

ERIE APARTMENTS “Balcolm Flats”

4060 East County Line Road
Erie, Colorado 80516

Town of Erie Sketch Plan Review

Steppe Development, LLC

6333 Apples' Way, Suite 115
Lincoln, NE 68516
402-436-0011 office
402-436-0088 fax

August 21, 2015
(Revised Submittal April 21, 2016)

RH 14-174



Index:

Project Narrative 1

- Purpose of request and general project description.
- Availability and adequacy of existing infrastructure and other necessary services including schools, fire protection, water/sewer service, and utility providers.
- Location, function and ownership/maintenance of public and private open space, parks, trails, common areas, common buildings.
- Substance of any existing or proposed covenants, special conditions, grants of easements, or other restrictions applying to the proposed subdivision.

Proof of Ownership 2

- Commitment for Title Insurance

Letter of Authorization 3

- Owner letter of Authorization & Application (updated 04.21.2016)

ALTA Land Survey 4

- ALTA Survey By Tristate Surveying, Inc. Drawing No. 201525_ALTA Dated: 01 May 15.

Sketch Plan Exhibits 5

- A1.7 Preliminary Site Concept – Site Plan (revised new concept, dated 04.19.2016)
- A1.7a Preliminary Site Concept – Site Plan (revised new concept, dated 04.19.2016)
- A4.1 thru A4.8 Preliminary Exterior Façade Studies (revised concept, dated 04.19.2016)
- A1.5 Preliminary Site Concept – Site Plan (previous concept, dated 08.21.2015)
- A2.5 Preliminary Site Concept – Massing (previous concept, dated 08.21.2015)

Environmental Report 6

- Phase II Report by CTL Thompson, Dated: September 17, 2013

September 17, 2013

INA Group, LLC
6333 Apples' Way, Suite 115
Lincoln, NE 68516

Attention: Tom Beckius

Subject: Supplemental Phase II Environmental Site Assessment
4060 County Line Road, Erie, Colorado
CTL | T Project No. FC05859.001

INTRODUCTION

This report presents the analytical results for soil and groundwater samples collected during the Supplemental Phase II Environmental Site Assessment (ESA) of 4060 County Line Road in Erie, Colorado, hereafter known as "the site". The site is developed with an abandoned former pre-cast concrete manufacturing plant.

BACKGROUND

CTL | Thompson (CTL) conducted a limited Phase II ESA of 4060 County Line Road in Erie, Colorado (CTL Project No. FC05859.001, final report dated April 12, 2013). Among the findings of the investigation, petroleum hydrocarbons were identified in soils within the former pre-cast concrete manufacturing building on the site. The limited assessment performed within the building was not intended to allow for horizontal or vertical delineation of the extent of contamination.

The objective of the Supplemental Phase II ESA was to better delineate the horizontal and vertical extent of petroleum hydrocarbons inside the building. In addition, representative building materials were sampled, composited, and analyzed for disposal characteristics.

DRILLING AND SAMPLING

On July 19, 2013, Mr. Dana Harris of CTL mobilized to the site with subcontractor DrillPro, Inc.. A truck-mounted direct push drill rig was used to advance eight borings (GP-9 through GP-16).

Two hand-excavated surficial soil samples (S-17 and S-18) were collected using a disposable plastic trowel from the trench inside the pre-cast building. Boring and sample locations are shown on Figure 1.



During advancement of each boring, soil samples were collected continuously in 4-foot teflon cores down to a maximum depth of 20 feet below grade.

Soils from core samples were observed in the field using disposable vinyl examination gloves changed after every sample. After the soils were visually inspected, the soil sample from each core was divided. A portion of the sample was transferred into a plastic zip-loc bag and sealed; the other portion of the sample was promptly placed into a uniquely identified glass jar and packed tightly to minimize voids. Samples were containerized for potential laboratory analysis at approximate 5-foot intervals. Sample jars were then placed into a cooler chilled with ice for in-field storage and transit to the laboratory. The samples in the plastic bags were warmed and allowed to sit undisturbed to allow possible volatile organic compounds (VOCs) in the soils to vaporize into the headspace of the bags. A photoionization detector (PID) was used to determine the field concentration of VOCs of the headspace in the zip-loc bags.

Following completion of soil sampling, 1-inch PVC casings with slotted screen were inserted into the boreholes as temporary wells to facilitate groundwater sampling. Groundwater samples were collected using check-ball sampling device and clean disposable tubing. Upon completion of sampling, the temporary wells were removed and each borehole was backfilled with cuttings and hydrated bentonite pellets.

Samples collected for laboratory analysis were delivered under chain of custody protocol to ALS laboratory in Fort Collins, Colorado, an independent analytical laboratory.

FIELD OBSERVATIONS

Boring logs are presented in Appendix A. Soils generally consisted of sandy clays and clayey sands underlain by weathered claystone/sandstone bedrock (generally observed as sand, gravel, pebbles, and cobbles) at depths between 15 and 20 feet below grade. Saturated soils were encountered in several borings within weathered bedrock at depths of approximately 18 to 20 feet below grade.

The interior of the building had a moderate to strong ambient petroleum odor, making it difficult to assess soils for odors during drilling. However, as shown on the boring logs, PID measurements were generally less than, or very slightly higher than, 10 parts per million by volume (ppmv), which is typically indicative of background (ambient PID readings inside the building ranged from 0.5 to 1.2 ppmv). Light surficial staining was observed on soils in various locations inside the building. The trench inside the pre-cast building was partially filled with dumped wastes, but visible soils inside the trench generally appeared similar to those of the dirt floor elsewhere in the building, with light staining and a petroleum odor.

LABORATORY ANALYTICAL RESULTS

Soils

An iterative approach was designed for laboratory analysis of samples collected from soil borings (shallow soils collected from the trench were all analyzed, as planned). The



agreed strategy would be to initially analyze each sample collected from the depth of 5 feet below grade. Because the form oil was believed to have been spray-applied at the surface, it was reasonable to assume that contamination would have entered at the ground surface and migrated downward. If no significant contamination was present at 5 feet depth below grade, it would be reasonable to assume that significant contamination would not be found at deeper depths from the form oil application. Therefore, each soil sample from the 5-foot below grade depth level was initially submitted to be analyzed for oil & grease by EPA Method 9071 and benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA Method 8260; remaining samples were held at the laboratory. Following receipt of initial analytical results, selected deeper samples were analyzed for oil & grease and BTEX, based on initial analytical results. Due to accelerated laboratory turnaround, all sample analyses were completed within the EPA-established method holding times for oil & grease and BTEX. Laboratory analytical results are included in Appendix B, and soil results are summarized on Table 1 below.

Table 1 Soil Analytical Results – Inside Pre-Cast Building							
Boring No.	Depth (feet)	Sample Date	O&G ^{1,2} (mg/kg ³)	Benzene (µg/kg ³)	Toluene (µg/kg)	Ethylbenzene (µg/kg)	Xylenes (µg/kg)
GP-2	21-22	3/26/2013	< 50	< 10	< 10	< 10	< 10
GP-9 ⁴	5	7/19/2013	< 110	< 5.4	< 5.4	< 5.4	< 5.4
GP-10 ⁴	5	7/19/2013	< 110	< 5.0	< 5.0	< 5.0	< 5.0
GP-11 ⁴	5	7/19/2013	< 110	< 5.2	< 5.2	< 5.2	< 5.2
GP-12 ⁴	5	7/19/2013	< 110	< 5.2	< 5.2	< 5.2	< 5.2
GP-13 ⁴	5	7/19/2013	< 110	< 4.8	< 4.8	< 4.8	< 4.8
GP-14 ⁴	5	7/19/2013	< 110	< 5.4	< 5.4	< 5.4	< 5.4
GP-15 ⁴	5	7/19/2013	< 110	< 5.2	< 5.2	< 5.2	< 5.2
GP-16	5	7/19/2013	380	< 5.4	< 5.4	< 5.4	< 5.4
	10	7/19/2013	< 120	< 5.7	< 5.7	< 5.7	< 5.7
	15	7/19/2013	< 100	< 4.7	< 4.7	< 4.7	< 4.7
	20	7/19/2013	< 110	< 5.2	< 5.2	< 5.2	< 5.2
S-8	1-2	3/26/2013	316	< 10	< 10	< 10	< 10
S-17	1-2	7/19/2013	5800	< 5.1	< 5.1	< 5.1	< 5.1
S-18	1-2	7/19/2013	1500	< 4.8	< 4.8	< 4.8	< 4.8
Colorado OPS Limit ⁵			500	260	140000	190000	260000

1. Results in bold exceed regulatory comparison value
2. Total petroleum hydrocarbons as Oil & Grease by EPA Method 9071
3. mg/kg = milligrams per kilogram. µg/kg = micrograms per kilogram
4. Samples collected at 5-foot intervals, but only the samples from 5-foot depth were analyzed.
5. Colorado Department of Labor and Employment, Division of Oil and Public Safety, Tier I Risk Based Screening Levels, 2005.



With the exception of boring GP-16, none of the 5-foot depth soil samples contained oil & grease or BTEX above laboratory method detection limits (MDLs). The 5-foot depth sample from GP-16 contained an oil & grease concentration of 380 milligrams per kilogram (mg/kg), which is less than the Colorado limit of 500 milligrams per kilogram (mg/kg) for USTs, which is not directly applicable to releases from the pre-cast operation but is the most relevant regulatory standard. BTEX were not detected above MDLs. The soil samples from 10 feet, 15 feet and 20 feet below grade at GP-16 were also analyzed, but neither oil and grease nor BTEX were detected above MDLs.

The surficial soil samples S-17 and S-18, collected from the trench inside the building, contained oil & grease at concentrations of 5,800 mg/kg and 1,500 mg/kg, respectively, both exceeding the OPS limit; neither sample contained BTEX above MDLs. Analysis for PAHs was not performed.

Groundwater

Limited amounts of groundwater were present in each temporary well; however, four of the wells (GP-10, GP-12, GP-13, and GP-16) went dry while attempting to purge and a sample could not be collected. Groundwater samples were collected from temporary wells GP-9, GP-11, GP-14, and GP-15 and were analyzed for oil & grease by EPA Method 1664 and BTEX by EPA method 8260. Laboratory analytical results are included in Appendix B and are summarized on Table 2 below.

Table 2 Groundwater Analytical Results – Inside Pre-Cast Building						
Sample No.	Sample Date	Oil & Grease (mg/l ¹)	Benzene (µg/l ¹)	Toluene (µg/l)	Ethylbenzene (µg/l)	Xylenes (µg/l)
GP-9	7/19/2013	< 5.7	< 1	7.6	< 1	< 1
GP-11	7/19/2013	< 5.3	< 1	2.6	< 1	< 1
GP-14	7/19/2013	< 5.6	< 1	1.3	< 1	< 1
GP-15	7/19/2013	< 5.6	< 1	0.56	< 1	< 1
Colorado GWS ²		None established	5	560	700	1,400

1. mg/l = milligrams per liter. µg/liter = micrograms per liter
2. Colorado Department of Health and Environment, Water Quality Control Division, The Basic Standards for Groundwater (Regulation 41). 5 CCR 1002-41, January 31, 2013.

Toluene was detected in all four groundwater samples, at concentrations up to 7.6 µg/l, which is well below the Colorado groundwater standard of 560 µg/l. None of the other target analytes were detected above MDLs.



BUILDING WASTE CHARACTERIZATION

CTL collected representative samples of building materials that were visibly stained (presumably with form oil). Materials sampled included wood (approximately 70 percent of the sample by weight) and metal. The materials were composited in a clean 5-gallon bucket and submitted to ALS laboratory to be analyzed for polychlorinated biphenyls (PCBs) and toxicity characteristic leaching procedure (TCLP) benzene. As shown on the lab report in Appendix B, PCBs were not detected above MDLs and the TCLP benzene concentration was less than 10 µg/l, which is less than the hazardous waste limit of 500 µg/l. Therefore, the building debris will not be considered a characteristic hazardous waste.

CONCLUSIONS AND RECOMMENDATIONS

Based on the results of this investigation, oil-contaminated soil within the pre-cast building appears to be limited to the area of the trench and depths of less than 10 feet immediately north of the east end of the trench (where boring GP-16 was advanced). Groundwater under the building contained low levels of toluene, at concentrations well below Colorado groundwater standards. Following demolition, the building debris stained with form oil will not be considered characteristically hazardous due to benzene content.

If it is desired to enter into the Colorado Voluntary Cleanup (VCUP) program, we recommend that a final site development plan be prepared and that a work plan be developed to address the concerns identified during this and prior investigations. Depending on the proposed development and use of the property, limited soil or other remedial actions may be warranted. CTL would be happy to assist with remedial design, work plan development, and the VCUP application and project management process.

LIMITATIONS

The subsurface investigation and chemical analysis were performed for specific parameters, as detailed in this letter. The accuracy and reliability of environmental studies are a reflection of the number and type of samples taken and extent of the analyses conducted, and are thus inherently limited and dependent upon the resources expended. An independent laboratory performed laboratory analysis. We are not responsible for the accuracy of data presented by others. The services performed should not be interpreted as providing any guarantee that the materials are free and clear of all hazardous or toxic materials.

We believe that our services were conducted in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the locality of the project. No warranty, express or implied, is made.



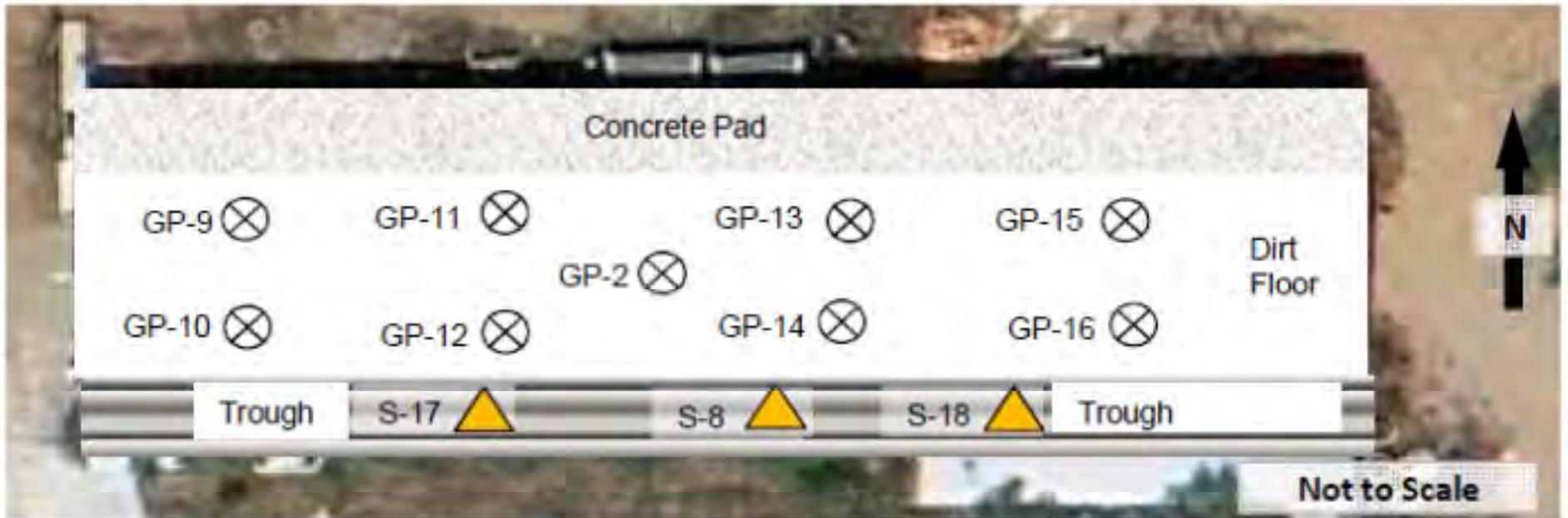
Thank you for choosing us to assist you with this project. If you have any questions or would like further clarification regarding this letter, please contact us.

Very truly yours,

CTL | THOMPSON, INC.

