

State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 (303)894-2100 Fax:(303)894-2109



#7065

FOR OGCC USE ONLY

RECEIVED
6/4/2012

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): Pit Closure

OGCC Operator Number: 100264

Name of Operator: XTO Energy Inc.

Address: PO Box 6501

City: Englewood State: CO Zip: 80155

Contact Name and Telephone:

Jessica Dooling

No: 970-675-4122

Fax: 970-675-4150

API Number: 05-103-10809-00

County: Rio Blanco

Facility Name: Piceance Creek Unit

Facility Number: Drilling Pit, Facility ID# 284544

Well Name: Piceance Creek Unit

Well Number: 297-15A

Location: (QtrQtr, Sec, Twp, Rng, Meridian): NENW, Sec.15, T2S, R97W, 6thPM Latitude: 39.880861 Longitude: -108.271292

TECHNICAL CONDITIONS

Type of Waste Causing Impact (crude oil, condensate, produced water, etc): Drill Cuttings and Fluids

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.): non-cropland rangeland

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Redcreek-Rentsac complex; 5 - 30% slopes

Potential receptors (water wells within 1/4 mi, surface waters, etc.): no water wells within 1/4 mile,

nearest surface water is approximately 5,000 feet away.

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

Impacted Media (check):

- ☒ Soils
☐ Vegetation
☐ Groundwater
☐ Surface Water

Extent of Impact:

pit contents: TPH, benzene; sub-liner impacts: TPH, arsenic

How Determined:

laboratory analysis

REMEDIAL ACTION WORKPLAN

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

See Attachment I for details regarding initial action taken.

Describe how source is to be removed:

Freshwater contents (de minimis) and Reserve pit contents as well as synthetic liners have been removed and transported to an off-site permitted disposal/recycling facility. Cuttings pits # 1, 2 and 3 synthetic liners have been removed and transported to an off-site permitted disposal/recycling facility. Cuttings pits # 1, 2 and 3 contents were mix/blended to below Table 910-1 concentrations and will be used on-site for fill.

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.:

NA

XTO Energy

FORM
27
Rev 6/99

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Page 2
REMEDIAL WORKPLAN (Cont.)

Tracking Number: _____
Name of Operator: _____
OGCC Operator No: _____
Received Date: _____
Well Name & No: #297-15A (API 103 10809)
Facility Name & No: Pit Facility ID: 284544

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 sub-liner material to confirm no groundwater impact potential exists (see Tables 1 thru 5).

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 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, Cuttings #1, Cuttings #2 and Cuttings #3 Pits (see Tables 1 thru 5).

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

All pit contents and liners from the Freshwater and Reserve Pits were removed and transported to an approved off-site disposal/recycling facility. Cuttings Pit #1, Cuttings #2 and Cuttings #3 synthetic liners were removed and transported to an approved off-site disposal/recycling facility. Cuttings Pit #1, Cuttings #2 and Cuttings #3 material was mix/blended to below Table 910-1 (with the exception of Arsenic) and will be used on-site for fill. Freshwater pit sub-liner impacts were excavated, crushed and mix/blend processed to below Table 910-1 concentration levels. This material will also be used on-site for fill.

IMPLEMENTATION SCHEDULE

Date Site Investigation Began: 11/4/11	Date Site Investigation Completed: in progress	Date Remediation Plan Submitted: _____
Remediation Start Date: pending approval	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: DOLENA JOHNSON

Signed: *Dolena Johnson*

Title: REGULATORY COMPLIANCE TECHNICIAN

Date: 06/04/2012

OGCC Approved: *Chris Canfield*

Title: FOR Chris Canfield

Date: 06/04/2012

EPS NW Region

ATTACHMENT I

PCU 297-15A Pit Closure Workplan, Form 27 Page 1

Describe initial action taken:

- i. The site consists of a Freshwater Pit, Reserve Pit, Cuttings Pit #1, Cuttings Pit #2 and Cuttings Pit #3 (see Figure 1).
- ii. De minimus Freshwater Pit contents and associated synthetic liners were removed and transported to an off-site permitted disposal/recycling facility.
- iii. Freshwater Pit sub-liner composite samples were collected and analyzed for Table 910-1 parameters. Results indicated that the material was in exceedence of Table 910-1 concentration levels for TPH (1,329 mg/kg), EC (6.55 mmhos/cm), SAR (31.9), pH (9.91), and Arsenic (4.2 mg/kg).
- iv. Reserve Pit contents and associated synthetic liners were removed and transported to an off-site permitted disposal/recycling facility.
- v. Reserve Pit sub-liner composite samples were collected and analyzed for Table 910-1 parameters, results are below Table 910-1 concentrations with the exception of SAR (23.5), pH (9.82) and Arsenic (5.2 mg/kg).
- vi. Cuttings Pit #1 contents were sampled for full Table 910-1 parameters. Results exceeded Table 910-1 concentration levels for TPH (672 mg/kg), EC (5.36 mmhos/cm), SAR (74.2), pH (11.73), and Arsenic (12.2 mg/kg).
- vii. Cuttings Pit #1 contents were subsequently mix/blend processed to meet Table 910-1 concentration levels for TPH (see Table 2).
- viii. Cuttings Pit #1 subliner composite samples were collected and analyzed for full Table 910-1 parameters, results are below Table 910-1 concentration levels with the exception of SAR (18.1), pH (10.16) and Arsenic (6.5 mg/kg).
- ix. Cuttings Pit #2 contents were sampled for full Table 910-1 parameters. Results exceeded Table 910-1 concentration levels for TPH (585 mg/kg), Benzene (0.27 mg/kg), EC (6.85 mmhos/cm), SAR (66.2), pH (11.61), and Arsenic (5.4 mg/kg).

