

Hampshire Chemical Corp.

228 East Main Street Waterloo, NY 13165 (315) 539-9221 (315) 539-9627 Fax

November 24, 1999

Mr. Peter Hoffmire
Project Manager
New York State Department of Environmental Conservation
6274 E. Avon-Lima Road
Avon, New York 14414

RE: Evans Chemetics Building 4 Pit Cleaning Project

Dear Peter:

In July-August 1999, Evans Chemetics cleaned and abandoned a below grade pit in Building 4 of its Waterloo Facility. The scope of work performed was described in the *Interim Remedial Action Plan—Building 4 Pit* dated 30 June 1999. The enclosed *Building 4 Pit Cleaning Summary Report* summarizes and documents the results of this work. Three additional copies are enclosed for distribution by you within the Avon office and copies are also being mailed to other members on the State Project Team located in Albany.

Because of concerns regarding potential groundwater contamination resulting from this former pit, the groundwater in this area will be evaluated as part of the upcoming Resource Conservation and Recover Act Facilities Assessment Sampling Visit (RFA-SV). The work plan for this RFA-SV has been submitted for your review under separate cover.

Should you have any questions regarding the *Building 4 Pit Cleaning Summary Report*, or should you require any additional information, please contact either Mr. Ben Baker, Dow Remediation Project Manager at (517) 636-0787, or myself as the Site contact.

Sincerely,

Thomas M. Desideria

Thomas M. Desiderio EHS Delivery

cc: N. Rice/ NYSDEC, Avon

M. Conley/ NYSDEE, Albany

L. Rosenmann/NYSDEC, Albany

P. Furdyna / NYSDEC, Albany



DCN 99.802785.01 RIN 802785.2000





Building 4 Pit Cleaning Summary Report

Prepared for:

Evans Chemetics Facility 228 East Main Street Waterloo, New York 13165

Prepared by:

Radian International 304 West Wackerly Street Midland, MI 48640-4700

November 1999



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1.0 Introduction

Hampshire Chemical Corporation, a subsidiary of The Dow Chemical Company, performed an Interim Remedial Action (IRA) at the former Building 4 pit at the Evans Chemetics Plant in the Village of Waterloo, New York (Figure 1-1). The Building 4 pit was located in the southwest corner of Building 4 (Figure 1-2) and contained a sump that served as the collection point for the floor drains in the building. The pit was approximately 17 feet wide, by 48 feet long, and 10 feet deep at its deepest point (Figure 1-3). The sump area was covered by the concrete floor of the building, and was accessible through an entrance at the eastern end of the pit.

The area was originally open to this depth across the south side of the building, and was larger than indicated in Figure 1-3. Approximately two-thirds of the pit was backfilled and covered with concrete deck at the adjacent floor grade in 1994, with NYSDEC approval, to provide for placement of process equipment. During that effort, certain conditions that might have indicated a release of hazardous materials were noted and reported to the New York State Department of Environmental Conservation (NYSDEC). An investigation of those conditions was completed and submitted. The investigation concluded that soil and groundwater in the immediate vicinity of Building 4 may have been affected by plant operations. The source of the release was suspected to be an above ground tank (4-AV-7) and a below grade washwater collection sump, both located in the pit area. (Building 4 Investigation Report, H&A of New York, September 1995).

In early 1999, Hampshire Chemical Corporation made the decision to address the pit area in order to eliminate a potential environmental and safety hazard and to provide space for expansion if a business opportunity occurred. Advance notice was given to NYSDEC because this area had been designated by NYSDEC as an Area of Concern (AOC). To take advantage of a two-week shut down of operations, the majority of the work was planned for early July 1999. In anticipation of this work, Hampshire Chemical Corporation submitted an advance copy of the Interim Remedial Action Plan (IRAP) for Building 4 Pit (Radian, 1999) to NYSDEC on 30 June 1999. The IRAP that was implemented called for all debris to be removed from the pit and internal sump, backfilling of the pit and sump with flowable cement, installation of a floor trench to collect runoff from floor drains in the adjacent area, and placement of a concrete

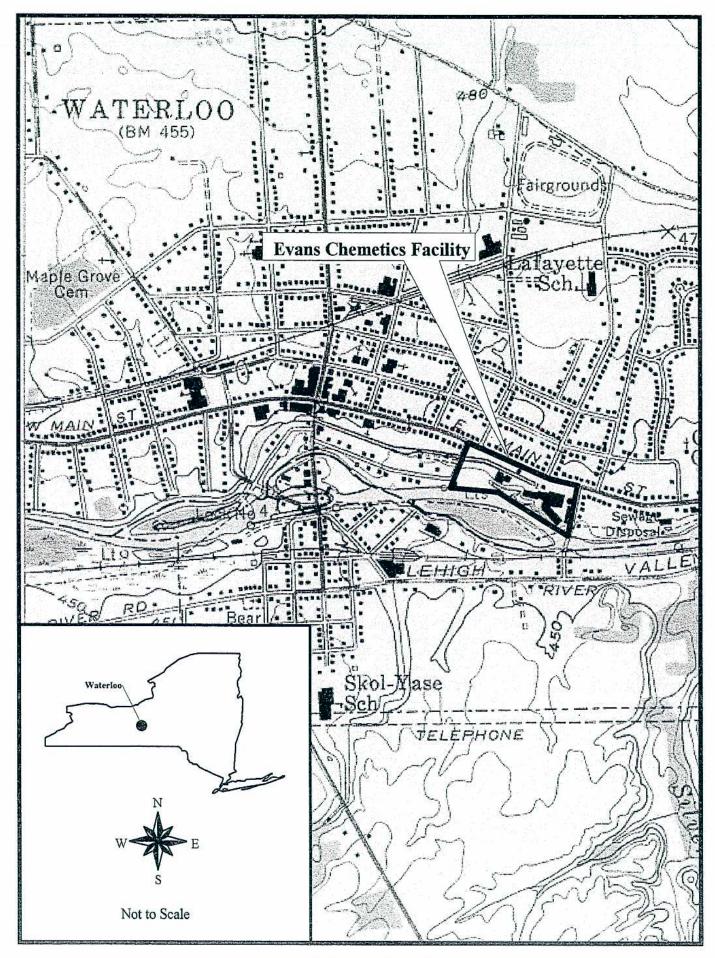


Figure 2-1: Site Location

Figure 1-2: Site Map

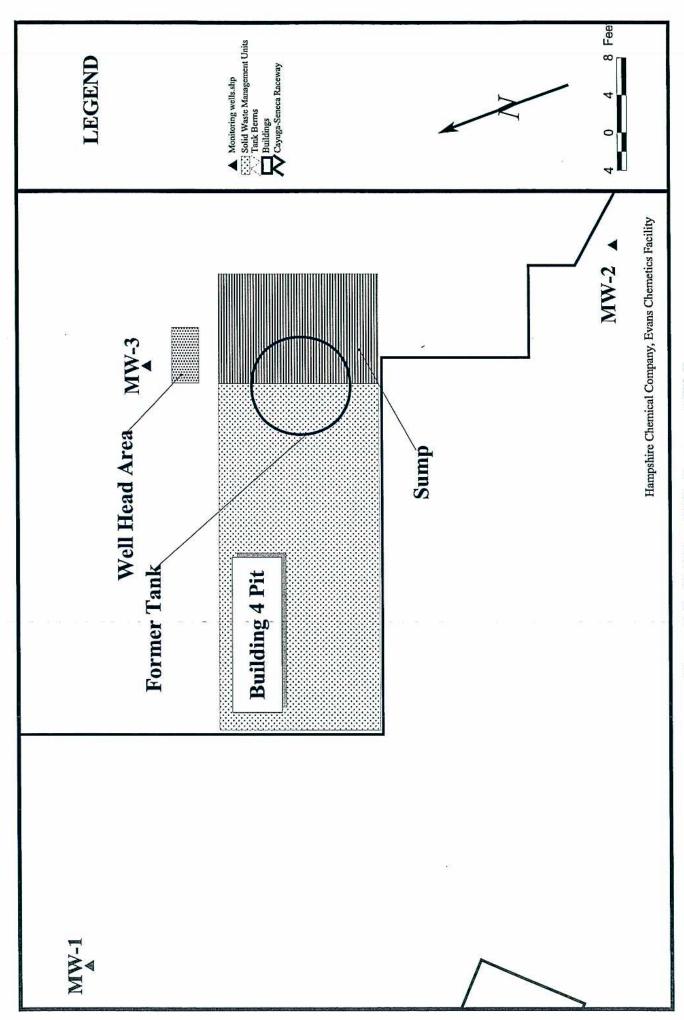
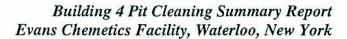


Figure 1-3: Building 4 Pit, Sump, and Wells.





floor above the flowable cement. This work began during the plant shutdown in July and finished in August of 1999. Radian International (Radian), under contract to Hampshire Chemical Corporation, implemented the Interim Remedial Action Plan (IRAP). This report describes the work performed to close the Building 4 Pit.



