

October 1, 2015

Payson Long
New York State
Department of Environmental Conservation
625 Broadway
Albany, New York 12233

**Subject: Korkay, Inc. Site #5-18-014
2015 Direct-Push Groundwater Investigation Summary**

Dear Mr. Long,

This letter has been prepared to report the results of the direct push groundwater investigation completed at the Korkay Site ("the Site") (NYSDEC ID: 5-18-014) in August 2015. The work was completed in accordance with the work plan submitted to the New York State Department of Environmental Conservation (NYSDEC) on July 29, 2015. This work was performed under New York State Superfund Standby Contract Work Assignment number D007626-20. The purpose of this investigation was to complete the delineation of the off-site groundwater contaminant plume and provide the data necessary to select locations for up to five new permanent off-site monitoring wells.

Site Background

Korkay, Incorporated (Korkay) located in Broadalbin, NY (Figure 1), was a supplier of detergents, solvents, and degreasers to the automotive industry from 1969 to 1980. Korkay purchased bulk quantities of chemicals that were stored on-site for repackaging and/or blending into commercial products including automobile wax, and hand cleaners. In addition to the commercial products being produced, Korkay also operated as a drum reclamation facility. Drums were accepted containing a variety and quantity of chemicals that remains undetermined. The drums were emptied of any remaining chemicals, washed, rinsed and relined. This process was conducted without appropriate containment of the chemicals, and chemical laden rinsate being discharged through the facilities septic system or directly to the ground surface. The NYSDEC and NYSDOH inspected the Site in 1979 and documented the occurrence of these activities. In 1980, Korkay installed a 4,000 gallon above ground storage tank (AST) to appropriately contain the residual chemicals and rinsate generated from drum reclamation. Reports and Site documentation indicate that the drums contained acetone, isopropyl alcohol, degreasers, and perfumes as well as other chemicals.

Methods

A total of 14 (GW-24 to GW-37) direct push borings were installed between August 3, 2015 and August 4, 2015. The approximate locations of the borings are presented on Figure 2. The boring locations have been surveyed by our subcontracted licensed surveyor and will be included in future maps once the site base map is completed.

At each boring, soil was collected in 4 foot intervals in 1.5 inch core barrel with acetate liners. The cores were examined by an AECOM geologist and were screened with a photo ionization detector (PID) for the presence of volatile organic compounds (VOCs). Observations and PID readings were recorded on boring logs (Appendix A). The borings were advanced below the groundwater table, typically found 5 to 8 feet below ground surface (bgs). Once at the desired depth, a 4 foot retractable screen (SP-10) was positioned at the water table to collect grab groundwater samples utilizing a peristaltic pump. The SP-10 sampler was decontaminated by washing with a non-phosphate cleanser, and rinsing with potable water between samples. Dedicated tubing was used for the collection of each sample.

Groundwater samples were analyzed for VOCs (Method 8260C), semivolatile organic compounds SVOCs (Method 8270D) and organochlorine pesticides (Method 8081B). The samples were put on ice and were shipped under chain of custody for analysis at Test America in Buffalo, NY.

Soil Observations

The geology observed was consistent with the other investigations conducted at the Site. The subsurface soil is a fine to coarse sand with some silt that becomes finer with depth. The sand and silt grades to a clay unit. The clay was generally encountered between 9 and 11 ft bgs. The clay surface was not encountered in six borings (GW-25, GW-26, GW-30, GW-31, GW-33 and GW-34) which were drilled to a total depth of 12 ft. bgs. The RI report characterized the clay unit as an aquitard which prevents or limits downward migration of impacted groundwater.

Black and gray staining was observed in 4 of the 14 borings, including GW-26, GW-27, GW-29 and GW-36 and typically corresponded to elevated PID readings. This finding is consistent with historical observations of soil cores at the Site. The most significantly elevated PID readings were detected in borings GW-26 (386 ppm) and GW-36 (94 ppm), both in samples collected from the 8 to 12 foot depth interval. The highest PID reading in the remaining borings was 6,100 ppb (GW-27).

Laboratory Results

VOCs

The groundwater VOC results are presented in Table 1. One or more VOCs were detected above NYSDEC ambient water quality standards (AWQS) in 10 of 14 groundwater samples. The detected constituents exceeding the AWQS include primarily petroleum hydrocarbon VOCs and to a lesser extent chlorinated hydrocarbon VOCs such as 1,2,4-dichlorobenzene and cis-1,2-dichloroethene (DCE). DCE was detected in four borings (GW-29, GW-30, GW-31 and GW-32) located furthest downgradient from the Korkay Site, and may represent a breakdown compound of tetrachloroethene (PCE), previously detected on-site. The highest concentration of total dissolved phase VOCs was 1,609 µg/L was detected in the sample GW-30, which was collected at the property between West Main Street and South 2nd Avenue, south-southwest of the Korkay Site.