- x. Cuttings Pit #2 contents were subsequently mix/blend processed to meet Table 910-1 concentration levels for TPH and Benzene (see Table 3).
- xi. Cuttings Pit #2 subliner composite samples were collected and analyzed for full Table 910-1 parameters, results are below Table 910-1 concentration levels with the exception of EC (7.30 mmhos/cm), SAR (28), pH (10.08) and Arsenic (17.1 mg/kg).
- xii. Cuttings Pit #3 contents were sampled for full Table 910-1 parameters. Results exceeded Table 910-1 concentration levels for Benzene (0.346 mg/kg), EC (11.5 mmhos/cm), SAR (385), pH (11.65), and Arsenic (7.2 mg/kg).
- xiii. Cuttings Pit #3 contents were subsequently mix/blend processed to meet Table 910-1 concentration levels for Benzene (see Table 3).
- xiv. Cuttings Pit #3 subliner composite samples were collected and analyzed for full Table 910-1 parameters, results are below Table 910-1 concentration levels with the exception of EC (4.62 mmhos/cm), SAR (35.1), pH (10.26) and Arsenic (4.4 mg/kg).
- xv. Cuttings Pits #1, #2 and #3 mix/blend material will be used onsite for backfill.
- xvi. Cuttings Pits #1, #2 and #3 synthetic liners were removed and transported to an off-site permitted disposal/recycling facility.
- xvii. Refer to Tables 1 thru 5 for a summary of laboratory results.
- xviii. Elevated arsenic levels above Table 910-1 concentration were detected beneath the Freshwater, Reserve and Cuttings Pits #1, #2 and #3. Please refer to the associated sundry requesting consideration of background Arsenic levels.

ATTACHMENT II

PCU 297-15A Pit Closure Workplan, Form 27 Page 2

REMEDIATION WORKPLAN

Describe Reclamation Plan:

1. Fresh Water Pit

- The Freshwater sub-liner impacted material has been excavated and mix/blend processed to below Table 910 concentration levels. Subsequent sub-liner samples indicate cleanup has been achieved (see Table 4).
- The pit will be backfilled with mix/blended, native on-site material or material transported to the site.

2. Reserve Pit

- The pit will be backfilled with mix/blended, native on-site material or material transported to the site.

3. Cuttings Pit #1

- The pit will be backfilled with mix/blended, native on-site material or material transported to the site.

4. Cuttings Pit #2

- The pit will be backfilled with Mix/blended, native on-site material or material transported to the site.

5. Cuttings Pit #3

- The pit will be backfilled with Mix/blended, native on-site material or material transported to the site.
- Elevated arsenic levels above the Table 910-1 concentration levels were detected beneath the Freshwater, Reserve, Cuttings Pit #1, Cuttings Pit #2 and Cuttings Pit #3. Please refer to associated sundry requesting consideration of background arsenic levels.
- Please refer to Table 1 thru Table 5 for a summary of laboratory results, analytical reports are attached.

- Any remaining elevated levels of EC, 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.
- Material used to fill the top 3 feet of each pit will be found on-site.
- Reclamation activities will be as specified in the Surface use Plan and BLM Conditions of Approval.

