Final
Meeting Minutes from TRIAD Project Team Meeting #1 with the Alaska Department of Environmental Conservation
09 September 2013

A TRIAD meeting for the Former Galena Forward Operating Location (FOL), Alaska was held on 09 September 2013 via teleconference and on-line web viewing. The attendees and meeting agenda are listed below, and presentation materials are included in attachments.

Attendees:

Fred Vreeman – Alaska Department of Environmental Conservation (ADEC)
Dennis Shepard – ADEC
Ted Wu – ADEC
Dan McMahon – Shannon and Wilson
Donna Kozak – Booz Allen Hamilton (BAH)
Angela Sederquist – BAH
Bruce Henry – Parsons Government Services, Inc. (Parsons)
Brian Blicker – Parsons
Steve Rembish – Parsons
Mark Rigby – Parsons
Cortnie Lewis - Parsons
Tammy Chang – Parsons
Luke Huang - Parsons

Agenda:

- TRIAD Discussion
  - West Perimeter Road (SS025) soil vapor sample results
  - B400 soil and groundwater results
  - Surface soil sample at SS015

- Miscellaneous
  - Acetone blank issue
  - DSWD test pits schedule

- Next TRIAD Call – Thursday, September 12th?
  - OAP soil vapor survey
  - Results for SS019/SS006/OWS1833

Introduction

The Technical Project Team (TPT) meeting began at 10:00 am Alaska time with a brief round of personal introductions. Objectives of the meeting included:

1) Review passive soil vapor monitoring results for the West Perimeter Road TCE Spill Site (SS025) and gain ADEC approval for a soil and groundwater step-out boring.

2) Review soil and groundwater grab data for the B400 Site and gain ADEC approval for a groundwater grab step-out boring.
3) Review a comment from ADEC regarding surface soil/sediment sampling at SS015 and gain approval for a surface soil sample.
4) Review potential sources for low level detections of acetone in samples, trip blanks, and equipment blanks.
5) Provide a schedule for test pit excavations at the DSWD Site.

TRIAD Reviews

West Perimeter Road TCE Spill Site (SS025)

Soil vapor results for the West Perimeter Road TCE Spill were presented (see Attachment A). TCE in soil vapor ranged from 38 to 55,600 micrograms per cubic meter (µg/m^3), with the highest concentrations at locations VP005 and VP007 through VP009. Lesser concentrations of other chlorinated compounds were also detected. Results were not available for VP001, as the sample module was lost during retrieval and the location had to be re-sampled. The elevated concentrations of TCE corresponded to an area around and to the north of detections of TCE in soil at location CG001_GP019. It was agreed to install an additional soil boring (SS025_GP001) at the southern (downgradient) end of the site near sample location VP001 to delineate the downgradient extent of VOCs in soil and groundwater.

Former Building B400 Soil and Groundwater Results

Soil and groundwater analytical results for step-out borings at the B400 Site were presented (Attachment B). No analytes in soil samples from boring B400_GP011 exceeded Extent Screening Levels (SLs) (Attachment B, Figure 1). Low estimated concentrations of TCE exceeded the Extent SL for TCE at boring B400_GP012. TCE was detected at a maximum estimated concentration of 0.047J milligrams per kilogram (mg/kg) for a sample collected at a depth of 5 to 7 feet below ground surface at B400_GP012. This estimated concentration is less than the Method 2 clean up level for TCE of 0.57 mg/kg for outdoor inhalation, but exceeds the Method 2 migration to groundwater cleanup level for TCE of 0.02 mg/kg. The 2013 step out soil sampling results indicate that a source area was not encountered that would lead to the concentrations of TCE detected in groundwater at B400. Slightly higher concentrations of TCE have been detected throughout the soil column (from surface soil to a depth of 18.5 feet bgs) sampled at location B400_GP008, with a maximum estimated concentration of 0.131J mg/kg at a depth of 0-2 feet bgs. Location B400_GP008 was installed at the former location of AST1950, closer to the former weather station building. While uncertainty remains regarding the source of TCE in soil, these data suggest the source may be closer to the former building and AST.

Groundwater grab samples were not collected at location B400_GP011 because the monitoring well pair MW001/MW002 had to be moved to this location to get out of a drainage ditch. Groundwater results at this location will be obtained from the well pair. TCE was detected in groundwater grab samples from boring B400_GP012; up to 13 micrograms per liter (µg/L) at a depth of 11.5 to 15.5 feet. Therefore, it was agreed to install an additional step-out groundwater grab location (B400_GP013; See Figure 2 in Attachment B) to the south of GP012 and to the

west of GP011 to attempt to delineate the extent of TCE in groundwater to the southwest. A prior geophysical survey indicated this location was free of utilities and debris.

Note: Upon review of the draft meeting minutes, ADEC informed the Air Force that the former cesspool may require further closure under the Alaska Waste Water program. The uniform plumbing code, Appendix K11.0 (B) requires that abandoned cesspools shall have the sewage removed therefrom and be completely filled with earth, sand, gravel, or other approved material. The B400 site information has been made available to the Division of Water, Wastewater program.

SS015 Surface Soil/Sediment Sample

ADEC comments on the draft data tables for a human health risk assessment (HHRA) at SS015 included a comment in regards to sediment data. There is only one shallow surface soil sample (0-2 feet depth at GP006), and ADEC pointed out that the RI Report noted sediment samples as a data gap. ADEC also noted that Site SS015 includes a wetlands area of higher quality habitat. Photos of the site show that the drainage swale is a grassy area that is often mowed, and noted that free standing water is only present for a couple months in the spring. It was agreed that one additional surface soil sample will be collected from the lowest portion of the drainage swale to provide additional data on potential risk from the 0 to 3 foot soil interval.

Other Business

Acetone in Sample Blanks

Acetone has been consistently detected at low levels in samples, trip blanks, and equipment blanks. To evaluate potential sources of acetone contamination, samples were collected from 1) the ASTM Type 2 water used for equipment blanks, 2) distilled water used for decontamination rinses, 3) potable water used by the drillers for decontamination, 4) a blank sample left open in the refrigerator used to store samples for shipping at the POL building, 5) a blank sample left open overnight in the POL Building, 6) a cooler wipe from coolers stored at the POL building, and 7) a trip blank from CH2M Hill that was not exposed to the POL Building used by Parsons.

A draft results table addressing the acetone issue was presented by Parsons (Attachment C). It was discussed that contamination in the POL building has impacted the ASTM Type 2 water, and likely caused cross-contamination from coolers and sample containers. It is possible that acetone could have been a result of laboratory contamination during analysis, but there is acetone in 31% of the trip blanks as well. It was concluded that cross contamination from acetone was likely a result of storing the chemical in the POL building prior to the Air Force leasing the building for a field office. Due to the magnitude of the Extent SL for acetone in soil and groundwater relative to the detections in soil and groundwater samples and blanks, there are currently no detections of acetone in soil or groundwater from sampling in 2013 that exceed ADEC Method 2 cleanup levels (CULs). Parsons agreed to obtain fresh ASTM Type 2 water to limit further detections of acetone in equipment blanks.

