PRELIMINARY REMEDIAL INVESTIGATION WORK PLAN

Investigation and Remediation Contract C100610: Call Out 128321

For

NIAGARA SANITATION / NASH ROAD LANDFILL SITE 7415 NASH ROAD TOWN OF WHEATFIELD, NIAGARA COUNTY, NEW YORK NYSDEC SITE NUMBER 932054



NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION REGION 9 270 MICHIGAN AVENUE BUFFALO, NEW YORK 14203

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1.0 INTRODUCTION

1.1 Purpose

LiRo Engineers, Inc. (LiRo) has prepared this work plan to conduct a Preliminary Remedial Investigation (PRI) at the Niagara Sanitation Site / Nash Road Landfill (Site) located at 7415 Nash Road in the Town of Wheatfield, Niagara County, New York. Preparation of the work plan is an initial task in response to the New York State Department of Environmental Conservation (NYSDEC) Standby Investigation and Remediation Contract (C100610) Call-Out #128321.

Previous studies completed at the Site by the NYSDEC identified hazardous waste that represents a potential significant threat to public health and/or the environment. As a result, the Site was reclassified to Class 2 in the NYSDEC Registry of Inactive Hazardous Waste Disposal Sites in New York State in December 2015.

The overall objective of the PRI is to collect surface soil, sediment and surface water samples to supplement existing Site data and develop a scope for follow-up subsurface investigation. The specific objectives of this PRI are to:

- Further evaluate surface soil contamination at the Site;
- Further evaluate sediment contamination at the Site;
- Evaluate if on-site waste is adversely impacting wetlands and surface water bodies on and adjacent to the Site; and
- Provide data to guide the scope of Phase II subsurface investigations.

Details for specific tasks for this PRI are provided in Section 3.0.

1.2 Site Background

The Niagara Sanitation Site, also known as the Nash Road Landfill, is an inactive landfill located at 7415 Nash Road in the Town of Wheatfield, Niagara County, New York (Figure 1). The property is owned by the Town of Wheatfield (Block and Lot: 163.00.3-19) and is adjacent to the municipal boundary that separates the Town of Wheatfield from the City of North Tonawanda (Figures 1 and 2). Access to the Site is from an unimproved gravel road on Nash Road. The landfill is located approximately 1,400 feet east of the Nash Road entrance (Figures 1 and 2). The portion of the property that was landfilled is rectangular in shape and consists of approximately 18.7 acres of a single 20.8 acre parcel. The property is zoned for Public Service use.

The Site is bordered by the Holy Infant Shrine to the north; a cemetery and property that contains a motel and livery service to the east; a utility right-of-way (including overhead electric, underground high-pressure natural gas and underground brine lines) and residences to the south; and Nash Road and residences to the west (Figure 2).

Within the southern right-of-way there are three linear utilities adjacent to and along the southern border and portion of the Site: overhead electric, three (3) subsurface brine pipelines and a high-pressure natural gas pipeline. From the right-of-way the natural gas line turns northwest onto the



Site, then turns due west and exits the Site west boundary onto the Iroquois Gas Corporation pumping station located west and north of the Site (Figure 2).

1.3 Previous Site Investigations

Available records indicate that the Site was operated as a landfill by the Niagara Sanitation Company from approximately 1955 to 1968. The landfill accepted both municipal and industrial solid wastes, including caustic materials, plating tank sludge, fly ash, salt solids, graphite, carbon, scrap adhesives and miscellaneous laboratory chemicals. NYSDEC records indicate that Bell Aerospace, Carborundum, Graphite Specialties and others disposed of waste at the site.

Records also indicate that approximately 1,600 cubic yards of waste that was generated during construction of the LaSalle Expressway in Niagara Falls, near what was later to become the Love Canal Site, was landfilled in a trench at the Site between June 6 and July 15, 1968. The disposal trench reportedly measured 100 feet by 30 feet, and was 27 feet in depth. The waste debris was placed in the bottom 15 feet of the trench and covered with 12 feet of fill.

The NYSDEC completed a Phase I Investigation (historical records review and site walk over) of the Site in 1983, a Phase II Investigation (on-site data collection) in 1985, and an expanded Phase II Investigation in 1989. In association with these investigations, the New York State Department of Health (NYSDOH) completed surface soil sampling in 1991 to evaluate potential exposure risks. At that time it was determined that the Site did not pose a significant threat to public health or the environment because the exposure was limited; the wastes were buried, contained or sufficiently covered to avoid significant exposure. Groundwater as a potential exposure path was also limited because the area was served by public water and the closest private well was approximately one mile away. As a result, the Site was designated as Class 3 (action can be deferred) in the NYSDEC Registry of Inactive Hazardous Waste Disposal Sites.