Table 1
Location: PCU 297-15A
Lab Summary

Last update 5/24/2012

Analytical Parameter	Fresh Water Pit	Reserve Pit				Cuttings #1		Cuttings #2		Cuttings #3		Background 1/15/10 - 1/18/10						COGCC	Maximum based on Background
(with units)	FW Pit Contents	FW Pit Subliner ⁶ 1/25/12	RES Pit Contents 11/4/11	RES Pit Subliner ⁵ 1/11/12	RES Pit Subliner Under Berm 2/16/12	CUT #1 Pit Contents ⁷ 11/10/11	CUT #1 Pit Subliner 2/28/12	CUT #2 Pit Contents ⁸ 11/10/11	CUT #2 Pit Subliner 2/1/12	CUT #3 Pit Contents ⁸ 1/11/12	CUT #3 Pit Subliner ⁵ 3/5/12	Surface B1A (-1')	Deep B1B (-9.5')	Surface B2A (-1')	Deep B2B (-6.5')	Surface B3A (-1')	Deep B3B (-12')	Table 910-1 Concentration Levels	
Accutest Job #	De Minimis Contents	D31355	D29209	D30989	D32020	D29400	D32299	D29407	D31568	D30988	D32442	D10497						-	-
Sample type (Composite/Discrete)		C	C	C	C	C	C	C	C	C	C	D	D	D	D	D	D	-	-
TPH (GRO) (mg/Kg)		8.79	295	ND	ND	43.7	24.1	53.5	11.1	24.9	ND	-	-	-	-	-	-	-	-
TPH (DRO) (mg/Kg)		1320	2720	300	102	628	247	531	116	464	50.8	-	-	-	-	-	-	-	-
TPH (GRO + DRO) (mg/Kg)		1329	3015	300	102	672	271	585	127	489	50.8	-	-	-	-	-	-	500	-
Benzene (mg/Kg)		ND	0.461	ND	ND	0.12	0.0747	0.27	0.0457	0.346	ND	-	-	-	-	-	-	0.170	-
Toluene (mg/Kg)		ND	3.8	ND	-	0.933	0.170	1.47	0.118	1.35	ND	-	-	-	-	-	-	85	-
Ethylbenzene (mg/Kg)		ND	1.22	ND	-	0.259	ND	0.283	ND	0.202	ND	-	-	-	-	-	-	100	-
Xylenes (total) (mg/Kg)		ND	25.4	ND	-	1.2	0.225	1.76	0.170	1.62	ND	-	-	-	-	-	-	175	-
Acenaphthene (mg/Kg)		ND	ND	ND	-	ND	ND	ND	ND	ND	ND	-	-	-	-	-	-	1000	-
Anthracene (mg/Kg)		ND	ND	ND	-	ND	ND	ND	ND	ND	ND	-	-	-	-	-	-	1000	-
Benzo(A)anthracene (mg/Kg)		ND	ND	ND	-	ND	ND	ND	ND	ND	ND	-	-	-	-	-	-	0.22	-
Benzo(A)pyrene (mg/Kg)		ND	ND	ND	-	ND	ND	ND	ND	ND	ND	-	-	-	-	-	-	0.22	-
Benzo(B)fluoranthene (mg/Kg)		ND	ND	ND	-	ND	ND	ND	ND	ND	ND	-	-	-	-	-	-	2.2	-
Benzo(K)fluoranthene (mg/Kg)		ND	ND	ND	-	ND	ND	ND	ND	ND	ND	-	-	-	-	-	-	0.022	-
Chrysene (mg/Kg)		ND	ND	ND	-	ND	ND	ND	0.0130	0.0428	ND	-	-	-	-	-	-	22	-
Dibenzo(A,H)anthracene (mg/Kg)		ND	ND	ND	-	ND	ND	ND	ND	ND	ND	-	-	-	-	-	-	0.022	-
Fluoranthene (mg/Kg)		ND	ND	ND	-	ND	ND	ND	ND	ND	ND	-	-	-	-	-	-	1000	-
Fluorene (mg/Kg)		ND	ND	0.0744	-	ND	ND	ND	0.0212	0.0813	ND	-	-	-	-	-	-	1000	-
Indeno(1,2,3-C,D)pyrene (mg/Kg)		ND	ND	ND	-	ND	ND	ND	ND	ND	ND	-	-	-	-	-	-	0.22	-
Naphthalene (mg/Kg)		ND	0.554	ND	-	0.462	0.0903	0.407	0.0926	0.334	0.0195	-	-	-	-	-	-	23	-
Pyrene (mg/Kg)		ND	ND	ND	-	ND	ND	ND	0.0082	ND	ND	-	-	-	-	-	-	1000	-
Electrical Conductivity (mmhos/cm)		6.55	0.739	2.41	-	5.36	3.120	6.85	7.300	11.5	4.620	-	-	-	-	-	-	4	-
Sodium Adsorption Ratio (SAR)		31.9	8.57	23.5	-	74.2	18.1	66.2	28.0	385	35.1	-	-	-	-	-	-	12	-
pH		9.91	10.48	9.82	-	11.73	10.16	11.61	10.08	11.65	10.26	-	-	-	-	-	-	6-9	-
Arsenic (mg/kg)		4.2	5.7	5.2	-	12.2	6.5	5.4	17.1	7.2	4.4	7.1	12.2	5.9	8.7	5.9	6.4	0.39	13.4
Elevation in Feet (approximate)		6607	-	6606	-	-	6605	-	6604	-	6605	6602	6592.5	6598	6591.5	6630	6618	-	-
Barium (mg/kg)		1180	19200	896	-	4250	3170	10.7	3050	7460	2130	-	-	-	-	-	-	15000	-
Cadmium (mg/kg)		<1.1	<2.5	<1.1	-	<1.5	<1.2	<1.5	<1.0	<1.3	<1.2	-	-	-	-	-	-	70	-
Chromium (III) (mg/Kg)		52.6	17.8	34.9	-	15.5	31.6	11.8	34.1	11.6	32.5	-	-	-	-	-	-	120000	-
Chromium (VI) (mg/Kg)		0.75	1.9	<0.44	-	<0.59	<1.0	<0.56	<0.45	<0.54	1.0	-	-	-	-	-	-	23	-
Copper (mg/kg)		11.7	54.2	12.8	-	31.2	15.9	37.6	20.0	36.3	11.7	-	-	-	-	-	-	3100	-
Lead (inorganic) (mg/kg)		10.8	19.5	11.9	-	23.5	17.5	16.7	27.4	20.3	15.8	-	-	-	-	-	-	400	-
Mercury (mg/kg)		<0.11	<0.25	<0.11	-	<0.14	<0.13	<0.15	<0.11	<0.13	<0.12	-	-	-	-	-	-	23	-
Nickel (mg/kg)		21.9	13.6	15.1	-	15.4	16.2	12	17.6	11.7	14.4	-	-	-	-	-	-	1600	-
Selenium (mg/kg)		<5.7	<130	<5.6	-	<7.3	<6.0	<74	<5.2	<6.5	<6.2	-	-	-	-	-	-	390	-
Silver (mg/kg)		<3.4	<7.6	<3.3	-	<4.4	<3.6	<4.4	<3.1	<3.9	<3.7	-	-	-	-	-	-	390	-
Zinc (mg/kg)		38.2	59.1	41.2	-	59	46.7	57.4	72.6	49.9	43.4	-	-	-	-	-	-	23000	-
% Solids	-	88.3	37.0	89.9	87.3	66.5	79.4	69.4	89.6	74.2	82.9	91.3	92.4	88.0	88.4	89.6	86.8	-	-

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 site map for sample locations.
- 5) Elevation data obtained by interpolating between adjacent pits.
- 6) See Table 4 and Table 5 for assessment and confirmation information.
- 7) See Table 2 for mix/blend details.
- 8) See Table 3 for mix/blend details.

Table 2
Location: PCU 297-15A
Lab Summary - Cuttings #1 Mix/Blend

Last update 5/24/2012

Analytical Parameter (with units)	Cuttings #1																						COGCC
	CUT #1 Pit Contents (11/10/11)	Mixblend Day 1 (1/19) Resample (1/19/12)	Day 1 (1/19) Resample (1/25/12)	Mixblend Day 2 (2/1) (2/2/12)	Mixblend Day 3 (2/2) (2/2/12)	Mixblend Day 4 (2/3) (2/6/12)	Mixblend Day 5 (2/6) (2/10/12)	Mixblend Day 6 (2/7) (2/10/12)	Mixblend Day 7 (2/8) (2/10/12)	Mixblend Day 8 (2/9) (2/10/12)	Mixblend Day 9 (2/10) (2/14/12)	Mixblend Day 10 (2/14) (2/14/12)	Mixblend Day 11 (2/15) (2/16/12)	Mixblend Day 12 (2/16) (2/16/12)	Mixblend Day 13 (2/17) (2/21/12)	Mixblend Day 14 (2/20) (2/21/12)	Mixblend Day 15 (2/21) (2/23/12)	Mixblend Day 16 (2/22) (2/23/12)	Mixblend Day 17 (2/23) (2/23/12)	Mixblend Day 17 (2/23) (2/27/12)	Mixblend Day 18 (2/24) (2/27/12)	Mixblend Day 19 (2/27) (2/29/12)	Table 910-1 Concentration Levels
Accutest Job #	D29400	D31207	D31353	D31610	D31663	D31807						D31901		D32019		D32157		D32209		D32262		D32370	-
Sample type (Composite/Discrete)	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	-
TPH (GRO) (mg/Kg)	43.7	23.5	8.29	10.7	12.9	6.66	9.63	14.2	19.4	18.4	8.57	8.31	37.9	47.0	17.3	28.0	19.8	12.2	15.1	7.3	8.71	12.1	-
TPH (DRO) (mg/Kg)	628	529	307	162	242	199	210	342	374	341	183	177	297	272	317	278	331	341	326	245	221	274	-
TPH (GRO + DRO) (mg/Kg)	672	553	315	173	255	206	220	356	393	359	192	185	335	319	334	306	351	353	341	252	230	286	500
Benzene (mg/Kg)	0.12	0.238	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.170
Toluene (mg/Kg)	0.933	0.661	0.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	85
Ethylbenzene (mg/Kg)	0.259	0.132	0.035	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100
Xylenes (total) (mg/Kg)	1.2	0.741	0.189	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	175
Acenaphthene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1000
Anthracene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1000
Benzo(A)anthracene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22
Benzo(A)pyrene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22
Benzo(B)fluoranthene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2
Benzo(K)fluoranthene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.022
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)	0.462	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23
Pyrene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1000
Electrical Conductivity (mmhos/cm)	5.36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Sodium Adsorption Ratio (SAR)	74.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
pH	11.73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6-9
Arsenic (mg/kg)	12.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.39
Barium (mg/kg)	4250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15000
Cadmium (mg/kg)	<1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70
Chromium (III) (mg/Kg)	15.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	120000
Chromium (VI) (mg/Kg)	<0.59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23
Copper (mg/kg)	31.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3100
Lead (inorganic) (mg/kg)	23.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	400
Mercury (mg/kg)	<0.14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23
Nickel (mg/kg)	15.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1600
Selenium (mg/kg)	<7.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	390
Silver (mg/kg)	<4.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	390
Zinc (mg/kg)	59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23000
% Solids	66.5	82.2	84.2	83.2	79.9	86.2	83.0	81.5	79.6	80.3	82.9	84.2	80.9	79.7	79.2	74.5	80.5	78.0	78.0	87.5	86.4	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, but are below background levels.
 - 3) "-" indicates no analysis.
 - 4) See site map for sample locations.