DSWD Test Pit Schedule

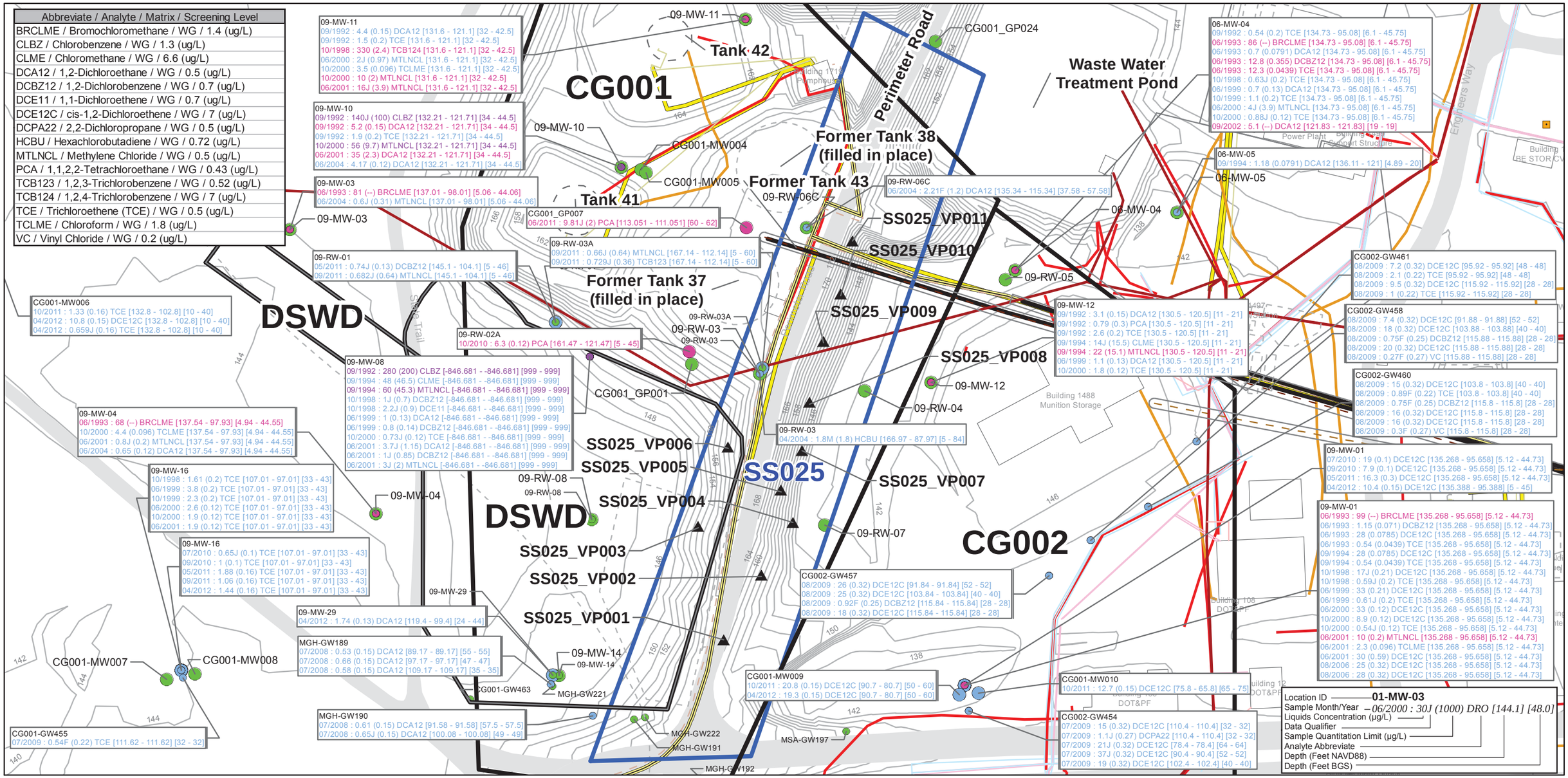
Parsons notified ADEC that the test pits for the DSWD Site were scheduled for Friday September 13th and Saturday September 14th. Dennis Shepard indicated he would try to visit the site on September 13th to oversee the initial test pit excavation. BAH confirmed that a seat would be reserved on the Friday charter flight for ADEC.

The meeting was adjourned with a note that the next TRIAD call would be scheduled for 12 September 2013, and would include a discussion of results for the OAP soil vapor survey, and preliminary results for SS019, SS006, and OWS1833.

Attachment A

West Perimeter Road (SS025) Passive Soil Vapor Sampling Results

Abbreviate / Analyte / Matrix / Screening Level
BRCLME / Bromochloromethane / WG / 1.4 (ug/L)
CLBZ / Chlorobenzene / WG / 1.3 (ug/L)
CLME / Chloromethane / WG / 6.6 (ug/L)
DCA12 / 1,2-Dichloroethane / WG / 0.5 (ug/L)
DCBZ12 / 1,2-Dichlorobenzene / WG / 0.7 (ug/L)
DCE11 / 1,1-Dichloroethene / WG / 0.7 (ug/L)
DCE12C / cis-1,2-Dichloroethene / WG / 7 (ug/L)
DCPA22 / 2,2-Dichloropropane / WG / 0.5 (ug/L)
HCBU / Hexachlorobutadiene / WG / 0.72 (ug/L)
MTLNCL / Methylene Chloride / WG / 0.5 (ug/L)
PCA / 1,1,2,2-Tetrachloroethane / WG / 0.43 (ug/L)
TCB123 / 1,2,3-Trichlorobenzene / WG / 0.52 (ug/L)
TCB124 / 1,2,4-Trichlorobenzene / WG / 7 (ug/L)
TCE / Trichloroethene (TCE) / WG / 0.5 (ug/L)
TCLME / Chloroform / WG / 1.8 (ug/L)
VC / Vinyl Chloride / WG / 0.2 (ug/L)

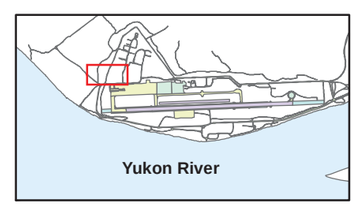


Legend

- Approximate Location of Former Feature
- Main Wastewater Line
- Service Wastewater Line
- Abandoned Fuel Line (1952)
- Abandoned Fuel Line (1962)
- OAP Pipeline
- Abandoned Fuel Line
- Service Fuel Line
- Main Fuel Line
- Water Line
- Heating/Cooling Line
- Airfield Surface or Road

Underground Utility Locates - 2010
- Communications
- Electrical
- Fuel/Gas
- Potable Water
- Sanitary Sewer

- 2010/2011/2012 Sample Exceeds Screening Level (Greater than 100X analyte SL)
- 2010/2011/2012 Sample Exceeds Screening Level (Greater than 10X analyte SL)
- 2010/2011/2012 Sample Exceeds Screening Level (1 to 10X analyte SL)
- 2010/2011/2012 Sample Does Not Exceed Screening Level
- Previous Sample Exceeds Screening Level (Greater than 100X analyte SL)
- Previous Sample Exceeds Screening Level (Greater than 10X analyte SL)
- Previous Sample Exceeds Screening Level (1 to 10X analyte SL)
- Previous Sample Does Not Exceed Screening Level
- Passive Soil Vapor Sampling Location



0 50 100
Feet
N

Note:
1. The groundwater flow direction shown is the predominant direction that persists from late August through breakup of the Yukon River (approximately May 15). Groundwater flow directions during the remainder of the year are variable depending on the timing of fluctuations in Yukon River stage.