In 2013, the NYSDEC completed a Site Characterization Study to re-evaluate the Class 3 designation for the Site and to re-evaluate the potential for direct contact exposures. Later in 2013, Glenn Spring Holdings, an affiliate of the Occidental Chemical Corporation, began an Interim Remedial Measure (IRM) to characterize and remove the Love Canal wastes. These wastes were subsequently excavated from the Site from December 2014 through June 2015, and a total of 6,388.31 tons of excavated soil were transported to disposal facilities in Sarnia, Ontario, Kimball, Nebraska and Aragonite, Utah for incineration.

In 2014, the NYSDEC conducted a Supplemental Site Characterization Study to characterize the municipal and industrial waste in the remainder of the landfill. While the majority of the Site contained contaminant concentrations typical of non-hazardous municipal/industrial waste, three locations were identified that contained hazardous concentrations of Lead (Pb) and PCBs (see Figure 3; Tables 1 and 2). Several surface soil samples exceeded NYS Part 375 residential soil cleanup objectives (SCOs) for polycyclic aromatic hydrocarbons (PAHs) and metals (Table 3). Groundwater within the footprint of the landfill contained elevated concentrations of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), pesticides and metals that exceeded NYSDEC ambient water quality standards or guidance values (AWQSGVs).



2.0 PHYSICAL SITE CHARACTERISTICS

2.1 Site Setting

The property is vacant and overgrown with mature trees, dense brush, and patches of phragmites. The Site is poorly drained and contains apparent and un-delineated wetlands on the western, northern and eastern portions of the property. Access to the Site is not restricted, and the property has historically been used for hiking and off road vehicles by nearby residents.

Historic landfilling activities have resulted in irregular ground surface topography. Numerous soil/debris mounds can be observed throughout the Site, with waste protruding from some of them. During a Site reconnaissance completed for a 2013 NYSDEC Site Characterization Study, evidence of partially buried residential/municipal waste was observed at the surface across the Site, including tires, drums, battery casings, metal and plastic debris.

2.2 Regional Geology

As described in the Supplemental Site Characterization Report completed by Groundwater & Environmental Services, Inc. (GES) in 2013 and other previous reports, there are seven stratigraphic units underlying the Site summarized as follows:

- Fill material (glass, refuse, etc.) mixed with fine sand and clay that ranges in thickness from 0 to 16 feet;
- An upper gray sand lens that ranges in thickness from 0 to 8 feet. This deposit is thickest in the southwest portion of the site and is absent in the northeast;
- A gray-brown silty clay that ranges in thickness from 3 to 7 feet;
- A red-gray layered clay containing thin sand seams. This deposit ranges in thickness from 17 to 32 feet;
- A lower red/brown sand lens that ranges in thickness from 3 to 6 feet. This deposit is thickest in the northern portion of the site, and thins to the south, east and west;
- A pink, very dense till that ranges in thickness from 22 to 42 feet; and
- Dolomitic Limestone (Dolostone) bedrock at depths ranging from 65 to 71 feet below ground surface.

The gray-brown silty clay deposit and underlying red-gray layered clay are thought to be an aquitard, preventing the downward migration of contaminants from the landfill to lower waterbearing zones.

3.0 FIELD PROGRAM AND RATIONALE

LiRo proposes to meet the Preliminary Remedial Investigation objectives at the Niagara Sanitation Site by implementing the following activities:

- 1. Coordinate investigation activities with the Town of Wheatfield which is preparing to install a perimeter fence at the Site and has obtained a completed wetland permit (October 6, 2016) from the U.S. Army Corp of Engineers (USACE) and the NYSDEC;
- 2. Determine the status of the August 3, 2015, requested transfer of the Occidental Chemical Corporation USACE wetland permit to the NYSDEC;
- 3. Complete clearing of vegetation along the Site perimeter to facilitate access for future investigation activities. This work will be coordinated with the Town of Wheatfield to help facilitate their fence installation project, to the extent feasible and in accordance with Wetlands Permit(s);
- 4. Collection of surface soil grab samples from up to eighteen (18) locations throughout the Site to supplement existing surface soil and near surface soil sampling data.
 - a. Six (6) locations will have surface soil grab samples collected from 0 to 2-inches bgs: LSS-01, LSS-03, LSS-04, LSS-05, LSS-06 and LSS-08;
 - b. Five (5) locations will have surface soil grab samples collected from 0 to 2-inches bgs and 2-12-inches: LSS-02, LSS-07, LSS-09, LSS-17 and LSS-18;
 - c. Three (3) sampling locations will be preferentially located along ATV trails and will have surface and near surface soil grab samples collected from 0 to 2-inches bgs, 2 to 6-inches bgs and 6 to 12-inches bgs: LSS-10, LSS-11, LSS-12; and
 - d. Four (4) sampling locations surrounding the April 14, 2014, surface soil sample location SB-N (0 to 2 feet bgs) which reported Poly-Chlorinated Biphenyls (PCBs) to include one (1) duplicate (LSS-13) and three (3) delineation surface soil samples (LSS-14, LSS-15 and LSS-16) from 0 to 2-inches and 2 to 12-inches bgs.
- 5. Collection of up to four (4) surface water grab samples in surface water bodies on and adjacent to the Site to evaluate environmental impacts related to the Site: LSW-01 through LSW-04;
- 6. Collection of sediment samples from up to six (6) locations (LSED-01 through LSED-06) from 0 to 2-inches bgs with additional near surface soil (i.e. 2 to 12-inches bgs) samples collected from three (3) locations (LSED-01, LSED-04 and LSED-05). Samples will be collected from wetlands and surface water bodies on and adjacent to the Site to evaluate environmental impacts related to the Site;



