during previous assessment activities.
 - **North Sidewall (-0' to -10')**
 - Results were below Table 910-1 concentration levels with the exception of SAR (27.4), pH (10.18), and Arsenic (4.8 mg/kg) (see Table 2C).
 - **North Sidewall (-10' to -20')**
 - Results exceeded Table 910-1 concentration levels for TPH (2090 mg/kg), pH (9.86), and Arsenic (2.8 mg/kg).
 - Impacted soils were laterally removed from -0' to -9' in the North Sidewall with confirmation samples collected for TPH. Results ranged from ND to 159 mg/kg (see Tables 2C and 2D).

FWTP-4 (Test Pit) at -11' to -17' TPH: 775 mg/kg. This sample was a composite of the test pit from -11' to -17' bgs. These impacts extended beyond the -10' to -20' lateral excavation of the North Sidewall.

- The North Sidewall excavation was extended laterally to this area, approximately 17 vertical feet of material was removed. A

confirmation sample was collected and analyzed for Table 910-1 parameters. Results were below Table 910-1 concentration levels with the exception of SAR (15.1), pH (9.42), and Arsenic (3.6 mg/kg) (see Tables 2 and 2G and Figures 3, 3D, and 3E)

- **South Sidewall**

- (-0' to -10')**

- Results were below Table 910-1 concentration levels with the exception of SAR (12.8), pH (10.12), and Arsenic (2.5 mg/kg) (see Table 2C).

- (-10' to -20')**

- Results were below Table 910-1 concentration levels with the exception of pH (9.25), and Arsenic (3.1 mg/kg) (see Table 2C).

- **East Sidewall**

- (-0' to -10')**

- Results exceeded Table 910-1 concentration levels for TPH (2330 mg/kg), SAR (14.2), pH (10.13), and Arsenic (3.8 mg/kg).
 - Impacted soils were laterally removed from -0' to -12' in the East Sidewall with confirmation samples collected for TPH. Results were below Table 910-1 concentration levels and ranged from ND to 279 mg/kg (see Tables 2C and 2E).

- (-10' to -20')**

- Results were below Table 910-1 concentration levels with the exception of Arsenic (3.2 mg/kg) (see Table 2C).

FWTP-5 (Test Pit) at -11' to -17' TPH: 1865 mg/kg. This sample was a composite of the test pit from -11' to -17' bgs. These impacts extended beyond the -0' to -10' lateral excavation of the East Sidewall.

- The East Sidewall excavation was extended laterally to this area, approximately 17 vertical feet of material was removed. A confirmation sample was collected and analyzed for Table 910-1 parameters. Results exceeded Table 910-1 concentration levels for TPH (612 mg/kg), pH (9.28), and Arsenic (5.5 mg/kg).
- An additional 2 feet of material was removed from this area (total vertical feet of excavation -19 feet). A confirmation sample was collected and analyzed for TPH, results were below Table 910-1 concentration levels (TPH: 30 mg/kg) (see Tables 2 and 2G and Figures 3, 3D, and 3E).

- **West Sidewall**

- (-0' to -10')**

- Results were below Table 910-1 concentration levels with the exception of SAR (28.9), pH (9.63), and Arsenic (3.2 mg/kg) (see Table 2C).

- (-10' to -20')**

- Results exceeded Table 910-1 concentration levels for TPH (850 mg/kg), SAR (18.1), pH (10.01), and Arsenic (3.4 mg/kg) (see Table 2C).
 - Impacted soils were laterally removed from -0' to -3' in the West Sidewall with confirmation samples collected for TPH. Results ranged from 29 to 382 mg/kg (see Tables 2C and 2F).

2. Reserve Pit

- Reserve Pit contents were sampled and analyzed for Table 910-1 parameters. Results exceeded Table 910-1 concentration levels for TPH (170003 mg/kg) and Arsenic (15 mg/kg).
- Reserve Pit subliner samples were collected and analyzed for TPH. Results exceeded Table 910-1 concentration levels for TPH (22664 mg/kg) (see Table 1 and Figure 1).

Initial Reserve Pit Subliner Assessment

- Initial Reserve Pit drill assessment was completed in March 2011 via hollow stem drilling to assess vertical and lateral extent of impacts beneath the Reserve Pit. One vertical (RPV) and three lateral (RPL) boreholes had TPH results exceeding Table 910-1 concentration levels (see Table 3 and Figure 4).
- RPV-1 at -4' to -9' TPH: 3963 mg/kg
- RPL-2 at -14' to -19' TPH: 2190 mg/kg
- RPL-4 at -0' to -4' TPH: 509 mg/kg
- RPL-5 at -14' to -19' TPH: 5040 mg/kg

Note: RPV (vertical) sample depths are relative to the bottom of the pit. RPL (lateral) sample depths are relative to the location surface.

- The Reserve Pit Vertical RPV-1 sample identified subliner impacts to a depth of approximately 9 feet below the Reserve Pit bottom on the east half.
- Impacted soils/rock were excavated and removed from the eastern half of the Reserve Pit to a depth of approximately 10 feet, with approximately 2 feet of material removed from the western half. Confirmation samples were collected and analyzed for Table 910-1 parameters. Results for the West Reserve Pit Subliner -2' were below Table 910-1 concentration with the exception of pH (9.72) and Arsenic (3.4 mg/kg). Results exceeded Table 910-1 concentration levels for the East Reserve Pit Subliner -10' sample for Benzo(A)pyrene (0.0232 mg/kg), pH (9.16), and Arsenic (3.7 mg/kg). Two discrete confirmation samples were analyzed for Benzo(A)pyrene with results below detection limits (see Table 3A and Figure 4A).
 - This Reserve Pit excavation removed impacts previously identified in the initial subliner and in borehole RPV-1.
- Reserve Pit Lateral (RPL) samples (RPL-2, RPL-4, and RPL-5) identified TPH results exceeding Table 910-1 concentration levels west of the Reserve Pit.
 - **RPL-2 (lateral)** at -14' to -19' TPH: 2190 mg/kg. This sample was a composite of the hollow stem drilling borehole from -14' to -19' bgs.
 - **RPL-4 (lateral)** at 0' to -4' TPH: 509 mg/kg. This sample was a composite of the hollow stem drilling borehole from 0' to -4' bgs.
 - **RPL-5 (lateral)** at -14' to -19' TPH: 5040 mg/kg. This sample was a composite of the hollow stem drilling borehole from -14' to -19'.
 - Based on assessment in and around these areas, it appears that these are limited and discrete impacted intervals either in the surficial soils (RPL-4 at 0' to 4'), or within the fractured bedrock (see Table 3 and Figures 4, 4E, and 4F).
 - All potential source materials have been removed from the Reserve Pit
 - Pit contents and synthetic liners have been removed and transported for offsite disposal.
 - Subliner and sidewall TPH confirmation sample results (See Reserve Pit Sidewall Assessment Section) are below Table 910-1 concentration levels.
 - The TPH concentrations of samples collected and analyzed from these and surrounding boreholes are summarized below:

LOCATION	DEPTH (ft.)	TPH (mg/kg)
RPL-2	14-19	2190
RPL-2	19-24	75.6
RPL-4	0-4	509
RPL-4	4-9	ND
RPL-5	9-14	75.6
RPL-5	14-19	5040

ND – not detected to laboratory detection limit

- This sample data supports the isolated vertical and lateral nature of these impacts.
- It is inconclusive as to whether this is residual evidence of a release within the bedrock fractures in the area of the Reserve Pit, or possibly associated with naturally occurring oil shale deposits known to exist in the Piceance Basin (***USGS Geologic Map of the Northern Part of the Piceance Creek Basin, Northwestern Colorado; dated 1994***).

Additional Reserve Pit Assessment

- Additional Reserve Pit assessment was completed in August 2011 with samples collected via hollow stem drilling to further assess the vertical and lateral extent of impacts not fully defined by the previous assessment or excavation. Three lateral boreholes (RPL) had TPH results exceeding Table 910-1 concentration levels (see Table 3 and Figure 4).
 - RPL-6 at -14' to -19' TPH: 2887 mg/kg
 - RPL-9 at -4' to -6.5' TPH: 1412 mg/kg
 - RPL-9 at -24' to -29' TPH: 2616 mg/kg
 - RPL-11 at -44' to -45' TPH: 8128 mg/kg

Note: These sample depths are relative to the location surface.

- RPL-6, RPL-9, and RPL-11 borings identified TPH results exceeding Table 910-1 concentration levels west of the Reserve Pit.

- **RPL-6 (lateral)** at -14' to -19' TPH: 2887 mg/kg. This sample was a composite of the hollow stem drilling borehole from -14' to -19'.
- **RPL-9 (lateral)** at -4' to -6.5' TPH: 1,412 mg/kg. These samples were composites of the hollow stem drilling borehole from -4' to -6.5' bgs
- **RPL-9 (lateral)** at -24' to -29' TPH: 2616 mg/kg. This samples was a composite of the hollow stem drilling borehole from -24' to -29' bgs.
- **RPL-11 (lateral)** at -44' to -45' TPH: 8,128 mg/kg. This sample was a composite of the hollow stem drilling borehole from -44' to -45'.
 - Based on assessment in and around these areas, it appears that these are limited and discrete impacted intervals within the fractured bedrock (see Table 3 and Figures 4, 4E, and 4F).
 - All potential source materials have been removed from the Reserve Pit
 - Pit contents and synthetic liners have been removed and transported for offsite disposal.
 - Subliner and sidewall TPH confirmation sample results (See Reserve Pit Sidewall Assessment Section) are below Table 910-1 concentration levels.
 - The TPH concentrations of samples collected and analyzed from these and surrounding boreholes are summarized below:

LOCATION	DEPTH (ft.)	TPH (mg/kg)
RPL-6	14-19	2887
RPL-6	44-49	58.0
RPL-7	14-19	486
RPL-8	42-43	169
RPL-9	4-6.5	1412
RPL-9	24-29	2616
RPL-10	31.5-32	219
RPL-11	44-45	8128
RPL-12	19-24	ND

ND – not detected to laboratory detection limit

- This sample data supports the isolated vertical and lateral nature of these impacts.

- It is inconclusive as to whether this is residual evidence of a release within the bedrock fractures in the area of the Reserve Pit, or possibly associated with naturally occurring oil shale deposits known to exist in the Piceance Basin (***USGS Geologic Map of the Northern Part of the Piceance Creek Basin, Northwestern Colorado; dated 1994***).

Reserve Pit Sidewall Assessment

- Reserve Pit Sidewall samples were collected from the four sidewalls from -0 to -10' bgs, and from North, South Sidewalls (eastern half only) and East Sidewall from -10' to -20' bgs to evaluate potential impact.
- Additional assessment and confirmation samples were collected to address impacted areas identified during previous assessment activities.
 - **North Sidewall**
(-0' to -10')
 - Results exceeded Table 910-1 concentration levels for Benzo(A)pyrene (0.0860 mg/kg), pH (9.30), and Arsenic (4.4 mg/kg) (see Table 3B).
 - Discrete samples were analyzed for Benzo(A)pyrene with results exceeding Table 910-1 concentration levels, ranging from 0.0356 mg/kg to 0.243 mg/kg (see Table 3C).
 - This -0' to -10' of North Sidewall impacted material was subsequently removed during the excavation and removal of the North Reserve Pit content material (see North Reserve Pit section below)
 - **(-10' to -20')**
 - Results exceeded Table 910-1 concentration levels for TPH (2528 mg/kg), SAR (15.1), pH (9.55), and Arsenic (4.0 mg/kg).
 - Impacted soils were laterally removed from -0' to -45' in the North Sidewall with confirmation samples collected for TPH. Results ranged from 66.3 mg/kg to 112 mg/kg (see Tables 3D and 3E, and Figure 4D).
 - **South Sidewall**
(-0' to -10')
 - Results exceeded Table 910-1 concentration levels for TPH (1320 mg/kg), Benzo(A)pyrene (0.0689 mg/kg), pH (9.11), and Arsenic (6.0 mg/kg) (see Table 3B).

- Impacted soils were laterally removed from -0' to -6' in the South Sidewall with confirmation samples collected for TPH (ranging from 15.9 mg/kg to 340 mg/kg) and Benzo(A)pyrene (ND) (see Table 3F).
- (-10' to -20')**
 - Results were below Table 910-1 concentration levels with the exception of pH (9.77), and Arsenic (3.0 mg/kg) (see Table 3B).
- **East Sidewall**
 - (-0' to -10')**
 - Results were below Table 910-1 concentration levels with the exception of pH (9.21), and Arsenic (5.5 mg/kg) (see Table 3B).
 - (-10' to -20')**
 - Results exceeded Table 910-1 concentration levels for TPH (3140 mg/kg), pH (9.64), and Arsenic (5.6 mg/kg) (see Table 3B).
 - Impacted soils were laterally removed from -0' to -9' in the East Sidewall with confirmation samples collected for TPH. Results were below detection limits (ND) (see Table 3G).
- **West Sidewall**
 - (-0' to -10')**
 - Results exceeded Table 910-1 concentration levels for TPH (1520 mg/kg), pH (9.54), and Arsenic (3.7 mg/kg) (see Table 3B).
 - Impacted soils were laterally removed from -0' to -3' in the West Sidewall with confirmation samples collected for TPH. Results ranged from 262 mg/kg to 271 mg/kg (see Table 3H).

Note: For pit configuration and sample locations see Figures 4C thru 4F.

3. North Reserve Pit

- North Reserve Pit contents were sampled and analyzed for Table 910-1 parameters. Results exceeded Table 910-1 concentration levels for Benzo(A)pyrene (0.0567 mg/kg), EC (10.8 mmhos/cm), SAR (89.7), pH (12.24), and Arsenic (5.1 mg/kg) (see Table 1).
- The North Reserve Pit contents were removed. This material made up the Reserve Pit North Sidewall 0' to 10'. (See Reserve Pit North Sidewall 0' to 10' section above).
- North Reserve Pit subliner samples were collected and analyzed for Table 910-1 parameters. Results were below Table 910-1 concentration levels with the exception of pH (ranging from 9.51 to 9.59) and Arsenic (ranging from 2.4 mg/kg to 3.1 mg/kg) (see Table 1 and Figures 4A and 4F).

4. Cuttings Pit

- Cuttings Pit contents were sampled and analyzed for Table 910-1 parameters. Results exceeded Table 910-1 concentration levels for TPH (1553 mg/kg), EC (12.300), SAR (48.8), pH (10.18), and Arsenic (8.6 mg/kg) (see Table 1).
- Initial Cuttings Pit subliner samples were not collected due to significant impacts identified beneath the liner (strong odor, staining, and color).

Initial Cuttings Pit Subliner Assessment

- Initial Cuttings Pit drill assessment was completed in February 2011 via hollow stem drilling to assess vertical and lateral extent of impacts beneath and surrounding the Cuttings Pit. TPH results exceeded Table 910-1 concentration levels in two vertical (CPV) and two lateral (CPL) boreholes (see Table 4 and Figure 5).
 - CPV-3 at -2' to -4' TPH: 736 mg/kg
 - CPV-3 at -4' to -9' TPH: 2168 mg/kg
 - CPV-4 at -9' to -14' TPH: 501 mg/kg
 - CPL-2 at -14' to -19' TPH: 2720 mg/kg
 - CPL-2 at -19' to -24' TPH: 4632 mg/kg
 - CPL-5 at -14' to -19' TPH: 3925 mg/kg
 - CPL-5 at -19' to -24' TPH: 1037 mg/kg

Note: CPV (vertical) sample depths are relative to the bottom of the pit. CPL (lateral) sample depths are relative to the location surface.

- The Cuttings Pit Vertical (CPV) samples identified subliner impacts on the western half of the pit to a depth of approximately 9 feet below the pit bottom.
- Impacted soils/rock were excavated and removed from beneath the western half of the Cuttings Pit to a depth of approximately 10 below the bottom of the pit. Cuttings Pit bottom confirmation samples were collected (West Half and East Half) and analyzed for Table 910-1 parameters. Results were below Table 910-1 concentration levels with the exception of EC (8.8 mmhos/cm) and Arsenic (2.2 mg/kg) from the West Subliner -10' sample and pH (9.63) and Arsenic (3.4 mg/kg) from the East Subliner 0' sample (see Table 1 and Figure 5A).
 - This Cuttings Pit excavation removed impacts previously identified in boreholes CPV-3 and CPV-4.

- Cuttings Pit Lateral (CPL) samples identified elevated TPH results west of the Cuttings Pit (CPL-2 and CPL-5).
 - **CPL-2 (lateral)** at -14' to -19' TPH: 2720 mg/kg; and -19' to -24' TPH: 4632 mg/kg. These samples were composites of the hollow stem drilling borehole from -14' to -19' bgs and -19' to -24' bgs, respectively.
 - **CPL-5 (lateral)** at -14' to -19' TPH: 3925 mg/kg; and -19' to -24' TPH: 1037 mg/kg. These samples were composites of the hollow stem drilling borehole from -14' to -19' bgs and -19' to -24' bgs, respectively.
 - Impacted material was excavated and removed from these two areas with a confirmation sample collected at the base of the excavation and analyzed for Table 910-1 parameters. Results were below Table 910-1 concentration levels with the exception of pH (9.29) and Arsenic (2.3 mg/kg) (see Table 4A and Figures 5C and 5E).

Additional Cuttings Pit Subliner Assessment

- Additional Cuttings Pit assessment was completed in August 2011 with samples collected via hollow stem drilling to further assess the vertical and lateral extent of impacts not fully defined by the previous assessment or excavation.
- Results were below Table 910-1 concentration levels with the exception of pH (9.74 and 9.79 in CPL-6 and CPL-8, respectively) and Arsenic (2.9 mg/kg in both CPL-6 and CPL-8) (see Table 4 and Figure 5).

Cuttings Pit Sidewall Assessment

- Cuttings Pit Sidewall samples were collected from each of the four sidewalls from -0' to -10' bgs and from the North and South Sidewalls (western half only) and the West Sidewall from -10' to -20' bgs to evaluate potential impact and analyzed for Table 910-1 parameters.
- Additional assessment and confirmation samples were collected as required to address impacted areas identified during previous assessment activities.
 - **North Sidewall
(-0' to -10')**

- Results exceeded Table 910-1 concentration levels for TPH (898 mg/kg), pH (9.64), and Arsenic (9.4 mg/kg) (see Table 4B).
- Impacted soils were laterally removed from -0' to -3' in the North Sidewall with confirmation samples collected for TPH. Results ranged from ND to 255 mg/kg (see Table 4C).

(-10' to -20')

- Results were below Table 910-1 concentration levels with the exception of pH (9.05) and Arsenic (2.2 mg/kg) (see Table 4B).

○ **South Sidewall**

(-0' to -10')

- Results exceeded Table 910-1 concentration levels for TPH (1038 mg/kg), SAR (12.7), pH (9.90), and Arsenic (4.3 mg/kg) (see Table 4B).
- Impacted soils were laterally removed from -0' to -9' in the South Sidewall with confirmation samples collected for TPH. Results ranged from ND to 401 mg/kg (see Table 4D).

(-10' to -20')

- Results exceeded Table 910-1 concentration levels for TPH (918 mg/kg), pH (9.52), and Arsenic (3.2 mg/kg) (see Table 4B).
- Impacted soils were laterally removed from -0' to -9' in the South Sidewall with confirmation samples collected for TPH. Results ranged from 268 mg/kg to 434 mg/kg (see Table 4E).

○ **East Sidewall**

(-0' to -10')

- Results were below Table 910-1 concentration levels with the exception of pH (9.63) and Arsenic (2.2 mg/kg) (see Table 4B).

○ **West Sidewall**

(-0' to -10')

- Results exceeded Table 910-1 concentration levels for TPH (6110 mg/kg), SAR (12.0), pH (9.48), and Arsenic (4.7 mg/kg) (see Table 4B).
- Impacted soils were laterally removed from -0' to -21' in the West Sidewall with confirmation samples collected for TPH. Results ranged from ND to 127 mg/kg (see Table 4F).

(-10' to -20')

- Results exceeded Table 910-1 concentration levels for TPH (918 mg/kg), SAR (14.2), pH (9.62), and Arsenic (3.5 mg/kg).

- Impacted soils were laterally removed from -0' to -21' in the West Sidewall with confirmation samples collected for TPH. Results ranged from 110 to 433 mg/kg (see Table 4G).

5. Cuttings Pit Stockpile

- Cuttings Pit Stockpile material was sampled and analyzed for Table 910-1 parameters. Results exceeded Table 910-1 concentration levels for TPH (3420 mg/kg), (EC 27.300), SAR (20.0), pH (9.05) and Arsenic (6.4 mg/kg) (see Table 1).

6. Stockpile Material (Spoilpiles #1 through #3)

- Multiple Stockpile Material samples were collected and analyzed for Table 910-1 parameters. Results exceeded Table 910-1 concentration levels for Benzo(A)anthracene (0.230 mg/kg; Spoils #1), Benzo(A)pyrene (0.402 mg/kg; Spoils #1 and 0.295 mg/kg, Spoils #2), EC and SAR (17.500, 20.0; 26.500, 25.9) respectively, pH (9.13, Spoils #2) and Arsenic (4.7 mg/kg to 5.3 mg/kg) (see Table 5).
- Additional assessment and/or remediation of this material is in process. Impacted material will be either crushed and mix/blend processed to below Table 910-1 concentration levels and buried on site, or transported offsite to a permitted disposal/recycling facility.
- Freshwater, Reserve, Cuttings Pit contents/synthetic liners and Cuttings Stockpile material were removed from the pits and transported to EDCD Environmental Landfill in Utah and Wray Gulch Landfill in Meeker, CO.
- Freshwater, Reserve and Cuttings Pit excavated material and stockpiles have been removed and will either be crushed and/or mix/blend processed and sampled to ensure Table 910 compliance or transported offsite to a permitted disposal/recycling facility (see Table 5, 5A, and 5B).
- Crushed and/or mix/blend processed Freshwater, Reserve and Cuttings Pit excavated material and stockpiles that meet Table 910-1 concentration levels will be used onsite for backfill.
- Refer to Tables 1 through 5B (29 total) for a summary of the laboratory results and Figures 1 through 5E (21 total) for layout of the pits and sample locations.

- All materials hauled for offsite disposal were/will be properly manifested with disposal manifests available on request.
- Soil samples were collected by KRW Consulting, Inc. following proper sampling and shipping protocol and submitted to Accutest Laboratories in Wheat Ridge, Colorado. QAQC of the laboratory results indicated no outstanding anomalies. The laboratory test results are summarized in the attached tables. Complete laboratory reports are available on request.
- Any remaining elevated levels of Electrical Conductivity, SAR and pH detected beneath the pits or in material used for backfill will be covered with a minimum 3 feet of clean, native soils per COGCC guidance. No additional treatment of these soils will be required.
- Reclamation activities will be performed in accordance with applicable COGCC 900, 1000 Series rules and as specified in the Surface Use Plan and BLM Conditions of Approval.

Table 1
Location: PCU T75X-3G
Lab Summary

Last update 9/11/2015

Analytical Parameter	Fresh Water Pit					Reserve Pit				Reserve Pit North				Cuttings Pit				Background								COGCC	Maximum based on Background	
(with units)	FW Pit Contents	FW Subliner #1	FW Subliner #2	FW Subliner #3	FW Subliner (-10')	RP Contents	RP Subliner	West RP Subliner (-2')	East RP Subliner (-10')	RP North Contents	RP Subliner #1	RP Subliner #2	RP Subliner #3	Cuttings Contents	Cuttings Stockpile	West Subliner (-10')	East Subliner (0')	B-1	B-2	B-3	B-4	B-5	B-6	B-7	B-8	Table 910-1 Concentration Levels		
Accutest Job #		D16562 (8/18/10)				D26014 (7/27/11)	D9971 (12/22/09)	D16805 (8/24/10)	D58726 (6/11/14)	D58726 (6/11/14)	D66374 (1/6/15)	D66211 (1/2/15)			D11728 (3/11/10)		D26014 (7/27/11)	D58726 (6/11/14)	D58727 (6/11/14)								-	-
Sample type (Composite/Discrete)		D	D	D	C	C	C	C	C	C	D	D	D	C	C	C	C	D	D	D	D	D	D	D	D	D	-	-
TPH (GRO) (mg/Kg)		207	72.3	50.9	ND	3.3	64	ND	ND	14.5	7.93	ND	ND	13.2	ND	ND	ND	-	-	-	-	-	-	-	-	-	-	-
TPH (DRO) (mg/Kg)		3830	2970	5500	105	170000	22600	64.1	12.3	375	234	12.1	71.2	1540	3420	391	14.4	-	-	-	-	-	-	-	-	-	-	-
TPH (GRO + DRO) (mg/Kg)		4037	3042	5551	105	170,003	22664	64.1	12.3	390	242	12.1	71.2	1,553	3,420	391	14.4	-	-	-	-	-	-	-	-	-	500	-
Benzene (mg/Kg)		-	-	-	ND	0.014	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	-	0.170	-
Toluene (mg/Kg)		-	-	-	ND	0.031	-	ND	ND	0.0449	ND	ND	ND	0.0252	ND	ND	ND	-	-	-	-	-	-	-	-	-	85	-
Ethylbenzene (mg/Kg)		-	-	-	ND	ND	-	ND	ND	ND	ND	ND	ND	0.0187	ND	ND	ND	-	-	-	-	-	-	-	-	-	100	-
Xylenes (total) (mg/Kg)		-	-	-	ND	0.073	-	ND	ND	0.368	ND	ND	ND	0.1271	ND	ND	ND	-	-	-	-	-	-	-	-	-	175	-
Acenaphthene (mg/Kg)		-	-	-	ND	ND	-	ND	ND	ND	0.0253	0.0012	0.0059	ND	ND	ND	ND	-	-	-	-	-	-	-	-	-	1000	-
Anthracene (mg/Kg)		-	-	-	ND	ND	-	ND	ND	0.0248	0.0036	ND	0.0015	ND	ND	ND	0.0079	-	-	-	-	-	-	-	-	-	1000	-
Benzo(A)anthracene (mg/Kg)		-	-	-	ND	ND	-	0.0029	0.0121	0.120	0.0068	0.0036	ND	ND	ND	ND	ND	-	-	-	-	-	-	-	-	-	0.22	-
Benzo(A)pyrene (mg/Kg)		-	-	-	ND	ND	-	0.0113	0.0394	0.189	0.0141	0.0114	0.0072	ND	ND	ND	0.0039	-	-	-	-	-	-	-	-	-	0.022	-
Benzo(B)fluoranthene (mg/Kg)		-	-	-	ND	ND	-	0.0046	0.0084	0.0820	0.0055	0.0034	ND	ND	ND	ND	0.0035	-	-	-	-	-	-	-	-	-	0.22	-
Benzo(K)fluoranthene (mg/Kg)		-	-	-	ND	ND	-	0.0105	0.0232	0.0943	0.0048	ND	ND	ND	ND	ND	0.0031	-	-	-	-	-	-	-	-	-	2.2	-
Chrysene (mg/Kg)		-	-	-	ND	ND	-	0.0064	0.0237	0.151	0.0110	0.0047	0.0026	ND	ND	ND	0.0032	-	-	-	-	-	-	-	-	-	22	-
Dibenzo(A,H)anthracene (mg/Kg)		-	-	-	ND	ND	-	0.0042	0.0072	0.0374	0.0024	0.002	ND	ND	ND	ND	0.0026	-	-	-	-	-	-	-	-	-	0.022	-
Fluoranthene (mg/Kg)		-	-	-	ND	ND	-	ND	0.0137	0.202	0.0124	0.0062	0.0034	ND	ND	ND	ND	-	-	-	-	-	-	-	-	-	1000	-
Fluorene (mg/Kg)		-	-	-	ND	ND	-	ND	ND	0.128	0.0769	0.0034	0.0221	ND	ND	0.0715	ND	-	-	-	-	-	-	-	-	-	1000	-
Indeno(1,2,3-C,D)pyrene (mg/Kg)		-	-	-	ND	ND	-	0.0067	0.0142	0.0764	0.0043	0.003	ND	ND	ND	ND	0.0031	-	-	-	-	-	-	-	-	-	0.22	-
Naphthalene (mg/Kg)		-	-	-	ND	ND	-	0.0036	0.0114	0.225	0.0347	0.0042	0.0073	ND	ND	ND	0.0131	-	-	-	-	-	-	-	-	-	23	-
Pyrene (mg/Kg)		-	-	-	ND	ND	-	0.0035	0.0135	0.133	0.0107	0.0045	0.0034	ND	ND	0.0068	0.0042	-	-	-	-	-	-	-	-	-	1000	-
Electrical Conductivity (mmhos/cm)		-	-	-	7.39	2.880	-	1.340	1.940	10.400	3.960	2.83	1.73	12.300	27.300	8.8	2.080	-	-	-	-	-	-	-	-	-	4	-
Sodium Adsorption Ratio (SAR)		-	-	-	8.76	11	-	10.7	8.34	48.4	8.98	10.4	10.3	48.8	20.0	11.7	8.72	-	-	-	-	-	-	-	-	-	12	-
pH		-	-	-	8.24	8.57	-	9.72	9.16	11.90	9.58	9.51	9.59	10.18	9.05	8.6	9.63	-	-	-	-	-	-	-	-	-	6-9	-
Arsenic (mg/kg)		-	-	-	2.5	15	-	3.4	3.7	4.3	2.4	2.7	3.1	8.6	6.4	2.2	3.4	3.3	3.5	5.0	4.1	4.7	8.4	3.3	4.6	0.39	9.2	
Barium (mg/kg)		-	-	-	148	4,500	-	904	2490	4170	442	322	254	15,000	3,850	134	971	-	-	-	-	-	-	-	-	-	15000	-
Cadmium (mg/kg)		-	-	-	<1.0	ND	-	<1.1	<3.0	<6.7	<1.2	<1.2	<1.1	<1.3	1.6	<1.1	<1.1	-	-	-	-	-	-	-	-	-	70	-
Chromium (III) (mg/Kg)		-	-	-	29.7	150	-	29.9	31.1	25.6	37.6	32.4	34.4	24.8	21.0	33.7	31.8	-	-	-	-	-	-	-	-	-	120000	-
Chromium (VI) (mg/Kg)		-	-	-	<0.42	ND	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.9	<2.5	<0.43	<1.0	-	-	-	-	-	-	-	-	-	23	-
Copper (mg/kg)		-	-	-	10.1	150B	-	11.2	13.5	14.4	12.5	13.8	14.8	32.5	22.3	7.5	11.4	-	-	-	-	-	-	-	-	-	3100	-
Lead (inorganic) (mg/kg)		-	-	-	11.6	46	-	6.9	18.7	23.5	19.7	19	19.5	23.6	31.2	10.5	6.5	-	-	-	-	-	-	-	-	-	400	-
Mercury (mg/kg)		-	-	-	<0.10	2.2	-	<0.093	<0.047	<0.12	<0.098	<0.094	<0.096	<0.16	<0.12	<0.10	<0.091	-	-	-	-	-	-	-	-	-	23	-
Nickel (mg/kg)		-	-	-	13.9	50	-	14.4	16.4	13.8	16.2	13.8	17.4	16.1	12.9	13.1	14.4	-	-	-	-	-	-	-	-	-	1600	-
Selenium (mg/kg)		-	-	-	<5.2	ND	-	<5.5	<15	6.7	<5.9	<5.8	<5.6	<6.7	5.2	<5.3	<5.4	-	-	-	-	-	-	-	-	-	390	-
Silver (mg/kg)		-	-	-	<3.1	1.8	-	<3.3	<9.1	<4.0	<3.5	<3.5	<3.4	<4.0	<2.9	<3.2	<3.2	-	-	-	-	-	-	-	-	-	390	-
Zinc (mg/kg)		-	-	-	38.6	250	-	47.5	56.5	54.6	50.3	48.9	53	49.5	70.4	37.8	44.1	-	-	-	-	-	-	-	-	-	23000	-
% Solids		79.9	83.9	84.1	94.0	31.9	87.4	88.4	81.2	72.2	85.0	84.8	86.9	58.1	80.7	93.0	89.8	-	-	-	-	-	-	-	-	-	-	-

Notes:

1) ND = not detectable to the laboratory detection limit.