FIGURE D54-6

Groundwater Sampling Exceedances and Proposed Sampling Locations

Site Name: Site SS025
Analytes: Chlorinated VOCs
Media: Groundwater
SLs: Groundwater Screening Levels
Data Range: Historical and 2010/2011/2012

Remedial Investigation for
Former Galena Forward Operating Location
Galena, Alaska

PARSONS

S:\ES\Remed\748917 Galena FOL\Database\GIS\RI-West Perimeter Rd (GS)\GAL_RIRpt_WPR_FSP_GW_CLVOCs_Exceed_Fig-6.mxd lxh 7/22/2013

AMPLIFIED GEOCHEMICAL IMAGING, LLC ANALYTICAL RESULTS
PARSONS CORPORATION, DENVER, CO
AGI STANDARD TARGET SVOCs/VOCs (8260M)
ESTIMATED SOIL GAS CONCENTRATIONS
GALENA FOL, AK
PRODUCTION ORDER # 30000053

SAMPLE NAME	FIELD ID	DATE/ TIME RETRIEVED		DATE/ TIME ANALYZED		PCE, ug/m^3	TCE, ug/m^3	c12DCE[(2)], ug/m^3
LOD =						2.47	12.6	110
LOQ =						3.08	15.3	129
715214	SS025-VP002 SV 03-04	8/27/13 9:45	AKDT	09/04/13	EST	**9.57**	**38.0**	<117
715204	SS025-VP003 SV 03-04	8/27/13 9:52	AKDT	09/04/13	EST	<2.66	**38.2**	<118
715215	SS025-VP004 SV 03-04	8/27/13 9:50	AKDT	09/04/13	EST	**24.4**	**133**	<117
715216	**SS025-VP005 SV 03-04**	8/27/13 9:56	AKDT	09/04/13	EST	**1260 E**	**55500 E**	**17400 E**
715205	SS025-VP006 SV 03-04	8/27/13 10:02	AKDT	09/04/13	EST	**78.9**	**1540**	<117
715210	**SS025-VP007 SV 03-04**	8/27/13 10:03	AKDT	09/04/13	EST	**1250 E**	**49700 E**	**27600 E**
715209	**SS025-VP008 SV 03-04**	8/27/13 10:05	AKDT	09/04/13	EST	**1290 E**	**55600 E**	**30100 E**
715208	**SS025-VP009 SV 03-04**	8/27/13 10:09	AKDT	09/04/13	EST	**362**	**11400 E**	**600**
715207	SS025-VP010 SV 03-04	8/27/13 10:11	AKDT	09/04/13	EST	**65.2**	**1300**	<117
715206	SS025-VP011 SV 03-04	8/27/13 10:14	AKDT	09/04/13	EST	**508**	**49.6**	<117
715203				09/04/13	EST	<2.47	<12.6	<110
method blank				09/04/13	EST	<2.47	<12.6	<110

(1) COMPOUND IS NOT INCLUDED ON AGI'S SCOPE OF ACCREDITATION
(2) COMPOUND IS LISTED AS "SCREENING ONLY" ON SCOPE OF ACCREDITATION

AMPLIFIED GEOCHEMICAL IMAGING, LLC ANALYTICAL RESULTS
PARSONS CORPORATION, DENVER, CO
AGI STANDARD TARGET SVOCs/VOCs (8260M)
ESTIMATED SOIL GAS CONCENTRATIONS
GALENA FOL, AK
PRODUCTION ORDER # 30000053

SAMPLE NAME	FIELD ID	t12DCE(2), ug/m^3	CHCl3(2), ug/m^3	112TCA, ug/m^3	1122TetCA, ug/m^3	BENZ(2), ug/m^3	TOL, ug/m^3
LOD =		325	63.4	2.22	1.16	28.7	3.16
LOQ =		374	76.5	2.77	1.45	34.3	3.91
715214	SS025-VP002 SV 03-04	<345	**101**	<2.34	<1.22	<30.4	<3.34
715204	SS025-VP003 SV 03-04	<347	<67.9	<2.39	<1.26	**54.1**	**11.3**
715215	SS025-VP004 SV 03-04	<345	**362**	<2.34	<1.23	<30.4	<3.34
715216	**SS025-VP005 SV 03-04**	**5520**	**303**	**229**	**72.9**	**60.2**	<3.35
715205	SS025-VP006 SV 03-04	<347	<67.8	<2.39	<1.25	<30.7	<3.40
715210	**SS025-VP007 SV 03-04**	**10500**	**517**	**284**	**71.6**	**40.4**	<3.35
715209	**SS025-VP008 SV 03-04**	**12000**	**194**	**243**	<1.24	**51.0**	**4.56**
715208	**SS025-VP009 SV 03-04**	<346	<67.6	<2.37	<1.24	**40.0**	**20.0**
715207	SS025-VP010 SV 03-04	<346	<67.6	<2.37	<1.24	<30.6	**26.2**
715206	SS025-VP011 SV 03-04	<346	<67.7	<2.38	<1.25	<30.7	**6.45**
715203		<325	<63.4	<2.22	<1.16	<28.7	<3.16
method blank		<325	<63.4	<2.22	<1.16	<28.7	<3.16

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PARSONS CORPORATION, DENVER, CO
AGI STANDARD TARGET SVOCs/VOCs (8260M)
ESTIMATED SOIL GAS CONCENTRATIONS
GALENA FOL, AK
PRODUCTION ORDER # 30000053

SAMPLE NAME	FIELD ID	EtBENZ, ug/m^3	mpXYL, ug/m^3	oXYL, ug/m^3	135TMB, ug/m^3	124TMB, ug/m^3	OCT, ug/m^3
LOD =		1.48	1.37	1.86	2.00	1.52	3.26
LOQ =		1.84	1.71	2.30	2.46	1.88	4.03
715214	SS025-VP002 SV 03-04	<1.56	<1.44	<1.96	<2.11	<1.60	<3.44
715204	SS025-VP003 SV 03-04	<1.60	**2.32**	<2.01	<2.16	<1.64	**10.5**
715215	SS025-VP004 SV 03-04	<1.57	<1.44	<1.97	<2.11	<1.61	<3.45
715216	**SS025-VP005 SV 03-04**	<1.57	<1.45	<1.97	<2.11	<1.61	<3.45
715205	SS025-VP006 SV 03-04	<1.60	<1.47	<2.01	<2.15	<1.64	<3.51
715210	**SS025-VP007 SV 03-04**	<1.57	<1.45	<1.97	<2.11	<1.61	<3.45
715209	**SS025-VP008 SV 03-04**	<1.58	<1.46	<1.99	<2.13	<1.62	<3.48
715208	**SS025-VP009 SV 03-04**	**3.63**	**7.03**	**5.70**	**3.12**	**5.29**	**7.77**
715207	SS025-VP010 SV 03-04	<1.59	**2.94**	<2.00	<2.14	<1.63	<3.49
715206	SS025-VP011 SV 03-04	<1.59	**1.61 J**	<2.00	<2.14	<1.63	<3.50
715203		<1.48	<1.37	<1.86	<2.00	<1.52	<3.26
method blank		<1.48	<1.37	<1.86	<2.00	<1.52	<3.26

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AMPLIFIED GEOCHEMICAL IMAGING, LLC ANALYTICAL RESULTS
PARSONS CORPORATION, DENVER, CO
AGI STANDARD TARGET SVOCs/VOCs (8260M)
ESTIMATED SOIL GAS CONCENTRATIONS
GALENA FOL, AK
PRODUCTION ORDER # 30000053