Dana L. Harris
Environmental Department Manager, Fort Collins

Matthew L. Wardlow, P.E.
Environmental Department Manager, Denver



⊗ Boring location

▲ Shallow soil sample location

Figure 1
Warehouse Sample Locations
Supplemental Phase II Environmental Site Assessment
4060 County Line Road, Erie, Colorado
CTL No. FC05859.001

Appendix A

Boring Logs

Field Boring Log

Lat: _____ Long: _____

Date: 7/19/13 Project #: _____ Project Name: 4060 CLR Eric Hole#: GP-9

CTL Representative: DH Hole Location: _____ Elevation: _____ Start: _____ Finish: _____

Drill Company: _____ Rig / Hammer / Auger Type: CME 45 55 Other: Geoprobe / Manual Auto / 4"SS 6"HS Other _____

Depth	Hatch Pattern	Sample 1	Sample 2	PID Count	% Fines	USC Symbol	DESCRIPTIONS / NOTES					Depth		
							Primary	Modifier	Moisture	Consistency	Color		Notes	
0							Gray	clayey	sand	w/ gravel, pebbles,	reddish-brown	odor	0	
				2.1 3.1			Grader	to	red-brown	clayey	sand,	dry,	no odor	
5	x	OSPT					Grader	to	red-yellow	clayey	sand,	dry,	no odor	5
				2.1										
10	x	OSPT					SMA	,	becoming	moist,		no odor	10	
				2.1										
15	x	OSPT											15	
				2.1			Grader	to	weathered	bedrock,	becomes	saturated		
20	x	OSPT					Drive	to	25'	+ set	keys	well	20	
25													25	
30													30	
35													35	

Split Spoon Clay Sand Gravel Claystone Sandstone
 California Piezometer set _____ Depth to Bedrock _____
 Bulk Groundwater During Drilling _____ Groundwater After Drilling _____ Date _____

Ambient P10 → 0.5 - 1.2 ppm

Field Boring Log

Lat: _____ Long: _____

Date: 7/19/13 Project #: _____ Project Name: Y061 CLR Eric Hole#: GP-10

CTL Representative: DH Hole Location: _____ Elevation: _____ Start: _____ Finish: _____

Drill Company: _____ Rig / Hammer / Auger Type: CME 45 55 Other: Geoprobe / Manual Auto / 4"SS 6"HS Other

Depth	Hatch Pattern	Sample 1	Sample 2	Blow Count	% Fines	USC Symbol	DESCRIPTIONS / NOTES					Depth
							Primary	Modifier	Moisture	Consistency	Color	
0												0
5	x 0850			11.4			Gray clayey sand, dry, slight odor					5
10	x 0815			3.7			Gray - brown clayey sandy gravel, cobbles, dry, sl. odor					10
15	x 0905			4.9			Grades to red-brown clayey soil, dry, no odor					15
20	x 0915			3.7			Grades to yellow brown clayey sand, dry, sl. odor					20
25				7.2			↓ clay grades out - still slight odor,					25
30							↓ becoming moist					30
35							Grades to wk bdrx + saturated, odor grades out					35
							push to 25' PL keep well					

Split Spoon Clay Sand Gravel Claystone Sandstone
 California Piezometer set: Y N Depth to Bedrock _____
 Bulk Groundwater During Drilling _____ Groundwater After Drilling _____ Date _____

Field Boring Log

Lat: _____ Long: _____

Date: 7/19/13 Project #: _____ Project Name: 4060 CLR ERE Hole#: GP-11
 CTL Representative: DM Hole Location: _____ Elevation: _____ Start: _____ Finish: _____
 Drill Company: _____ Rig / Hammer / Auger Type: CME 45 55 Other: Geopac / Manual Auto / 4"SS 6"HS Other _____

Depth	Hatch Pattern	Sample 1	Sample 2	Blow Count	% Fines	USC Symbol	DESCRIPTIONS / NOTES					Depth
							Primary	Modifier	Moisture	Consistency	Color	
0												0
				3.0								
				3.0								
5		X0930		2.3								5
				3.7								
10		X0935		3.7								10
				3.5								
15		X0945		3.5								15
				4.2								
20		X0955		4.2								20
25												25
30												30
35												35

	Split Spoon		Clay		Sand		Gravel		Claystone		Sandstone
	California	<input type="checkbox"/>	Piezometer set.	Y	<input type="checkbox"/>	N			Depth to Bedrock	_____	
	Bulk	<input type="checkbox"/>	Groundwater During Drilling	<input type="checkbox"/>	Groundwater After Drilling	_____			Date	_____	

Field Boring Log

Lat: _____ Long: _____

Date: 7/19/17 Project #: _____ Project Name: 4060 CLR ERIC Hole#: GP-12
 CTL Representative: DH Hole Location: _____ Elevation: _____ Start: _____ Finish: _____
 Drill Company: _____ Rig / Hammer / Auger Type: CME 45 55 Other: Geoprobe / Manual Auto / 4"SS 6"HS Other

Depth	Hatch Pattern	Sample 1	Sample 2	Blow Count PID	% Fines	USC Symbol	DESCRIPTIONS / NOTES						Depth
							Primary	Modifier	Moisture	Consistency	Color	Notes	
0												0	
				8.1							Gray clayey sand Brown clayey sand, gravel, cobbles, dry, moderate odor Graty to brown clayey sand, dry, sl. odor		
5		X 1000		6.6							Graty to yellow-red clayey sand, dry, sl. odor	5	
10		X 1005		10.0								10	
				9.3									
15		X 1015										15	
				6.7							Graty to wa bedrock, dry, sl. odor		
20		X 1025									- not searched - Push to 25' - set well	20	
25												25	
30												30	
35												35	

	Split Spoon		Clay		Sand		Gravel		Claystone		Sandstone
	California	Piezometer set: <input type="checkbox"/> Y <input type="checkbox"/> N		Depth to Bedrock: _____							
	Burb	Groundwater During Drilling		Groundwater After Drilling				Date: _____			

Field Boring Log

Lat: _____ Long: _____

Date: 7/19/17 Project #: _____ Project Name: Y060 CLR CRP Hole#: GP-17
 CTL Representative: DM Hole Location: _____ Elevation: _____ Start: _____ Finish: _____
 Drill Company: _____ Rig / Hammer / Auger Type: CME 45 55 Other: Geoprobe / Manual Auto / 4"SS 6"HS Other

Depth	Hatch Pattern	Sample 1	Sample 2	Flow Count	% Fines	USC Symbol	DESCRIPTIONS / NOTES						Depth
							Primary	Modifier	Moisture	Consistency	Color	Notes	
0							Gray	sandy clay, clay,	moderate	odor		0	
				7.0			Brown	sandy clay, clay,	moderate	odor			
5	X 1040			4.3			Grader to tan	sandy clay, clay,	slight	odor		5	
10	X 1045			6.2			Grader to tan	clay, stiff,	moist,	moderate	odor	10	
15	X 1055			5.1			Grader to tan	clayey sand,	clay,	sl.	odor	15	
20	X 1105			3.1			Grader to w _x	bedrock, clay,	moist,	no	odor	20	
							not	struck					
							push to	21'	set	well			

Split Spoon Clay Sand Gravel Claystone Sandstone
 California Piezometer set: Y N Depth to Bedrock: _____
 Bulk Groundwater During Drilling Groundwater After Drilling: _____ Date: _____

Field Boring Log

Lat: _____ Long: _____

Date: 7/19/13 Project #: _____ Project Name: 4060 CLR Case Hole#: GP-14

CTL Representative: DM Hole Location: _____ Elevation: _____ Start: _____ Finish: _____

Drill Company: _____ Rig / Hammer / Auger Type: CME 45 55 Other: Geopack / Manual Auto / 4"SS 6"HS Other _____

Depth	Hatch Pattern	Sample 1	Sample 2	Block Count	% Fines	USC Symbol	DESCRIPTIONS / NOTES						Depth
							Primary	Modifier	Moisture	Consistency	Color	Notes	
0							Gray	sandy	clay	dry	no odor	odor	0
				51.4			Brown	sandy	clay	clay	sl. odor		
5	X 1110			6.1									5
10	X 1115			11.3			Grades	to	AAA	to	dry	sl. odor	10
15	X 1125			4.4									15
20	X 1135			7.7			Grades	to	W	below	clay	no odor	20
							Pure	to	25'		set well		

Split Spoon Clay Sand Gravel Claystone Sandstone
 California Piezometer set: Y N Depth to Bedrock: _____
 Bulk Groundwater: During Drilling _____ After Drilling _____ Date _____

Field Boring Log

Lat: _____ Long: _____

Date: 7/19/17 Project #: _____ Project Name: 4060 CLR EDC Hole#: GP-15

CTL Representative: DM Hole Location: _____ Elevation: _____ Start: _____ Finish: _____

Drill Company: _____ Rig / Hammer / Auger Type: CME 45 55 Other: Geoprobe /Manual Auto / 4"SS 6"HS Other

Depth	Hatch Pattern	Sample 1	Sample 2	Blow Count	% Fines	USC Symbol	DESCRIPTIONS / NOTES						Depth
							Primary	Modifier	Moisture	Consistency	Color	Notes	
0							Gr	Sandy clay, gravel, cobbles, chq, sl. odor					0
				2.4				Brown sandy clay, chq, no odor					
5	X1140			2.7				Grades to fine sandy clay, chq, no odor					5
10	X1145			2.5				Become more cl. odor					10
				2.0				Grades to sand + gravel, chq, no odor					
15	X1155			2.0				Grades to clay, mottled, no odor					15
				2.9				Grades to w/ bedrock, mottled, sl. odor					
20	X1200							no sch.					20
								Refr to 20' set well					
25													25
30													30
35													35

	Split Spoon		Clay		Sand		Gravel		Claystone		Sandstone
	California		Piezometer set: <input type="checkbox"/> <input type="checkbox"/>								
	Bulk		Groundwater During Drilling		Groundwater After Drilling						

Depth to Bedrock: _____ Date: _____

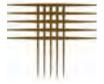
Field Boring Log

Lat: _____ Long: _____

Date: 7/19/13 Project #: _____ Project Name: 4060 CLR Erie Hole#: GP-16
 CTL Representative: DM Hole Location: _____ Elevation: _____ Start: _____ Finish: _____
 Drill Company: _____ Rig / Hammer / Auger Type: CME 45 55 Other: Legnix / Manual Auto / 4"SS 6"HS Other

Depth	Hatch Pattern	Sample 1	Sample 2	PID Flow Count	% Fines	USC Symbol	DESCRIPTIONS / NOTES					Depth
							Primary	Modifier	Moisture	Consistency	Color	
0							Tan. sand, gravel, cobbles, dry, no odor					0
				6.2			Grader to brown sandy clay, dry, no odor					
5	X1210			4.7			Grader to tan clay, sand, dry, no odor					5
							Grader to tan clay, stiff, dry, no odor					
10	X1215			3.0			Grader to tan clay, sand, moist, no odor					10
				6.4			Grader to tan sandy clay, dry, no odor					
15	X1220			4.8			Grader to tan to red sand, gravel, pebbles, cobbles, dry, no odor (w/ gravel)					15
							Push to 25' set well					
20	X1230											20
25												25
30												30
35												35

Split Spoon Clay Sand Gravel Claystone Sandstone
 California Piezometer set: Y N Depth to Bedrock: _____
 Bulk Groundwater During Drilling Groundwater After Drilling _____ Date: _____



Appendix B
Laboratory Analytical Results



1307328

GC/MS Volatiles:

The samples were analyzed using GC/MS following the current revision of SOP 525 based on SW-846 Method 8260C.

All acceptance criteria were met with the following exceptions:

1. Sample 1307328-35, provided for volatiles, had a pH > 2 at the time of analysis. All other samples had a pH < 2 at the time of analysis.
2. All internal standard recoveries were within acceptance criteria with the following exception:

Internal Standard	Sample	Direction
1,4-Dichlorobenzene-d4	1307328-9MS	Low

No further action was taken.

Oil and Grease:

The water samples were prepared and analyzed according to EPA Method 1664A procedures utilizing the current revision of SOP 671.

The soil samples were prepared and analyzed according to SW-846, 3rd Edition procedures based on Method SW-9071 and utilizing the current revision of SOP 640.

All acceptance criteria were met.

PCBs:

The extract was analyzed using GC/ECD (electron capture detectors) with an RTX-5 capillary column according to the current revision of SOP 409 based on SW-846 Method 8082. All positive results were then confirmed on an RTX-CLPesticidesII column. Unless interferences were present, the quantitation of each analyte is the higher of the concentrations obtained from each column that met initial and continuing calibration criteria. Note that analyst raw data annotation may provide further clarification.

All surrogate recoveries were within acceptable limits with the following exception:

Surrogate	Sample	Direction
Decachlorobiphenyl	39	Low



It is the practice of ALS to evaluate the recovery of both surrogates in samples and associated quality control samples, but to control on only one of the two surrogates for this test.

ALS Environmental -- FC

Sample Number(s) Cross-Reference Table

OrderNum: 1307328

Client Name: CTL Thompson

Client Project Name: 4060 CLR Erie

Client Project Number: FC05859.001-205

Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
GP-9 (5')	1307328-1		SOIL	19-Jul-13	8:05
GP-10 (5')	1307328-2		SOIL	19-Jul-13	8:50
GP-11 (5')	1307328-3		SOIL	19-Jul-13	9:30
GP-12 (5')	1307328-4		SOIL	19-Jul-13	10:00
GP-13 (5')	1307328-5		SOIL	19-Jul-13	10:40
GP-14 (5')	1307328-6		SOIL	19-Jul-13	11:10
GP-15 (5')	1307328-7		SOIL	19-Jul-13	11:40
GP-16 (5')	1307328-8		SOIL	19-Jul-13	12:10
S-17	1307328-9		SOIL	19-Jul-13	14:10
S-18	1307328-10		SOIL	19-Jul-13	14:20
GP-9 (10')	1307328-11		SOIL	19-Jul-13	8:10
GP-9 (15')	1307328-12		SOIL	19-Jul-13	8:20
GP-9 (20')	1307328-13		SOIL	19-Jul-13	8:30
GP-10 (10')	1307328-14		SOIL	19-Jul-13	8:55
GP-10 (15')	1307328-15		SOIL	19-Jul-13	9:05
GP-10 (20')	1307328-16		SOIL	19-Jul-13	9:15
GP-11 (10')	1307328-17		SOIL	19-Jul-13	9:35
GP-11 (15')	1307328-18		SOIL	19-Jul-13	9:45
GP-11 (20')	1307328-19		SOIL	19-Jul-13	9:55
GP-12 (10')	1307328-20		SOIL	19-Jul-13	10:05
GP-12 (15')	1307328-21		SOIL	19-Jul-13	10:15
GP-12 (20')	1307328-22		SOIL	19-Jul-13	10:25
GP-13 (10')	1307328-23		SOIL	19-Jul-13	10:45
GP-13 (15')	1307328-24		SOIL	19-Jul-13	10:55
GP-13 (20')	1307328-25		SOIL	19-Jul-13	11:05
GP-14 (10')	1307328-26		SOIL	19-Jul-13	11:15
GP-14 (15')	1307328-27		SOIL	19-Jul-13	11:25
GP-14 (20')	1307328-28		SOIL	19-Jul-13	11:35
GP-15 (10')	1307328-29		SOIL	19-Jul-13	11:45
GP-15 (15')	1307328-30		SOIL	19-Jul-13	11:55

ALS Environmental -- FC

Sample Number(s) Cross-Reference Table

OrderNum: 1307328

Client Name: CTL Thompson

Client Project Name: 4060 CLR Erie

Client Project Number: FC05859.001-205

Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
GP-15 (20')	1307328-31		SOIL	19-Jul-13	12:00
GP-16 (10')	1307328-32		SOIL	19-Jul-13	12:15
GP-16 (15')	1307328-33		SOIL	19-Jul-13	12:20
GP-16 (20')	1307328-34		SOIL	19-Jul-13	12:30
GP-9	1307328-35		WATER	19-Jul-13	13:30
GP-11	1307328-36		WATER	19-Jul-13	14:00
GP-14	1307328-37		WATER	19-Jul-13	14:15
GP-15	1307328-38		WATER	19-Jul-13	14:25
BW-19	1307328-39		SOLID	19-Jul-13	17:30
BW-19	1307328-40		LEACHAT	19-Jul-13	17:30
Trip Blank	1307328-41		WATER	19-Jul-13	



ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524
 TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Form 2021B

WORKORDER # **1307328**

PAGE **1** of **1**

PROJECT NAME	4060 CLR Erie	SAMPLER	Dana Harris	DATE	7/19/13	TURNAROUND	standard/1wk.	By Lab or	Return to Client
PROJECT NO.	FC 05859 .001-205	SITE ID	-						
COMPANY NAME	CTL Thompson	EDD FORMAT	-						
SEND REPORT TO	Dana Harris	PURCHASE ORDER	-						
ADDRESS	351 Linden St #140	BILL TO COMPANY	SAA						
CITY/STATE/ZIP	Fort Collins, CO 80524	INVOICE ATTN TO							
PHONE	970-206-9455	ADDRESS							
FAX		CITY/STATE/ZIP							
E-MAIL	dharris@ctlthompson.com	PHONE							
		FAX							
		E-MAIL							

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	OC
1	GP-9 (5')	S	7/19/13	1505	2		
2	GP-10 (5')	S	7/19/13	1000	2		
3	GP-11 (5')	S	7/19/13	0950	2		
4	GP-12 (5')	S	7/19/13	0950	2		
5	GP-13 (5')	S	7/19/13	1040	2		
6	GP-14 (5')	S	7/19/13	1110	2		
7	GP-15 (5')	S	7/19/13	1140	2		
8	GP-16 (5')	S	7/19/13	1210	2		
9	S-17	S	7/19/13	1410	2		
10	S-18	S	7/19/13	1420	2		

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments:

OC PACKAGE (check below)

LEVEL II (Standard OC)

LEVEL III (Std OC + forms)

LEVEL IV (Std OC + forms + raw data)

5 of 39

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

RELINQUISHED BY	SIGNATURE	PRINTED NAME	DATE	TIME
RECEIVED BY	<i>[Signature]</i>	Dana Harris	7/20/13	0935
RELINQUISHED BY		Lawrence Schmitz	7/20/13	0940
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				



ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 480-1522

Chain-of-Custody

Form 2028

WORKORDER #

1307328

PAGE

2 of 4

DISPOSAL By Lab or Return to Client

DATE 7/19/13

SAMPLER SITE ID Dora Harass

EDD FORMAT
PURCHASE ORDER
BILL TO COMPANY
INVOICE ATTN TO
ADDRESS
CITY/STATE/ZIP
PHONE
FAX
E-MAIL

PROJECT NAME 4060 CLR Erie
PROJECT NO. FCS859.001-205
COMPANY NAME CTL Thompson
SEND REPORT TO
ADDRESS
CITY/STATE/ZIP
PHONE
FAX
E-MAIL

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC
(11)	GP-9 (10')	S	7/19/13	0810	2		HOLD
(12)	GP-9 (15')	S	7/19/13	0820	2		HOLD
(13)	GP-9 (20')	S	7/19/13	0830	2		HOLD
(14)	GP-10 (10')	S	7/19/13	0855	2		HOLD
(15)	GP-10 (15')	S	7/19/13	0905	2		HOLD
(16)	GP-10 (20')	S	7/19/13	0915	2		HOLD
(17)	GP-11 (10')	S	7/19/13	0935	2		HOLD
(18)	GP-11 (15')	S	7/19/13	0945	2		HOLD
(19)	GP-11 (20')	S	7/19/13	0955	2		HOLD
(20)	GP-12 (10')	S	7/19/13	1005	2		HOLD

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments:

QC PACKAGE (check below)

LEVEL II (Standard QC)

LEVEL III (Std QC + forms)

LEVEL IV (Std QC + forms + raw data)

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

SIGNATURE: *[Signature]* Dora Harass
 PRINTED NAME: Dora Harass
 RELINQUISHED BY: [Signature]
 RECEIVED BY: [Signature]
 DATE: 7/20/13
 TIME: 0940



ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado 80524
TF: (800) 448-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Form 2026b

WORKORDER # **1307328**

PAGE **3** of **9**
DISPOSAL By Lab or Return to Client

DATE **7/19/13**
TURNAROUND

SAMPLER **Dave Harris**

PROJECT NAME **4060 CLR EDC**
PROJECT NO. **FC05859.001-205**

EDD FORMAT
PURCHASE ORDER
BILL TO COMPANY
INVOICE ATTN TO
ADDRESS
CITY / STATE / ZIP
PHONE
FAX
E-MAIL

COMPANY NAME **CCL Thompson**
SEND REPORT TO
ADDRESS
CITY / STATE / ZIP
PHONE
FAX
E-MAIL

Lab ID	Field ID	Matrix	Sample Date TIME	Sample Time DATE	# Bottles	Pres.	QC
21	GP-12 (15')	S	7/19/13	7/19/13	2		HOLD
22	GP-12 (20')	S	7/19/13	7/19/13	2		HOLD
23	GP-13 (10')	S	7/19/13	7/19/13	2		HOLD
24	GP-13 (15')	S	7/19/13	7/19/13	2		HOLD
25	GP-13 (20')	S	7/19/13	7/19/13	2		HOLD
26	GP-14 (10')	S	7/19/13	7/19/13	2		HOLD
27	GP-14 (15')	S	7/19/13	7/19/13	2		HOLD
28	GP-14 (20')	S	7/19/13	7/19/13	2		HOLD
29	GP-15 (10')	S	7/19/13	7/19/13	2		HOLD
30	GP-15 (15')	S	7/19/13	7/19/13	2		HOLD

Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments:

QC PACKAGE (check below)
 LEVEL II (Standard QC)
 LEVEL III (Std QC + forms)
 LEVEL IV (Std QC + forms + raw data)

RELINQUISHED BY: **Dave Harris** DATE: **7/20/13** TIME: **0935**
 RECEIVED BY: **Lauren Schmitz** DATE: **7/20/13** TIME: **0940**

RELINQUISHED BY: _____ DATE: _____ TIME: _____
 RECEIVED BY: _____ DATE: _____ TIME: _____
 RELINQUISHED BY: _____ DATE: _____ TIME: _____
 RECEIVED BY: _____ DATE: _____ TIME: _____

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: CTL Thompson

Workorder No: 1307328

Project Manager: ARW

Initials: LAS Date: 7/20/13

1. Does this project require any special handling in addition to standard ALS procedures?		YES	<input checked="" type="radio"/> NO
2. Are custody seals on shipping containers intact?	<input checked="" type="radio"/> NONE	YES	NO
3. Are Custody seals on sample containers intact?	<input checked="" type="radio"/> NONE	YES	NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?		<input checked="" type="radio"/> YES	NO
5. Are the COC and bottle labels complete and legible?		<input checked="" type="radio"/> YES	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		<input checked="" type="radio"/> YES	NO *
7. Were airbills / shipping documents present and/or removable?	<input checked="" type="radio"/> DROP OFF	YES	NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	N/A	YES	<input checked="" type="radio"/> NO *
9. Are all aqueous non-preserved samples pH 4-9?	<input checked="" type="radio"/> N/A	YES	NO
10. Is there sufficient sample for the requested analyses?		<input checked="" type="radio"/> YES	NO
11. Were all samples placed in the proper containers for the requested analyses?		<input checked="" type="radio"/> YES	NO
12. Are all samples within holding times for the requested analyses?		<input checked="" type="radio"/> YES	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)		<input checked="" type="radio"/> YES	NO
14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: ___ < green pea ___ > green pea	N/A	<input checked="" type="radio"/> YES	NO
15. Do any water samples contain sediment? Amount Amount of sediment: ___ dusting ___ moderate ___ heavy	N/A	YES	<input checked="" type="radio"/> NO
16. Were the samples shipped on ice?		<input checked="" type="radio"/> YES	NO
17. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: <input checked="" type="radio"/> #2 #4 RAD ONLY		<input checked="" type="radio"/> YES	NO
Cooler #: <u>1 2 3</u>			
Temperature (°C): <u>4.8 1.2 3.0</u>			
No. of custody seals on cooler: <u>0</u> →			
External µR/hr reading: <u>N/A</u> →			
Background µR/hr reading: <u>10</u>			
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO / NA (If no, see Form 008.)			

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16.

** please see page 2*

If applicable, was the client contacted? YES / NO / NA Contact: _____ Date/Time: _____

Project Manager Signature / Date: *ARW* 7/20/13



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: CTL

Workorder No: 1307328

Project Manager: ARW

Initials: UAS Date: 7/20/13

Additional Information:

(*6) Trip Blank not listed on COC. Arrived in cooler #1 added to W.O. as 1307328-41 (2 vials)

NOTE:

No pH adjustments shall be made without prior consent of Project Manager. After pH adjustments, hold metals and radchem samples ≥ 24 hrs. before analysis.

Was the pH of any sample adjusted by the laboratory? YES (See Table below) / NO

pH Excursion:

ALS Sample ID	Client Sample ID	Initial pH	Final pH	Reagent Used	Volume Added (mL)	Lot No. of Reagent	Requested Analysis	Initials / Date / Time
1307328-35-4	GP-9	7	<2	H ₂ SO ₄	1.0	50048	0&G	UAS 7/20/13 0940
↓ 36-4	GP-11	4	↓	↓	↓	↓	↓	↓
↓ 37-4	GP-14	3	↓	↓	↓	↓	↓	↓
↓ 38-4	GP-15	4	↓	↓	↓	↓	↓	↓

If applicable, was the client contacted? YES / NO / NA Contact: _____ Date/Time: _____

Project Manager Signature / Date: C. W. [Signature] 7/20/13

Client: CTL Thompson
 Project: FC05859.001-205 4060 CLR Erie
 Sample ID: GP-9 (5')
 Legal Location:
 Collection Date: 7/19/2013 08:05

Date: 29-Jul-13
 Work Order: 1307328
 Lab ID: 1307328-1
 Matrix: SOIL
 Percent Moisture: 7.9

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
GC/MS VOLATILES			SW8260		Prep Date: 7/23/2013	PrepBy: SDW
BENZENE	ND		5.4	UG/KG	1	7/23/2013 18:46
TOLUENE	ND		5.4	UG/KG	1	7/23/2013 18:46
ETHYLBENZENE	ND		5.4	UG/KG	1	7/23/2013 18:46
M+P-XYLENE	ND		5.4	UG/KG	1	7/23/2013 18:46
O-XYLENE	ND		5.4	UG/KG	1	7/23/2013 18:46
Surr: DIBROMOFLUOROMETHANE	100		61-134	%REC	1	7/23/2013 18:46
Surr: TOLUENE-D8	98		57-135	%REC	1	7/23/2013 18:46
Surr: 4-BROMOFLUOROBENZENE	98		52-151	%REC	1	7/23/2013 18:46
OIL & GREASE, GRAVIMETRIC			SW9071		Prep Date: 7/25/2013	PrepBy: TLB
OIL AND GREASE	ND		110	MG/KG	1	7/26/2013

Client: CTL Thompson
 Project: FC05859.001-205 4060 CLR Erie
 Sample ID: GP-10 (5')
 Legal Location:
 Collection Date: 7/19/2013 08:50

Date: 29-Jul-13
 Work Order: 1307328
 Lab ID: 1307328-2
 Matrix: SOIL
 Percent Moisture: 7.1

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
GC/MS VOLATILES			SW8260		Prep Date: 7/23/2013	PrepBy: SDW
BENZENE	ND		5	UG/KG	1	7/23/2013 19:09
TOLUENE	ND		5	UG/KG	1	7/23/2013 19:09
ETHYLBENZENE	ND		5	UG/KG	1	7/23/2013 19:09
M+P-XYLENE	ND		5	UG/KG	1	7/23/2013 19:09
O-XYLENE	ND		5	UG/KG	1	7/23/2013 19:09
Surr: DIBROMOFLUOROMETHANE	97		61-134	%REC	1	7/23/2013 19:09
Surr: TOLUENE-D8	96		57-135	%REC	1	7/23/2013 19:09
Surr: 4-BROMOFLUOROBENZENE	95		52-151	%REC	1	7/23/2013 19:09
OIL & GREASE, GRAVIMETRIC			SW9071		Prep Date: 7/25/2013	PrepBy: TLB
OIL AND GREASE	ND		110	MG/KG	1	7/26/2013

Client: CTL Thompson
 Project: FC05859.001-205 4060 CLR Erie
 Sample ID: GP-11 (5')
 Legal Location:
 Collection Date: 7/19/2013 09:30

Date: 29-Jul-13
 Work Order: 1307328
 Lab ID: 1307328-3
 Matrix: SOIL
 Percent Moisture: 7.3

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
GC/MS VOLATILES			SW8260		Prep Date: 7/23/2013	PrepBy: SDW
BENZENE	ND		5.2	UG/KG	1	7/23/2013 19:33
TOLUENE	ND		5.2	UG/KG	1	7/23/2013 19:33
ETHYLBENZENE	ND		5.2	UG/KG	1	7/23/2013 19:33
M+P-XYLENE	ND		5.2	UG/KG	1	7/23/2013 19:33
O-XYLENE	ND		5.2	UG/KG	1	7/23/2013 19:33
Surr: DIBROMOFLUOROMETHANE	98		61-134	%REC	1	7/23/2013 19:33
Surr: TOLUENE-D8	97		57-135	%REC	1	7/23/2013 19:33
Surr: 4-BROMOFLUOROBENZENE	95		52-151	%REC	1	7/23/2013 19:33
OIL & GREASE, GRAVIMETRIC			SW9071		Prep Date: 7/25/2013	PrepBy: TLB
OIL AND GREASE	ND		110	MG/KG	1	7/26/2013

Client: CTL Thompson
 Project: FC05859.001-205 4060 CLR Erie
 Sample ID: GP-12 (5')
 Legal Location:
 Collection Date: 7/19/2013 10:00

Date: 29-Jul-13
 Work Order: 1307328
 Lab ID: 1307328-4
 Matrix: SOIL
 Percent Moisture: 8.7

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
GC/MS VOLATILES			SW8260		Prep Date: 7/23/2013	PrepBy: SDW
BENZENE	ND		5.2	UG/KG	1	7/23/2013 19:56
TOLUENE	ND		5.2	UG/KG	1	7/23/2013 19:56
ETHYLBENZENE	ND		5.2	UG/KG	1	7/23/2013 19:56
M+P-XYLENE	ND		5.2	UG/KG	1	7/23/2013 19:56
O-XYLENE	ND		5.2	UG/KG	1	7/23/2013 19:56
Surr: DIBROMOFLUOROMETHANE	99		61-134	%REC	1	7/23/2013 19:56
Surr: TOLUENE-D8	97		57-135	%REC	1	7/23/2013 19:56
Surr: 4-BROMOFLUOROBENZENE	95		52-151	%REC	1	7/23/2013 19:56
OIL & GREASE, GRAVIMETRIC			SW9071		Prep Date: 7/25/2013	PrepBy: TLB
OIL AND GREASE	ND		110	MG/KG	1	7/26/2013

Client: CTL Thompson
 Project: FC05859.001-205 4060 CLR Erie
 Sample ID: GP-13 (5')
 Legal Location:
 Collection Date: 7/19/2013 10:40

Date: 29-Jul-13
 Work Order: 1307328
 Lab ID: 1307328-5
 Matrix: SOIL
 Percent Moisture: 7.7

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
GC/MS VOLATILES			SW8260		Prep Date: 7/23/2013	PrepBy: SDW
BENZENE	ND		4.8	UG/KG	1	7/23/2013 20:20
TOLUENE	ND		4.8	UG/KG	1	7/23/2013 20:20
ETHYLBENZENE	ND		4.8	UG/KG	1	7/23/2013 20:20
M+P-XYLENE	ND		4.8	UG/KG	1	7/23/2013 20:20
O-XYLENE	ND		4.8	UG/KG	1	7/23/2013 20:20
Surr: DIBROMOFLUOROMETHANE	100		61-134	%REC	1	7/23/2013 20:20
Surr: TOLUENE-D8	97		57-135	%REC	1	7/23/2013 20:20
Surr: 4-BROMOFLUOROBENZENE	98		52-151	%REC	1	7/23/2013 20:20
OIL & GREASE, GRAVIMETRIC			SW9071		Prep Date: 7/25/2013	PrepBy: TLB
OIL AND GREASE	ND		110	MG/KG	1	7/26/2013

Client: CTL Thompson
 Project: FC05859.001-205 4060 CLR Erie
 Sample ID: GP-14 (5')
 Legal Location:
 Collection Date: 7/19/2013 11:10

Date: 29-Jul-13
 Work Order: 1307328
 Lab ID: 1307328-6
 Matrix: SOIL
 Percent Moisture: 9.1

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
GC/MS VOLATILES			SW8260		Prep Date: 7/23/2013	PrepBy: SDW
BENZENE	ND		5.4	UG/KG	1	7/23/2013 20:44
TOLUENE	ND		5.4	UG/KG	1	7/23/2013 20:44
ETHYLBENZENE	ND		5.4	UG/KG	1	7/23/2013 20:44
M+P-XYLENE	ND		5.4	UG/KG	1	7/23/2013 20:44
O-XYLENE	ND		5.4	UG/KG	1	7/23/2013 20:44
Surr: DIBROMOFLUOROMETHANE	98		61-134	%REC	1	7/23/2013 20:44
Surr: TOLUENE-D8	97		57-135	%REC	1	7/23/2013 20:44
Surr: 4-BROMOFLUOROBENZENE	95		52-151	%REC	1	7/23/2013 20:44
OIL & GREASE, GRAVIMETRIC			SW9071		Prep Date: 7/25/2013	PrepBy: TLB
OIL AND GREASE	ND		110	MG/KG	1	7/26/2013

Client: CTL Thompson
 Project: FC05859.001-205 4060 CLR Erie
 Sample ID: GP-15 (5')
 Legal Location:
 Collection Date: 7/19/2013 11:40

Date: 29-Jul-13
 Work Order: 1307328
 Lab ID: 1307328-7
 Matrix: SOIL
 Percent Moisture: 7.9

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
GC/MS VOLATILES			SW8260		Prep Date: 7/24/2013	PrepBy: SDW
BENZENE	ND		5.2	UG/KG	1	7/24/2013 14:46
TOLUENE	ND		5.2	UG/KG	1	7/24/2013 14:46
ETHYLBENZENE	ND		5.2	UG/KG	1	7/24/2013 14:46
M+P-XYLENE	ND		5.2	UG/KG	1	7/24/2013 14:46
O-XYLENE	ND		5.2	UG/KG	1	7/24/2013 14:46
Surr: DIBROMOFLUOROMETHANE	99		61-134	%REC	1	7/24/2013 14:46
Surr: TOLUENE-D8	96		57-135	%REC	1	7/24/2013 14:46
Surr: 4-BROMOFLUOROBENZENE	96		52-151	%REC	1	7/24/2013 14:46
OIL & GREASE, GRAVIMETRIC			SW9071		Prep Date: 7/25/2013	PrepBy: TLB
OIL AND GREASE	ND		110	MG/KG	1	7/26/2013