2) Results highlighted in yellow exceed Table 910-1 concentration levels. Results highlighted in Gray exceed Table 910-1, but are below background levels.

3) "-" indicates no analysis.

4) See Figure(s) for sample locations.

5) FW Subliner (-10'), East RP Subliner (-10'), and Cuttings West Subliner (-10') results are referenced as (-9') in lab reports.

6) Reserve Pit Subliner lab reports don't refer to the sample names as "West" and "East" RP subliner in D58726 and D26014 respectively.

7) Cuttings Pit East Subliner (0') is referred to as "Cuttings Subliner Comp" in lab report D58726. Sample was a composite from the East side of the Cuttings Pit.

Table 2
Location: PCU T75X-3G
Lab Summary: Freshwater Pit Drill Assessment

Updated: 9/11/2015

Analytical Parameter	Freshwater Pit Drill Assessment																												COGCC	
(with units)	FWV-1 (0'-2')	FWV-1 (2'-4')	FWV-1 (4'-9')	FWV-2 (0-2')	FWV-2 (2'-4')	FWV-2 (4'-9')	FWV-3 (0-2')	FWV-3 (2'-4')	FWV-3 (4'-9')	FWL-1 (4'-9')	FWL-1 (9'-14')	FWL-1 (14'-19')	FWL-2 (0-2')	FWL-2 (2'-4')	FWL-2 (4'-9')	FWL-3 (9'-14')	FWL-4 (0-1')	FWL-5 (19'-24')	FWL-6 (19'-25')	FWL-7 (24'-29')	FWL-8 (19'-24')	FWL-9 (24'-29')	FWL-9 (29'-34')	FWTP-1 (11'-17')	FWTP-2 (11'-17')	FWTP-3 (11'-17')	FWTP-4 (11'-17')	FWTP-5 (11'-17')	Table 910-1 Concentration Levels	
Accutest Job #	D21350 (2/25/11)										D21350 (2/25/11)								D26790 (8/12/11)	D30099 (12/6/11)	D30098 (12/6/11)	D30149 (12/7/11)	D30148 (12/7/11)	D30147 (12/7/11)	D26789 (8/12/11)			D26795 (8/12/11)	D26789 (8/12/11)	-
Sample type (Composite/Discrete)	D	D	D	D	D	D	D	D	D	D	D	D	D	D	C	D	D	D	D	D	D	D	D	C	C	C	C	C	-	
TPH (GRO) (mg/kg)	12.3	ND	61.4	24.5	93.6	ND	57.2	44.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	73.9	ND	ND	46.0	ND	ND	ND	ND	ND	25.2	-	
TPH (DRO) (mg/kg)	375	42.0	1,290	ND	3,690	689	1,860	792	180	242	101	650	564	734	ND	11.3	66.2	ND	1,830	12.2	14	651	14.4	16.0	ND	10.8	775	1,840	-	
TPH (GRO+DRO) (mg/kg)	387	42.0	1,351	24.5	3,784	689	1,917	837	180	242	101	650	564	734	ND	11.3	66.2	ND	1,904	12.2	14.0	697	14.4	16.0	ND	10.8	775	1,865	500	
Benzene (mg/kg)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	ND	ND	-	ND	ND	ND	ND	-	-	-	-	ND	-	0.17
Toluene (mg/kg)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	ND	ND	-	0.0953	ND	ND	ND	ND	-	-	-	ND	-	85
Ethylbenzene (mg/kg)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	ND	ND	-	0.102	ND	ND	0.100	ND	-	-	-	ND	-	100
Xylene (total) (mg/kg)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	ND	ND	-	2.510	ND	ND	1.760	ND	-	-	-	0.144	-	175
Acenaphthene (mg/kg)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	ND	ND	-	-	0.00095	ND	ND	-	-	-	-	ND	-	1,000
Anthracene (mg/kg)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	ND	ND	-	-	ND	ND	ND	-	-	-	-	ND	-	1,000
Benzo(A)anthracene (mg/kg)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	ND	ND	-	-	ND	ND	0.0030	-	-	-	-	ND	-	0.22
Benzo(B)fluoranthene (mg/kg)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	ND	ND	-	-	0.001	ND	ND	-	-	-	-	ND	-	0.22
Benzo(K)fluoranthene (mg/kg)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	ND	ND	-	-	ND	ND	ND	-	-	-	-	ND	-	2.2
Benzo(A)pyrene (mg/kg)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	ND	ND	-	-	ND	ND	ND	-	-	-	-	ND	-	0.022
Chrysene (mg/kg)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	ND	ND	-	-	ND	ND	0.0082	-	-	-	-	ND	-	22
Dibenzo(A,H)anthracene (mg/kg)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	ND	ND	-	-	ND	ND	ND	-	-	-	-	ND	-	0.022
Fluoranthene (mg/kg)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	ND	ND	-	-	0.0012	ND	0.0053	-	-	-	-	ND	-	1,000
Fluorene (mg/kg)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	ND	ND	-	-	ND	ND	0.122	-	-	-	-	0.201	-	1,000
Indeno(1,2,3-C,D)pyrene (mg/kg)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	ND	ND	-	-	ND	ND	ND	-	-	-	-	ND	-	0.22
Naphthalene (mg/kg)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	ND	ND	-	-	0.0045	0.0027	0.544	-	-	-	-	ND	-	23
Pyrene (mg/kg)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	ND	ND	ND	-	-	ND	ND	0.0095	-	-	-	-	0.0172	-	1,000
Electrical Conductivity (mmhos/cm)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.28	2.40	3.56	-	-	0.68	1.13	1.00	-	-	-	-	2.39	-	4
Sodium Adsorption Ratio (SAR)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19.40	13.50	7.62	-	-	2.77	4.64	3.81	-	-	-	-	25.20	-	12
pH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.16	9.72	8.79	-	-	9.41	9.50	9.39	-	-	-	-	9.83	-	6-9
Arsenic (mg/kg)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.0	3.3	2.8	-	-	5.6	5.4	7.0	-	-	-	-	4.0	-	0.39
Barium (mg/kg)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	328	475	1600	-	-	576	216.0	267	-	-	-	-	153	-	15,000
Cadmium (mg/kg)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<1.1	<1.1	<1.1	-	-	<1.1	<1.1	<1.2	-	-	-	-	<1.2	-	70
Chromium (III) (mg/kg)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.1	21.6	12.1	-	-	40.2	41.9	32.9	-	-	-	-	40.7	-	120,000
Chromium (VI) (mg/kg)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.45	<0.44	<0.46	-	-	<0.43	0.55	<0.45	-	-	-	-	<0.45	-	23
Copper (mg/kg)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.6	8.6	7.6	-	-	10.8	14.6	15.3	-	-	-	-	9.4	-	3,100
Lead (inorganic) (mg/kg)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.6	9.9	7.5	-	-	8.80	11.3	11.4	-	-	-	-	5.9	-	400
Mercury (mg/kg)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<0.098	<0.098	<0.096	-	-	<0.10	<0.11	<0.11	-	-	-	-	<0.13	-	23
Nickel (mg/kg)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.6	10.6	11.2	-	-	18.1	18.9	17.2	-	-	-	-	17.5	-	1,600
Selenium (mg/kg)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<5.4	<5.4	<5.6	-	-	<26	<5.7	<5.8	-	-	-	-	<5.9	-	390
Silver (mg/kg)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<3.2	<3.3	<3.4	-	-	<3.2	<3.4	<3.5	-	-	-	-	<3.5	-	390
Zinc (mg/kg)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36.9	33.1	26.8	-	-	29.8	40.2	37.6	-	-	-	-	40.2	-	23,000
% Solids	89.4	88.1	86.3	81	85.9	86.2	81.2	82.7	84.2	84.5	87.3	86	83.7	84.6	89.3	89.3	84.3	88.8	89.1	92.5	89.6	87.8	86.7	87.60	87.5	91.0	86.5	86.4	-	

Notes:

- 1) "V" designated samples are vertical samples collected at the base of the pit, whereas "L" designated samples are lateral samples collected adjacent to the pit. "TP" designated samples are test pit samples collected adjacent to the pit.
- 2) ND = not detectable to the laboratory detection limit.
- 3) Results highlighted in yellow exceed Table 910-1 concentration levels. Results highlighted in gray exceed Table 910-1 concentration levels but are below background levels (maximum allowable arsenic based on background samples = 5.8 mg/kg).
- 4) "-" indicates no tests were performed.
- 5) Confirmation composite sample was collected following removal of impacted soils (TPH > 500 mg/kg) from the bottom of the pit (approx. 9 feet below initial pit bottom grade).
- 6) See Figure(s) for sample locations.

Table 2A
Location: PCU T75X-3G
Lab Summary - FWL-2 North Sidewall Sample Assessment

Last update

9/11/2015

Analytical Parameter	Initial North Sidewall	FWL-2 North Sidewall															COGCC	Maximum based on Background
(with units)	FWL-2 North SW	(-2')	(-4')	(-6')	(-8')	(-10')	(-12')	(-14')	(-16')	(-18')	(-20')	(-22')	(-24')	(-26')	(-28')	(-30')	Table 910-1 Concentration Levels	
Accutest Job #	D67948 (2/19/15)	D68222 (3/3/15)	D68586 (3/11/15)	D68773 (3/17/15)	D69141 (3/26/15)	D69365 (4/2/15)	D69636 (4/9/15)	D69886 (4/15/15)	D70063 (4/22/15)	D70600 (5/8/15)	D70815 (5/14/15)	D71272 (5/29/15)	D71742 (6/10/15)	D73989 (8/15/15)	D74273 (8/20/15)	D74561 (8/27/15)	-	-
Sample type (Composite/Discrete)	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	-	-
TPH (GRO) (mg/kg)	15.1	26.6	20.1	32.4	24.1	31.3	18.8	21.5	13.6	36.9	30.5	43.8	40.6	25.3	51.7	ND	-	-
TPH (DRO) (mg/kg)	737	483	818	1240	972	1270	894	997	627	932	806	1,440	1,520	877	1,790	1,640	-	-
TPH (GRO+DRO) (mg/kg)	752	510	838	1272	996	1301	913	1019	641	969	837	1484	1561	902	1842	1640	500	-
Benzene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.170	-
Toluene (mg/kg)	0.0031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	85	-
Ethylbenzene (mg/kg)	0.0026	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	-
Xylenes (total) (mg/kg)	0.0252	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	175	-
Acenaphthene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	-
Anthracene (mg/kg)	0.0412	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	-
Benzo(A)anthracene (mg/kg)	0.0248	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22	-
Benzo(B)fluoranthene (mg/kg)	0.0346	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22	-
Benzo(K)fluoranthene (mg/kg)	0.0111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	-
Benzo(A)pyrene (mg/kg)	0.013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.022	-
Chrysene (mg/kg)	0.0455	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	-
Dibenzo(A,H)anthracene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.022	-
Fluoranthene (mg/kg)	0.0535	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	-
Fluorene (mg/kg)	0.303	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	-
Indeno(1,2,3,C,D)pyrene (mg/kg)	0.0154	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22	-
Naphthalene (mg/kg)	0.146	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	-
Pyrene (mg/kg)	0.0901	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	-
Electrical Conductivity (mmhos/cm)	3.980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<4	-
Sodium Adsorption Ratio (SAR)	7.86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<12	-
pH	9.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6-9	-
Arsenic (mg/kg)	5.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.39	9.2
Barium (mg/kg)	4980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15,000	-
Cadmium (mg/kg)	<1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70	-
Chromium (III) (mg/kg)	31.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	120,000	-
Chromium (VI) (mg/kg)	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	-
Copper (mg/kg)	13.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,100	-
Lead (inorganic) (mg/kg)	9.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	400	-
Mercury (mg/kg)	<0.097	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	-
Nickel (mg/kg)	14.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,600	-
Selenium (mg/kg)	<6.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	390	-
Silver (mg/kg)	<3.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	390	-
Zinc (mg/kg)	38.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23,000	-
% Solids	81.9	82.1	82.7	81.4	81.2	80.3	80.7	81.3	81.7	78.7	82.3	78.8	79.2	82.1	80.2	81.0	-	-

Notes:

1) ND = not detectable to the laboratory detection limit.

2) Results highlighted in yellow exceed Table 910-1 concentration levels. Results highlighted in gray exceed Table 910-1 concentration levels but are below background levels.

3) "-" indicates no analysis.

4) See Figure(s) for sample locations.

Table 2B
Location: PCU T75X-3G
Lab Summary - FWL-2 West Sidewall Sample Assessment

Last update

9/11/2015

Analytical Parameter	Initial West Sidewall	FWL-2 West SW															COGCC	Maximum based on Background
(with units)	FWL-2 West SW	(-2')	(-4')	(-6')	(-8')	(-10')	(-12')	(-14')	(-16')	(-18')	(-20')	(-22')	(-24')	(-26')	(-28')	(-30')	Table 910-1 Concentration Levels	
Accutest Job #	D67947 (2/19/15)	D68223 (3/3/15)	D68585 (3/11/15)	D68774 (3/17/15)	D68983 (3/23/15)	D69368 (4/2/15)	D69635 (4/9/15)	D69889 (4/15/15)	D70062 (4/22/15)	D70599 (5/8/15)	D70814 (5/14/15)	D71273 (5/29/15)	D71741 (6/10/15)	D73990 (8/15/15)	D74274 (8/20/15)	D74560 (8/27/15)	-	-
Sample type (Composite/Discrete)	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	-	-
TPH (GRO) (mg/kg)	39.2	30.7	29	22.8	51.2	38.7	36.7	27.9	23.4	30.8	19.3	34.6	33.9	42.4	38.1	33	-	-
TPH (DRO) (mg/kg)	1060	776	794	572	1180	1400	1610	1120	1040	1200	797	1550	1290	1350	805	895	-	-
TPH (GRO+DRO) (mg/kg)	1099	807	823	595	1231	1439	1647	1148	1063	1231	816	1585	1324	1392	843	928	500	-
Benzene (mg/kg)	0.0035	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.170	-
Toluene (mg/kg)	0.0288	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	85	-
Ethylbenzene (mg/kg)	0.0176	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	-
Xylenes (total) (mg/kg)	0.284	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	175	-
Acenaphthene (mg/kg)	0.105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	-
Anthracene (mg/kg)	0.0639	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	-
Benzo(A)anthracene (mg/kg)	0.0364	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22	-
Benzo(B)fluoranthene (mg/kg)	0.0463	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22	-
Benzo(K)fluoranthene (mg/kg)	0.0147	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	-
Benzo(A)pyrene (mg/kg)	0.0201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.022	-
Chrysene (mg/kg)	0.0627	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	-
Dibenzo(A,H)anthracene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.022	-
Fluoranthene (mg/kg)	0.0770	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	-
Fluorene (mg/kg)	0.436	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	-
Indeno(1,2,3,C,D)pyrene (mg/kg)	0.0214	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22	-
Naphthalene (mg/kg)	0.426	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	-
Pyrene (mg/kg)	0.125	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	-
Electrical Conductivity (mmhos/cm)	2.51	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<4	-
Sodium Adsorption Ratio (SAR)	18.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<12	-
pH	11.16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6-9	-
Arsenic (mg/kg)	4.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.39	9.2
Barium (mg/kg)	5870	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15,000	-
Cadmium (mg/kg)	<1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70	-
Chromium (III) (mg/kg)	25.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	120,000	-
Chromium (VI) (mg/kg)	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	-
Copper (mg/kg)	14.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,100	-
Lead (inorganic) (mg/kg)	12.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	400	-
Mercury (mg/kg)	<0.10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	-
Nickel (mg/kg)	12.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,600	-
Selenium (mg/kg)	<6.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	390	-
Silver (mg/kg)	<3.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	390	-
Zinc (mg/kg)	36.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23,000	-
% Solids	80.7	82.6	81.9	84.7	77.6	80.1	78.0	82.4	80.1	78.4	82.0	80.2	81.6	80.5	82.2	82.8	-	-

Notes:

1) ND = not detectable to the laboratory detection limit.

2) Results highlighted in yellow exceed Table 910-1 concentration levels. Results highlighted in gray exceed Table 910-1 concentration levels but are below background levels.

3) "-" indicates no analysis.

4) See Figure(s) for sample locations.

Table 2C
Location: PCU T75X-3G
Lab Summary: Freshwater Pit Sidewall Assessment

Updated: 9/11/2015

Analytical Parameter (with units)	Freshwater Pit Sidewall Assessment								COGCC	Maximum based on Background	
	Sidewall 0 to -10'				Sidewall -10' to -20'				Table 910-1 Concentration Levels		
	North	South	East	West	North	South	East	West			
Accutest Job #	D63041 (10/2/14)				D62999 (10/2/14)	D63042 (10/2/14)	D63083 (10/6/14)	D63159 (10/6/14)	D63042 (10/2/14)	-	-
Sample type (Composite/Discrete)	C	C	C	C	C	C	C	C	C	-	-
TPH (GRO) (mg/kg)	ND	ND	49.9	ND	ND	10.0	ND	17.8	-	-	-
TPH (DRO) (mg/kg)	55.2	72.7	2280	326	2090	302	137	832	-	-	-
TPH (GRO+DRO) (mg/kg)	55.2	72.7	2330	326	2090	312	137	850	500	-	-
Benzene (mg/kg)	ND	ND	ND	ND	ND	ND	ND	ND	0.17	-	-
Toluene (mg/kg)	ND	ND	ND	ND	ND	ND	ND	ND	85	-	-
Ethylbenzene (mg/kg)	ND	ND	ND	ND	ND	ND	ND	ND	100	-	-
Xylene (total) (mg/kg)	ND	ND	ND	ND	ND	ND	ND	ND	175	-	-
Acenaphthene (mg/kg)	ND	ND	ND	ND	0.302	ND	ND	ND	1,000	-	-
Anthracene (mg/kg)	ND	ND	ND	ND	ND	ND	ND	ND	1,000	-	-
Benzo(A)anthracene (mg/kg)	ND	ND	0.0093	ND	0.0118	ND	ND	0.0031	0.22	-	-
Benzo(B)fluoranthene (mg/kg)	ND	0.0034	0.0180	0.0058	0.0055	0.0033	ND	ND	0.22	-	-
Benzo(K)fuoranthene (mg/kg)	ND	ND	0.0036	ND	ND	ND	ND	ND	2.2	-	-
Benzo(A)pyrene (mg/kg)	ND	0.0033	0.0072	ND	ND	ND	ND	ND	0.022	-	-
Chrysene (mg/kg)	ND	0.0036	0.0213	ND	0.0097	0.0053	ND	0.0072	22	-	-
Dibenzo(A,H)anthracene (mg/kg)	ND	ND	ND	ND	ND	ND	ND	ND	0.022	-	-
Fluoranthene (mg/kg)	ND	ND	0.0107	0.0045	0.0264	0.0031	ND	0.0032	1,000	-	-
Fluorene (mg/kg)	ND	ND	0.392	0.0378	ND	0.0230	ND	0.0623	1,000	-	-
Indeno(1,2,3,C,D)pyrene (mg/kg)	ND	0.0026	0.0056	ND	ND	ND	ND	ND	0.22	-	-
Naphthalene (mg/kg)	ND	ND	ND	.0432	ND	ND	ND	ND	23	-	-
Pyrene (mg/kg)	ND	ND	0.0257	.0081	0.0107	0.0059	ND	0.0075	1,000	-	-
Electrical Conductivity (mmhos/cm)	2.630	0.789	1.060	3.880	1.540	2.360	1.050	2.660	4.000	-	-
Sodium Adsorption Ratio (SAR)	27.4	12.8	14.2	28.9	10.2	10.8	7.80	18.1	12	-	-
pH	10.18	10.12	10.13	9.63	9.86	9.25	8.93	10.01	6-9	-	-
Arsenic (mg/kg)	4.8	2.5	3.8	3.2	2.8	3.1	3.2	3.4	0.39	9.2	-
Barium (mg/kg)	271	243	288	323	212	204	181	188	15,000	-	-
Cadmium (mg/kg)	<1.2	<1.1	<1.1	<1.2	<1.1	<1.1	<1.1	<1.1	70	-	-
Chromium (III) (mg/kg)	20.7	32.1	37.0	32.6	37.2	33.1	37.1	34.3	120,000	-	-
Chromium (VI) (mg/kg)	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	23	-	-
Copper (mg/kg)	9.8	10.9	10.2	12.2	10.5	9.8	9.5	11.3	3,100	-	-
Lead (inorganic) (mg/kg)	16.3	19.1	19.6	19.8	18.1	15.9	17.6	19.0	400	-	-
Mercury (mg/kg)	<0.096	<0.093	<0.090	<0.096	<0.095	<0.095	<0.095	<0.095	23	-	-
Nickel (mg/kg)	10.9	13.1	14.2	14.6	14.8	16.3	14.1	15.1	1,600	-	-
Selenium (mg/kg)	<5.9	<5.5	<5.6	<5.8	<5.5	<5.6	<5.5	<5.7	390	-	-
Silver (mg/kg)	<3.6	<3.3	<3.4	<3.5	<3.3	<3.4	<3.3	<3.4	390	-	-
Zinc (mg/kg)	35.7	41.7	43.6	44.3	44.3	39.7	44.0	44.6	23,000	-	-
% Solids	84.4	85.5	87.8	85.2	87.4	86.5	85.9	86.7	-	-	-

Notes:

- 1) ND = not detectable to the laboratory detection limit.
- 2) Results highlighted in yellow exceed Table 910-1 concentration levels. Results highlighted in gray exceed Table 910-1 concentration levels but are below background levels.
- 3) "-" indicates no analysis.
- 4) See Figure(s) for sample locations.

Table 2D
Location: PCU T75X-3G
Lab Summary: Freshwater North Sidewall -10' to -20' Assessment

Updated: 9/11/2015

Analytical Parameter (with units)	North Sidewall -10' to -20'										COGCC Table 910-1 Concentration Levels	Maximum based on Background
	North -10' to -20'	N-1a	N-2a	N-3a	N-4a	N-5a	Post 3' Ex.		Post 6' Ex.	Post 9' Ex.		
	D63042 (10/2/14)	D63044 (10/2/14)					D64076 (10/30/14)		D 64464 (11/11/14)	D 65264 (12/2/14)		
Accutest Job #	C	D	D	D	D	D	D	D	D	D	-	-
Sample type (Composite/Discrete)	ND	ND	ND	10.1	19.0	ND	ND	13.3	13.4	ND	-	-
TPH (GRO) (mg/kg)	2090	8.19	ND	5950	1450	138	159	1190	3480	61.5	-	-
TPH (DRO) (mg/kg)	2090	8.19	ND	5960	1469	138	159	1203	3493	61.5	500	-
TPH (GRO+DRO) (mg/kg)	2090	8.19	ND	5960	1469	138	159	1203	3493	61.5	500	-
Benzene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	0.17	-
Toluene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	85	-
Ethylbenzene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	100	-
Xylene (total) (mg/kg)	ND	-	-	-	-	-	-	-	-	-	175	-
Acenaphthene (mg/kg)	0.302	-	-	-	-	-	-	-	-	-	1,000	-
Anthracene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	1,000	-
Benzo(A)anthracene (mg/kg)	0.0118	-	-	-	-	-	-	-	-	-	0.22	-
Benzo(B)fluoranthene (mg/kg)	0.0055	-	-	-	-	-	-	-	-	-	0.22	-
Benzo(K)fluoranthene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	2.2	-
Benzo(A)pyrene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	0.022	-
Chrysene (mg/kg)	0.0097	-	-	-	-	-	-	-	-	-	22	-
Dibenzo(A,H)anthracene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	0.022	-
Fluoranthene (mg/kg)	0.0264	-	-	-	-	-	-	-	-	-	1,000	-
Fluorene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	1,000	-
Indeno(1,2,3,C,D)pyrene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	0.22	-
Naphthalene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	23	-
Pyrene (mg/kg)	0.0107	-	-	-	-	-	-	-	-	-	1,000	-
Electrical Conductivity (mmhos/cm)	1.540	-	-	-	-	-	-	-	-	-	4,000	-
Sodium Adsorption Ratio (SAR)	10.2	-	-	-	-	-	-	-	-	-	12	-
pH	9.86	-	-	-	-	-	-	-	-	-	6-9	-
Arsenic (mg/kg)	2.8	-	-	-	-	-	-	-	-	-	0.39	9.2
Barium (mg/kg)	212	-	-	-	-	-	-	-	-	-	15,000	-
Cadmium (mg/kg)	<1.1	-	-	-	-	-	-	-	-	-	70	-
Chromium (III) (mg/kg)	37.2	-	-	-	-	-	-	-	-	-	120,000	-
Chromium (VI) (mg/kg)	<1.0	-	-	-	-	-	-	-	-	-	23	-
Copper (mg/kg)	10.5	-	-	-	-	-	-	-	-	-	3,100	-
Lead (inorganic) (mg/kg)	18.1	-	-	-	-	-	-	-	-	-	400	-
Mercury (mg/kg)	<0.095	-	-	-	-	-	-	-	-	-	23	-
Nickel (mg/kg)	14.8	-	-	-	-	-	-	-	-	-	1,600	-
Selenium (mg/kg)	<5.5	-	-	-	-	-	-	-	-	-	390	-
Silver (mg/kg)	<3.3	-	-	-	-	-	-	-	-	-	390	-
Zinc (mg/kg)	44.3	-	-	-	-	-	-	-	-	-	23,000	-
% Solids	87.4	88.3	88.6	88.7	86.2	86.2	90.0	88.6	90.6	85.8	-	-

Notes:

- 1) ND = not detectable to the laboratory detection limit.
- 2) Results highlighted in yellow exceed Table 910-1 concentration levels. Results highlighted in gray exceed Table 910-1 concentration levels but are below background levels.
- 3) "-" indicates no analysis.
- 4) See Figure(s) for sample locations.
- 5) Lab report # D65264 reports results for sample "N-42(-9)", however COC indicates correctly the sample name; "N-4a(-9)".

Table 2E
Location: PCU T75X-3G
Lab Summary: Freshwater East Sidewall 0 to -10' Assessment

Updated: 9/11/2015

Analytical Parameter (with units)	East Sidewall														COGCC Table 910-1 Concentration Levels	Maximum based on Background
	East Sidewall	E-1	E-2	E-3	E-4	E-5	Post 3' Ex.			Post 6' Ex.		Post 9' Ex.		Post 12' Ex.		
	D63042 (10/2/14)	D63045 (10/2/14)					D64075 (10/30/14)			D64465 (11/11/14)		D65263(12/2/14)		D66373 (1/7/15)	-	-
Sample type (Composite/Discrete)	C	D	D	D	D	D	D	D	D	D	D	D	D	D	-	-
TPH (GRO) (mg/kg)	49.9	161	180	18.5	ND	ND	62.5	37.0	ND	153.0	80.8	ND	170	ND	-	-
TPH (DRO) (mg/kg)	2280	3660	4190	1080	58.5	33.9	2540	493	279	2720	2650	ND	2810	ND	-	-
TPH (GRO+DRO) (mg/kg)	2330	3821	4370	1099	58.5	33.9	2603	530	279	2873	2731	ND	2980	ND	500	-
Benzene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	0.17	-
Toluene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	85	-
Ethylbenzene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	100	-
Xylene (total) (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	175	-
Acenaphthene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	-
Anthracene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	-
Benzo(A)anthracene (mg/kg)	0.0093	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22	-
Benzo(B)fluoranthene (mg/kg)	0.0180	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22	-
Benzo(K)fluoranthene (mg/kg)	0.0036	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	-
Benzo(A)pyrene (mg/kg)	0.0072	-	-	-	-	-	-	-	-	-	-	-	-	-	0.022	-
Chrysene (mg/kg)	0.0213	-	-	-	-	-	-	-	-	-	-	-	-	-	22	-
Dibenzo(A,H)anthracene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	0.022	-
Fluoranthene (mg/kg)	0.0107	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	-
Fluorene (mg/kg)	0.392	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	-
Indeno(1,2,3,C,D)pyrene (mg/kg)	0.0056	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22	-
Naphthalene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	23	-
Pyrene (mg/kg)	0.0257	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	-
Electrical Conductivity (mmhos/cm)	1.060	-	-	-	-	-	-	-	-	-	-	-	-	-	4,000	-
Sodium Adsorption Ratio (SAR)	14.2	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-
pH	10.13	-	-	-	-	-	-	-	-	-	-	-	-	-	6-9	-
Arsenic (mg/kg)	3.8	-	-	-	-	-	-	-	-	-	-	-	-	-	0.39	9.2
Barium (mg/kg)	288	-	-	-	-	-	-	-	-	-	-	-	-	-	15,000	-
Cadmium (mg/kg)	<1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	70	-
Chromium (III) (mg/kg)	37.0	-	-	-	-	-	-	-	-	-	-	-	-	-	120,000	-
Chromium (VI) (mg/kg)	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	23	-
Copper (mg/kg)	10.2	-	-	-	-	-	-	-	-	-	-	-	-	-	3,100	-
Lead (inorganic) (mg/kg)	19.6	-	-	-	-	-	-	-	-	-	-	-	-	-	400	-
Mercury (mg/kg)	<0.090	-	-	-	-	-	-	-	-	-	-	-	-	-	23	-
Nickel (mg/kg)	14.2	-	-	-	-	-	-	-	-	-	-	-	-	-	1,600	-
Selenium (mg/kg)	<5.6	-	-	-	-	-	-	-	-	-	-	-	-	-	390	-
Silver (mg/kg)	<3.4	-	-	-	-	-	-	-	-	-	-	-	-	-	390	-
Zinc (mg/kg)	43.6	-	-	-	-	-	-	-	-	-	-	-	-	-	23,000	-
% Solids	87.8	86.5	85.6	87.4	87.3	89.0	85.6	86.4	87.2	86.7	86.1	86.6	85.6	85.0	-	-

Notes:

- 1) ND = not detectable to the laboratory detection limit.
- 2) Results highlighted in yellow exceed Table 910-1 concentration levels. Results highlighted in gray exceed Table 910-1 concentration levels but are below background levels.
- 3) "-" indicates no analysis.
- 4) See Figure(s) for sample locations.