SAMPLE NAME	FIELD ID	UNDEC, ug/m^3	NAPH, ug/m^3	TRIDEC, ug/m^3	2MeNAPH, ug/m^3	PENTADEC(1), ug/m^3
LOD =		1.17	1.17	1.17	1.17	1.17
LOQ =		1.45	1.45	1.45	1.45	1.45
715214	SS025-VP002 SV 03-04	<1.23	<1.23	<1.23	<1.23	<1.23
715204	SS025-VP003 SV 03-04	**4.07**	<1.26	**4.94**	<1.26	**1.96**
715215	SS025-VP004 SV 03-04	<1.23	<1.23	<1.23	<1.23	<1.23
715216	**SS025-VP005 SV 03-04**	<1.24	<1.24	<1.24	<1.24	<1.24
715205	SS025-VP006 SV 03-04	<1.26	<1.26	<1.26	<1.26	<1.26
715210	**SS025-VP007 SV 03-04**	<1.24	<1.24	<1.24	<1.24	<1.24
715209	**SS025-VP008 SV 03-04**	<1.25	<1.25	**1.43 J**	<1.25	<1.25
715208	**SS025-VP009 SV 03-04**	**30.9**	**6.73**	**347**	**5.48**	**363**
715207	SS025-VP010 SV 03-04	<1.25	<1.25	<1.25	<1.25	<1.25
715206	SS025-VP011 SV 03-04	<1.25	<1.25	**1.29 J**	<1.25	<1.25
715203		<1.17	<1.17	<1.17	<1.17	<1.17
method blank		<1.17	<1.17	<1.17	<1.17	<1.17

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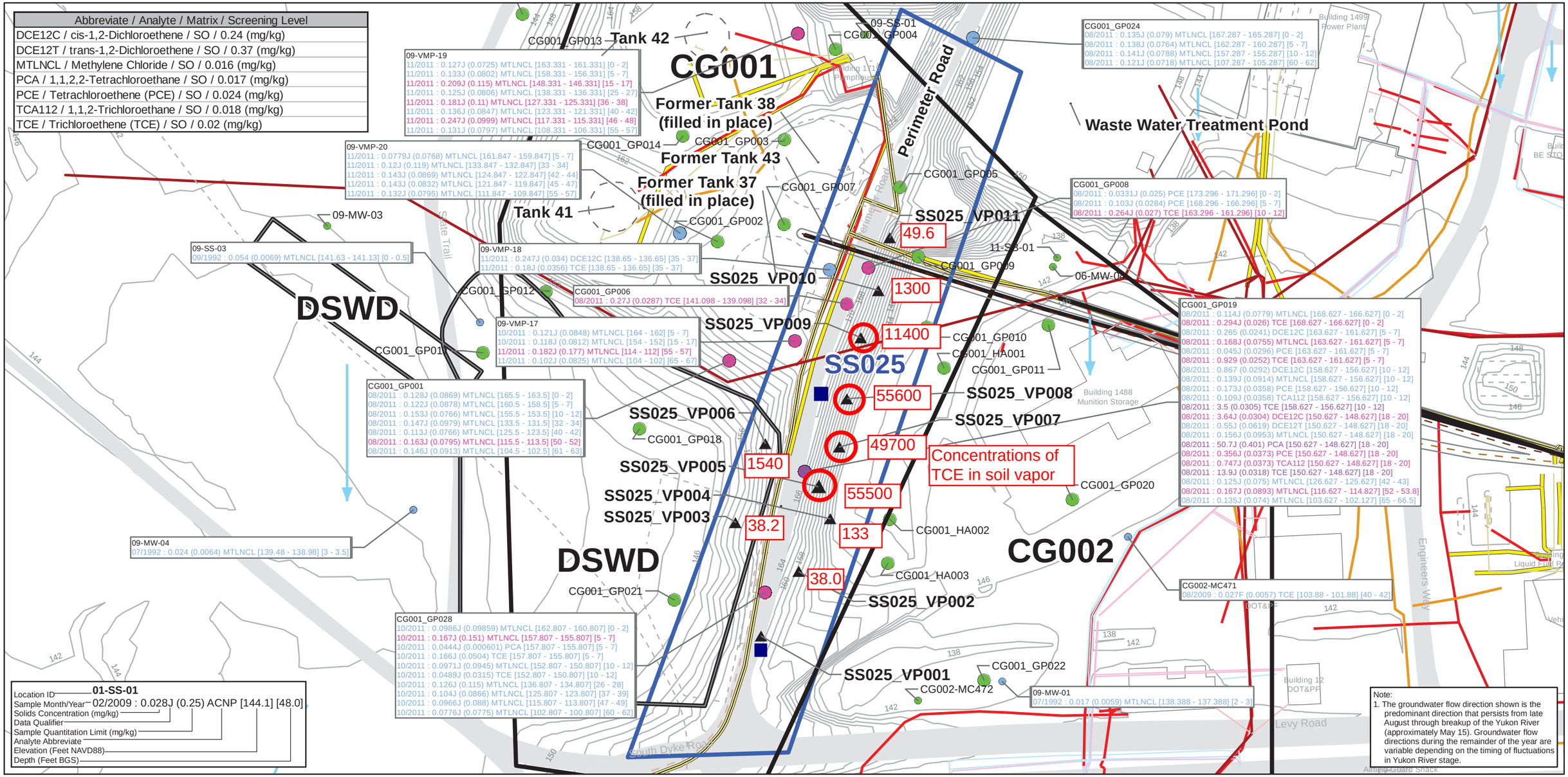
Abbreviate / Analyte / Matrix / Screening Level
DCE12C / cis-1,2-Dichloroethene / SO / 0.24 (mg/kg)
DCE12T / trans-1,2-Dichloroethene / SO / 0.37 (mg/kg)
MTLNCL / Methylene Chloride / SO / 0.016 (mg/kg)
PCA / 1,1,2,2-Tetrachloroethane / SO / 0.017 (mg/kg)
PCE / Tetrachloroethene (PCE) / SO / 0.024 (mg/kg)
TCA112 / 1,1,2-Trichloroethane / SO / 0.018 (mg/kg)
TCE / Trichloroethene (TCE) / SO / 0.02 (mg/kg)



Location ID — 01-SS-01
Sample Month/Year — 02/2009 : 0.028J (0.25) ACNP [144.1] [48.0]
Solids Concentration (mg/kg)
Data Qualifier
Sample Quantitation Limit (mg/kg)
Analyte Abbreviate
Elevation (Feet NAVD88)
Depth (Feet BGS)

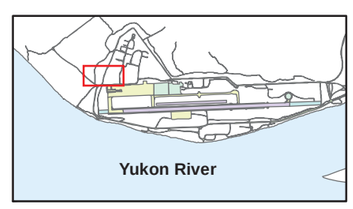
Legend

- Approximate Location of Former Feature
- Approximate Groundwater Flow Direction
- Main Wastewater Line
- Service Wastewater Line
- Abandoned Fuel Line (1952)
- Abandoned Fuel Line (1962)
- OAP Pipeline
- Abandoned Fuel Line
- Service Fuel Line
- Main Fuel Line
- Water Line
- Heating/Cooling Line
- Airfield Surface or Road

Underground Utility Locates - 2010
- Communications
- Electrical
- Fuel/Gas
- Potable Water
- Sanitary Sewer