SVOCs

Dissolved phase SVOC results are reported on Table 2. SVOCs that were detected above the AWQS included 2,4-dimethylphenol in sample GW-29 and GW-30, naphthalene in sample GW-30,

and bis(2-ethyl hexyl) phthalate in sample GW-25. Bis- phthalate is a common laboratory contaminant and is not believed to be a Site-related contaminant.

Pesticides

Pesticide results are reported on Table 3. Pesticides were detected above AWQS in 7 of the samples collected during this investigation. In general, where AWQS exceedances were detected, the reported concentrations were just slightly above the relevant Standard. A majority of the pesticide detections were flagged with a "J" indicating that the result is less than the recording limit but greater than the detection limit and the result is considered estimated. This adds a level of uncertainty in comparing these data to the AWQS. The pesticide results may be biased high due to the fact that these were temporary sampling points and the samples were relatively turbid and that the pesticides may more likely be adsorbed onto the soil particles.

Conclusions and Recommendations

The extent of dissolved-phase groundwater impacts off-Site appear to be greater than previous groundwater investigations and monitoring suggested. Based on the results of the July 2014 and August 2015 off-Site groundwater investigations, the plume extends to the south-southwest of the Site, as shown in Figure 2. The downgradient extent of the plume does not appear to be completely delineated.

It is recommended that four new off-Site monitoring wells be installed to further define the off-Site plume limits, and provide points for future downgradient plume monitoring following completion of the on-Site In-Situ Chemical Oxidation injection program to be completed in the fall of 2015. The location of the four proposed wells are numbered 1 through 4 on Figure 2. The objectives for these locations are as follows:

- Well number 1 will be installed at a location to verify the southwestern plume limit. Note that the off-Site southeastern plume limit is defined by existing well pair MW-8S/MW-8D.
- Wells 2 and 3 will be installed at off-Site midplume locations based on the 2014 and 2015 groundwater investigation results.
- Well 4 will be located further south-southwest from the Site and along the approximate inferred plume axis, as indicated in Figure 2, in attempt to better define the downgradient plume limit.

Methods for the installation and development of the monitoring wells are included in the work plan submitted to the New York State Department of Environmental Conservation (NYSDEC) on July 29, 2015.

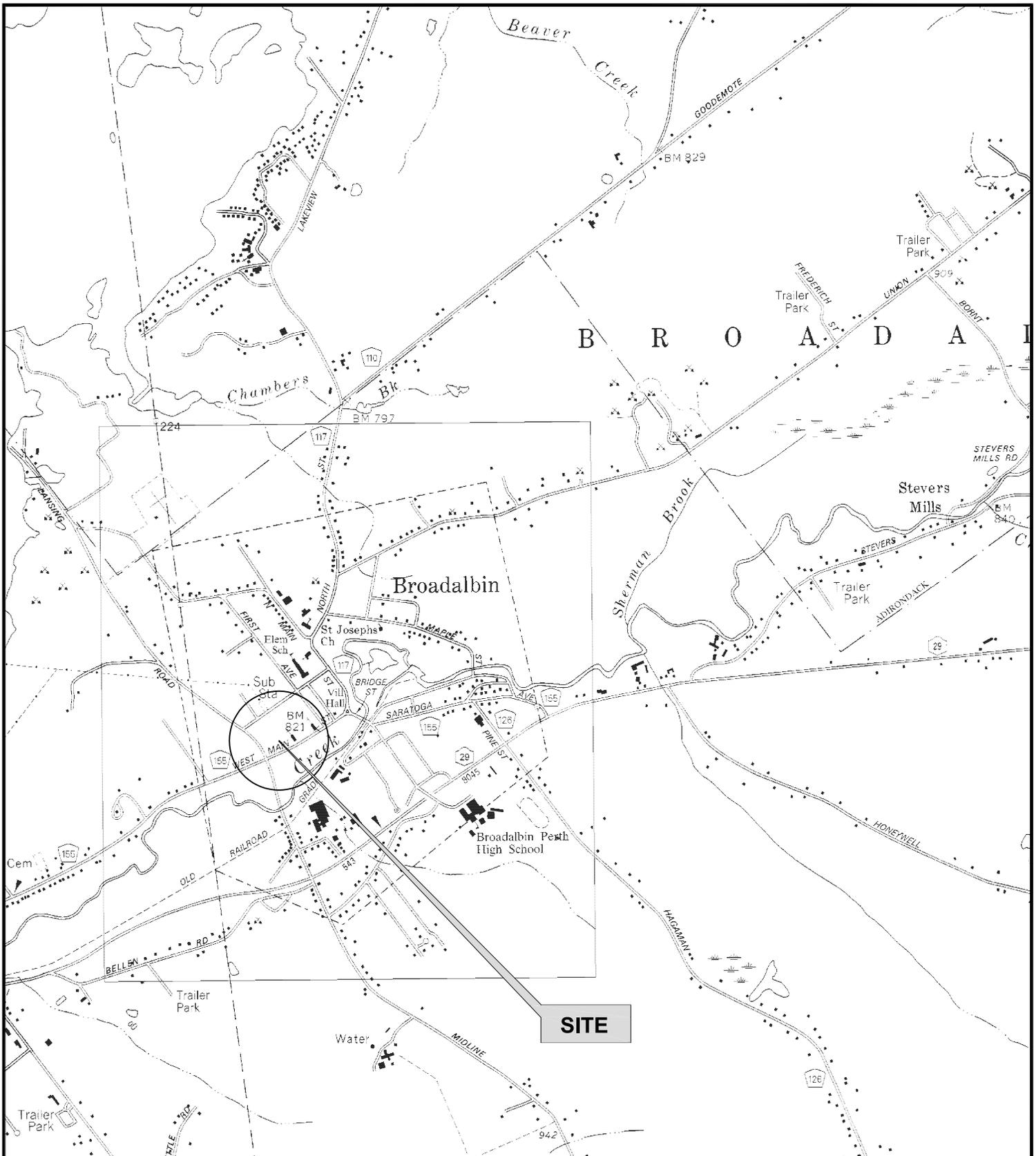
Should you have any questions, please do not hesitate to contact Walt Howard at walter.howard@aecom.com or (518) 951-2387 or John Santacroce at John.Santacroce@aecom.com.