7. Preparation of a Preliminary Remedial Investigation Summary Report.

All surface soil, sediment and surface water sample locations will be surveyed with a hand held Global Positioning System (GPS) unit at the time of sample collection.

Specific details of the work to be completed during the PRI are described in Table 4 and the following subsections in the general order in which they should be completed.

3.1 Wetland Permits

The western, northern and eastern portions of the property contain wetlands and the approximate boundaries are shown on Figure 3 as obtained from the United States Fish and Wildlife Service (USFWS) National Wetland Inventory Map. Please note that the National Wetland Inventory Maps are not designed for the detailed delineation of existing wetlands or for determining whether they are Federal jurisdictional wetlands. As such, in-field delineation of the wetlands may be required to obtain a Jurisdictional Determination from the U. S. Army Corp of Engineers.

The Town of Wheatfield is preparing to install a perimeter fence at the Site and has subsequently obtained a U.S. Army Corp of Engineers wetland permit on October 6, 2016. Additionally, the Occidental Chemical Corporation received a U.S. Army Corp of Engineers wetland permit to complete their Interim Remedial Measure. On August 3, 2015, the NYSDEC filed paperwork with the U.S. Army Corp of Engineers to transfer this permit to the Department (see Attachment A).

LiRo will coordinate with the Town of Wheatfield regarding their wetlands permit and installation of the fence; and determine the status of the transfer of the Occidental Chemical Corporation USACE wetlands permit to the NYSDEC.

3.2 Surface Soil Sampling

Eighteen (18) surface soil and near surface soil sample locations will have up to thirty-three (33) soil samples collected from throughout the Site to further evaluate potential direct contact exposures. The approximate locations of these samples are shown on Figure 4, and will supplement the surface soil data obtained during the 2013 NYSDEC Site Characterization Study (Tables 2 and 3).

Six (6) of the surface soil sample locations (i.e. LSS-01, LSS-03, LSS-04, LSS-05, LSS-06 and LSS-08) will have soil collected from 0 to 2 inch depth following the removal of the vegetative cover, if present. Three (3) of the surface soil sample locations (i.e. LSS-10 through LSS-12) will be preferentially located along Site ATV trails and will have soil collected from 0 to 2-inches bgs, 2 to 6-inches bgs and 6 to 12-inches bgs following the removal of the vegetative cover, if present.

Four (4) surface soil sample locations will be located to duplicate (i.e. LSS-13) and determine extents (i.e. LSS-14 through LSS-16) the previous SB-N sample location which reported PCBs at 68 mg/kg and will have soil collected from 0 to 2-inche and 2 to 12-inche depths following the removal of the vegetative cover, if present.



Two (2) sets of QA/QC samples (i.e. MS/MSD and duplicate) will be collected from Site surface soil.

A LiRo geologist will collect all surface soil samples using disposable scoops or other appropriate sampling equipment and placed into laboratory supplied, pre-cleaned sample jars. The jars will be labeled with a unique sample identification code, packed in a cooler with ice, and delivered under chain-of-custody control to a NYSDEC designated contract lab for analysis. LiRo will obtain the appropriate sample bottles from the NYSDEC contract lab. All invoicing from the lab will be completed in accordance with its Laboratory Standby Contract with the NYSDEC.

All samples will be analyzed for Target Compound List (TCL) semi-volatile organic compounds, TCL pesticides and herbicides, TCL PCBs and Target Analyte List (TAL) metals. Samples will be submitted for TCL volatile organic compound analysis if elevated PID readings are recorded at the time of sample collection. In addition, a portion of each sample will be archived by the lab for possible TCLP metals analysis following an evaluation of the TAL metals results.

3.3 Surface Water Sampling

Based on reconnaissance and the presence of persistent pools of water up to four (4) surface water samples will be collected at the approximate locations shown on Figure 4. Surface water sample results will be used to determine if on-site waste is adversely impacting wetlands and surface water bodies on and adjacent to the site. To accomplish this objective two (2) of these samples will be collected from the wetlands on the western portion of the site that were not sampled during the 2013 NYSDEC Site Characterization Study, while two (2) samples will be collected from the drainage ditch if water is present at the northeast corner of the Site.

One (1) set of QA/QC samples (i.e. MS/MSD and duplicate) will be collected from Site surface water.