- 2010/2011/2012 Sample Exceeds Screening Level (Greater than 100X analyte SL)
- 2010/2011/2012 Sample Exceeds Screening Level (Greater than 10X analyte SL)
- 2010/2011/2012 Sample Exceeds Screening Level (1 to 10X analyte SL)
- 2010/2011/2012 Sample Does Not Exceed Screening Level
- Previous Sample Exceeds Screening Level (Greater than 100X analyte SL)
- Previous Sample Exceeds Screening Level (Greater than 10X analyte SL)
- Previous Sample Exceeds Screening Level (1 to 10X analyte SL)
- Previous Sample Does Not Exceed Screening Level

- Passive Soil Vapor Sampling Location



0 50 100
Feet

N

FIGURE D54-5

Soil Sampling Exceedances and Proposed Sampling Locations

Site Name: Site SS025
Analytes: Chlorinated VOCs
Media: Soil
SLs: Soil Extent
Data Range: Historical and 2010/2011/2012

Remedial Investigation for
Former Galena Forward Operating Location
Galena, Alaska

PARSONS

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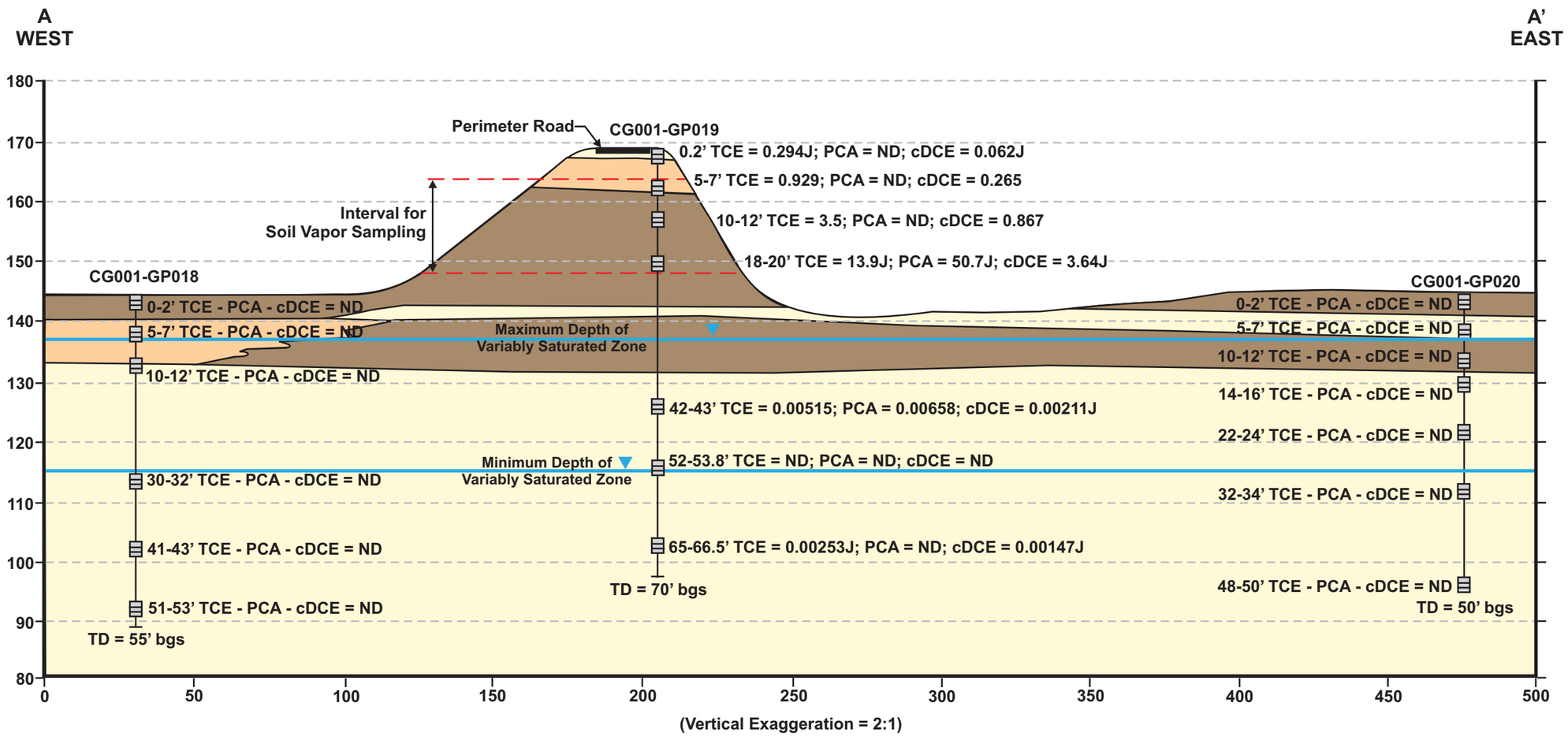


NOTES:

All concentrations in milligrams per kilogram
ND = Not Detected
TCE = Trichloroethene
PCA = 1,1,2,2 - Tetrachloroethane
cDCE = cis - 1,2 - Dichloroethene
Methylene chloride, tetrachloroethene, 1,1,2- trichloroethene and trans-1.2 dichloroethene were also detected in boring C0001-GP019 at concentrations less than 1.0 mg/kg; results are not posted

LEGEND

- SILT (ML)
- SILTY SAND (SM)
- WELL TO POORLY GRADED SAND (SP-SW)