Table 2F
Location: PCU T75X-3G
Lab Summary: Freshwater West Sidewall -10' to -20' Assessment

Updated: 9/11/2015

Analytical Parameter (with units)	West Sidewall -10' to -20'						Post 3' W-1a (-3')	COGCC Table 910-1 Concentration Levels	Maximum based on Background
	West -10' to -20'	W-1a	W-2a	W-3a	W-4a	W-5a			
Accutest Job #	D63042 (10/2/14)	D63043 (10/2/14)					D64077 (10/30/14)	-	-
Sample type (Composite/Discrete)	C	D	D	D	D	D	D	-	-
TPH (GRO) (mg/kg)	17.8	83.0	ND	ND	ND	ND	ND	-	-
TPH (DRO) (mg/kg)	832	3690	116	54.9	382	29.0	370	-	-
TPH (GRO+DRO) (mg/kg)	850	3773	116	54.9	382	29.0	370	500	-
Benzene (mg/kg)	ND	-	-	-	-	-	-	0.17	-
Toluene (mg/kg)	ND	-	-	-	-	-	-	85	-
Ethylbenzene (mg/kg)	ND	-	-	-	-	-	-	100	-
Xylene (total) (mg/kg)	ND	-	-	-	-	-	-	175	-
Acenaphthene (mg/kg)	ND	-	-	-	-	-	-	1,000	-
Anthracene (mg/kg)	ND	-	-	-	-	-	-	1,000	-
Benzo(A)anthracene (mg/kg)	0.0031	-	-	-	-	-	-	0.22	-
Benzo(B)fluoranthene (mg/kg)	ND	-	-	-	-	-	-	0.22	-
Benzo(K)fluoranthene (mg/kg)	ND	-	-	-	-	-	-	2.2	-
Benzo(A)pyrene (mg/kg)	ND	-	-	-	-	-	-	0.022	-
Chrysene (mg/kg)	0.0072	-	-	-	-	-	-	22	-
Dibenzo(A,H)anthracene (mg/kg)	ND	-	-	-	-	-	-	0.022	-
Fluoranthene (mg/kg)	0.0032	-	-	-	-	-	-	1,000	-
Fluorene (mg/kg)	0.0623	-	-	-	-	-	-	1,000	-
Indeno(1,2,3,C,D)pyrene (mg/kg)	ND	-	-	-	-	-	-	0.22	-
Naphthalene (mg/kg)	ND	-	-	-	-	-	-	23	-
Pyrene (mg/kg)	0.0075	-	-	-	-	-	-	1,000	-
Electrical Conductivity (mmhos/cm)	2.660	-	-	-	-	-	-	4,000	-
Sodium Adsorption Ratio (SAR)	18.1	-	-	-	-	-	-	12	-
pH	10.01	-	-	-	-	-	-	6-9	-
Arsenic (mg/kg)	3.4	-	-	-	-	-	-	0.39	9.2
Barium (mg/kg)	188	-	-	-	-	-	-	15,000	-
Cadmium (mg/kg)	<1.1	-	-	-	-	-	-	70	-
Chromium (III) (mg/kg)	34.3	-	-	-	-	-	-	120,000	-
Chromium (VI) (mg/kg)	<1.0	-	-	-	-	-	-	23	-
Copper (mg/kg)	11.3	-	-	-	-	-	-	3,100	-
Lead (inorganic) (mg/kg)	19.0	-	-	-	-	-	-	400	-
Mercury (mg/kg)	<0.095	-	-	-	-	-	-	23	-
Nickel (mg/kg)	15.1	-	-	-	-	-	-	1,600	-
Selenium (mg/kg)	<5.7	-	-	-	-	-	-	390	-
Silver (mg/kg)	<3.4	-	-	-	-	-	-	390	-
Zinc (mg/kg)	44.6	-	-	-	-	-	-	23,000	-
% Solids	86.7	84.5	85.5	86.2	85.3	87.0	87.0	-	-

Notes:

- 1) ND = not detectible to the laboratory detection limit.
- 2) Results highlighted in yellow exceed Table 910-1 concentration levels. Results highlighted in gray exceed Table 910-1 concentration levels but are below background levels.
- 3) "-" indicates no analysis.
- 4) See Figure(s) for sample locations.

Table 2G
Location: PCU T75X-3G
Lab Summary - Freshwater Pit Confirmation Sample Assessment

Last update

9/11/2015

Analytical Parameter	FWTP-4		FWTP-5			FWL-2							COGCC	Maximum based on Background
(with units)	FWTP-4 (11'-17')	FWTP-4 (-17') Bottom	FWTP-5 (11'-17')	FWTP-5 (-17') Bottom	FWTP-5 (-19') Bottom	FWL-2 (0'-2')	FWL-2 (2'-4')	FWL-2 (-4') Bottom	FWL-2 North SW	FWL-2 South SW	FWL-2 East SW	FWL-2 West SW	Table 910-1 Concentration Levels	
Accutest Job #	D26795 (8/12/11)	D67924 (2/19/15)	D26789 (8/12/11)	D67923 (2/19/15)	D68221 (3/3/15)	D21350 (2/25/11)		D67950 (2/19/15)	D67948 (2/19/15)	D67949 (2/19/15)	D67946 (2/19/15)	D67947 (2/19/15)	-	-
Sample type (Composite/Discrete)	C	D	C	D	D	D	D	C	C	C	C	C	-	-
TPH (GRO) (mg/kg)	ND	ND	25.2	42.9	9.64	ND	ND	ND	15.1	17.8	ND	39.2	-	-
TPH (DRO) (mg/kg)	775	318	1,840	569	20.2	564	734	31.3	737	369	17.6	1060	-	-
TPH (GRO+DRO) (mg/kg)	775	318	1,865	612	30	564	734	31.3	752	387	17.6	1099	500	-
Benzene (mg/kg)	ND	ND	-	ND	-	-	-	ND	ND	ND	ND	0.0035	0.170	-
Toluene (mg/kg)	ND	ND	-	ND	-	-	-	ND	0.0031	0.0065	ND	0.0288	85	-
Ethylbenzene (mg/kg)	ND	ND	-	0.0029	-	-	-	ND	0.0026	0.0047	0.0057	0.0176	100	-
Xylenes (total) (mg/kg)	0.144	ND	-	0.0148	-	-	-	ND	0.0252	0.0723	0.0090	0.284	175	-
Acenaphthene (mg/kg)	ND	ND	-	ND	-	-	-	ND	ND	ND	ND	0.105	1,000	-
Anthracene (mg/kg)	ND	ND	-	ND	-	-	-	ND	0.0412	ND	ND	0.0639	1,000	-
Benzo(A)anthracene (mg/kg)	ND	ND	-	ND	-	-	-	ND	0.0248	0.0161	ND	0.0364	0.22	-
Benzo(B)fluoranthene (mg/kg)	ND	ND	-	ND	-	-	-	ND	0.0346	0.0207	ND	0.0463	0.22	-
Benzo(K)fluoranthene (mg/kg)	ND	ND	-	ND	-	-	-	ND	0.0111	ND	ND	0.0147	2.2	-
Benzo(A)pyrene (mg/kg)	ND	ND	-	ND	-	-	-	ND	0.013	0.0081	ND	0.0201	0.022	-
Chrysene (mg/kg)	ND	ND	-	0.008	-	-	-	ND	0.0455	0.0247	ND	0.0627	22	-
Dibenzo(A,H)anthracene (mg/kg)	ND	ND	-	ND	-	-	-	ND	ND	ND	ND	ND	0.022	-
Fluoranthene (mg/kg)	ND	ND	-	ND	-	-	-	ND	0.0535	ND	ND	0.0770	1,000	-
Fluorene (mg/kg)	0.201	ND	-	0.259	-	-	-	ND	0.303	0.192	ND	0.436	1,000	-
Indeno(1,2,3,C,D)pyrene (mg/kg)	ND	ND	-	ND	-	-	-	ND	0.0154	0.0095	ND	0.0214	0.22	-
Naphthalene (mg/kg)	ND	ND	-	0.953	-	-	-	ND	0.146	0.156	ND	0.426	23	-
Pyrene (mg/kg)	0.0172	ND	-	ND	-	-	-	ND	0.0901	0.0504	ND	0.125	1,000	-
Electrical Conductivity (mmhos/cm)	2.39	2.850	-	1.800	-	-	-	1.590	3.980	3.26	0.784	2.51	<4	-
Sodium Adsorption Ratio (SAR)	25.20	15.1	-	9.06	-	-	-	12.4	7.86	9.43	5.65	18.9	<12	-
pH	9.83	9.42	-	9.28	-	-	-	9.76	9.55	10.2	9.4	11.16	6-9	-
Arsenic (mg/kg)	4.0	3.6	-	5.5	-	-	-	6.9	5.4	9.8	10.9	4.7	0.39	9.2
Barium (mg/kg)	153	226	-	146	-	-	-	945	4980	2600	1440	5870	15,000	-
Cadmium (mg/kg)	<1.2	<1.2	-	<1.2	-	-	-	<1.2	<1.2	<1.2	<1.1	<1.2	70	-
Chromium (III) (mg/kg)	40.7	35.8	-	40.0	-	-	-	36.6	31.3	29.1	35.6	25.7	120,000	-
Chromium (VI) (mg/kg)	<0.45	<1.0	-	<1.0	-	-	-	<1.0	<1.0	<1.0	<1.0	<1.0	23	-
Copper (mg/kg)	9.4	14.2	-	12.7	-	-	-	13.4	13.8	12.0	11.9	14.4	3,100	-
Lead (inorganic) (mg/kg)	5.9	10.0	-	9.2	-	-	-	9.6	9.9	10.6	11.4	12.5	400	-
Mercury (mg/kg)	<0.13	<0.098	-	<0.096	-	-	-	<0.095	<0.097	<0.094	<0.095	<0.10	23	-
Nickel (mg/kg)	17.5	16.4	-	17.7	-	-	-	16.3	14.8	12.6	14.8	12.5	1,600	-
Selenium (mg/kg)	<5.9	<5.8	-	<5.9	-	-	-	<5.8	<6.0	<5.8	<5.7	<6.1	390	-
Silver (mg/kg)	<3.5	<7.0	-	<3.6	-	-	-	<7.0	<3.6	<6.9	<6.9	<3.6	390	-
Zinc (mg/kg)	40.2	46.4	-	45.5	-	-	-	44.1	38.1	36.1	39.9	36.4	23,000	-
% Solids	86.5	85.4	86.4	84.4	84.00	83.7	84.6	84.8	81.9	83.5	83.3	80.7	-	-

Notes:

- 1) ND = not detectable to the laboratory detection limit.
- 2) Results highlighted in yellow exceed Table 910-1 concentration levels. Results highlighted in gray exceed Table 910-1 concentration levels but are below background levels.
- 3) "-" indicates no analysis.
- 4) See Figure(s) for sample locations.

Table 3
Location: PCU T75X-3G
Lab Summary - Reserve Pit Drill Assessment

Last Update 9/11/2015

Analytical Parameter	Reserve Pit Drill Assessment																			COGCC
	Vertical Assessment				Lateral Assessment															
(with units)	RPV-1 (0-4')	RPV-1 (4'-9')	RPV-2 (0-4')	RPV-3 (0-2')	RPL-1 (9'-14')	RPL-2 (14'-19')	RPL-3 (14'-19')	RPL-4 (0-4')	RPL-4 (4'-9')	RPL-5 (14'-19')	RPL-6 (14'-19')	RPL-6 (44'-49')	RPL-7 (14'-19')	RPL-8 (42'-43')	RPL-9 (4'-6.5')	RPL-9 (24'-29')	RPL-10 (31.5'-32')	RPL-11 (44'-45')	RPL-12 (19'-24') 8/12/11	Table 910-1 Concentration Levels
Accutest Job #	D21568 (3/3/11)				D21568 (3/3/11)						D26539 (8/5/11)	D26540 (8/5/11)		D26539 (8/5/11)	D26540 (8/10/11)		D26559 (8/11/11)		D26793	-
Sample type (Composite/Discrete)	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	-
TPH (GRO) (mg/kg)	ND	22.7	ND	ND	ND	19.8	ND	24.9	ND	110	67.2	ND	ND	ND	42.1	186	ND	438	ND	-
TPH (DRO) (mg/kg)	25.1	3,940	250	95.5	ND	2170	41.9	484	ND	4930	2820	58.0	486	169	1370	2430	219	7690	ND	-
TPH (GRO+DRO) (mg/kg)	25.1	3,963	250	95.5	ND	2190	41.9	509	ND	5040	2887	58.0	486	169	1412	2616	219	8128	ND	500
Benzene (mg/kg)	-	-	-	-	ND	-	-	-	ND	-	ND	-	-	ND	-	-	-	-	ND	0.17
Toluene (mg/kg)	-	-	-	-	ND	-	-	-	ND	-	ND	-	-	ND	-	-	-	-	ND	85
Ethylbenzene (mg/kg)	-	-	-	-	ND	-	-	-	ND	-	ND	-	-	ND	-	-	-	-	ND	100
Xylenes (total) (mg/kg)	-	-	-	-	ND	-	-	-	ND	-	ND	-	-	ND	-	-	-	-	ND	175
Acenaphthene (mg/kg)	-	-	-	-	ND	-	-	-	ND	-	ND	-	-	ND	-	-	-	-	ND	1,000
Anthracene (mg/kg)	-	-	-	-	ND	-	-	-	ND	-	ND	-	-	ND	-	-	-	-	ND	1,000
Benzo(A)anthracene (mg/kg)	-	-	-	-	ND	-	-	-	ND	-	ND	-	-	ND	-	-	-	-	ND	0.22
Benzo(B)fluoranthene (mg/kg)	-	-	-	-	0.007	-	-	-	ND	-	ND	-	-	ND	-	-	-	-	ND	0.22
Benzo(K)fuoranthene (mg/kg)	-	-	-	-	0.006	-	-	-	ND	-	ND	-	-	ND	-	-	-	-	ND	2.2
Benzo(A)pyrene (mg/kg)	-	-	-	-	ND	-	-	-	ND	-	ND	-	-	ND	-	-	-	-	ND	0.022
Chrysene (mg/kg)	-	-	-	-	0.006	-	-	-	ND	-	ND	-	-	ND	-	-	-	-	ND	22
Dibenzo(A,H)anthracene (mg/kg)	-	-	-	-	ND	-	-	-	ND	-	ND	-	-	ND	-	-	-	-	ND	0.022
Fluoranthene (mg/kg)	-	-	-	-	0.007	-	-	-	ND	-	ND	-	-	ND	-	-	-	-	ND	1,000
Fluorene (mg/kg)	-	-	-	-	ND	-	-	-	ND	-	0.678	-	-	ND	-	-	-	-	ND	1,000
Indeno(1,2,3,C,D)pyrene (mg/kg)	-	-	-	-	0.007	-	-	-	0.006	-	ND	-	-	ND	-	-	-	-	ND	0.22
Naphthalene (mg/kg)	-	-	-	-	ND	-	-	-	ND	-	0.314	-	-	ND	-	-	-	-	ND	23
Pyrene (mg/kg)	-	-	-	-	ND	-	-	-	ND	-	ND	-	-	ND	-	-	-	-	ND	1,000
Electrical Conductivity (mmhos/cm)	-	-	-	-	0.566	-	-	-	3.08	-	1.69	-	-	0.57	-	-	-	-	0.361	<4
Sodium Adsorption Ratio (SAR)	-	-	-	-	6.64	-	-	-	17.5	-	5.67	-	-	6.29	-	-	-	-	9.75	<12
pH	-	-	-	-	9.8	-	-	-	10.05	-	9.1	-	-	9.55	-	-	-	-	9.83	6-9
Arsenic (mg/kg)	-	-	-	-	1.3	-	-	-	3	-	6.3	-	-	6.5	-	-	-	-	1.9	0.39
Barium (mg/kg)	-	-	-	-	322	-	-	-	236	-	238	-	-	136	-	-	-	-	127	15,000
Cadmium (mg/kg)	-	-	-	-	<1.1	-	-	-	<1.1	-	<1.1	-	-	<1.1	-	-	-	-	<1.1	70
Chromium (III) (mg/kg)	-	-	-	-	23.5	-	-	-	28.1	-	69	-	-	47.1	-	-	-	-	37.8	120,000
Chromium (VI) (mg/kg)	-	-	-	-	0.64	-	-	-	<0.45	-	0.65	-	-	0.5	-	-	-	-	<0.45	23
Copper (mg/kg)	-	-	-	-	12.8	-	-	-	9.8	-	9.7	-	-	12.7	-	-	-	-	12.6	3,100
Lead (inorganic) (mg/kg)	-	-	-	-	12.7	-	-	-	11	-	15.7	-	-	14.8	-	-	-	-	14.8	400
Mercury (mg/kg)	-	-	-	-	<0.10	-	-	-	<0.10	-	<0.11	-	-	<0.11	-	-	-	-	<0.13	23
Nickel (mg/kg)	-	-	-	-	11.4	-	-	-	13.2	-	26.6	-	-	20.5	-	-	-	-	17.2	1,600
Selenium (mg/kg)	-	-	-	-	<5.5	-	-	-	<5.6	-	<5.4	-	-	<5.5	-	-	-	-	<5.5	390
Silver (mg/kg)	-	-	-	-	<3.3	-	-	-	<3.4	-	<3.3	-	-	<3.3	-	-	-	-	<3.3	390
Zinc (mg/kg)	-	-	-	-	43.5	-	-	-	43.1	-	47.4	-	-	49.8	-	-	-	-	44.4	23,000
% Solids	91.7	87.5	87	88.4	86.9	86.4	87.8	84.9	86.6	86	87.5	89.1	87.0	86.6	82.4	87.1	86.9	87.8	87.5	-

Notes:

- 1) "V" designated samples are vertical samples collected at the base of the pit, whereas "L" designated samples are lateral samples collected adjacent to the pit.
- 2) ND = not detectable to the laboratory detection limit.
- 3) Results highlighted in yellow exceed Table 910-1 concentration levels. Results highlighted in gray exceed Table 910-1 concentration levels but are below background level
- 4) "-" indicates no tests were performed.
- 5) Confirmation composite sample was collected following removal of impacted soils (TPH > 500 mg/kg) from the bottom of the pit (approx. 2 to 9 feet below initial pit bottom grade).
- 6) See Figure(s) for sample locations.

Table 3A
Location: PCU T75X-3G
Lab Summary - Reserve Pit Subliner Assessment

Last update 9/11/2015

Analytical Parameter (with units)	Reserve Pit						COGCC Table 910-1 Concentration Levels	Maximum based on Background
	RP Subliner		East RP Subliner Discrete (-9')		Reserve Pit North SW Subliner			
	West RP Subliner (-2')	East RP Subliner (-10')	Discrete (-10') #1	Discrete (-10') #2	N-2a Subliner	N-3a Subliner		
Accutest Job #	D58726 (6/11/14)		D58739 (6/11/14)		D70061 (4/22/15)		-	-
Sample type (Composite/Discrete)	C	C	D	D	D	D	-	-
TPH (GRO) (mg/kg)	ND	ND	-	-	ND	ND	-	-
TPH (DRO) (mg/kg)	64.1	12.3	-	-	62.6	155	-	-
TPH (GRO+DRO) (mg/kg)	64.1	12.3	-	-	-	-	500	-
Benzene (mg/kg)	ND	ND	-	-	-	-	0.17	-
Toluene (mg/kg)	ND	ND	-	-	-	-	85	-
Ethylbenzene (mg/kg)	ND	ND	-	-	-	-	100	-
Xylenes (total) (mg/kg)	ND	ND	-	-	-	-	175	-
Acenaphthene (mg/kg)	ND	ND	-	-	-	-	1,000	-
Anthracene (mg/kg)	ND	ND	-	-	-	-	1,000	-
Benzo(A)anthracene (mg/kg)	0.0029	0.0121	-	-	-	-	0.22	-
Benzo(B)fluoranthene (mg/kg)	0.0113	0.0394	-	-	-	-	0.22	-
Benzo(K)fuoranthene (mg/kg)	0.0046	0.0084	-	-	-	-	2.2	-
Benzo(A)pyrene (mg/kg)	0.0105	0.0232	ND	ND	-	-	0.022	-
Chrysene (mg/kg)	0.0064	0.0237	-	-	-	-	22	-
Dibenzo(A,H)anthracene (mg/kg)	0.0042	0.0072	-	-	-	-	0.022	-
Fluoranthene (mg/kg)	ND	0.0137	-	-	-	-	1,000	-
Fluorene (mg/kg)	ND	ND	-	-	ND	-	1,000	-
Indeno(1,2,3,C,D)pyrene (mg/kg)	0.0067	0.0142	-	-	-	-	0.22	-
Naphthalene (mg/kg)	0.0036	0.0114	-	-	-	-	23	-
Pyrene (mg/kg)	0.0035	0.0135	-	-	-	-	1,000	-
Electrical Conductivity (mmhos/cm)	1.340	1.940	-	-	-	-	<4	-
Sodium Adsorption Ratio (SAR)	10.7	8.34	-	-	-	-	<12	-
pH	9.72	9.16	-	-	-	-	6-9	-
Arsenic (mg/kg)	3.4	3.7	-	-	-	-	0.39	9.2
Barium (mg/kg)	904	2490	-	-	-	-	15,000	-
Cadmium (mg/kg)	<1.1	<3.0	-	-	-	-	70	-
Chromium (III) (mg/kg)	29.9	31.1	-	-	-	-	120,000	-
Chromium (VI) (mg/kg)	<1.0	<1.0	-	-	-	-	23	-
Copper (mg/kg)	11.2	13.5	-	-	-	-	3,100	-
Lead (inorganic) (mg/kg)	6.9	18.7	-	-	-	-	400	-
Mercury (mg/kg)	<0.093	<0.047	-	-	-	-	23	-
Nickel (mg/kg)	14.4	16.4	-	-	-	-	1,600	-
Selenium (mg/kg)	<5.5	<15	-	-	-	-	390	-
Silver (mg/kg)	<3.3	<9.1	-	-	-	-	390	-
Zinc (mg/kg)	47.5	56.5	-	-	-	-	23,000	-
% Solids	88.4	81.2	81.5	79.7	88.2	87.4	-	-

Notes:

- 1) ND = not detectable to the laboratory detection limit.
- 2) Results highlighted in yellow exceed Table 910-1 concentration levels. Results highlighted in gray exceed Table 910-1 concentration levels but are below background levels.
- 3) "-" indicates no analysis.
- 4) See Figure(s) for sample locations.
- 5) Subliner (-10') depths are listed in the lab reports as (-9').

Table 3B
Location: PCU T75X-3G
Lab Summary - Reserve Pit Sidewall Assessment

Last update 9/11/2015

Analytical Parameter	Reserve Pit Sidewall Assessment							COGCC Table 910-1 Concentration Levels	Maximum based on Background
	Sidewall 0 to -10'				Sidewall -10' to -20'				
	North	South	East	West	North	South	East		
(with units)									
Accutest Job #	D63158 (10/6/14)				D63913 (10/27/14)			-	-
Sample type (Composite/Discrete)	C	C	C	C	C	C	C	-	-
TPH (GRO) (mg/kg)	ND	ND	15.3	ND	28.3	ND	70.1	-	-
TPH (DRO) (mg/kg)	239	1320	143	1520	2500	ND	3070	-	-
TPH (GRO+DRO) (mg/kg)	239	1320	158	1520	2528	ND	3140	500	-
Benzene (mg/kg)	ND	ND	ND	ND	ND	ND	ND	0.17	-
Toluene (mg/kg)	ND	ND	ND	ND	ND	ND	ND	85	-
Ethylbenzene (mg/kg)	ND	ND	0.0335	ND	ND	ND	ND	100	-
Xylenes (total) (mg/kg)	0.0903	0.118	0.0816	ND	0.0076	ND	0.0060	175	-
Acenaphthene (mg/kg)	ND	ND	ND	ND	ND	ND	ND	1,000	-
Anthracene (mg/kg)	0.0060	ND	ND	0.0052	ND	ND	ND	1,000	-
Benzo(A)anthracene (mg/kg)	0.0674	0.0793	0.0109	0.0037	ND	ND	ND	0.22	-
Benzo(B)fluoranthene (mg/kg)	0.176	0.162	0.0258	0.0143	ND	ND	ND	0.22	-
Benzo(K)fluoranthene (mg/kg)	0.0635	0.0354	0.0080	0.0042	ND	ND	ND	2.2	-
Benzo(A)pyrene (mg/kg)	0.0860	0.0689	0.0084	0.0043	ND	ND	ND	0.022	-
Chrysene (mg/kg)	0.107	0.108	0.0179	0.0234	0.0147	ND	0.0189	22	-
Dibenzo(A,H)anthracene (mg/kg)	ND	ND	ND	ND	ND	ND	ND	0.022	-
Fluoranthene (mg/kg)	0.0618	0.0844	0.0157	0.0054	ND	ND	ND	1,000	-
Fluorene (mg/kg)	0.0043	ND	0.0105	ND	0.214	ND	0.197	1,000	-
Indeno(1,2,3,C,D)pyrene (mg/kg)	0.0825	0.0575	0.0076	0.0049	ND	ND	ND	0.22	-
Naphthalene (mg/kg)	0.0245	ND	0.0337	ND	ND	ND	ND	23	-
Pyrene (mg/kg)	0.0545	0.103	0.0159	0.0235	ND	ND	ND	1,000	-
Electrical Conductivity (mmhos/cm)	3.470	1.260	1.720	1.130	0.991	3.260	0.995	<4	-
Sodium Adsorption Ratio (SAR)	8.97	7.81	10.3	10.7	15.1	9.79	9.38	<12	-
pH	9.30	9.11	9.21	9.54	9.55	9.77	9.64	6-9	-
Arsenic (mg/kg)	4.4	6.0	5.5	3.7	4.0	3.0	5.6	0.39	9.2
Barium (mg/kg)	4230	4950	1960	1010	90.4	113	115	15,000	-
Cadmium (mg/kg)	<5.9	<5.6	<1.2	<1.2	<1.1	<1.1	<1.1	70	-
Chromium (III) (mg/kg)	25.2	35.3	27.5	36.6	41.2	40.9	39.8	120,000	-
Chromium (VI) (mg/kg)	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	23	-
Copper (mg/kg)	13.3	14.8	11.1	11.1	7.4	8.9	8.2	3,100	-
Lead (inorganic) (mg/kg)	20.2	20.0	22.3	20.8	16.9	17.3	18.7	400	-
Mercury (mg/kg)	<0.10	<0.096	<0.10	<0.10	<0.089	<0.095	<0.095	23	-
Nickel (mg/kg)	12.0	16.3	13.5	15.3	14.0	14.5	14.7	1,600	-
Selenium (mg/kg)	<5.9	<5.6	<6.2	<5.8	<5.5	<5.4	<5.5	390	-
Silver (mg/kg)	<3.6	<3.4	<3.7	<3.5	<3.3	<3.2	<3.3	390	-
Zinc (mg/kg)	41.8	41.5	43.2	41.6	47.6	43.1	46.0	23,000	-
% Solids	81.9	82.7	80.0	84.8	86.8	85.2	86.0	-	-

Notes:

- 1) ND = not detectable to the laboratory detection limit.
- 2) Results highlighted in yellow exceed Table 910-1 concentration levels. Results highlighted in gray exceed Table 910-1 concentration levels but are below background levels.
- 3) "-" indicates no analysis.
- 4) See Figure(s) for sample locations.

Table 3C
Location: PCU T75X-3G
Lab Summary - Reserve Pit North Sidewall 0 to -10' Assessment

Last update 9/11/2015

Analytical Parameter	Reserve Pit North Sidewall Assessment						COGCC	Maximum based on Background
(with units)	North Sidewall	N-1	N-2	N-3	N-4	N-5	Table 910-1 Concentration Levels	
Accutest Job #	D63158 (10/6/14)	D63195 (10/6/14)					-	-
Sample type (Composite/Discrete)	C	D	D	D	D	D	-	-
TPH (GRO) (mg/kg)	ND	-	-	-	-	-	-	-
TPH (DRO) (mg/kg)	239	-	-	-	-	-	-	-
TPH (GRO+DRO) (mg/kg)	239	-	-	-	-	-	500	-
Benzene (mg/kg)	ND	-	-	-	-	-	0.17	-
Toluene (mg/kg)	ND	-	-	-	-	-	85	-
Ethylbenzene (mg/kg)	ND	-	-	-	-	-	100	-
Xylenes (total) (mg/kg)	0.0903	-	-	-	-	-	175	-
Acenaphthene (mg/kg)	ND	-	-	-	-	-	1,000	-
Anthracene (mg/kg)	0.0060	-	-	-	-	-	1,000	-
Benzo(A)anthracene (mg/kg)	0.0674	-	-	-	-	-	0.22	-
Benzo(B)fluoranthene (mg/kg)	0.176	-	-	-	-	-	0.22	-
Benzo(K)fuoranthene (mg/kg)	0.0635	-	-	-	-	-	2.2	-
Benzo(A)pyrene (mg/kg)	0.0860	0.201	0.243	0.0356	0.0429	0.0782	0.022	-
Chrysene (mg/kg)	0.107	-	-	-	-	-	22	-
Dibenzo(A,H)anthracene (mg/kg)	ND	-	-	-	-	-	0.022	-
Fluoranthene (mg/kg)	0.0618	-	-	-	-	-	1,000	-
Fluorene (mg/kg)	0.0043	-	-	-	-	-	1,000	-
Indeno(1,2,3,C,D)pyrene (mg/kg)	0.0825	-	-	-	-	-	0.22	-
Naphthalene (mg/kg)	0.0245	-	-	-	-	-	23	-
Pyrene (mg/kg)	0.0545	-	-	-	-	-	1,000	-
Electrical Conductivity (mmhos/cm)	3.470	-	-	-	-	-	<4	-
Sodium Adsorption Ratio (SAR)	8.97	-	-	-	-	-	<12	-
pH	9.30	-	-	-	-	-	6-9	-
Arsenic (mg/kg)	4.4	-	-	-	-	-	0.39	9.2
Barium (mg/kg)	4230	-	-	-	-	-	15,000	-
Cadmium (mg/kg)	<5.9	-	-	-	-	-	70	-
Chromium (III) (mg/kg)	25.2	-	-	-	-	-	120,000	-
Chromium (VI) (mg/kg)	<1.0	-	-	-	-	-	23	-
Copper (mg/kg)	13.3	-	-	-	-	-	3,100	-
Lead (inorganic) (mg/kg)	20.2	-	-	-	-	-	400	-
Mercury (mg/kg)	<0.10	-	-	-	-	-	23	-
Nickel (mg/kg)	12.0	-	-	-	-	-	1,600	-
Selenium (mg/kg)	<5.9	-	-	-	-	-	390	-
Silver (mg/kg)	<3.6	-	-	-	-	-	390	-
Zinc (mg/kg)	41.8	-	-	-	-	-	23,000	-
% Solids	81.9	82.4	81.7	77.1	79.9	83.6	-	-

Notes:

1) ND = not detectable to the laboratory detection limit.

2) Results highlighted in yellow exceed Table 910-1 concentration levels. Results highlighted in gray exceed Table 910-1 concentration levels but are below background levels.

3) "-" indicates no analysis.

4) See Figure(s) for sample locations.