Yours sincerely,



Walter Howard
Project Manager

Figures



MAP REFERENCE: NYS DOT 7.5 MIN. QUADRANGLE
 BROADALBIN SERIES

PLAN



NORTH

Scale in Feet



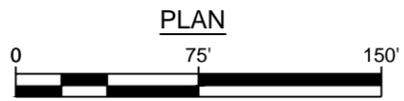
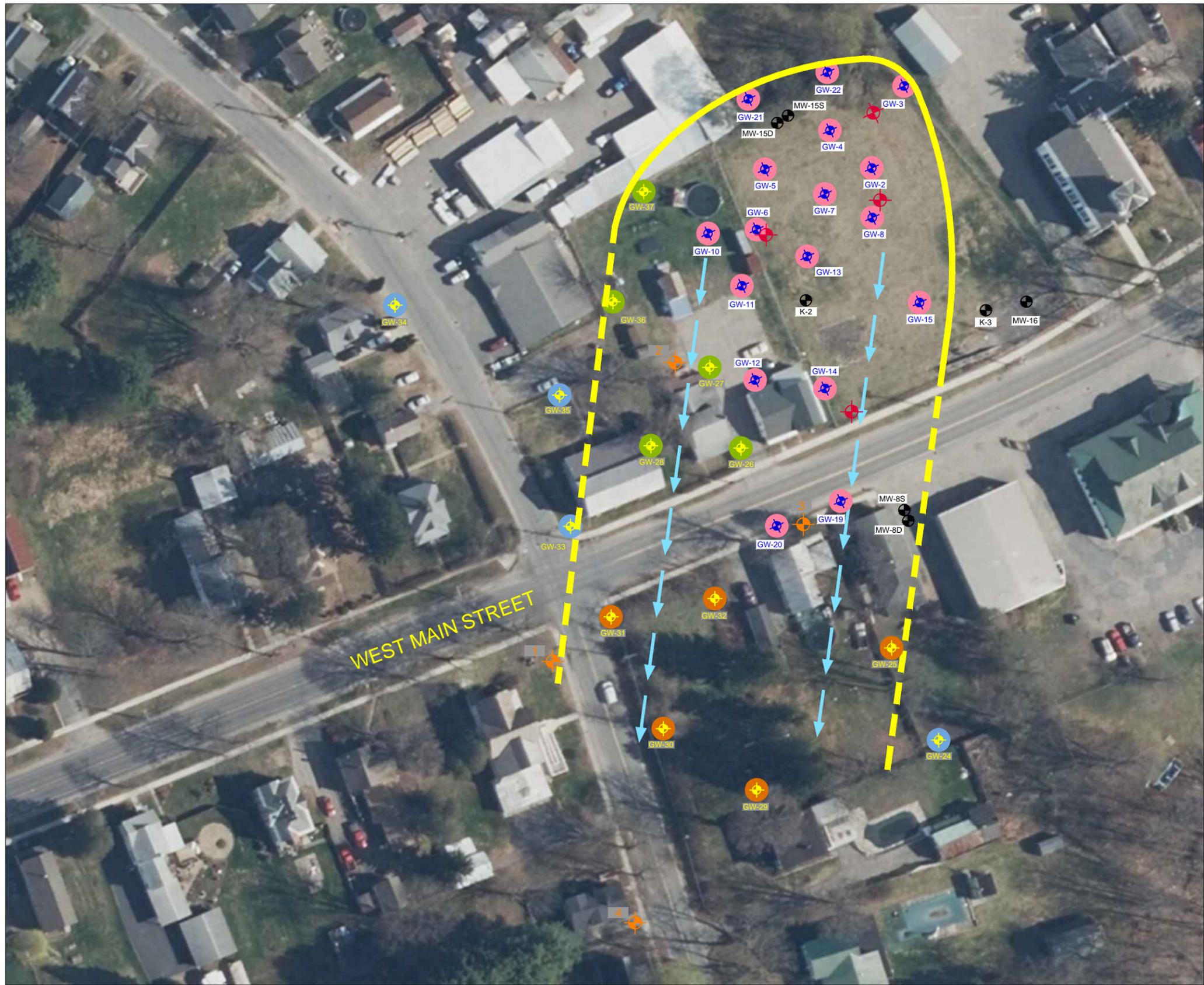
A tyco International Ltd. Company