Client: CTL Thompson
 Project: FC05859.001-205 4060 CLR Erie
 Sample ID: GP-16 (5')
 Legal Location:
 Collection Date: 7/19/2013 12:10

Date: 29-Jul-13
 Work Order: 1307328
 Lab ID: 1307328-8
 Matrix: SOIL
 Percent Moisture: 8.5

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
GC/MS VOLATILES			SW8260		Prep Date: 7/24/2013	PrepBy: SDW
BENZENE	ND		5.4	UG/KG	1	7/24/2013 15:09
TOLUENE	ND		5.4	UG/KG	1	7/24/2013 15:09
ETHYLBENZENE	ND		5.4	UG/KG	1	7/24/2013 15:09
M+P-XYLENE	ND		5.4	UG/KG	1	7/24/2013 15:09
O-XYLENE	ND		5.4	UG/KG	1	7/24/2013 15:09
Surr: DIBROMOFLUOROMETHANE	99		61-134	%REC	1	7/24/2013 15:09
Surr: TOLUENE-D8	98		57-135	%REC	1	7/24/2013 15:09
Surr: 4-BROMOFLUOROBENZENE	98		52-151	%REC	1	7/24/2013 15:09
OIL & GREASE, GRAVIMETRIC			SW9071		Prep Date: 7/25/2013	PrepBy: TLB
OIL AND GREASE	380		110	MG/KG	1	7/26/2013

Client: CTL Thompson
 Project: FC05859.001-205 4060 CLR Erie
 Sample ID: S-17
 Legal Location:
 Collection Date: 7/19/2013 14:10

Date: 29-Jul-13
 Work Order: 1307328
 Lab ID: 1307328-9
 Matrix: SOIL
 Percent Moisture: 2.8

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
GC/MS VOLATILES			SW8260		Prep Date: 7/25/2013	PrepBy: SDW
BENZENE	ND		5.1	UG/KG	1	7/25/2013 13:29
TOLUENE	ND		5.1	UG/KG	1	7/25/2013 13:29
ETHYLBENZENE	ND		5.1	UG/KG	1	7/25/2013 13:29
M+P-XYLENE	ND		5.1	UG/KG	1	7/25/2013 13:29
O-XYLENE	ND		5.1	UG/KG	1	7/25/2013 13:29
Surr: DIBROMOFLUOROMETHANE	100		61-134	%REC	1	7/25/2013 13:29
Surr: TOLUENE-D8	97		57-135	%REC	1	7/25/2013 13:29
Surr: 4-BROMOFLUOROBENZENE	94		52-151	%REC	1	7/25/2013 13:29
OIL & GREASE, GRAVIMETRIC			SW9071		Prep Date: 7/25/2013	PrepBy: TLB
OIL AND GREASE	5800		100	MG/KG	1	7/26/2013

Client: CTL Thompson
 Project: FC05859.001-205 4060 CLR Erie
 Sample ID: S-18
 Legal Location:
 Collection Date: 7/19/2013 14:20

Date: 29-Jul-13
 Work Order: 1307328
 Lab ID: 1307328-10
 Matrix: SOIL
 Percent Moisture: 0.9

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
GC/MS VOLATILES			SW8260		Prep Date: 7/24/2013	PrepBy: SDW
BENZENE	ND		4.8	UG/KG	1	7/24/2013 15:56
TOLUENE	ND		4.8	UG/KG	1	7/24/2013 15:56
ETHYLBENZENE	ND		4.8	UG/KG	1	7/24/2013 15:56
M+P-XYLENE	ND		4.8	UG/KG	1	7/24/2013 15:56
O-XYLENE	ND		4.8	UG/KG	1	7/24/2013 15:56
Surr: DIBROMOFLUOROMETHANE	102		61-134	%REC	1	7/24/2013 15:56
Surr: TOLUENE-D8	104		57-135	%REC	1	7/24/2013 15:56
Surr: 4-BROMOFLUOROBENZENE	89		52-151	%REC	1	7/24/2013 15:56
OIL & GREASE, GRAVIMETRIC			SW9071		Prep Date: 7/25/2013	PrepBy: TLB
OIL AND GREASE	1500		100	MG/KG	1	7/26/2013

Client: CTL Thompson
 Project: FC05859.001-205 4060 CLR Erie
 Sample ID: GP-9
 Legal Location:
 Collection Date: 7/19/2013 13:30

Date: 29-Jul-13
 Work Order: 1307328
 Lab ID: 1307328-35
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
GC/MS VOLATILES			SW8260_25		Prep Date: 7/21/2013	PrepBy: SDW
BENZENE	ND		1	UG/L	1	7/21/2013 16:21
ETHYLBENZENE	ND		1	UG/L	1	7/21/2013 16:21
M+P-XYLENE	ND		1	UG/L	1	7/21/2013 16:21
O-XYLENE	ND		1	UG/L	1	7/21/2013 16:21
TOLUENE	7.6		1	UG/L	1	7/21/2013 16:21
Surr: 4-BROMOFLUOROBENZENE	99		85-115	%REC	1	7/21/2013 16:21
Surr: DIBROMOFLUOROMETHANE	99		84-118	%REC	1	7/21/2013 16:21
Surr: TOLUENE-D8	101		85-115	%REC	1	7/21/2013 16:21
HEXANE EXTRACTABLE MATERIAL--GRAVIMETRIC			EPA1664		Prep Date: 7/25/2013	PrepBy: BCH
OIL AND GREASE	ND		5.7	MG/L	1	7/25/2013

Client: CTL Thompson
 Project: FC05859.001-205 4060 CLR Erie
 Sample ID: GP-11
 Legal Location:
 Collection Date: 7/19/2013 14:00

Date: 29-Jul-13
 Work Order: 1307328
 Lab ID: 1307328-36
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
GC/MS VOLATILES			SW8260_25		Prep Date: 7/21/2013	PrepBy: SDW
BENZENE	ND		1	UG/L	1	7/21/2013 17:08
ETHYLBENZENE	ND		1	UG/L	1	7/21/2013 17:08
M+P-XYLENE	ND		1	UG/L	1	7/21/2013 17:08
O-XYLENE	ND		1	UG/L	1	7/21/2013 17:08
TOLUENE	2.6		1	UG/L	1	7/21/2013 17:08
Surr: 4-BROMOFLUOROBENZENE	96		85-115	%REC	1	7/21/2013 17:08
Surr: DIBROMOFLUOROMETHANE	100		84-118	%REC	1	7/21/2013 17:08
Surr: TOLUENE-D8	102		85-115	%REC	1	7/21/2013 17:08
HEXANE EXTRACTABLE MATERIAL--GRAVIMETRIC			EPA1664		Prep Date: 7/25/2013	PrepBy: BCH
OIL AND GREASE	ND		5.3	MG/L	1	7/25/2013

Client: CTL Thompson
 Project: FC05859.001-205 4060 CLR Erie
 Sample ID: GP-14
 Legal Location:
 Collection Date: 7/19/2013 14:15

Date: 29-Jul-13
 Work Order: 1307328
 Lab ID: 1307328-37
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
GC/MS VOLATILES			SW8260_25		Prep Date: 7/21/2013	PrepBy: SDW
BENZENE	ND		1	UG/L	1	7/21/2013 17:55
ETHYLBENZENE	ND		1	UG/L	1	7/21/2013 17:55
M+P-XYLENE	ND		1	UG/L	1	7/21/2013 17:55
O-XYLENE	ND		1	UG/L	1	7/21/2013 17:55
TOLUENE	1.3		1	UG/L	1	7/21/2013 17:55
Surr: 4-BROMOFLUOROBENZENE	99		85-115	%REC	1	7/21/2013 17:55
Surr: DIBROMOFLUOROMETHANE	99		84-118	%REC	1	7/21/2013 17:55
Surr: TOLUENE-D8	101		85-115	%REC	1	7/21/2013 17:55
HEXANE EXTRACTABLE MATERIAL--GRAVIMETRIC			EPA1664		Prep Date: 7/25/2013	PrepBy: BCH
OIL AND GREASE	ND		5.6	MG/L	1	7/25/2013

Client: CTL Thompson
 Project: FC05859.001-205 4060 CLR Erie
 Sample ID: GP-15
 Legal Location:
 Collection Date: 7/19/2013 14:25

Date: 29-Jul-13
 Work Order: 1307328
 Lab ID: 1307328-38
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
GC/MS VOLATILES			SW8260_25		Prep Date: 7/21/2013	PrepBy: SDW
BENZENE	ND		1	UG/L	1	7/21/2013 18:42
ETHYLBENZENE	ND		1	UG/L	1	7/21/2013 18:42
M+P-XYLENE	ND		1	UG/L	1	7/21/2013 18:42
O-XYLENE	ND		1	UG/L	1	7/21/2013 18:42
TOLUENE	0.56	J	1	UG/L	1	7/21/2013 18:42
Surr: 4-BROMOFLUOROBENZENE	99		85-115	%REC	1	7/21/2013 18:42
Surr: DIBROMOFLUOROMETHANE	99		84-118	%REC	1	7/21/2013 18:42
Surr: TOLUENE-D8	103		85-115	%REC	1	7/21/2013 18:42
HEXANE EXTRACTABLE MATERIAL--GRAVIMETRIC			EPA1664		Prep Date: 7/25/2013	PrepBy: BCH
OIL AND GREASE	ND		5.6	MG/L	1	7/25/2013

Client: CTL Thompson
 Project: FC05859.001-205 4060 CLR Erie
 Sample ID: BW-19
 Legal Location:
 Collection Date: 7/19/2013 17:30

Date: 29-Jul-13
 Work Order: 1307328
 Lab ID: 1307328-39
 Matrix: SOLID
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
PCBS			SW8082		Prep Date: 7/25/2013	PrepBy: TLB
AROCLOR-1016	ND		33	UG/KG	1	7/26/2013 18:44
AROCLOR-1221	ND		67	UG/KG	1	7/26/2013 18:44
AROCLOR-1232	ND		33	UG/KG	1	7/26/2013 18:44
AROCLOR-1242	ND		33	UG/KG	1	7/26/2013 18:44
AROCLOR-1248	ND		33	UG/KG	1	7/26/2013 18:44
AROCLOR-1254	ND		33	UG/KG	1	7/26/2013 18:44
AROCLOR-1260	ND		33	UG/KG	1	7/26/2013 18:44
Surr: TETRACHLORO-M-XYLENE	77		61-120	%REC	1	7/26/2013 18:44
Surr: DECACHLOROBIPHENYL	30	*	56-130	%REC	1	7/26/2013 18:44

Client: CTL Thompson
Project: FC05859.001-205 4060 CLR Erie
Sample ID: BW-19
Legal Location:
Collection Date: 7/19/2013 17:30

Date: 29-Jul-13
Work Order: 1307328
Lab ID: 1307328-40
Matrix: LEACHATE
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
GC/MS VOLATILES			SW8260_25		Prep Date: 7/26/2013	PrepBy: SDW
BENZENE	ND		10	UG/L	10	7/26/2013 19:05
Surr: DIBROMOFLUOROMETHANE	101		84-118	%REC	10	7/26/2013 19:05
Surr: TOLUENE-D8	104		85-115	%REC	10	7/26/2013 19:05
Surr: 4-BROMOFLUOROBENZENE	101		85-115	%REC	10	7/26/2013 19:05

Client: CTL Thompson
 Project: FC05859.001-205 4060 CLR Erie
 Sample ID: Trip Blank
 Legal Location:
 Collection Date: 7/19/2013

Date: 29-Jul-13
 Work Order: 1307328
 Lab ID: 1307328-41
 Matrix: WATER
 Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
GC/MS VOLATILES			SW8260_25		Prep Date: 7/21/2013	PrepBy: SDW
BENZENE	ND			1 UG/L	1	7/21/2013 15:34
ETHYLBENZENE	ND			1 UG/L	1	7/21/2013 15:34
M+P-XYLENE	ND			1 UG/L	1	7/21/2013 15:34
O-XYLENE	ND			1 UG/L	1	7/21/2013 15:34
TOLUENE	ND			1 UG/L	1	7/21/2013 15:34
Surr: 4-BROMOFLUOROBENZENE	97		85-115	%REC	1	7/21/2013 15:34
Surr: DIBROMOFLUOROMETHANE	100		84-118	%REC	1	7/21/2013 15:34
Surr: TOLUENE-D8	103		85-115	%REC	1	7/21/2013 15:34

Client: CTL Thompson
Project: FC05859.001-205 4060 CLR Erie
Sample ID: Trip Blank
Legal Location:
Collection Date: 7/19/2013

Date: 29-Jul-13
Work Order: 1307328
Lab ID: 1307328-41
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
----------	--------	------	--------------	-------	-----------------	---------------

Explanation of Qualifiers

Radiochemistry:

- U or ND - Result is less than the sample specific MDC.
- Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.
- Y2 - Chemical Yield outside default limits.
- W - DER is greater than Warning Limit of 1.42
- * - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.
- # - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.
- G - Sample density differs by more than 15% of LCS density.
- D - DER is greater than Control Limit
- M - Requested MDC not met.
- LT - Result is less than requested MDC but greater than achieved MDC.
- M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
- L - LCS Recovery below lower control limit.
- H - LCS Recovery above upper control limit.
- P - LCS, Matrix Spike Recovery within control limits.
- N - Matrix Spike Recovery outside control limits
- NC - Not Calculated for duplicate results less than 5 times MDC
- B - Analyte concentration greater than MDC.
- B3 - Analyte concentration greater than MDC but less than Requested MDC.

Inorganics:

- B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).
- U or ND - Indicates that the compound was analyzed for but not detected.
- E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.
- M - Duplicate injection precision was not met.
- N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.
- Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.
- * - Duplicate analysis (relative percent difference) not within control limits.

Organics:

- U or ND - Indicates that the compound was analyzed for but not detected.
- B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.
- E - Analyte concentration exceeds the upper level of the calibration range.
- J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).
- A - A tentatively identified compound is a suspected aldol-condensation product.
- X - The analyte was diluted below an accurate quantitation level.
- * - The spike recovery is equal to or outside the control criteria used.
- + - The relative percent difference (RPD) equals or exceeds the control criteria.

Diesel Range Organics:

Client: CTL Thompson
Project: FC05859.001-205 4060 CLR Erie
Sample ID: Trip Blank
Legal Location:
Collection Date: 7/19/2013

Date: 29-Jul-13
Work Order: 1307328
Lab ID: 1307328-41
Matrix: WATER
Percent Moisture:

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<p>G - A pattern resembling gasoline was detected in this sample. D - A pattern resembling diesel was detected in this sample. M - A pattern resembling motor oil was detected in this sample. C - A pattern resembling crude oil was detected in this sample. 4 - A pattern resembling JP-4 was detected in this sample. 5 - A pattern resembling JP-5 was detected in this sample. H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest. L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest. Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products: - gasoline - JP-8 - diesel - mineral spirits - motor oil - Stoddard solvent - bunker C</p>						

ALS Environmental -- FC

Date: 7/29/2013 2:11:

Client: CTL Thompson

QC BATCH REPORT

Work Order: 1307328

Project: FC05859.001-205 4060 CLR Erie

Batch ID: **EX130725-3-1** Instrument ID **Balance** Method: **EPA1664**

LCS		Sample ID: EX130725-3			Units: MG/L		Analysis Date: 7/25/2013			
Client ID:		Run ID: EX130725-3A					Prep Date: 7/25/2013		DF: 1	
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
OIL AND GREASE	39.9	5	39.9		100	78-114			18	

LCSD		Sample ID: EX130725-3			Units: MG/L		Analysis Date: 7/25/2013			
Client ID:		Run ID: EX130725-3A					Prep Date: 7/25/2013		DF: 1	
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
OIL AND GREASE	40.5	5	39.9		102	78-114	39.9	1	18	

MB		Sample ID: EX130725-3			Units: MG/L		Analysis Date: 7/25/2013			
Client ID:		Run ID: EX130725-3A					Prep Date: 7/25/2013		DF: 1	
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
OIL AND GREASE	ND	5								

The following samples were analyzed in this batch:

1307328-35	1307328-36	1307328-37
1307328-38		

Client: CTL Thompson
 Work Order: 1307328
 Project: FC05859.001-205 4060 CLR Erie

QC BATCH REPORT

Batch ID: **EX130725-8-1** Instrument ID **Balance** Method: **SW9071**

LCS		Sample ID: EX130725-8			Units: MG/KG			Analysis Date: 7/26/2013		
Client ID:		Run ID: EX130725-8A			Prep Date: 7/25/2013			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
OIL AND GREASE	2050	100	2060		100	80-120			20	

LCSD		Sample ID: EX130725-8			Units: MG/KG			Analysis Date: 7/26/2013		
Client ID:		Run ID: EX130725-8A			Prep Date: 7/25/2013			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
OIL AND GREASE	2040	100	2060		99	80-120	2050	1	20	

MB		Sample ID: EX130725-8			Units: MG/KG			Analysis Date: 7/26/2013		
Client ID:		Run ID: EX130725-8A			Prep Date: 7/25/2013			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
OIL AND GREASE	ND	100								