Table 3
Location: PCU 297-15A
Lab Summary - Cuttings #2 and #3 Mix/Blend

Last update 5/24/2012

Analytical Parameter	Cuttings #2										Cuttings #3														COGCC
(with units)	CUT #2 Pit Contents 11/10/11	MixBlend Day 1 (1/19) 1/19/12	Day 1 (1/19) Resample (2/1/12)	MixBlend Day 2 (1/20) 1/25/12	Day 2 (1/20) Resample (2/1/12)	MixBlend Day 3 (1/23) 1/25/12	MixBlend Day 4 (1/24) 1/25/12	MixBlend Day 5 (1/25) 1/26/12	Day 5 (1/25) Resample (2/2/12)	MixBlend Day 6 (1/26) 1/26/12	CUT #3 Pit Contents 1/11/12	MixBlend Day 1 (1/27/12)	Day 1 Resample (3/5/12)	MixBlend Day 2 (1/30/12)	Day 2 Resample (3/5/12)	MixBlend Day 3 (2/27) (2/29/12)	Day 3 Remix (3/13/12)	MixBlend Day 4 (2/28) (2/29/12)	Day 4 Remix (3/13/12)	Day 4 Remix 2 (3/28/12)	MixBlend Day 5 (2/29) (3/5/12)	MixBlend Day 6 (3/1) (3/5/12)	MixBlend Day 7 (3/2) (3/5/12)	MixBlend Day 8 (3/5) (3/5/12)	Table 910-1 Concentration Levels
Accutest Job #	D29407	D31207	D31567	D31353	D31567	D31353		D31414	D31610	D31414	D30988	D31466	D32507	D31466	D32507	D32370	D32704	D32370	D32704	D33249	D32507				-
Sample type (Composite/Discrete)	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	-
TPH (GRO) (mg/Kg)	53.5	29.4	-	10.7	-	10.3	8.3	27.1	-	22.7	24.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH (DRO) (mg/Kg)	531	272	-	421	-	125	118	239	-	468	464	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TPH (GRO + DRO) (mg/Kg)	585	301	-	432	-	135	126	266	-	491	489	-	-	-	-	-	-	-	-	-	-	-	-	-	500
Benzene (mg/Kg)	0.27	0.511	0.0534	0.184	0.0473	0.141	0.0985	0.189	0.0568	0.0919	0.346	0.171	0.0621	0.272	0.0799	0.212	0.163	0.241	0.173	ND	0.0623	0.0543	0.0376	0.131	0.170
Toluene (mg/Kg)	1.47	1.35	-	0.511	-	0.412	0.283	0.557	0.176	0.3	1.35	0.637	-	0.957	-	-	-	-	-	-	-	-	-	-	85
Ethylbenzene (mg/Kg)	0.283	0.153	-	0.0615	-	0.0544	ND	0.0681	ND	0.0432	0.202	0.115	-	0.188	-	-	-	-	-	-	-	-	-	-	100
Xylenes (total) (mg/Kg)	1.76	1.28	-	0.567	-	0.493	0.331	0.646	0.211	0.373	1.62	0.68	-	1.09	-	-	-	-	-	-	-	-	-	-	175
Acenaphthene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	1000
Anthracene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	1000
Benzo(A)anthracene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22
Benzo(A)pyrene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22
Benzo(B)fluoranthene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2
Benzo(K)fluoranthene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	0.022
Chrysene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	0.0428	-	-	-	-	-	-	-	-	-	-	-	-	-	22
Dibenzo(A,H)anthracene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	0.022
Fluoranthene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	1000
Fluorene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	0.0813	-	-	-	-	-	-	-	-	-	-	-	-	-	1000
Indeno(1,2,3,C,D)pyrene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22
Naphthalene (mg/Kg)	0.407	-	-	-	-	-	-	-	-	-	0.334	-	-	-	-	-	-	-	-	-	-	-	-	-	23
Pyrene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	1000
Electrical Conductivity (mmhos/cm)	6.85	-	-	-	-	-	-	-	-	-	11.5	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Sodium Adsorption Ratio (SAR)	66.2	-	-	-	-	-	-	-	-	-	385	-	-	-	-	-	-	-	-	-	-	-	-	-	12
pH	11.61	-	-	-	-	-	-	-	-	-	11.65	-	-	-	-	-	-	-	-	-	-	-	-	-	6-9
Arsenic (mg/kg)	5.4	-	-	-	-	-	-	-	-	-	7.2	-	-	-	-	-	-	-	-	-	-	-	-	-	0.39
Barium (mg/kg)	10.7	-	-	-	-	-	-	-	-	-	7460	-	-	-	-	-	-	-	-	-	-	-	-	-	15000
Cadmium (mg/kg)	<1.5	-	-	-	-	-	-	-	-	-	<1.3	-	-	-	-	-	-	-	-	-	-	-	-	-	70
Chromium (III) (mg/Kg)	11.8	-	-	-	-	-	-	-	-	-	11.6	-	-	-	-	-	-	-	-	-	-	-	-	-	120000
Chromium (VI) (mg/Kg)	<0.56	-	-	-	-	-	-	-	-	-	<0.54	-	-	-	-	-	-	-	-	-	-	-	-	-	23
Copper (mg/kg)	37.6	-	-	-	-	-	-	-	-	-	36.3	-	-	-	-	-	-	-	-	-	-	-	-	-	3100
Lead (inorganic) (mg/kg)	16.7	-	-	-	-	-	-	-	-	-	20.3	-	-	-	-	-	-	-	-	-	-	-	-	-	400
Mercury (mg/kg)	<0.15	-	-	-	-	-	-	-	-	-	<0.13	-	-	-	-	-	-	-	-	-	-	-	-	-	23
Nickel (mg/kg)	12	-	-	-	-	-	-	-	-	-	11.7	-	-	-	-	-	-	-	-	-	-	-	-	-	1600
Selenium (mg/kg)	<74	-	-	-	-	-	-	-	-	-	<6.5	-	-	-	-	-	-	-	-	-	-	-	-	-	390
Silver (mg/kg)	<4.4	-	-	-	-	-	-	-	-	-	<3.9	-	-	-	-	-	-	-	-	-	-	-	-	-	390
Zinc (mg/kg)	57.4	-	-	-	-	-	-	-	-	-	49.9	-	-	-	-	-	-	-	-	-	-	-	-	-	23000
% Solids	69.4	78.1	82.0	81.2	82.0	80.8	83.4	80.5	82.0	79.9	74.2	86.2	83.5	83.9	81.5	82.1	83.2	78.3	82.1	86.5	79.4	80.6	82.1	81.9	-