2.0 Scope of Work Performed

On 15 June, before the initiation of any work, a sample of the sediment in the Building 4 pit was collected and analyzed for volatile (SW 846: 8260) and semivolatile (SW 846: 8270) organics, and metals (SW 846: 6010) using the toxicity characteristic leaching potential. Samples were also analyzed for polychlorinated biphenyls (SW 846: 8080). Results of these analyses are presented in Table 2-1. The raw analytical reports (which misidentify the material as liquid,) are contained in Appendix A. Work began on 6 July 1999, and was completed by 17 August 1999. The procedures indicated in the Interim Remedial Action Plan (Radian, 1999) were followed for all of the work that was performed.

Prior to the start of work, Evans Chemetics personnel pumped all water from the sump to the Evans Chemetics wastewater treatment plant for treatment and discharge. The estimated total amount of liquid removed from the pit was approximately 2000 gallons. This was reported to the NYSDEC in a letter from Tom Desiderio dated 16 July 1999 (See Appendix B for a copy of this correspondence). In addition, Evans Chemetics personnel also moved the above grade tanks that were located over the pit.

Once these tasks were completed, Radian International began removing debris and sediment, and began to power wash the walls and floor of the pit (Photo 1 and 2 in Appendix C). Debris and sediment that had accumulated in the sump was collected with shovels, and loaded into a roll-off box pending characterization and disposal. Material that could not be removed by scraping was removed by pressure washing. Pressure washing was done from west to east to direct the water and sediment toward the sump located at the eastern end of the pit. Water from the pressure washing operation was pumped from this sump into the Evans Chemetics wastewater treatment plant.

Two polypropylene tanks contained in the pit's sump were opened (Photo 3 in Appendix C), pumped out, cut apart, and removed for disposal. All former drain lines draining to the sump were either removed or plugged with "basement water stop". A well formerly used to pump water from the sump in the pit to the wastewater treatment plant was removed from the well head area to the north of the pit (Photo 4 in Appendix C).



Table 2-1. Analytical Results for Sediment from Building 4 Pit.

Constituent	RCRA Toxicity Characteristic Levels (ug/l)	Concentration (ug/l)
Metals (SW 846: 6010)		
Cadmium	1000	40
Chromium	5000	80
Silver	5000	60
Volatile Organics (SW 846: 8260))	
Tetrachloroethene	700	380
Semivolatile Organics (SW 846:	8270)	
Phenanthrene	NA	1600
Fluoranthene	NA	2400
Pyrene	NA	3700
Benzo(a)anthracene	NA	1300
Chrysene	NA	1500
Bis(2-ethylhexyl)phthalate	NA	6200
Benzo(b)fluoranthene	NA	2300
Benzo(k)fluoranthene	NA	840
Benzo(a)pyrene	NA	1400
Indeno(1,2,3-cd)pyrene	NA	830
Benzo(ghi)perylene	NA	900
Polychlorinated Biphenyls (SW	846: 8080)	
Aroclor 1260	NA	41000



The floors and walls of the sump were then thoroughly pressure washed (Photo 5 in Appendix C), and the remaining water and debris were removed from the sump.

A new, 4-inch diameter by 10 foot long PVC well was installed in the pit sump, and the sump was backfilled with 14 tons of gravel. The top of the sump was covered with sheet plastic, and the entire pit was then filled with flowable cement to within approximately 1-2 feet of the floor level of Building 4. After the cement had cured, the remaining roof of the pit was removed using a jackhammer (Photo 6 in Appendix C). The concrete debris was removed for disposal and a fiberglass reinforced plastic collection trench was purchased, placed along the north end of the former pit, and connected to the floor drain collection system for the area (Photos 7 & 8 in Appendix C). The flow from this trench was connected to an existing sump on the north side of Building 4 that was installed when the previous work in this area had been done in 1994. Additional flowable cement was then added to the pit to bring the level up to approximately 6 inches from the existing floor grade of Building 4 (Photo 9 in Appendix C).

Once this pour of flowable concrete fill had cured, steel reinforcing rod and matting were installed over the former pit area (Photo 10 in Appendix C). Fiber reinforced concrete (5000psi) was then added to bring the pit area up to the same level with the rest of the floor in the area (Photo 12 in Appendix C). The floor was smoothed, and allowed to cure for several days before it was washed with muriatic acid, and coated with an epoxy resin. The sump well was then cut down to floor level, and completed with a flush-mounted well cover (Photo 11 in Appendix C).

Sediment removed from the pit were characterized as non-regulated material based on the results of the analysis presented in Table 2-1. This material was sent off-site to the Modern Landfill Facility in Model City, New York for disposal as a non-hazardous waste.



3.0 Conclusions

The removal of the sediment and debris from the Building 4 pit area revealed that the pit was concrete lined, intact, and in good condition. Consequently, there was limited potential for contaminants in the pit to have affected the soil and groundwaater surrounding the pit. Prior to the cleaning and filling of the Building 4 pit, a limited potential existed for the liquids contained in the pit and sump to leach through the bottom, and contact groundwater (which appeared to be immediately at or slightly above the bottom of the sump).

As part of the RCRA Facility Assessment Sampling Visit (RFA-SV) the groundwater in this area will be evaluated. The RFA-SV work plan has also been submitted to the NYSDEC, and will be implemented once their review is complete. Results of this groundwater evaluation will be presented along with other data from the RFA-SV.



4.0 References

A.T. Kearney, 1993, RCRA Facility Assessment Report, Hampshire Chemical Corporation (formerly W.R. Grace) Waterloo, New York.

New York State Department of Environmental Conservation, 1994, Division Technical and Administrative Guidance Memorandum for Determination of Soil Cleanup Objectives and Cleanup Levels.

New York State Department of Environmental Conservation, 1995, Draft Module III— Corrective Action Requirements for Solid Waste Management Units and Areas of Concern.

H & A Geotechnical Engineers and Environmental Consultants, October 1994, Plan of Action, Building 4 Investigations, Evans Chemetics Facility, Waterloo, New York.

H & A Geotechnical Engineers and Environmental Consultants, September 1995, Building 4 Investigation, Hampshire Chemical Corporation, Evans Chemetics Facility, Waterloo, New York.