FIGURE D54-3

CROSS SECTION A-A'
Site Name: Site SS025

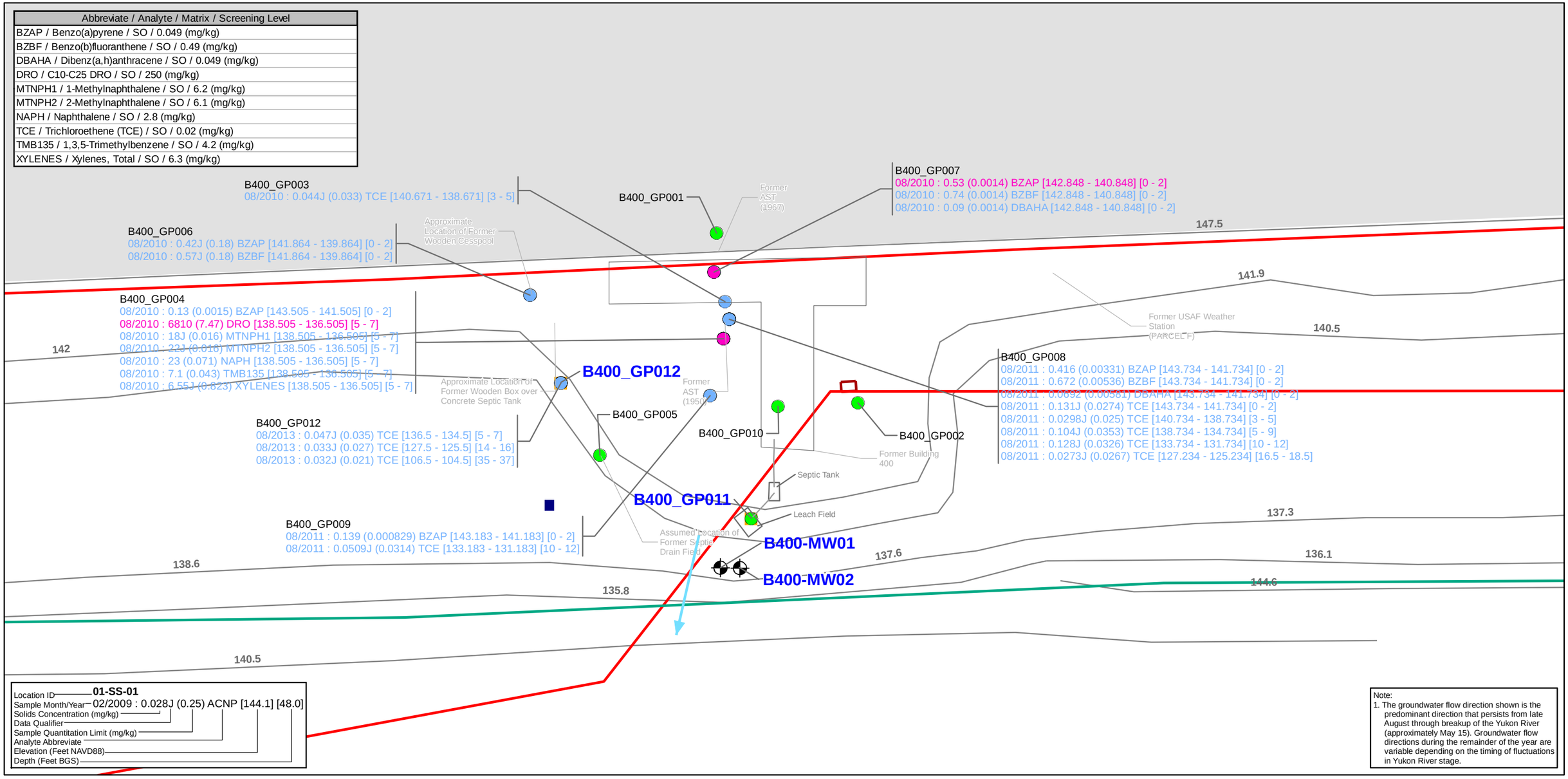
Supplemental Remedial Investigation for
Former Galena Forward Operating Location
Galena Airport, Galena, Alaska

PARSONS

draw\748917 Galena Cross-Section.cdr ma 07/19/2013

Attachment B
B400 Soil and Groundwater Sampling Results

Abbreviate / Analyte / Matrix / Screening Level
BZAP / Benzo(a)pyrene / SO / 0.049 (mg/kg)
BZBF / Benzo(b)fluoranthene / SO / 0.49 (mg/kg)
DBAHA / Dibenz(a,h)anthracene / SO / 0.049 (mg/kg)
DRO / C10-C25 DRO / SO / 250 (mg/kg)
MTNPH1 / 1-Methylnaphthalene / SO / 6.2 (mg/kg)
MTNPH2 / 2-Methylnaphthalene / SO / 6.1 (mg/kg)
NAPH / Naphthalene / SO / 2.8 (mg/kg)
TCE / Trichloroethene (TCE) / SO / 0.02 (mg/kg)
TMB135 / 1,3,5-Trimethylbenzene / SO / 4.2 (mg/kg)
XYLENES / Xylenes, Total / SO / 6.3 (mg/kg)



Note:
1. The groundwater flow direction shown is the predominant direction that persists from late August through breakup of the Yukon River (approximately May 15). Groundwater flow directions during the remainder of the year are variable depending on the timing of fluctuations in Yukon River stage.

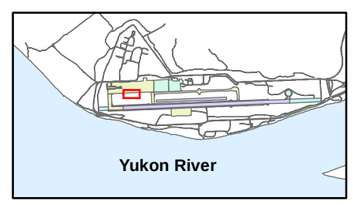
Legend

- B400_Features
- Approximate Location of Former Feature
- Approximate Groundwater Flow Direction
- Storm Sewer Open Drainage Line
- Underground Airfield Cable
- Secoundary Underground
- Ground Surface Contour

Utility Locates - 2010

- Communications Line
- Fuel/Gas Line
- Electrical Transformer
- WG, Monitoring Well (cluster)
- Soil Boring with Grab Groundwater

- 2010/2011/2012/2013 Sample Exceeds Screening Level (Greater than 100X analyte SL)
- 2010/2011/2012/2013 Sample Exceeds Screening Level (Greater than 10X analyte SL)
- 2010/2011/2012/2013 Sample Exceeds Screening Level (1 to 10X analyte SL)
- 2010/2011/2012/2013 Sample Does Not Exceed Screening Level
- Previous Sample Exceeds Screening Level (Greater than 100X analyte SL)
- Previous Sample Exceeds Screening Level (Greater than 10X analyte SL)
- Previous Sample Exceeds Screening Level (1 to 10X analyte SL)
- Previous Sample Does Not Exceed Screening Level
- Airfield Surface or Road



0 20 40
Feet

N

FIGURE 1

Step-Out Samples

Site Name: B400
Analytes: All Exceedances Except Metals
Media: Soil
SLs: Soil Extent
Data Range: Historical and 2010/2011/2012/2013

Supplemental Remedial Investigation for
Former Galena Forward Operating Location
Galena Airport, Galena, Alaska

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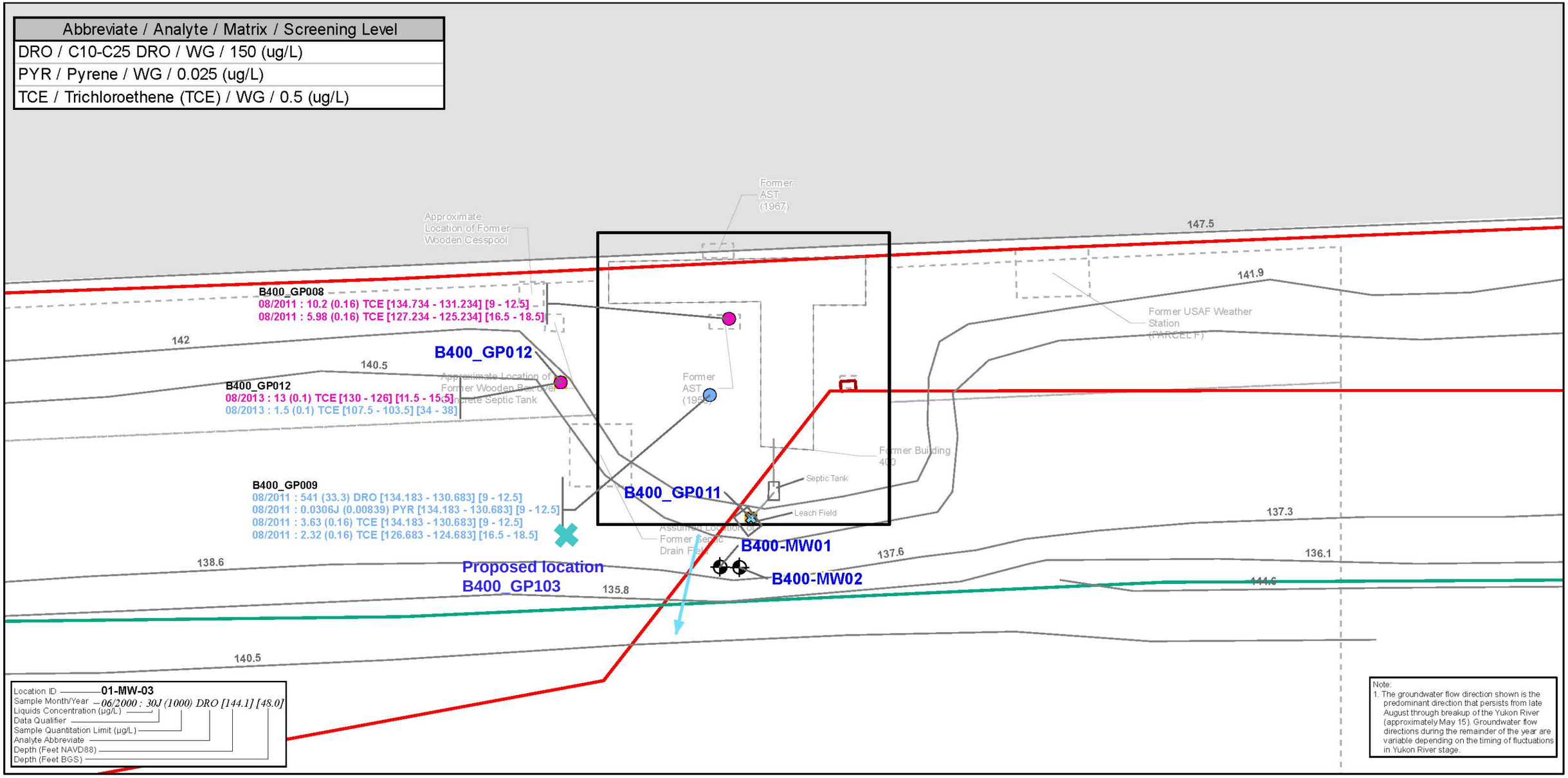
S:\ES\Remed\748917 Galena FOL\Database\GIS\RI-B400\GAL_RIRpt_B400_SO_FSP_Final_Fig-1.mxd lxh 9/6/2013