Table 3D
Location: PCU T75X-3G
Lab Summary - Reserve Pit North Sidewall -10' to -20' Assessment

Last update: 9/11/2015

Analytical Parameter	Reserve Pit North Sidewall -10 to -20																		COGCC Table 910-1 Concentration Levels	Maximum based on Background
(with units)	North -10' to -20'	N-1a	N-2a	N-3a	N-2a (-3')	N-3a (-3')	N-2a (-6')	N-3a (-6')	N-2a (-9')	N-3a (-9')	N-2a (-12')	N-3a (-12')	N-2a (-15')	N-3a (-15')	N-2a (-18')	N-3a (-18')	N-2a (-21')	N-3a (-21')		
Accutest Job #	D63913 (10/27/14)	D63920 (10/27/14)			D66846 (1/19/15)		D67030 (1/26/15)		D67186 (1/30/15)		D67417 (2/5/15)		D67609 (2/11/15)		D67922 (2/19/15)		D68056 (2/25/15)		-	-
Sample type (Composite/Discrete)	C	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	-	-
TPH (GRO) (mg/kg)	28.3	ND	61.8	14.9	44.8	75.1	15.8	33.1	44.3	86.4	119	110	45.5	451	84.8	81.6	307	585	-	-
TPH (DRO) (mg/kg)	2500	ND	1470	4210	5960	5030	564	2060	1710	3110	4840	4510	2030	11700	3750	3120	8680	6270	-	-
TPH (GRO+DRO) (mg/kg)	2528	ND	1532	4225	6005	5105	580	2093	1754	3196	4959	4620	2076	12151	3835	3202	8987	6855	500	-
Benzene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.17	-
Toluene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	85	-
Ethylbenzene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	-
Xylenes (total) (mg/kg)	0.0076	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	175	-
Acenaphthene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	-
Anthracene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	-
Benzo(A)anthracene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22	-
Benzo(B)fluoranthene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22	-
Benzo(K)fluoranthene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	-
Benzo(A)pyrene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.022	-
Chrysene (mg/kg)	0.0147	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	-
Dibenzo(A,H)anthracene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.022	-
Fluoranthene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	-
Fluorene (mg/kg)	0.214	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	-
Indeno(1,2,3,C,D)pyrene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22	-
Naphthalene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	-
Pyrene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	-
Electrical Conductivity (mmhos/cm)	0.991	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<4	-
Sodium Adsorption Ratio (SAR)	15.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<12	-
pH	9.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6-9	-
Arsenic (mg/kg)	4.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.39	9.2
Barium (mg/kg)	90.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15,000	-
Cadmium (mg/kg)	<1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70	-
Chromium (III) (mg/kg)	41.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	120,000	-
Chromium (VI) (mg/kg)	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	-
Copper (mg/kg)	7.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,100	-
Lead (inorganic) (mg/kg)	16.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	400	-
Mercury (mg/kg)	<0.089	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	-
Nickel (mg/kg)	14.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,600	-
Selenium (mg/kg)	<5.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	390	-
Silver (mg/kg)	<3.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	390	-
Zinc (mg/kg)	47.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23,000	-
% Solids	86.8	86.4	86.3	87.3	85.8	88.0	85.3	86.3	86.0	87.0	86.2	87.0	87.7	88.8	88.3	86.0	87.7	88.2	-	-

Notes:

- 1) ND = not detectable to the laboratory detection limit.
- 2) Results highlighted in yellow exceed Table 910-1 concentration levels. Results highlighted in gray exceed Table 910-1 concentration levels but are below background levels.
- 3) "-" indicates no analysis.
- 4) See Figure(s) for sample locations.

Table 3E
Location: PCU T75X-3G
Lab Summary - Reserve Pit North Sidewall -10' to -20' Assessment

Last update: 9/11/2015

Analytical Parameter	Reserve Pit North Sidewall -10 to -20															COGCC Table 910-1 Concentration Levels	Maximum based on Background
	North -10' to -20'	N-2a (-24')	N-3a (-24')	N-2a (-27')	N-3a (-27')	N-2a (-30')	N-3a (-30')	N-2a (-33')	N-3a (-33')	N-2a (-36')	N-3a (-36')	N-2a (-39')	N-3a (-39')	N-3a (-42')	N-3a (-45')		
Accutest Job #	D63913 (10/27/14)	D68224 (3/3/15)		D68583 (3/11/15)		D68772 (3/17/15)		D68981 (3/23/15)		D69163 (3/27/15)		D69366 (4/2/15)		D69634 (4/9/15)	D69887 (4/15/15)	-	-
Sample type (Composite/Discrete)	C	D	D	D	D	D	D	D	D	D	D	D	D	D	D	-	-
TPH (GRO) (mg/kg)	28.3	306	60.7	44.7	63.0	298	56	40.2	29.8	41.8	112	ND	81.1	28.8	ND	-	-
TPH (DRO) (mg/kg)	2500	13900	2350	1650	1990	5700	3470	1960	1050	1220	3220	66.3	2010	787	112	-	-
TPH (GRO+DRO) (mg/kg)	2528	14206	2411	1695	2053	5998	3526	2000	1080	1262	3332	66.3	2091	816	112	500	-
Benzene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.17	-
Toluene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	85	-
Ethylbenzene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	-
Xylenes (total) (mg/kg)	0.0076	-	-	-	-	-	-	-	-	-	-	-	-	-	-	175	-
Acenaphthene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	-
Anthracene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	-
Benzo(A)anthracene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22	-
Benzo(B)fluoranthene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22	-
Benzo(K)fluoranthene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	-
Benzo(A)pyrene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.022	-
Chrysene (mg/kg)	0.0147	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	-
Dibenzo(A,H)anthracene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.022	-
Fluoranthene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	-
Fluorene (mg/kg)	0.214	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	-
Indeno(1,2,3,C,D)pyrene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22	-
Naphthalene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	-
Pyrene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	-
Electrical Conductivity (mmhos/cm)	0.991	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<4	-
Sodium Adsorption Ratio (SAR)	15.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<12	-
pH	9.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6-9	-
Arsenic (mg/kg)	4.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.39	9.2
Barium (mg/kg)	90.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15,000	-
Cadmium (mg/kg)	<1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70	-
Chromium (III) (mg/kg)	41.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	120,000	-
Chromium (VI) (mg/kg)	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	-
Copper (mg/kg)	7.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3,100	-
Lead (inorganic) (mg/kg)	16.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	400	-
Mercury (mg/kg)	<0.089	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	-
Nickel (mg/kg)	14.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,600	-
Selenium (mg/kg)	<5.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	390	-
Silver (mg/kg)	<3.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	390	-
Zinc (mg/kg)	47.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23,000	-
% Solids	86.8	88.0	84.5	87.9	86.4	90.4	84.5	88.1	86.6	86.4	86.1	88.2	86.0	85.2	85.4	-	-

Notes:

- 1) ND = not detectable to the laboratory detection limit.
- 2) Results highlighted in yellow exceed Table 910-1 concentration levels. Results highlighted in gray exceed Table 910-1 concentration levels but are below background levels.
- 3) "-" indicates no analysis.
- 4) See Figure(s) for sample locations.

Table 3F
Location: PCU T75X-3G
Lab Summary - Reserve Pit South Sidewall 0 to -10' Assessment

Last update 9/11/2015

Analytical Parameter (with units)	Reserve Pit South Sidewall Assessment														COGCC	Maximum based on Background
	South Sidewall	S-1	S-2	S-3	S-4	S-5	Post 3' Ex.				Post 6' Ex.				Table 910-1 Concentration Levels	
							S-1 (-3')	S-2 (-3')	S-3 (-3')	S-5 (-3')	S-1 (-6')	S-2 (-6')	S-3 (-6')	S-5 (-6')		
Accutest Job #	D63158 (10/6/14)	D63196 (10/6/14)					D64418 (11/10/14)				D65265 (12/2/14)				-	-
Sample type (Composite/Discrete)	C	D	D	D	D	D	D	D	D	D	D	D	D	D	-	-
TPH (GRO) (mg/kg)	ND	18.1	ND	ND	ND	11.6	ND	ND	ND	ND	-	-	-	ND	-	-
TPH (DRO) (mg/kg)	1320	804	84.9	87.3	15.9	3020	69.1	58.3	60.8	1160	-	-	-	340	-	-
TPH (GRO+DRO) (mg/kg)	1320	822	84.9	87.3	15.9	3032	69.1	58.3	60.8	1160	-	-	-	340	500	-
Benzene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	0.17	-
Toluene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	85	-
Ethylbenzene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	100	-
Xylenes (total) (mg/kg)	0.118	-	-	-	-	-	-	-	-	-	-	-	-	-	175	-
Acenaphthene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	-
Anthracene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	-
Benzo(A)anthracene (mg/kg)	0.0793	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22	-
Benzo(B)fluoranthene (mg/kg)	0.162	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22	-
Benzo(K)fluoranthene (mg/kg)	0.0354	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	-
Benzo(A)pyrene (mg/kg)	0.0689	0.290	0.0856	0.0411	ND	ND	0.0562	0.0585	0.0748	-	ND	ND	ND	-	0.022	-
Chrysene (mg/kg)	0.108	-	-	-	-	-	-	-	-	-	-	-	-	-	22	-
Dibenzo(A,H)anthracene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	0.022	-
Fluoranthene (mg/kg)	0.0844	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	-
Fluorene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	-
Indeno(1,2,3,C,D)pyrene (mg/kg)	0.0575	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22	-
Naphthalene (mg/kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	23	-
Pyrene (mg/kg)	0.103	-	-	-	-	-	-	-	-	-	-	-	-	-	1,000	-
Electrical Conductivity (mmhos/cm)	1.260	-	-	-	-	-	-	-	-	-	-	-	-	-	<4	-
Sodium Adsorption Ratio (SAR)	7.81	-	-	-	-	-	-	-	-	-	-	-	-	-	<12	-
pH	9.11	-	-	-	-	-	-	-	-	-	-	-	-	-	6-9	-
Arsenic (mg/kg)	6.0	-	-	-	-	-	-	-	-	-	-	-	-	-	0.39	9.2
Barium (mg/kg)	4950	-	-	-	-	-	-	-	-	-	-	-	-	-	15,000	-
Cadmium (mg/kg)	<5.6	-	-	-	-	-	-	-	-	-	-	-	-	-	70	-
Chromium (III) (mg/kg)	35.3	-	-	-	-	-	-	-	-	-	-	-	-	-	120,000	-
Chromium (VI) (mg/kg)	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	23	-
Copper (mg/kg)	14.8	-	-	-	-	-	-	-	-	-	-	-	-	-	3,100	-
Lead (inorganic) (mg/kg)	20.0	-	-	-	-	-	-	-	-	-	-	-	-	-	400	-
Mercury (mg/kg)	<0.096	-	-	-	-	-	-	-	-	-	-	-	-	-	23	-
Nickel (mg/kg)	16.3	-	-	-	-	-	-	-	-	-	-	-	-	-	1,600	-
Selenium (mg/kg)	<5.6	-	-	-	-	-	-	-	-	-	-	-	-	-	390	-
Silver (mg/kg)	<3.4	-	-	-	-	-	-	-	-	-	-	-	-	-	390	-
Zinc (mg/kg)	41.5	-	-	-	-	-	-	-	-	-	-	-	-	-	23,000	-
% Solids	82.7	80.7	84.8	84.1	85.9	78.5	85.6	85.6	84.6	85.2	87.5	85.6	86.7	88.3	-	-

Notes:

- 1) ND = not detectable to the laboratory detection limit.
- 2) Results highlighted in yellow exceed Table 910-1 concentration levels. Results highlighted in gray exceed Table 910-1 concentration levels but are below background levels.
- 3) "-" indicates no analysis.
- 4) See Figure(s) for sample locations.

Table 3G
Location: PCU T75X-3G
Lab Summary - Reserve Pit East Sidewall -10' to -20' Assessment

Last update: 9/11/2015

Analytical Parameter (with units)	Reserve Pit East Sidewall -10 to -20								COGCC Table 910-1 Concentration Levels	Maximum based on Background
	East -10' to -20'	E-1a	E-2a	E-1a (-3')	E-2a (-3')	E-1a (-6')	E-2a (-6')	E-2a (-9')		
Accutest Job #	D63913 (10/27/14)	D63919 (10/27/14)		D66749 (1/16/15)		D66988 (1/23/15)		D67187 (1/30/15)	-	-
Sample type (Composite/Discrete)	C	D	D	D	D	D	D	D	-	-
TPH (GRO) (mg/kg)	70.1	58.8	60.7	174	164	ND	52.1	ND	-	-
TPH (DRO) (mg/kg)	3070	2740	3170	3090	3650	ND	1370	ND	-	-
TPH (GRO+DRO) (mg/kg)	3140	2799	3231	3264	3814	ND	1422	ND	500	-
Benzene (mg/kg)	ND	-	-	-	-	-	-	-	0.17	-
Toluene (mg/kg)	ND	-	-	-	-	-	-	-	85	-
Ethylbenzene (mg/kg)	ND	-	-	-	-	-	-	-	100	-
Xylenes (total) (mg/kg)	0.0060	-	-	-	-	-	-	-	175	-
Acenaphthene (mg/kg)	ND	-	-	-	-	-	-	-	1,000	-
Anthracene (mg/kg)	ND	-	-	-	-	-	-	-	1,000	-
Benzo(A)anthracene (mg/kg)	ND	-	-	-	-	-	-	-	0.22	-
Benzo(B)fluoranthene (mg/kg)	ND	-	-	-	-	-	-	-	0.22	-
Benzo(K)fluoranthene (mg/kg)	ND	-	-	-	-	-	-	-	2.2	-
Benzo(A)pyrene (mg/kg)	ND	-	-	-	-	-	-	-	0.022	-
Chrysene (mg/kg)	0.0189	-	-	-	-	-	-	-	22	-
Dibenzo(A,H)anthracene (mg/kg)	ND	-	-	-	-	-	-	-	0.022	-
Fluoranthene (mg/kg)	ND	-	-	-	-	-	-	-	1,000	-
Fluorene (mg/kg)	0.197	-	-	-	-	-	-	-	1,000	-
Indeno(1,2,3,C,D)pyrene (mg/kg)	ND	-	-	-	-	-	-	-	0.22	-
Naphthalene (mg/kg)	ND	-	-	-	-	-	-	-	23	-
Pyrene (mg/kg)	ND	-	-	-	-	-	-	-	1,000	-
Electrical Conductivity (mmhos/cm)	0.995	-	-	-	-	-	-	-	<4	-
Sodium Adsorption Ratio (SAR)	9.38	-	-	-	-	-	-	-	<12	-
pH	9.64	-	-	-	-	-	-	-	6-9	-
Arsenic (mg/kg)	5.6	-	-	-	-	-	-	-	0.39	9.2
Barium (mg/kg)	115	-	-	-	-	-	-	-	15,000	-
Cadmium (mg/kg)	<1.1	-	-	-	-	-	-	-	70	-
Chromium (III) (mg/kg)	39.8	-	-	-	-	-	-	-	120,000	-
Chromium (VI) (mg/kg)	<1.0	-	-	-	-	-	-	-	23	-
Copper (mg/kg)	8.2	-	-	-	-	-	-	-	3,100	-
Lead (inorganic) (mg/kg)	18.7	-	-	-	-	-	-	-	400	-
Mercury (mg/kg)	<0.095	-	-	-	-	-	-	-	23	-
Nickel (mg/kg)	14.7	-	-	-	-	-	-	-	1,600	-
Selenium (mg/kg)	<5.5	-	-	-	-	-	-	-	390	-
Silver (mg/kg)	<3.3	-	-	-	-	-	-	-	390	-
Zinc (mg/kg)	46.0	-	-	-	-	-	-	-	23,000	-
% Solids	86.0	86.2	85.9	86.2	86.1	85.3	87.1	85.7	-	-

Notes:

- 1) ND = not detectible to the laboratory detection limit.
- 2) Results highlighted in yellow exceed Table 910-1 concentration levels. Results highlighted in gray exceed Table 910-1 concentration levels but are below background levels.
- 3) "-" indicates no analysis.
- 4) See Figure(s) for sample locations.

Table 3H
Location: PCU T75X-3G
Lab Summary - Reserve Pit West Sidewall 0 to -10' Assessment

Last update

9/11/2015

Analytical Parameter (with units)	Reserve Pit West Sidewall Assessment				COGCC	Maximum based on Background
				Post 3' Ex.	Table 910-1 Concentration Levels	
	West Sidewall	W-1	W-2	W-1 (-3)		
Accutest Job #	D63158 (10/6/14)	D63198 (10/6/14)		D64419 (11/10/14)	-	-
Sample type (Composite/Discrete)	C	D	D	D	-	-
TPH (GRO) (mg/kg)	ND	ND	ND	ND	-	-
TPH (DRO) (mg/kg)	1520	2630	271	262	-	-
TPH (GRO+DRO) (mg/kg)	1520	2630	271	262	500	-
Benzene (mg/kg)	ND	-	-	-	0.17	-
Toluene (mg/kg)	ND	-	-	-	85	-
Ethylbenzene (mg/kg)	ND	-	-	-	100	-
Xylenes (total) (mg/kg)	ND	-	-	-	175	-
Acenaphthene (mg/kg)	ND	-	-	-	1,000	-
Anthracene (mg/kg)	0.0052	-	-	-	1,000	-
Benzo(A)anthracene (mg/kg)	0.0037	-	-	-	0.22	-
Benzo(B)fluoranthene (mg/kg)	0.0143	-	-	-	0.22	-
Benzo(K)fuoranthene (mg/kg)	0.0042	-	-	-	2.2	-
Benzo(A)pyrene (mg/kg)	0.0043	-	-	-	0.022	-
Chrysene (mg/kg)	0.0234	-	-	-	22	-
Dibenzo(A,H)anthracene (mg/kg)	ND	-	-	-	0.022	-
Fluoranthene (mg/kg)	0.0054	-	-	-	1,000	-
Fluorene (mg/kg)	ND	-	-	-	1,000	-
Indeno(1,2,3,C,D)pyrene (mg/kg)	0.0049	-	-	-	0.22	-
Naphthalene (mg/kg)	ND	-	-	-	23	-
Pyrene (mg/kg)	0.0235	-	-	-	1,000	-
Electrical Conductivity (mmhos/cm)	1.130	-	-	-	<4	-
Sodium Adsorption Ratio (SAR)	10.7	-	-	-	<12	-
pH	9.54	-	-	-	6-9	-
Arsenic (mg/kg)	3.7	-	-	-	0.39	9.2
Barium (mg/kg)	1010	-	-	-	15,000	-
Cadmium (mg/kg)	<1.2	-	-	-	70	-
Chromium (III) (mg/kg)	36.6	-	-	-	120,000	-
Chromium (VI) (mg/kg)	<1.0	-	-	-	23	-
Copper (mg/kg)	11.1	-	-	-	3,100	-
Lead (inorganic) (mg/kg)	20.8	-	-	-	400	-
Mercury (mg/kg)	<0.10	-	-	-	23	-
Nickel (mg/kg)	15.3	-	-	-	1,600	-
Selenium (mg/kg)	<5.8	-	-	-	390	-
Silver (mg/kg)	<3.5	-	-	-	390	-
Zinc (mg/kg)	41.6	-	-	-	23,000	-
% Solids	84.8	83.9	85.8	86.7	-	-

Notes:

- 1) ND = not detectable to the laboratory detection limit.
- 2) Results highlighted in yellow exceed Table 910-1 concentration levels. Results highlighted in gray exceed Table 910-1 concentration levels but are below background levels.
- 3) "-" indicates no analysis.
- 4) See Figure(s) for sample locations.

Table 4
Location: PCU T75X-3G
Lab Summary: Cuttings Pit Assessment

Last update 9/11/2015

Analytical Parameter	Cuttings Pit Drilling Assessment																				COGCC	Maximum based on Background	
(with units)	CPV-1 (0-2')	CPV-1 (2'-9')	CPV-3 (0-2')	CPV-3 (2'-4')	CPV-3 (4'-9')	CPV-3 (9'-14')	CPV-3 (14'-19')	CPV-4 (9'-14')	CPL-2 (14'-19')	CPL-2 (19'-24')	CPL-2 (24'-29'); CPL-5 (29'-34')	CPL-3 (14'-19')	CPL-3 (24'-29')	CPL-4 (14'-19')	CPL-5 (14'-19')	CPL-5 (19'-24')	CPL-5 (24'-29')	CPL-6 (19'-24')	CPL-7 (21.5'-23')	CPL-8 (23'-24')	CPL-8 (34'-39')	Table 910-1 Concentration Levels	
Accutest Job #	D21350 (2/25/11)								D21350 (2/25/11)								D26539 (8/9/11)	D26540 (8/10/11)	D26539 (8/10/11)	D26540 (8/10/11)	-	-	
Sample type (Composite/Discrete)	D	C	D	D	D	D	C	D	D	D	C	D	D	D	D	D	D	D	D	C	D	-	-
TPH (GRO) (mg/kg)	ND	ND	18.3	17.2	168	ND	ND	26	100	252	ND	ND	ND	ND	265	45.7	14.2	ND	ND	ND	ND	-	-
TPH (DRO) (mg/kg)	162	ND	445	719	2000	72.2	19.4	475	2620	4380	63.8	20.2	61.1	ND	3660	991	254	ND	252	162	19.4	-	-
TPH (GRO+DRO) (mg/kg)	162	ND	463	736	2168	72.2	19.4	501	2720	4632	63.8	20.2	61.1	ND	3925	1037	268	ND	252	162	19.4	500	-
Benzene (mg/kg)	-	ND	-	-	-	-	ND	-	-	-	ND	-	-	-	ND	-	-	ND	-	ND	-	0.17	-
Toluene (mg/kg)	-	ND	-	-	-	-	ND	-	-	-	ND	-	-	-	0.11	-	-	ND	-	ND	-	85	-
Ethylbenzene (mg/kg)	-	ND	-	-	-	-	ND	-	-	-	ND	-	-	-	0.205	-	-	ND	-	ND	-	100	-
Xylenes (total) (mg/kg)	-	ND	-	-	-	-	ND	-	-	-	ND	-	-	-	4.394	-	-	ND	-	ND	-	175	-
Acenaphthene (mg/kg)	-	ND	-	-	-	-	ND	-	-	-	ND	-	-	-	ND	-	-	ND	-	ND	-	1,000	-
Anthracene (mg/kg)	-	ND	-	-	-	-	ND	-	-	-	ND	-	-	-	ND	-	-	ND	-	ND	-	1,000	-
Benzo(A)anthracene (mg/kg)	-	ND	-	-	-	-	ND	-	-	-	ND	-	-	-	0.0082	-	-	ND	-	ND	-	0.22	-
Benzo(B)fluoranthene (mg/kg)	-	ND	-	-	-	-	ND	-	-	-	ND	-	-	-	ND	-	-	ND	-	ND	-	0.22	-
Benzo(K)fluoranthene (mg/kg)	-	ND	-	-	-	-	ND	-	-	-	ND	-	-	-	ND	-	-	ND	-	ND	-	2.2	-
Benzo(A)pyrene (mg/kg)	-	ND	-	-	-	-	ND	-	-	-	ND	-	-	-	ND	-	-	ND	-	ND	-	0.022	-
Chrysene (mg/kg)	-	ND	-	-	-	-	ND	-	-	-	ND	-	-	-	0.0172	-	-	ND	-	ND	-	22	-
Dibenzo(A,H)anthracene (mg/kg)	-	ND	-	-	-	-	ND	-	-	-	ND	-	-	-	ND	-	-	ND	-	ND	-	0.022	-
Fluoranthene (mg/kg)	-	ND	-	-	-	-	ND	-	-	-	ND	-	-	-	0.0154	-	-	ND	-	ND	-	1,000	-
Fluorene (mg/kg)	-	ND	-	-	-	-	0.0167	-	-	-	ND	-	-	-	0.971	-	-	ND	-	0.0324	-	1,000	-
Indeno(1,2,3,C,D)pyrene (mg/kg)	-	ND	-	-	-	-	ND	-	-	-	ND	-	-	-	ND	-	-	ND	-	ND	-	0.22	-
Naphthalene (mg/kg)	-	ND	-	-	-	-	ND	-	-	-	ND	-	-	-	1.64	-	-	ND	-	ND	-	23	-
Pyrene (mg/kg)	-	ND	-	-	-	-	ND	-	-	-	ND	-	-	-	ND	-	-	ND	-	ND	-	1,000	-
Electrical Conductivity (mmhos/cm)	-	1.38	-	-	-	-	1.16	-	-	-	2.74	-	-	-	2.53	-	-	0.588	-	0.455	-	4	-
Sodium Adsorption Ratio (SAR)	-	8.24	-	-	-	-	6.43	-	-	-	14.7	-	-	-	13.8	-	-	7.53	-	6.31	-	12	-
pH	-	9.32	-	-	-	-	9.44	-	-	-	9.43	-	-	-	9.43	-	-	9.74	-	9.79	-	6-9	-
Arsenic (mg/kg)	-	3.1	-	-	-	-	2.2	-	-	-	3.0	-	-	-	2.2	-	-	2.9	-	2.9	-	0.39	9.2
Barium (mg/kg)	-	147	-	-	-	-	187	-	-	-	136	-	-	-	137	-	-	223	-	145	-	15,000	-
Cadmium (mg/kg)	-	<1.1	-	-	-	-	<1.1	-	-	-	<1.1	-	-	-	<1.1	-	-	<1.1	-	<1.1	-	70	-
Chromium (III) (mg/kg)	-	27.7	-	-	-	-	25.6	-	-	-	24.8	-	-	-	34.6	-	-	43	-	41	-	120,000	-
Chromium (VI) (mg/kg)	-	<0.44	-	-	-	-	0.47	-	-	-	0.48	-	-	-	<0.46	-	-	<0.44	-	<0.45	-	23	-
Copper (mg/kg)	-	5.8	-	-	-	-	13.2	-	-	-	14.4	-	-	-	10.5	-	-	10.4	-	9.7	-	3,100	-
Lead (inorganic) (mg/kg)	-	10.6	-	-	-	-	12.4	-	-	-	12.9	-	-	-	11.9	-	-	13.5	-	13.5	-	400	-
Mercury (mg/kg)	-	<0.11	-	-	-	-	<0.11	-	-	-	<0.11	-	-	-	<0.10	-	-	<0.10	-	<0.11	-	23	-
Nickel (mg/kg)	-	12.3	-	-	-	-	13.4	-	-	-	15.9	-	-	-	13.4	-	-	17.2	-	16.1	-	1,600	-
Selenium (mg/kg)	-	<5.4	-	-	-	-	<5.5	-	-	-	<5.6	-	-	-	<5.6	-	-	<5.5	-	<5.6	-	390	-
Silver (mg/kg)	-	<3.3	-	-	-	-	<3.3	-	-	-	<3.4	-	-	-	<3.4	-	-	<3.3	-	<3.4	-	390	-
Zinc (mg/kg)	-	34.4	-	-	-	-	42.6	-	-	-	46.7	-	-	-	43.5	-	-	42.6	-	45.5	-	23,000	-
% Solids	89.4	87.5	87.1	85.9	86.6	86.5	87.2	86.3	87.4	85.3	87.0	86.4	87.6	89.9	87.4	85.2	86.2	90.0	89.3	87.9	90.3	-	-

Notes:

- 1) ND = not detectable to the laboratory detection limit.
- 2) Results highlighted in yellow exceed Table 910-1 concentration levels. Results highlighted in Gray exceed Table 910-1, but are below background levels.
- 3) "-" indicates no analysis.
- 4) See Figure(s) for sample locations.

Table 4A
Location: PCU T75X-3G
Lab Summary - Cuttings Pit Lateral Assessment

Last update

9/11/2015

Analytical Parameter	Cuttings Pit Drilling Assessment			Lateral Confirmation Test Pit Assessment	COGCC	Maximum based on Background
(with units)	CPL-2 (14'-19')	CPL-2 (19'-24')	CPL-5 (19'-24')	CPL-2/CPL-5 (-25')	Table 910-1 Concentration Levels	
Accutest Job #	D21350 (2/25/11)			D67704 (2/13/15)	-	-
Sample type (Composite/Discrete)	D	D	D	C	-	-
TPH (GRO) (mg/kg)	100	252	45.7	ND	-	-
TPH (DRO) (mg/kg)	2620	4380	991	189	-	-
TPH (GRO+DRO) (mg/kg)	2720	4632	1037	189	500	-
Benzene (mg/kg)	-	-	-	ND	0.17	-
Toluene (mg/kg)	-	-	-	ND	85	-
Ethylbenzene (mg/kg)	-	-	-	ND	100	-
Xylenes (total) (mg/kg)	-	-	-	ND	175	-
Acenaphthene (mg/kg)	-	-	-	ND	1,000	-
Anthracene (mg/kg)	-	-	-	ND	1,000	-
Benzo(A)anthracene (mg/kg)	-	-	-	ND	0.22	-
Benzo(B)fluoranthene (mg/kg)	-	-	-	0.0013	0.22	-
Benzo(K)fluoranthene (mg/kg)	-	-	-	ND	2.2	-
Benzo(A)pyrene (mg/kg)	-	-	-	0.00091	0.022	-
Chrysene (mg/kg)	-	-	-	0.0036	22	-
Dibenzo(A,H)anthracene (mg/kg)	-	-	-	ND	0.022	-
Fluoranthene (mg/kg)	-	-	-	0.0023	1,000	-
Fluorene (mg/kg)	-	-	-	0.117	1,000	-
Indeno(1,2,3,C,D)pyrene (mg/kg)	-	-	-	ND	0.22	-
Naphthalene (mg/kg)	-	-	-	0.0583	23	-
Pyrene (mg/kg)	-	-	-	0.0031	1,000	-
Electrical Conductivity (mmhos/cm)	-	-	-	2,950	<4	-
Sodium Adsorption Ratio (SAR)	-	-	-	8.81	<12	-
pH	-	-	-	9.29	6-9	-
Arsenic (mg/kg)	-	-	-	2.3	0.39	9.2
Barium (mg/kg)	-	-	-	167	15,000	-
Cadmium (mg/kg)	-	-	-	<1.1	70	-
Chromium (III) (mg/kg)	-	-	-	29.8	120,000	-
Chromium (VI) (mg/kg)	-	-	-	<1.0	23	-
Copper (mg/kg)	-	-	-	13.6	3,100	-
Lead (inorganic) (mg/kg)	-	-	-	11.2	400	-
Mercury (mg/kg)	-	-	-	<0.096	23	-
Nickel (mg/kg)	-	-	-	15.8	1,600	-
Selenium (mg/kg)	-	-	-	<11	390	-
Silver (mg/kg)	-	-	-	<3.4	390	-
Zinc (mg/kg)	-	-	-	46.9	23,000	-
% Solids	87.4	85.3	85.2	85.8	-	-

Notes:

- 1) ND = not detectable to the laboratory detection limit.
- 2) Results highlighted in yellow exceed Table 910-1 concentration levels. Results highlighted in gray exceed Table 910-1 concentration levels
- 3) "-" indicates no analysis.
- 4) See Figure(s) for sample locations.