MS		Sample ID: 1307328-3			Units: MG/KG			Analysis Date: 7/26/2013		
Client ID: GP-11 (5')		Run ID: EX130725-8A			Prep Date: 7/25/2013			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
OIL AND GREASE	2200	107	2210	110	97	80-120			20	

MSD		Sample ID: 1307328-3			Units: MG/KG			Analysis Date: 7/26/2013		
Client ID: GP-11 (5')		Run ID: EX130725-8A			Prep Date: 7/25/2013			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
OIL AND GREASE	2230	107	2220	110	98	80-120	2200	1	20	

The following samples were analyzed in this batch:

1307328-1	1307328-2	1307328-3
1307328-4	1307328-5	1307328-6
1307328-7	1307328-8	1307328-9
1307328-10		

Client: CTL Thompson
 Work Order: 1307328
 Project: FC05859.001-205 4060 CLR Erie

QC BATCH REPORT

Batch ID: **EX130725-7-1** Instrument ID **Pest-1** Method: **SW8082**

LCS		Sample ID: EX130725-7			Units: UG/KG		Analysis Date: 7/26/2013 17:36			
Client ID:		Run ID: PT130726-11			Prep Date: 7/25/2013		DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
AROCLOR-1016	130	33.3	133		97	64-126			50	
AROCLOR-1260	141	33.3	133		106	60-130			50	
Surr: TETRACHLORO-M-XYLEN	15.5		16.7		93	61-120				
Surr: DECACHLOROBIPHENYL	15.1		16.7		91	56-130				

LCSD		Sample ID: EX130725-7			Units: UG/KG		Analysis Date: 7/26/2013 17:59			
Client ID:		Run ID: PT130726-11			Prep Date: 7/25/2013		DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
AROCLOR-1016	128	33.3	133		96	64-126	130	1	50	
AROCLOR-1260	141	33.3	133		105	60-130	141	1	50	
Surr: TETRACHLORO-M-XYLEN	15.3		16.7		92	61-120		1		
Surr: DECACHLOROBIPHENYL	15.3		16.7		92	56-130		1		

MB		Sample ID: EX130725-7			Units: UG/KG		Analysis Date: 7/26/2013 16:28			
Client ID:		Run ID: PT130726-11			Prep Date: 7/25/2013		DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
AROCLOR-1016	ND	33								
AROCLOR-1221	ND	67								
AROCLOR-1232	ND	33								
AROCLOR-1242	ND	33								
AROCLOR-1248	ND	33								
AROCLOR-1254	ND	33								
AROCLOR-1260	ND	33								
Surr: TETRACHLORO-M-XYLEN	15.3		16.7		92	61-120				
Surr: DECACHLOROBIPHENYL	14.9		16.7		89	56-130				

The following samples were analyzed in this batch:

Client: CTL Thompson
 Work Order: 1307328
 Project: FC05859.001-205 4060 CLR Erie

QC BATCH REPORT

Batch ID: VL130721-4-1 Instrument ID HPV1 Method: SW8260_25

LCS		Sample ID: VL130721-4			Units: %REC			Analysis Date: 7/21/2013 14:24			
Client ID:		Run ID: VL130721-4A			Prep Date: 7/21/2013			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
Surr: 4-BROMOFLUOROBENZE	25.1		25		100	85-115					
Surr: DIBROMOFLUOROMETHA	24.8		25		99	84-118					
Surr: TOLUENE-D8	25.5		25		102	85-115					
BENZENE	9.55	1	10		96	83-117			20		
ETHYLBENZENE	9.8	1	10		98	81-113			20		
M+P-XYLENE	19.9	1	20		100	82-115			20		
O-XYLENE	10	1	10		100	81-115			20		
TOLUENE	9.56	1	10		96	82-113			20		

LCSD		Sample ID: VL130721-4			Units: %REC			Analysis Date: 7/21/2013 14:47			
Client ID:		Run ID: VL130721-4A			Prep Date: 7/21/2013			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
Surr: 4-BROMOFLUOROBENZE	24.9		25		100	85-115			1		
Surr: DIBROMOFLUOROMETHA	25.1		25		100	84-118			1		
Surr: TOLUENE-D8	25.4		25		102	85-115			0		
BENZENE	9.65	1	10		96	83-117	9.55	1	20		
ETHYLBENZENE	9.62	1	10		96	81-113	9.8	2	20		
M+P-XYLENE	19.6	1	20		98	82-115	19.9	2	20		
O-XYLENE	9.95	1	10		99	81-115	10	1	20		
TOLUENE	9.38	1	10		94	82-113	9.56	2	20		

MB		Sample ID: VL130721-4			Units: %REC			Analysis Date: 7/21/2013 15:10			
Client ID:		Run ID: VL130721-4A			Prep Date: 7/21/2013			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
Surr: 4-BROMOFLUOROBENZE	24.5		25		98	85-115					
Surr: DIBROMOFLUOROMETHA	24.9		25		99	84-118					
Surr: TOLUENE-D8	25.6		25		102	85-115					
BENZENE	ND	1									
ETHYLBENZENE	ND	1									
M+P-XYLENE	ND	1									
O-XYLENE	ND	1									
TOLUENE	ND	1									

The following samples were analyzed in this batch:

1307328-35	1307328-36	1307328-37
1307328-38	1307328-41	

Client: CTL Thompson
 Work Order: 1307328
 Project: FC05859.001-205 4060 CLR Erie

QC BATCH REPORT

Batch ID: VL130723-2-4 Instrument ID HPV1 Method: SW8260

LCS		Sample ID: VL130723-2			Units: UG/KG			Analysis Date: 7/23/2013 11:34			
Client ID:		Run ID: VL130723-2A			Prep Date: 7/23/2013			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
BENZENE	40.1	5	40		100	73-126			30		
TOLUENE	37.9	5	40		95	71-127			30		
ETHYLBENZENE	37.2	5	40		93	74-127			30		
M+P-XYLENE	75.4	5	80		94	79-126			30		
O-XYLENE	37.6	5	40		94	77-125			30		
Surr: DIBROMOFLUOROMETHA	50.2		50		100	61-134					
Surr: TOLUENE-D8	48.5		50		97	57-135					
Surr: 4-BROMOFLUOROBENZE	50.6		50		101	52-151					

LCSD		Sample ID: VL130723-2			Units: UG/KG			Analysis Date: 7/23/2013 11:56			
Client ID:		Run ID: VL130723-2A			Prep Date: 7/23/2013			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
BENZENE	37.3	5	40		93	73-126	40.1	7	30		
TOLUENE	34.8	5	40		87	71-127	37.9	9	30		
ETHYLBENZENE	34.2	5	40		85	74-127	37.2	8	30		
M+P-XYLENE	69.5	5	80		87	79-126	75.4	8	30		
O-XYLENE	34.8	5	40		87	77-125	37.6	8	30		
Surr: DIBROMOFLUOROMETHA	50.6		50		101	61-134		1			
Surr: TOLUENE-D8	48.8		50		98	57-135		1			
Surr: 4-BROMOFLUOROBENZE	50.8		50		102	52-151		0			

MB		Sample ID: VL130723-2			Units: UG/KG			Analysis Date: 7/23/2013 12:17			
Client ID:		Run ID: VL130723-2A			Prep Date: 7/23/2013			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
BENZENE	ND	5									
TOLUENE	ND	5									
ETHYLBENZENE	ND	5									
M+P-XYLENE	ND	5									
O-XYLENE	ND	5									
Surr: DIBROMOFLUOROMETHA	49.2		50		98	61-134					
Surr: TOLUENE-D8	48.5		50		97	57-135					
Surr: 4-BROMOFLUOROBENZE	49.3		50		99	52-151					

The following samples were analyzed in this batch:

1307328-1	1307328-2	1307328-3
1307328-4	1307328-5	1307328-6

Client: CTL Thompson
 Work Order: 1307328
 Project: FC05859.001-205 4060 CLR Erie

QC BATCH REPORT

Batch ID: VL130724-2-2 Instrument ID HPV1 Method: SW8260

LCS		Sample ID: VL130724-2			Units: UG/KG			Analysis Date: 7/24/2013 13:39			
Client ID:		Run ID: VL130724-2A			Prep Date: 7/24/2013			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
BENZENE	40.9	5	40		102	73-126			30		
TOLUENE	39	5	40		97	71-127			30		
ETHYLBENZENE	38.3	5	40		96	74-127			30		
M+P-XYLENE	77.2	5	80		96	79-126			30		
O-XYLENE	38.6	5	40		97	77-125			30		
Surr: DIBROMOFLUOROMETHA	50.2		50		100	61-134					
Surr: TOLUENE-D8	48.8		50		98	57-135					
Surr: 4-BROMOFLUOROBENZE	51.1		50		102	52-151					

LCSD		Sample ID: VL130724-2			Units: UG/KG			Analysis Date: 7/24/2013 14:01			
Client ID:		Run ID: VL130724-2A			Prep Date: 7/24/2013			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
BENZENE	41.4	5	40		103	73-126	40.9	1	30		
TOLUENE	38.4	5	40		96	71-127	39	1	30		
ETHYLBENZENE	37.6	5	40		94	74-127	38.3	2	30		
M+P-XYLENE	76	5	80		95	79-126	77.2	2	30		
O-XYLENE	38.3	5	40		96	77-125	38.6	1	30		
Surr: DIBROMOFLUOROMETHA	51.2		50		102	61-134		2			
Surr: TOLUENE-D8	49.3		50		99	57-135		1			
Surr: 4-BROMOFLUOROBENZE	50.5		50		101	52-151		1			

MB		Sample ID: VL130724-2			Units: UG/KG			Analysis Date: 7/24/2013 14:23			
Client ID:		Run ID: VL130724-2A			Prep Date: 7/24/2013			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
BENZENE	ND	5									
TOLUENE	ND	5									
ETHYLBENZENE	ND	5									
M+P-XYLENE	ND	5									
O-XYLENE	ND	5									
Surr: DIBROMOFLUOROMETHA	49.5		50		99	61-134					
Surr: TOLUENE-D8	48.3		50		97	57-135					
Surr: 4-BROMOFLUOROBENZE	49.2		50		98	52-151					

Client: CTL Thompson
 Work Order: 1307328
 Project: FC05859.001-205 4060 CLR Erie

QC BATCH REPORT

Batch ID: **VL130724-2-2** Instrument ID **HPV1** Method: **SW8260**

MS		Sample ID: 1307328-10			Units: UG/KG		Analysis Date: 7/24/2013 16:20			
Client ID: S-18		Run ID: VL130724-2A			Prep Date: 7/24/2013		DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	22.6	4.66	37.3	4.8	61	73-126			30	*
TOLUENE	17.7	4.66	37.3	4.8	47	71-127			30	*
ETHYLBENZENE	13.1	4.66	37.3	4.8	35	74-127			30	*
M+P-XYLENE	25.5	4.66	74.6	4.8	34	79-126			30	*
O-XYLENE	13	4.66	37.3	4.8	35	77-125			30	*
Surr: DIBROMOFLUOROMETHA	48.1		46.6		103	61-134				
Surr: TOLUENE-D8	45.7		46.6		98	57-135				
Surr: 4-BROMOFLUOROBENZE	46.1		46.6		99	52-151				

MSD		Sample ID: 1307328-10			Units: UG/KG		Analysis Date: 7/24/2013 16:42			
Client ID: S-18		Run ID: VL130724-2A			Prep Date: 7/24/2013		DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	24.4	4.88	39	4.8	62	73-126	22.6	8	30	*
TOLUENE	19.1	4.88	39	4.8	49	71-127	17.7	8	30	*
ETHYLBENZENE	14	4.88	39	4.8	36	74-127	13.1	7	30	*
M+P-XYLENE	27.8	4.88	78.1	4.8	36	79-126	25.5	8	30	*
O-XYLENE	14	4.88	39	4.8	36	77-125	13	7	30	*
Surr: DIBROMOFLUOROMETHA	50.2		48.8		103	61-134		4		
Surr: TOLUENE-D8	47.6		48.8		98	57-135		4		
Surr: 4-BROMOFLUOROBENZE	47.8		48.8		98	52-151		4		

The following samples were analyzed in this batch:

1307328-7	1307328-8	1307328-10
-----------	-----------	------------

Client: CTL Thompson
 Work Order: 1307328
 Project: FC05859.001-205 4060 CLR Erie

QC BATCH REPORT

Batch ID: VL130725-2-1 Instrument ID HPV1 Method: SW8260

LCS		Sample ID: VL130725-2			Units: UG/KG			Analysis Date: 7/25/2013 12:20			
Client ID:		Run ID: VL130725-2A			Prep Date: 7/25/2013			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
BENZENE	41.2	5	40		103	73-126			30		
TOLUENE	39.1	5	40		98	71-127			30		
ETHYLBENZENE	38.4	5	40		96	74-127			30		
M+P-XYLENE	77.6	5	80		97	79-126			30		
O-XYLENE	39	5	40		98	77-125			30		
Surr: DIBROMOFLUOROMETHA	50.1		50		100	61-134					
Surr: TOLUENE-D8	48.6		50		97	57-135					
Surr: 4-BROMOFLUOROBENZE	50.5		50		101	52-151					

LCSD		Sample ID: VL130725-2			Units: UG/KG			Analysis Date: 7/25/2013 12:44			
Client ID:		Run ID: VL130725-2A			Prep Date: 7/25/2013			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
BENZENE	40.1	5	40		100	73-126	41.2	3	30		
TOLUENE	37.9	5	40		95	71-127	39.1	3	30		
ETHYLBENZENE	37.1	5	40		93	74-127	38.4	4	30		
M+P-XYLENE	75.2	5	80		94	79-126	77.6	3	30		
O-XYLENE	38.1	5	40		95	77-125	39	2	30		
Surr: DIBROMOFLUOROMETHA	50.7		50		101	61-134		1			
Surr: TOLUENE-D8	48.1		50		96	57-135		1			
Surr: 4-BROMOFLUOROBENZE	50.1		50		100	52-151		1			

MB		Sample ID: VL130725-2			Units: UG/KG			Analysis Date: 7/25/2013 13:05			
Client ID:		Run ID: VL130725-2A			Prep Date: 7/25/2013			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
BENZENE	ND	5									
TOLUENE	ND	5									
ETHYLBENZENE	ND	5									
M+P-XYLENE	ND	5									
O-XYLENE	ND	5									
Surr: DIBROMOFLUOROMETHA	49.5		50		99	61-134					
Surr: TOLUENE-D8	48		50		96	57-135					
Surr: 4-BROMOFLUOROBENZE	48.9		50		98	52-151					

Client: CTL Thompson
 Work Order: 1307328
 Project: FC05859.001-205 4060 CLR Erie

QC BATCH REPORT

Batch ID: VL130725-2-1 Instrument ID HPV1 Method: SW8260

MS		Sample ID: 1307328-9			Units: UG/KG			Analysis Date: 7/25/2013 13:51		
Client ID: S-17		Run ID: VL130725-2A			Prep Date: 7/25/2013			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	35.2	5.04	40.4	5.1	87	73-126			30	
TOLUENE	34	5.04	40.4	5.1	84	71-127			30	
ETHYLBENZENE	25.5	5.04	40.4	5.1	63	74-127			30	*
M+P-XYLENE	50.7	5.04	80.7	5.1	63	79-126			30	*
O-XYLENE	24.2	5.04	40.4	5.1	60	77-125			30	*
Surr: DIBROMOFLUOROMETHA	53.9		50.4		107	61-134				
Surr: TOLUENE-D8	53.9		50.4		107	57-135				
Surr: 4-BROMOFLUOROBENZE	41.8		50.4		83	52-151				

MSD		Sample ID: 1307328-9			Units: UG/KG			Analysis Date: 7/25/2013 14:15		
Client ID: S-17		Run ID: VL130725-2A			Prep Date: 7/25/2013			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	24.2	5.02	40.2	5.1	60	73-126	35.2	37	30	*+
TOLUENE	18	5.02	40.2	5.1	45	71-127	34	61	30	*+
ETHYLBENZENE	12.2	5.02	40.2	5.1	30	74-127	25.5	71	30	*+
M+P-XYLENE	23.4	5.02	80.4	5.1	29	79-126	50.7	74	30	*+
O-XYLENE	11.5	5.02	40.2	5.1	29	77-125	24.2	71	30	*+
Surr: DIBROMOFLUOROMETHA	53.7		50.2		107	61-134		0		
Surr: TOLUENE-D8	50.4		50.2		100	57-135		7		
Surr: 4-BROMOFLUOROBENZE	47.9		50.2		95	52-151		14		

The following samples were analyzed in this batch:

1307328-9

Client: CTL Thompson
 Work Order: 1307328
 Project: FC05859.001-205 4060 CLR Erie

QC BATCH REPORT

Batch ID: VL130726-4-3 Instrument ID HPV1 Method: SW8260_25

LCS		Sample ID: VL130726-4			Units: UG/L			Analysis Date: 7/26/2013 17:30			
Client ID:		Run ID: VL130726-4A			Prep Date: 7/26/2013			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
BENZENE	9.72	1	10		97	83-117			20		
Surr: DIBROMOFLUOROMETHA	25.8		25		103	84-118					
Surr: TOLUENE-D8	25.2		25		101	85-115					
Surr: 4-BROMOFLUOROBENZE	24.4		25		98	85-115					

LCSD		Sample ID: VL130726-4			Units: UG/L			Analysis Date: 7/26/2013 17:53			
Client ID:		Run ID: VL130726-4A			Prep Date: 7/26/2013			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
BENZENE	9.33	1	10		93	83-117	9.72	4	20		
Surr: DIBROMOFLUOROMETHA	25.9		25		104	84-118		0			
Surr: TOLUENE-D8	25.8		25		103	85-115		3			
Surr: 4-BROMOFLUOROBENZE	25		25		100	85-115		3			

MB		Sample ID: EX130725-4			Units: UG/L			Analysis Date: 7/26/2013 18:41			
Client ID:		Run ID: VL130726-4A			Prep Date: 7/26/2013			DF: 10			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
BENZENE	ND	10									
Surr: DIBROMOFLUOROMETHA	256		250		102	84-118					
Surr: TOLUENE-D8	258		250		103	85-115					
Surr: 4-BROMOFLUOROBENZE	251		250		100	85-115					

MB		Sample ID: VL130726-4			Units: UG/L			Analysis Date: 7/26/2013 18:17			
Client ID:		Run ID: VL130726-4A			Prep Date: 7/26/2013			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
BENZENE	ND	1									
Surr: DIBROMOFLUOROMETHA	25.8		25		103	84-118					
Surr: TOLUENE-D8	25.9		25		104	85-115					
Surr: 4-BROMOFLUOROBENZE	24.6		25		99	85-115					

The following samples were analyzed in this batch: 1307328-40



1307521

GC/MS Volatiles:

The samples were analyzed using GC/MS following the current revision of SOP 525 based on SW-846 Method 8260C.