LiRo will collect samples using standard surface water sampling procedures and placed into laboratory supplied, pre-cleaned sample jars. The jars will be labeled with a unique sample identification code, packed in a cooler with ice, and shipped under chain-of-custody control to the NYSDEC designated contract lab for analysis. LiRo will obtain appropriate sample bottles from the NYSDEC contract lab. All invoicing from the lab will be completed in accordance with its Standby Contract with the NYSDEC.

All samples will be analyzed for TCL volatile organic compounds, if elevated PID readings are recorded at the time of sample collection, TCL semi-volatile organic compounds, TCL pesticides, TCL PCBs and TAL metals.

3.4 Sediment Sampling

Based on reconnaissance and the presence of persistent pools of water up to six (6) sediment/soil samples will be collected at the approximate locations shown on Figure 4. Sediment sample results will be used to determine if on-site waste is adversely impacting sediment in the wetlands and surface water bodies on and adjacent to the Site. To accomplish this objective, four (4) samples will be collected from wetlands throughout the Site, while two (2) samples will be collected from the drainage ditch at the northeast corner of the Site.



Sediment samples will be collected from 0 to 2-inch and 2 to 12-inch depths following the removal of the vegetative cover, if present.

One (1) set of QA/QC samples (i.e. MS/MSD and duplicate) will be collected from Site sediments.

LiRo will collect samples using standard sediment sampling procedures and placed into laboratory supplied, pre-cleaned sample jars. The jars will be labeled with a unique sample identification code, packed in a cooler with ice, and shipped under chain-of-custody control to a NYSDEC designated contract lab for analysis. LiRo will obtain the appropriate sample bottles from the NYSDEC contract lab. All invoicing from the lab will be completed in accordance with its Standby Contract with the NYSDEC.

All samples will be analyzed for TCL semi-volatile organic compounds, TCL pesticides, TCL PCBs and TAL metals. Sediment samples will be submitted for additional TCL volatile organic compound analysis if location is inundated with water a majority of the year.

3.5 Sample GPS Locations

LiRo will collect and record horizontal GPS coordinates from all sampling locations at the time samples are collected using a handheld GPS device. A table of sample GPS locations will be provided in the PRI report and transferred to report base maps.

3.6 Health & Safety

It is anticipated that all field work will be performed in Level D personal protective equipment with Level C backup. All field work will be conducted in accordance with LiRo's Site Specific Health & Safety Plan to be submitted under separate cover. LiRo will provide appropriate personal protective equipment (PPE) suitable for working in and around contaminated liquids, wastes and soils.

All field personnel will be informed of the location and route to the nearest hospital, and be made aware of the list of emergency contacts.

3.7 Report Preparation

Following the completion of PRI activities, LiRo will prepare a Preliminary Remedial Investigation Report that details the results of the investigation. The report will include, at a minimum, the following:

- A Site Description and History section that describes the salient features of the Niagara Sanitation Site, and presents a summary of both disposal and remedial history;
- A Study Objectives and Scope of Work section that describes the objectives of the PRI and the activities that were completed during the investigation;
- A Geology and Hydrogeology section that describes the regional and site geology and hydrogeology;
- An Investigation Results section that describes the findings of the PRI, including general observations and a summary of the analytical results obtained from various environmental media;



- A References section that contains a list of references utilized or cited in the report; and
- Field sampling notes, sample location GPS coordinates and raw analytical data (i.e., lab reports) will be incorporated into the Preliminary Remedial Investigation Report as appendices.
- Category B data deliverables will be requested and a Data Usability Summary Report (DUSR) will be prepared at NYSDEC's direction.



TABLES

TABLE 1 SUMMARY OF HISTORIC SITE SAMPLING: TAL METALS NIAGARA SANITATION / NASH ROAD LANDFILL 7415 NASH ROAD, WHEATFIELD, NEW YORK

Sample Point	Hazardous	SB-N	SB-R	SB-T	SB-T	SB-U	SB-V	SB-X	SB-X	SB-Z
Sample Type	Waste	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Depth (ft)	Criteria	0-2'	4-5'	0-3'	4-8'	0-4'	0-4'	0-4'	4-8'	0-4'
Sample Date		04/14/14	04/15/14	04/15/14	04/15/14	04/16/14	04/16/14	04/16/14	04/16/14	04/18/14
				TCLP Met	tals (mg/L)					
Arsenic #	5.0	1.7	NA	NA	NA	1.8			NA	NA
Barium	100	1.7	NA	NA	NA	1.8	1.4	NA	NA	NA
Cadmium #	1.0	0.57	NA	0.36	NA	0.72	0.34	NA	NA	0.055
Chromium #	5.0	0.036	NA	0.014	NA	0.019	0.0081	0.013	0.0017	NA
Lead #	5.0	NA	8.9	NA	NA	37.6	2.7	0.12	NA	NA
Silver #	5.0	NA	NA	NA	NA			NA	NA	NA
Mercury #	0.2		NA	0.00026	0.0080	0.00035		NA	NA	NA

Notes:

NA = Not Analyzed.

mg/L = milligrams per liter or parts per million.