Appendix A

Analytical Data

From: Werd Miles 315 437-0255 517-636 1364

DATE: // 36/656-3650

Matte: // 36/656-3650

Matte: // 56-3650

Matte:

I.D.: 10170

Client I.D.: RADIAN INTERNATIONAL P.+ A.	JAISIS Sampled BY:			
Client I.D.: RADIAN INTERNATIONAL PIT MAN	- TOO I DEE TOO I 1605H	06/15/99 G		
DOW/EVANS CHEMETIC	S LOC I AM BOC I			
[D:16/99123 md01-1	RESULTS	DATE ANAL.	KEY	FILE#
PARAMETERS	~~~~~			
	93%TS	06/17/99		MCE338
tash	<soobtu 1b<="" td=""><td>06/17/99</td><td></td><td>WC6324</td></soobtu>	06/17/99		WC6324
BIU/1b	43%	06/16/99		NC6312
Percent Solids	<0.5mg/l	06/23/99		MB1182
TCLP Arsenic	<0.3mg/1	06/23/99		MB1182
TCLP Barium	0.040mg/1	06/23/99		MB1182
TCLP Cadmium	0.08mg/1	06/23/99		MB1182 MB1182
TCLP Chromium	<0.1mg/1	06/23/99		
TCLP Lead	<0.0004mg/1	06/24/99		MB1189
ICTS Mescary	<0.5mg/l	06/23/99		MB1162
TCLP Selenium	0.06mg/1	06/23/99		MB1182
TCLP Silver				
	60			
TCL Volatiles by EPA Method 82	190	6.000 400 4000	8002	
	<1200ug/kg dw	06/24/99	01	VM2443
Chloromethana	<1200ug/kg dw	06/24/99	01	VM2443
Bromomethane	<780ug/kg dw	06/24/99	01	VM2443
Vinyl Chloride	<1200ug/kg dw	06/24/99	01	VM2443
Chloroethane	<1200ug/kg du	06/24/99	01	VM2443
Methylene Chloride	<3900ug/kg dw	06/24/99	01	VM2443
Acecone	<1200ug/kg dw	06/24/99	01	VM2443
Carbon Disulfide	<1200ug/kg dw	06/24/99	0.7	VM2443
1,1-Dichloroethene	<1200ug/kg dw	06/24/99	01	VM2443
1,1-Dichloroethans	<1200ug/kg dw	06/24/99	01	VM2443
trans-1,2-Dichloroethene	<1200ug/kg dw	06/24/99	01	VH2443
cis-1,2-Dichloroethene	<1200ug/kg dw	06/24/99	01	VM2443
Chloroform	<1200ug/kg dw	06/24/99	01	VM2443
1,2-Dichloroethane	<3900ug/kg dw	05/24/99	01	VM2443
2-Butanone	<1200ug/kg du	06/24/99	0.7	VM2443
1,1,1-Trichloroethane	<1200ug/kg dw	06/24/99	01	VM2443
Carbon Tetrachloride	<1200ug/kg dw	06/24/99	01	VM2443
Bromodichloromethane	<1200ug/kg dw	06/24/99	01	VM2643
1,2-michloropropane	<1200ug/kg dw	06/24/99	01	VM2443
cis-1,3-Dichloropropene	<1200ug/kg dw	06/24/99	01	VM2443
Trichloroethene	<1200ug/kg dw	06/24/99	01	VM2443
Dibromochloromethane	<1200ug/kg du	06/24/99	01	VM2443
1,1,2-Trichloroethane	<1200ug/kg dw	06/24/99	01	VM2443
Benzene	<1200ug/kg dw	06/24/99	01	VM2443
erans-1,3-Dichloropropens	<1200ug/kg dw	06/24/99	01	VM2443
Bromoform	<3900ug/kg dw	06/24/99	01	VM2443
4-Methyl-Z-pentanone	<3900ug/kg dw	06/24/99	01	VM2443
2-Hexanone	<1200ug/kg dw	06/24/99	01	VM2443
Tetrachloroethene	<1200ug/kg dw	06/24/99	07	VM2443
1,1,2,2-Tetrachlorosthane	<1200ug/kg dw	06/24/99	01	VM2443
Toluena	<1200ug/kg dw	06/24/99	01	VM2443
Chlorobenzene				

ATE: / /

upstate Laboratories, Inc.
nalysis Results
aport Number: 16799123
Client I.D.: RADIAN INTERNA

APPROVAL --QC: _ _ Lab I.D.: 10170

SPORE NUMBER TATERNATIONAL	Saubieg 21.			
client I.D.: RADIAN INTERNATIONAL	FOR T THE TOR I 1605H	06715/99 G		
D:16799123 Mat: Liquid DOW/EVANS CHEMETICS	COC I VIII TOC I COO		VTT	FILE#
191	RESULTS	DATE ANAL.	KEY	E T 77 10
PARAMETERS		06/24/99	01	VM2443
Ethylbenzene	<1200ug/kg dw	06/24/99	01	VN2443
	<1200ug/kg dw	06/24/99	01	VM2443
w-xitene and b-xitene	<1200ug/kg dw		01	VM2443
w-xylong and g-xylone	<1200ug/kg dw	06/24/99	0.1	
o-Xylene				
TCLP Volatile Organic Compounds by 8240		2.72		ID47.440
	< 0.03 mg/1	06/29/99		V112449
TCLP Benzens	<0.03mg/1	06/29/99		VM2449
TCLP Carbon Tetrachloride	<0.03mg/1	06/29/99		VH2449
TCLP Chlorobenzene	<0.03mg/1	06/29/99		V212449
TCLP Chloroform	<0.03mg/1	06/29/99		VM2449
TCLP 1,4-Dichlorobenzene	<0.03mg/1	06/29/99		VM2449
rclp 1.2-Dichloroethane	<0.03mg/l	06/29/99		VM2449
TCLP 1,1-Dichloroethene	<0.10mg/1	06/29/99	*	VM2449
TCLF Methyl Ethyl Ketone	0.38mg/1	06/29/99		VM2449
TCLP Tetrachloroethene	<0.03mg/l	06/29/99		VM2449
TCLP Trichloroethene	<0.02mg/1	06/29/99		VM2449
TCLP Vinyl Chloride		.; • €		
TCL Semivolatiles by EPA Method 8	270			
	<780ug/kg du	06/25/99		SA2017
Phonol	<780ug/kg dw	06/25/99		SA2017
bis(2-Chlorocthyl)ether	<780ug/kg dw	06/25/99		SA2017
2-Chlorophenol	<780ug/kg du	06/25/99		SA2017
1.3-Dichlorobenzene	<780ug/kg dv	06/25/99		SA2017
1,4-Dichlorobenzene	<780ug/kg du	06/25/99		SA2017
1.2-Dichlorobenzene	<780ug/kg dw	06/25/99		SA2017
2-Methylphenol	<780ug/kg dw	06/25/99	36	SA2017
2.2'-Oxybis(1-Chloropropane)	<780ug/kg du	06/28/99		9A2017
4-Methylphenol	<780ug/kg dw	05/25/99		SA2017
n-Nitrosodi-n-propylamine	<780ug/kg du	06/25/99		SA2017
Hexachloroethane	c780ug/kg dw	06/25/99		SA2017
Nitrobenzens	<780ug/kg dw	06/25/99		SA2017
Isophorone	<780ug/kg du	06/25/99		SA2017
2-Nicrophonol	<780ug/kg dw	06/25/99		BA2017
2,4-Dimethylphenol	<780ug/kg de	06/25/99		SA2017
bis (2-Chloroethoxy) machane	<780ug/kg du	06/25/99		SA2017
2,4-Dichlorophenol	<780ug/kg dw	06/25/99		SA2017
1,2,4-Trichlorobenzene	<780ug/kg dv	06/25/99		SA2017
Naphthalene	<780ug/kg dv	06/25/99		SA2017
4-Chloroaniline	<780ug/kg dw	06/25/99		SA2017
Hexachlorobutadiene	<780ug/kg dw	06/25/99		SA2017
4-Chloro-3-methylphenol	<780ug/kg dw	06/25/99		SA2017
2-Methylnaphthalene	c780ug/kg dw	06/25/99		SA2017
Hexachlorocyclopentadiene	<780ug/kg dv	06/25/99	2020	5A2017
2,4,6-Trichlorophenol			*	

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Unstate Laboratories, Inc. 1 alyois Results I port Number: 16799123 Client I.D.: RADIAN INTERNATIONAL APPROYATA - -Lab I.D.: 10170 Sampled by:

POFE NUMBER : RADIAN INTERNATIONAL CLIENT I.D.; RADIAN INTERNATIONAL CLIENT INTERNATIONAL DOW/EVANS CHEMETICS	TOT I ALL LOC I 160SH	06715/99 G		
1:16799123 Mac:Liquid DOW/EVANS CHEMETICS	RESULTS	DATE ANAL.	KEY	FILE#
PARAMETERS	RESULES	06/25/99	:=:::::::::::::::::::::::::::::::::::::	SA2017

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		RESULTS	DATE ANAL.	KLL	
PARA	METERS				SAZ017
		<780ug/kg dw	06/25/99		5A2017
	2.4.5-Trichlorophenol	<780ug/kg dw	06/25/99		SA2017
	2-Chloronaphthalene	<3900ug/kg dw	06/25/99		SA2017
	2-Nitroaniline	<780ug/kg dw	06/25/99		SA2017
	Dimethylphthalace	<780ug/kg dw	06/25/99		SA2017
	acenaphthylene	<780ug/kg dw	06/25/99		
	2,6-Dinitrotoluene	<3900ug/kg dw	06/25/99		SA2017
	3-Nitroaniline	<780ug/kg dw	06/25/99		5A2017
	Acenaphthene	<3900ug/kg dw	06/25/99		SA2017
	2.4-Dinitrophenol	<3900ug/kg dv	06/25/99		SA2017
	4.Nicrophenol	<780ug/kg du	06/25/99		SA2017
	nibenzofuran	<780ug/kg dw	06/25/99		9A2017
	2.4-Dinitrotoluene	<780ug/kg dw	06/25/99		SA2017
	n: ashulnhthalate	<780ug/kg dw	06/25/99		SA2017
	4-Chlorophenylphenylether	<780ug/kg dw	06/25/99		SA2017
	Fluorene	<3900ug/kg dw	06/25/99		SA2017
	. wie-confline	<3900ug/kg dw	06/25/99		SA2017
	2-Methyl-4, 6-dinitrophenol	<780ug/kg dw	06/25/99		SA2017
	n-Nirrosodiphenylamine	c780ug/kg du	06/25/99		SA2017
	4-Bromophenylphenylacher	<780ug/kg dw	06/25/99		SA2017
	Hexachlorobenzene	<1500ug/kg dw	06/25/99		SA2017
	Pentachlorophenol	1600ug/kg dw	06/25/99		SA2017
	Phenanthrene	<780ug/kg dw	06/25/99		SA2017
	Anthracene	<780ug/kg dw	06/25/99	1.40	SA2017
	Carbazole	<780ug/kg dw	06/25/99	39.7	SA2017
	di-n-butylphthalate	2400ug/kg dw	06/25/99		SA2017
	Fluoranthene	240049/kg dw	06/25/99		6A2017
	Pyrene	3700ug/kg dw	06/25/99		SA2017
	Butylbenzylphthelate	<780ug/kg dw	06/25/99		SA2017
	3.3'-Dichlorobenzidine	<780ug/kg dw	06/25/99		SA2017
	Benzo (a) anthracens	1300ug/kg du	06/25/99		SA2017
	Chrysene	1500ug/kg dw	06/25/99		SA2017
	bis (2-Ethylhexyl) phthalate	6200ug/kg dw	06/25/99		SA2017
	di-n-octylphthalats	c780ug/kg dw	06/25/99		SA2017
	Benso (b) fluoranthene	2300ug/kg dw	06/25/99		SA2017
	Benzo(k) fluoranthene	840ug/kg dw	06/25/99		SA2017
	Bonzo (a) nyrene	1400ug/kg dw	06/25/99		SA2017
	Indeno(1,2,3-cd)pyrene	830ug/kg dw	06/25/99		SA2017
	Dibenzo (a, h) anthracene	c780ug/kg du	06/25/99		SA2017
	Benzo (ghi) perylene	900ug/kg dw	00/23/22		
TCLP	Semivolatile Compounds by 8270				* \$450 minutes * market * market
		<0.1mg/l	06/25/99		SA2016
TCLP	Crasol, Total	<0.05mg/1	06/25/99		SA2016
TCLP	2,4-Dinitrotoluane	<0.05mg/1	06/25/99		SA2016
TCT.P	Hexachlorobenzene	¢0.00mg/ x	Marie Carlotte Control (1) 25-2		

7075	, <u> </u>	•		T0000000000000000000000000000000000000
		<0.1mg/l	06/25/99	SA2016
TCLP	Crasol, Total		06/25/99	SA2016
TCLP	2,4-Dinitrotoluane	<0.05mg/l	06/25/99	SA2016
TCLP	Hexachlorobenzene	20:03mg/x	1.5	

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Operate Laboratories. Inc.

A alysis Results

F port Number: 16799123 Client I.D.: RADIAN INTERNATIONAL

Client 1.D. tale		T TTT TOO 1	1605H 06/15/99 G
:16799123 Mat:Liquid	DOW/EVANS CHEMETICS	LOC 1 ALL LOC 1	
: 16799123 Mac			DATE DARK

	RESULTS	DATE ANAL.	KEY	E TTD#
PARAMETERS				
	<0.05mg/1	06/25/99		SA2016
TCLP Hexachlorobutadiene	<0.05mg/1	06/25/99		SAZD16
TCLP Hoxachloroethane	<0.05mg/1	06/25/99		SA2016
		06/25/99		SA2016
- L1-manhonol	<0.1mg/1	06/25/99		SA2016
	<0.05mg/1	06/25/99		SA2016
	<0.05mg/l	06/25/99		SA2016
Llerenhanel	< 0.05 mg/1	00/23/33		1 20 1 400 00 20 00 01 00 00 00 00
TCLP 2,4,6-TFICHIOLOPHONE				
PCB (Aroclors) by EPA Method 8080	4			
	<2mg/kg dw	06/22/99	05	PA5049
Aroclor 1016	<2mg/kg dw	06/22/99	05	PAS049
Aroclor 1221	<2mg/kg dw	06/22/99	05	PA5049
Aroclor 1232		05/22/99	05	PA5049
Aroclor 1242	<2mg/kg dw	06/22/99	05	PA5049
Aroclor 1248	<2mg/kg dw	06/22/99	05	PAS049
Aroclor 1254	<2mg/kg dw	06/22/99		PAS049
Aroclor 1260	41mg/kg dw	06/22/99		PAS049
	41mg/kg dw	00/22/99		
Total PCB				

KEY PAGE

- 1 MATRIX INTERFERENCE PRECLUDES LOWER DETECTION LIMITS
- 2 MATRIX INTERFERENCE
- 3 PRESENT IN BLANK
- A ANALYSIS NOT PERFORMED BECAUSE OF INSUFFICIENT SAMPLE
- 5 THE PRESENCE OF OTHER TARGET ANALYTE(S) PRECLUDES LOWER DETECTION LIMITS
- BLANK CORRECTED
- 7 HEAD SPACE PRESENT IN SAMPLE
- QUANTITATION LIMIT IS GREATER THAN THE CALCULATED REGULATORY LEVEL. THE QUANTITATION LIMIT THEREFORE BECOMES THE REGULATORY LEVEL.
- 9 THE OIL WAS TREATED AS A SOLID AND LEACHED WITH EXTRACTION FLUID
- 10 ADL (AVERAGE DETECTION LIMITS)
- 11 POL (PRACTICAL QUANTITATION LIMITS)
- 12 SAMPLE ANALYZED OVER HOLDING TIME
- 13 DISSOLVED VALUE MAY BE HIGHER THAN TOTAL DUE TO CONTAMINATION FROM THE FILTERING PROCEDURE
- 14 SAMPLED BY ULI
- 15 DISSOLVED VALUE MAY BE HIGHER THAN TOTAL; HOWEVER, THE VALUES ARE WITHIN EXPERIMENTAL ERROR
- 16 AN INHIBITORY FACTOR WAS OBSERVED IN THIS ANALYSIS
- 17 PARAMETER NOT ANALYZED WITHIN 15 MINUTES OF SAMPLING
- 18 THE SERIAL DILUTION OF THIS GAMPLE SUGGESTS A POSSIBLE PHYSICAL AND/OR CHEMICAL INTERFERENT IN THIS DETERMINATION. THE DATA MAY BE BIASED EITHER HIGH OR LOW.
- 19 CALCULATION BASED ON DRY WEIGHT
- 20 INDICATES AN ESTIMATED VALUE, DETECTED BUT BELOW THE PRACTICAL QUANTITATION LIMITS
- 21 UG/KG AS REC.D / UG/KG DRY WT
- 22 MG/KG AS REC.D / MG/KG DRY WT
- 23 INSUFFICIENT SAMPLE PRECLUDES LOWER DETECTION LIMITS
- 24 SAMPLE DILUTED/BLANK CORRECTED
- 25 ND (NON-DETECTED)
- 26 MATRIX INTERFERENCE PRECLUDES LOWER DETECTION LIMITS/BLANK CORRECTED
- 27 SPIKE RECOVERY ABNORMALLY HIGH/LOW DUE TO MATRIX INTERFERENCE
- 28 POST-DIGESTION SPIKE FOR FURNACE AA ANALYSIS IS OUTSIDE OF THE CONTROL LIMITS (85-115%); HOWEVER, THE SAMPLE CONCENTRATION IS BELOW THE PQL
- 29 ANALYZED BY METHOD OF STANDARD ADDITIONS
- 30 METHOD PERFORMANCE STUDY HAS NOT BEEN COMPLETED/ND (NON-DETECTED)
- 31 FIELD MEASURED PARAMETER TAKEN BY CLIENT
- 32 TARGET ANALYTE IS BIODEGRADED AND/OR ENVIRONMENTALLY WEATHERED
- 33 NON-POTABLE WATER SOURCE