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 site map for sample locations.

Table 4
Location: PCU 297-15A
Lab Summary - Freshwater Pit Subliner Assessment

Last update 5/24/2012

Analytical Parameter	FW Subliner			Test Pit 1			Test Pit 2			Test Pit 3			Test Pit 4			Test Pit 5			COGCC
(with units)	FW Pit Subliner 1/25/12	FW Pit Subliner (-1') 2/2/12	FW Pit Subliner (-4') 2/2/12	FW TP-1 (0') - (-2') 2/16/12	FW TP-1 (-2') - (-4') 4' 2/16/12	FW TP-1 (-4') - (-6') 2/21/12	FW TP-2 (0') - (-2') 2/17/12	FW TP-2 (-2') - (-4') 4' 2/17/12	FW TP-2 (-4') - (-6') 2/17/12	FW TP-3 (0') - (-2') 2/17/12	FW TP-3 (-2') - (-4') 4' 2/17/12	FW TP-3 (-4') - (-6') 2/17/12	FW TP-4 (0') - (-2') 2/21/12	FW TP-4 (-4') - (-6') 2/21/12	FW TP-4 (-8') - (-10') 2/21/12	FW TP-5 (0') - (-2') 2/16/12	FW TP-5 (-4') - (-6') 2/16/12	FW TP-5 (-8') - (-10') 2/21/12	Table 910-1 Concentration Levels
Accutest Job #	D31355	D31612	D31613	D32070	D32157	D32070	D32070	D32070	D32070	D32070	D32070	D32070	D32157	D32157	D32157	D32157	D32157	D32157	-
Sample type (Composite/Discrete)	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	C	-
TPH (GRO) (mg/Kg)	8.79	ND	11	ND	ND	ND	ND	ND	ND	7.84	ND	ND	ND	ND	ND	ND	7.16	ND	-
TPH (DRO) (mg/Kg)	1320	515	815	10.8	93.3	24.0	215	35.5	31.9	681	99.7	299	213	492	628	145	691	84.9	-
TPH (GRO + DRO) (mg/Kg)	1329	515	826	10.8	93.3	24.0	215	35.5	31.9	689	99.7	299	213	492	628	145	698	84.9	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)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22
Benzo(A)pyrene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.22
Benzo(B)fluoranthene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.2
Benzo(K)fluoranthene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.022
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)	ND	-	-	-	-	-	ND	-	-	-	-	-	-	-	-	-	-	-	1000
Electrical Conductivity (mmhos/cm)	6.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Sodium Adsorption Ratio (SAR)	31.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12
pH	9.91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6-9
Arsenic (mg/kg)	4.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.39
Barium (mg/kg)	1180	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15000
Cadmium (mg/kg)	<1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70
Chromium (III) (mg/Kg)	52.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	120000
Chromium (VI) (mg/Kg)	0.75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23
Copper (mg/kg)	11.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3100
Lead (inorganic) (mg/kg)	10.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	400
Mercury (mg/kg)	<0.11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23
Nickel (mg/kg)	21.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1600
Selenium (mg/kg)	<5.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	390
Silver (mg/kg)	<3.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	390
Zinc (mg/kg)	38.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23000
% Solids	88.3	85.4	84.4	86.8	85.6	85.7	86.8	86.8	85.0	87.2	87.9	84.6	86.0	84.7	83.4	84.7	83.1	85.5	-

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 site map for sample locations.