All acceptance criteria were met.

Oil and Grease:

The samples were prepared and analyzed according to SW-846, 3rd Edition procedures based on Method SW-9071 and utilizing the current revision of SOP 640.

All acceptance criteria were met.

ALS Environmental -- FC

Sample Number(s) Cross-Reference Table

OrderNum: 1307521

Client Name: CTL Thompson

Client Project Name: 4060 CLR Erie

Client Project Number: FC05859.001-205

Client PO Number:

Client Sample Number	Lab Sample Number	COC Number	Matrix	Date Collected	Time Collected
GP-16 (10')	1307521-1		SOIL	19-Jul-13	12:15
GP-16 (15')	1307521-2		SOIL	19-Jul-13	12:20
GP-16 (20')	1307521-3		SOIL	19-Jul-13	12:30

1307521/11/15/10

ALS Laboratory Group
 225 Commerce Drive, Fort Collins, Colorado 80524
 TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

WORKORDER # **1307328**
 PAGE **1** of **4**

Form 202/6

PROJECT NAME	PROJECT NO.	COMPANY NAME	SEND REPORT TO	ADDRESS	CITY/STATE/ZIP	PHONE	FAX	E-MAIL	SAMPLER	SITE ID	DATE	TURNAROUND	DISPOSAL	By Lab or	Return to Client				
4060 CLR Erie	FC 05859.001-205	CIL THOMPSON	Dana Harris	351 Linden St. #140	Fort Collins, CO 80524	970-206-9455		dharris@cilthompson.com	Dana Harris	-	7/19/13	Standard / 1 wk.							
									EDD FORMAT										
									PURCHASE ORDER										
									BILL TO COMPANY	SAA									
									INVOICE ATTN TO										
									ADDRESS										
									CITY/STATE/ZIP										
									PHONE										
									FAX										
									E-MAIL										
Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	OC	Matrix	Sample Date	Sample Time	# Bottles	Pres.	OC	Matrix	Sample Date	Sample Time	# Bottles	Pres.	OC
①	GP-9 (S)	S	7/19/13	0805	2			S	7/19/13	0805	2			S	7/19/13	0805	2		
②	GP-10 (S)	S	7/19/13	0805	2			S	7/19/13	0805	2			S	7/19/13	0805	2		
③	GP-11 (S)	S	7/19/13	0815	2			S	7/19/13	0815	2			S	7/19/13	0815	2		
④	GP-12 (S)	S	7/19/13	0830	2			S	7/19/13	0830	2			S	7/19/13	0830	2		
⑤	GP-13 (S)	S	7/19/13	1040	2			S	7/19/13	1040	2			S	7/19/13	1040	2		
⑥	GP-14 (S)	S	7/19/13	1110	2			S	7/19/13	1110	2			S	7/19/13	1110	2		
⑦	GP-15 (S)	S	7/19/13	1140	2			S	7/19/13	1140	2			S	7/19/13	1140	2		
⑧	GP-16 (S)	S	7/19/13	1210	2			S	7/19/13	1210	2			S	7/19/13	1210	2		
⑨	S-17	S	7/19/13	1410	2			S	7/19/13	1410	2			S	7/19/13	1410	2		
⑩	S-18	S	7/19/13	1420	2			S	7/19/13	1420	2			S	7/19/13	1420	2		

OIL + Grease
 BTEX
 9071
 8260

*Time Zone (Circle): EST CST MST PST Matrix: O=oil S=soil NS=non-soil solid W=water L=liquid E=extract F=filter

For metals or anions, please detail analytes below.

Comments:

OC PACKAGE (check below)
 LEVEL II (Standard OC)
 LEVEL III (SM OC + forms)
 LEVEL IV (SM OC + forms + raw data)

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

RELINQUISHED BY	SIGNATURE	PRINTED NAME	DATE	TIME
RECEIVED BY	<i>Dana Harris</i>	Dana Harris	7/19/13	0935
RELINQUISHED BY	<i>Lawrence Schmitz</i>	Lawrence Schmitz	7/20/13	0940
RECEIVED BY				
RELINQUISHED BY				
RECEIVED BY				

1307521 1251010

ALS Laboratory Group
 225 Commerce Drive, Fort Collins, Colorado 80524
 TF: (907) 443-1511 PK: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Form 202-8

PROJECT NAME	4060 CLR Erie	SAMPLER	Dave Haros	DATE	7/19/13	TURNAROUND		WORKORDER #	1307328
PROJECT No.	FC05859.001-205	SITE ID		DATE	7/19/13	TURNAROUND		PAGE	2 of 4
COMPANY NAME	CTL Thompson	EDD FORMAT		DATE	7/19/13	TURNAROUND		DISPOSAL	By Lab or Return to Client
SEND REPORT TO		PURCHASE ORDER		DATE	7/19/13	TURNAROUND			
ADDRESS		BILL TO COMPANY		DATE	7/19/13	TURNAROUND			
CITY/STATE/ZIP		INVOICE ATTN TO		DATE	7/19/13	TURNAROUND			
PHONE		ADDRESS		DATE	7/19/13	TURNAROUND			
FAX		CITY/STATE/ZIP		DATE	7/19/13	TURNAROUND			
E-MAIL		PHONE		DATE	7/19/13	TURNAROUND			
		FAX		DATE	7/19/13	TURNAROUND			
		E-MAIL		DATE	7/19/13	TURNAROUND			

Lab ID	Field ID	Matrix	Sample Date	Sample Time	# Bottles	Pres.	QC	RELINQUISHED BY	SIGNATURE	DATE	TIME
11	GP-9 (10')	S	7/19/13	0810	2		HOLD	RELINQUISHED BY	[Signature]	7/20/13	0935
12	GP-9 (15')	S	7/19/13	0820	2		HOLD	RECEIVED BY	[Signature]	7/20/13	0940
13	GP-9 (20')	S	7/19/13	0830	2		HOLD	RELINQUISHED BY	[Signature]		
14	GP-10 (10')	S	7/19/13	0855	2		HOLD	RECEIVED BY	[Signature]		
15	GP-10 (15')	S	7/19/13	0905	2		HOLD	RELINQUISHED BY	[Signature]		
16	GP-10 (20')	S	7/19/13	0915	2		HOLD	RECEIVED BY	[Signature]		
17	GP-11 (10')	S	7/19/13	0935	2		HOLD	RELINQUISHED BY	[Signature]		
18	GP-11 (15')	S	7/19/13	0945	2		HOLD	RECEIVED BY	[Signature]		
19	GP-11 (20')	S	7/19/13	0955	2		HOLD	RELINQUISHED BY	[Signature]		
20	GP-12 (10')	S	7/19/13	1005	2		HOLD	RECEIVED BY	[Signature]		

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments:

OC PACKAGE (check below):
 LEVEL II (Standard OC)
 LEVEL III (Std OC + forms)
 LEVEL IV (Std OC + forms + raw data)

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035



ALS Laboratory Group

225 Commerce Drive, Fort Collins, Colorado, 80524
 TF: (800) 443-1511 PH: (970) 490-1511 FX: (970) 490-1522

Chain-of-Custody

Form 202B

130752/130750

PROJECT NAME	4068 CLR Ege	SAMPLER	Done	DATE	7/19/13	TURNAROUND		WORKORDER	1307328	PAGE	1 of 1
PROJECT No.	FC05859.001-205	SITE ID						DISPOSAL		By Lab or	Return to Client
COMPANY NAME	CTL Thompson	EDO FORMAT									
SEND REPORT TO		PURCHASE ORDER									
ADDRESS		BILL TO COMPANY									
CITY/STATE/ZIP		INVOICE ATTN TO									
PHONE		ADDRESS									
FAX		CITY/STATE/ZIP									
E-MAIL		PHONE									
		FAX									
		E-MAIL									

Lab ID	Field ID	Matrix	Sample Depth Time	Sample Time Date	* Bottles	Pres.	QC
31	GP-15 (20')	S	1200	7/19/13	2		HOLD
32	GP-16 (10')	S	1215	7/19/13	2		HOLD
33	GP-16 (15')	S	1230	7/19/13	2		HOLD
34	GP-16 (20')	S	1270	7/19/13	2		HOLD
35	GP-9	W	1330	7/19/13	4		
36	GP-11	W	1400	7/19/13	4		
37	GP-14	W	1415	7/19/13	4		
38	GP-15	W	1425	7/19/13	4		
39	BW-19	NS	1730	7/19/13	2		

*Time Zone (Circle): EST CST MST PST Matrix: O = oil S = soil NS = non-soil solid W = water L = liquid E = extract F = filter

For metals or anions, please detail analytes below.

Comments: (41) TB

OC PACKAGE (check below)	
LEVEL II (Standard OC)	
LEVEL III (Std OC + forms)	
LEVEL IV (Std OC + forms + raw data)	

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-NaHSO4 7-Other 8-4 degrees C 9-5035

RELINQUISHED BY	RECEIVED BY	SIGNATURE	PRINTED NAME	DATE	TIME
		(Signature)	Dave Hager	7/20/13	0935
		(Signature)	Lauren Schmitz	7/20/13	0940



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

1307521 *ML* 7/13/13

Client: CTL Thompson

Workorder No: 1307328

Project Manager: ARW

Initials: LAS Date: 7/20/13

1. Does this project require any special handling in addition to standard ALS procedures?		YES	<input checked="" type="radio"/> NO
2. Are custody seals on shipping containers intact?	<input checked="" type="radio"/> NONE	YES	NO
3. Are Custody seals on sample containers intact?	<input checked="" type="radio"/> NONE	YES	NO
4. Is there a COC (Chain-of-Custody) present or other representative documents?		<input checked="" type="radio"/> YES	NO
5. Are the COC and bottle labels complete and legible?		<input checked="" type="radio"/> YES	NO
6. Is the COC in agreement with samples received? (IDs, dates, times, no. of samples, no. of containers, matrix, requested analyses, etc.)		<input checked="" type="radio"/> YES	NO *
7. Were airbills / shipping documents present and/or removable?	<input checked="" type="radio"/> PROP OFF	YES	NO
8. Are all aqueous samples requiring preservation preserved correctly? (excluding volatiles)	N/A	YES	<input checked="" type="radio"/> NO *
9. Are all aqueous non-preserved samples pH 4-9?	<input checked="" type="radio"/> N/A	YES	NO
10. Is there sufficient sample for the requested analyses?		<input checked="" type="radio"/> YES	NO
11. Were all samples placed in the proper containers for the requested analyses?		<input checked="" type="radio"/> YES	NO
12. Are all samples within holding times for the requested analyses?		<input checked="" type="radio"/> YES	NO
13. Were all sample containers received intact? (not broken or leaking, etc.)		<input checked="" type="radio"/> YES	NO
14. Are all samples requiring no headspace (VOC, GRO, RSK/MEE, Rx CN/S, radon) headspace free? Size of bubble: ___ < green pea ___ > green pea	N/A	<input checked="" type="radio"/> YES	NO
15. Do any water samples contain sediment? Amount Amount of sediment: ___ dusting ___ moderate ___ heavy	N/A	YES	<input checked="" type="radio"/> NO
16. Were the samples shipped on ice?		<input checked="" type="radio"/> YES	NO
17. Were cooler temperatures measured at 0.1-6.0°C? IR gun used*: <input checked="" type="radio"/> #2 #4 RAD ONLY		<input checked="" type="radio"/> YES	NO
Cooler #: <u>1</u> <u>2</u> <u>3</u>			
Temperature (°C): <u>4.8</u> <u>1.2</u> <u>3.0</u>			
No. of custody seals on cooler: <u>0</u> →			
External µR/hr reading: <u>N/A</u> →			
Background µR/hr reading: <u>10</u>			
Were external µR/hr readings ≤ two times background and within DOT acceptance criteria? YES / NO / NA (If no, see Form 008.)			

Additional Information: PROVIDE DETAILS BELOW FOR A NO RESPONSE TO ANY QUESTION ABOVE, EXCEPT #1 AND #16.

** please see page 2*

If applicable, was the client contacted? YES / NO / NA Contact: _____ Date/Time: _____

Project Manager Signature / Date: *ARW* 7/20/13

1307 ~~51~~ / L 7/20/13



ALS Environmental - Fort Collins
CONDITION OF SAMPLE UPON RECEIPT FORM

Client: CTL
Project Manager: ARW

Workorder No: 1307328
Initials: LAS Date: 7/20/13

Additional Information:

*6 Trip Blank not listed on C.O.C. Arrived
in cooler #1 added to W.O. as 1307328-41
(2 VIALS)

NOTE:

No pH adjustments shall be made without prior consent of Project Manager. After pH adjustments, hold metals and radchem samples ≥ 24 hrs. before analysis.

Was the pH of any sample adjusted by the laboratory? YES (See Table below) / NO

pH Excursion:

ALS Sample ID	Client Sample ID	Initial pH	Final pH	Reagent Used	Volume Added (mL)	Lot No. of Reagent	Requested Analysis	Initials / Date / Time
1307328-35-4	GP-9	7	<2	H ₂ SO ₄	1.0	50048	0&G	LAS 7/20/13 0940
↓ 36-4	GP-11	4	↓	↓	↓	↓	↓	↓
↓ 37-4	GP-14	3	↓	↓	↓	↓	↓	↓
↓ 38-4	GP-15	4	↓	↓	↓	↓	↓	↓

If applicable, was the client contacted? YES / NO / N/A Contact: _____ Date/Time: _____

Project Manager Signature / Date: ARW 7/20/13

Client: CTL Thompson
 Project: FC05859.001-205 4060 CLR Erie
 Sample ID: GP-16 (10')
 Legal Location:
 Collection Date: 7/19/2013 12:15

Date: 05-Aug-13
 Work Order: 1307521
 Lab ID: 1307521-1
 Matrix: SOIL
 Percent Moisture: 14.9

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
GC/MS VOLATILES			SW8260		Prep Date: 7/30/2013	PrepBy: SDW
BENZENE	ND		5.7	UG/KG	1	7/30/2013 17:30
TOLUENE	ND		5.7	UG/KG	1	7/30/2013 17:30
ETHYLBENZENE	ND		5.7	UG/KG	1	7/30/2013 17:30
M+P-XYLENE	ND		5.7	UG/KG	1	7/30/2013 17:30
O-XYLENE	ND		5.7	UG/KG	1	7/30/2013 17:30
Surr: DIBROMOFLUOROMETHANE	104		61-134	%REC	1	7/30/2013 17:30
Surr: TOLUENE-D8	94		57-135	%REC	1	7/30/2013 17:30
Surr: 4-BROMOFLUOROBENZENE	101		52-151	%REC	1	7/30/2013 17:30
OIL & GREASE, GRAVIMETRIC			SW9071		Prep Date: 7/31/2013	PrepBy: BCH
OIL AND GREASE	ND		120	MG/KG	1	8/1/2013

ALS Environmental -- FC

SAMPLE SUMMARY REPORT

Client: CTL Thompson
Project: FC05859.001-205 4060 CLR Erie
Sample ID: GP-16 (15')
Legal Location:
Collection Date: 7/19/2013 12:20

Date: 05-Aug-13
Work Order: 1307521
Lab ID: 1307521-2
Matrix: SOIL
Percent Moisture: 3.4