.

- 34 VOLATILE ASP CODES
 - (B) POSSIBLE/PROBABLE BLANK CONTAMINATION (D) ALL COMPOUNDS IDENTIFIED AT A SECONDARY DILUTION FACTOR (J) ESTIMATED VALUE
- 35 THE HYDROCARBONS DETECTED IN THE SAMPLE DID NOT CROSS-MATCH WITH COMMON PETROLEUM DISTILLATES
- 36 MATRIX INTERFERENCE CAUSING SPIKES TO RESULT IN LESS THAN 50.0% RECOVERY
- 37 MILLIGRAMS PER LITER (MG/L) / POUNDS (LBS) PER DAY
- 38 MILLIGRAMS PER LITER (MG/L) OF RESIDUAL CHLORINE (CL2) / POUNDS (LB5) PER DAY OF CL2
- 39 MICROGRAMS PER LITER (UG/L) / POUNDS (LBS) PER DAY
- 40 MILLIGRAMS PER LITER (MG/L) LINEAR ALKYL SULFONATE (LAS) / POUNDS (LBS)
 PER DAY LAS
- 41 RESULTS ARE REPORTED ON AN AS REC.D BASIS
- 42 THE SAMPLE WAS ANALYZED ON A TOTAL BASIS; THE TEST RESULT CAN BE COMPARED TO THE TCLP REGULATORY CRITERIA BY DIVIDING THE TEST RESULT BY 20, CREATING A THEORETICAL TCLP VALUE
- 43 METAL BY CONCENTRATION PROCEDURE
- 44 POSSIBLE CONTAMINATION FROM FIELD/LABORATORY

Appendix B

Correspondence



Hampshire Chemical Corp. 228 East Main Street Waterloo, NY 13165 (315) 539-9221 (315) 539-9627 Fax

July 16, 1999

Angus Eaton NYS Department of Environmental Conservation Division of Water Permits, Room 314 50 Wolf Road Albany, NY 12233 – 3505

RE:

Evans Chemetics Building 4 Pit Cleaning Project

SPDES Permit Number NY – 0001406 NYSDEC ID 8-4538-00003/00019

Hampshire Chemical Corp. / Evans Chemetics

Village of Waterloo, Seneca County

Dear Angus:

Evans Chemetics is currently cleaning a below grade area in the facility referred to as the Building 4 pit. NYSDEC has received the *Interim Remedial Action Plan – Building 4 Pit*, dated June 30, 1999 that describes the project in more detail. As part of the cleanup project, some of the ground water from the pit was transferred to the facility wastewater treatment plant, then treated and discharged through the current facility SPDES system.

Attached is a table listing the dates water was pumped out of the building 4 pit as part of this remediation project by the contractor, along with the approximate volumes. Note that the majority of the wastewater was sucked into a vacuum truck for off-site disposal at Industrial Recycling in Tonawanda, NY with ultimate disposal of the stabilized material at Modern Landfill in Lewiston, NY. At the beginning of this cleanup project, a sample of the sediments was sent out for analysis. We assumed the concentration of the constituents in the wastewater would be no greater than the concentration detected in the sediments. Attached are the analytical results for this sample.

Please contact me at (315) 539-9221, ext.122 if you need any additional information.

Sincerely,

Steven R Brusso Technical Leader

CC:

Nancy Rice / NYSDEC Region 8
Peter Hoffmire / NYSDEC Region 8
Ben Baker / Dow Remediation
Tom Desiderio / Evans Chemetics

Estimated Building 4 Pit Wastewater Volumes and Destination

DATE	GALLONS WATER	WATER DESTINATION
7/1/99	500	Evans wastewater treatment plant
7/10/99	100	Evans wastewater treatment plant
7/11/99	50	Evans wastewater treatment plant
7/12/99	1000	Vacuum truck for off-site disposal
7/13/99	150	Evans wastewater treatment plant
7/19/99 *	200 ?	Evans wastewater treatment plant

^{*} May require one additional site dewatering prior to final closure

DATE: / /

state Laboratories, Inc. : alysis Results Report Number: 16799123 Client I.D.: RADIAN INTERNATIONAL

):16799123 Mat:Liquid	DOW/EVANS CHEMETICS	Toc :	ALL LOC	ī 1605H	06/15/99	G
): 10/3222					2.22	

799123	Was: Trdara	wast mo	DATE ANAL.	KEY	FILE#
DL.	RAMETERS	RESULTS			
			06/17/99		WC6338
	theh	83%T9	05/17/99		NCE324
	BTU/1b	<500BTU/1b	06/16/99		NC631Z
	Percent Solids	43%	06/23/99		MB1182
TCLP	Arsenic	<0.5mg/l	06/23/99		MB1182
TCLP	Barium	<0.3mg/1	06/23/99		MB1182
TCLP	Cadmium	0.040mg/1	06/23/99		MS1182
TCLP	Chromium	0.08mg/l	06/23/99		MB1182
TCLP	Lead	<0.1mg/1	06/24/99		MB1189
TCLP	Mescary	<0.0004mg/1	06/23/99,		MB1182
TCLP	Selenium	<0.5mg/l	06/23/99		MB1182
TCLP	Silver	0.06mg/1	00/23/33		
1000	DEL HE W		ė.		
	TCL Volatiles by EFA Method 8260		₩		
		5 5 5 5 1 1 1 m 311	06/24/99	01	VM2443
	Chloromethane	cl200ug/kg dw	06/24/99	01	VM2443
	Bromomethane	<1200ug/kg dw	06/24/99	01	VM2443
	Vinyl Chloride	<780ug/kg dw	06/24/99	01	VM2443
	Chloroethane	<1200ug/kg dw	06/24/99	01	VM2443
	Methylene Chloride	<1200ug/kg du	06/24/99	01	VM2443
	Acatone	c3900ug/kg dw	06/24/99	01	VM2443
	Carbon Disulfide	<1200ug/kg dw	06/24/99	01	VM2443
	1,1-Dichloroethene	<1200ug/kg dw	06/24/39	01	VM2443
	1 1-Dichloroethane	<1200ug/kg dw	06/24/99	01	VM2443
	trans-1,2-Dichloroethene	<1200ug/kg dw	06/24/99	01	VH2443
	cis-1,2-Dichloroethene	<1200ug/kg dw	06/24/99	01	VM2443
	Chloroform	<1200ug/kg dw	06/24/99	01	VM2443
	1, Z-Dichloroethane	<1200ug/kg dw	06/24/99	01	VM2443
	2-Butanone	<3900ug/kg dw	7.50 O 0.50	01	VM2443
	1,1,1-Trichloroethane	cl200ug/kg du	06/24/99	01	VM3443
	Carbon Tetrachloride	<1200ug/kg du	06/24/99	01	VM2443
	Bromodichloromethane	<1200ug/kg dw	06/24/99 06/24/99	01	VM2643
	1.2-Dichloropropana	<1200ug/kg dw	06/24/99	01	VM2443
	cis-1,3-Dichloropropene	c1200ug/kg du	06/24/99	01	VM2443
	Trichloroethene	<1200ug/kg dw	06/24/99	01	VM2443
	Dibromochloromethans	<1200ug/kg dw	06/24/99	01	VM2443
	1.1.2-Trichloroethane	<1200ug/kg du	06/24/99	01	VM2443
	Benzene	c1200ug/kg dw	06/24/99	01	VM2443
	erans-1,3-Dichloropropens	<1200ug/kg dw		07	VM2443
	Bromoform	<1200ug/kg dw	06/24/99	01	VM2443
	4-Mechyl-2-pentanone	c3900ug/kg dw	06/24/99		VM2443
	2-Hexanone	<3900ug/kg dw	06/24/99	01 01	VM2443
	Tetrachloroethene	<1200ug/kg dw	06/24/99	01	VM2443
	1,1,2,2-Tecrachlorosthane	cl200ug/kg dw	06/24/99	01	VM2443
	Toluena	<1200ug/kg dv	06/24/99 06/24/99	01	VM2443
	Chlorobenzene	<1200ug/kg dw	00/44/33	0.1	124