Table 4B
Location: PCU T75X-3G
Lab Summary - Cuttings Pit Sidewall Assessment

Last update 9/11/2015

Analytical Parameter	Cuttings Pit Sidewalls							COGCC	
(with units)	0 to -10' Sidewalls				-10' to -20' Sidewalls			Table 910-1 Concentration Levels	Maximum based on Background
	North	South	East	West	North	South	West		
Accutest Job #	D62923 (9/30/14)			D62867 (9/30/14)	D62998 (10/1/14)		D62922 (10/1/14)	-	-
Sample type (Composite/Discrete)	C	C	C	C	C	C	C	-	-
TPH (GRO) (mg/Kg)	ND	8.21	ND	49.5	ND	ND	ND	-	-
TPH (DRO) (mg/Kg)	898	1030	89.5	6060	445	918	918	-	-
TPH (GRO + DRO) (mg/Kg)	898	1038	89.5	6110	445	918	918	500	-
Benzene (mg/Kg)	ND	ND	ND	ND	ND	ND	ND	0.170	-
Toluene (mg/Kg)	ND	ND	ND	ND	ND	ND	ND	85	-
Ethylbenzene (mg/Kg)	ND	ND	ND	ND	ND	ND	ND	100	-
Xylenes (total) (mg/Kg)	ND	ND	ND	0.173	ND	ND	ND	175	-
Acenaphthene (mg/Kg)	ND	ND	ND	ND	ND	ND	ND	1000	-
Anthracene (mg/Kg)	ND	ND	ND	ND	ND	ND	ND	1000	-
Benzo(A)anthracene (mg/Kg)	0.0110	0.0065	ND	0.0124	ND	0.0093	ND	0.22	-
Benzo(A)pyrene (mg/Kg)	ND	ND	ND	0.0083	ND	ND	ND	0.022	-
Benzo(B)fluoranthene (mg/Kg)	ND	ND	ND	0.0201	0.0046	0.0080	ND	0.22	-
Benzo(K)fluoranthene (mg/Kg)	ND	ND	ND	ND	ND	ND	ND	2.2	-
Chrysene (mg/Kg)	0.0060	ND	ND	0.0376	0.0056	0.0043	0.0118	22	-
Dibenzo(A,H)anthracene (mg/Kg)	0.0050	ND	ND	ND	ND	ND	ND	0.022	-
Fluoranthene (mg/Kg)	0.0151	ND	ND	0.0576	ND	0.0085	0.0084	1000	-
Fluorene (mg/Kg)	0.0349	ND	ND	0.387	ND	ND	0.0511	1000	-
Indeno(1,2,3,C,D)pyrene (mg/Kg)	0.0053	ND	ND	0.0058	0.0032	ND	ND	0.22	-
Naphthalene (mg/Kg)	ND	ND	ND	ND	ND	ND	ND	23	-
Pyrene (mg/Kg)	0.0268	0.0128	ND	0.0556	0.0092	0.0184	0.0152	1000	-
Electrical Conductivity (mmhos/cm)	1.780	0.841	0.724	1.120	1.560	1.010	1.580	4	-
Sodium Adsorption Ratio (SAR)	9.20	12.7	5.62	12.0	7.01	10.2	14.2	12	-
pH	9.64	9.90	9.63	9.48	9.05	9.52	9.62	6-9	-
Arsenic (mg/kg)	9.4	4.3	2.2	4.7	2.2	3.2	3.5	0.39	9.2
Barium (mg/kg)	2570	182	263	269	205	182	178	15000	-
Cadmium (mg/kg)	<1.2	<1.1	<1.2	<1.3	<1.1	<1.2	<1.2	70	-
Chromium (III) (mg/Kg)	34.7	36.8	35.2	42.3	36.6	39.5	28.8	120000	-
Chromium (VI) (mg/Kg)	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	23	-
Copper (mg/kg)	15.2	7.4	11.5	8.0	12.0	9.9	7.8	3100	-
Lead (inorganic) (mg/kg)	35.1	18.7	18.0	20.2	17.6	19.5	17.3	400	-
Mercury (mg/kg)	<0.096	<0.095	<0.095	<0.11	<0.093	<0.097	<0.093	23	-
Nickel (mg/kg)	16.1	13.5	14.1	15.4	16.1	15.1	14.0	1600	-
Selenium (mg/kg)	<5.9	<5.6	<5.8	<6.7	<5.7	<5.8	<5.9	390	-
Silver (mg/kg)	<3.5	<3.3	<3.5	<4.0	<3.4	<3.5	<3.5	390	-
Zinc (mg/kg)	51.9	43.1	43.8	47.8	42.5	45.0	38.3	23000	-
% Solids	82.3	86.5	86.3	74.6	87.1	84.7	83.6	-	-

Notes:

- 1) ND = not detectable to the laboratory detection limit.
- 2) Results highlighted in yellow exceed Table 910-1 concentration levels. Results highlighted in Gray exceed Table 910-1, but are below background levels.
- 3) "-" indicates no analysis.
- 4) See Figure(s) for sample locations.

Table 4C
Location: PCU T75X-3G
Lab Summary - Cuttings Pit North Sidewall 0 to -10' Assessment

Last update 9/11/2015

Analytical Parameter	Cuttings Pit North Sidewalls									COGCC	Maximum based on Background
(with units)							Post 3' Ex.			Table 910-1 Concentration Levels	
	North Sidewall	North N-1	North N-2	North N-3	North N-4	North N-5	N-3 (-3')	N-4 (-3)	N-5 (-3)		
Accutest Job #	D62923 (9/30/14)	D62933 (9/30/14)					D64052 (10/30/14)			-	-
Sample type (Composite/Discrete)	C	D	D	D	D	D	D	D	D	-	-
TPH (GRO) (mg/Kg)	ND	ND	ND	ND	12.1	ND	ND	ND	ND	-	-
TPH (DRO) (mg/Kg)	898	255	251	876	1570	765	ND	ND	ND	-	-
TPH (GRO + DRO) (mg/Kg)	898	255	251	876	1582	765	ND	ND	ND	500	-
Benzene (mg/Kg)	ND	-	-	-	-	-	-	-	-	0.170	-
Toluene (mg/Kg)	ND	-	-	-	-	-	-	-	-	85	-
Ethylbenzene (mg/Kg)	ND	-	-	-	-	-	-	-	-	100	-
Xylenes (total) (mg/Kg)	ND	-	-	-	-	-	-	-	-	175	-
Acenaphthene (mg/Kg)	ND	-	-	-	-	-	-	-	-	1000	-
Anthracene (mg/Kg)	ND	-	-	-	-	-	-	-	-	1000	-
Benzo(A)anthracene (mg/Kg)	0.0110	-	-	-	-	-	-	-	-	0.22	-
Benzo(A)pyrene (mg/Kg)	ND	-	-	-	-	-	-	-	-	0.022	-
Benzo(B)fluoranthene (mg/Kg)	ND	-	-	-	-	-	-	-	-	0.22	-
Benzo(K)fluoranthene (mg/Kg)	ND	-	-	-	-	-	-	-	-	2.2	-
Chrysene (mg/Kg)	0.0060	-	-	-	-	-	-	-	-	22	-
Dibenzo(A,H)anthracene (mg/Kg)	0.0050	-	-	-	-	-	-	-	-	0.022	-
Fluoranthene (mg/Kg)	0.0151	-	-	-	-	-	-	-	-	1000	-
Fluorene (mg/Kg)	0.0349	-	-	-	-	-	-	-	-	1000	-
Indeno(1,2,3,C,D)pyrene (mg/Kg)	0.0053	-	-	-	-	-	-	-	-	0.22	-
Naphthalene (mg/Kg)	ND	-	-	-	-	-	-	-	-	23	-
Pyrene (mg/Kg)	0.0268	-	-	-	-	-	-	-	-	1000	-
Electrical Conductivity (mmhos/cm)	1.780	-	-	-	-	-	-	-	-	4	-
Sodium Adsorption Ratio (SAR)	9.20	-	-	-	-	-	-	-	-	12	-
pH	9.64	-	-	-	-	-	-	-	-	6-9	-
Arsenic (mg/kg)	9.4	-	-	-	-	-	-	-	-	0.39	9.2
Barium (mg/kg)	2570	-	-	-	-	-	-	-	-	15000	-
Cadmium (mg/kg)	<1.2	-	-	-	-	-	-	-	-	70	-
Chromium (III) (mg/Kg)	34.7	-	-	-	-	-	-	-	-	120000	-
Chromium (VI) (mg/Kg)	<1.0	-	-	-	-	-	-	-	-	23	-
Copper (mg/kg)	15.2	-	-	-	-	-	-	-	-	3100	-
Lead (inorganic) (mg/kg)	35.1	-	-	-	-	-	-	-	-	400	-
Mercury (mg/kg)	<0.096	-	-	-	-	-	-	-	-	23	-
Nickel (mg/kg)	16.1	-	-	-	-	-	-	-	-	1600	-
Selenium (mg/kg)	<5.9	-	-	-	-	-	-	-	-	390	-
Silver (mg/kg)	<3.5	-	-	-	-	-	-	-	-	390	-
Zinc (mg/kg)	51.9	-	-	-	-	-	-	-	-	23000	-
% Solids	82.3	83.6	83.8	84.0	78.7	83.4	86.4	84.9	83.9	-	-

Notes:

- 1) ND = not detectable to the laboratory detection limit.
- 2) Results highlighted in yellow exceed Table 910-1 concentration levels. Results highlighted in Gray exceed Table 910-1, but are below background
- 3) "-" indicates no analysis.
- 4) See Figure(s) for sample locations.

Table 4D
Location: PCU T75X-3G
Lab Summary - Cuttings Pit South Sidewall 0 to -10' Assessment

Last update 9/11/2015

Analytical Parameter (with units)	Cuttings Pit South Sidewalls												COGCC	Maximum based on Background
							Post 3' Ex.		Post 6' Ex.		Post 9' Ex.		Table 910-1 Concentration Levels	
	South Sidewall	South S-1	South S-2	South S-3	South S-4	South S-5	S-4 (-3')	S-5 (-3')	S-4 (-6')	S-5 (-6')	S-4 (-9')	S-5 (-9')		
Accutest Job #	D62923 (9/30/14)	D62931 (9/30/14)					D64053 (10/30/14)		D64510 (11/12/14)		D65117 (12/1/14)		-	-
Sample type (Composite/Discrete)	C	D	D	D	D	D	D	D	D	D	D	D	-	-
TPH (GRO) (mg/Kg)	8.21	ND	ND	13.3	28.8	38.1	13.7	24.3	101	194	ND	33.4	-	-
TPH (DRO) (mg/Kg)	1030	34.1	ND	388	730	3870	866	1720	1260	1600	80.4	326	-	-
TPH (GRO + DRO) (mg/Kg)	1038	34.1	ND	401	759	3908	880	1744	1361	1794	80.4	359	500	-
Benzene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	0.170	-
Toluene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	85	-
Ethylbenzene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	100	-
Xylenes (total) (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	175	-
Acenaphthene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	1000	-
Anthracene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	1000	-
Benzo(A)anthracene (mg/Kg)	0.0065	-	-	-	-	-	-	-	-	-	-	-	0.22	-
Benzo(A)pyrene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	0.022	-
Benzo(B)fluoranthene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	0.22	-
Benzo(K)fluoranthene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	2.2	-
Chrysene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	22	-
Dibenzo(A,H)anthracene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	0.022	-
Fluoranthene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	1000	-
Fluorene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	1000	-
Indeno(1,2,3,C,D)pyrene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	0.22	-
Naphthalene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	23	-
Pyrene (mg/Kg)	0.0128	-	-	-	-	-	-	-	-	-	-	-	1000	-
Electrical Conductivity (mmhos/cm)	0.841	-	-	-	-	-	-	-	-	-	-	-	4	-
Sodium Adsorption Ratio (SAR)	12.7	-	-	-	-	-	-	-	-	-	-	-	12	-
pH	9.90	-	-	-	-	-	-	-	-	-	-	-	6-9	-
Arsenic (mg/kg)	4.3	-	-	-	-	-	-	-	-	-	-	-	0.39	9.2
Barium (mg/kg)	182	-	-	-	-	-	-	-	-	-	-	-	15000	-
Cadmium (mg/kg)	<1.1	-	-	-	-	-	-	-	-	-	-	-	70	-
Chromium (III) (mg/Kg)	36.8	-	-	-	-	-	-	-	-	-	-	-	120000	-
Chromium (VI) (mg/Kg)	<1.0	-	-	-	-	-	-	-	-	-	-	-	23	-
Copper (mg/kg)	7.4	-	-	-	-	-	-	-	-	-	-	-	3100	-
Lead (inorganic) (mg/kg)	18.7	-	-	-	-	-	-	-	-	-	-	-	400	-
Mercury (mg/kg)	<0.095	-	-	-	-	-	-	-	-	-	-	-	23	-
Nickel (mg/kg)	13.5	-	-	-	-	-	-	-	-	-	-	-	1600	-
Selenium (mg/kg)	<5.6	-	-	-	-	-	-	-	-	-	-	-	390	-
Silver (mg/kg)	<3.3	-	-	-	-	-	-	-	-	-	-	-	390	-
Zinc (mg/kg)	43.1	-	-	-	-	-	-	-	-	-	-	-	23000	-
% Solids	86.5	85.4	85.8	87.1	87.3	84.1	88.0	84.8	86.3	84.5	88.3	86.3	-	-

Notes:

- 1) ND = not detectable to the laboratory detection limit.
- 2) Results highlighted in yellow exceed Table 910-1 concentration levels. Results highlighted in Gray exceed Table 910-1, but are below background levels.
- 3) "-" indicates no analysis.
- 4) See Figure(s) for sample locations.

Table 4E
Location: PCU T75X-3G
Lab Summary - Cuttings Pit South -10' to -20' Sidewall Assessment

Last update 9/11/2015

Analytical Parameter (with units)	Cuttings Pit South Sidewall -10' to -20'										COGCC Table 910-1 Concentration Levels	Maximum based on Background
	South Sidewall -10' to -20' Comp	South S-1a	South S-2a	South S-3a	Post 3' Ex.		Post 6' Ex.		Post 9' Ex.			
					S-1a (-3')	S-2a (-3')	S-1a (-6')	S-2a (-6')	S-1a (-9')	S-2a (-9')		
Accutest Job #	D62998 (10/1/14)	D63028 (10/1/14)			D64054 (10/30/14)		D 64509 (11/12/14)		D 65116 (12/1/14)		-	-
Sample type (Composite/Discrete)	C	D	D	D	D	D	D	D	D	D	-	-
TPH (GRO) (mg/Kg)	ND	44.2	20.2	ND	37.00	49.7	88.4	90.5	11.0	11.0	-	-
TPH (DRO) (mg/Kg)	918	2040	532	434	1720	1430	4270	1400	257	273	-	-
TPH (GRO + DRO) (mg/Kg)	918	2084	552	434	1757	1480	4358	1491	268	284	500	-
Benzene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	0.170	-
Toluene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	85	-
Ethylbenzene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	100	-
Xylenes (total) (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	175	-
Acenaphthene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	1000	-
Anthracene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	1000	-
Benzo(A)anthracene (mg/Kg)	0.0093	-	-	-	-	-	-	-	-	-	0.22	-
Benzo(A)pyrene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	0.022	-
Benzo(B)fluoranthene (mg/Kg)	0.0080	-	-	-	-	-	-	-	-	-	0.22	-
Benzo(K)fluoranthene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	2.2	-
Chrysene (mg/Kg)	0.0043	-	-	-	-	-	-	-	-	-	22	-
Dibenzo(A,H)anthracene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	0.022	-
Fluoranthene (mg/Kg)	0.0085	-	-	-	-	-	-	-	-	-	1000	-
Fluorene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	1000	-
Indeno(1,2,3,C,D)pyrene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	0.22	-
Naphthalene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	23	-
Pyrene (mg/Kg)	0.0184	-	-	-	-	-	-	-	-	-	1000	-
Electrical Conductivity (mmhos/cm)	1.010	-	-	-	-	-	-	-	-	-	4	-
Sodium Adsorption Ratio (SAR)	10.2	-	-	-	-	-	-	-	-	-	12	-
pH	9.52	-	-	-	-	-	-	-	-	-	6-9	-
Arsenic (mg/kg)	3.2	-	-	-	-	-	-	-	-	-	0.39	9.2
Barium (mg/kg)	182	-	-	-	-	-	-	-	-	-	15000	-
Cadmium (mg/kg)	<1.2	-	-	-	-	-	-	-	-	-	70	-
Chromium (III) (mg/Kg)	39.5	-	-	-	-	-	-	-	-	-	120000	-
Chromium (VI) (mg/Kg)	<1.0	-	-	-	-	-	-	-	-	-	23	-
Copper (mg/kg)	9.9	-	-	-	-	-	-	-	-	-	3100	-
Lead (inorganic) (mg/kg)	19.5	-	-	-	-	-	-	-	-	-	400	-
Mercury (mg/kg)	<0.097	-	-	-	-	-	-	-	-	-	23	-
Nickel (mg/kg)	15.1	-	-	-	-	-	-	-	-	-	1600	-
Selenium (mg/kg)	<5.8	-	-	-	-	-	-	-	-	-	390	-
Silver (mg/kg)	<3.5	-	-	-	-	-	-	-	-	-	390	-
Zinc (mg/kg)	45.0	-	-	-	-	-	-	-	-	-	23000	-
% Solids	84.7	84.0	84.8	84.5	85.7	85.0	86.4	85.9	85.4	84.1	-	-

Notes:

- 1) ND = not detectable to the laboratory detection limit.
- 2) Results highlighted in yellow exceed Table 910-1 concentration levels. Results highlighted in Gray exceed Table 910-1, but are below background levels.
- 3) "-" indicates no analysis.
- 4) See Figure(s) for sample locations.

Table 4F
Location: PCU T75X-3G
Lab Summary - Cuttings Pit West Sidewall 0 to -10' Assessment

Last update 9/11/2015

Analytical Parameter	Cuttings Pit West Sidewall																										COGCC Table 910-1 Concentration Levels	Maximum based on Background		
	(with units)						Post 3' Ex.					Post 6' Ex.				Post 9' Ex.				Post 12' Ex.		Post 15' Ex			Post 18' Ex	Post 21' Ex				
		West Sidewall	West W-1	West W-2	West W-3	West W-4	West W-5	W-1 (-3')	W-2 (-3')	W-3 (-3')	W-4 (-3')	W-5 (-3')	W-2 (-6')	W-3 (-6')	W-4 (-6')	W-5 (-6')	W-2 (-9')	W-3 (-9')	W-4 (-9')	W-5 (-9')	W-2 (-12')	W-3 (-12')	W-2 (-15')	W-3 (-15')	West SW (S-2)	W-2 (-18')			W-2 (-21')	
Accutest Job #	D62867 (9/30/14)	D62935 (9/30/14)					D63998 (10/29/14)					D64507 (11/12/14)				D65076 (11/25/14)				D66029 (12/19/14)		D66372 (1/6/15)	D66474 (1/9/15)	D66603 (1/13/15)	D66735 (1/15/15)	D66952 (1/22/15)	-	-		
Sample type (Composite/Discrete)	C	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	-	-		
TPH (GRO) (mg/Kg)	49.5	25.5	11.7	54.8	76.8	30.0	ND	74.5	16.5	92.2	38.1	778	552	254	198	64.7	436	ND	ND	110	75.6	162	ND	ND	ND	50.2	ND	-	-	
TPH (DRO) (mg/Kg)	6060	5510	7990	3550	3080	2460	127	5650	2070	3320	782	7270	2620	2590	2080	576	1970	54.1	13.5	1320	1290	2500	ND	ND	ND	1440	ND	-	-	
TPH (GRO + DRO) (mg/Kg)	6110	5536	8002	3605	3157	2490	127	5725	2087	3412	820	8048	3172	2844	2278	641	2406	54.1	13.5	1430	1366	2662	ND	ND	ND	1490	ND	500	-	
Benzene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.170	-	
Toluene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	85	-	
Ethylbenzene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	-	
Xylenes (total) (mg/Kg)	0.173	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	175	-	
Acenaphthene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1000	-	
Anthracene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1000	-	
Benzo(A)anthracene (mg/Kg)	0.0124	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22	-	
Benzo(A)pyrene (mg/Kg)	0.0083	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.022	-	
Benzo(B)fluoranthene (mg/Kg)	0.0201	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22	-	
Benzo(K)fluoranthene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	-	
Chrysene (mg/Kg)	0.0376	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	-	
Dibenzo(A,H)anthracene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.022	-	
Fluoranthene (mg/Kg)	0.0576	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1000	-	
Fluorene (mg/Kg)	0.387	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1000	-	
Indeno(1,2,3-C,D)pyrene (mg/Kg)	0.0058	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22	-	
Naphthalene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	-	
Pyrene (mg/Kg)	0.0556	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1000	-	
Electrical Conductivity (mmhos/cm)	1.120	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	
Sodium Adsorption Ratio (SAR)	12.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	
pH	9.48	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6-9	-	
Arsenic (mg/kg)	4.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.39	9.2	
Barium (mg/kg)	269	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15000	-	
Cadmium (mg/kg)	<1.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70	-	
Chromium (III) (mg/Kg)	42.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	120000	-	
Chromium (VI) (mg/Kg)	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	-	
Copper (mg/kg)	8.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3100	-	
Lead (inorganic) (mg/kg)	20.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	400	-	
Mercury (mg/kg)	<0.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	-	
Nickel (mg/kg)	15.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1600	-	
Selenium (mg/kg)	<6.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	390	-	
Silver (mg/kg)	<4.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	390	-	
Zinc (mg/kg)	47.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23000	-	
% Solids	74.6	84.8	84.5	84.5	85.2	86.4	85.6	86.9	85.3	87.6	90.7	88.3	86.7	85.4	85.8	86.3	85.2	86.1	86.6	87.2	88.0	87.8	87.5	86.8	87.4	87.4	-	-	-	-

Notes:

1) ND = not detectable to the laboratory detection limit.

2) Results highlighted in yellow exceed Table 910-1 concentration levels. Results highlighted in Gray exceed Table 910-1, but are below background levels.

3) "-" indicates no analysis.

4) See Figure(s) for sample locations.

5) West SW (S-2) sample was taken from the South wall exposed by the West Sidewall excavation. Chain of custody says "S-2".

Table 4G
Location: PCU T75X-3G
Lab Summary - Cuttings Pit West -10' to -20' Sidewall Assessment

Last update 9/11/2015

Analytical Parameter (with units)	Cuttings Pit West Sidewall -10' to -20'																COGCC Table 910-1 Concentration Levels	Maximum based on Background
	West Sidewall 10' to -20' Comp	West W-1a	West W-2a	West W-3a	Post 3' Ex.		Post 6' Ex.		Post 9' Ex.		Post 12' Ex.		Post 15' Ex.		Post 18' Ex.	Post 21' Ex.		
	D62922 (10/1/14)	D62932 (10/1/14)			D63997 (10/29/14)		D64508 (11/12/14)		D65115 (12/1/14)		D66030 (12/19/14)		D66473 (1/9/15)		D66735 (1/15/15)	D66951 (1/22/15)	-	-
Accutest Job #	C	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	-	-
Sample type (Composite/Discrete)	ND	23.9	ND	ND	7.26	36.9	123	253	60.6	422	51.2	107	39	20.4	73.6	18.9	-	-
TPH (GRO) (mg/Kg)	918	1640	653	110	611	2850	2880	3930	1320	3420	1830	1120	549	388	6430	414	-	-
TPH (DRO) (mg/Kg)	918	1664	653	110	618	2887	3003	4183	1381	3842	1881	1227	588	408	6504	433	500	-
TPH (GRO + DRO) (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.170	-
Benzene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	85	-
Toluene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100	-
Ethylbenzene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	175	-
Xylenes (total) (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1000	-
Acenaphthene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1000	-
Anthracene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22	-
Benzo(A)anthracene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.022	-
Benzo(A)pyrene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22	-
Benzo(B)fluoranthene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2	-
Benzo(K)fluoranthene (mg/Kg)	0.0118	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	-
Chrysene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.022	-
Dibenzo(A,H)anthracene (mg/Kg)	0.0084	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1000	-
Fluoranthene (mg/Kg)	0.0511	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1000	-
Fluorene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22	-
Indeno(1,2,3,C,D)pyrene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	-
Naphthalene (mg/Kg)	0.0152	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1000	-
Pyrene (mg/Kg)	1.580	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-
Electrical Conductivity (mmhos/cm)	14.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-
Sodium Adsorption Ratio (SAR)	9.62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6-9	-
pH	3.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.39	9.2
Arsenic (mg/kg)	178	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15000	-
Barium (mg/kg)	<1.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70	-
Cadmium (mg/kg)	28.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	120000	-
Chromium (III) (mg/Kg)	<1.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	-
Chromium (VI) (mg/Kg)	7.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3100	-
Copper (mg/kg)	17.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	400	-
Lead (inorganic) (mg/kg)	<0.093	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23	-
Mercury (mg/kg)	14.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1600	-
Nickel (mg/kg)	<5.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	390	-
Selenium (mg/kg)	<3.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	390	-
Silver (mg/kg)	38.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23000	-
Zinc (mg/kg)	83.6	83.4	83.6	84.0	86.2	86.3	86.6	87.8	85.4	86.1	85.7	87.5	85.8	87.6	86.4	84.9	-	-
% Solids																		

Notes:

1) ND = not detectible to the laboratory detection limit.

2) Results highlighted in yellow exceed Table 910-1 concentration levels. Results highlighted in Gray exceed Table 910-1, but are below background levels.

3) "-" indicates no analysis.

4) See Figure(s) for sample locations.

Table 5
Location: PCU T75X-3G
Lab Summary: Stockpiles

Last Update 9/11/2015

Analytical Parameter (with units)	Excavated Material Stockpiles			Crushed Stockpile				Spoils Stockpile			COGCC	Maximum based on Background
	Freshwater Pit Ex. Mtrl.	Cuttings Pit Ex. Mtrl.	Reserve Pit Ex. Mtrl.	Northwest	Northeast	Southwest	East	Spoilpile (75-3 Spoils #1)	Spoilpile (75-3 Spoils #2)	Spoilpile (75-3 Spoils #3)	Table 910-1 Concentration Levels	
Accutest Job #	D70296 (5/1/15)	D70295 (5/1/15)	D72446 (7/1/15)	D26016 (7/27/11)				D11728 (3/11/10)			-	-
Sample type (Composite/Discrete)	C	C	C	C	C	C	C	C	C	C	-	-
TPH (GRO) (mg/kg)	23.3	27.5	ND	ND	ND	ND	ND	ND	ND	ND	-	-
TPH (DRO) (mg/kg)	627	1,210	1,080	270	321	248	228	337	196	410	-	-
TPH (GRO+DRO) (mg/kg)	650	1,238	1,080	270	321	248	228	337	196	410	500	-
Benzene (mg/kg)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.17	-
Toluene (mg/kg)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	85	-
Ethylbenzene (mg/kg)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	100	-
Xylenes (total) (mg/kg)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	175	-
Acenaphthene (mg/kg)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,000	-
Anthracene (mg/kg)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,000	-
Benzo(A)anthracene (mg/kg)	ND	ND	0.0286	ND	ND	ND	ND	0.230	0.181	0.121	0.22	-
Benzo(B)fluoranthene (mg/kg)	ND	ND	0.0526	ND	ND	ND	ND	0.402	0.295	0.194	0.22	-
Benzo(K)fluoranthene (mg/kg)	ND	ND	0.0120	ND	ND	ND	ND	0.124	0.130	0.110	2.2	-
Benzo(A)pyrene (mg/kg)	ND	ND	0.0181	ND	ND	ND	ND	0.146	0.101	0.0857	0.022	-
Chrysene (mg/kg)	ND	ND	0.0268	ND	ND	ND	ND	0.313	0.240	0.164	22	-
Dibenzo(A,H)anthracene (mg/kg)	ND	ND	0.0067	ND	ND	ND	ND	ND	ND	ND	0.022	-
Fluoranthene (mg/kg)	0.0055	0.0118	0.0408	ND	ND	ND	ND	0.289	0.280	0.149	1,000	-
Fluorene (mg/kg)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,000	-
Indeno(1,2,3,C,D)pyrene (mg/kg)	ND	ND	0.0229	ND	ND	ND	ND	0.145	0.105	0.0862	0.22	-
Naphthalene (mg/kg)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	23	-
Pyrene (mg/kg)	0.0095	0.0167	0.0325	0.0080	0.0088	ND	ND	0.257	0.198	0.142	1,000	-
Electrical Conductivity (mmhos/cm)	2.700	1.240	1.870	1.090	1.370	1.350	1.260	17.500	26.500	18.400	<4	-
Sodium Adsorption Ratio (SAR)	20.2	12.2	11.2	8.51	9.14	10.1	8.21	20.0	25.9	21.3	<12	-
pH	9.93	9.99	9.5	9.28	9.49	9.48	9.35	8.82	9.13	8.35	6-9	-
Arsenic (mg/kg)	4.5	3.1	4.1	2.9	2.8	2.5	3.6	4.7	5.3	4.7	0.39	9.2
Barium (mg/kg)	385	499	1560	298	429	400	404	5,600	5,540	5,260	15,000	-
Cadmium (mg/kg)	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.0	0.95	1.0	<0.96	70	-
Chromium (III) (mg/kg)	35.3	34.4	42.2	34.9	36.7	34.3	30.7	24.4	23.7	23.3	120,000	-
Chromium (VI) (mg/kg)	<1.0	<1.0	<1.0	0.64	0.64	0.6	0.62	<2.4	<2.3	<2.2	23	-
Copper (mg/kg)	11.4	12	14.2	10.3	9.8	9.8	10.8	16.1	15.2	11.9	3,100	-
Lead (inorganic) (mg/kg)	7.5	7.4	8.9	12.6	11.3	10.9	13.9	23.4	24	20.2	400	-
Mercury (mg/kg)	<0.097	<0.085	<0.097	<0.11	<0.10	<0.11	<0.10	<0.012	<0.11	<0.11	23	-
Nickel (mg/kg)	15.1	14.5	17.4	16	16.2	15.6	14.2	13.2	12.5	12.5	1,600	-
Selenium (mg/kg)	<5.5	<5.6	<5.7	<5.4	<5.6	<5.3	<5.2	5.2	5.6	<4.8	390	-
Silver (mg/kg)	<3.3	<3.3	<3.4	<3.3	<3.4	<3.2	<3.1	<2.8	<2.8	<2.9	390	-
Zinc (mg/kg)	45.2	42.3	52.3	38.4	36.3	35.8	37.2	47.9	45.8	44.8	23,000	-
% Solids	85.5	85.7	86.3	89.3	88.8	89.5	89.4	80.7	87.2	85.9	-	-

Notes:

1) ND = not detectable to the laboratory detection limit.

2) Results highlighted in yellow exceed Table 910-1 concentration levels. Results highlighted in gray exceed

Table 910-1 concentration levels but are at or below background levels (site arsenic background = 5.8 mg/kg).

3) Crushed stockpile samples were collected from material removed from the pits, crushed, blended, and stockpiled at the location.

4) Spoils Pile samples 10 point composites of section #1, #2, and #3.