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
GC/MS VOLATILES			SW8260		Prep Date: 7/30/2013	PrepBy: SDW
BENZENE	ND		4.7	UG/KG	1	7/30/2013 17:53
TOLUENE	ND		4.7	UG/KG	1	7/30/2013 17:53
ETHYLBENZENE	ND		4.7	UG/KG	1	7/30/2013 17:53
M+P-XYLENE	ND		4.7	UG/KG	1	7/30/2013 17:53
O-XYLENE	ND		4.7	UG/KG	1	7/30/2013 17:53
Surr: DIBROMOFLUOROMETHANE	101		61-134	%REC	1	7/30/2013 17:53
Surr: TOLUENE-D8	96		57-135	%REC	1	7/30/2013 17:53
Surr: 4-BROMOFLUOROBENZENE	99		52-151	%REC	1	7/30/2013 17:53
OIL & GREASE, GRAVIMETRIC			SW9071		Prep Date: 7/31/2013	PrepBy: BCH
OIL AND GREASE	ND		100	MG/KG	1	8/1/2013

Client: CTL Thompson
 Project: FC05859.001-205 4060 CLR Erie
 Sample ID: GP-16 (20')
 Legal Location:
 Collection Date: 7/19/2013 12:30

Date: 05-Aug-13
 Work Order: 1307521
 Lab ID: 1307521-3
 Matrix: SOIL
 Percent Moisture: 6.2

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
GC/MS VOLATILES			SW8260		Prep Date: 7/30/2013	PrepBy: SDW
BENZENE	ND		5.2	UG/KG	1	7/30/2013 18:15
TOLUENE	ND		5.2	UG/KG	1	7/30/2013 18:15
ETHYLBENZENE	ND		5.2	UG/KG	1	7/30/2013 18:15
M+P-XYLENE	ND		5.2	UG/KG	1	7/30/2013 18:15
O-XYLENE	ND		5.2	UG/KG	1	7/30/2013 18:15
Surr: DIBROMOFLUOROMETHANE	100		61-134	%REC	1	7/30/2013 18:15
Surr: TOLUENE-D8	95		57-135	%REC	1	7/30/2013 18:15
Surr: 4-BROMOFLUOROBENZENE	98		52-151	%REC	1	7/30/2013 18:15
OIL & GREASE, GRAVIMETRIC			SW9071		Prep Date: 7/31/2013	PrepBy: BCH
OIL AND GREASE	ND		110	MG/KG	1	8/1/2013

Client: CTL Thompson
Project: FC05859.001-205 4060 CLR Erie
Sample ID: GP-16 (20')
Legal Location:
Collection Date: 7/19/2013 12:30

Date: 05-Aug-13
Work Order: 1307521
Lab ID: 1307521-3
Matrix: SOIL
Percent Moisture: 6.2

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
----------	--------	------	--------------	-------	-----------------	---------------

Explanation of Qualifiers

Radiochemistry:

U or ND - Result is less than the sample specific MDC.	M3 - The requested MDC was not met, but the reported activity is greater than the reported MDC.
Y1 - Chemical Yield is in control at 100-110%. Quantitative yield is assumed.	L - LCS Recovery below lower control limit.
Y2 - Chemical Yield outside default limits.	H - LCS Recovery above upper control limit.
W - DER is greater than Warning Limit of 1.42	P - LCS, Matrix Spike Recovery within control limits.
* - Aliquot Basis is 'As Received' while the Report Basis is 'Dry Weight'.	N - Matrix Spike Recovery outside control limits
# - Aliquot Basis is 'Dry Weight' while the Report Basis is 'As Received'.	NC - Not Calculated for duplicate results less than 5 times MDC
G - Sample density differs by more than 15% of LCS density.	B - Analyte concentration greater than MDC.
D - DER is greater than Control Limit	B3 - Analyte concentration greater than MDC but less than Requested MDC.
M - Requested MDC not met.	
LT - Result is less than requested MDC but greater than achieved MDC.	

Inorganics:

B - Result is less than the requested reporting limit but greater than the instrument method detection limit (MDL).
 U or ND - Indicates that the compound was analyzed for but not detected.
 E - The reported value is estimated because of the presence of interference. An explanatory note may be included in the narrative.
 M - Duplicate injection precision was not met.
 N - Spiked sample recovery not within control limits. A post spike is analyzed for all ICP analyses when the matrix spike and or spike duplicate fail and the native sample concentration is less than four times the spike added concentration.
 Z - Spiked recovery not within control limits. An explanatory note may be included in the narrative.
 * - Duplicate analysis (relative percent difference) not within control limits.

Organics:

U or ND - Indicates that the compound was analyzed for but not detected.
 B - Analyte is detected in the associated method blank as well as in the sample. It indicates probable blank contamination and warns the data user.
 E - Analyte concentration exceeds the upper level of the calibration range.
 J - Estimated value. The result is less than the reporting limit but greater than the instrument method detection limit (MDL).
 A - A tentatively identified compound is a suspected aldol-condensation product.
 X - The analyte was diluted below an accurate quantitation level.
 * - The spike recovery is equal to or outside the control criteria used.
 + - The relative percent difference (RPD) equals or exceeds the control criteria.

Diesel Range Organics:

Client: CTL Thompson
Project: FC05859.001-205 4060 CLR Erie
Sample ID: GP-16 (20')
Legal Location:
Collection Date: 7/19/2013 12:30

Date: 05-Aug-13
Work Order: 1307521
Lab ID: 1307521-3
Matrix: SOIL
Percent Moisture: 6.2

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
<p>G - A pattern resembling gasoline was detected in this sample. D - A pattern resembling diesel was detected in this sample. M - A pattern resembling motor oil was detected in this sample. C - A pattern resembling crude oil was detected in this sample. 4 - A pattern resembling JP-4 was detected in this sample. 5 - A pattern resembling JP-5 was detected in this sample. H - Indicates that the fuel pattern was in the heavier end of the retention time window for the analyte of interest. L - Indicates that the fuel pattern was in the lighter end of the retention time window for the analyte of interest. Z - This flag indicates that a significant fraction of the reported result did not resemble the patterns of any of the following petroleum hydrocarbon products:</p> <ul style="list-style-type: none"> - gasoline - JP-8 - diesel - mineral spirits - motor oil - Stoddard solvent - bunker C 						

Client: CTL Thompson

QC BATCH REPORT

Work Order: 1307521

Project: FC05859.001-205 4060 CLR Erie

Batch ID: **EX130731-6-1** Instrument ID **Balance** Method: **SW9071**

LCS		Sample ID: EX130731-6			Units: MG/KG			Analysis Date: 8/1/2013		
Client ID:		Run ID: EX130731-6A			Prep Date: 7/31/2013			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
OIL AND GREASE	2060	100	2060		100	80-120			20	

LCSD		Sample ID: EX130731-6			Units: MG/KG			Analysis Date: 8/1/2013		
Client ID:		Run ID: EX130731-6A			Prep Date: 7/31/2013			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
OIL AND GREASE	2040	100	2060		99	80-120	2060	1	20	

MB		Sample ID: EX130731-6			Units: MG/KG			Analysis Date: 8/1/2013		
Client ID:		Run ID: EX130731-6A			Prep Date: 7/31/2013			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
OIL AND GREASE	100	100								

MS		Sample ID: 1307521-2			Units: MG/KG			Analysis Date: 8/1/2013		
Client ID: GP-16 (15')		Run ID: EX130731-6A			Prep Date: 7/31/2013			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
OIL AND GREASE	2090	102	2110	100	99	80-120			20	

MSD		Sample ID: 1307521-2			Units: MG/KG			Analysis Date: 8/1/2013		
Client ID: GP-16 (15')		Run ID: EX130731-6A			Prep Date: 7/31/2013			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
OIL AND GREASE	2090	102	2100	100	100	80-120	2090	0	20	

The following samples were analyzed in this batch:

1307521-1	1307521-2	1307521-3
-----------	-----------	-----------

Client: CTL Thompson
 Work Order: 1307521
 Project: FC05859.001-205 4060 CLR Erie

QC BATCH REPORT

Batch ID: VL130730-2-1 Instrument ID HPV1 Method: SW8260

LCS		Sample ID: VL130730-2			Units: UG/KG			Analysis Date: 7/30/2013 16:19			
Client ID:		Run ID: VL130730-2A			Prep Date: 7/30/2013			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
BENZENE	43.6	5	40		109	73-126			30		
TOLUENE	40.1	5	40		100	71-127			30		
ETHYLBENZENE	39.2	5	40		98	74-127			30		
M+P-XYLENE	78.3	5	80		98	79-126			30		
O-XYLENE	39.9	5	40		100	77-125			30		
Surr: DIBROMOFLUOROMETHA	51.9		50		104	61-134					
Surr: TOLUENE-D8	48		50		96	57-135					
Surr: 4-BROMOFLUOROBENZE	51.4		50		103	52-151					

LCSD		Sample ID: VL130730-2			Units: UG/KG			Analysis Date: 7/30/2013 16:43			
Client ID:		Run ID: VL130730-2A			Prep Date: 7/30/2013			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
BENZENE	43.2	5	40		108	73-126	43.6	1	30		
TOLUENE	40	5	40		100	71-127	40.1	0	30		
ETHYLBENZENE	39.1	5	40		98	74-127	39.2	0	30		
M+P-XYLENE	79.9	5	80		100	79-126	78.3	2	30		
O-XYLENE	40.3	5	40		101	77-125	39.9	1	30		
Surr: DIBROMOFLUOROMETHA	51.9		50		104	61-134		0			
Surr: TOLUENE-D8	48.5		50		97	57-135		1			
Surr: 4-BROMOFLUOROBENZE	52.1		50		104	52-151		1			

MB		Sample ID: VL130730-2			Units: UG/KG			Analysis Date: 7/30/2013 17:06			
Client ID:		Run ID: VL130730-2A			Prep Date: 7/30/2013			DF: 1			
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual	
BENZENE	ND	5									
TOLUENE	ND	5									
ETHYLBENZENE	ND	5									
M+P-XYLENE	ND	5									
O-XYLENE	ND	5									
Surr: DIBROMOFLUOROMETHA	50.9		50		102	61-134					
Surr: TOLUENE-D8	47.7		50		95	57-135					
Surr: 4-BROMOFLUOROBENZE	50.8		50		102	52-151					

Client: CTL Thompson
 Work Order: 1307521
 Project: FC05859.001-205 4060 CLR Erie

QC BATCH REPORT

Batch ID: VL130730-2-1 Instrument ID HPV1 Method: SW8260

MS		Sample ID: 1307521-3			Units: UG/KG			Analysis Date: 7/30/2013 18:38		
Client ID: GP-16 (20')		Run ID: VL130730-2A			Prep Date: 7/30/2013			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	41.4	5.12	40.9	5.2	101	73-126			30	
TOLUENE	37.4	5.12	40.9	5.2	91	71-127			30	
ETHYLBENZENE	36.7	5.12	40.9	5.2	90	74-127			30	
M+P-XYLENE	73.4	5.12	81.9	5.2	90	79-126			30	
O-XYLENE	37.4	5.12	40.9	5.2	91	77-125			30	
Surr: DIBROMOFLUOROMETHA	53.3		51.2		104	61-134				
Surr: TOLUENE-D8	48.4		51.2		95	57-135				
Surr: 4-BROMOFLUOROBENZE	51.7		51.2		101	52-151				

MSD		Sample ID: 1307521-3			Units: UG/KG			Analysis Date: 7/30/2013 19:02		
Client ID: GP-16 (20')		Run ID: VL130730-2A			Prep Date: 7/30/2013			DF: 1		
Analyte	Result	ReportLimit	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD	RPD Limit	Qual
BENZENE	41.7	5.15	41.2	5.2	101	73-126	41.4	1	30	
TOLUENE	37.4	5.15	41.2	5.2	91	71-127	37.4	0	30	
ETHYLBENZENE	35.5	5.15	41.2	5.2	86	74-127	36.7	3	30	
M+P-XYLENE	72.2	5.15	82.3	5.2	88	79-126	73.4	2	30	
O-XYLENE	36	5.15	41.2	5.2	88	77-125	37.4	4	30	
Surr: DIBROMOFLUOROMETHA	52.4		51.5		102	61-134		2		
Surr: TOLUENE-D8	48.9		51.5		95	57-135		1		
Surr: 4-BROMOFLUOROBENZE	51.1		51.5		99	52-151		1		

The following samples were analyzed in this batch:

1307521-1	1307521-2	1307521-3
-----------	-----------	-----------

1. Project Narrative:

On behalf of Steppe Development we are pleased to provide this narrative in support of the proposed Sketch Plan for Erie Apartments “Balcolm Flats”. The purpose of this request is for the review and approval of the Sketch Plan for the Erie Apartments.

General Project Information:



Steppe Development is pleased to present Balcolm Flats, a 32 unit multi-family residential redevelopment located in the Old Town neighborhood of Erie, Colorado. Modeled after the bungalows, cottages and front-gabled homes found throughout Old Town, Balcolm Flats evokes memories of the past while bringing new housing units to the core. Special design elements along with varied façade treatments create the sense of single family homes popping forward from simpler brick backgrounds reminiscent of the storefronts found along Briggs Street. Four smaller apartment buildings blend well with the style and scale of the existing neighborhood while wider sidewalks, enhanced landscaping and a neighborhood park add new elements to the mix.

Steppe Development has worked with the residents, community stakeholders and Town staff of Erie to create Balcolm Flats. The Sketch Plan presented here reflects several hours of study, meetings, community open houses and public hearings. This proposal reflects a 20% reduction in the number of housing units as well as reduced massing and reduced building height since our last submittal to better reflect the character, charm and spirit of Old Town.

Subject property is located at 4060 County Line Road, Erie Colorado and is 2.73 gross acres and is zoned OTR. The primary cross streets are County Line Road to the west and Balcom Street to the south of the property. The general project concept consists of (4) new apartment buildings that will provide 8 apartment units in each building for a total on site of 32 units. The proposed buildings are two stories and are intended to be architecturally sensitive to the surrounding residential neighborhoods and evoke the image of a single family residence. The buildings are sited to “front” County line road and Balcom Street and

use the site to the north and east to buffer between the existing residential neighborhoods. The site is entered from Balcom Street via two drive isles that align with Lawley Street to the south. Parking is internal on the site and includes 15 covered garage parking spaces which provide a screening buffer between the adjacent single family residential and parking. Additionally, a Pocket Park will be provided on the Southeast corner of the project not only creating an amenity for the surrounding neighborhood but also sited to act as a buffer on the east.

Availability and adequacy of existing infrastructure and other necessary services including schools, fire protection, water/sewer service, and utility providers.

Xcel Energy provides electric and gas service in this area. There are overhead electric lines on all four sides of this project with the line on County Line Road being a high voltage line. The utility pole and overhead line from the public alley to the street light located on Balcom Street will be removed, the line buried and street light moved to allow for the construction of an entrance to the property. All service within the property will be underground. There are gas lines located under County Line Road and Balcom Street to provide gas service to the project.

The Town of Erie provides services for domestic water, waste water and storm water drainage. There are 8" water lines located under County Line Road and Balcom Street for water delivery to this project. There are 8" sewer lines under County Line Road and Balcom Street to access for waste water drainage. If in this process it is determined the County Line Road sewer line is at capacity because of recent development, the applicant will design a plan to use the Balcom Street sewer line for this project. There is an underground storm water line located on the south side of the project under Balcom Street.

The project entrances would be via Balcom Street. Balcom Street is a secondary street for snow removal; County Line Road is a primary street for snow removal.

Fire protection service is provided by Mountain View Fire Rescue and the nearest station is located within two miles of the project. There is one fire hydrant located on County Line Road and two fire hydrants located on Balcom Street.

The project is located in the St Vrain Valley School District. Students in this project could attend Erie Elementary School which at last count was at 73% capacity, Erie Middle School which was at 97% capacity and Erie High School which was at 89% capacity. Erie Elementary and Erie Middle School are within walking distance of the project. Erie High School students will need private or bus transportation to the high school.

Residents of the project have access to the recreational trail system at County Line Road and Balcom Street which will provide foot or bicycle traffic access to the Library, Recreation Center and Park.

The location, function and ownership/maintenance of public and private open space, parks, trails, common areas, common buildings.

The project includes a Pocket Park of approximately 11,000 square feet located in the Southeast corner of the project site adjoining Balcolm Street and a public alley that runs parallel to the Eastern border of the project site. The Pocket Park complies with the Unified Development Code Section 10.6.3. The developer will pay a fee-in-lieu to satisfy the requirement for the Neighborhood Park, Community Park and Open Space since this in-fill project site is only approximately 2.58 net acres. The Pocket Park will be owned by the fee simple owner of the apartment community and will be maintained as a valued amenity for the residents and the neighborhood in general. The Pocket Park will be maintained by the community manager consistent with all amenities and onsite landscaping.

The project also includes detached sidewalks adjoining Balcolm Street and a 30 foot landscaping and detached sidewalk buffer adjoining East County Line Road as required by the Unified Development Code. The sidewalks and landscaping will be maintained by the fee simple owner of the apartment community through its management company.

Existing or proposed covenants, special conditions, grants of easements, or other restrictions applying to the proposed subdivision.