1 .TF: / /

Upstate Laboratories, Inc.; alysis Results; port Number: 16799123 Client I.D.: RADIAN INTERNATIONAL APPROVAL --QC: _ Lab I.D.: 10170

Clien	t I.D.	RADIAN INTERNALIDIME				
-16	799123 8	AE: Liquid DOW/EVANS CHEMETICS LO	C 1 ALL LOC 1 1605H	06/15/99 G		
): 10	PARAMETERS		RESULTS	DATE ANAL.	KEY	FILES
			KE30013			
			<1200ug/kg dw	06/24/99	01	VM2443
		Ethylbenzene	<1200ug/kg dw	06/24/99	01	VX2443
		Styrene	<1200ug/kg du	06/24/99	01	VM2443
		m-Xylene and p-Xylene	<1200ug/kg dw	06/24/99	01	VM2443
	55	o-Xylena	(11), (3), (3)			
	5 55					
	ICLP '	folatile Organic Compounds by 8240				
			<0.03mg/l	06/29/99		VM2449
	ICTS	Benzens	<0.03mg/1	06/29/99		VM2449
	TCLP	Carbon Tetrachloride	<0.03mg/1	06/29/99		VH2449
설	TCLP	Chlorobenzene	<0.03mg/l	06/29/99		V2449
	TCLP	Chloroform	<0.03mg/1	06/29/99		VM2449
	TCLP	1,4-Dichlorobenzens	<0.03mg/1	06/29/99		VM2449
	ICLP	1.2-Dichloroethane	<0.03mg/l	06/29/99		VM2449
	ICT5	1,1-Dichloroethene	<0.10mg/l	06/29/99		VM2443
	TCLP	Methyl Ethyl Ketone	0.3amg/1	06/29/99		VM2449
	TCLP	Tetrachloroethene	<0.03mg/l	06/29/99		VM2449
	TCLP	Trichloroethene	<0.02mg/1	06/29/99		VM2449
	TCLP	Vinyl Chloride	200-200			
		TCL Samivolatiles by EPA Method 827	0			
		TCL Samivalacties by and motors			166	
		Phonol	<780ug/kg dw	06/25/99		SA2017
		bis (2-Chloroethyl) ether	<780ug/kg dw	06/25/99		SA2017
		2-Chlcrophenol	<780ug/kg dw	06/25/99		SA2017
		1,3-Dichlorobenzene	<780ug/kg dw	06/25/99		SA2017
22		1,4-Dichlorobenzene	<780ug/kg dw	06/25/99		SA2017
		1,2-Dichlorobenzene	<780ug/kg du	06/25/99		SA2017
		2-Methylphenol	<780ug/kg dw	06/25/99		SA2017
		2.2'-Oxybia(1-Chloropropane)	<780ug/kg dw	06/25/99		SA2017
		4-Methylphenol	<780ug/kg dw	06/28/99		9A2017
		n-Nitrosodi-n-propylamine	<780ug/kg du	06/25/99		SA2017
		Hexachlorosthane	<780ug/kg du	06/25/99		SA2017
		Nitrobenzens	<780ug/kg dw	05/25/99		SA2017
		Isophorone	<780ug/kg dw	06/25/99		SA2017
		2-Microphonol	<730ug/kg dw	05/25/99		SA2017
		2,4-Dimachylphenol	<780ug/kg dw	06/25/99		8A2017
		bis (2-Chloroethoxy) machane	<780ug/kg du	06/25/99		SA2017
		1,4-Dichlorophenol	<780ug/kg du	06/25/99		SA2017
		1,2,4-Trichlorobenzene	<780ug/kg dw	06/25/99		SA2017
		Naphthalene	<780ug/kg dv	06/25/99		SA2017
		4-Chloroaniline	<780ug/kg du	06/25/99		SA2017
	¥	Hexachlorobucadiese	<780ug/kg dw	06/25/99		SA2017
		4-Chloro-3-methylphenol	<790ug/kg dw	06/25/99		SA2017
		2-Methylnaphthalene	<780ug/kg dw	06/25/99		SA2017
		Hexachlorocyclopentadiene	c780ug/kg du	06/25/99		SA2017
		2,4,6-Trichlorophenol	<780ug/kg du	06/25/99	-	5A2017
				69	74	

D :R: / /

D-State Laboratories, Inc.
A slysis Results
R_port Number: 16799123
Client I.D.: RADIAN INTERNATIONAL

APPROVAL --QC: Lab I.D.: 10170
Sampled by:

Client 1.D. ADD		F. 5 T	TTT TOC	1 160SH	06/15/99 G
I :16799123 Kat:Liquid	DOW/EVANS CHEMETICS	TOC T	MIII 100	- marchan	
I :16799123 Mac. 224				114,	DATE ANAL.