Table 5
Location: PCU 297-15A
Lab Summary - Freshwater Excavation Confirmation

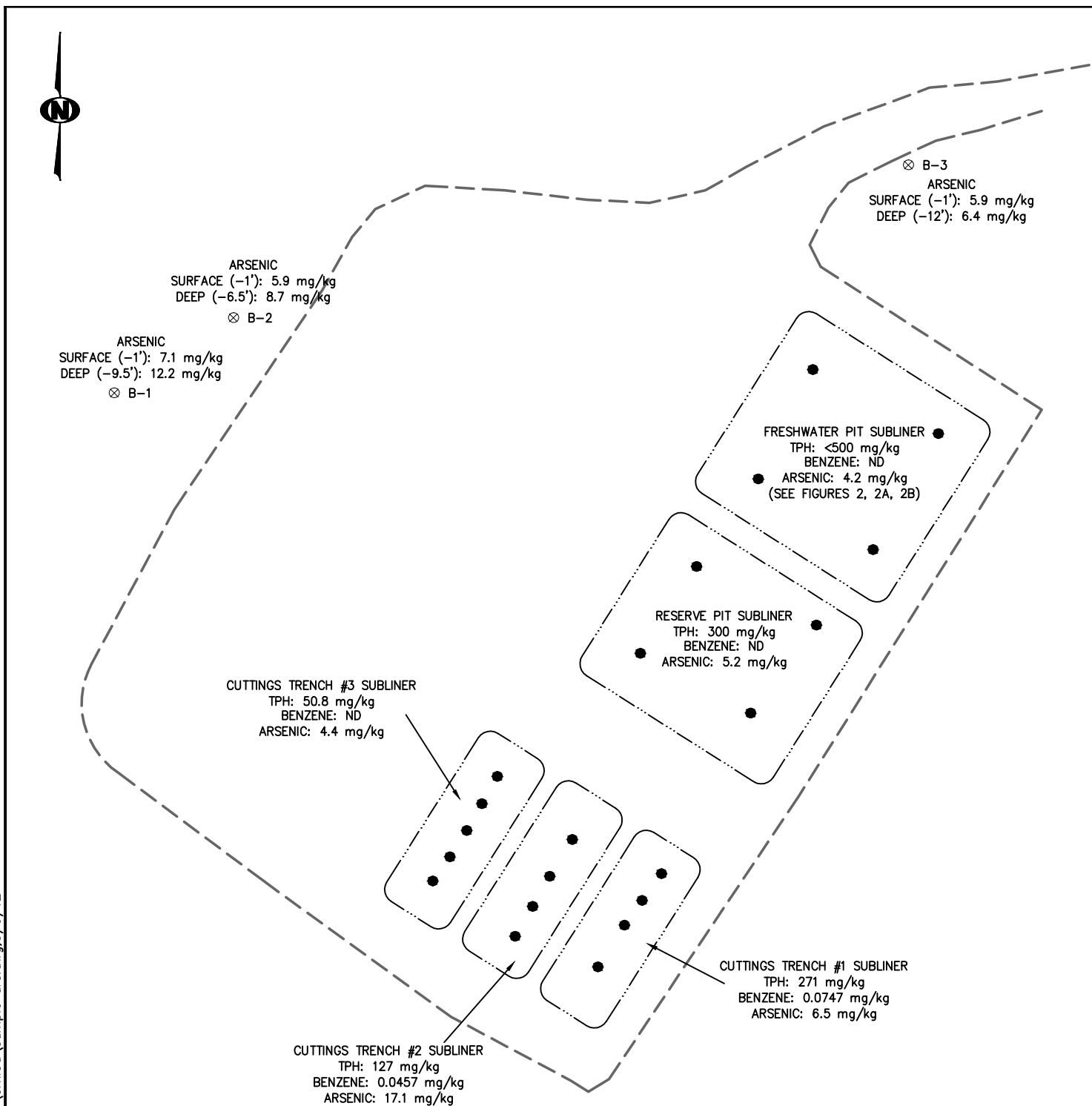
Last update 5/24/2012

Analytical Parameter	Initial	FW Subliner Post Excavation							FW Excavated Material				COGCC
(with units)	FW Pit Subliner 1/25/12	FW -2' Excavation Bottom 3/29/12	FW -8' Excavation Bottom 3/29/12	FW -11' Excavation Bottom 3/29/12	FW SW Excavation Sidewall 3/29/12	FW NW Excavation Sidewall 3/29/12	FW NE Excavation Sidewall 3/29/12	FW SE Excavation Sidewall 3/29/12	FW Excavation Crushed NW 4/24/12	FW Excavation Crushed NE 4/24/12	FW Excavation Crushed SE 4/24/12	FW Excavation Crushed SW 4/24/12	Table 910-1 Concentration Levels
Accutest Job #	D31355	D33283							D33964				-
Sample type (Composite/Discrete)	C	C	C	C	C	C	C	C	C	C	C	C	-
TPH (GRO) (mg/Kg)	8.79	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-
TPH (DRO) (mg/Kg)	1320	ND	12.0	192	131	93.5	ND	30.2	308	255	198	148	-
TPH (GRO + DRO) (mg/Kg)	1329	ND	12.0	192	131	93.5	ND	30.2	308	255	198	148	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)	ND	-	-	-	-	-	-	-	-	-	-	-	0.22
Benzo(A)pyrene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	0.22
Benzo(B)fluoranthene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	2.2
Benzo(K)fluoranthene (mg/Kg)	ND	-	-	-	-	-	-	-	-	-	-	-	0.022
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)	ND	-	-	-	-	-	-	-	-	-	-	-	1000
Electrical Conductivity (mmhos/cm)	6.55	-	-	-	-	-	-	-	-	-	-	-	4
Sodium Adsorption Ratio (SAR)	31.9	-	-	-	-	-	-	-	-	-	-	-	12
pH	9.91	-	-	-	-	-	-	-	-	-	-	-	6-9
Arsenic (mg/kg)	4.2	-	-	-	-	-	-	-	-	-	-	-	0.39
Barium (mg/kg)	1180	-	-	-	-	-	-	-	-	-	-	-	15000
Cadmium (mg/kg)	<1.1	-	-	-	-	-	-	-	-	-	-	-	70
Chromium (III) (mg/Kg)	52.6	-	-	-	-	-	-	-	-	-	-	-	120000
Chromium (VI) (mg/Kg)	0.75	-	-	-	-	-	-	-	-	-	-	-	23
Copper (mg/kg)	11.7	-	-	-	-	-	-	-	-	-	-	-	3100
Lead (inorganic) (mg/kg)	10.8	-	-	-	-	-	-	-	-	-	-	-	400
Mercury (mg/kg)	<0.11	-	-	-	-	-	-	-	-	-	-	-	23
Nickel (mg/kg)	21.9	-	-	-	-	-	-	-	-	-	-	-	1600
Selenium (mg/kg)	<5.7	-	-	-	-	-	-	-	-	-	-	-	390
Silver (mg/kg)	<3.4	-	-	-	-	-	-	-	-	-	-	-	390
Zinc (mg/kg)	38.2	-	-	-	-	-	-	-	-	-	-	-	23000
% Solids	88.3	86.9	85.6	85.8	92.1	88.6	88.1	88.6	89.8	91.1	90.7	91.4	-