Table 5A
Location: PCU T75X-3G
Lab Summary - Crushed Freshwater Excavated Material

Last update

9/11/2015

Analytical Parameter (with units)	Crushed Freshwater		COGCC	Maximum based on Background
	Day 1	Day 2	Table 910-1 Concentration Levels	
Accutest Job #	D74819 (9/3/15)	D74836 (9/4/15)	-	-
Sample type (Composite/Discrete)	D	D	-	-
TPH (GRO) (mg/kg)	ND	ND	-	-
TPH (DRO) (mg/kg)	197	174	-	-
TPH (GRO+DRO) (mg/kg)	197	174	500	-
Benzene (mg/kg)	-	-	0.17	-
Toluene (mg/kg)	-	-	85	-
Ethylbenzene (mg/kg)	-	-	100	-
Xylenes (total) (mg/kg)	-	-	175	-
Acenaphthene (mg/kg)	-	-	1,000	-
Anthracene (mg/kg)	-	-	1,000	-
Benzo(A)anthracene (mg/kg)	-	-	0.22	-
Benzo(B)fluoranthene (mg/kg)	-	-	0.22	-
Benzo(K)fluoranthene (mg/kg)	-	-	2.2	-
Benzo(A)pyrene (mg/kg)	-	-	0.022	-
Chrysene (mg/kg)	-	-	22	-
Dibenzo(A,H)anthracene (mg/kg)	-	-	0.022	-
Fluoranthene (mg/kg)	-	-	1,000	-
Fluorene (mg/kg)	-	-	1,000	-
Indeno(1,2,3,C,D)pyrene (mg/kg)	-	-	0.22	-
Naphthalene (mg/kg)	-	-	23	-
Pyrene (mg/kg)	-	-	1,000	-
Electrical Conductivity (mmhos/cm)	-	-	<4	-
Sodium Adsorption Ratio (SAR)	-	-	<12	-
pH	-	-	6-9	-
Arsenic (mg/kg)	-	-	0.39	9.2
Barium (mg/kg)	-	-	15,000	-
Cadmium (mg/kg)	-	-	70	-
Chromium (III) (mg/kg)	-	-	120,000	-
Chromium (VI) (mg/kg)	-	-	23	-
Copper (mg/kg)	-	-	3,100	-
Lead (inorganic) (mg/kg)	-	-	400	-
Mercury (mg/kg)	-	-	23	-
Nickel (mg/kg)	-	-	1,600	-
Selenium (mg/kg)	-	-	390	-
Silver (mg/kg)	-	-	390	-
Zinc (mg/kg)	-	-	23,000	-
% Solids	86.5	88.5	-	-

Notes:

- 1) ND = not detectable to the laboratory detection limit.
- 2) Results highlighted in yellow exceed Table 910-1 concentration levels.
- 3) "-" indicates no analysis.

Table 5B
Location: PCU T75X-3G
Lab Summary - Crushed Cuttings Excavated Material

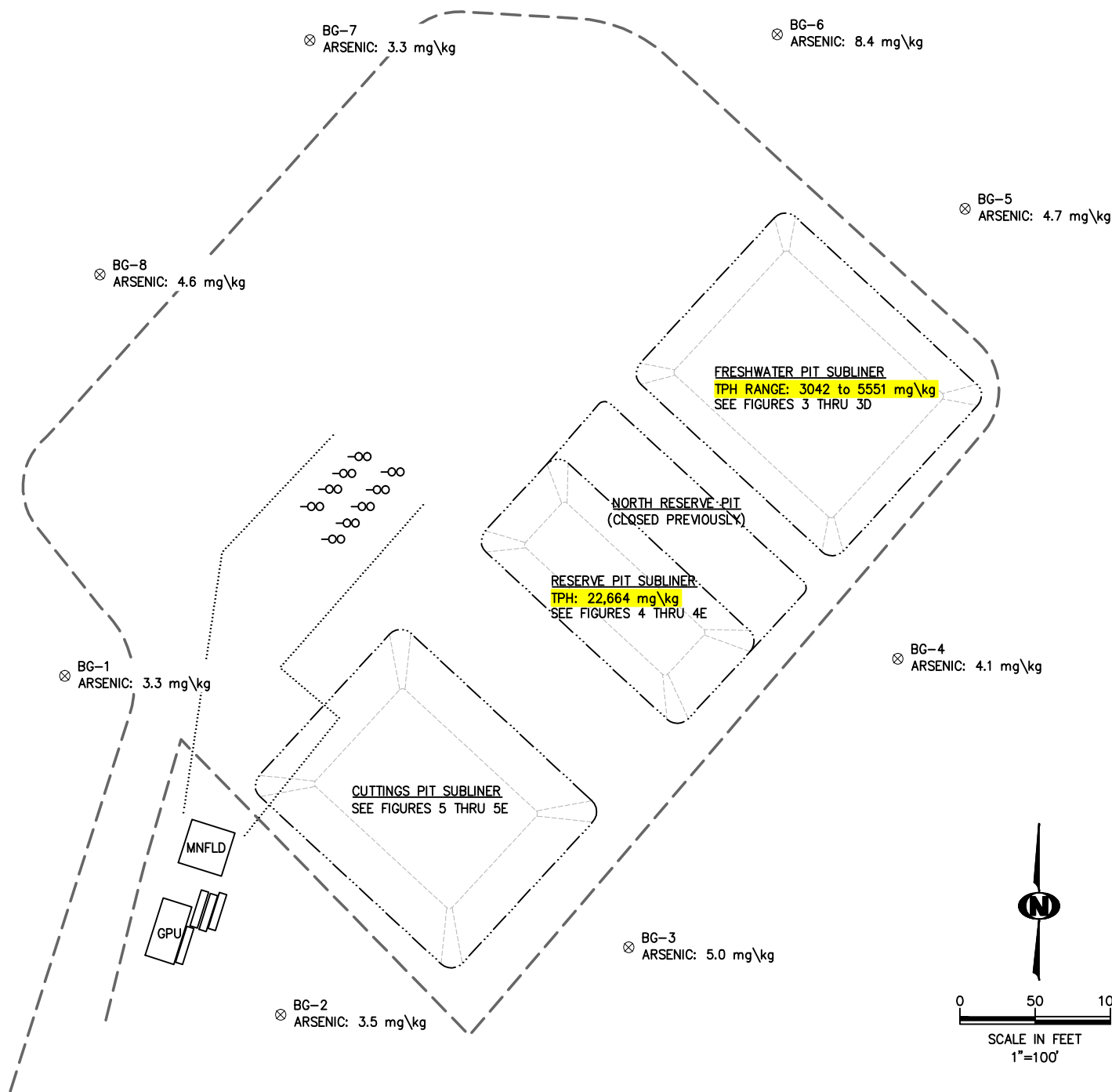
Last update 9/11/2015

Analytical Parameter (with units)	Crushed Cuttings						COGCC Table 910-1 Concentration Levels	Maximum based on Background
	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6		
Accutest Job #	D74496 (8/26/15)	D74559 (8/27/15)	D74589 (8/28/15)	D74638 (8/31/15)	D74708 (9/1/15)	D74763 (9/2/15)	-	-
Sample type (Composite/Discrete)	C	C	C	C	C	C	-	-
TPH (GRO) (mg/kg)	ND	40.9	ND	7.55	ND	ND	-	-
TPH (DRO) (mg/kg)	387	383	275	518	386	485	-	-
TPH (GRO+DRO) (mg/kg)	387	424	275	518	386	485	500	-
Benzene (mg/kg)	-	-	-	-	-	-	0.17	-
Toluene (mg/kg)	-	-	-	-	-	-	85	-
Ethylbenzene (mg/kg)	-	-	-	-	-	-	100	-
Xylenes (total) (mg/kg)	-	-	-	-	-	-	175	-
Acenaphthene (mg/kg)	-	-	-	-	-	-	1,000	-
Anthracene (mg/kg)	-	-	-	-	-	-	1,000	-
Benzo(A)anthracene (mg/kg)	-	-	-	-	-	-	0.22	-
Benzo(B)fluoranthene (mg/kg)	-	-	-	-	-	-	0.22	-
Benzo(K)fluoranthene (mg/kg)	-	-	-	-	-	-	2.2	-
Benzo(A)pyrene (mg/kg)	-	-	-	-	-	-	0.022	-
Chrysene (mg/kg)	-	-	-	-	-	-	22	-
Dibenzo(A,H)anthracene (mg/kg)	-	-	-	-	-	-	0.022	-
Fluoranthene (mg/kg)	-	-	-	-	-	-	1,000	-
Fluorene (mg/kg)	-	-	-	-	-	-	1,000	-
Indeno(1,2,3,C,D)pyrene (mg/kg)	-	-	-	-	-	-	0.22	-
Naphthalene (mg/kg)	-	-	-	-	-	-	23	-
Pyrene (mg/kg)	-	-	-	-	-	-	1,000	-
Electrical Conductivity (mmhos/cm)	-	-	-	-	-	-	<4	-
Sodium Adsorption Ratio (SAR)	-	-	-	-	-	-	<12	-
pH	-	-	-	-	-	-	6-9	-
Arsenic (mg/kg)	-	-	-	-	-	-	0.39	9.2
Barium (mg/kg)	-	-	-	-	-	-	15,000	-
Cadmium (mg/kg)	-	-	-	-	-	-	70	-
Chromium (III) (mg/kg)	-	-	-	-	-	-	120,000	-
Chromium (VI) (mg/kg)	-	-	-	-	-	-	23	-
Copper (mg/kg)	-	-	-	-	-	-	3,100	-
Lead (inorganic) (mg/kg)	-	-	-	-	-	-	400	-
Mercury (mg/kg)	-	-	-	-	-	-	23	-
Nickel (mg/kg)	-	-	-	-	-	-	1,600	-
Selenium (mg/kg)	-	-	-	-	-	-	390	-
Silver (mg/kg)	-	-	-	-	-	-	390	-
Zinc (mg/kg)	-	-	-	-	-	-	23,000	-
% Solids	89.3	88.6	89.2	87.6	87.4	86.1	-	-

Notes:

- 1) ND = not detectable to the laboratory detection limit.
- 2) Results highlighted in yellow exceed Table 910-1 concentration levels.
- 3) "-" indicates no analysis.

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NOTES:

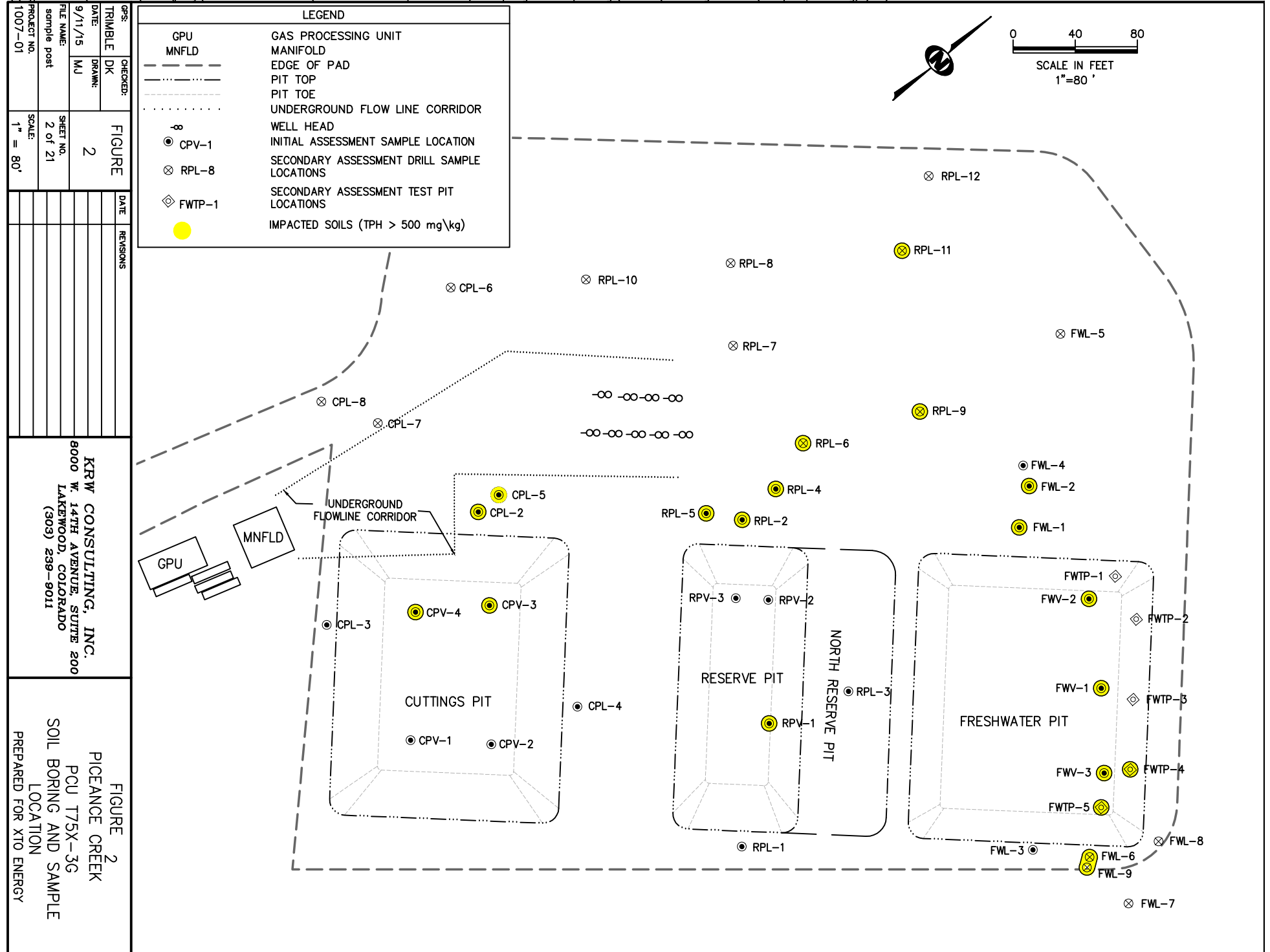
1. DUE TO OBVIOUS STAINING AND ODOR IN THE CUTTINGS PIT, SUBLINER MATERIAL WAS ASSUMED TO BE IMPACTED AND THEREFORE NOT TESTED.

LEGEND	
GPU	GAS PROCESSING UNIT
MNFLD	MANIFOLD
.....	UNDERGROUND FLOWLINE CORRIDOR
-----	EDGE OF PAD
-----	TOP OF PIT
-----	TOE OF PIT
-∞	WELL HEAD
	INDICATES TPH LAB RESULTS ABOVE 500 mg\kg
⊗ BG-0	BACKGROUND TEST LOCATION
⊗ ARSENIC: mg\kg	WITH LAB RESULTS

GPS:	CHECKED:	FIGURE 1	DATE	REVISIONS
TRIMBLE	DK			
DATE:	DRAWN:			
9/11/15	MJ			
FILE NAME:	SHEET NO.			
sample	1 of 21			
PROJECT NO.	SCALE:			
1007-01	1" = 100'			

KRW CONSULTING, INC.
8000 W. 14TH AVENUE, SUITE 200
LAKEWOOD, COLORADO
(303) 239-9011

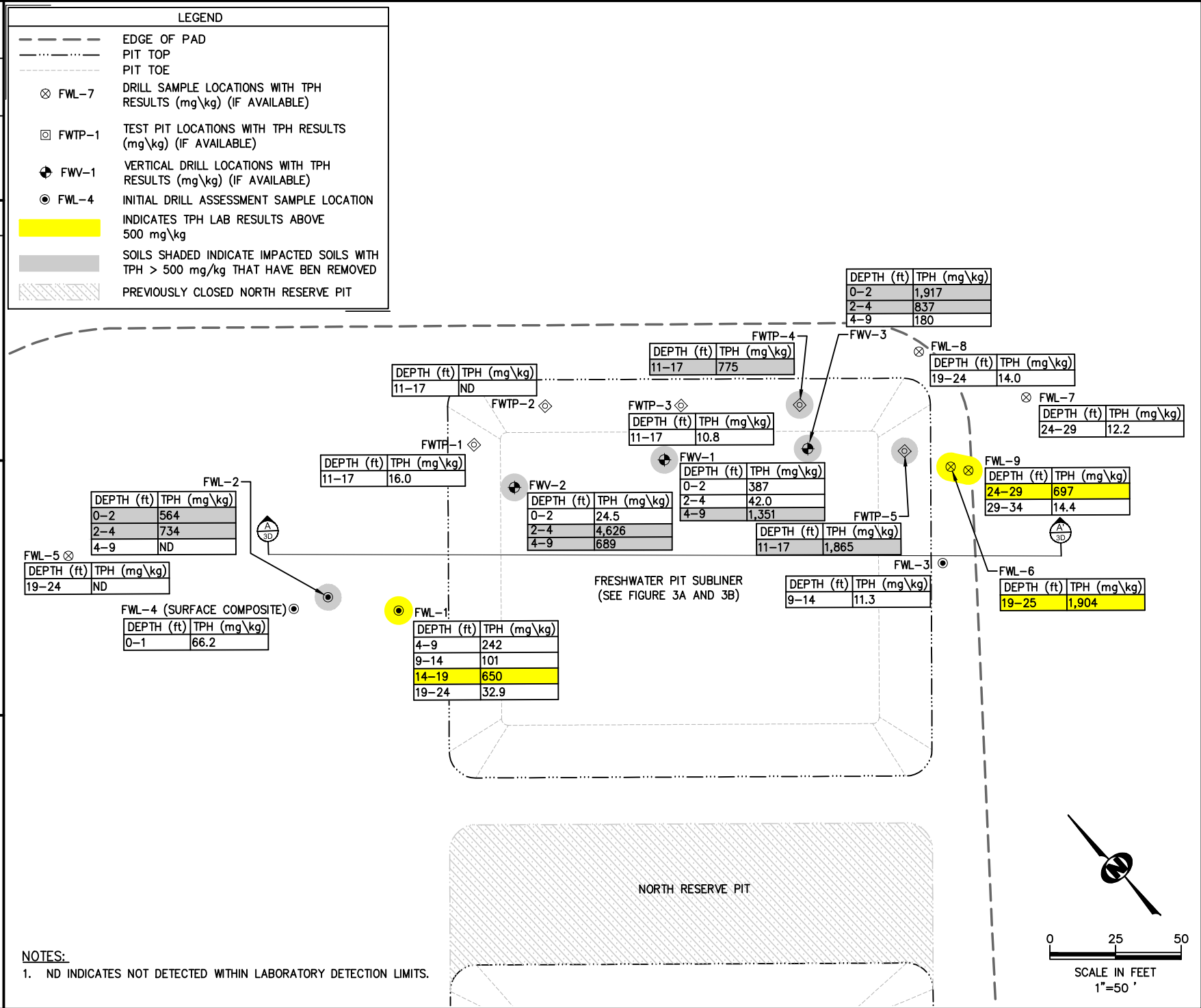
FIGURE 1
PICEANCE CREEK
PCU T75X-3G
OVERVIEW OF PAD WITH 2010
INITIAL LAB RESULTS
PREPARED FOR XTO ENERGY




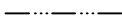




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FIGURE 2
PICEANCE CREEK
PCU T75X-3G
SOIL BORING AND SAMPLE
LOCATION
PREPARED FOR XTO ENERGY

FIGURE 3
PICEANCE CREEK
PCU T75X-3G
FRESHWATER DRILL AND
TEST PIT ASSESSMENT
PREPARED FOR XTO ENERGY

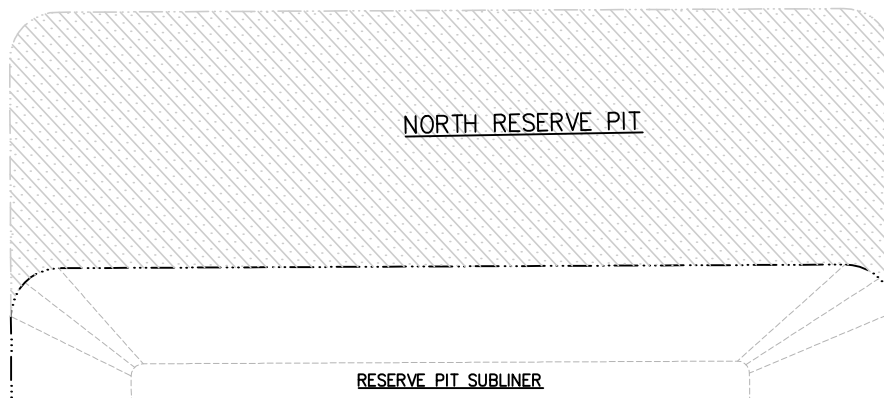
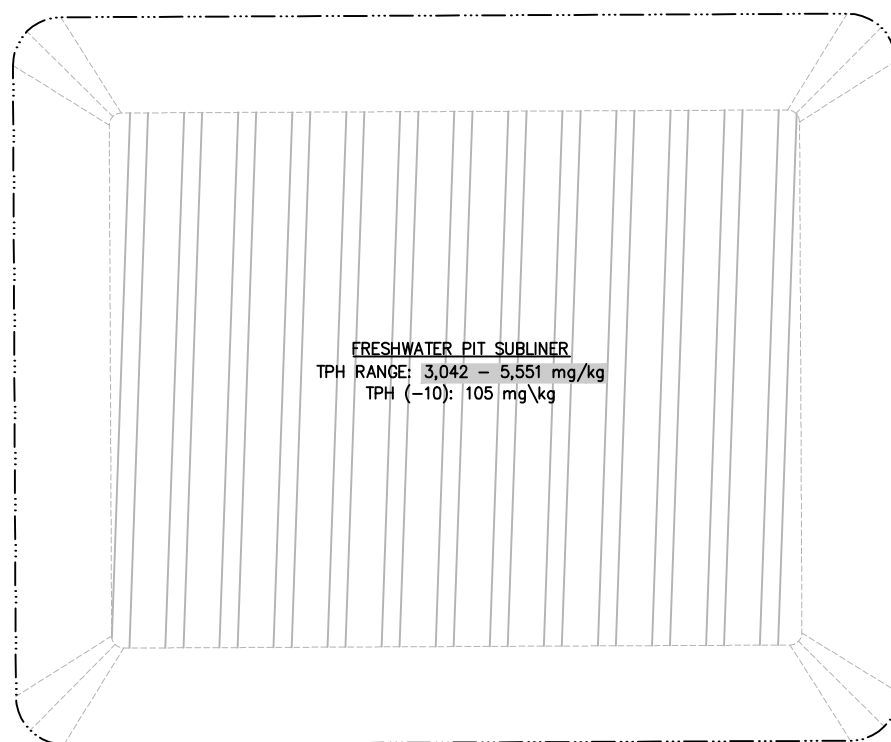
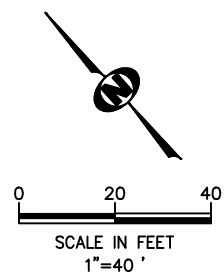


\\hyper-v03\lkwd-co\sdk\proj\to environmental\1007-01 75-3 pit reclaim, sampling and reporting\civil3d\2014 figure set\fp.dwg,9/11/15

LEGEND	
	EDGE OF PAD
	PIT TOP
	PIT TOE
	NORTH RESERVE PIT TOP
	-10' EXCAVATION AREA
	PREVIOUSLY CLOSED NORTH RESERVE PIT

NOTES:

1. DEPTHS ARE RELATIVE TO INITIAL PIT EXCAVATION (-10').



GPS:	TRIMBLE
DATE:	9/11/15
FILE NAME:	fp
PROJECT NO.	1007-01

CHECKED:	DK
DRAWN:	DC

FIGURE
3A

SHEET NO.
4 of 21

SCALE:
1" = 40'

DATE	REVISIONS

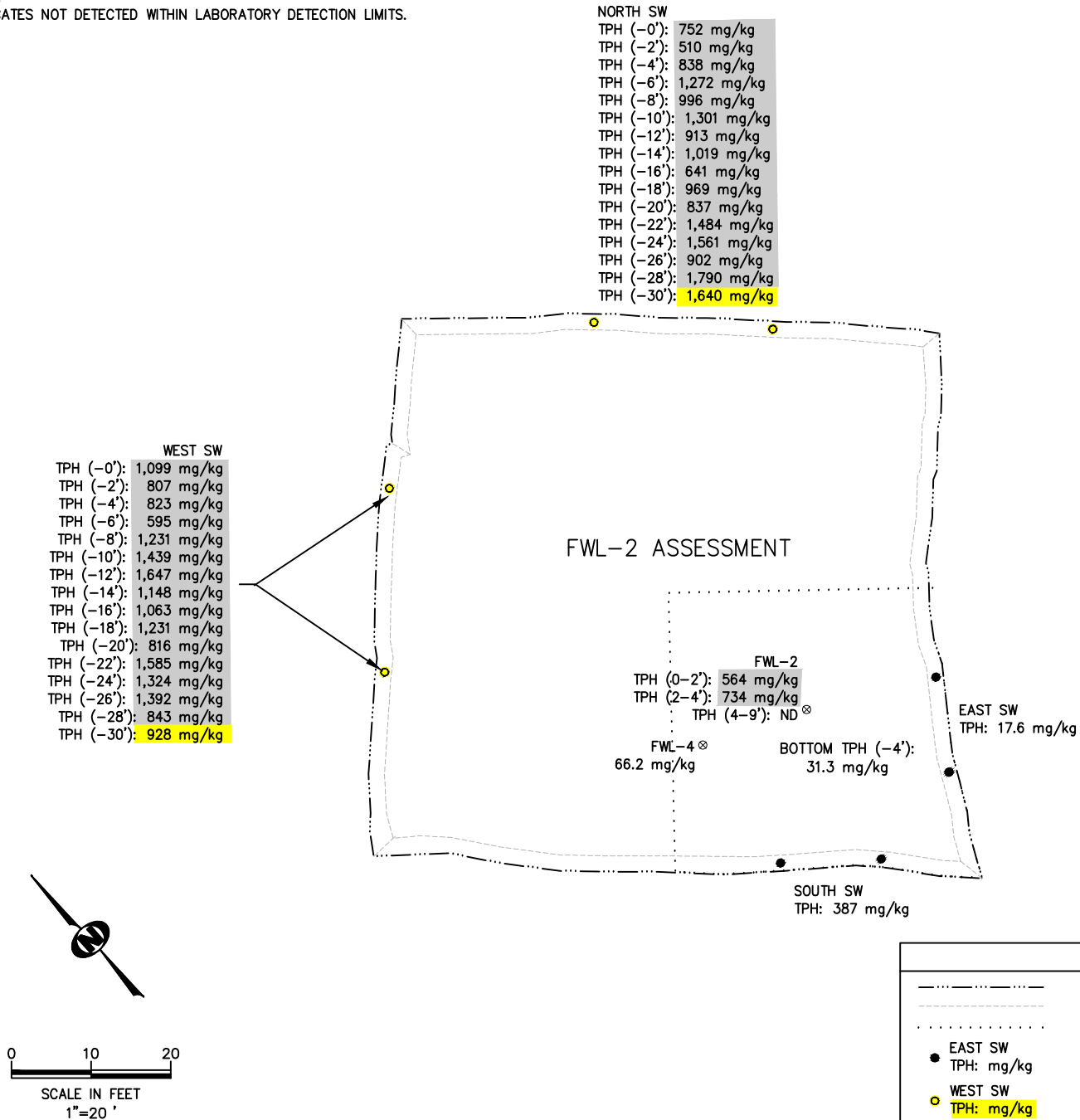
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FIGURE 3A
PICEANCE CREEK
PCU T75X-3G
FRESHWATER PIT
SUBLINER ASSESSMENT
PREPARED FOR XTO ENERGY

PROJECT NO. 1007-01	DATE 9/11/15	CHECKED DK	FIGURE 3B	DATE	REVISIONS
FILE NAME fp_sw	DRAWN DC		SHEET NO. 5 of 21		
			SCALE 1" = 20'		
KRW CONSULTING, INC. 8000 W. 14TH AVENUE, SUITE 200 LAKEWOOD, COLORADO (303) 239-9011					
FIGURE 3B PICEANCE CREEK PCU T75X-3G FWL-2 ASSESSMENT PREPARED FOR XTO ENERGY					

NOTES:

ND INDICATES NOT DETECTED WITHIN LABORATORY DETECTION LIMITS.