133 Kat: Liquid	DOM/EAYN2 CHEWELICS	344	77	EX EIFE#
	42	RESULTS	press	
PARAMETERS				SA2017
		<780ug/kg dw	06/25/99	SA2017
2.4.5-Tri	chicrophenol	<780ug/kg du	06/25/99	SA2017
2-Chloron	aphchalene	<3900ug/kg dw	06/25/99	SA2017
2-Nitroan	iline	<780ug/kg dw	06/25/99	SA2017
Dimethylp	hchalace	<780ug/kg dw	06/25/99	SA2017
acenaphth	ylene	<780ug/kg dw	05/25/99	
2.6-Dinit	Tocoluene	<3900ug/kg dw	06/25/99	SA2017
3-Witroan	1line	<780ug/kg dw	06/25/99	SA2017
Acenaphth	lane	<3900ug/kg dw	06/25/99	SA2017
1.4-Dinit	rophenol	<3900ug/kg dw	06/25/99	SA2017
4 -Nicroph	enol	<780ug/kg du	06/25/99	SA2017
Dibenzośu	ran	<780ug/kg dw	06/25/99	9A2017
2.4-Dinit	ratoluene	<780ug/kg dw	06/25/99	SA2017
niachalal	thalate	<780ug/kg dv	06/25/99	SA2017
4-Chlorot	henylphenylether	Systaly da	06/25/99	SA2017
Fluorene		<780ug/kg du	06/25/99	SA2017
4 17: ====	niline	<3900ug/kg dw	06/25/99	SA2017
2 14 6 6 6 6	-4.6-dimitrophenol	<3900ug/kg dw	06/25/99	SA2017
2-Methy 1	odiphenylamine	<780ug/kg dw	06/25/99	SA2017
U-WICIGE	henylphenylocher	<780ug/kg dw	.06/25/99	SA2017
4-Bromop	Lopeuseus	<780ug/kg dw	06/25/99	SA2017
Hexacuto	orophenol	c1500ug/kg dw	06/25/99	SA2017
beuggerr	010biron	1600ug/kg dw	06/25/99	SA2017
Phenanth		<780ug/kg dw	05/25/99	SA2017
Anchrace		<780ug/kg dw		SA2017
Carbasol	habalare	<780ug/kg dw	06/25/99	SA2017
di-u-put	ylphchalate	2400ug/kg dw	06/25/99	6A2017
Fluorant	nene	3700ug/kg du	06/25/99	SA2017
blique	9 L-V-10F0	<780ug/kg dw	06/25/99	SA2017
Butylben	zylphthalate	<780ug/kg du	06/25/99	SA2017
3.3'-Dio	hlorobenzidina	1300ug/kg du	06/25/99	
	anthracene	1500ug/kg dw	06/25/99	SA2017
Chrysene	1	6200ug/kg dw	06/25/99	SA2017
bis (2-Et	chylhexyl) phthalate	c780ug/kg dw	06/25/99	3A2017
di-n-oct	cylphchalate	2300ug/kg dw	06/25/99	SA2017
Ben30 (b)	fluoranthene	840ug/kg dw	05/25/99	SA2017
Benzo (k)	fluoranchene	1400ug/kg dw	06/25/99	SA2017
Benzo (a)	bliava	830ug/kg dw	06/25/99	SA2017
Indeno(1,3,3-cd) pyrene	cascal/sag du	06/25/99	SA3017
Dibenzo	(a,h) anthracene	wb gx\guooe	06/25/99	SA2017
Benzo (g)	hi)perylene	5000g/ Ag =		
TCLP Semivolat	ile Compounds by 8270			8
		<0.1mg/l	06/25/99	SA2016
TCLP Cresol.	Total	<0.05mg/1	06/25/99	SA2016
TCLP 2,4-Din	itrotolusne	<0.05mg/1	06/25/99	SA2016
TCLP Hexachl	orobenzene	\$0.00mg/ x	340 3	

Petate Laboratories, Inc.

r lysis Results

t ort Number: 16799123

lient I.D.: RADIAN INTERNATIONAL

A TOTO TOT MAE: Liqui	DOW/EVANS	CHEMETICS	Loc I	ALL	Toc 1	1605H	06/15/99	G
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W	RESULTS	DATE ANAL.	KEY	FILE#
PARAMETERS				
TCLP Hexachlorobutadiana TCLP Hoxachloroethana TCLP Nitrobenzena TCLP Pentachlorophenol TCLP Pyridina TCLP 2,4,5-Trichlorophenol TCLP 2,4,6-Trichlorophanol	<0.05mg/l <0.05mg/l <0.05mg/l <0.1mg/l <0.05mg/l <0.05mg/l <0.05mg/l	06/25/99 06/25/99 06/25/99 06/25/99 06/25/99 06/25/99	55	SA2016 SA2016 SA2016 SA2016 SA2016 SA2016 SA2016
PCB (Aroclors) by EPA Method 80 Aroclor 1016 Aroclor 1221 Aroclor 1232 Aroclor 1242 Aroclor 1248 Aroclor 1254	<2mg/kg dw <2mg/kg dw <2mg/kg dw <2mg/kg dw <2mg/kg dw <2mg/kg dw	06/22/99 06/22/99 06/22/99 06/22/99 06/22/99 06/22/99	05 05 05 05 05	PA5049 PA5049 PA5049 PA5049 PA5049 PA5049 PA5049
Aroclor 1260 Total PCB	4lmg/kg dv 4lmg/kg dv	06/22/99		PASO49

KEY PAGE

- 1 MATRIX INTERFERENCE PRECLUDES LOWER DETECTION LIMITS
- 2 MATRIX INTERFERENCE
- J PRESENT IN BLANK
- 4 ANALYSIS NOT PERFORMED BECAUSE OF INSUFFICIENT SAMPLE
- S THE PRESENCE OF OTHER TARGET ANALYTE(S) FRECLUDES LOWER DETECTION LIMITS
- 6 BLANK CORRECTED
- 7 HEAD SPACE PRESENT IN SAMPLE
- QUANTITATION LIMIT IS GREATER THAN THE CALCULATED REGULATORY LEVEL. THE QUANTITATION LIMIT THEREFORE BECOMES THE REGULATORY LEVEL.
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- 16 AN INHIBITORY FACTOR WAS OBSERVED IN THIS ANALYSIS
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- 24 SAMPLE DILUTED/BLANK CORRECTED
- 25 ND (NON-DETECTED)
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- 27 SPIKE RECOVERY ABNORMALLY HIGH/LOW DUE TO MATRIX INTERFERENCE
- 28 POST-DIGESTION SPIKE FOR FURNACE AA ANALYSIS IS OUTSIDE OF THE CONTROL LIMITS (85-115%); HOWEVER, THE SAMPLE CONCENTRATION IS BELOW THE PQL
- 29 ANALYZED BY METHOD OF STANDARD ADDITIONS
- 30 METHOD PERFORMANCE STUDY HAS NOT BEEN COMPLETED/ND (NON-DETECTED)
- 31 FIELD MEASURED PARAMETER TAKEN BY CLIENT
- 32 TARGET ANALYTE IS BIODEGRADED AND/OR ENVIRONMENTALLY WEATHERED
- 33 NON-POTABLE WATER SOURCE
- 34 VOLATILE ASP CODES
 - (B) POSSIBLE/PROBABLE BLANK CONTAMINATION (D) ALL COMPOUNDS IDENTIFIED AT A SECONDARY DILUTION FACTOR (J) ESTIMATED VALUE
- 35 THE HYDROCARBONS DETECTED IN THE SAMPLE DID NOT CROSS-MATCH WITH COMMON PETROLEUM DISTILLATES
- 36 MATRIX INTERFERENCE CAUSING SPIKES TO RESULT IN LESS THAN 50.0% RECOVERY
- 37 MILLIGRAMS PER LITER (MG/L) / POUNDS (LBS) PER DAY .
- 38 MILLIGRAMS PER LITER (MG/L) OF RESIDUAL CHLORINE (CL2) / POUNDS (LES)
 PER DAY OF CL2
- 39 MICROGRAMS PER LITER (UG/L) / POUNDS (LBS) PER DAY
- 40 MILLIGRAMS PER LITER (MG/L) LINEAR ALKYL SULFONATE (LAS) / POUNDS (LBS)
 PER DAY LAS
- AL RESULTS ARE REPORTED ON AN AS REC.D BASIS
- THE SAMPLE WAS ANALYZED ON A TOTAL BASIS; THE TEST RESULT CAN BE COMPARED TO THE TCLP REGULATORY CRITERIA BY DIVIDING THE TEST RESULT BY 20.

 CREATING A THEORETICAL TCLP VALUE
- 43 METAL BY CONCENTRATION PROCEDURE
- 44 POSSIBLE CONTAMINATION FROM FIELD/LABORATORY

Appendix C

Photographs

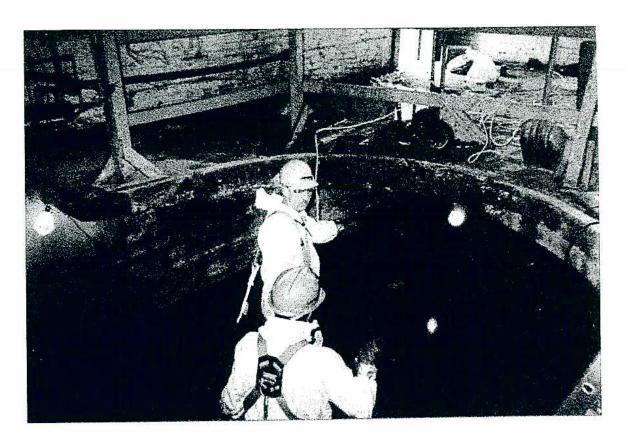


Photo 1: View to west, into opening of Building 4 Pit.