There are no existing or proposed covenants or special conditions impacting the project site. The property will be developed and operated as a multi-family apartment community. The community will be subject to reasonable Rules and Regulations customary to multi-family communities of this size and in-fill location. The project is not subject to any current or proposed declarations or covenants.

The property development will include the dedication of customary utility easements, right-of-way designation, and Pocket Park provisions as determined with the Town of Erie during the planning process. The Rules and Regulations will include reasonable restrictions to govern the use and maintenance of the Pocket Park by apartment residents and neighborhood citizens. The terms and conditions of the Rules and Regulations will be determined with the Town of Erie during the planning process.

The project is a market rate, for rent multi-family community and will not include any affordable housing restrictions or covenants.



TOWN OF ERIE

Community Development Department – Planning Division
645 Holbrook Street – PO Box 750 – Erie, CO 80516
Tel: 303.926.2770 – Fax: 303.926.2706 – Web: www.erieco.gov

LAND USE APPLICATION

Please fill in this form completely. Incomplete applications will not be processed.

STAFF USE ONLY		
FILE NAME:		
FILE NO:	DATE SUBMITTED:	FEES PAID:

PROJECT/BUSINESS NAME: Steppe Development, LLC

PROJECT ADDRESS: 4060 County Line Road, Erie Colorado 80516

PROJECT DESCRIPTION: New apartment units consisting of (2) buildings with on-site surface parking and covered parking in (4) garages and a 1/4 acre pocket park.

LEGAL DESCRIPTION *(attach legal description if Metes & Bounds)*

Subdivision Name: See attached ALTA survey for legal description

<u>Filing #:</u>	<u>Lot #:</u>	<u>Block #:</u>	<u>Section:</u>	<u>Township:</u>	<u>Range:</u>
------------------	---------------	-----------------	-----------------	------------------	---------------

OWNER *(attach separate sheets if multiple)*

Name/Company: _____

Contact Person: Michael Green / Tom Beckius

Address: 6333 Apples Way, Suite 115

City/State/Zip: Lincoln, Nebraska 68516

Phone: 402-473-5307 Fax: 402-435-0088

E-mail: mgreen@theinagroup.com

AUTHORIZED REPRESENTATIVE

Company/Firm: Rhadius Architects P.C.

Contact Person: Brad Reichert

Address: 8701 W. Parmer Unit 2118

City/State/Zip: Austin, Texas 78729

Phone: 970-689-4541 Fax: _____

E-mail: breichert@radiuspc.com

MINERAL RIGHTS OWNER *(attach separate sheets if multiple)*

Name/Company: _____

Address: _____

City/State/Zip: _____

MINERAL LEASE HOLDER *(attach separate sheets if multiple)*

Name/Company: _____

Address: _____

City/State/Zip: _____

LAND-USE & SUMMARY INFORMATION

<u>Present Zoning: OTR (OLD TOWN RESIDENTIAL)</u>	<u>Gross Site Density (du/ac): 14.65 du/ac</u>
<u>Proposed Zoning: NO CHANGE</u>	<u># Lots/Units Proposed: 40 Dwelling Units in (2) buildings</u>
<u>Gross Acreage: 2.73</u>	<u>Gross Floor Area: T.B.D.</u>

SERVICE PROVIDERS

<u>Electric:</u>	<u>Gas:</u>
<u>Metro District:</u>	<u>Fire District:</u>
<u>Water (if other than Town):</u>	<u>Sewer (if other than Town):</u>

PAGE TWO MUST BE SIGNED AND NOTARIZED

Excerpt from Title 10 - Unified Development Code dated: NOVEMBER 2013

County Line Road

i. A minimum 30-foot landscaped buffer shall be maintained on either side of the street. This buffer should utilize a variety of live plant material and berming to provide year-round visual interest. A minimum 8 foot wide sidewalk shall be incorporated as an integral component of the landscape buffer and landscape area within the right-of-way.

ii. All fencing facing the street shall be a maximum of 4 feet in height and should have an open character, such as split rail or picket. Opaque fencing is prohibited.

iii. Parking shall be screened to the greatest extent reasonably practicable from the street using a combination of berming, walls, or fencing and landscaping with a minimum height of 3 feet and maximum height of 4 feet. Parking, internal drives or streets may not extend into the landscape buffer.

iv. Permanent signage along County Line Road shall be limited to wall signs and monument signs constructed from similar materials as the primary buildings on the site. Ground signs shall be prohibited.

v. Garages may not be used as a barrier between the street and a development site.

BALCOLM FLATS (ERIE APARTMENTS) SKETCH PLAN
PART OF THE SOUTHWEST QUARTER OF SECTION 18,
TOWNSHIP 1 NORTH, RANGE 68 WEST OF THE 6TH
PRINCIPAL MERIDIAN, TOWN OF ERIE, COUNTY OF
WELD, STATE OF COLORADO,
2.73 ACRES
SK-1.7

RH 14-174

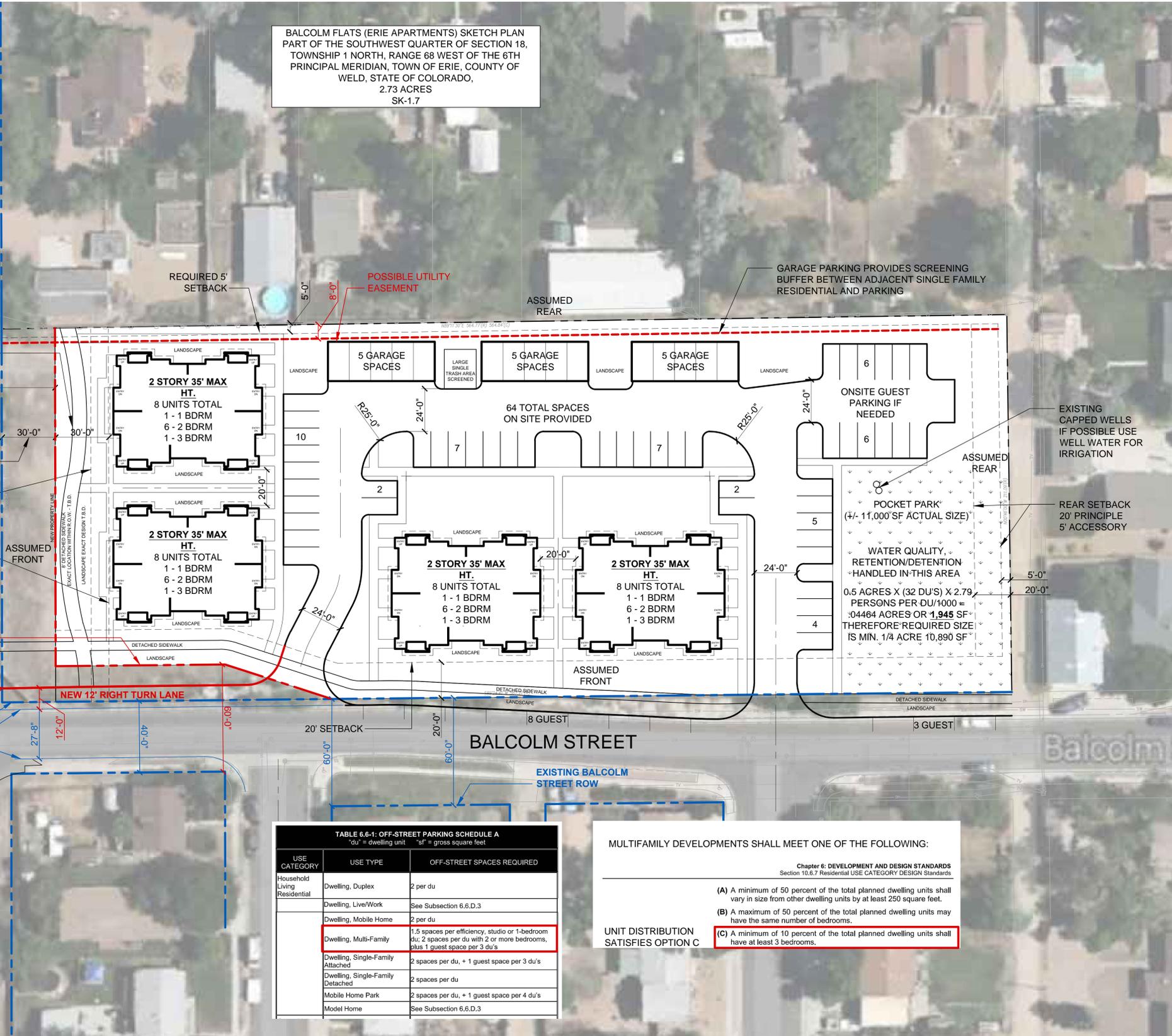
radius inc.
austin-denver architecture
8701 W. Parmer Unit 2118
Austin, Texas 78729
P: 303.594.9959
rreevey@radiuspc.com

BALCOLM FLATS
4060 COUNTY LINE ROAD
ERIE, COLORADO 80516

ISSUE:
PRELIMINARY 06.19.2015
PRELIMINARY 08.07.2015
SKETCH PLAN 08.21.2015
rev SKETCH PLAN 12.07.2015
rev SKETCH PLAN 12.14.2015
rev SKETCH PLAN 01.16.2016
rev SKETCH PLAN 04.19.2016

PRELIMINARY
SITE CONCEPT 7

A1.7



SUMMARY

- 32 DWELLING UNITS.
- 50 OFF-STREET PARKING SPACES REQUIRED (DOES NOT INCLUDE GUEST REQUIRED GUEST PARKING SPACES ASSUMES - 20% REDUCTION TAKEN PER SECT. 10.6.6:4 AUTOMATIC PARKING REDUCTION IN OTR), 15 GARAGE SPACES.
- UNIT BREAKDOWN:
 - (4) UNITS ARE 1 BEDROOM;
 - (24) UNITS ARE 2 BEDROOM;
 - (4) UNITS ARE 3 BEDROOM.
- REQUIRED ACCESSIBLE DWELLING UNITS AND REQUIRED ACCESSIBLE PARKING T.B.D.
- 11 GUEST SPACES REQUIRED, CURRENTLY SHOWN ON STREET. (NOTE: IF ON-STREET PARKING IS NOT ALLOWED GUEST SPACES WILL NEED TO BE PART OF OFF-STREET PARKING COUNT).
- POCKET PARK +/- 11,000 SF PROVIDED (10,890 SF REQUIRED).
- OPEN SPACE, NEIGHBORHOOD AND COMMUNITY PARK TO BE FEE IN LIEU.

TABLE 6.6-1: OFF-STREET PARKING SCHEDULE A
du = dwelling unit sq ft = gross square feet

USE CATEGORY	USE TYPE	OFF-STREET SPACES REQUIRED
Household Living Residential	Dwelling, Duplex	2 per du
	Dwelling, Live/Work	See Subsection 6.6.D.3
	Dwelling, Mobile Home	2 per du
	Dwelling, Multi-Family	1.5 spaces per efficiency, studio or 1-bedroom du; 2 spaces per du with 2 or more bedrooms, plus 1 guest space per 3 du's
	Dwelling, Single-Family Attached	2 spaces per du, + 1 guest space per 3 du's
	Dwelling, Single-Family Detached	2 spaces per du
	Mobile Home Park	2 spaces per du, + 1 guest space per 4 du's
	Model Home	See Subsection 6.6.D.3

MULTIFAMILY DEVELOPMENTS SHALL MEET ONE OF THE FOLLOWING:

Chapter 6: DEVELOPMENT AND DESIGN STANDARDS
Section 10.6.7 Residential USE CATEGORY DESIGN STANDARDS

(A) A minimum of 50 percent of the total planned dwelling units shall vary in size from other dwelling units by at least 250 square feet.

(B) A maximum of 50 percent of the total planned dwelling units may have the same number of bedrooms.

UNIT DISTRIBUTION SATISFIES OPTION C

(C) A minimum of 10 percent of the total planned dwelling units shall have at least 3 bedrooms.

District	Max/Min Density (DU/Acre)	Minimum Lot Standards			Minimum Setbacks (ft.)				Max Height (ft)
		Width (ft)	Net Area (sq ft)	Front	Street (all uses)	Interior Lot Line	Rear		
OTR	SF: 5/ha MF: 16/ha	SF: 50 MF: none	SF: 6,000 MF: 3,000 per DU	Principal: 20 Accessory: 30	20	Prin: 5 [Ⓞ] Acc: 5 [Ⓞ]	Principal: 20 Accessory: 5	Prin: 35 Acc: 25	

- ZERO LOT LINE SETBACKS SHALL BE PERMITTED FOR ATTACHED BUILDINGS PROVIDED THAT THE BUILDING MEETS THE ZONE DISTRICT INTERIOR LOT LINE SETBACK ON THE SIDE OF THE BUILDING NOT ATTACHED.
- MULTIPLE PRINCIPAL BUILDINGS ON A SINGLE LOT SHALL BE SEPARATED A DISTANCE EQUAL TO THE DISTANCE THAT WOULD BE REQUIRED IF THEY WERE SEPARATED BY A LOT LINE.
- NET AREA IS THE SIZE OF THE LOT; NOT TO INCLUDE TRACTS AND STREETS AND THEIR RIGHT-OF-WAYS.

NOTE:

ZONE DISTRICT: OTR (OLD TOWN RESIDENTIAL) UP TO 16 DWELLING UNITS PER ACRE.

SITE AREA: 118,867 GSF - 98,029 +/- NET SF (EXCLUDES COUNTY LINE ROAD 30' ROW INCREASE, BALCOLM STREET ROW & POCKET PARK)

98,029/43,560 = 2.25 NET ACRES X 16 DU = **36 TOTAL DU PERMITTED** (32 DU PROPOSED).

98,029 NET SF/3000 PER LOT PER DU = **32.68 DU PERMITTED** (LOT AREA RATIO MOST RESTRICTIVE)

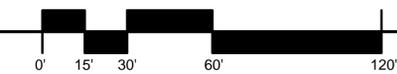
THEREFORE: 32 DWELLING UNITS PERMITTED.

LANDSCAPE AREA: 98,029 NET SF X 15% = 14,704 REQUIRED NOTE: 32,000 +/- SF AREA OF SITE AVAILABLE FOR LANDSCAPING AND SIDEWALKS - FINAL DESIGN T.B.D.

DOCUMENTS USED IN SITE OPTION PREPARATION:

GOOGLE EARTH SATELLITE PHOTO

ALTA SURVEY BY TRISTATE SURVEYING, INC. DRAWING NO. 201525_ALTA DATED: 01 MAY 15.



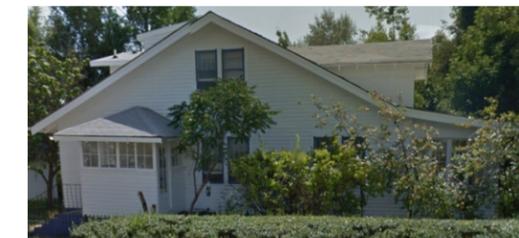
SITE CONCEPT 1



Copyright Notice: This document, ideas, and design incorporated herein are given in confidence and shall be used only pursuant to the agreement with the client. No other use, dissemination or duplication shall be made without prior written consent of the client. All common law rights of copyright are hereby specifically reserved.



Balcolm Streetscape





Balcolm Streetscape

MODULAR CLAY BRICK VENEER
 PAINTED TRIM ELEMENT

DOUBLE HUNG WINDOWS
 PREFINISHED METAL COPING
 COMPOSITION ROOFING MATERIAL



PAINTED FIBER CEMENT SIDING - NARROW COURSING
 INTEGRALLY COLORED PRECAST SILL
 BRICK SOLIDER COURSE LINTEL



County Line Road Streetscape





County Line Road Streetscape





EVOKE APPEARANCE OF SINGLE FAMILY RESIDENCE - DIFFERENTIATE WITH USE OF ALTERNATE ARCHITECTURAL ELEMENTS AND COLOR

LOW SLOPE ROOF WITH PARAPET "CONNECTOR" TO HELP LOWER OVERALL BUILDING HEIGHT AND PROVIDE BETTER SCALE COMPATIBILITY WITH EXISTING NEIGHBORHOOD

STREET FACING PORCH ON BALCOLM

SIDE UNIT ENTRIES, INTERIOR STAIR FOR UPPER LEVEL



Balcolm Street Sidewalk



Balcolm Streetscape Perspective



County Line Road and Balcom Perspective

ONE BEDROOM UNIT

BLUE DEPICTS AREA OF 1 BEDROOM UNIT +/- 825 SQUARE FEET (CONCEPTUAL FLOOR PLAN ONLY)

THREE BEDROOM UNIT

ORANGE DEPICTS AREA OF 3 BEDROOM UNIT +/- 1375 SQUARE FEET (CONCEPTUAL FLOOR PLAN ONLY)

TWO BEDROOM UNIT

GREEN DEPICTS AREA OF 2 BEDROOM UNIT +/- 1100 SQUARE FEET (CONCEPTUAL FLOOR ONLY)

TWO BEDROOM UNIT

GREEN DEPICTS AREA OF 2 BEDROOM UNIT +/- 1100 SQUARE FEET (CONCEPTUAL FLOOR PLAN ONLY)