RESULTS HIGHLIGHTED YELLOW INDICATE IMPACTED SOILS WITH TPH > 500 mg/kg

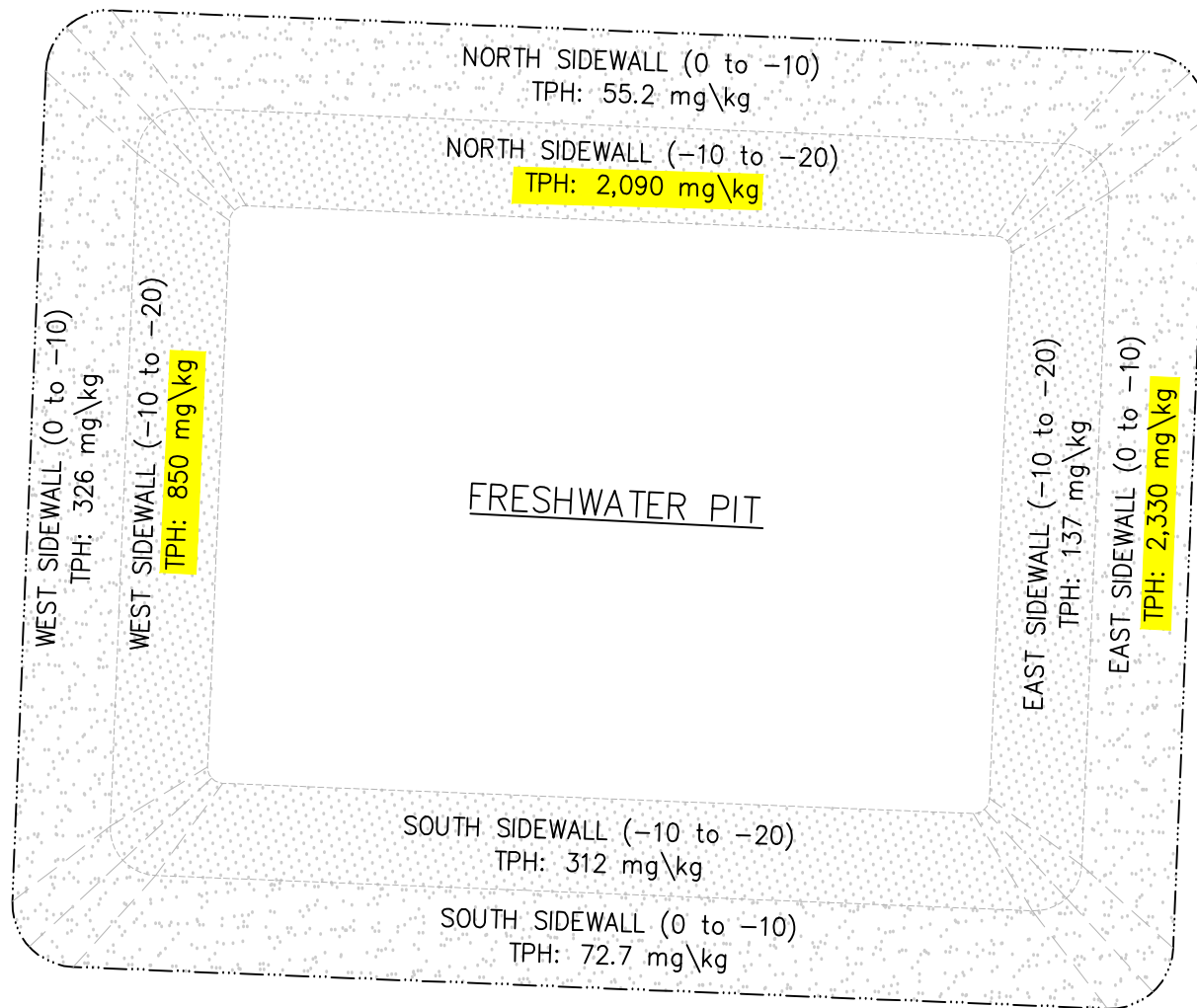
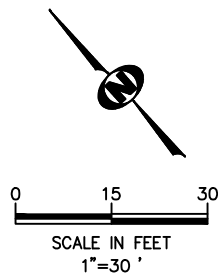
DATE:	DATE	REVISIONS
GPS: TRIMBLE	CHECKED: DK	
DATA:	DATA:	

FIGURE 70

DATE	REVISIONS
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8000 W. 14TH AVENUE, SUITE 200
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FIGURE 3C
PICEANCE CREEK
PCU T75X-3G
FRESHWATER PIT COMPOSITE
SIDEWALL ASSESSMENT
PREPARED FOR XTO ENERGY



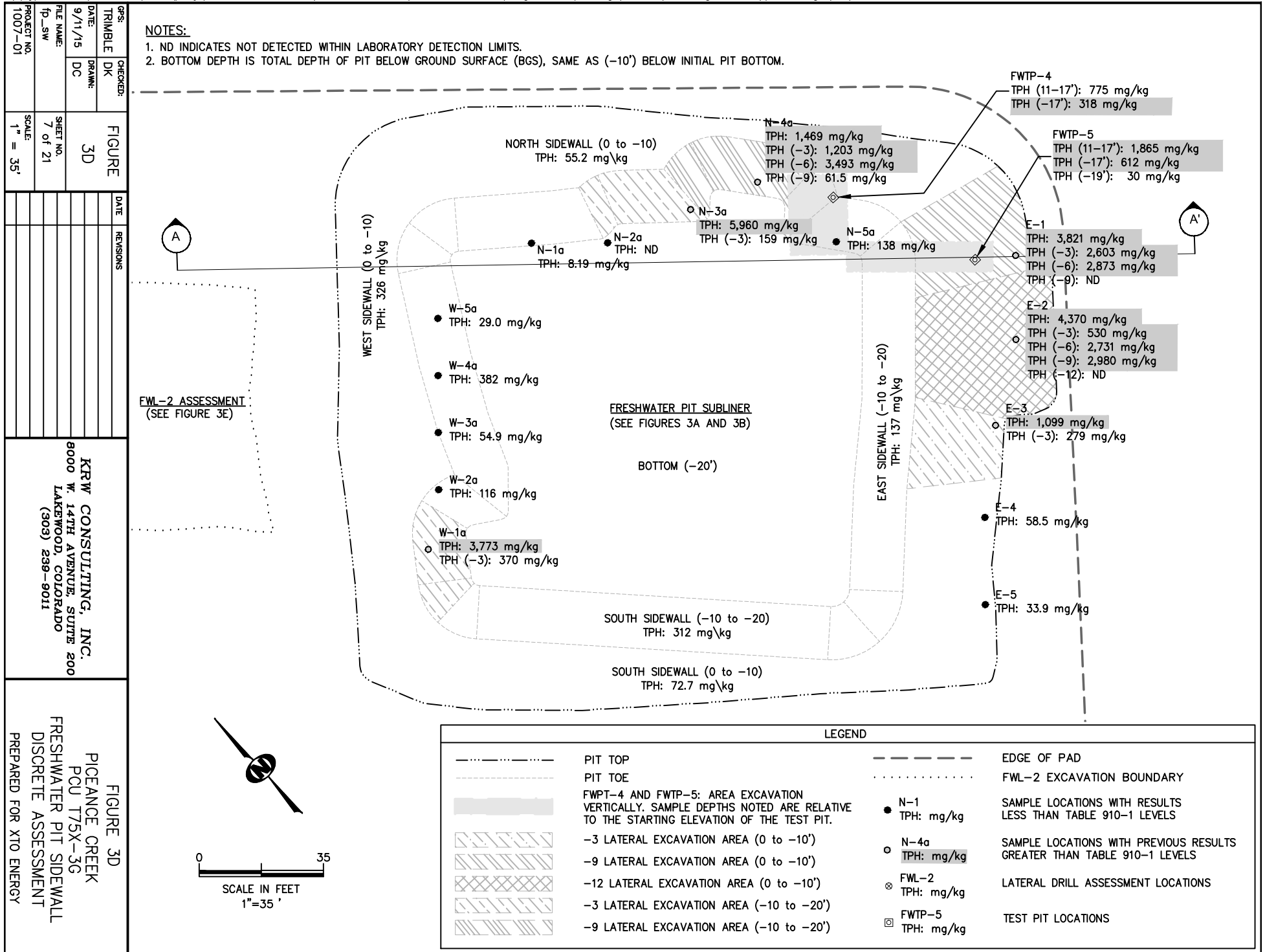
— — — — — EDGE OF PAD
- · - · - · - · - · - PIT TOP
- - - - - PIT TOE

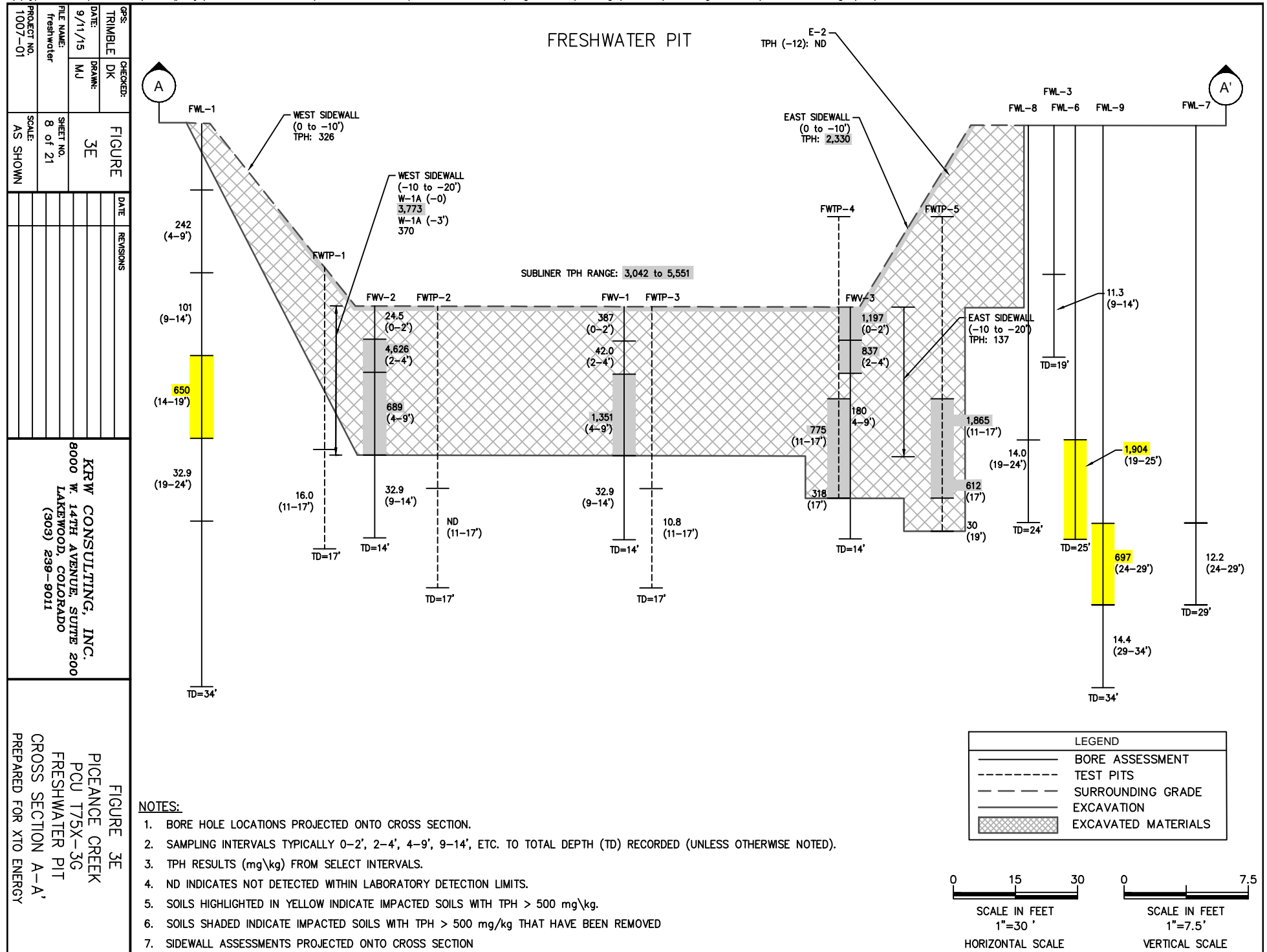
PREVIOUSLY CLOSED NORTH RESERVE PIT

SIDEWALL EXCAVATION 0' TO -10'

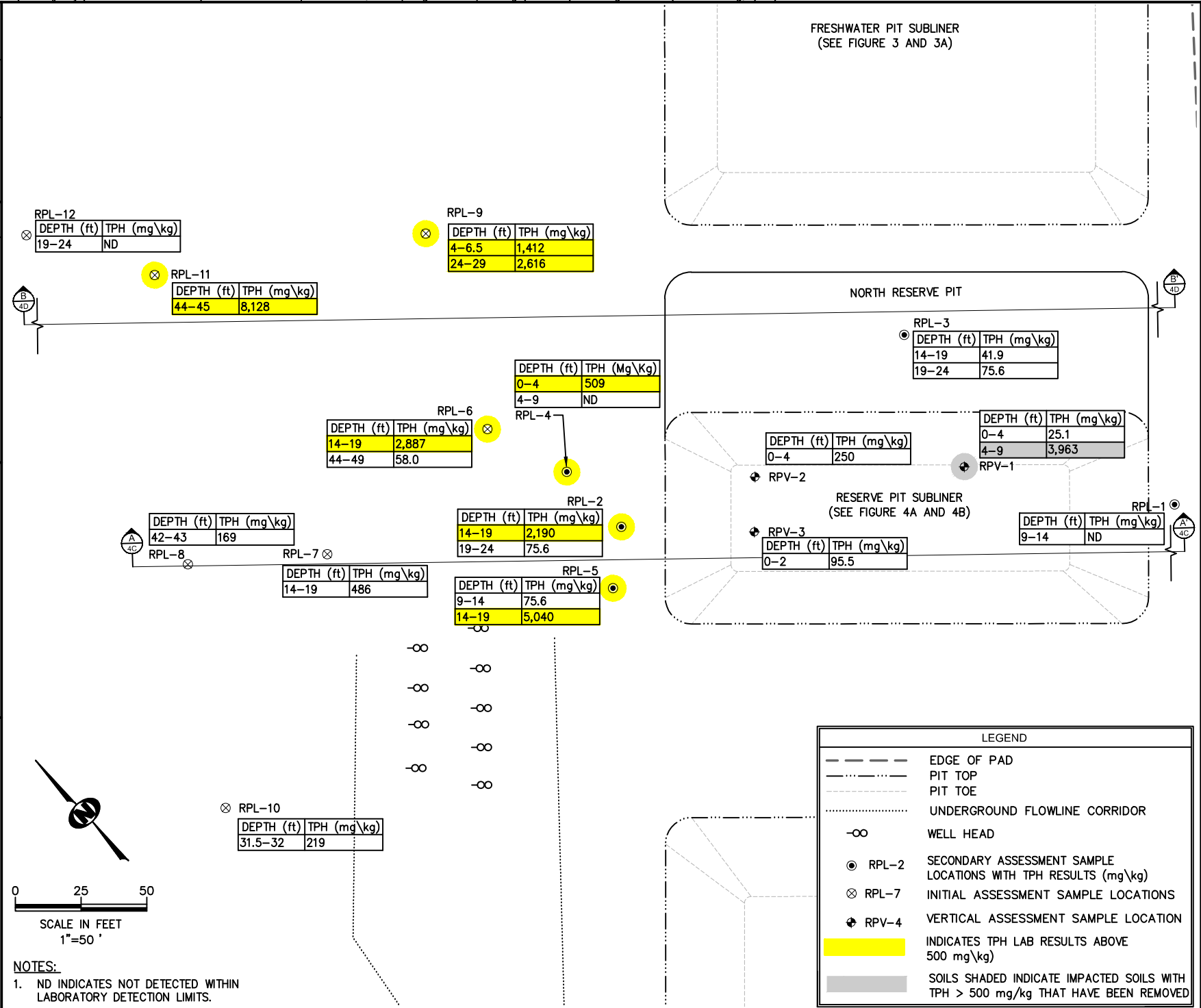
SIDEWALL EXCAVATION -10' TO -20'

NORTH RESERVE PIT





PROJECT NO. 1007-01	DATE 9/11/15	CHECKED DK	FIGURE 4
FILE NAME reserve	DRAWN DC		SHEET NO. 9 of 21
			SCALE 1" = 50'



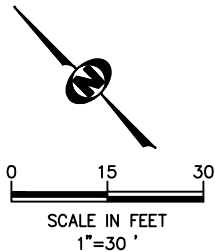
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8000 W. 14TH AVENUE, SUITE 200
LAKEWOOD, COLORADO
(303) 239-9011

FIGURE 4
PICEANCE CREEK
PCU T75X-3G
RESERVE PIT DRILL ASSESSMENT
PREPARED FOR XTO ENERGY

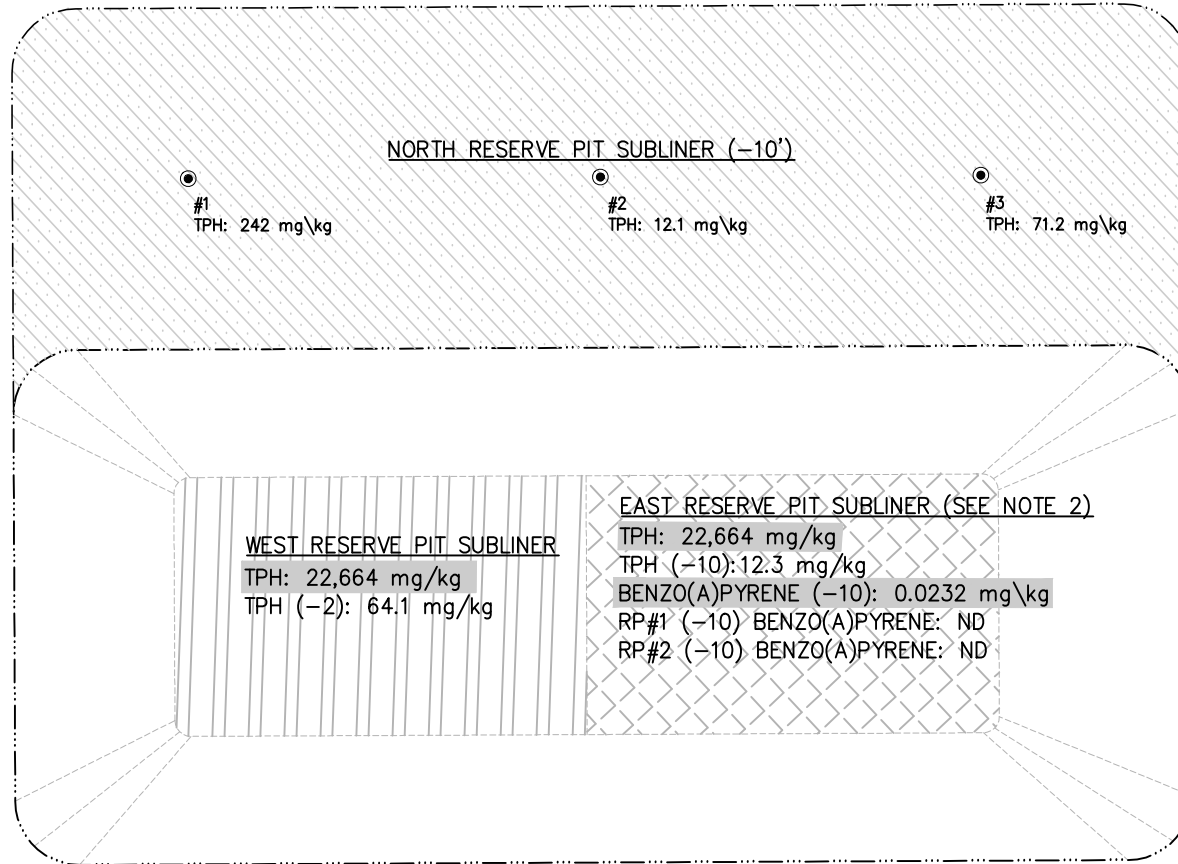
PROJECT NO. 1007-01	SCALE 1" = 30'	FIGURE 4A	DATE	REVISIONS
TRIMBLE DK	CHECKED:	DATE		
DATE 9/11/15	DRAWN: MJ	FIGURE 4A		
FILE NAME: TD	SHEET NO. 10 of 21			

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FIGURE 4A
PICEANCE CREEK
PCU T75X-3G
RESERVE PITS
SUBLINER ASSESSMENT
PREPARED FOR XTO ENERGY



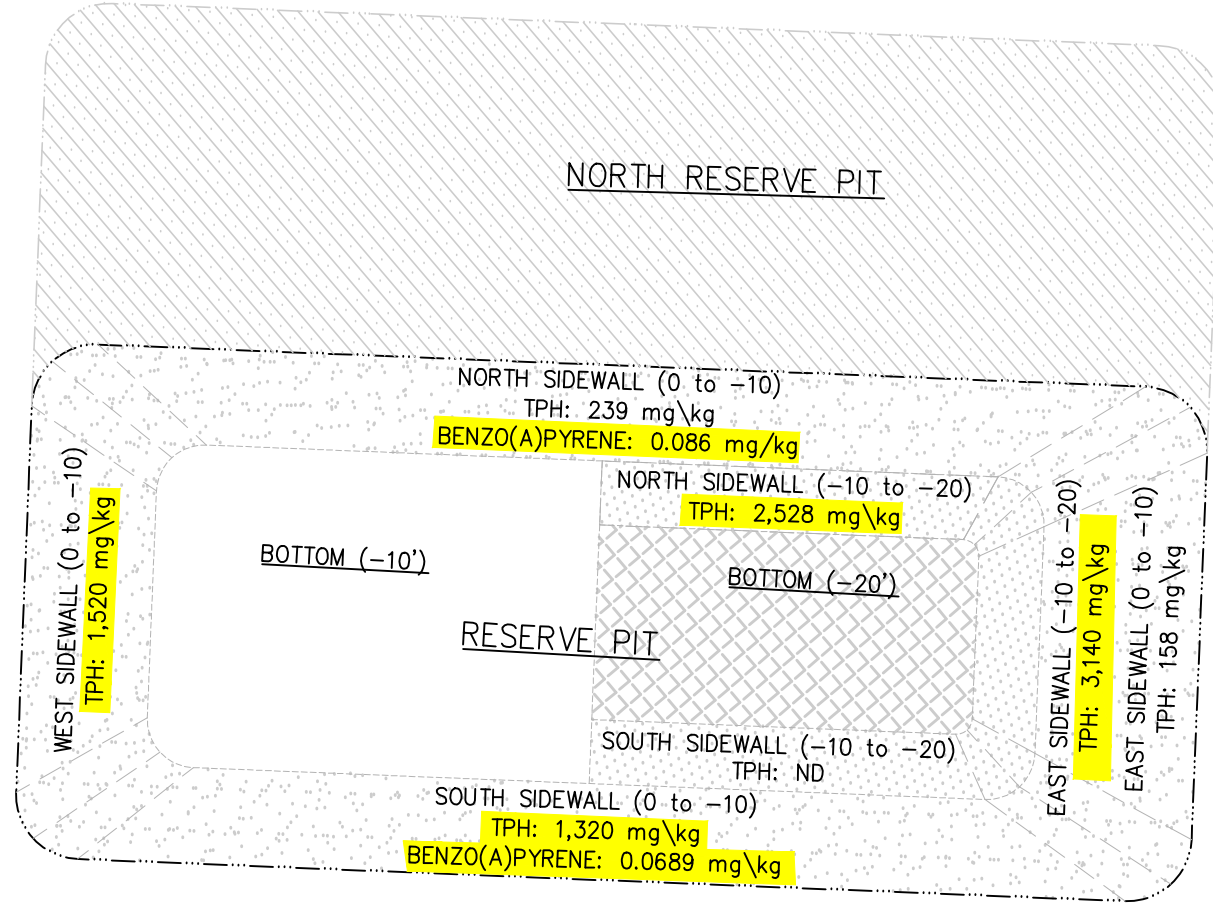
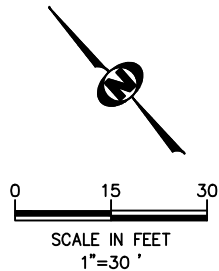
LEGEND	
	EDGE OF PAD
	PIT TOP
	PIT TOE
	INDICATES PREVIOUS LAB RESULTS ABOVE TABLE 910-1 ALLOWABLE LEVELS
	-2' EXCAVATION AREA
	-10' EXCAVATION AREA
	PREVIOUSLY CLOSED NORTH RESERVE PIT
	#1 TPH: mg/kg DISCRETE SAMPLE APPROXIMATE LOCATION



NOTES:

1. ND INDICATES NOT DETECTED WITHIN LABORATORY LIMITS.
2. SUBLINER DEPTHS ARE RELATIVE TO THE INITIAL PIT BOTTOM (-10'). ACTUAL EAST RESERVE PIT BOTTOM (-20').
3. WEST HALF (-2') IS REPRESENTED BY BOTTOM (-10') ON FOLLOWING FIGURES.

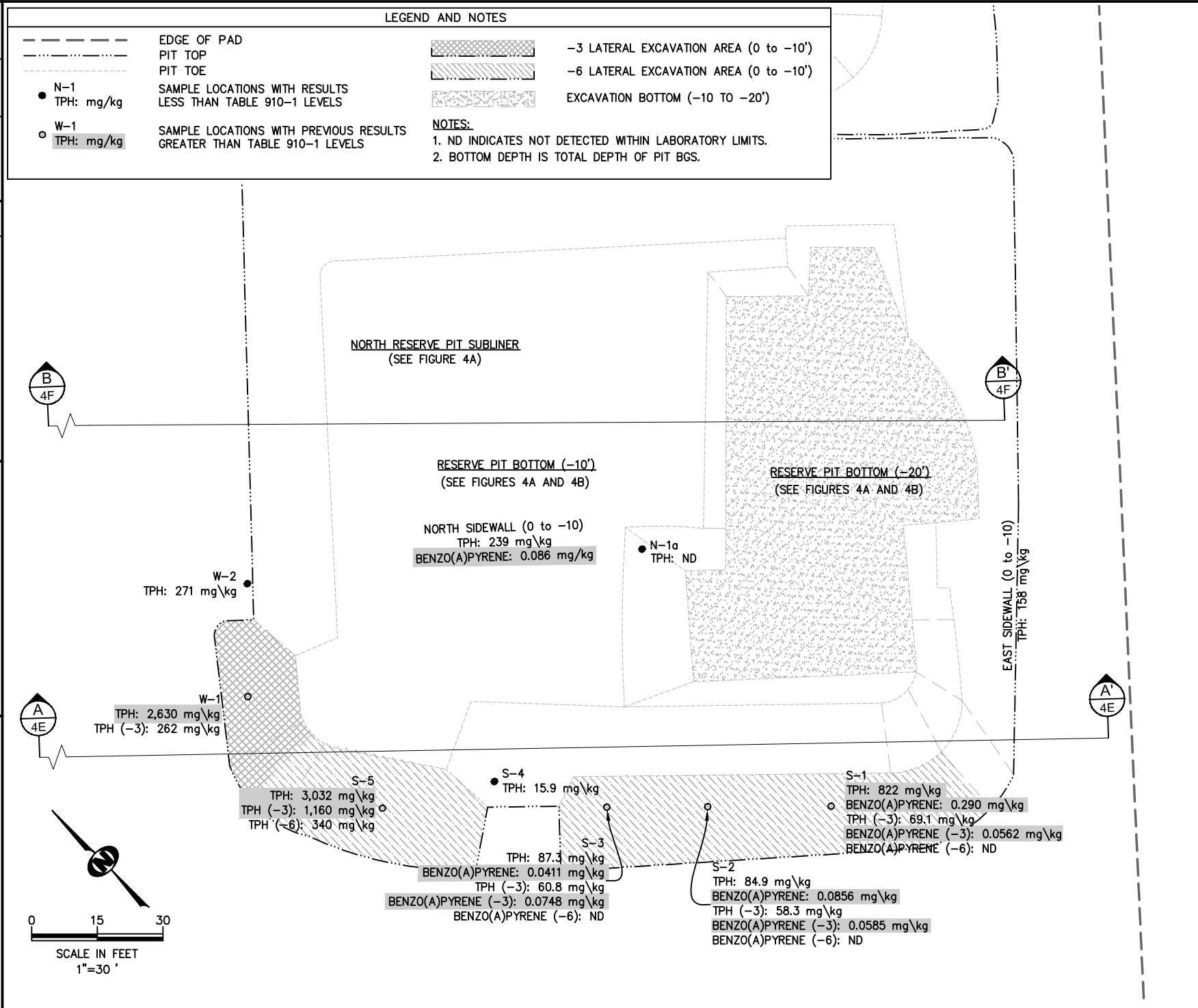
DATE	9/11/15	TRIMBLE	DK	CHECKED:	FIGURE	4B
FILE NAME:	Sample SW	DRAWN:	MJ			
PROJECT NO.	1007-01	SHEET NO.	11 of 21			
		SCALE:	1" = 30'			
DATE						
REVISIONS						
<p>KRW CONSULTING, INC. 8000 W. 14TH AVENUE, SUITE 200 LAKEWOOD, COLORADO (303) 239-9011</p>						
<p>FIGURE 4B PICEANCE CREEK PCU T75X-3G RESERVE PIT COMPOSITE SIDEWALL ASSESSMENT PREPARED FOR XTO ENERGY</p>						

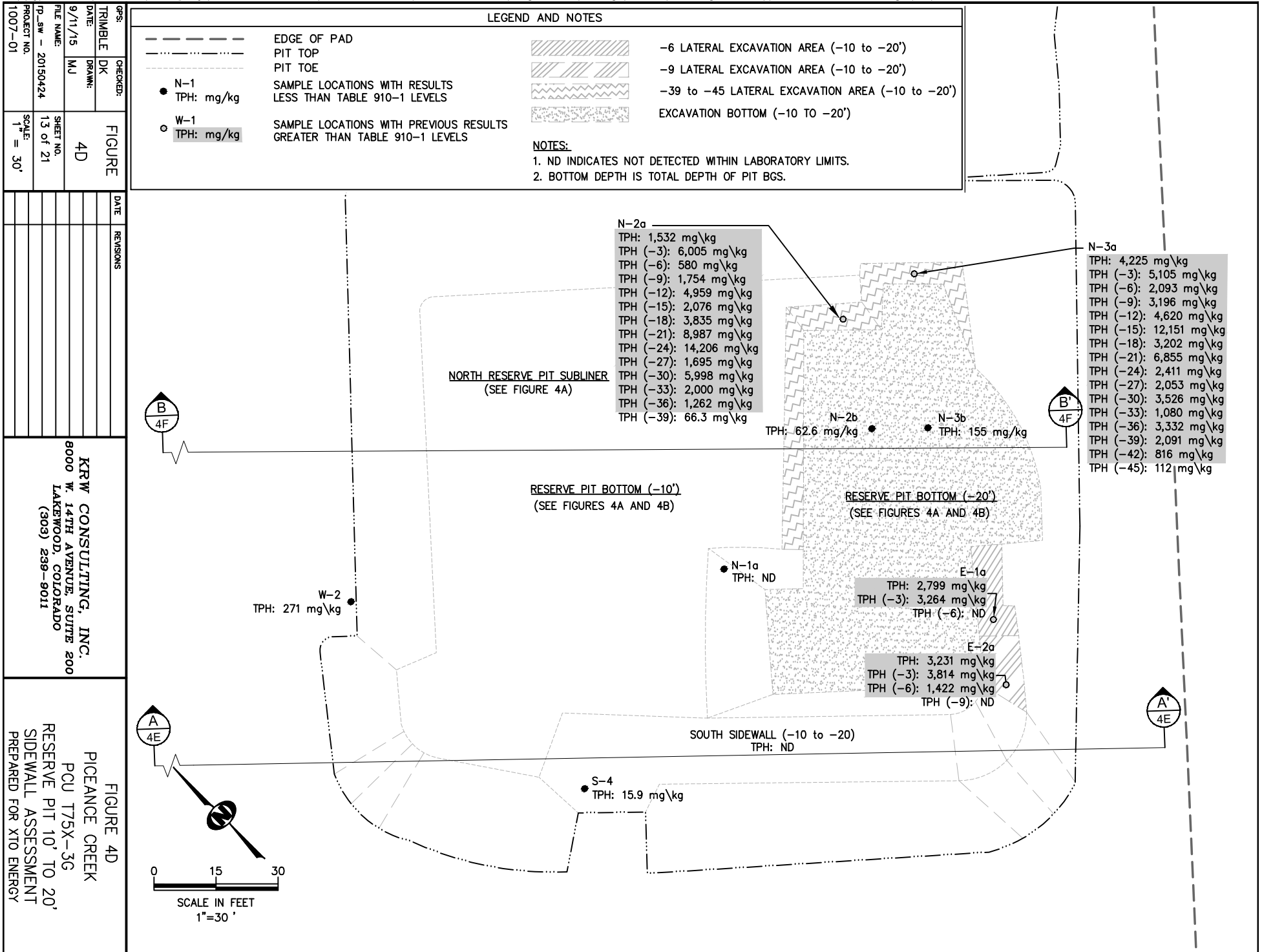


LEGEND	
---	EDGE OF PAD
- - - - -	PIT TOP
- . - . -	PIT TOE
	PREVIOUSLY CLOSED NORTH RESERVE PIT
	SIDEWALL EXCAVATION 0' TO -10'
	SIDEWALL EXCAVATION -10' TO -20'
	EXCAVATION BOTTOM (-20')

NOTES:

1. ND INDICATES NOT DETECTED WITHIN LABORATORY LIMITS.
2. RESULTS HIGHLIGHTED YELLOW INDICATE IMPACTED SOILS WITH TPH > mg/kg.
3. BOTTOM DEPTH IS TOTAL DEPTH OF PIT BGS.