Blanks = concentration below laboratory detection limits.

Shaded values exceed the Hazardous Waste Criteria.

TABLE 2

SUMMARY OF HISTORIC SITE SAMPLING: PCBs NIAGARA SANITATION / NASH ROAD LANDFILL 7415 NASH ROAD, WHEATFIELD, NEW YORK

Sample Point	Hazardous	SB-N
Sample Type	Waste	SOIL
Depth (ft)	Criteria	0-2'
Sample Date		04/14/14
Polychlorinated Bi	phenyls (mg/kg)	
PCB-1016 (Aroclor 1016)		U
PCB-1221 (Aroclor 1221)		U
PCB-1232 (Aroclor 1232)		U
PCB-1242 (Aroclor 1242)		U
PCB-1248 (Aroclor 1248)		U
PCB-1254 (Aroclor 1254)		U
PCB-1260 (Aroclor 1260)		68.0
Total PCBs	50.0	68.0

Notes:

NA = Not Analyzed.

mg/kg = milligrams per kilogram or parts per million.

U = concentration below laboratory detection limits.

Shaded values exceed the Hazardous Waste Criteria.

TABLE 3 SUMMARY OF HISTORIC SITE SAMPLING: PAHs and TAL METALS NIAGARA SANITATION / NASH ROAD LANDFILL 7415 NASH ROAD, WHEATFIELD, NEW YORK

Sample Point	Part 375	SOIL-2	SOIL-3	SOIL-4	SOIL-5	SOIL-8	SOIL-9	SOIL-10
Sample Type	Residential Use	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Depth (ft)	Soil Cleanup	0.0'-0.17'	0.0'-0.17'	0.0'-0.17'	0.0'-0.17'	0.0'-0.17'	0.0'-0.17'	0.0'-0.17'
Sample Date	Objectives	05/29/13	05/29/13	05/29/13	05/29/13	05/29/13	05/29/13	05/29/13
	Sem	i-Volatile Org	anic Compou	nds (ug/kg)				
2-Methylnaphthalene	410 *	6.8		4.1		97.0		
Acenaphthene (PAH)	100,000	30.0	27.0		2.8	320.0		
Acenaphthylene (PAH)	100,000					5.8		
Anthracene (PAH)	100,000	51.0	150.0	8.3	5.5	480.0		48.0
Benzo[a]anthracene (PAH)	1,000	270.0	2,300	67.0	41.0	1,100		330.0
Benzo[a]pyrene (PAH)	1,000	240.0	1,300	56.0	36.0	930.0		270.0
Benzo[b]fluoranthene (PAH)	1,000	350.0	2,100	81.0	61.0	1,500	1,700	510.0
Benzo[g,h,i]perylene (PAH)	100,000	110.0	380.0	20.0	18.0	280.0		130.0
Benzo[k]fluoranthene (PAH)	1,000	130.0	970.0	36.0	27.0	530.0		220.0
Butylbenzphthalate	100,000 *							1,300
Biphenyl	NS					27.0		
Bis[2-ethylhexyl]phthalate	50,000 *		990.0					
Carbazole	NS	36.0	16.0		5.7	330.0		
Chrysene (PAH)	1,000	280.0	2,100	66.0	50.0	1,100	1,600	390.0
Dibenzo[a,h]anthracene (PAH)	330.0	150.0	230.0	110.0		190.0		600.0
Dibenzofuran	14,000	7.0				210.0		
Di-n-octylphthalate	100,000 *		1,200					
Fluoranthene (PAH)	100,000	370.0	2,500	95.0	82.0	2,600	2,000	560.0
Fluorene	100,000	13.0	14.0			290.0		
Indeno[1,2,3-cd]pyrene (PAH)	500.0	100.0	390.0	22.0	15.0	280.0	360.0	110.0
Naphthalene (PAH)	100,000					330.0		
Phenanthrene (PAH)	100,000	180.0	190.0	33.0	38.0	2,300	1,600	230.0
Pyrene (PAH)	100,000	310.0	2,000	76.0	62.0	1,800	1,500	430.0
		Met	als (mg/kg)					
Arsenic #	16.0	4.2	3.2	3.9	3.0	3.9	14.2	8.8
Barium	350.0	56.1	42.3	53.7	39.2	90.7	143.0	149.0
Cadmium #	2.5	0.8	0.28	0.2	0.2	0.62	4.9	2.1
Chromium #	36.0	12.6	8.7	11.4	8.9	19.4	43.0	30.1
Lead #	400.0	28.0	53.9	12.0	10.5	21.4	273.0	170.0
Selenium #	36.0	1.1		0.98	0.97	0.73	1.6	2.4
Silver #	36.0						1.4	0.76
Mercury #	0.81	0.160	0.039	0.037	0.040	0.062	0.840	0.420

Notes:

mg/kg = milligrams per kilogram or parts per million.

ug/kg = micrograms per kilogram or parts per billion.