Notes:

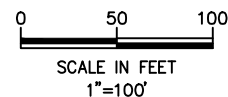
- 1) ND = not detectible to the laboratory detection limit.
- 2) Results highlighted in yellow exceed Table 910-1 concentration levels. Results highlighted in Gray exceed Table 910-1, but are below background levels.
- 3) "-" indicates no analysis.
- 4) See site map for sample locations.

s:\pro\cto environmental\1108-02a pcu 297-15a\civil3d\sample ars.dwg,5/9/12



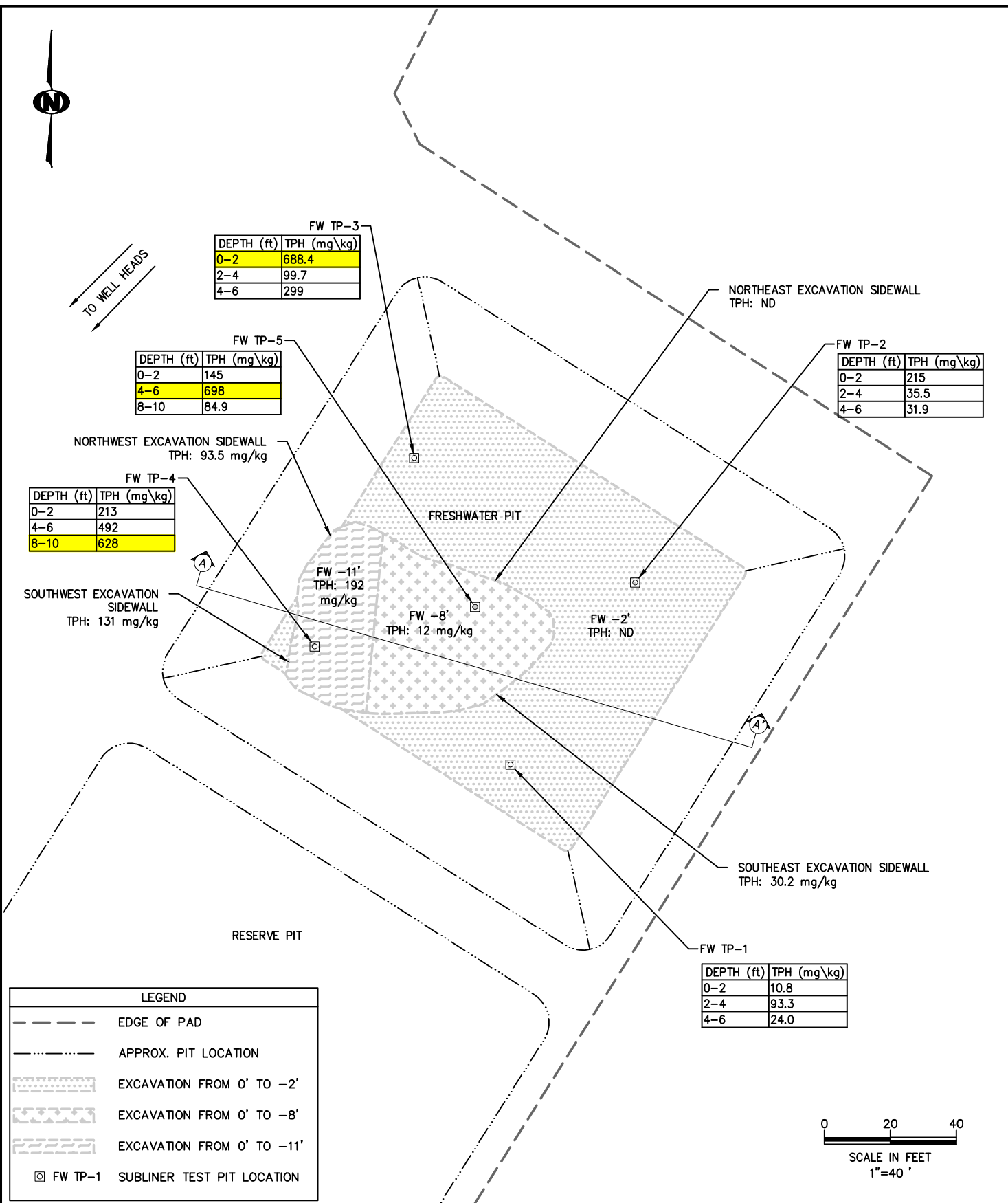
NOTE:
BACKGROUND ARSENIC RESULTS ARE FROM
DISCRETE SAMPLES.

LEGEND	
---	EDGE OF PAD
---	PIT / TRENCH
⊗ B-4	BACKGROUND SAMPLE LOCATION (8/30/11)
●	SUBLINER COMPOSITE TEST LOCATION



DESIGNED: —	CHECKED: DK	FIGURE 1	NOTES:		KRW CONSULTING, INC. 8000 W. 14TH AVENUE, SUITE 200 LAKEWOOD, COLORADO (303) 239-9011	FIGURE 1 PICEANCE CREEK PCU 297-15A SAMPLE LOCATIONS WITH ARSENIC LEVELS PREPARED FOR XTO ENERGY
DATE: 5/9/12	DRAWN: DRF					
FILE NAME: sample ars	SHEET NO. 1 of 4	DATE	REVISIONS			
PROJECT NO. 1108-02A	SCALE: 1"=100'					

s:\pro\cto environmental\1108-02a pcu 297-15a\civil3d\freshwater r1.dwg,5/9/12



DESIGNED: —	CHECKED: DK	FIGURE 2	NOTES:	KRW CONSULTING, INC. 8000 W. 14TH AVENUE, SUITE 200 LAKEWOOD, COLORADO (303) 239-9011	FIGURE 2 PICEANCE CREEK PCU 297-15A SAMPLE LOCATIONS WITH SELECT RESULTS PREPARED FOR XTO ENERGY
DATE: 3/13/12	DRAWN: DRF	SHEET NO. 2 of 4	DATE 5/9/12		
FILE NAME: freshwater r1			REVISIONS		
PROJECT NO. 1108-02A	SCALE: 1"=40'		UPDATED TO REFLECT IMPACTED SOILS EXCAVATION		