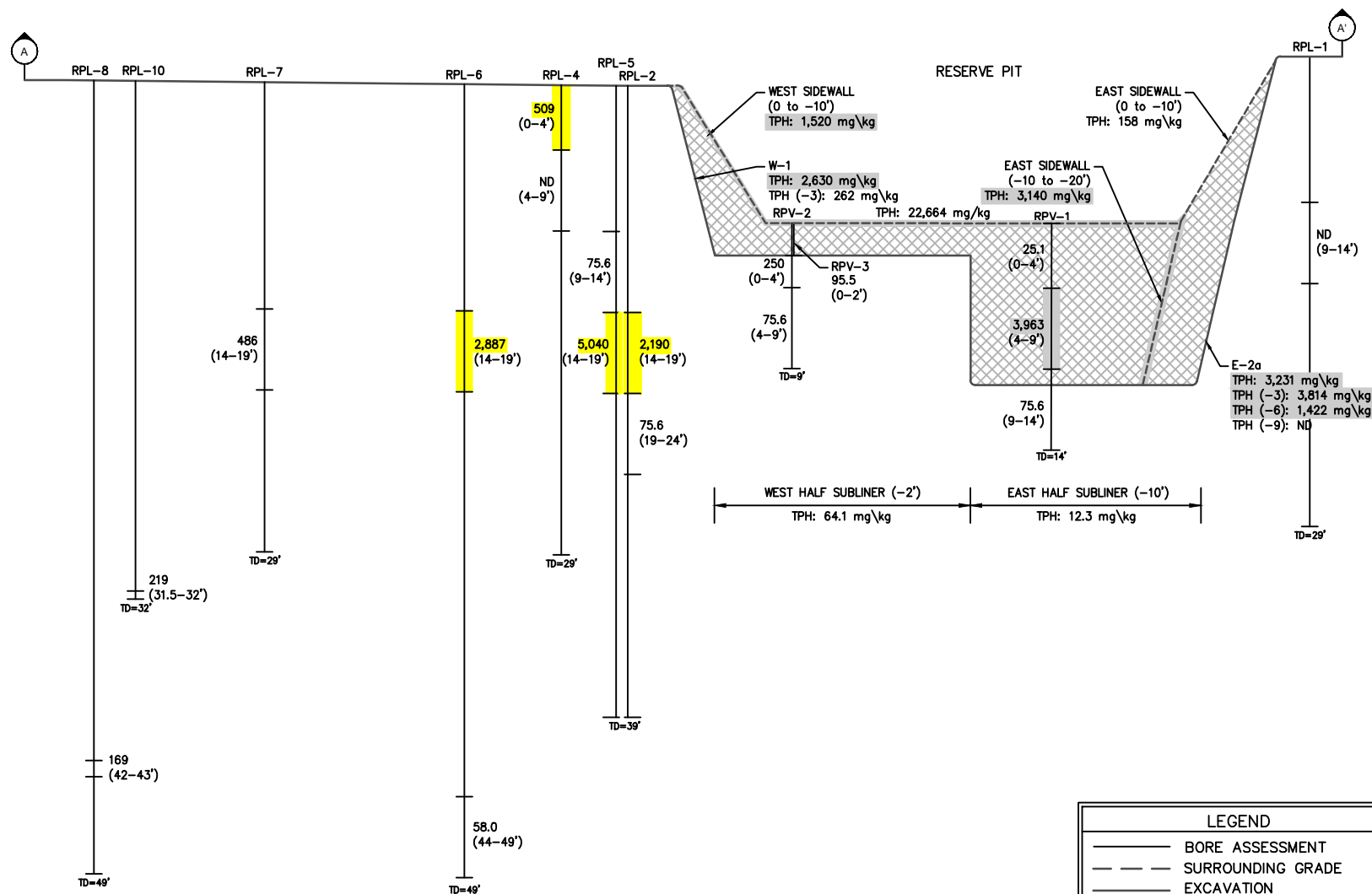




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FIGURE 4D
PICEANCE CREEK
PCU T75X-3G
RESERVE PIT 10' TO 20'
SIDEWALL ASSESSMENT
PREPARED FOR XTO ENERGY

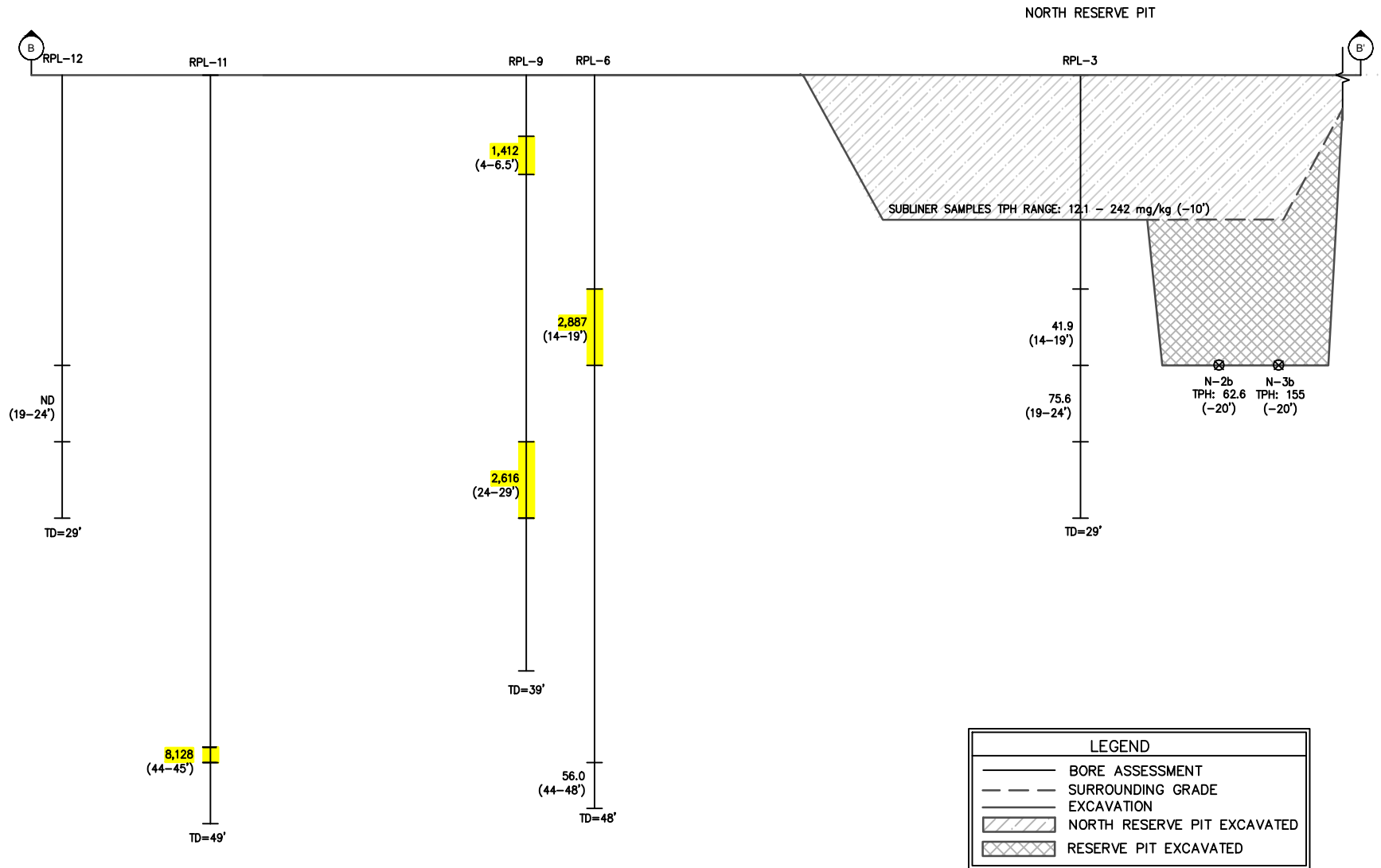
PROJECT NO. 1007-01	DATE 9/11/15	CHECKED DK	FIGURE 4E	DATE	REVISIONS
FILE NAME reserve	DC	DRAWN	4E		
SHEET NO. 14 of 21					
SCALE AS SHOWN					
KRW CONSULTING, INC. 8000 W. 14TH AVENUE, SUITE 200 LAKEWOOD, COLORADO (303) 239-9011					
FIGURE 4E PICEANCE CREEK PCU T75X-3G RESERVE PIT CROSS SECTION A-A' PREPARED FOR XTO ENERGY					



NOTES:

1. BORE HOLE LOCATIONS PROJECTED ONTO CROSS SECTION.
2. SAMPLING INTERVALS TYPICALLY 0-2', 2-4', 4-9', 9-14', ETC. TO TOTAL DEPTH (TD) RECORDED (UNLESS OTHERWISE NOTED).
3. TPH RESULTS (mg/kg) FROM SELECT INTERVALS.
4. ND INDICATES NOT DETECTED WITHIN LABORATORY DETECTION LIMITS.
5. SOILS HIGHLIGHTED IN YELLOW INDICATE IMPACTED SOILS WITH TPH > 500 mg/kg.
6. SOILS SHADED INDICATE IMPACTED SOILS WITH TPH > 500 mg/kg THAT HAVE BEEN REMOVED.
7. SUBLINER DEPTHS ARE RELATIVE TO INITIAL PIT BOTTOM.

GPS: _____		CHECKED: _____	FIGURE	DATE	REVISIONS
TRIMBLE		DK			
DATE:	DRAWN:	4F			
9/11/15	DC				
FILE NAME:	SHEET NO.				
reserve	15 of 21				
PROJECT NO.	SCALE:				
1007-01	AS SHOWN				
<div>KRW CONSULTING, INC. 8000 W. 14TH AVENUE, SUITE 200 LAKEWOOD, COLORADO (303) 239-9011</div>					
<div>FIGURE 4F PICEANCE CREEK PCU T75X-3G NORTH RESERVE PIT CROSS SECTION B-B' PREPARED FOR XTO ENERGY</div>					



NOTES:

- BORE HOLE LOCATIONS PROJECTED ONTO CROSS SECTION.
- SAMPLING INTERVALS TYPICALLY 0-2', 2-4', 4-9', 9-14', ETC. TO TOTAL DEPTH (TD) RECORDED (UNLESS OTHERWISE NOTED).
- TPH RESULTS (mg/kg) FROM SELECT INTERVALS.
- ND INDICATES NOT DETECTED WITHIN LABORATORY DETECTION LIMITS.
- SOILS HIGHLIGHTED IN YELLOW INDICATE IMPACTED SOILS WITH TPH > 500 mg/kg.

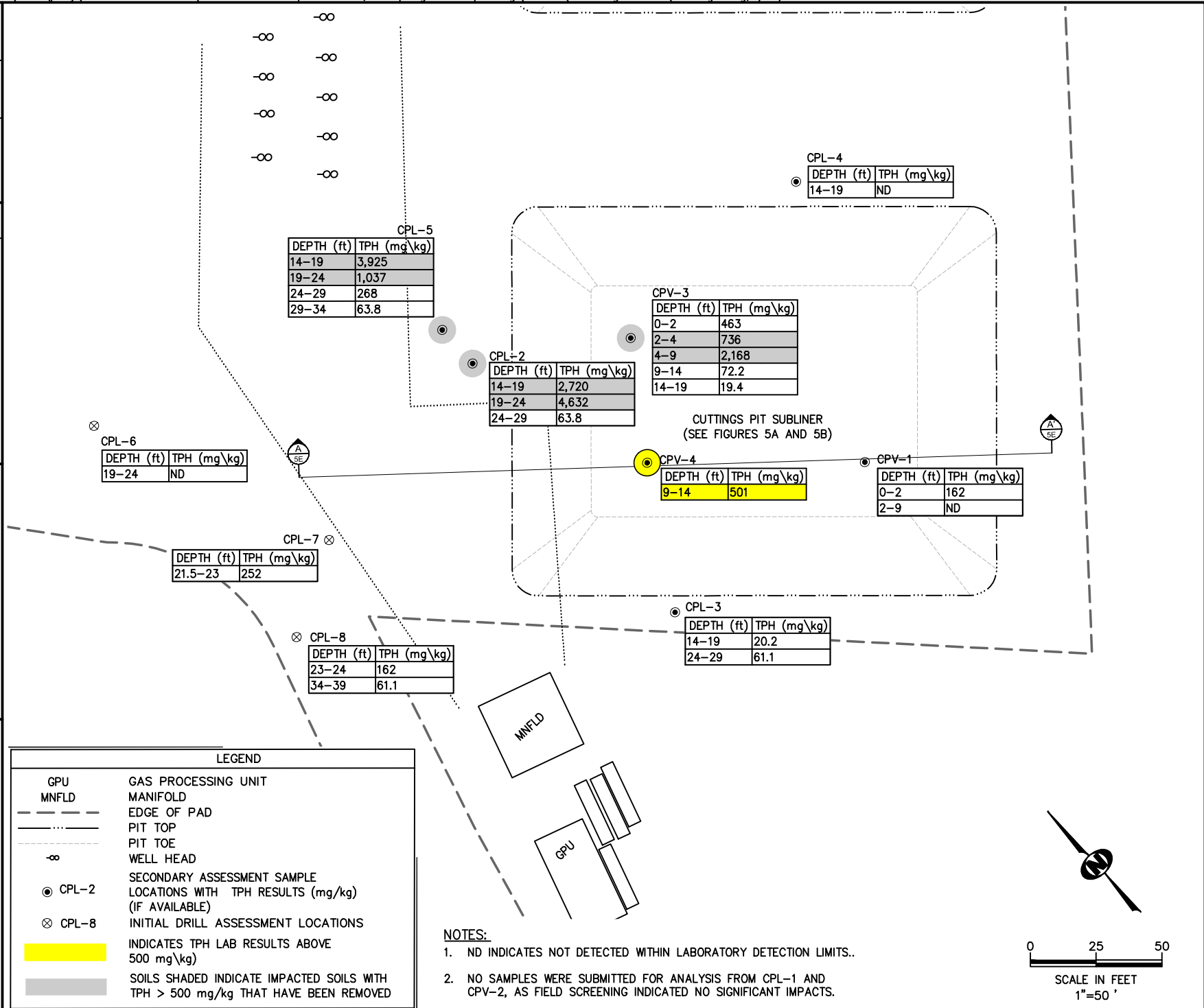
0 25 50
SCALE IN FEET
1"=50'
HORIZONTAL SCALE

0 5 10
SCALE IN FEET
1"=10'
VERTICAL SCALE

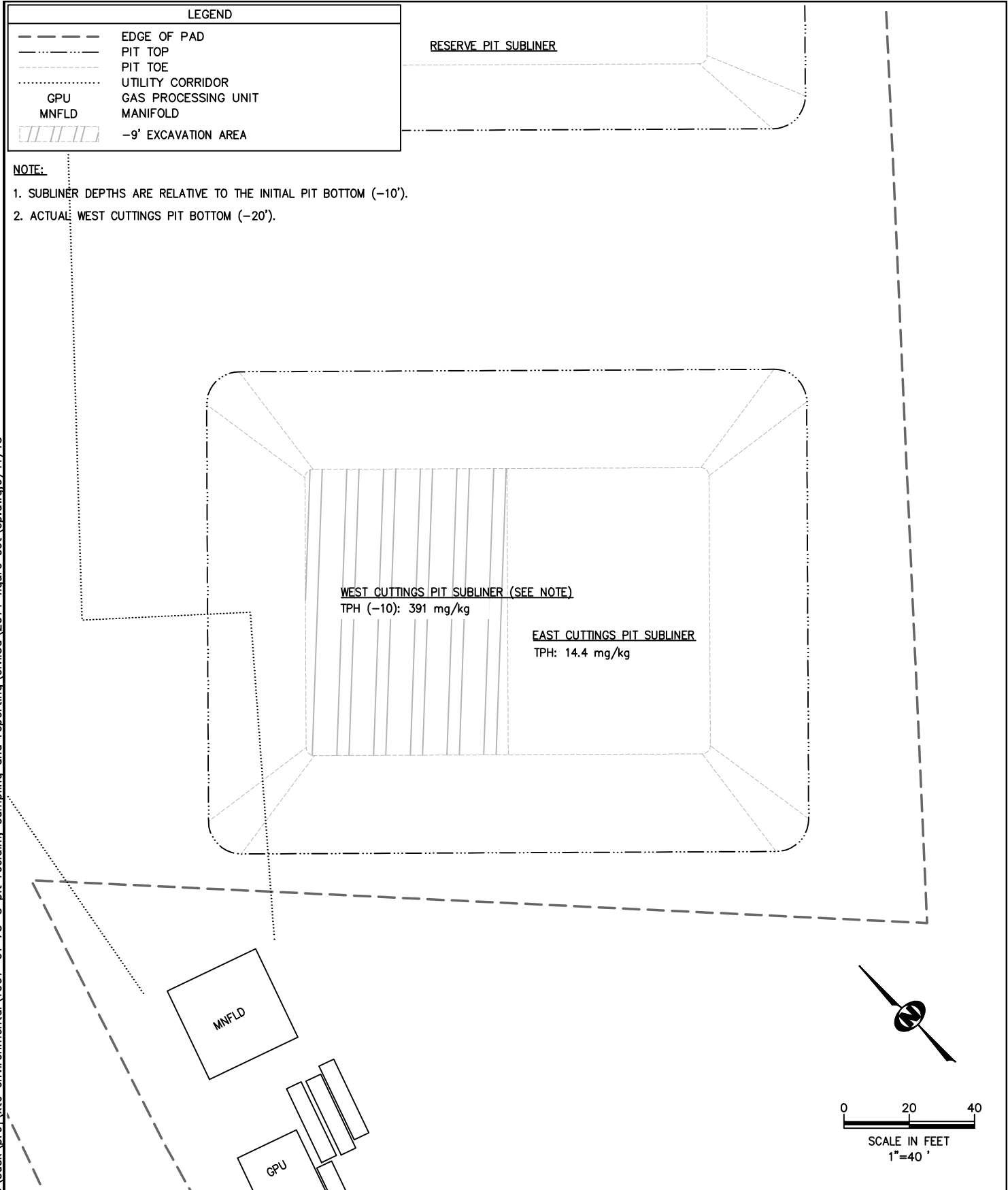
[illegible]

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FIGURE 5
PICEANCE CREEK
PCU T75X-3G
CUTTINGS PIT DRILL
ASSESSMENT
PREPARED FOR XTO ENERGY



\\hyper-v03\lkw-d-co\sdk\proj\cto environmental\1007-01 75-3 pit reclaim, sampling and reporting\civil3d\2014 figure set\cp.dwg,9/11/15

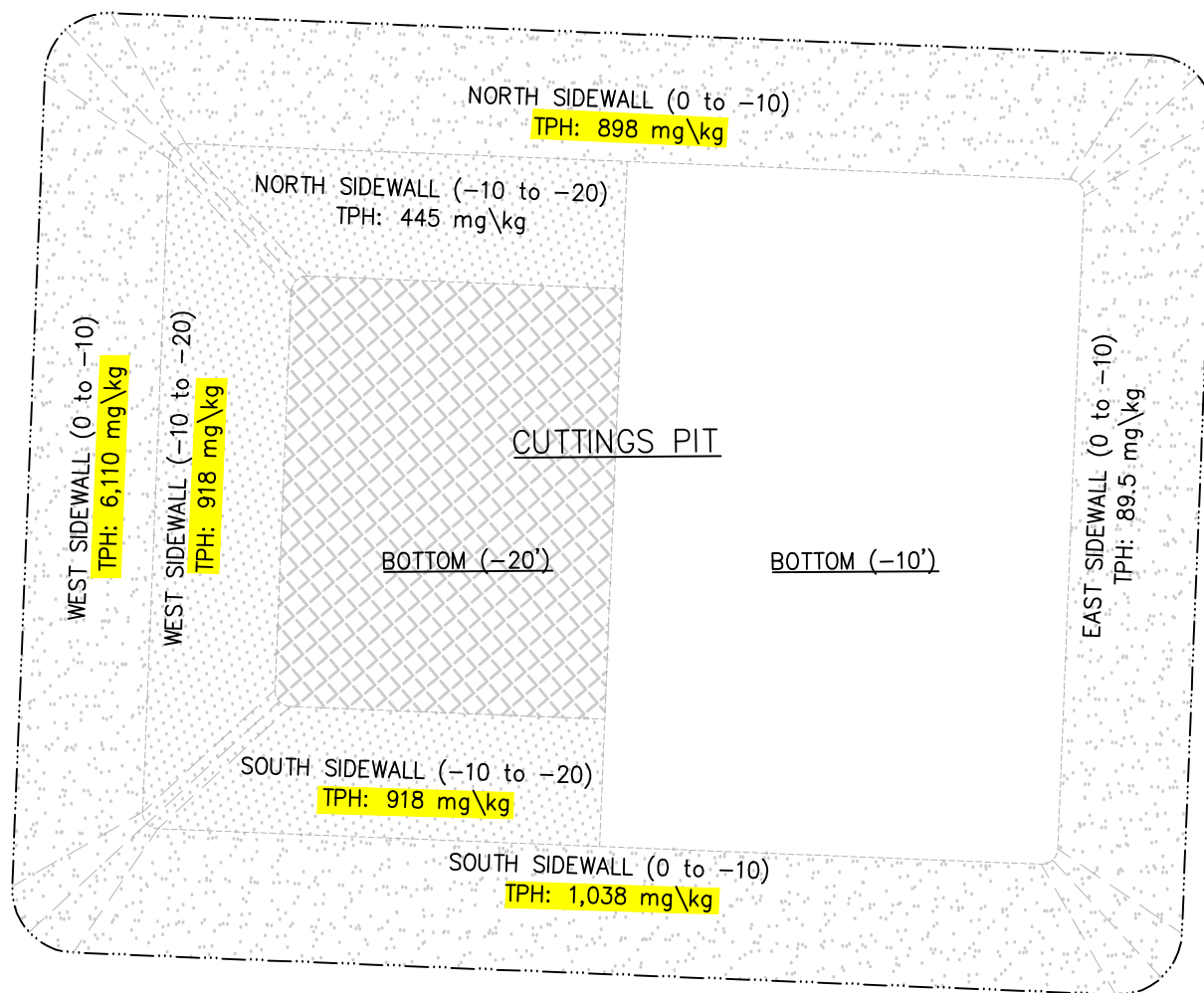


GPS:	CHECKED:	FIGURE 5A	DATE	REVISIONS	KRW CONSULTING, INC. 8000 W. 14TH AVENUE, SUITE 200 LAKEWOOD, COLORADO (303) 239-9011	FIGURE 5A PICEANCE CREEK PCU T75X-3G CUTTINGS PIT SUBLINER ASSESSMENT PREPARED FOR XTO ENERGY
TRIMBLE	DK					
DATE:	DRAWN:					
9/11/15	DC					
FILE NAME:		SHEET NO.				
cp		17 of 21				
PROJECT NO.		SCALE:				
1007-01		1" = 40'				

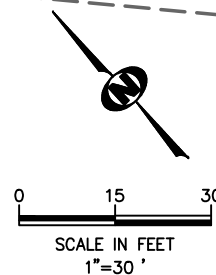
DATE	TRIMBLE	CHECKED	FIGURE	DATE	REVISIONS
9/11/15	DK	MJ	5B		
FILE NAME: SAMPLE SW			SHEET NO. 18 of 21		
PROJECT NO. 1007-01			SCALE: 1" = 30'		

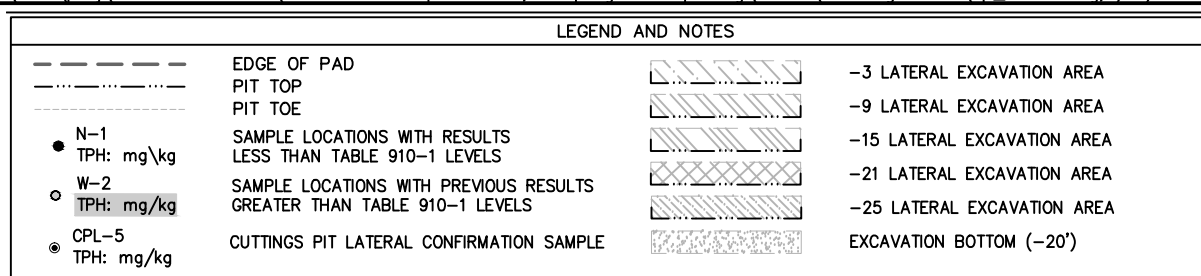
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FIGURE 5B
PICEANCE CREEK
PCU T75X-3G
CUTTINGS PIT COMPOSITE
SIDEWALL ASSESSMENT
PREPARED FOR XTO ENERGY

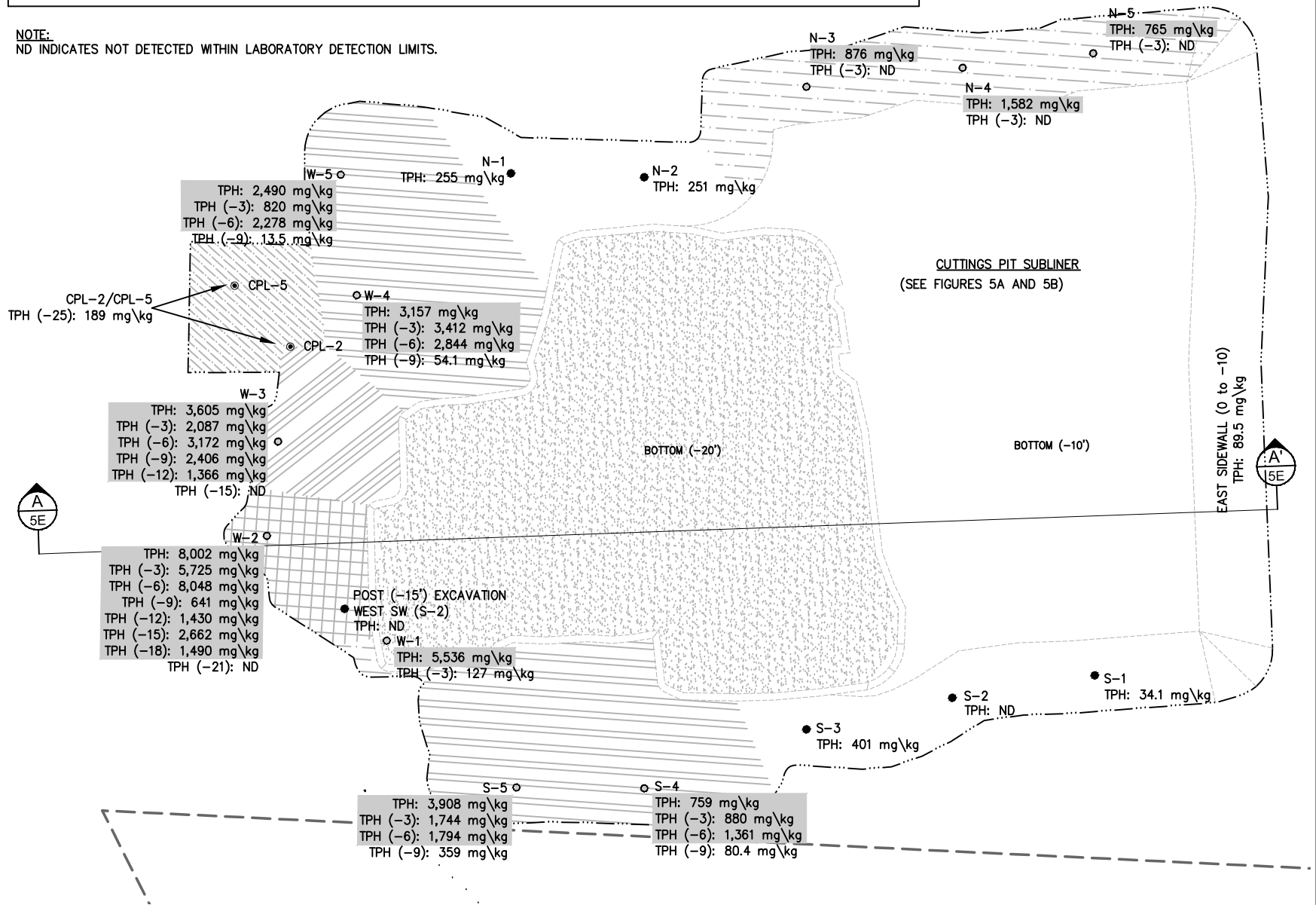


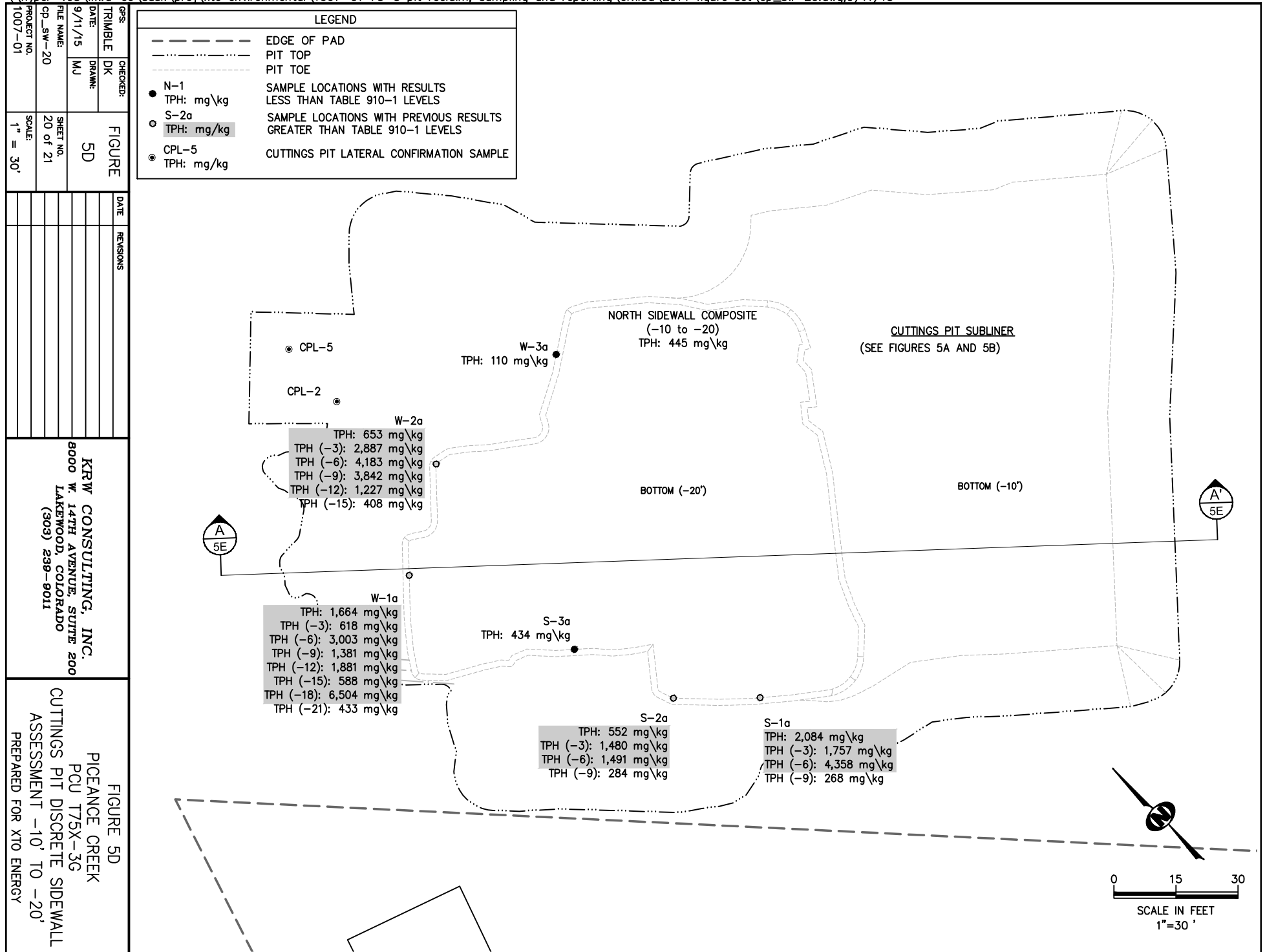
LEGEND	
	EDGE OF PAD
	PIT TOP
	PIT TOE
	SIDEWALL EXCAVATION 0' TO -10'
	SIDEWALL EXCAVATION -10' TO -20'
	EXCAVATION BOTTOM (-20')





NOTE:
ND INDICATES NOT DETECTED WITHIN LABORATORY DETECTION LIMITS.





PROJECT NO. 1007-01	DATE: 9/11/15	CHECKED: DK	FIGURE 5E	DATE	REVISIONS
FILE NAME: 21 of 21	DRAWN: MJ				
SCALE: AS SHOWN	SHEET NO. 21 of 21				
<p>KRW CONSULTING, INC. 8000 W. 14TH AVENUE, SUITE 200 LAKEWOOD, COLORADO (303) 239-9011</p>					
<p>FIGURE 5E PICEAN CREEK PCU 175X-3G CUTTINGS PIT CROSS SECTION A-A' PREPARED FOR XTO ENERGY</p>					