FIGURE 1
SITE LOCATION
PLAN

KORKAY INC.
BROADALBIN, NEW YORK

DATE: NOVEMBER, 2007

PROJECT NO.: 99165



LEGEND

- APPROXIMATE LOCATION OF 2014 GROUNDWATER SAMPLE WITH RESULT GREATER THAN NYSAWQS
- EXISTING GROUNDWATER MONITORING WELL
- APPROXIMATE EXTENT OF PROJECTED AND INFERRED GROUNDWATER PLUME
- APPROXIMATE DIRECTION OF PROJECTED AND INFERRED GROUNDWATER FLOW PATH
- PROPOSED ON-SITE MONITORING WELL LOCATION
- PROPOSED OFF-SITE MONITORING WELL LOCATION
- OFF-SITE GROUNDWATER SAMPLE LOCATION (2015)

SAMPLE RESULT KEY

- SAMPLE RESULT EXCEEDS NYSAWQS STANDARDS FOR CVOC AND PETROLEUM VOCs (2015)
- SAMPLE RESULT EXCEEDS NYSAWQS STANDARDS FOR PETROLEUM VOCs (2015)
- SAMPLE RESULT BELOW NYSAWQS STANDARDS OR NON-DETECT (2015)



Issue Status: DRAFT

PROPOSED OFF-SITE MONITORING WELL
 LOCATION PLAN

Tables

Table 1
VOC Results
Korkay August 2015 Groundwater Investigation

Sample Location		Off Site South						Off Site West							
Sample ID	NYSDEC AWQS & GV	GW-24 8/3/2015	GW-25 8/3/2015	GW-29 8/4/2015	GW-30 8/4/2015	GW-31 8/4/2015	GW-32 8/4/2015	GW-26 8/3/2015	GW-27 8/3/2015	GW-28 8/3/2015	GW-33 8/4/2015	GW-34 8/4/2015	GW-35 8/4/2015	GW-36 8/4/2015	GW-37 8/4/2015
Sample Date	ug/L	1:00 PM	2:00 PM	8:40 AM	9:20 AM	10:00 AM	10:30 AM	3:00 PM	3:30 PM	4:06 PM	11:25 AM	12:10 PM	1:40 PM	2:10 PM	3:05 PM
Sample Time															
VOCs ug/L															
STARS List VOCs (Petroleum)															
1,2,4-Trimethylbenzene	5	ND	5.4	250	450	130	ND	110	55	59	ND	ND	ND	21	5.4
1,3,5-Trimethylbenzene	5	ND	ND	62	97	25	ND	34	ND	ND	ND	ND	ND	3.8	ND
Ethylbenzene	5	ND	ND	67	110	42	17	4.4 J	13	9.0 J	ND	ND	ND	2.1	ND
N-Propylbenzene	5	ND	3.8 J	38	72	32	7	18	7.5 J	7.0 J	ND	ND	ND	5.9	2.5
n-Butylbenzene	5	ND	5.2	19	59	29	4.9 J	38	6.8 J	ND	ND	ND	ND	4.4	2.5
sec-Butylbenzene	5	ND	7	13	40	25	4.8 J	23	ND	ND	ND	ND	ND	2.7	7.8
tert-Butylbenzene	5	ND	0.85 J												
Isopropylbenzene	5	ND	ND	21	39	20	6	6.7	ND	ND	ND	ND	ND	2.1	ND
Toluene	5	ND	ND	7.4 J	ND										
4-Isopropyltoluene	5	ND	ND	12	16	4.6 J	ND	19	ND	ND	ND	ND	ND	2.9	1.1
o-Xylene	5	ND	ND	100	180	44	ND	5.9	31	ND	ND	ND	ND	3.8	ND
m,p-Xylene	5	ND	ND	180	150	26	ND	6.7	10	ND	ND	ND	ND	3.9	ND
Xylenes, Total	5	ND	ND	280	330	70	ND	15	41	ND	ND	ND	ND	7.7	ND
Naphthalene	10	ND	ND	23	12	9.3	ND	6.5	ND	ND	ND	ND	ND	9.4	ND
TCL List VOCs Non-STARs List															
1,1-Dichloroethane	5	ND													
1,2-Dichlorobenzene	3	ND	10	18	20	11	7.7	ND							
1,2,3-Trichlorobenzene	5	ND													
1,2,3-Trichloropropane	0.04	ND													
1,1,2,2-Tetrachloroethane	5	ND													
1,2,4-Trichlorobenzene	5	ND													
1,4-Dichlorobenzene	3	ND													
2-Butanone (MEK)	NS	ND													
Acetone	50	ND	4.5 J	ND											
Bromodichloromethane	NS	ND													
Carbon disulfide	60	ND	0.68 J ^	ND											
Chloroform	7	ND	1.4	1.7											
cis-1,2-Dichloroethene	5	ND	ND	14	19	9.5	6.1	ND							
Cyclohexane	NS	ND	ND	ND	3.4 J	1.9 J	ND								
Dichlorodifluoromethane	5	ND													
Methylcyclohexane	NS	ND	3.0 J	5.2 J	12	7.2	1.7 J	6	1.6 J	ND	ND	ND	ND	1.2	0.41 J
Tetrachloroethene	5	ND	0.60 J	ND	ND										
Trichloroethene	5	ND													