Abbreviate / Analyte / Matrix / Screening Level
DRO / C10-C25 DRO / WG / 150 (ug/L)
PYR / Pyrene / WG / 0.025 (ug/L)
TCE / Trichloroethene (TCE) / WG / 0.5 (ug/L)



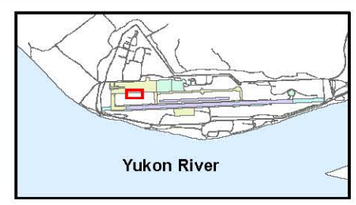
Legend

- B400
- B400_Features
- Approximate Location of Former Feature
- Airfield Surface or Road
- Approximate Groundwater Flow Direction
- Storm Sewer Open Drainage Line
- Underground Airfield Cable
- Secoundary Underground
- Ground Surface Contour

Utility Locates - 2010

- Communications Line
- Fuel/Gas Line
- Electrical Transformer
- WG, Monitoring Well (cluster)
- Soil Boring with Grab Groundwater

- 2010/2011/2012/2013 Sample Exceeds Screening Level (Greater than 100X analyte SL)
- 2010/2011/2012/2013 Sample Exceeds Screening Level (Greater than 10X analyte SL)
- 2010/2011/2012/2013 Sample Exceeds Screening Level (1 to 10X analyte SL)
- 2010/2011/2012/2013 Sample Does Not Exceed Screening Level
- Previous Sample Exceeds Screening Level (Greater than 100X analyte SL)
- Previous Sample Exceeds Screening Level (Greater than 10X analyte SL)
- Previous Sample Exceeds Screening Level (1 to 10X analyte SL)
- Previous Sample Does Not Exceed Screening Level



0 20 40
Feet

N

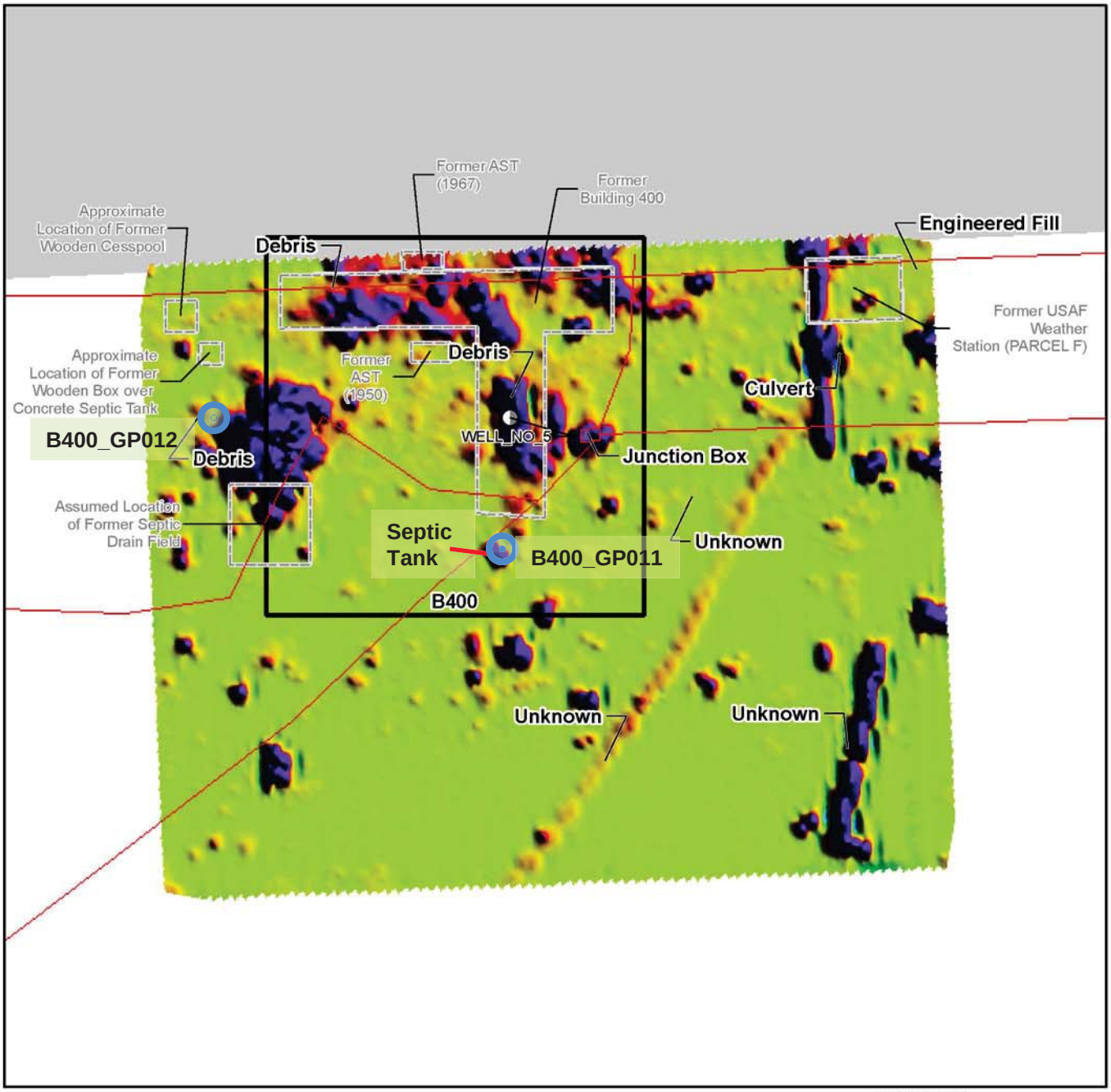
FIGURE 2

Step-Out Samples
Site Name: B400
Analytes: All Exceedances Except Metals
Media: Groundwater
SLs: Groundwater Screening Levels
Data Range: Historical and 2010/2011/2012/2013