TO WELL HEADS

DEPTH (ft)	TPH (mg/kg)
0-2	688.4
2-4	99.7
4-6	299

FW TP-3

DEPTH (ft)	TPH (mg/kg)
0-2	145
4-6	698
8-10	84.9

FW TP-5

DEPTH (ft)	TPH (mg/kg)
0-2	215
2-4	35.5
4-6	31.9

FW TP-2

DEPTH (ft)	TPH (mg/kg)
0-2	213
4-6	492
8-10	628

FW TP-4

FRESHWATER PIT

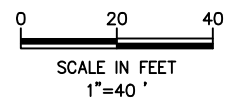
RESERVE PIT

FW TP-1

DEPTH (ft)	TPH (mg/kg)
0-2	10.8
2-4	93.3
4-6	24.0

LEGEND

---	EDGE OF PAD
---	PIT
[Hatched Box]	APPROX. LIMIT OF SHALLOW (0-2') IMPACTED SOILS (TPH > 500 mg/kg)
[Hatched Box]	APPROX. LIMIT OF DEEPER (4-10+') IMPACTED SOILS (TPH > 500 mg/kg)
[Circle with Cross]	FW TP-1 SUBLINER TEST PIT LOCATION



DESIGNED: —
DATE: 5/9/12
FILE NAME: freshwater tp
PROJECT NO. 1108-02A

CHECKED: DK
DRAWN: DRF
SHEET NO. 3 of 4
SCALE: 1"=40'

FIGURE 2A

NOTES:

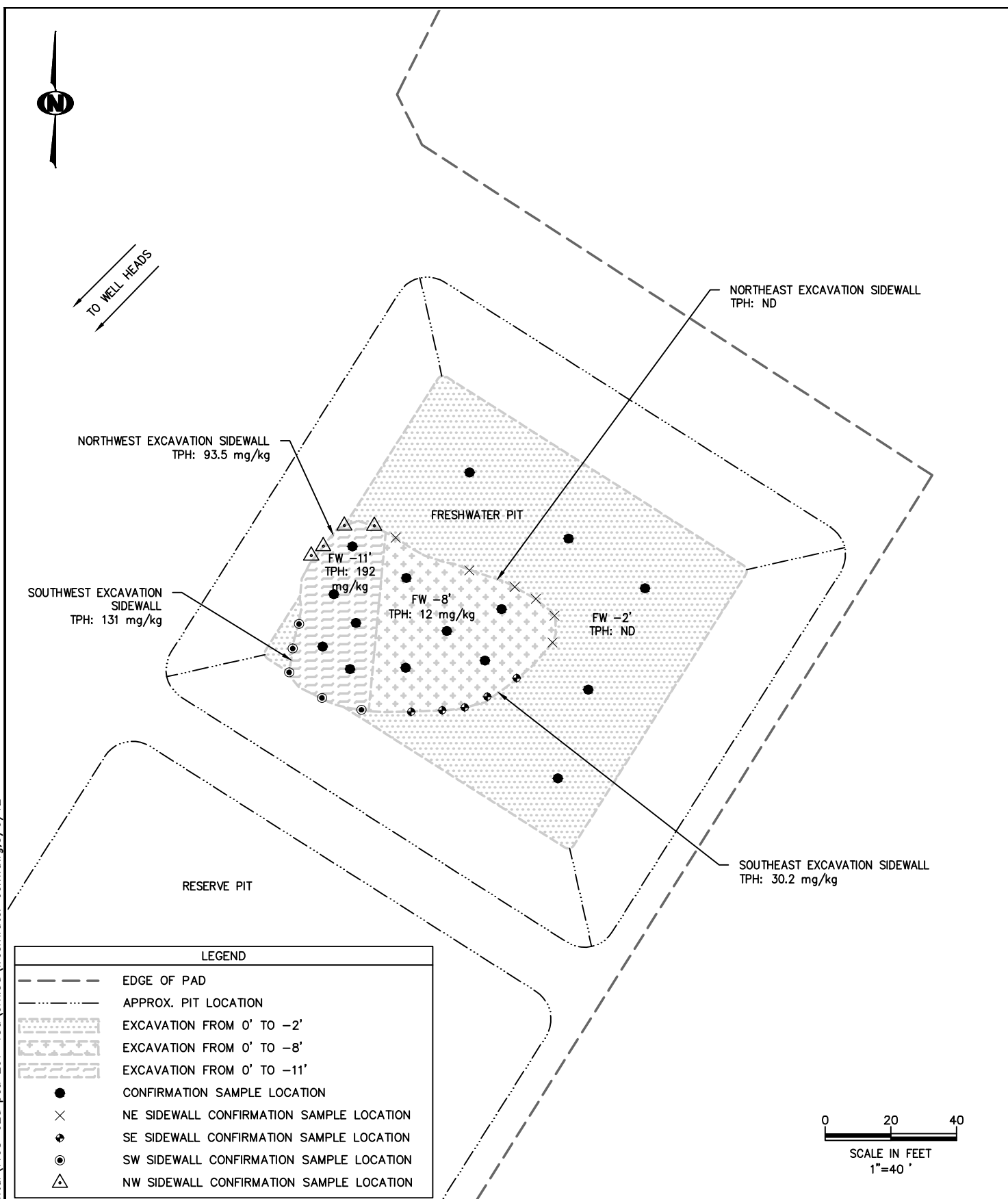
DATE REVISIONS

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

FIGURE 2A
PICEANCE CREEK
PCU 297-15A
TEST PIT DATA

PREPARED FOR XTO ENERGY

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DESIGNED: —	CHECKED: DK	FIGURE 2B	NOTES:		KRW CONSULTING, INC. 8000 W. 14TH AVENUE, SUITE 200 LAKEWOOD, COLORADO (303) 239-9011	FIGURE 2B PICEANCE CREEK PCU 297-15A CONFIRMATION DATA PREPARED FOR XTO ENERGY
DATE: 5/9/12	DRAWN: DRF					
FILE NAME: freshwater conf	SHEET NO. 4 of 4	DATE	REVISIONS			
PROJECT NO. 1108-02A	SCALE: 1"=40'					