* = Residential use soil cleanup objective from Commissioner Policy CP-51, Soil Cleanup Guidance.

NS = No standard given in 6 NYCRR Part 375 or Commissioner Policy CP-51.

Blanks = concentration below laboratory detection limits.

Shaded values exceed the 6 NYCRR Part 375 or Commissioner Policy CP-51 residential use soil cleanup objectives.

TABLE 4 SUMMARY OF REMEDIAL INVESTIGATION PROPOSED SITE SAMPLING NIAGARA SANITATION / NASH ROAD LANDFILL 7415 NASH ROAD, WHEATFIELD, NEW YORK

		Depth			
Sample	Location	Interval	Parameters	Sampling	
Туре	ID	(Inches)	for Analysis	Rationale/Justification	Notes
	LSS-01	0-2"			1) Individual samples will be submitted for analysis of TCL VOCs if elevated PID
	LSS-02	0-2"			readings are recorded at the time of sample collection.
	100-02	2-12"			
	LSS-03	0-2"			2) A portion of each sample will be archived by the lab for possible TCLP Metals
	LSS-04	0-2"			analysis following an evaluation of the TAL Metals results.
	LSS-05	0-2"		Site-wide Characterization:	
	LSS-06	0-2"	DCD- D-+	Samples will be collected from	
	LSS-07	0-2"	PCBs, Pesticides/Herbicides,	throughout the Site to further evaluate potential	
	155-08	0-2"	FAIls and TAL Metals	direct contact exposures and suspect mounds of	
	L35-00	0-2"		debris.	
	LSS-09	2-12"			
	100.15	0-2"			
	LSS-17	2-12"			
	1 55 19	0-2"			
Surface	L33-18	2-12"			
Surface		0-2"			1) Individual samples will be submitted for analysis of TCL VOCs if elevated PID
501	LSS-10	2-6"			readings are recorded at the time of sample collection.
		6-12"		ATV Trail Investigation:	
	100.11	0-2"	PCBs, Pesticides/Herbicides,	Samples are preferentially located	2) LSS-10 through LSS-12 will be preferentially located within ATV trails at the
	LSS-11	2-6"	PAHs and TAL Metals	to investigate the potential for ATV	Site.
		6-12"		activities to increase adverse effects	
	1 55 12	0-2"		in son on and adjacent to the Site.	3) A portion of each sample will be archived by the lab for possible TCLP Metals
	L55-12	6.12"			analysis following an evaluation of the TAL Metals results.
		0-12			1) I SS-13 will duplicate the location of previous soil sample SB-N
	LSS-13	2-12"		Confirm and Delineate Historic	1) ESS 15 will duplicate the location of previous soft sample SB 14.
		0-2"		Sample Results:	2) LSS-14, LSS-15 and LSS-16 will be located in a radius between 10 and 20 feet
	LSS-14	2-12"	PCBs, Pesticides/Herbicides,	Samples are specifically located to	from SB-N as determined in the field.
	100.15	0-2"	PAHs and TAL Metals	duplicate the previous SB-N	
	LSS-15	2-12"		sampling location and determine	3) Individual samples will be submitted for analysis of TCL VOCs if elevated PID
	155 16	0-2"		the extents of PCB contamination.	readings are recorded at the time of sample collection.
	L35-10	2-12"			-

Notes

1) One (1) QA/QC sample set will be collected for sediment and surface water.

2) Two (2) QA/QC sample sets will be collected for surface soil.

3) One equipment rinsate sample will be collected from surface soil sampling equipment.

TABLE 4 SUMMARY OF REMEDIAL INVESTIGATION PROPOSED SITE SAMPLING NIAGARA SANITATION / NASH ROAD LANDFILL 7415 NASH ROAD, WHEATFIELD, NEW YORK

Sample Type	Location ID	Depth Interval (Inches)	Parameters for Analysis	Sampling Rationale/Justification	Notes	
	LSED 01	0-2"			1) Individual samples will be submitted for analysis of TCL VOCs if elevated PID readings are recorded at the time of sample collection or if sampling location is	
	LSED-01	2-12"			inundated with water the majority of a year.	
	LSED-02	0-2"		Evaluate Impacts and Migration Potential of	2) Four (4) samples will be collected from the wetlands throughout the Site and two	
	LSED-03	0-2"	TCL SVOCs,	Site Sediments: Samples are located to supplement	(2) samples will be collected from the drainage ditch at the northeast corner of the	
Sediment	I SED-04	0-2"	Pesticides/Herbicides, TCL PCBs and	previous sediment sample results and	Site.	
	LSLD-04	2-12"	TAL Metals	sediment in wetlandsand surface water bodies on		
	I SED-05	0-2"		and adjacent to the Site.		
	LSED-05	2-12"				
	LSED-06	0-2"				
	LSW-01		TCL SVOC	Evaluate Impacts and Migration Potential of	1) Individual samples will be submitted for analysis of TCL VOCs if elevated PID readings are recorded at the time of sample collection	
Surface	LSW-02	Not	Pesticides/Herbicides,	Site Surface Water:	readings are recorded at the time of sample concetton.	
Water	LSW-03	Applicable	TCL PCBs and TAL Metals	is adversely impacting wetlands and surface water		
	LSW-04		TTEL MOULS	bodies on and adjacent to the Site.		