Bold- Analyte was detected in laboratory analysis
Highlight- Analyte was detected above the NYSDEC AWQS or Guidance Value
NS- No Standard
ND- Not detected above MDL
J - Result is estimated, detection was below the RL but above the MDL

Table 2
SVOC Results
Korkay August 2015 Groundwater Investigation

Sample Location		Off Site South						Off Site West							
Sample ID	NYSDEC	GW-24	GW-25	GW-29	GW-30	GW-31	GW-32	GW-26	GW-27	GW-28	GW-33	GW-34	GW-35	GW-36	GW-37
Sample Date	AWQS & GV	8/3/2015	8/3/2015	8/4/2015	8/4/2015	8/4/2015	8/4/2015	8/3/2015	8/3/2015	8/3/2015	8/4/2015	8/4/2015	8/4/2015	8/4/2015	8/4/2015
Sample Time	ug/L	1:00 PM	2:00 PM	8:40 AM	9:20 AM	10:00 AM	10:30 AM	3:00 PM	3:30 PM	4:06 PM	11:25 AM	12:10 PM	1:40 PM	2:10 PM	3:05 PM
SVOCs ug/L															
2,4-Dimethylphenol	1*	ND	ND	4.5 J	2.3 J	0.64 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	NS	ND	ND	5.9	0.92 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylphenol	1*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetophenone	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzaldehyde	NS	0.57 JB	ND	ND	20 B	9.6 B	0.54 J B	ND	ND	ND	0.40 J B	0.59 J B	0.52 J B	3.8 J B	0.57 J B
Benzo(a)anthracene	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(a)pyrene	Non-Detect	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(b)fluoranthene	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(g,h,i)perylene	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzo(k)fluoranthene	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Biphenyl	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl) phthalate	5	2.1 J	19	ND	3.9 J	2.1 J	ND	2.8 J	ND	ND	ND	ND	ND	3.3 J	3.6 J
Butyl benzyl phthalate	50	0.59 J	0.62 J	ND	0.43 J	0.61 J	0.55 J	0.59 J	0.56 J	ND	ND	0.45 J	ND	ND	ND
Caprolactam	NS	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chrysene	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Diethyl phthalate	5	4.4 J	0.76 J	0.33 J	0.47 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-butyl phthalate	50	2.7 J	ND	0.94 J	1.9 J	1.0 J	0.97 J	ND	0.89 J	0.64 J	ND	0.40 J	0.54 J	1.3 J	0.62 J
Di-n-octyl phthalate	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluorene	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.002	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10	ND	ND	21	8	5.4	ND	2.2 J	ND	ND	ND	ND	ND	7.1	ND
Phenanthrene	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenol	1*	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	50	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Bold- Analyte was detected in laboratory analysis

Highlight- Analyte was detected above the NYSDEC AWQS or Guidance Value

*Sum of all Phenols

NS- No Standard

ND- Not detected above MDL

B-Compound detected in laboratory control blank.

J - Result is estimated, detection was below the RL but above the MDL

Table 3
Pesticides Results
Korkay August 2015 Groundwater Investigation

Sample Location	NYSDEC	Off Site South						Off Site West							
Sample ID	AWQS & GV	GW-24	GW-25	GW-29	GW-30	GW-31	GW-32	GW-26	GW-27	GW-28	GW-33	GW-34	GW-35	GW-36	GW-37
Sample Date	ug/L	8/3/2015	8/3/2015	8/4/2015	8/4/2015	8/4/2015	8/4/2015	8/3/2015	8/3/2015	8/3/2015	8/4/2015	8/4/2015	8/4/2015	8/4/2015	8/4/2015
Sample Time		1:00 PM	2:00 PM	8:40 AM	9:20 AM	10:00 AM	10:30 AM	3:00 PM	3:30 PM	4:06 PM	11:25 AM	12:10 PM	1:40 PM	2:10 PM	3:05 PM
Pesticides ug/L															
4,4'-DDD	0.3	0.033 J	0.017 J	ND	0.05 J	0.015 J	0.063 J	0.0094 J	ND	ND	0.042 J	ND	0.018 J	ND	0.013 J
4,4'-DDE	0.2	0.014 J	0.020 J	ND	ND	0.026 J	0.080 J	0.012 J	0.017 J	ND	0.033 J	0.073 J	0.033 J	0.029 J	0.026 J
4,4'-DDT	0.2	ND	ND	ND	ND	0.032 J	ND	0.023 J	0.023 J	0.19 J	0.033 J	0.073 J	0.025 J	0.025 J	0.025 J
Aldrin	Non-Detect	ND	0.0080 J	ND	ND	0.048 J	ND	0.032 J	0.040 J	ND	0.014 J	ND	ND	0.013 J	ND
alpha-BHC	0.01	0.014 J	ND	0.027 J	ND	ND	0.016 J	ND	0.026 J	ND	0.023 J	ND	ND	ND	ND
alpha-Chlordane	0.05**	ND	ND	0.017 J	ND	ND	ND	0.04 J	0.31	ND	0.015 J	ND	ND	0.020 J	ND
beta-BHC	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	0.004	ND	ND	ND	ND	0.042 J	ND	0.015 J	0.041 J	ND	ND	ND	ND	ND	ND
Endosulfan I	NS	ND	ND	ND	ND	ND	ND	0.18	0.17	ND	0.040 J	ND	ND	ND	ND
Endosulfan II	NS	ND	ND	ND	ND	0.027 J	ND	ND	0.036 J	ND	ND	ND	ND	ND	ND
Endosulfan sulfate	NS	0.023 J	ND	ND	ND	ND	ND	0.042 J	ND	ND	ND	ND	ND	ND	ND
Endrin	Non-Detect	ND	ND	ND	ND	ND	ND	0.014 J	0.013 J	ND	ND	ND	ND	ND	ND
Endrin aldehyde	5	ND	0.026 J	0.028 J	ND	0.037 J	0.043 J	0.045 J	ND	ND	ND	0.069 J	0.023 J	ND	ND
Endrin ketone	5	ND	ND	ND	0.11 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
delta-BHC	0.04	ND	ND	0.011 J	ND	ND	ND	ND	0.017 J	ND	ND	ND	ND	ND	ND
gamma-BHC (Lindane)	0.05	ND	ND	ND	ND	0.0094 J	ND	0.0092 J	0.021 J	ND	ND	ND	ND	ND	ND
gamma-Chlordane	0.05**	ND	ND	ND	ND	ND	ND	0.020 J	0.18	ND	ND	ND	ND	ND	ND
Heptachlor	0.04	0.025 J	ND	ND	ND	ND	ND	ND	0.049	ND	0.017 J	ND	ND	ND	ND
Heptachlor epoxide	0.03	ND	ND	ND	ND	ND	ND	0.052	ND	ND	ND	ND	0.017 J	ND	ND
Methoxychlor	35	0.025 J	ND	0.042 J	ND	0.16	ND	0.053	ND	ND	0.051	ND	ND	0.058	ND
Toxaphene	0.06	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Bold- Analyte was detected in laboratory analysis

Highlight- Analyte was detected above the NYSDEC AWQS or Guidance Value

** Sum of all Chlordanes

NS- No Standard

ND- Not detected above MDL

B-Compound detected

J - Result is estimated, detection was below the RL but above the MDL

Boring Logs



AECOM, Inc.
 40 British American Boulevard
 Latham, New York 12110
 Phone: (518) 951-2200
 Fax: (518) 951-2300

BOREHOLE LOG

BORING ID #: **GW-28**

START DATE: 8/3/15 END DATE: 8/3/15

PROJECT NAME: Korkay, Inc	PROJECT NO.: 60273289	PROJECT MANAGER: Walter Howard
SITE LOCATION: 70 W Main St Broadalbin, NY	BORING LOCATION:	
DRILLING CO.: Parratt Wolff	DRILLER: Layne	DRILLING METHOD: Geoprobe
BOREHOLE DIAMETER: 2"	DEPTH TO BEDROCK: NA	TOTAL DEPTH DRILLED: 12'
TOTAL DEPTH REACHED: 12'	INSPECTOR: RM	WEATHER CONDITIONS: Sunny, 90
LATITUDE:	LONGITUDE:	ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION							HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:	
DEPTH (feet bgs)	Blow Count	RECOVERY	PID Headspace(ppb)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	WEIGHT(S)			DATE 2:	DEPTH 2:	TIME 2:	
							FALL TYPE			CASING	TUBE	CORE	RIG TYPE:
							ID/OD						
GEOLOGIC DESCRIPTION											LITHOLOGY/ SOIL TYPE	WATER LEVEL ----- - REMARKS	
0.0		2.5	1400.0	N		N							
2.0							0 - 2.5: Black FMC SAND; overburden						
4.0		3.3	280.0 1900.0	N		N	4 - 7: SAA; dry 7 - 7.5: Tan/brown Silt with fine SAND; wet						
6.0												WT @ 7'	
8.0		3.5	4200.0 3051.0	N		N	8 - 9.5: Brown FM SAND; no odor; wet 9.5 - 11.5: Brown Silt and fine Sand; wet; odor						
10.0							Collected GW-28 @ 16:06 Set screen 8 - 12'						
12.0													
14.0													
16.0													
18.0													
20.0													



AECOM, Inc.
 40 British American Boulevard
 Latham, New York 12110
 Phone: (518) 951-2200
 Fax: (518) 951-2300

BOREHOLE LOG

BORING ID #: **GW-30**

START DATE: 8/4/15 END DATE: 8/4/15

PROJECT NAME: Korkay, Inc	PROJECT NO.: 60273289	PROJECT MANAGER: Walter Howard
SITE LOCATION: 70 W Main St Broadalbin, NY	BORING LOCATION:	
DRILLING CO.: Parratt Wolff	DRILLER: Layne	DRILLING METHOD: Geoprobe
BOREHOLE DIAMETER: 2"	DEPTH TO BEDROCK: NA	TOTAL DEPTH DRILLED: 12'
TOTAL DEPTH REACHED: 12'	INSPECTOR: RM	WEATHER CONDITIONS: Sunny, 75
LATITUDE:	LONGITUDE:	ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION							HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
DEPTH (feet bgs)	Blow Count	RECOVERY	PID Headspace(ppb)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	WEIGHT(S)			DATE 2:	DEPTH 2:	TIME 2:
							FALL TYPE			CASING	TUBE	CORE
ID/OD	GEOLOGIC DESCRIPTION							LITHOLOGY/ SOIL TYPE	WATER LEVEL	REMARKS		
0.0		2.5	100.0	N		N						
2.0												
4.0		4.0	584.0	N		N						WT @ 5.5'
6.0												
8.0		4.0	565.0	N		N						
10.0												
12.0												
14.0												
16.0												
18.0												
20.0												

Collected GW-30 @ 09:20
 Set screen 8 - 12'



AECOM, Inc.
 40 British American Boulevard
 Latham, New York 12110
 Phone: (518) 951-2200
 Fax: (518) 951-2300

BOREHOLE LOG

BORING ID #: **GW-31**

START DATE: 8/4/15 END DATE: 8/4/15

PROJECT NAME: Korkay, Inc	PROJECT NO.: 60273289	PROJECT MANAGER: Walter Howard
SITE LOCATION: 70 W Main St Broadalbin, NY	BORING LOCATION:	
DRILLING CO.: Parratt Wolff	DRILLER: Layne	DRILLING METHOD: Geoprobe
BOREHOLE DIAMETER: 2"	DEPTH TO BEDROCK: NA	TOTAL DEPTH DRILLED: 12'
TOTAL DEPTH REACHED: 12'	INSPECTOR: RM	WEATHER CONDITIONS: Sunny, 80
LATITUDE:	LONGITUDE:	ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION							HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:	
DEPTH (feet bgs)	Blow Count	RECOVERY	PID Headspace(ppb)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	WEIGHT(S)			DATE 2:	DEPTH 2:	TIME 2:	
							FALL TYPE			CASING	TUBE	CORE	RIG TYPE:
							ID/OD						
GEOLOGIC DESCRIPTION											LITHOLOGY/ SOIL TYPE	WATER LEVEL ----- - REMARKS	
0.0		2.6	100.0	N		N							
2.0							0 - 2.6: Light brown FM(+)C SAND; dry						
4.0		3.0	38.0	N		N	4 - 5.5: SAA 5.5 - 7: Light brown FM SAND; wet; no odor					WT @ 5.5'	
6.0													
8.0		4.0	628.0 2600.0	N		N	8 - 10: SAA 10 - 11: Brown MC SAND; wet; loose						
10.0							Collected GW-31 @ 10:00 Set screen 8 - 12'						
12.0													
14.0													
16.0													
18.0													
20.0													



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BOREHOLE LOG

BORING ID #: **GW-35**

START DATE: 8/4/15 END DATE: 8/4/15

PROJECT NAME: Korkay, Inc	PROJECT NO.: 60273289	PROJECT MANAGER: Walter Howard
SITE LOCATION: 70 W Main St Broadalbin, NY	BORING LOCATION:	
DRILLING CO.: Parratt Wolff	DRILLER: Layne	DRILLING METHOD: Geoprobe
BOREHOLE DIAMETER: 2"	DEPTH TO BEDROCK: NA	TOTAL DEPTH DRILLED: 12'
TOTAL DEPTH REACHED: 12'	INSPECTOR: RM	WEATHER CONDITIONS: Sunny, 80
LATITUDE:	LONGITUDE:	ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION							HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
DEPTH (feet bgs)	Blow Count	RECOVERY	PID Headspace(ppb)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	WEIGHT(S)		CASING	TUBE	CORE	RIG TYPE:
							FALL TYPE					
							ID/OD					
GEOLOGIC DESCRIPTION							LITHOLOGY/ SOIL TYPE			WATER LEVEL ----- - REMARKS		
0.0		2.4	0.0	N		N	0 - 1: Concrete overburden 1 - 2.4: Light brown FM(+) SAND; dry; no odors					
2.0												
4.0		4.0	1120.0 965.0	N		N	4 - 6.2: SAA 6.2 - 8: Brown FMC SAND; wet; no odors					WT @ 6.2'
6.0												
8.0		3.0	1112.0	N		N	8 - 11: Brown F(+)M SAND; firm; compact; no odors 11 - 11.2: Brown Silt					
10.0							Collected GW-35 @ 13:40 Set screen 8 - 12'					
12.0												
14.0												
16.0												
18.0												
20.0												



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BOREHOLE LOG

BORING ID #: **GW-36**

START DATE: 8/4/15 END DATE: 8/4/15

PROJECT NAME: Korkay, Inc	PROJECT NO.: 60273289	PROJECT MANAGER: Walter Howard
SITE LOCATION: 70 W Main St Broadalbin, NY	BORING LOCATION:	
DRILLING CO.: Parratt Wolff	DRILLER: Layne	DRILLING METHOD: Geoprobe
BOREHOLE DIAMETER: 2"	DEPTH TO BEDROCK: NA	TOTAL DEPTH DRILLED: 12'
TOTAL DEPTH REACHED: 12'	INSPECTOR: RM	WEATHER CONDITIONS: Sunny, 80
LATITUDE:	LONGITUDE:	ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION							HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
DEPTH (feet bgs)	Blow Count	RECOVERY	PID Headspace(ppb)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	WEIGHT(S)		CASING	TUBE	CORE	RIG TYPE:
							FALL TYPE					
							ID/OD					
GEOLOGIC DESCRIPTION							LITHOLOGY/ SOIL TYPE			WATER LEVEL ----- - REMARKS		
0.0 2.0		2.5	0.0	N		N	0 - 2.5: Light brown FMC SAND; dry					
4.0 6.0		3.0	58.0 1950.0	N		N	4 - 6.1: Brown FM(+)C SAND; dry 6.1 - 7: SAA; wet				WT @ 6.1'	
8.0 10.0		3.3	94 ppm 2500.0	Y		N	8 - 8.7: Black FMC(+) SAND; odor 8.7 - 11.3: Brown Silty-Sand; compact; no odors					
12.0 14.0							Collected GW-36 @ 14:10 Set screen 8 - 12'					
16.0 18.0												
20.0												



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BOREHOLE LOG

BORING ID #: **GW-37**

START DATE: 8/4/15 END DATE: 8/4/15

PROJECT NAME: Korkay, Inc	PROJECT NO.: 60273289	PROJECT MANAGER: Walter Howard
SITE LOCATION: 70 W Main St Broadalbin, NY	BORING LOCATION:	
DRILLING CO.: Parratt Wolff	DRILLER: Layne	DRILLING METHOD: Geoprobe
BOREHOLE DIAMETER: 2"	DEPTH TO BEDROCK: NA	TOTAL DEPTH DRILLED: 12'
TOTAL DEPTH REACHED: 12'	INSPECTOR: RM	WEATHER CONDITIONS: Sunny, 80
LATITUDE:	LONGITUDE:	ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION							HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:	
DEPTH (feet bgs)	Blow Count	RECOVERY	PID Headspace(ppb)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	WEIGHT(S)		CASING	TUBE	CORE	RIG TYPE:	
							FALL TYPE						
ID/OD	GEOLOGIC DESCRIPTION						LITHOLOGY/ SOIL TYPE		WATER LEVEL ----- - REMARKS				
0.0		2.0	12.0	N		N							
2.0							0 - 2: Light brown FMC SAND; dry						
4.0		3.0	492.0	N		N							
6.0							4 - 7: SAA; wet						WT @ 4'
8.0		4.0	680.0 500.0	N		N							
10.0							8 - 9: SAA; wet 9 - 12: Gray/brown Clayey-Silt; compact; firm; no odors						
							Collected GW-37 @ 15:05 Set screen 8 - 12'						
12.0													
14.0													
16.0													
18.0													
20.0													