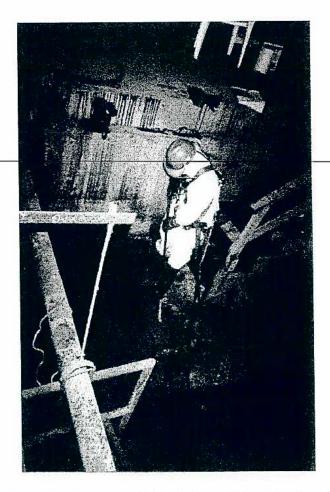


Photo 2: Pressure Washing. View to North.

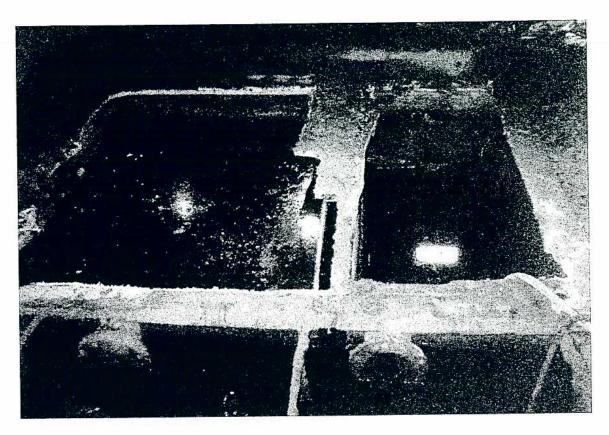


Photo 3: View of opened polyethylene tank from Building 4 Pit.

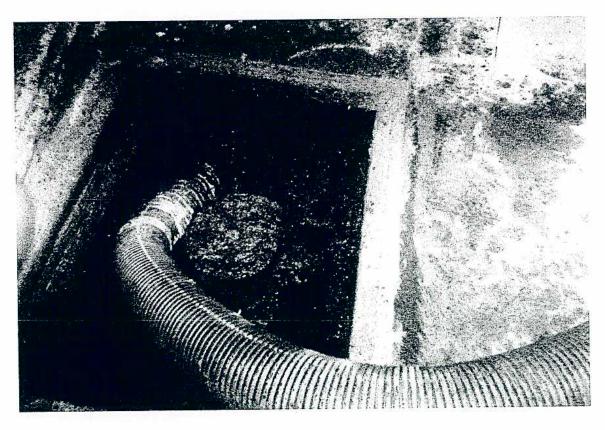


Photo 4: Pumping water and sediment from well head area in Building 4 Pit.



Photo 5: View to West of cleaned Building 4 Pit.

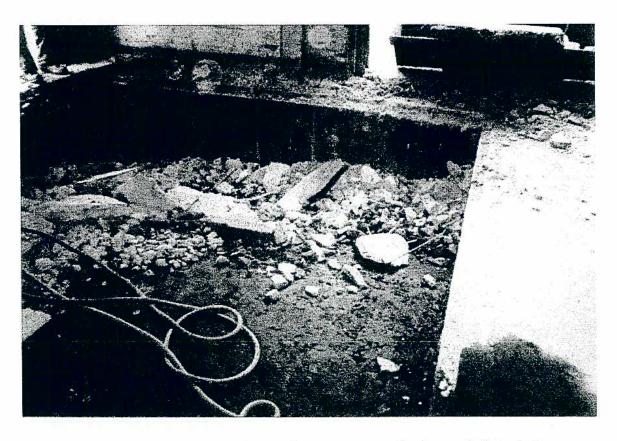


Photo 6: View to West of partially cemented pit, and debris from former roof.



Photo 7: View to North of partially cemented pit, and floor trench.

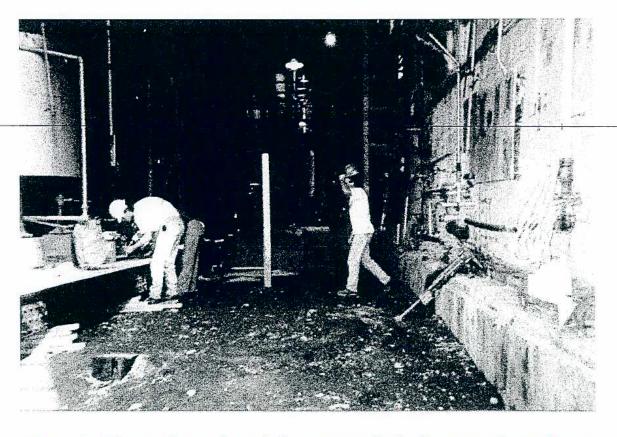


Photo 8: View to East of partially cemented pit, floor trench, and new sump well.

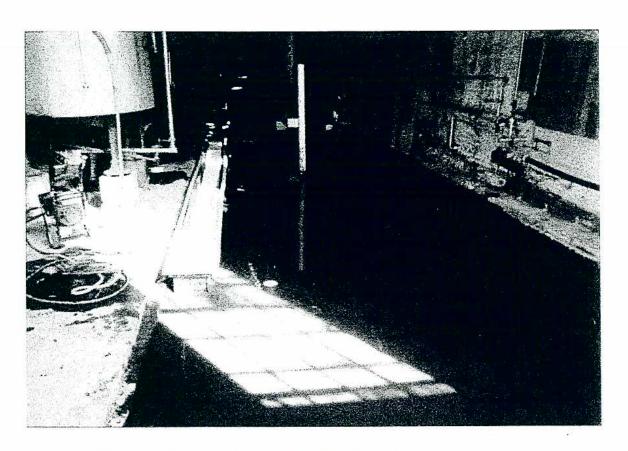


Photo 9: View to East of second flowable cement pour.

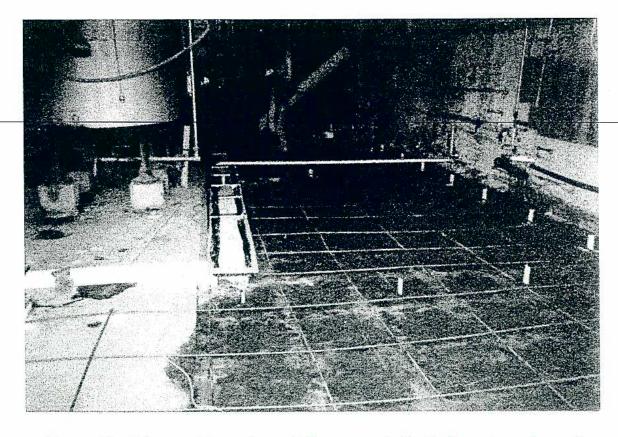


Photo 10: View to East of partially cemented pit, floor trench, and reinforcing rod for new floor.



Photo 11: View of completion for newly installed sump well.

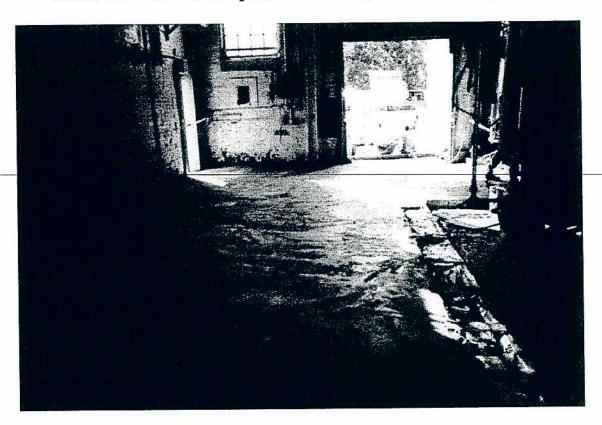


Photo 12: View to West of final cement pour.