Notes

1) One (1) QA/QC sample set will be collected for sediment and surface water.

2) Two (2) QA/QC sample sets will be collected for surface soil.

3) One equipment rinsate sample will be collected from surface soil sampling equipment.



FIGURES





16-XXX-XXXX DEC Reg 9 C100610\CAD\Call-Out 128321 - Niagara Sanitation\7514 NASH RD SITE P





LEGEND

- MONITORING WELL \bullet SAMPLE LOCATION



<u>ATTACHMENT A</u> U.S. Army Corp of Engineers wetland permit Transfer Request

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Region 9 270 Michigan Avenue, Buffalo, NY 14203-2915 P: (716) 851-7220 | F: (716) 851-7226 www.dec.ny.gov

August 3, 2015

Mr. Steven V. Metivier Chief, NY-AES Department of the Army Buffalo District, Corps of Engineers **Regulatory Branch** 1776 Niagara Street Buffalo, New York 14207-3199

Dear Mr. Metivier:

Application No. 2014-00969, Nationwide Permit No. 38 NYSDEC Reference ID: 9-2940-00201/00001

The New York State Department of Environmental Conservation's Division of Environmental Remediation is requesting transfer of the above-noted Nationwide Permit from Glenn Springs Holdings to the Department. The purpose of this transfer is to allow a portion of the existing access road (constructed by GSH) to remain in place so that the Department and its contractors can access the site to perform further investigation of the property.

The property immediately adjacent to the access road is the location of a NYS Superfund site known as the Niagara Sanitation Company Site or the Nash Road Landfill. The property is listed on the NYS Registry of Inactive Hazardous Waste Sites as Site No. 932054. The site was operated as a landfill between 1964 and 1968 at which time it accepted both municipal and industrial solid wastes, including caustic materials, plating tank sludge and various other municipal wastes. NYSDEC has conducted several previous studies at the site to investigate and characterize the municipal and industrial fill in the landfill. While the majority of the site contained contaminant levels typical of urban wastes, three areas were identified with elevated levels of non-chlorinated volatile organics, lead and PCBs. This temporary road will be used to access the adjacent landfill property in order to further investigate and remediate this area as necessary.



Environmental Conservation

Mr. Steven V. Metivier August 3, 2015 Page 2

The Department will utilize a portion of the access road starting at Nash Road and going up to the existing National Fuel Gas gas line ROW (see enclosed figure). The remaining portion of the road and support area that authorized by the permit to GSH will be removed and the area restored in accordance with the conditions of their permit and the remedial work plan approved by this Office. Upon the Department's conclusion of the investigation and remedial work, the remaining portion of the road will be removed and the area restored.

I have enclosed an executed copy of the NYSDEC's Application for Permit Transfer and Application for Transfer of Pending Application, for your reference. This transfer request is for the existing Water Quality Certification that was issued for the original GSH project.

Please do not hesitate to contact me if you require any additional information.

Sincerely, Gregory R. Sutton, P.E. Regional Remediation Engineer

GPS:sz

Enclosures

ec:

: Mr. David Denk, Regional Permit Administrator - DEC

Mr. Glenn May, Project Manager - DEC

Mr. Clint Babcock - Glenn Springs Holdings

Mr. Dennis Hoyt, Project Manager - CRA



85121-00(002)GN-NI001 AUG 4/2014

New York State Department OF Environmental Conservation Application For Permit Transfer and Application for Transfer of Pending Application

(12/10)