Supplemental Remedial Investigation for
Former Galena Forward Operating Location
Galena Airport, Galena, Alaska

PARSONS

S:\ES\Remed\748917 Galena FOL\Database\GIS\RI-B400\GAL_RIRpt_B400_GW_FSP_Final_Fig-2.mxd bxh 9/6/2013

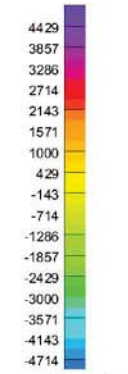


LEGEND

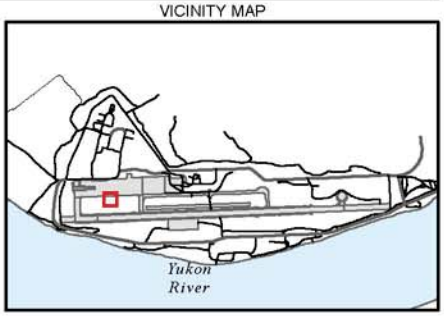
- B400
- Adjacent Site
- Approximate Location of Former Feature
- Airfield or Road
- Abandoned Production Well

Utility Locates - 2010

- Electrical Transformer
- Electrical Line
- **Location of Proposed Soil Boring**



VICINITY MAP



N

0 25 50
Feet

Note:
1. July 2010 GPR data is provided by SageEarth, Inc.

Figure 4
B400 Site
Geophysical Survey
September 2010
Former Galena Forward Operating Location, Alaska

From CH2M Hill, January 2013

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Attachment C
Summary of Acetone Investigation Samples

Table 1 - Summary of Equipment Blank, Trip Blank, and Acetone Investigation Samples

Sample ID	SDG	Sample Date		SW8260B ACETONE ug/L	SW8260B BENZENE ug/L	SW8260B CHLOROFORM ug/L	SW8260B METHYLENE CHLORIDE ug/L	SW8260B TOLUENE ug/L	AK102/3 PHC as DIESEL FUEL ug/L
		Method 2 Screening Level		1500	0.5	1.8	0.5	2	150
Equipment Blank Results									
B400_EB001_081513-GW	13H161	15-Aug-13		**33**	ND	ND	ND	**0.21 JB**	**220 J**
B400_EB002_081613-SOIL	13H161	16-Aug-13		**33**	ND	ND	**0.51 J**	**0.32 JB**	ND
FT001_EB02-080813	13H086	08-Aug-13		**39**	**0.1 J**	ND	ND	**0.54 J**	ND
FT001EB01_080213	13H025	02-Aug-13		**35**	**0.12 J**	**0.11 J**	ND	**0.36 J**	ND
OAP_EB01_080913	13H106	09-Aug-13		**38**	**0.1 JB**	**0.1 J**	ND	**0.57 JB**	ND
OAP_EB02_081013	13H106	10-Aug-13		**36**	ND	ND	ND	**0.45 JB**	ND
SS019EB02-GW_082113	13H196	21-Aug-13		**42**	ND	ND	**0.56 J**	**0.26 BJ**	ND
ST010_EB01-081113-GW	13H106	11-Aug-13		**36**	ND	ND	ND	**0.4 JB**	ND
ST010_EB02-081413-SOIL	13H133	14-Aug-13		**33**	ND	ND	ND	**0.37 J**	ND
Trip Blank Results		**TB Frequency of Detection:**		7 of 22	7 of 22	0 of 22	0 of 22	22 of 22	
B400_TB01_081513	13H161	15-Aug-13		**2.7 J**	**0.12 J**	ND	ND	**0.92 J**	ND
B400_TB002_081613_VOC	13H162	16-Aug-13		ND	ND	ND	ND	**0.17 J**	ND
B400_TB03_081713_VOC	13H171	17-Aug-13		ND	ND	ND	ND	**0.7 J**	ND
B400_TB04_081713	13H171	17-Aug-13		**3.2 J**	**0.26 J**	ND	ND	**1.4**	ND
FT001TB01_080213	13H025	02-Aug-13		ND	ND	ND	ND	**0.16 J**	ND
FT001TB01_080313	13H034	03-Aug-13		ND	ND	ND	ND	**0.2 J**	ND
FT001_TB04_080813	13H086	08-Aug-13		ND	ND	ND	ND	**0.14 J**	ND
FT001_TB05_081013	13H106	10-Aug-13		**3 J**	**0.19 J**	ND	ND	**1.3**	ND
OAP_TB01_080613	13H044	06-Aug-13		ND	ND	ND	ND	**0.18 J**	ND
OAP-TB02_080713	13H057	07-Aug-13		ND	ND	ND	ND	**0.17 J**	ND
OAP_TB04_080913_VOC	13H087	09-Aug-13		**3 J**	**0.15 J**	ND	ND	**1.1**	ND
OAP_TB05V_081013	13H096	10-Aug-13		ND	ND	ND	ND	**0.17 J**	ND
OAP_TB06V_081213	13H095	12-Aug-13		**4 J**	**0.3 J**	ND	ND	**1.5**	ND
OAP_TB07_081313_VOC	13H117	13-Aug-13		ND	**0.17 J**	ND	ND	**1.2**	ND
SS015_TB01_082213	13H211	22-Aug-13		ND	ND	ND	ND	**0.19 J**	ND
SS019_TB02_082013	13H186	20-Aug-13		**3.9 J**	**0.27 J**	ND	ND	**1.3**	ND
SS019_TB03_082113	13H196	21-Aug-13		**3.4 J**	ND	ND	ND	**0.67 J**	ND
SS019_TB04_082413	13H239	24-Aug-13		ND	ND	ND	ND	**0.19 J**	ND
ST010_TB01_081113	13H106	11-Aug-13		ND	ND	ND	ND	**0.21 J**	ND
ST010_TB02_081313	13H133	13-Aug-13		ND	ND	ND	ND	**0.19 J**	ND
ST010_TB03_081313_VOC	13H132	13-Aug-13		ND	ND	ND	ND	**0.21 J**	ND
ST010_TB04_081413_VOC	13H148	14-Aug-13		ND	ND	ND	ND	**0.21 J**	ND
Acetone Investigation Samples									
GALFOL_REFIRG_BLANK	13H239	20-Aug-13		**42**	ND	ND	**0.52J**	**0.30J**	NA
BLDG1837AB01_082413	13H239	24-Aug-13		**5.6J**	ND	ND	ND	ND	NA
ASTM TYPE2_WATER_082613	13H239	26-Aug-13		**41**	ND	ND	ND	**0.19J**	NA
COOLERWIPE_082613	13H239	26-Aug-13		**35**	ND	ND	ND	**0.31J**	NA
DISTILLED WATER_082613	13H239	26-Aug-13		**2.6J**	ND	ND	ND	**0.21J**	NA
GEOTEK6620_WATER_082613	13H239	26-Aug-13		**3.2J**	ND	ND	ND	ND	NA
HILL_TB01082613	13H239	26-Aug-13		**7.4 J**	ND	ND	ND	**0.3 J**	ND

Grey shading signifies samples consisting of ASTM Type 2 water stored in Bay 1 of Building 1833