NOTE: Please read ALL instructions before cor	npleting this application. Please TYPE or PRINT clearly in ink.
PART 1 - TRANSFEREE (New Own	ner/Operator/Lesses/Applicant) Completes:
1. List Permit Number(s) And Their Effective And Expiration Dates: 9-2940-00201/00001/Effective 9/19/2014/Expires 9/19/19	List Pending Application Number(s):
2. Name Of Transferee: Telephone NYSDEC (716) Mailing Address: Email: 270 Michigan Avenue gr Post Office City, State, Zip Code: Buffato, NY 14203-7226	Number (Daytime): Transferee is a/an: (check all that apply) 851-7226 Owner Operator egory sutton@dec.ny.gov Lessee Applicant If other than an individual, provide Taxpayer ID Number:
3. Name Of Facility/Project: Nash Road Landfill (NYSDEC Site #932054) Location (or Street Address, P.O. City, State, Zip Code, if applicable): Nash Road Town / Village / City: Wheatfield County:	4. Facility Contact Name: Town of Wheatfield Telephone Number (Daytime): (716) 964-6680 Mailing Address: Email: supervisor@wheatfield.n y.us 2800 Church Road y.us Post Office City, State, Zip Code: Wheatfield, NY 14120
 5. Has Work Begun On The Project? Yes ☑ No ☐ If "No," proposed starting date: If there will be any modifications to the current or proposed operation 6. CERTIFICATION: This certifies that the Transferee seeks to be authorized by the permits identified above or proposed in application(s) and understands and will comply with all conditions in the facility operations/project scope/discharges/emissions will remain the start operations/project scope/discharges/emissions/project scope/disc	Approximate completion date: or construction, the transferee must attach a statement specifying the details. the legally responsible party for operations or project development either ions identified above. The Transferee has a copy of the permit(s) and/or he referenced permit(s) and supports the content of referenced application(s). he same as authorized or as proposed in pending applications. Further 1
hereby affirm that under penalty of perjury that information provided knowledge and belief. False statements made herein are punishable a Printed Name and Title of Transferee Signature of Transferee	on this form and all attachments submitted herewith is true to the best of my as a Class A misdemeanor pursuant to Section 210.45 of the Penal Law. 24 Sutton, Regional Remedicatives Engineer - 149 SDEC Date Date
PART 2 TRANSFEROR (Present or Form	ner Owner/Operator/Lessee/Applicant) Completes:
PART 2 TRANSFEROR (Present or Form 1. Name Of Transferor: Telephone Glenn Springs Holdings, Inc. (972) Mailing Address: Email: Clir 5005 LBJ Freeway, Suite 1350 Email: Clir Post Office City, State, Zip Code: Dallas, TX 75244-6119	ner Owner/Operator/Lessee/Applicant) Completes: Number (Daylime): If other than an individual, provide 687-7506 Taxpayer ID Number: nt_Babcock@oxy.com
PART 2 TRANSFEROR (Present or Form 1. Name Of Transferor: Telephone Glenn Springs Holdings, Inc. (972) Mailing Address: Email: Clir 5005 LBJ Freeway, Suite 1350 Email: Clir Post Office City, State, Zip Code: Dallas, TX 75244-6119 2. Name Of Facility/Project, if different from Facility Name in Part 1: N	Number (Daytime): If other than an individual, provide 687-7506 Taxpayer ID Number: nt_Babcock@oxy.com lash Road Landfill (NYSDEC Site #932054)
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PART 2 TRANSFEROR (Present or Form I. Name Of Transferor: Telephone Glenn Springs Holdings, Inc. (972) Mailing Address: Email: Clin 5005 LBJ Freeway, Suite 1350 Post Office City, State, Zip Code: Dallas, TX 75244-6119 2. Name Of Facility/Project, if different from Facility Name in Part 1: N 3. CERTIFICATION: This certifies that ownership, operation, or a lease the party Identified as the Transferee on <u>August 1, 2015</u> obligations of the permits, approvals, or applications identified above. Printed Name and Title of Transferor <u>Clinton</u> J B Signature of Transferor <u>Mathematications</u>	Number (Daytime): If other than an individual, provide 687-7506 Taxpayer ID Number: nt_Babcock@oxy.com If other than an individual, provide Itash Road Landfill (NYSDEC Site #932054) If of this form I will be / I was conveyed to (date). I affirm that this conveyance includes the rights and ABCOCK DIRECTOR OPERATIONS Date 7/22/2015
PART 2 TRANSFEROR (Present or Form Glenn Springs Holdings, Inc. (972) Mailing Address: Email: Clin 5005 LBJ Freeway, Suite 1350 Post Office City, State, Zip Code: Dallas, TX 75244-6119 2. Name Of Facility/Project, if different from Facility Name in Part 1: N 3. CERTIFICATION: This certifies that ownership, operation, or a lease the party Identified as the Transferee on <u>August 1, 2015</u> obligations of the permits, approvals, or applications identified above. Printed Name and Title of Transferor <u>CLINTON</u> SIgnature of Transfer of permit approved, effective as of <u>83-2015</u> Transfer of permit approved, effective as of <u>83-2015</u> Transfer of permit approved, with the following modifications or Transfer of permit approved, with the following modifications or NYSDEC PERMIT ADMINISTRATOR NYSDEC PERMIT ADMINISTRATOR	ner Owner/Operator/Lessee/Applicarit) Completes: Number (Daylime): If other than an individual, provide 687-7506 Taxpayer ID Number: nt_Babcock@oxy.com Itash Road Landfill (NYSDEC Site #932054) for the facility identified in Part 1 of this form [] will be / [] was conveyed to (date). 1 affirm that this conveyance includes the rights and ASSAC DIRECTOR OPERATIONS Date 7/22/2015 N - Department Of Environmental Conservation Completes: