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Spills - SP

ERP - E

VCP - V

BCP - C

MOENCH COMPANY
DIVISION OF BROWN SHOE COMPANY
465 PALMER STREET
GOWANDA, NEW YORK 14070
Phone 716-532-2201
Fax 716-532-5518

✓ Mr. Stanley F. Radon
N.Y. State Dept. of Environmental Conservation
Division of Solid & Hazardous Waste
270 Michigan Ave.
Buffalo, New York 14203-2999

April 28th, 2015

Re: Palmer St. Landfill, Groundwater Quality Sampling; April 2015

Mr. Radon:

Attached/enclosed is the Groundwater Quality report for our Palmer St. Landfill, for the April 2015 sampling event. An electronic report, in EDD format, will be submitted by GEI Consultants. Also, I will forward a PDF file to you, from UPS Store.

There were no detections of metals, above standard, and minimal detection of Acetone, a "Guidance Value."

The volume in the monitoring wells seemed lower than usual, possibly due to extreme cold, and a frost layer, minimizing infiltration. Again, there are no Bank Seeps available at BS1 & BS2. No creek samples were taken in their place.

Acidic trend continues at MW6 & MW4sr.

The Village of Gowanda's continued use of the deep aquifer, is having a substantial effect on the water levels in some Deep wells. The level at MW-1D has changed flow direction, 180 degrees.

Acetone was detected at MW-3D, but not in the Blind Duplicate, which was MW-3D.

Please call me if you have any questions.

Sincerely,



Jeffrey Smith
Environmental Engineer

Cc: Sandra Severson-Brown Shoe Co.
St. Louis, Mo
Richard Frappa-GEI Consultants
Williamsville, NY

RECEIVED

APR 30 2015

NYS DEC
REGION 9

MOENCH COMPANY
DIVISION OF BROWN SHOE COMPANY
465 PALMER STREET
GOWANDA, NEW YORK 14070
Phone 716-532-2201
Fax 716-532-5518

PALMER ST. LANDFILL:

APRIL 2015

GROUNDWATER QUALITY MONITORING REPORT.

APRIL 1ST, MONITORING EVENT.

FIRST OF TWO SAMPLINGS FOR 2015

RECEIVED

APR 30 2015

NYS DEC
REGION 9

Jeffrey Smith
Site Manager



PALMER STREET LANDFILL - MOENCH COMPANY.

GROUNDWATER MONITORING REPORT FOR APRIL 2015, SAMPLING EVENT.

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MONITORING EVENT. (ISLECHEM, LLC)

1.0 INTRODUCTION

1.1 BACKGROUND-LANDFILL.

THE MOENCH COMPANY, A DIVISION OF BROWN SHOE CO., AND IS LOCATED NEAR THE SOUTHEAST CORNER OF THE VILLAGE OF GOWANDA, CATTARAUGUS COUNTY, NEW YORK. (FIGURE 1). THE PALMER STREET LANDFILL, WHICH WAS OPERATED BY MOENCH TANNING FROM 1900 (APPROX), THROUGH JULY 1983, LIES IMMEDIATELY SOUTHWEST OF THE (FORMER) TANNERY COMPLEX ON AN APPROXIMATELY 25-ACRE, PARCEL OF LAND. A VARIETY OF WASTE GENERATED BY MOENCH TANNING WERE DISPOSED OF AT THE PALMER STREET LANDFILL SITE. THESE WASTES INCLUDED SOLE LEATHER EXTRACT, RENDERING WASTE, SPRAY BOOTH CLEAN UP WASTE, WASTE FINISH, WASTE HAIR/LEATHER SCRAPS, WASTEWATER TREATMENT PLANT SLUDGE, AND OCCASIONAL CONSTRUCTION DEBRIS.

MOENCH TANNING HAS CLOSED THE PALMER STREET LANDFILL. ACCORDINGLY, THE CLOSURE/POST CLOSURE PLAN (REFERENCE 1), IS BEING PERFORMED. THE LONG-TERM POST CLOSURE MONITORING PROGRAM HAS BEEN APPROVED & IMPLEMENTED. (JULY 1993, REVISED MARCH 1994, MARCH 2001 & DECEMBER 2006).

IN JULY OF 2006, A PROPOSAL WAS MADE TO THE NEW YORK STATE DEPT. OF ENVIRONMENT CONSERV. (NYSDEC), TO RECONFIGURE THE GROUNDWATER MONITORING SYSTEM (REF#7).

THIS WAS AGREED UPON IN EXCHANGE FOR THE ELIMINATION OF THE FIVE YEAR "COVER SYSTEM EVALUATION". THE NEW MONITORING SYSTEM IS DESCRIBED IN SECTION 2.0

1.2 PURPOSE AND SCOPE

SAMPLES ASSOCIATED WITH THE FIRST EVENT OF TWO, WATER QUALITY MONITORS, FOR 2015 YEAR, WERE COLLECTED ON APRIL 1ST, 2015.

SAMPLES WERE OBTAINED ONLY BANK SEEP #3, OF THE THREE BANK SEEPS. NO SEEPS EXISTED AT BS-1 & BS-2.

SITES MW-5 & MW-3 WERE DRY, OR OF MINIMAL VOLUME, AND NO SAMPLE OBTAINED.

2.0 MONITORING SYSTEM(RECONFIGURED 7/06)

THE RECONFIGURED GROUNDWATER MONITORING SYSTEM FOR THE PALMER STREET LANDFILL(FIG. 2), CONTAINS NINE(9) MONITORING WELLS AND THREE(3) BANK SEEPS. A REVISED POST CLOSURE PLAN, DESCRIBING THE DETAILS, WAS SUBMITTED TO THE NYSDEC 9, IN JANUARY 2007.

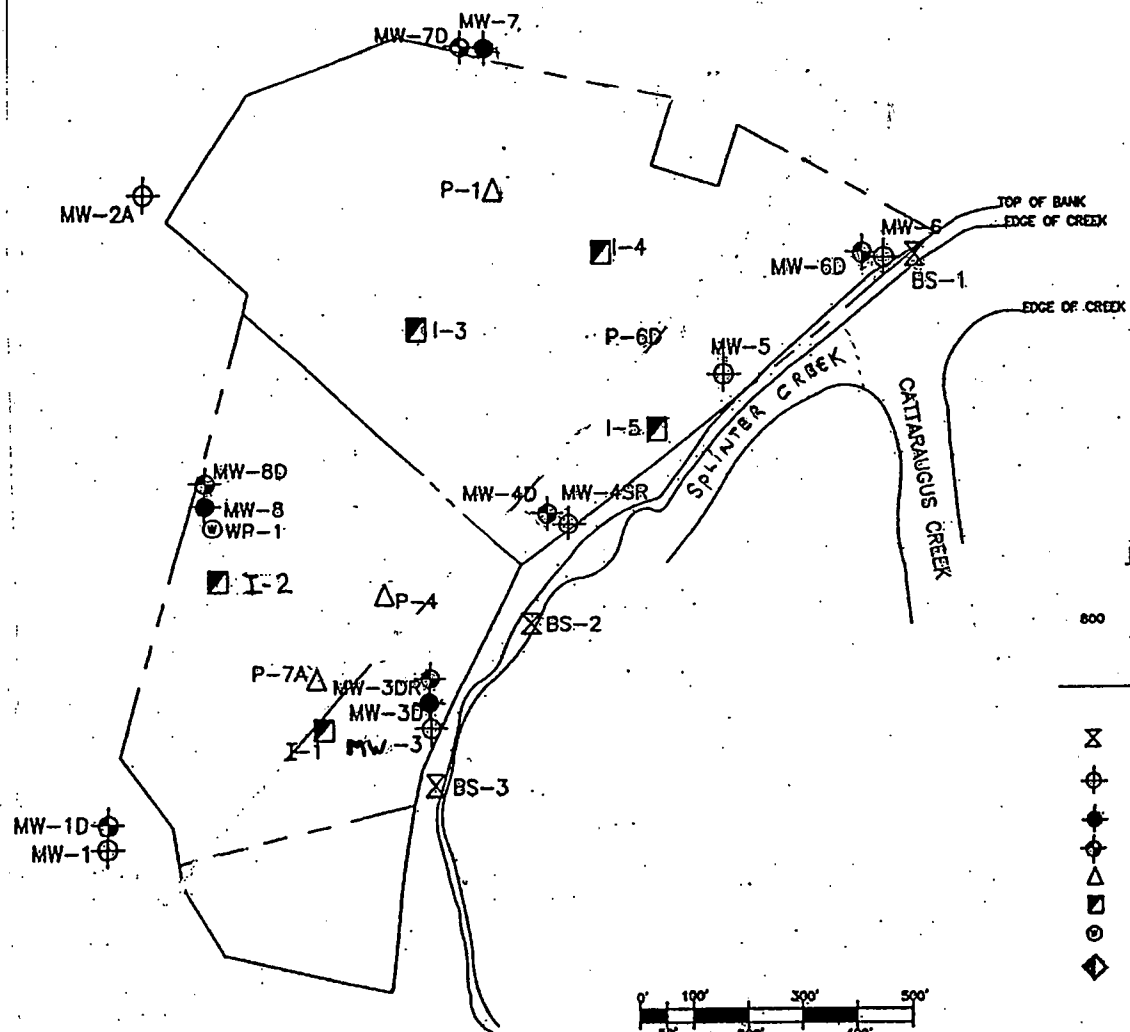
<u>UPGRADIANT WELLS</u>	<u>OVERBURDEN/WASTE WELLS</u>	<u>BEDROCK WELLS</u>
	MW-3	MW-3D
MW-7D	MW-4SR	MW-4D
MW-8D	MW-5	MW-6D
	MW-6	

IN ADDITION TO THE WELLS, NYSDEC ALSO REQUIRES THE MONITORING OF THREE (3) BANK SEEPS DESIGNATED AS BS-1, BS-2 AND BS-3, RESPECTIVELY. THE ABILITY TO OBTAIN SAMPLES FROM THESE BANKSEEPS IS SPORADIC DUE TO VARYING WEATHER/MOISTURE CONDITIONS. A BANK SEEP SAMPLE WAS OBTAINED ONLY FROM BS-3. THERE WERE NO CREEK SAMPLES TAKEN IN PLACE.

MW-8D IS DOWNGRAIENT FROM GERNATT'S GRAVEL WASHING OPERATION, SETTLING PONDS.

TO AID IN THE EVALUATION OF COVER PERFORMACE, WATER LEVELS FROM FIVE (5) INFILTRMETERS ARE ALSO MONITORED. LOCATIONS OF MONITORING POINTS ARE SHOWN ON FIGURE 2. THE RESULTS CONTINUE TO INDICATE THAT THE COVER SYSTEM IS PERFORMING AS PLANNED. THESE SHOWED MINIMAL INFILTRATION FOR THIS SAMPLING EVENT; TABLE #4.

THE VILLAGE IS ONCE AGAIN USING ITS' DEEP WELLS FOR A WATER SOURCE, DUE TO FLOODING AND SILTATION OF ITS' RESERVIOR. THIS WILL EFFECT WATER LEVELS IN THE DEEP MW-1D, SUCH THAT THE HYDRO-GEO FLOW IN THAT AREA HAS REVERSED, AWAY FROM THE CREEK.



LAT. 42° 27' 0"
Long. 78° 55' 30"

LEGEND

- 800 ISOPOTENTIAL, DOTTED WHERE INFERRED
- GROUNDWATER FLOW DIRECTION
- LANDFILL BOUNDARY AND AREA BOUNDARY DIVIDER
- BANK SEEP
- UPPER OVERBURDEN MONITORING WELL
- LOWER OVERBURDEN MONITORING WELL
- BEDROCK MONITORING WELL
- PIEZOMETER
- INFILTRATOR
- WELL POINT
- LYSIMETER

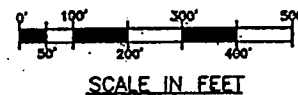


Fig. #2

Apr. 15 SAMPLE EVENT:



GEI Associates, Inc.
Williamsville, NY

PALMER STREET LANDFILL

SITE PLAN

DATE DEC 11	PROJ. NO. 8104
FILE NO. N/A	DWG. NO. FIGURE 1.2

3.0 MONITORING METHODS:

3.1 GROUNDWATER MONITORING -LANDFILL

SAMPLES COLLECTED DURING THE APRIL 2015, MONITORING EVENT PERIOD, WERE COLLECTED BY MOENCH COMPANY PERSONNEL, AND ANALYZED BY ISLECHEM LLC, GRAND ISLAND, NEW YORK. THE ANALYSIS IS PERFORMED IN ACCORDANCE WITH THE SAMPLING PLAN/QUALITY ASSURANCE PLAN FOR THE PALMER STREET LANDFILL (REFERENCE 3). LABORATORY ANALYSIS WERE PERFORMED IN ACCORDANCE WITH THE USEPA 200.7 FOR METALS & VOC 8260. THE MONITORING PARAMETERS ARE LISTED IN TABLE 1. SAMPLES WERE NOT AVAILABLE FROM TWO WELLS AND TWO BANK SEEPS, IDENTIFIED IN SECTION 2.0.

PRIOR TO SAMPLING, STATIC WATER LEVEL ELEVATIONS WERE MEASURED IN THE MONITORING WELLS AND THE WELLS WERE PURGED (SEE TABLE 2. GROUNDWATER ELEVATIONS WERE ALSO MEASURED IN THE PIEZOMETERS, INFILTRMETERS, AND WELLS ON-SITE.

FIELD SAMPLES WERE COLLECTED AND MEASURED FOR THE FIELD PARAMETERS IDENTIFIED IN TABLE 1. THE FIELD MEASUREMENTS ARE SUMMARIZED IN TABLE #3.....

3.2 INFILTRMETER MONITORING

FIVE INFILTRMETERS HAVE BEEN INSTALLED BENEATH THE LANDFILL CAP TO AID IN THE ASSESSMENT OF PERFORMANCE OF THE CAP. DURING EACH SAMPLING EVENT, WATER LEVELS IN THE INFILTRMETER ARE MEASURED AND THE AMOUNT OF WATER INFILTRATING CALCULATED.

NOTE: IT IS BELIEVED THAT INFILTRMETER #1, IS OFTEN FLOODED DUE TO NEIGHBORING SPRINGS AND GRAVEL SETTLING PONDS. THIS CREATES A HIGH WATER TABLE, IN THE SOUTH END OF AREA #2.

A SCHEMATIC SHOWING THE DESIGN AND DIMENSIONS OF THE INFILTRMETERS IS PRESENTED IN APPENDIX "B".

TABLE 1

MOENCH TANNING COMPANY
PALMER STREET LANDFILL

MONITORING PARAMETERS *Twice/year

Soluble Arsenic⁽¹⁾
Soluble Chromium⁽¹⁾
Soluble Lead⁽¹⁾

Volatile Organics⁽²⁾⁽³⁾

pH⁽⁴⁾
Specific Conductance⁽⁴⁾
Turbidity⁽⁴⁾ - VISUAL
Groundwater Elevation⁽⁴⁾
Temperature⁽⁴⁾
Odor⁽⁴⁾
Sample Appearance⁽⁴⁾

Notes:

1. All samples collected for analysis of soluble metals are pressure-filtered in the field immediately upon sample collection.
2. The list of VOC analytes are those compounds included in SW-846, Method 8260.
3. Analysis for VOCs are not performed on pore water samples during performance monitoring events.
4. Field parameters (i.e., pH, specific conductance, temperature and turbidity) are measured in the field by sampling personnel. Laboratory analysis of these parameters will not be required.

MOENCH COMPANY
465 PALMER ST.
GOWANDA, NY 14070

SAMPLERS

M. BEST

PALMER STREET LANDFILL :

DATE

3-30-15

GROUNDWATER ELEVATIONS: (TABLE #2)

WP - WHALE PUMP - DEGRATED

WELL #	ELEVATION TOP OF PVC(FT)	TOTAL DEPTH FROM TOP OF PVC(FT)	WATER DEPTH(FT) FROM TOP OF PVC	WATER(FT) ELEVATION
MW-1	826.05 ASL	31.90 (8-12)	4.10	821.95
MW-1D	827.82	188.20 "	69.45	758.37
MW-2A	810.62	16.15 "	2.75	807.87
MW-3	810.81	17.10 "	15.70	795.11
MW-3D	810.73	67.70 "	19.90	790.83
MW-3DR	810.47	102.30 "	22.10	788.37
MW-4 SR	806.75 WP	24.92 "	12.00	794.75
MW-4D	805.93	74.94 "	14.30	791.63
MW-5	805.35	18.15 "	18.15	787.20
MW-6	800.48 WP	18.78 "	14.80	785.68
MW-6D	800.63	37.03 "	17.70	782.93
MW-7	800.50	30.60 (8-12)	6.85	793.65
MW-7D	800.39	41.90 "	5.65	794.74
MW-8	821.82	15.96 "	15.96	805.86
MW-8D	821.89 WP	127.70	40.10	781.79

INFILTROMETERS:

#1	9.00	4.55	—
#2	8.80	7.25	—
#3	9.00	6.80	—
#4	8.92	6.20	—
#5	9.00	7.00	—

Palmer st. Landfill

(TABLE #2) continued

3/29/15
smpl date

GROUNDWATER ELEVATIONS:

WELL #	ELEVATION TOP OF PVC(FT)	TOTAL DEPTH FROM TOP OF PVC(FT)	WATER DEPTH(FT) FROM TOP OF PVC	WATER (FT) ELEVATION
P-1	811.85 ASL	18.30 (8/12)	16.30	795.55
P-4	813.54 "	19.70 "	14.75	798.79
P-6D	810.30 "	61.25 "	19.10	791.20
P-7A	816.92 "	23.90 "	19.40	797.52
WP-1	822.16 "	11.71 by W 8	8.45	813.71

NOTE:

Aug 26/12 ALL WELLS "DEVELOPED"

REV'd 9/12

Rev'd 7/12

4.0 GROUNDWATER QUALITY MONITORING RESULTS:

4.1 EVALUATION OF GROUNDWATER ELEVATION DATA:

GROUNDWATER ELEVATION MEASUREMENTS WERE TAKEN AT EACH OF THE ACCESSIBLE ON-SITE MONITORING WELLS, PIEZOMETERS, AND WELL POINTS, DURING THE APRIL 2015, MONITORING EVENT. THE DATA ARE SUMMARIZED IN TABLE 2/3.

PLOTS OF THE GROUNDWATER ELEVATIONS MEASURED IN THE MONITORING WELLS WITH RESPECT TO TIME ARE PRESENTED IN FIGURE 3, 4, AND 5, FOR THE SHALLOW OVERBURDEN, DEEP OVERBURDEN AND BEDROCK WELLS, ON THE LANDFILL, RESPECTIVELY. AS SHOWN IN FIGURES 3 AND 4, OVERBURDEN GROUNDWATER ELEVATIONS WERE GENERALLY CONSISTENT, THROUGHOUT THE MONITORING PERIOD. WATER LEVELS HAVE STABILIZED, AFTER THREE YEARS OF INCREASES. ('92-'94). THIS OCCURRED DUE TO CESSATION OF VILLAGE AND TANNERY PUMPING OF THE DEEP AQUIFERS. SOME SLIGHT SEASONAL FLUCTUATION DOES OCCUR. IN AUGUST, 2009, A DRAMATIC FLOOD OCCURRED IN THE GOWANDA AREA, THAT DISABLED THE VILLAGE RESERVIOR FOR AN EXTENDED TIME. VILLAGE IS AGAIN USING ITS' DEEP WELL FOR WATER.

4.2. THE GROUNDWATER AND SURFACE WATER QUALITY RESULTS FOR THE APRIL 2015, MONITORING EVENTS, AT THE PALMER STREET LANDFILL, ARE PRESENTED IN TABLES #3 THROUGH #5.

"GA" STANDARDS & GUIDANCE VALUES ARE ALSO PRESENTED.

BOTH THE SOIL AND WASTE AT THE PALMER STREET LANDFILL CONTAIN METALS-OF-INTEREST AS A COMPONENT OF THE SOIL OR WASTE PARTICLES (REFERENCE 5). THEREFORE, THE SEDIMENT (OR TURBIDITY) CONTENT OF ANY GROUNDWATER OR SURFACE WATER QUALITY SAMPLES WILL DIRECTLY IMPACT THE TOTAL METAL CONCENTRATION OF THE SAMPLES. THE TURBIDITY CONTENT OF THE GROUNDWATER SAMPLES COLLECTED AT THE SITE IS EXTREMELY VARIABLE AND RELATIVELY HIGH BECAUSE THE SOIL AND WASTE FILL BOTH CONTAIN HIGH PERCENTAGES OF FINE-GRAINED PARTICLES. AS NYSDEC HAS PREVIOUSLY AGREED, IN ORDER TO AVOID MIS-INTERPRETATION OF WATER QUALITY DATA, TOTAL METALS WILL NO LONGER SAMPLED FOR GROUNDWATER QUALITY STANDARDS OR EVALUATIONS, OF GROUNDWATER QUALITY IMPACTS WILL BE BASED ON SOLUBLE METAL CONCENTRATIONS.

ALSO, BARIUM IS NO LONGER ANALYZED FOR DUE TO ITS' NATURAL PRESENCES IN THE NATIVE SOIL, AT HIGH CONCENTRATIONS.

I SHOULD BE NOTED THAT SEVERAL ON THE "ADDED" MONITORING WELL, ARE SCREENED IN THE WASTE. SUMMARY OF THE SAMPLING RESULTS IS AS FOLLOWS:

- THERE WAS NO DETECTION OF ANY METALS ABOVE THE CLASS "GA" STANDARDS.
- THERE WERE NO DETECTIONS OF ANY VOCs, AT ANY SAMPLE LOCATION, EXCEPT A SLIGHT ACETONE DETECTION AT MW4SR & MW-3D.
- Ph CONTINUES TO BE BELOW "NEUTRAL" AT MW-4S AND MW-6.

TABLE 3

MOENCH COMPANY
PALMER STREET LANDFILL

4-1-15 MONITORING EVENT

SUMMARY OF FIELD MEASUREMENTS

INITIAL

Location	Sampling Date	Sampling Time	Temp. (°C)	pH (units)	Conductance ⁽¹⁾ (umhos/cm)	Turbidity	Sample Appearance	Sample Odor
MW-3	4-1-15	1200	(NO SAMPLE)		- DRY	NA	—	—
*** MW-3D	"	1210	19.0	7.22	380	"	CLEAR	NO
* MW-4SR	"	1055	9.7	6.41	700	"	CLEAR	FINISH
*** MW-4D	"	1125	16.3	7.14	650	"	CLEAR	FINISH
* MW-5	"	—	(NO SAMPLE)		- DRY	"	—	—
* MW-6	"	1035	11.9	6.71	1400	"	BLK-TURB	NO
*** MW-6D	"	1007	13.8	7.61	1200	"	CLEAR	NO
*** MW-7D	"	1340	8.0	7.47	580	"	CLEAR	NO
*** MW-8D	"	1300	19.8	7.10	500	"	CLEAR	NO
BS-1	"	1050	(NO SAMPLE)		- NO SEEP	"	—	—
BS-2	"	1110	(NO SAMPLE)		- NA SEEP	"	—	—
BS-3	"	1240	9.0	7.01	800	"	RED-IRON	NO

NOTES:

6.5-8.5 (STD)

- (1) Conductivity readings corrected to 25°C.
- (2) Blind Duplicate MW-3D
- (3) MW-7D is apparent hydraulically upgradient bedrock well.

* Shallow Overburden Well
*** Bedrock Well

** Upgradient
BS Bank Seep

TABLE 4

MOENCH COMPANY
PALMER STREET LANDFILL
MONITORING EVENT

3-31-15 INFILTROMETER MEASUREMENTS

Infiltrometer	Static Water Level (ft) 3-30-15	Static Water Level (ft) 8-4-14	Δ Depth - gal (ft)	# Days Between Readings (#)	Infiltration Rate		Approx. Total Rainfall This Period (ft)	Infiltration (%)
					gal/day.ft ²	(cm/sec)		
I-1 (A)	4.55	4.63	.08	236	.0002	1.0×10^{-8}	2.52	.5 %
I-2	7.25	7.34	.09	"	.0002	1.0×10^{-8}	"	.5
I-3	6.80	6.45	-	"	-	-	"	-
I-4	6.20	6.38	.18	"	.0004	2.0×10^{-8}	"	1.0
I-5	7.00	7.13	.13	"	.0003	1.4×10^{-8}	"	.7

Note:

**

Negative ΔD precludes calculation of meaningful data.

(A) I-1 OFTEN FLOODED BY NATURAL SPRINGS
& WASH PONDS, UPGRADIENT.

TABLE 5

MOENCH COMPANY
PALMER STREET LANDFILL
4-1-15 MONITORING EVENT⁽¹⁾

SUMMARY OF ANALYTICAL RESULTS

	Quantitation Limit	** MW-3	MW-3D	** MW-4SR	MW4D	** MW-5	** MW-6	MW-6D	Glass "GA" Std.
Metals (mg/l):									
Arsenic - Soluble	0.005	DRY	.005	ND	ND	DRY	ND	ND	.025mg/l
Chromium - Soluble	0.005	ND	ND	.01	ND	ND	ND	ND	.05
Lead - Soluble	0.005	SPL	ND	ND	ND	SPL	ND	ND	.025

Volatiles mg/L		-	-	-	ND	L	ND	ND	
ACETONE		-	.016	.154	"	"	"	"	Guid. VALUE = .05mg/L
		-	-	-	"	"	"	"	
		-	-	-	"	"	"	"	
		-	-	-	"	"	"	"	
		-	-	-	"	"	"	"	
		-	-	-	"	"	"	"	

** Screened in Waste/Overburden.

Blind Duplicate _____

TABLE 5

MOENCH COMPANY
PALMER STREET LANDFILL

4-1-15

MONITORING EVENT⁽¹⁾

SUMMARY OF ANALYTICAL RESULTS

MW-3D

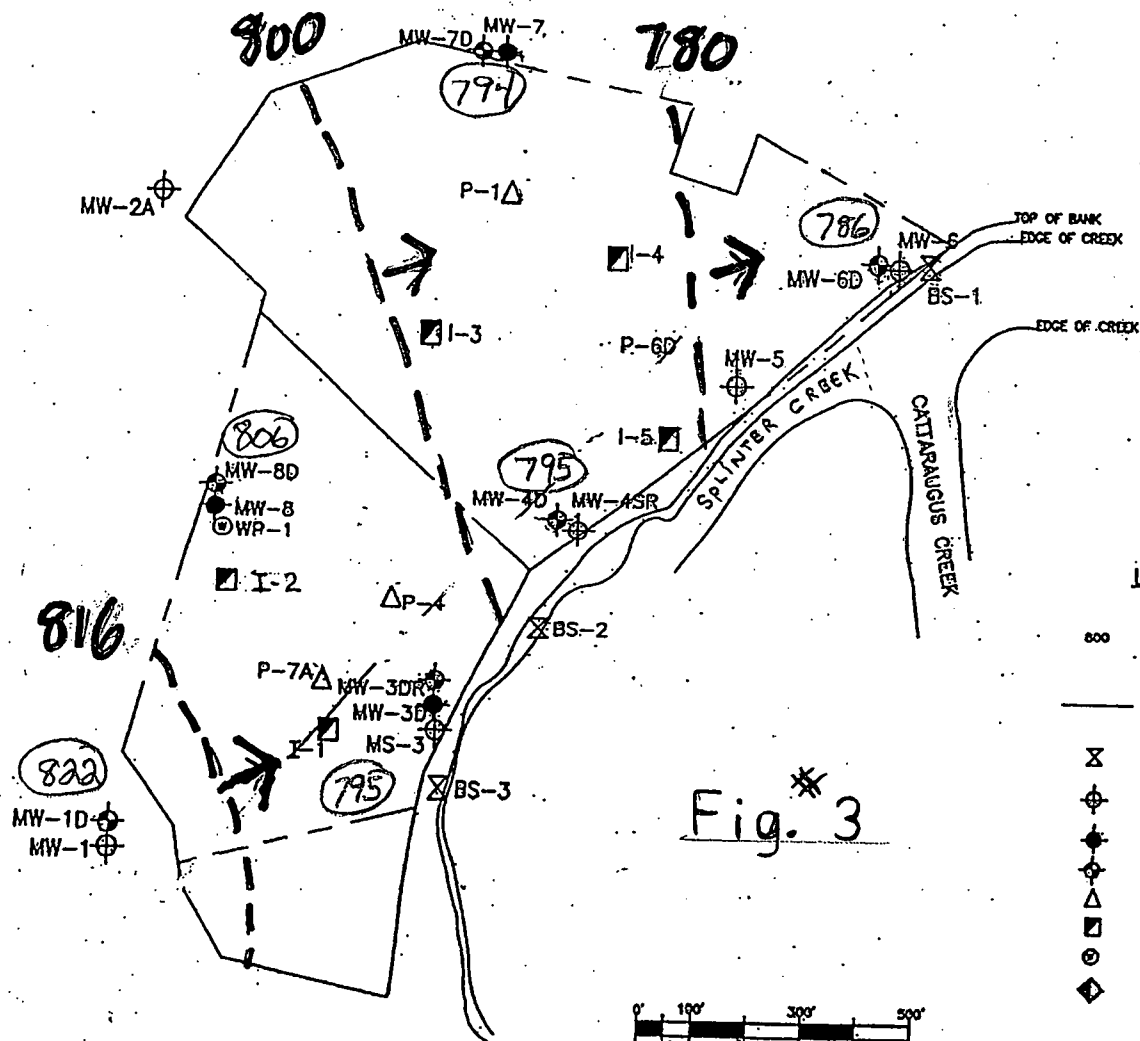
	Quantitation Limit	MW-7D	MW-8D	BS-1	BS-2	BS-3	Blind Duplication	Class "GA" Std.
Metals (mg/l):								
Arsenic - Soluble	0.005	ND	ND	ND	ND	ND	.006	.025mg/l
Chromium - Soluble	0.005	ND	ND	BA N	BA N	ND	ND	.05
Lead - Soluble	0.005	ND	ND	See p	See p	ND	ND	.025

Volatiles mg/L	ND	ND	-	-	ND	ND		
ACETONE	-	-	-	-	-	-		GUID. VALUE .05 mg/L
	-	-	-	-	-	-		

5.0 GROUNDWATER FLOW

A WATER TABLE ISOPOTENTIAL MAP, BEDROCK ISOPOTENTIAL MAP AND A BEDROCK WATER LEVEL HYDROGRAPH HAVE BEEN PREPARED FOR THE PALMER STREET LANDFILL AND ARE PRESENTED IN FIGURES 3,4 AND 5, RESPECTIVELY. GROUNDWATER ELEVATIONS MEASURED ON MARCH 30TH, 2015. WERE USED IN PREPARING THE WATER TABLE AND BEDROCK ISO-POTENTIAL MAP. THEY INDICATE THAT THE SHALLOW GROUNDWATER FLOW IS PRIMARILY TO THE EAST, TOWARD CATTARAUGUS CREEK. THE BEDROCK ISOPOTENTIAL MAP AND THE BEDROCK WATER LEVEL HYDROGRAPH ILLUSTRATE A "LEVELING OFF" AFTER 3 YEARS('92-94) OF RISING GROUNDWATER LEVELS AT WELLS MW-1D, MW-3DR AND MW-8D. MW-1D AND MW-8D, WHICH WERE FORMERLY(BEFORE '92) DOWNGRADIENT WELLS; ARE NOW UPGRADIENT OF THE LAND-FILL.

AS MENTIONED PRIOR, THE VILLAGE HAS HAD TO USE THE DEEP AQUIFER, FOR A WATER SUPPLY SOURCE 2009-2012. THIS HAS HAD AN EFFECT ON THE WATER LEVELS IN THE BEDROCK WELLS, AND SOME EFFECT ON THE GROUNDWATER FLOW. THE VILLAGE IS AGAIN USING THE DEEP WELL FOR A WATER SOURCE, SUCH THAT THE HYDRO-GEO FLOW, AT MW-1D, HAS REVERSED, AND IS NOW AWAY FROM CATTARAUGUS CREEK.



LAT. 42° 27' 0"
Long. 78° 55' 30"

LEGEND

- 800 ISOPOTENTIAL, DOTTED WHERE INFERRED
- GROUNDWATER FLOW DIRECTION
- LANDFILL BOUNDARY AND AREA BOUNDARY DIVIDER
- BANK SEEP
- UPPER OVERBURDEN MONITORING WELL
- LOWER OVERBURDEN MONITORING WELL
- BEDROCK MONITORING WELL
- PIEZOMETER
- INFILTRATOR
- WELL POINT
- LYSIMETER

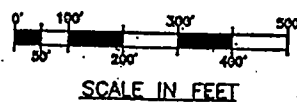
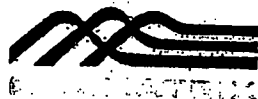


Fig. 3

4/2/15 SAMPLE EVENT:

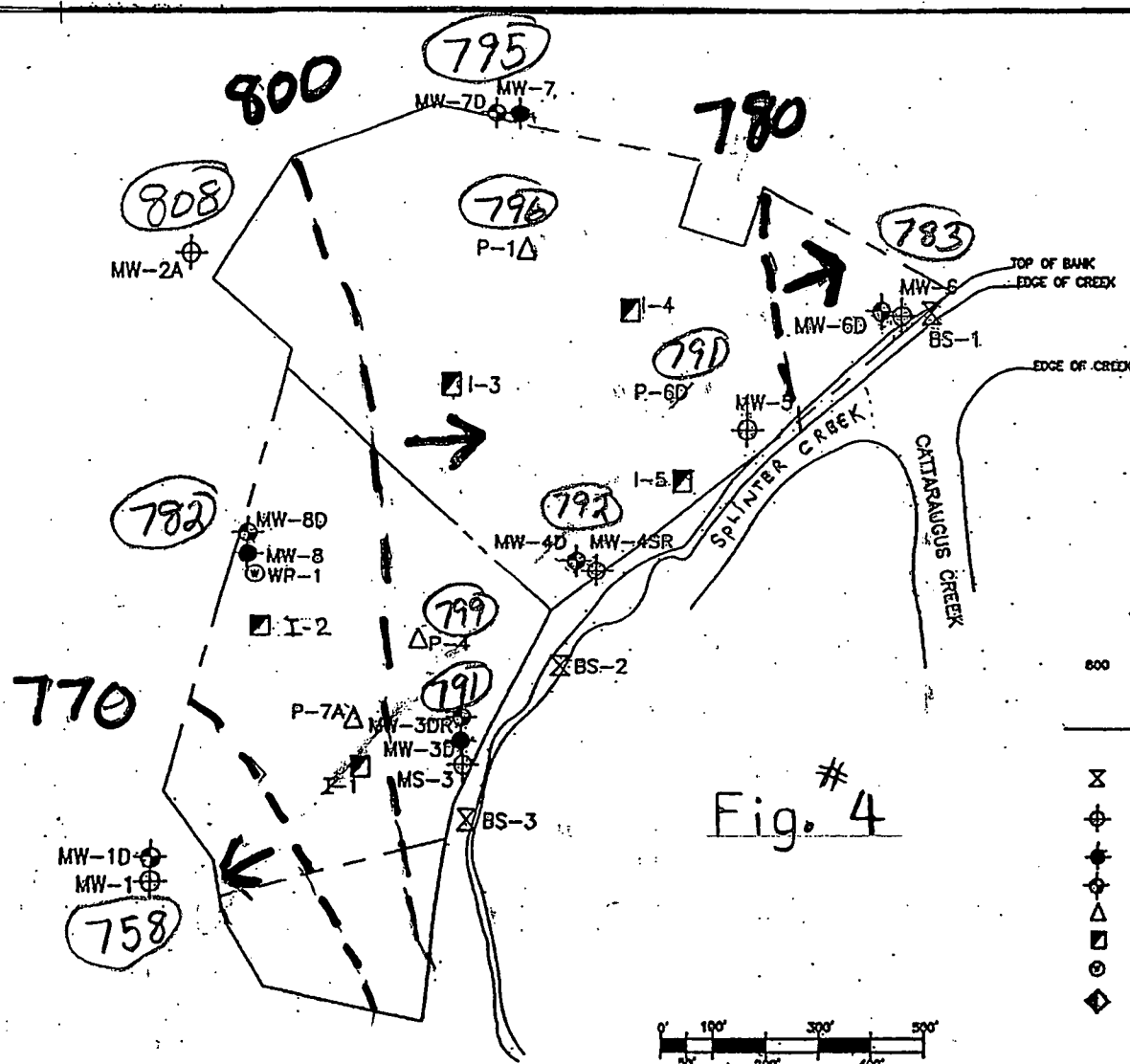


AMEX
Geomatrix Consultants, Inc.
Williamsville, NY

PALMER STREET LANDFILL

SITE PLAN

WATERTABLE
ISOPOTENTIAL
MAP.

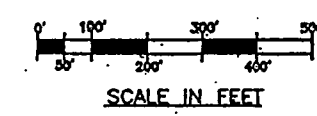


LAT. 42° 27' 0"
 Long. 78° 55' 30"

LEGEND

- 800 ISOPOTENTIAL, DOTTED WHERE REFERRED
- GROUNDWATER FLOW DIRECTION
- LANDFILL BOUNDARY AND AREA BOUNDARY DIVIDER
- ⊗ BANK SEEP
- ⊕ UPPER OVERBURDEN MONITORING WELL
- ⊙ LOWER OVERBURDEN MONITORING WELL
- ⊕ BEDROCK MONITORING WELL
- △ PIEZOMETER
- INFILTROMETER
- ⊙ WELL POINT
- ◇ LYSIMETER

Fig. # 4



4/2/15 SAMPLE EVENT:



AMEX
 Consultants, Inc.
 Williamsville, NY

PALMER STREET LANDFILL

SITE PLAN

BEDROCK ISOPOTENTIAL MAP.

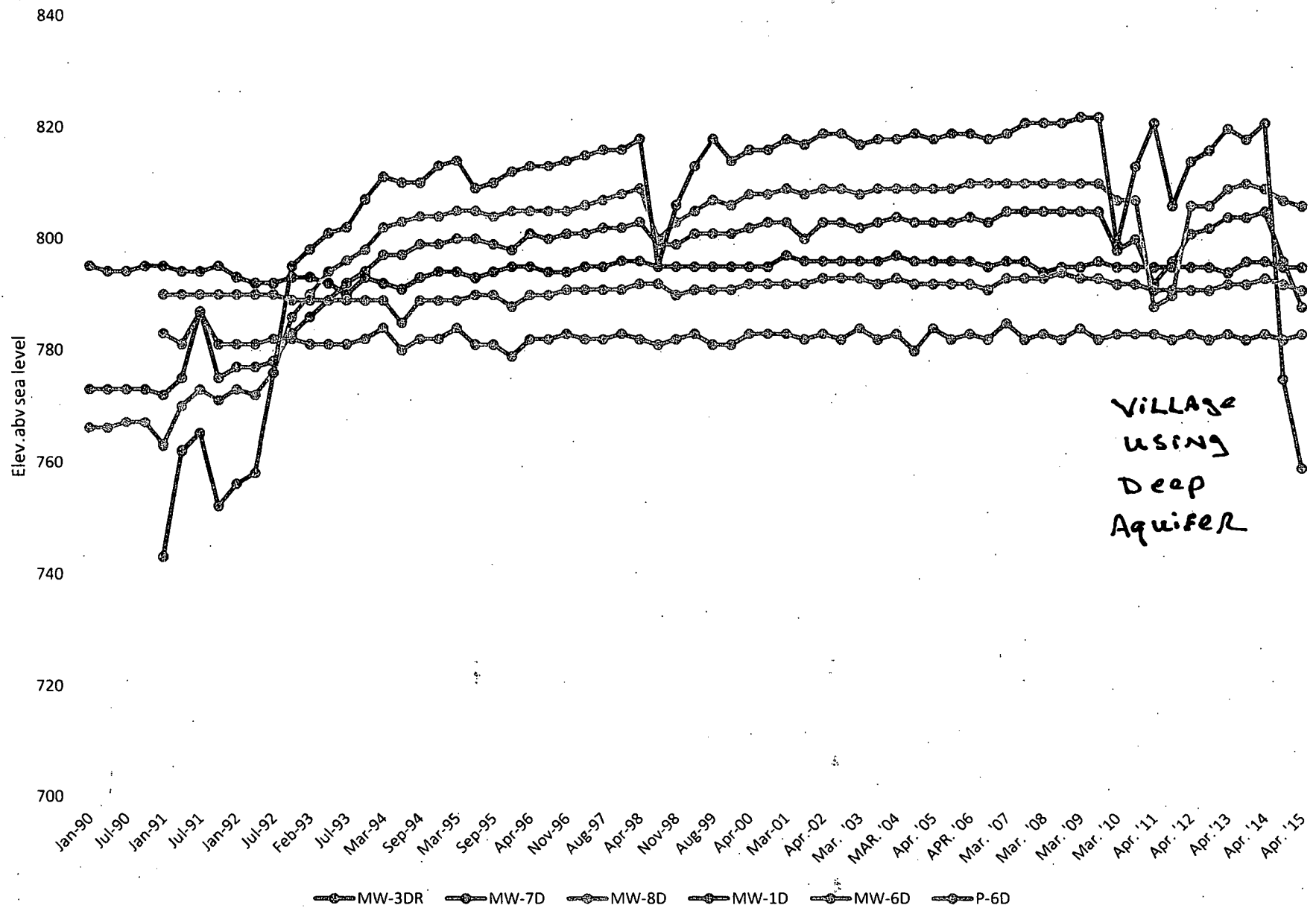
PALMER STREET LANDFILL MOENCH COMPANY GROUNDWATER ELEVATION vs TIME BEDROCK MONITOR WELLS & PIEZOMETERS																							
(FIG.#5)												Apr. '15											
												FIG. #5											
	Jan-90	Apr-90	Jul-90	Oct-90	Jan-91	May-91	Jul-91	Oct-91	Jan-92	May-92	Jul-92	Oct-92	Feb-93	May-93	Jul-93	Oct-93	Mar-94	Jun-94	Sep-94	Dec-94	Mar-95	Jun-95	Sep-95
MW-3DR	773	773	773	773	772	775	787	775	777	777	778	783	786	789	792	794	797	797	799	799	800	800	799
MW-7D	795	794	794	795	795	794	794	795	793	792	792	793	793	792	790	793	792	791	793	794	794	793	794
MW-8D	768	768	767	767	763	770	773	771	773	772	776	788	790	794	798	798	802	803	804	804	805	805	804
MW-1D					743	762	785	752	756	758	776	795	798	801	802	807	811	810	810	813	814	809	810
MW-8D					783	781	787	781	781	781	782	782	781	781	781	782	784	780	782	782	784	781	781
P-6D					790	790	790	790	790	790	790	789	789	789	789	789	789	785	789	789	789	790	790

Apr. 15																							
												Fig. #5											
												(FIG #5)											
	Dec-95	Apr-96	Aug-96	Nov-96	Apr-97	Aug-97	Nov-97	Apr-98	Aug-98	Nov-98	Apr-99	Aug-99	Nov-99	Apr-00	Sep-00	Mar-01	Aug-01	Apr-02	Aug-02	Mar-03	Aug-03	MAR-04	AUG-04
MW-3DR	798	801	800	801	801	802	802	803	799	799	801	801	801	802	803	803	800	803	803	802	803	804	803
MW-7D	795	795	794	794	795	795	796	796	795	795	795	795	795	795	795	797	796	796	796	796	796	797	796
MW-8D	805	805	805	805	806	807	808	809	800	803	805	807	806	808	808	809	809	809	809	808	809	809	809
MW-1D	812	813	813	814	815	816	816	818	795	806	813	818	814	816	816	818	817	819	819	817	818	818	819
MW-6D	779	782	782	783	782	782	783	782	781	782	783	781	781	783	783	783	782	783	782	784	782	783	780
P-6D	788	790	790	791	791	791	791	792	792	790	791	791	791	792	792	792	792	793	793	793	792	793	792

Apr. 15																							
												FIG. #5											
	Apr. '05	Aug. '05	APR. '06	Aug. '06	Mar. '07	Aug. '07	Mar. '08	Aug. '08	Mar. '09	Aug. '09	Mar. '10	Aug. '10	Apr. '11	Aug. '11	Apr. '12	Aug. '12	Apr. '13	July '13	Apr. '14	Aug. '14	Apr. '15		
MW-3DR	803	803	804	803	805	805	805	805	805	805	798	800	792	798	801	802	804	804	805	796	788		
MW-7D	796	796	796	795	796	796	794	795	795	796	795	795	795	795	795	795	794	798	796	795	795		
MW-8D	809	809	810	810	810	810	810	810	810	810	807	788	790	806	806	806	809	810	809	807	806		
MW-1D	818	819	819	818	819	821	821	822	822	799	813	821	806	814	816	820	818	821	775	759			
MW-6D	784	782	783	782	785	782	783	782	784	782	783	783	782	783	782	783	782	783	782	782	783		
P-6D	792	792	792	791	793	793	793	794	793	793	792	792	791	791	791	791	792	792	793	792	791		

**MW-8D depth measured at MW8, after April 2011

Palmer L/fill; bedrock elevation



**FAX 716-532-5518**PALMER STREET LANDFILL
GROUNDWATER MONITORING

calibrated by: MB

Instrument:

date reading b74 - after.

Test

Slope-Water Level Indicator

Probe response to
water.

Grace-Conductivity meter

3/31	1900

Read standardize
liquid & calibrate.
zero calibrate.

Cole-Parmer(multi meter)

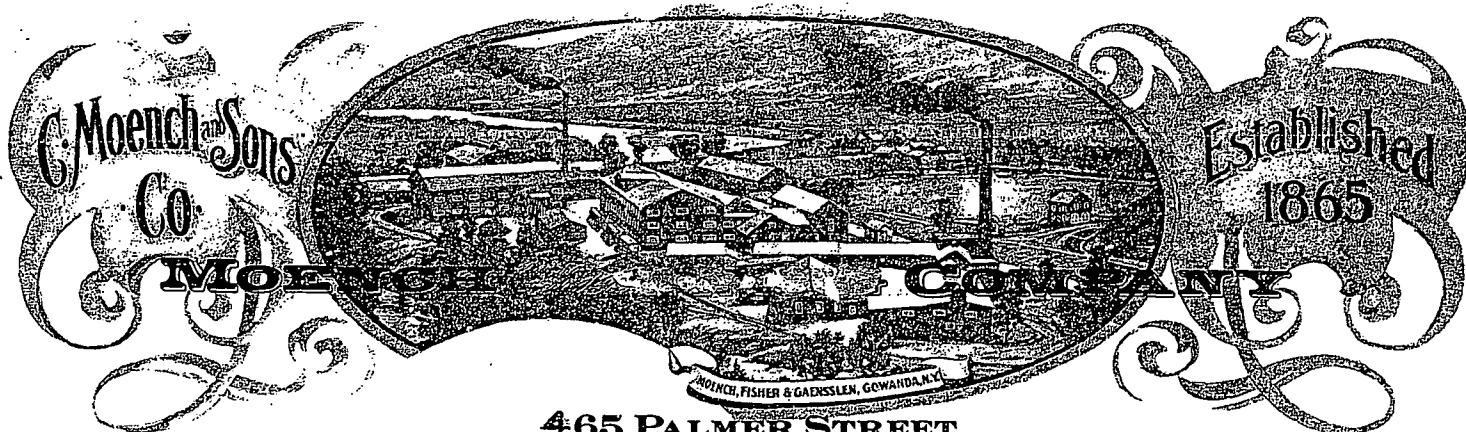
Ph---

[illegible]

Calibrate to buffer(s)
solutions. ~~7~~ph- ~~10~~ph-

Temperature

Calibrate to standard thermometer.



465 PALMER STREET
GOWANDA, NEW YORK 14070

TEL. 716-532-2201

FAX 716-532-5518
revised 8/06

PALMER STREET LANDFILL
GROUNDWATER MONITORING

TABLE #7

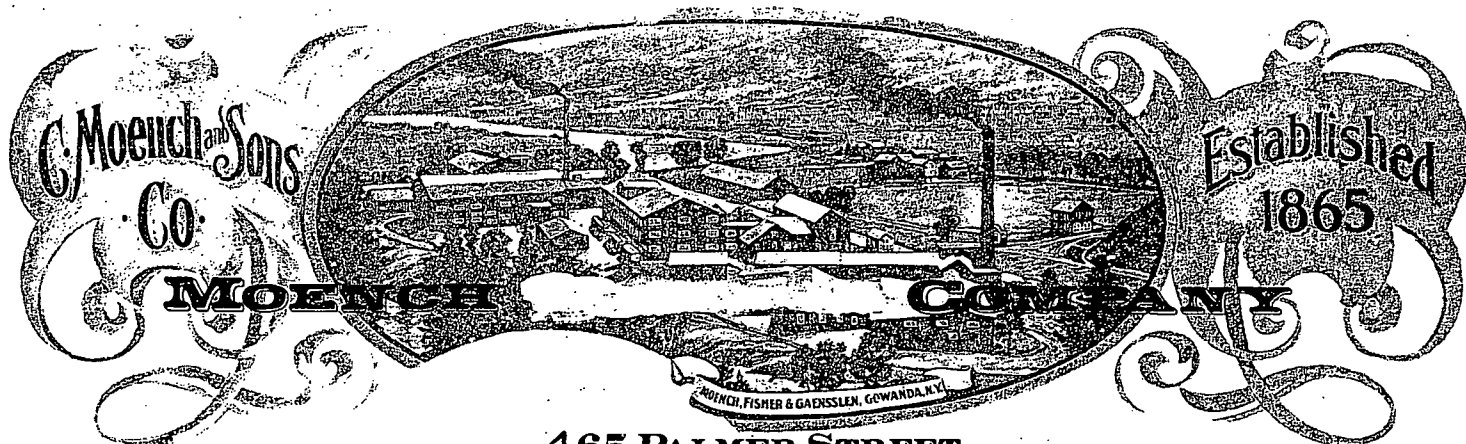
Apr. 2015

EQUIPMENT INVENTORY:

- ✓ (A) Slope Indicator Co. - Model 51453, water level indicator
- ✓ (B) W.R. Grace (Dearborn) - Model EP-10, Micromhos meter
(conductivity)
- ✓ (C) Cole-Parmer Instrumentation Co. - Model 5985-80, Ph, temperature °C, with probes.
- ~~✓ (D) Grundfos Purging System.~~
~~-Hose, VFD, Generator.~~
- ✓ (E) Norton Company - Part #865-3170, Posi-Filter for filtering dissolved metals with filters. And vacuum pump/flask.
- ✓ (F) Wash bucket (5 gallon) with Alconox soap.
- ✓ (G) Rinse bucket with D.I. water. -buy 10 gal. distilled at store.
-get 2 gal. lab certified, eqpt. blank.
- ✓ (H) Rinse bottle with 10% Nitric Acid and water.
- ✓ (I) five gallon bucket to measure volume purged.
- ✓ (J) Latex gloves
- (K) Required bottles and coolers and ice.
- (L) Required field data forms.
- (M) Cell Phone
- (N) Watch
- ~~(O) Head Radio~~
- ✓ (P) Board to hold Meters & equipment
- ~~(Q) Liquid soap/water spray bees.~~
- ~~(R) Benedryl bee sting.~~

6.0. REFERENCES

1. PALMER STREET LANDFILL CLOSURE/POST CLOSURE PLAN (EPA ID. NYDOO2126910), PREPARED BY MALCOLM PIRNIE, INC. REVISED FEBRUARY 1989. REVISED DECEMBER 2006.
2. PALMER STREET LANDFILL, SUPPLEMENTAL HYDROGEOLOGIC INVESTIGATION, PREPARED BY MALCOLM PIRNIE, INC. JANUARY 1989.
3. SAMPLING PLAN/QUALITY ASSURANCE PLAN FOR GROUNDWATER MONITORING - PALMER STREET LANDFILL. PREPARED BY MALCOLM PIRNIE, INC., AUGUST 1989. REVISED 12/2006.
4. TEST METHODS FOR EVALUATING SOLID WASTE, PHYSICAL/CHEMICAL METHODS, THIRD EDITION, USEPA OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, NOVEMBER 1986.
5. PALMER STREET LANDFILL, EVALUATION OF ALTERNATIVE COVER SYSTEMS, PREPARED BY MALCOLM PIRNIE, INC., JANUARY 1989.
6. COVER SYSTEM PERFORMANCE EVALUATION, PALMER STREET LANDFILL; PREPARED BY MALCOLM PIRNIE, INC. OCTOBER 1995. Second "Evaluation"; 3/99. THIRD EVALUATION; 8/03. (LAST)
7. JULY 27TH, 2006 LETTER FROM GEOMATRIX TO STAN RADON (NYSDEC) DOCUMENTING A JULY 19TH MEETING IN WHICH REVISIONS TO THE GROUNDWATER MONITORING SYSTEM, WERE AGREED UPON.
8. SEPTEMBER 7, 2006 LETTER FROM STAN RADON (NYSDEC) TO JEFFREY SMITH (MOENCH) CONFIRMING AGREEMENT OF REVISED GROUNDWATER MONITORING SYSTEM, AND COVER SYSTEM EVALUATION ELIMINATION.



465 PALMER STREET
GOWANDA, NEW YORK 14070

TEL. 716-532-2201

FAX 716-532-5518

APPENDIX "A"

FIELD DATA SHEETS FOR:

April 1st, 2015

MONITORING EVENT:
PALMER STREET LANDFILL

WELL DEVELOPMENT/PURGING LOG

MOENCH COMPANY

PROJECT TITLE: PALMER ST. LANDFILL-GWM

PROJECT NO.: 1ST OF 2 ANNUAL EVENTS 2015

STAFF: JEFF Smith

DATE: 4/1/15, 1200

Dry

NO SMPL

WELL NO.: MW-3 {usually dry}

- | | | |
|---|---------------------------------------|--------------|
| 1 | TOTAL CASING AND SCREEN LENGTH (ft.) | <u>17.10</u> |
| 2 | CASING INTERNAL DIAMETER (in.) | <u>2"</u> |
| 3 | WATER LEVEL BELOW TOP OF CASING (ft.) | <u>17.10</u> |
| 4 | VOLUME OF WATER IN CASING (gal.) | |

WELL I.D.

VOL.
GAL./FT.

1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

$$V = 0.0408 (2^2 \times (17.10 - 3)) = \text{--- gal.}$$

PARAMETERS

ACCUMULATED VOLUME PURGED (GALLONS)

I
N.
T.

pH

APPEAR.

TURBIDITY

CONDUCTIVITY

Temp °C

COMMENTS:

Blind

WELL DEVELOPMENT/PURGING LOG

MOENCH CO.

BLIND Duplic

PROJECT TITLE: PALMER ST. LANDFILL - GWM

PROJECT NO.: 1ST OF 2 ANNUAL EVENTS. 2015

STAFF:

J. Smith / M. Best

DATE:

4/1/15, 1210

WELL NO.: MW-3D

WELL I.D.

VOL.
GAL./FT.

- 1 TOTAL CASING AND SCREEN LENGTH (ft.) 67.70
- 2 CASING INTERNAL DIAMETER (in.) 2"
- 3 WATER LEVEL BELOW TOP OF CASING (ft.) 19.90
- 4 VOLUME OF WATER IN CASING (gal.)

1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

$$V = 0.0408 \left(2^2 \times (1 - 3) \right) = 8.1 \text{ gal.}$$

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)									
	I N. T.	2nd								
pH	7.21	7.22								
TURBID APPEAR.	clear									
CONDUCTIVITY	380	380								
TEMP °C	18.0	19.0								

COMMENTS:

WATER SAMPLING FIELD DATA SHEET

PROJECT: PALMER ST. 4/FILL-GWM

TYPE OF SAMPLE: GROUNDWATER - GRAB

CLIENT: MOENCH CO.

LOCATION NO.: MW-3D

WELL NO.: 1ST OF 2 ANNUAL EVENTS

DATE SAMPLED: 2015

WELL DATA:

DATE: 4/1/15

TIME: 1210

Casing Diameter (inches): 2"

Casing Material: PVC

Screened Interval (ft BGS):

Screen Material: PVC

Static Water Level Below TOR (ft):

Bottom Depth (ft): 67.70

Elevation Top of Well Riser: 810.73

Datum Ground Surface:

PURGING DATA:

DATE: 4/1/15

TIME: Start: 1210 Finish: 1230

Method: SUPER NORA - Pump 12V.

Pumping Rate (gal/min): 0.5 gpm

Well Volumes Purged (V=PIR²H/231):

Was well purged dry? Yes X No

Standing Volume (gal): 8

Was well purged below sand pack? Yes X No

Volume Purged (gal): 17

Well I.D. (inches)	Volume (gal/ft)
<u>2</u>	<u>0.17</u>
4	0.66
6	1.50

Is purging equipment dedicated to sample location?

Yes No X

Field Personnel: J. Smith/M. BEST

SAMPLING DATA:

DATE: 4/1/15

TIME: Start: 1230 Finish: 1235

Method: TEFLON BAILER

Sampler: J. Smith/M. BEST

Present Water Level (ft):

Air Temperature (°F): 40

Depth of Sample (ft):

Weather Conditions: CLOUDY

Is sampling equipment dedicated to sample location?

Yes X No

PRESERVATION DATA:

DATE: 3/20/15 Islechem

TIME: Start: Finish:

Filtered: X Yes No

Cool to 4°C: X

Preservative: H₂SO₄ X HNO₃ NaOH HCl Other

PHYSICAL AND CHEMICAL DATA:

Appearance: Clear: X Turbid: Color:

Contains Sediment: Odor: NO Other:

Temperature (°C): pH: Specific Conductivity (µmhos/cm):

Turbidity (NTU): Other:

REMARKS: SAMPLE/FILTER EQUIPMENT: WASH'd w/ SOAP + WATER (3X).
RINSED IN DISTIL'd WATER. RINSE WITH 10% NITRIC
ACID WASH. FINAL RINSE w/ DISTIL'd WATER.

WELL DEVELOPMENT/PURGING LOG

MOENCH CO.

PROJECT TITLE: PALMER ST. LANDFILL - GWM

PROJECT NO.: 1ST OF 2 ANNUAL EVENTS. 2015

STAFF: J. Smith , M. Best

DATE: 4/1/51 1055

WELL NO.: MW-4 SR

WELL I.D.

VOL.
GAL./FT.

- | | | |
|---|---------------------------------------|--------------|
| 1 | TOTAL CASING AND SCREEN LENGTH (ft.) | <u>24.92</u> |
| 2 | CASING INTERNAL DIAMETER (in.) | <u>2"</u> |
| 3 | WATER LEVEL BELOW TOP OF CASING (ft.) | <u>12.00</u> |
| 4 | VOLUME OF WATER IN CASING (gal.) | |

- | | |
|----|------|
| 1" | 0.04 |
| 2" | 0.17 |
| 3" | 0.38 |
| 4" | 0.66 |
| 5" | 1.04 |
| 6" | 1.50 |
| 8" | 2.60 |

$$V = 0.0408 \text{ (} \cdot^2 \times (1 - 3) \text{)} = \underline{2.2} \text{ gal.}$$

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)									
	INIT.									
PH	6.51	6.41								
TUR. APPEARANCE	CLEAR	BLU SP	CLS							
CONDUCTIVITY	650	700					ONLY 2			
Temp °C	9.7						2 VOL	1 VOL		
COMMENTS:	2ND VOL VERY BLACK ? 1st VOL DUE TO FROST R FILL									

WATER SAMPLING FIELD DATA SHEET

PROJECT: PALMER ST. LANDFILL-GWM

CLIENT: MOENCH CO.

~~DATE~~: 1st of 2 Annual Events

TYPE OF SAMPLE: GROUNDWATER-GRAB

LOCATION NO.: MW-4SR

~~LAB SAMPLE NO.~~: 2015

WELL DATA:

DATE: 4/1/15

TIME: 1055

Casing Diameter (inches): 2"

Casing Material: PVC

Screened Interval (ft BGS): _____

Screen Material: PVC

Static Water Level Below TOR (ft): _____

Bottom Depth (ft): 24.92

Elevation Top of Well Riser: 806.75 ASL

Datum Ground Surface: _____

PURGING DATA:

DATE: 4/1/15

TIME: Start: 1055 Finish: 1112

Method: DEDICATED BAILER

Pumping Rate (gal/min): 1.0

Well Volumes Purged (V=TR²H/231): _____

Was well purged dry? _____ Yes ☒ No

Standing Volume (gal): 2.2

Was well purged below sand pack? ☒ Yes _____ No

Volume Purged (gal): 4.0

Is purging equipment dedicated to sample location?

Yes ☒ No

Field Personnel: J. Smith

Well I.D. (inches)	Volume (gal/ft)
2	0.17
4	0.66
6	1.50

SAMPLING DATA:

DATE: 4/1/15

TIME: Start: 1112 Finish: 1120

Method: DEDICATED BAILER

Sampler: J. Smith

Present Water Level (ft): _____

Air Temperature (°F): 30

Depth of Sample (ft): _____

Weather Conditions: SUNY

Is sampling equipment dedicated to sample location?

Yes ☒ No

PRESERVATION DATA:

DATE: 3/20/15 IsleChem

TIME: Start: _____ Finish: _____

Filtered: ☒ Yes _____ No

Cool to 4°C: ☒

Preservative: _____ H₂SO₄ ☒ HNO₃ _____ NaOH HCl Other

PHYSICAL AND CHEMICAL DATA:

Appearance: Clear: ☒ Turbid: _____

Color: _____

Contains Sediment: _____

Odor: FINISH Other: BLACK SPECS

Temperature (°C): _____ pH: _____ Specific Conductivity (µmhos/cm): _____

Turbidity (NTU): _____ Other: _____

REMARKS: SAMPLE/FILTER EQUIPMENT: WASH w/ SOAP + WATER (3X).
RINSED WITH DISTILL'D WATER. RINSED WITH 10% NITRIC ACID WASH. FINAL RINSE w/ DISTILL'D WATER.

WELL DEVELOPMENT/PURGING LOG

MOENCH CO.

PROJECT TITLE: PALMER ST. LANDFILL - G.W.M.

PROJECT NO.: 1ST OF 2 ANNUAL EVENTS 2015

STAFF: JEFF SMITH M. BEST

DATE: 4/1/15, 1125

WELL NO.: MW-4D

WELL I.D.

VOL.
GAL./FT.

1 TOTAL CASING AND SCREEN LENGTH (ft.) 74.94

11

0.04

2 CASING INTERNAL DIAMETER (in.) 2"

3"

$$\begin{array}{r} 0.17 \\ 0.38 \end{array}$$

3 WATER LEVEL BELOW TOP OF CASING (ft.) 14.30

4"
5"

0.66
1.04

4 VOLUME OF WATER IN CASING (gal.)

6"
8"

1.50
2.60

$$V = 0.0408 \text{ (}^2 \times (1 - 3) \text{)} = \underline{10.3} \text{ gal.}$$

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)									
	1 st	2 nd								
PH	7.27	7.14								
VISUAL TURBIDITY	clear	clear								
CONDUCTIVITY	700	650								
TEMP. °C	15.5	16.3								

COMMENTS:

HAD TO HAND BALE,
COULD NOT GET
TRUCK CLOSE TO WELL;
SOFT GROUND.

WATER SAMPLING FIELD DATA SHEETS

PROJECT: PALMER ST. L/F - G.W.M.
MOENCH CO.
1ST OF 2 ANNUAL EVENTS

TYPE OF SAMPLE: GROUND WATER
 LOCATION NO.: MW-4D
2015

WELL DATA: DATE: 4/1/15
 Casing Diameter (Inches): 2"
 Screened Interval (ft BGS):
 Static Water Level Below BDR (ft.):
 Elevation Top of Well Risers: 805.93
 Elevation Top of Screen: 72.9

TIME: 1125
 Casing Material: PVC
 Screen Material: PVC
 Bottom Depth (ft.): 74.94
 Datum Ground Surface:

PURGING DATA: DATE: 4/1/15
 Method: ELECTRIC PUMP - NOT DEDICATED
 Well Volumes Purged (at 1/231):
 Standing Volume (GAL.): 10.3
 Volume Purged (GAL.): 22.0
 Is purging equipment dedicated to sample location? Yes No *
 Field Personnel: J. Smith / M. Best

TIME: Start: 1125 Finish: 1148
 Pumping Rate (gal/min): 1-2 gpm
 Was well purged dry? Yes No X
 Was Well purged below sand pack? Yes No X

Well I.D. (Inches)	Volume (gal/ft)
<u>2</u>	<u>0.17</u>
<u>4</u>	<u>0.66</u>
<u>6</u>	<u>1.50</u>

SAMPLING DATA: DATE: 4/1/15
 Method: DEDICATED BAILER
 Present Water Level (ft.):
 Depth of Sample (ft.):
 Is sampling equipment dedicated to sample locations? Yes * No
 Source and type of water used in field for QC purposes: IsleChem LAB

TIME: Start: 1148 Finish: 1155
 Sampler: JS/MB
 Air Temperature (F°): 35
 Weather Conditions: SUNNY
 No

PRESERVATION DATA: DATE: 3/20/15 IsleChem
 Filtered: Yes * No
 Preservative: H₂SO₄ HNO₃ * NaOH Other HCl

TIME: Start: Finish:
 Cool to 4°C: *
 Other HCl

PHYSICAL AND CHEMICAL:
 Appearance: Clear * Turbid
Contains Sediment
 Temperature (°C): pH
 Turbidity (NTU):

Color:
 Odor: FINISH Others:
 Specific Conductivity (µmhos/cm):
 Other:

REMARKS: E. FLASK +/-
NA - NOT APPLICABLE. TEFLON BAILER USED FOR SAMPLE
WAS WASHED WITH SOAP, RINSED WITH LABORATORY WATER/
RINSED WITH 10% NITRIC ACID WASH, THEN FINAL RINSE
WITH LAB. GRADE WATER PRIOR TO USE.

WELL DEVELOPMENT/PURGING LOG

MOENCH CO.

PROJECT TITLE: PALMER ST. LANDFILL - GWM

PROJECT TITLE: PALMER ST. EMBANKMENT
PROJECT NO.: 1ST OF 2 SAMPLES, ANNUALLY. 2015

STAFF: J. Smith

DATE: 4/1/15

Dr. 4

~~NO SAMPLE~~

WELL NO.: MW-5 { usually dry }

WELL I.D.

VOL.
GAL./FT.

1 TOTAL CASING AND SCREEN LENGTH (ft.) 18.15

1" 0.04
2" 0.17

2 CASING INTERNAL DIAMETER (in.) 2"

3" 0.38

3 WATER LEVEL BELOW TOP OF CASING (ft.) 18.15

4" 0.66

4 VOLUME OF WATER IN CASING (gal.)

5" 1.04

6"	1.50
	2.50

$$V = 0.0408 \text{ (}^2 \times (1 - 3) \text{)} = \underline{\hspace{2cm}} \text{ gal.}$$

[illegible]

COMMENTS:

WELL DEVELOPMENT/PURGING LOG

MOENCH CO.

PROJECT TITLE: PALMER ST. LANDFILL - GWM
PROJECT NO.: 1ST OF 2 ANNUAL EVENTS. 2015

STAFF: J. Smith / M. Best

DATE: 4/1/15, 1035

WELL NO.: MW-6

WELL I.D.

VOL.
GAL./FT.

- 1 TOTAL CASING AND SCREEN LENGTH (ft.) 18.78
- 2 CASING INTERNAL DIAMETER (in.) 2"
- 3 WATER LEVEL BELOW TOP OF CASING (ft.) 14.80
- 4 VOLUME OF WATER IN CASING (gal.)

1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

$$V = 0.0408 (2^2 \times (1 - 3)) = .67 \text{ gal.}$$

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)									
	INIT.									
PH	6.71									
TURBID. APPEAR.	TURBID BLACK									
CONDUCTIVITY	1400									
TEMP °C	11.9									
COMMENTS:										

ONLY
①
VOLUME

VERY BLACK
w/ PARTICLES

WATER SAMPLING FIELD DATA SHEET

PROJECT: PALMER ST. LANDFILL
 CLIENT: MOENCH CO.
 JOB NO.: 1ST OF 2 ANNUAL EV.

TYPE OF SAMPLE: GROUNDWATER
 LOCATION NO.: MW-6
 LAB SAMPLE NO.: 2015

WELL DATA: DATE: 4/1/15
 Casing Diameter (inches): 2"
 Screened Interval (ft BGS): _____
 Static Water Level Below TOR (ft): _____
 Elevation Top of Well Riser: 800.48 ASL

TIME: 1035
 Casing Material: PVC
 Screen Material: PVC
 Bottom Depth (ft): 18.78
 Datum Ground Surface: _____

PURGING DATA: DATE: 4/1/15
 Method: DEDICATED W/HALE Pump
 Well Volumes Purged ($V = \pi R^2 H / 231$): _____
 Standing Volume (gal): .7
 Volume Purged (gal): .7
 Is purging equipment dedicated to sample location?
 Yes X No _____
 Field Personnel: J. Smith + MB

TIME: Start: 1035 Finish: 1040
 Pumping Rate (gal/min): 1.0
 Was well purged dry? X Yes _____ No _____
 Was well purged below sand pack? X Yes _____ No _____

Well I.D. (inches)	Volume (gal/ft)
2	0.17
4	0.66
6	1.50

SAMPLING DATA: DATE: 4/1/15
 Method: DEDICATED Pump
 Present Water Level (ft): _____
 Depth of Sample (ft): _____
 Is sampling equipment dedicated to sample location? _____

TIME: Start: 1040 Finish: 1050
 Sampler: J. Smith / MB
 Air Temperature (°F): 30
 Weather Conditions: SUNY
 Yes X No _____

PRESERVATION DATA: DATE: 3/20/15 Isle Chem
 Filtered: * Yes _____ No _____
 Cool to 4°C: *
 Preservative: _____ H_2SO_4 * HNO_3 _____ $NaOH$ HCl Other _____

PHYSICAL AND CHEMICAL DATA:

Appearance: Clear: _____ Turbid: X Color: BLACK
 Contains Sediment: _____ Odor: NO Other: _____
 Temperature (°C): _____ pH: _____ Specific Conductivity ($\mu mhos/cm$): _____
 Turbidity (NTU): _____ Other: _____

REMARKS: DEDICATED BAILER FOR SAMPLE, & FILTER EQUIPMENT.
WASHED (3X), RINSED WITH LAB GRADE WATER. RINSED w/ 10% NITRIC ACID WASH. FINAL RINSE D.I. WATER.

WELL DEVELOPMENT/PURGING LOG

MOENCH CO.

PROJECT TITLE: PALMER ST. LANDFILL - G.W.M.

PROJECT NO.: 1st OF 2 ANNUAL EVENTS, 2015

STAFF: JEFF SMITH / Mike Best

DATE: 4-1-15, 1007

WELL NO.: DMW - GD

WELL I.D.

VOL. GAL./FT.

- 1 TOTAL CASING AND SCREEN LENGTH (ft.) 37.03
- 2 CASING INTERNAL DIAMETER (in.) 2"
- 3 WATER LEVEL BELOW TOP OF CASING (ft.) 17.70
- 4 VOLUME OF WATER IN CASING (gal.)

1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

$$V = 0.0408 (2^2 \times (1 - 3)) = 3.2 \text{ gal.}$$

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)									
	I _{N.} I _{T.}									
PH	7.53	7.61								
TURBIDITY	CLEAR									
CONDUCTIVITY	1200	1200								
TEMP. °C	13.6	13.8								

ONLY VOLUME
1 1/2 BY LOW VOL

COMMENTS:

WATER SAMPLING FIELD DATA SHEETS

PROJECT: PALMER ST. LANDFILL
MOENCH CO.
1 OF 2 ANNUAL EVENTS.

TYPE OF SAMPLE: GROUNDWATER
 LOCATION NO.: MW-6D
2015

WELL DATA: DATE: 4/1/15
 Casing Diameter (Inches): 2
 Screened Interval (ft BGS): NA
 Static Water Level Below TOR (ft.):
 Elevation Top of Well Riser: 800.63
 Elevation Top of Screen: NA

TIME: 1010
 Casing Material: PVC
 Screen Material: PVC
 Bottom Depth (ft.): 37.03
 Datum Ground Surface:

PURGING DATA: DEDICATED DATE: 4/1/15
 Method: TEFLON BAILER - HAND
 Well Volumes Purged (at W/231):
 Standing Volume (GAL.) 3.2
 Volume Purged (GAL.) 5.0
 Is purging equipment dedicated to sample location?
 Yes * No
 Field Personnel: JS + MB

TIME: Start: 1017 Finish: 1020
 Pumping Rate (gal/min): 5 gpm
 Was well purged dry? Yes No X
 Was well purged below sand pack? Yes No X

Well I.D. (Inches)	Volume (gal/ft)
2	0.17
4	0.66
6	1.50

SAMPLING DATA: DATE: 4/1/15
 Method: DEDIC. TEFLON BAILER - HAND
 Present Water Level (ft.):
 Depth of Sample (ft.):
 Is sampling equipment dedicated to sample location? Yes * No
 Source and type of water used in field for QC purposes: IsleChem LAB

TIME: Start: 1020 Finish: 1028
 Sampler: J. Smith / MB
 Air Temperature (F°): 30
 Weather Conditions: SUN

PRESERVATION DATA: DATE: 3/20/15 IsleChem
 Filtered: Yes * No
 Preservative: H₂SO₄ NaOH * Other HCl

TIME: Start: Finish:
 Cool to 4°C: *

PHYSICAL AND CHEMICAL
 Appearance: Clear * Turbidity:
 Contains Sediment
 Temperature (°C): pH:
 Turbidity (NTU):

Color:
 Odor: ND Others:
 Specific Conductivity (µmhos/cm):
 Other:

REMARKS: E. FLASK +/OR
TEFLON BAILER USED FOR SAMPLING WAS WASHED WITH
SOAP, RINSED WITH LABORATORY WATER / RINSED WITH 10% NITRIC WASH THEN FINAL RINSE WITH LAB. GRADE WATER PRIOR TO USE.

WELL DEVELOPMENT/PURGING LOG

MOENCH CO.

PROJECT TITLE: PALMER ST. LANDFILL - G.W.M.

PROJECT NO.: 1ST OF 2 ANNUAL EVENTS 2015

STAFF: JEFF SMITH / Mike Best

DATE: 4/1/2015, 1340

WELL NO.: MW-7D

WELL I.D.	VOL. GAL./FT.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

- TOTAL CASING AND SCREEN LENGTH (ft.) 41.90
- CASING INTERNAL DIAMETER (in.) 2"
- WATER LEVEL BELOW TOP OF CASING (ft.) 5.65
- VOLUME OF WATER IN CASING (gal.)

$$V = 0.0408 (2^2 \times (1 - 3)) = 6.2 \text{ gal.}$$

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)									
	I N. T.									
"PH"	7.41	7.47								
TURBIDITY	clear									
CONDUCTIVITY	570	580								
TEMP. °C	8.0									

COMMENTS:

WATER SAMPLING FIELD DATA SHEETS

PROJECT: PALMER ST. LANDFILL
MOENCH - CO.
1ST OF 2 ANNUAL EVENTS

TYPE OF SAMPLE: GROUND WATER
 LOCATION NO.: MW-7D
 DATE: 2015

WELL DATA: DATE: 4/1/15
 Casing Diameter (Inches): 2
 Screened Interval (ft BGS): 34 - 39
 Static Water Level Below TDR (ft.):
 Elevation Top of Well Riser: 800.39
 Elevation Top of Screen: 763.50

TIME: 1340
 Casing Material: PVC
 Screen Material: PVC
 Bottom Depth (ft.): 41.90
 Datum Ground Surface:

MIXING DATA: DATE: 4/1/15
 Method: TEFLON BAILER - MANUAL

TIME: Start: 1340 Finish: 1355
 Pumping Rate (gal/min): 0.5 gpm
 Was well purged dry? Yes X No
 Was well purged below sand pack? Yes X No

Well Volumes Purged (STANDARD):
 Standing Volume (GAL.) 6
 Volume Purged (GAL.) 13

Is purging equipment dedicated to sample location?
 Yes X No

Well I.D. (Inches)	Volume (gal/ft)
2	0.17
4	0.66
6	1.50

Field Personnel: J. SMITH / M. BEST

SAMPLING DATA: DATE: 4/1/15
 Method: TEFLON BAILER

TIME: Start: 1355 Finish: 1414
 Sampler: J. SMITH / M. BEST

Present Water Level (ft.):
 Depth of Sample (ft.):

Air Temperature (F°): 40
 Weather Conditions: SUNNY

Is sampling equipment dedicated to sample location? Yes X No

Source and type of water used in field for QC purposes:

Isle Chem LAB

PRESERVATION DATA: DATE: 3/20/15 Isle Chem

TIME: Starts Finish:

Filtered: Yes X No

Cool to 4°C: X
 Other: HCl

Preservatives: H₂SO₄ NO₃ NaOH

PHYSICAL AND CHEMICAL

Appearance: Clear X Turbid:
 Contains Sediment:
 Temperature (°C): pH:
 Turbidity (NTU):

Color:
 Odor: NO Others:
 Specific Conductivity (µmhos/cm):
 Other:

E. FLASK +/OR

REMARKS: TEFLON BAILER USED FOR SAMPLING WAS WASHED WITH SOAP, RINSED WITH LAB. WATER / RINSED WITH 10% NITRIC WASH THEN FINAL RINSE WITH LAB. GRADE PRIOR TO USE.

WELL DEVELOPMENT/PURGING LOG

MOENCH CO.

YEAR -

PROJECT TITLE: PALMER ST. LANDFILL - G.W.M.

PROJECT NO.: 1ST OF 2 ANNUAL EVENTS 2015

STAFF: JEFF SMITH

DATE: 4/1/15, 1300

WELL NO.: MW-8D

WELL I.D.

VOL. .
GAL./FT.

- | | | |
|---|---------------------------------------|---------------|
| 1 | TOTAL CASING AND SCREEN LENGTH (ft.) | <u>127.70</u> |
| 2 | CASING INTERNAL DIAMETER (in.) | <u>2"</u> |
| 3 | WATER LEVEL BELOW TOP OF CASING (ft.) | <u>40.10</u> |
| 4 | VOLUME OF WATER IN CASING (gal.) | |

- | | |
|----|------|
| 1" | 0.04 |
| 2" | 0.17 |
| 3" | 0.38 |
| 4" | 0.66 |
| 5" | 1.04 |
| 6" | 1.50 |
| 8" | 2.60 |

$$V = 0.0408 \text{ (in}^2 \times (1 - 3)) = \underline{14.9} \text{ gal.}$$

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)									
	INIT.	2nd								
"PH"	7.12	7.10								
TURBIDITY	clear	clear								
CONDUCTIV.	506	500								
TEMP. °C	19.7	19.8								

COMMENTS:

WATER SAMPLING FIELD DATA SHEETS

PROJECT: PALMER ST. LANDFILL
MOENCH COMPANY
1ST OF 2 ANNUAL EVENTS

TYPE OF SAMPLE: GROUND WATER - GRAB
 LOCATION NO.: MW-8D
 YEAR: 2015

WELL DATA:

DATE: 4/1/15
 Casing Diameter (Inches): 2"
 Screened Interval (ft BGS): NA
 Static Water Level Below TOR (ft.): NA
 Elevation Top of Well Riser: 821.89
 Elevation Top of Screen: NA

TIME: 1300
 Casing Material: PVC
 Screen Material: PVC
 Bottom Depth (ft.): 127.70
 Datum Ground Surface: —

PURGING DATA: DEDICATED

DATE: 4/1/15
 Method: ELECTRIC Pump - 80', 12V. Whale
 Well Volumes Purged (m³/231): NA
 Standing Volume (GAL.): 14.9
 Volume Purged (GAL.): 25.0

TIME: Start: 1300 Finish: 1330
 Pumping Rate (gal/min): 1-2 gpm
 Was well purged dry? Yes — No X
 Was well purged below sand pack? Yes — No X

Is purging equipment dedicated to sample location?
 Yes * No —

Well I.D. (Inches)	Volume (gal/ft)
2	0.17
4	0.66
6	1.50

Field Personnel: JS / MB

SAMPLING DATA:

DATE: 4/1/15
 Method: DEDICATE BAILER
 Present Water Level (ft.): NA
 Depth of Sample (ft.): NA

TIME: Start: 1330 Finish: 1340

Samplers: JS / MB
 Air Temperature (F°): 40

Is sampling equipment dedicated to sample locations? Yes * No —

Source and type of water used in field for QC purposes: Istec Chem LAB

Weather Conditions: SUNNY

PRESERVATION DATA:

DATE: 3/20/15 Istec Chem.
 Filtered: Yes * No —
 Preservatives: H₂SO₄ NO₃ NO₂ NO₂ Other HCl

TIME: Start: — Finish: —

Cool to 4°C: *

PHYSICAL AND CHEMICAL

Appearance: Clear * Turbid: —
 Contains Sediment: —
 Temperature (°C): — pH: —
 Turbidity (NTU): —

Color: —
 Odor: ND Others: —
 Specific Conductivity (µmhos/cm): —
 Other: —

E. FLASK +/OR

REMARKS: TEFLON BAILER USED FOR SAMPLING WAS WASHED WITH
SOAP, RINSED WITH LAB. WATER / RINSED WITH 10% 70
NITRIC WASH THEN FINAL RINSE WITH LAB. GRADE
WATER PRIOR TO USE.

WATER SAMPLING FIELD DATA SHEETS

BS-1

No Seep & No Sample

PROJECT: PALMER ST. LANDFILL

TYPE OF SAMPLE: SURFACE/GROUND WATER

MOENCH CO.

LOCATION NO.: BS-1

1ST OF 2 ANNUAL EVENTS

2015 : (BANK SEEP SOUTH OF MW6)

WELL DATA:

DATE: 4/1/15

TIME: 1050

Casing Diameter (Inches): N/A

Casing Material: N/A

Screened Interval (ft BGS):

Screen Material:

Static Water Level Below TDR (ft.):

Bottom Depth (ft.):

Elevation Top of Well Riser:

Datum Ground Surface:

Elevation Top of Screen:

PURGING DATA:

DATE: 4/1/15

TIME: Start: Finish:

Method:

Pumping Rate (gal/min): N/A

Well Volumes Purged (in H₂O/231): NA

Was well purged dry? Yes No

Standing Volume (GAL.): NA

Was Well purged below sand pack? Yes No

Volume Purged (GAL.): NA

Is purging equipment dedicated to sample location?
Yes * NoBANK
Seep

Well I.D. (Inches)	Volume (gal/ft)
2	0.17
4	0.66
6	1.50

CAT
CAL
RUN

Field Personnel: JS

MAX FLOW TOO SAMPLE CREEK

SAMPLING DATA:

DATE:

TIME: Start:

Finish:

Method: SURFACE WATER GRAB

Sampler: J. Smith

Present Water Level (ft.): NA

Air Temperature (F°):

Depth of Sample (ft.): NA

Weather Conditions:

Is sampling equipment dedicated to sample location? Yes * No

Source and type of water used in field for QC purposes:

Istechem LAB

PRESERVATION DATA:

DATE: 3/20/15

Istechem

TIME: Start:

Finish:

Filtered: Yes * No

Cool to 4°C: *

Preservatives: H₂SO₄HNO₃ *

NaOH

Other HCl

PHYSICAL AND CHEMICAL

Appearance:

Clear:

Turbid:

Color:

Contains Sediment

Odor:

Other:

Temperature (°C):

pH:

Specific Conductivity (µmhos/cm):

Turbidity (NTU):

Other:

E. FLASK +/OR

REMARKS: NA. NOT APPLICABLE - TEFLON BAILER USED FOR SAMPLE

WAS WASHED WITH SOAP, RINSED WITH LABORATORY WATER -
RINSED WITH 10% NITRIC ACID WASH, FINAL RINSE WITH
LAB. GRADE WATER, PRIOR TO EACH USE.

WATER SAMPLING FIELD DATA SHEET

PROJECT: PALMER ST. LANDFILL

CLIENT: MOENCH CO.

DATE: 1ST OF 2 ANNUAL EV.

TYPE OF SAMPLE: GROUNDWATER - GRAB

LOCATION NO.: BS-2

LAB SAMPLE NO.: 2015

WELL DATA:

DATE: 4/1/75

Casing Diameter (inches): NO

Screened Interval (ft BGS): NO

Static Water Level Below TOR (ft): NO

Elevation Top of Well Riser: NO

TIME: NO

Casing Material: NO

Screen Material: NO

Bottom Depth (ft): NO

Datum Ground Surface: NO

PURGING DATA:

DATE: NA

Method: NA

Well Volumes Purged ($V = \pi R^2 H / 231$): NA

Standing Volume (gal): NA

Volume Purged (gal): NA

Is purging equipment dedicated to sample location?

Yes NO

Field Personnel: NO

TIME: Start: NO Finish: NO

Pumping Rate (gal/min): NO

Was well purged dry? NO Yes NO

Was well purged below sand pack? NO Yes NO

Well I.D. (inches)	Volume (gal/ft)
2	0.17
4	0.66
6	1.50

SAMPLING DATA:

DATE: NO

Method: GRAB

Present Water Level (ft): NO

Depth of Sample (ft): NO

Is sampling equipment dedicated to sample location?

Yes NO * NO

TIME: Start: NO Finish: NO

Sampler: J. Smith

Air Temperature (°F): NO

Weather Conditions: NO

Yes NO * NO

PRESERVATION DATA:

DATE: 3/20/15 Isle Chem

Filtered: * Yes NO

Preservative: H₂SO₄ * HNO₃ NaOH HCL Other

TIME: Start: NO Finish: NO

Cool to 4°C: *

PHYSICAL AND CHEMICAL DATA:

Appearance: Clear: NO Turbid: NO Color: NO

Contains Sediment: NO Odor: NO Other: NO

Temperature (°C): NO pH: NO Specific Conductivity (umhos/cm): NO

Turbidity (NTU): NO Other: NO

REMARKS: SAMPLE/FILTER EQUIPMENT: WASH W/ SOAP + WATER (3X).
RINSED W/ DISTL'd WATER. RINSE WITH 10% NITRIC
ACID WASH. FINAL RINSE W/ DISTL'd WATER.

WATER SAMPLING FIELD DATA SHEETS

BS-3PROJECT: PALMER ST. LANDFILL
MOENCH CO.
1ST OF 2 ANNUAL EVENTSTYPE OF SAMPLE: SURFACE/GROUND WATER
LOCATION NO.: BS-3 (BANK SEEP
2015 SOUTH OF MW-3)

WELL DATA:

DATE: 4/1/15TIME: 1240Casing Diameter (Inches): NACasing Material: N/AScreened Interval (ft BGS): ~Screen Material: ~Static Water Level Below TDR (ft.): ~Bottom Depth (ft.): ~Elevation Top of Well Riser: ~Datum Ground Surface: ~Elevation Top of Screen: ~

PURGING DATA:

DATE: 4/1/15TIME: Start: 1240Finish: 1250Method: NAPumping Rate (gal/min): N/AWell Volumes Purged (wt% WZSI): NAWas well purged dry? Yes ~ No ~Standing Volume (GAL.) NAWas well purged below sand pack? Yes ~ No ~Volume Purged (GAL.) NA

Is purging equipment dedicated to sample location?

Yes X No ~

Well I.D.

Volume

(Inches)

(gal/ft)

2

0.17

4

0.66

6

1.50

Field Personnel: J. Smith/M. Best

SAMPLING DATA:

DATE: 4/1/15TIME: Start: 1240Finish: 1250Method: SURFACE WATER GRABSampler: J. SmithPresent Water Level (ft.): NAAir Temperature (F°): ~Depth of Sample (ft.): NAWeather Conditions: ~Is sampling equipment dedicated to sample location? Yes X No ~Source and type of water used in field for QC purposes: IsieChem LAB

PRESERVATION DATA:

DATE: 3/30/15TIME: Start: ~Finish: ~Filtered: Yes X No ~Cool to 4°C: XPreservatives: H₂SO₄HNO₃XNaOH-OtherX HCl

PHYSICAL AND CHEMICAL

Appearance: ClearTurbid: YesColor: RED IRONContains Sediment: YesOdor: NOOthers: ~Temperature (°C): 9pH: 7.01Specific Conductivity (umhos/cm): 800Turbidity (NTU): YesOther: ~REMARKS: N/A - NOT APPLICABLE. FLASK +/OR TEFLON BAILER USEDFOR SAMPLING/FILTERING, WAS WASHED WITH ALCONOX SOAP,RINSED W/ LAB GRADE WATER, RINSED W/ 10% NITRIC WASH,FINAL RINSE WITH LAB GRADE WATER PRIOR TO USE.

WELL DEVELOPMENT/PURGING LOG

MOENCH COMPANY

PROJECT TITLE: PALMER ST. LANDFILL - G.W.M.

PROJECT NO.: 1ST OF 2 ANNUAL EVENTS 2015

STAFF: JEFF SMITH / Mike

DATE: 4/1/15, 1450

WELL NO.: EQUIPMENT BLANK

- 1 TOTAL CASING AND SCREEN LENGTH (ft.) NA
- 2 CASING INTERNAL DIAMETER (in.)
- 3 WATER LEVEL BELOW TOP OF CASING (ft.)
- 4 VOLUME OF WATER IN CASING (gal.)

WELL I.D.

VOL.
GAL./FT.

1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

$$V = 0.0408 (2 \times (1 - 3)) = \underline{NA} \text{ gal.}$$

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)									
	ONLY									
"PH"	7.10									
VISUAL TURBIDITY	clear									
CONDUCTIVITY	40									
TEMP. °C	20									

COMMENTS:

D.I. WATER (Q.C) FROM: Isiechem Lab.

Moench Company Organization Name			Palmer Street Landfill Routine Parameter List Project Name				7 Samples / 21 Bottles + Trip Blank # of Samples / # of Bottles									
465 Palmer Street Street Address			CHARGE TO VISA CARD Client PO / Release #				10 Days Turnaround Time/ Date Results Needed									
Gowanda, NY 14070 City, State, ZIP			4-1-15 Date Sampled				NY IsleChem Project #									
Jeffrey Smith Contact Person			For electronic report please provide e-mail below: jxsmith@browshoe.com				Soluble Cr, Pb & As* (2374) TCL Volatiles (2167)				Approved by Client Yes No Initials _____ Approved by Lab Yes No Initials _____ Rush Work Performed at Priority Rate (see below)					
716-532-2201 / 716-532-5518 Phone# and Fax#																
Sample ID	Sample Location	Matrix	Comp	Grab	E-mail				Bottle Type / Preservative							
MW3	Site 8	GW		X					Filtered by Client							
"	Site 8	GW		X					250 ml Poly (HNO3)							
MW-3D	Site 9	GW		X					(2) 40 ml VOA Vials (HCL) , zero headspace - 1 vial as backup							
"	Site 9	GW		X					250 ml Poly (HNO3)							
BS-3	Site 10	GW		X					(2) 40 ml VOA Vials (HCL) , zero headspace - 1 vial as backup							
"	Site 10	GW		X					250 ml Poly (HNO3)							
MW8D	Site 11	GW		X					(2) 40 ml VOA Vials (HCL) , zero headspace - 1 vial as backup							
"	Site 11	GW		X					250 ml Poly (HNO3)							
MW-7D	Site 12	GW		X					(2) 40 ml VOA Vials (HCL) , zero headspace - 1 vial as backup							
"	Site 12	GW		X					250 ml Poly (HNO3)							
BLIND DU	Site 13	GW		X					(2) 40 ml VOA Vials (HCL) , zero headspace - 1 vial as backup							
"	Site 13	GW		X					250 ml Poly (HNO3)							
Eq. BLNK	Site 14	GW		X					(2) 40 ml VOA Vials (HCL) , zero headspace - 1 vial as backup							
"	Site 14	GW		X					250 ml Poly (HNO3)							
yes	Trip Blank	DI Water							(2) 40 ml VOA Vials (HCL) , zero headspace - 1 vial as backup							
40 ml VOA Vials (HCL)																
Comments: * A low detection limit for Arsenic is required at 0.005 mg/L / Soluble metals will be filtered in the field.																
Sampled By:		Date	Time	Received by:		Date	Time	Received by:		Date	Time					
Relinquished by:		Date	Time	Relinquished by:		Date	Time	Received by lab:		Date	Time					

Standard turnaround time is 10 days.

RUSH WORK CHARGES: 3-6 times the standard cost for same day depending on the time needed ~ 2.5 times the standard cost for next day ~ 1.75 times the standard cost for 3 day.
By relinquishing these samples to IsleChem, LLC, you are accepting the current IsleChem, LLC terms and conditions for the sale of services.

CHAIN OF CUSTODY / REQUEST FOR LABORATORY ANALYSIS

2801 Long Road, Grand Island, NY 14072 (716)773-8401 (716)773-8517 (Fax)

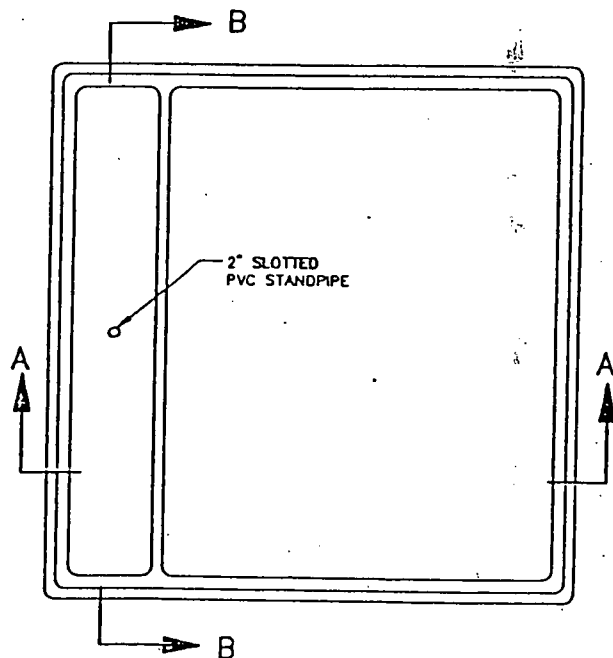
Page 1 of 2

Moench Company Organization Name		Palmer Street Landfill Routine Parameter List Project Name				7 Samples / 21 Bottles + Trip Blank # of Samples / # of Bottles											
465 Palmer Street Street Address		CHARGE TO VISA CARD Client PO / Release #				10 Days Turnaround Time/ Date Results Needed											
Gowanda, NY 14070 City, State, ZIP		4-1-15 Date Sampled				NY IsleChem Project #											
Jeffrey Smith Contact Person		For electronic report please provide e-mail below: jxsmith@browshoe.com				Soluble Cr, Pb & As* (2374)		TCL Volatiles (2167)								Rush Work Performed at Priority Rate (see below) Approved by Client Yes No Initials _____ Approved by Lab Yes No Initials _____	
716-532-2201 / 716-532-5518 Phone# and Fax#																	
Sample ID	Sample Location	Matrix	Comp	Grab													
MWGD	Site 1	GW		X	X												Filtered by Client
"	Site 1	GW		X		X											250 ml Poly (HNO3)
MW6	Site 2	GW		X	X												(2) 40 ml VOA Vials (HCL) , zero headspace - 1 vial as backup
"	Site 2	GW		X		X											250 ml Poly (HNO3)
BS1	Site 3	GW		X	X												(2) 40 ml VOA Vials (HCL) , zero headspace - 1 vial as backup
"	Site 3	GW		X		X											250 ml Poly (HNO3)
MW5	Site 4	GW		X	X												(2) 40 ml VOA Vials (HCL) , zero headspace - 1 vial as backup
"	Site 4	GW		X		X											250 ml Poly (HNO3)
MW4SR	Site 5	GW		X	X												(2) 40 ml VOA Vials (HCL) , zero headspace - 1 vial as backup
"	Site 5	GW		X		X											250 ml Poly (HNO3)
MW4D	Site 6	GW		X	X												(2) 40 ml VOA Vials (HCL) , zero headspace - 1 vial as backup
"	Site 6	GW		X		X											250 ml Poly (HNO3)
BS-2	Site 7	GW		X	X												(2) 40 ml VOA Vials (HCL) , zero headspace - 1 vial as backup
"	Site 7	GW		X		X											250 ml Poly (HNO3)
Comments: * A low detection limit for Arsenic is required at 0.005 mg/L / Soluble metals will be filtered in the field.																	
Sampled By:		Date	Time	Received by:		Date	Time	Received by:		Date	Time	Received by:		Date	Time		
Relinquished by:		Date	Time	Relinquished by:		Date	Time	Received by lab:		Date	Time	Received by lab:		Date	Time		

Standard turnaround time is 10 days.

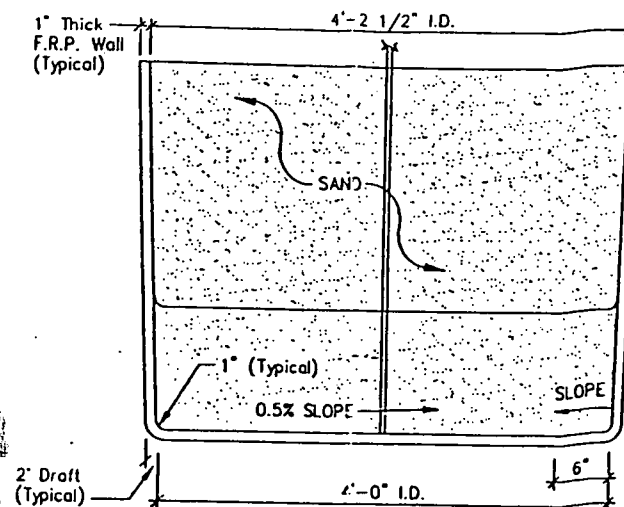
RUSH WORK CHARGES: 3-6 times the standard cost for same day depending on the time needed ~ 2.5 times the standard cost for next day ~ 1.75 times the standard cost for 3 da
 By relinquishing these samples to IsleChem, LLC, you are accepting the current IsleChem, LLC terms and conditions for the sale of services.

APPENDIX B
INFILTROMETER DESIGN

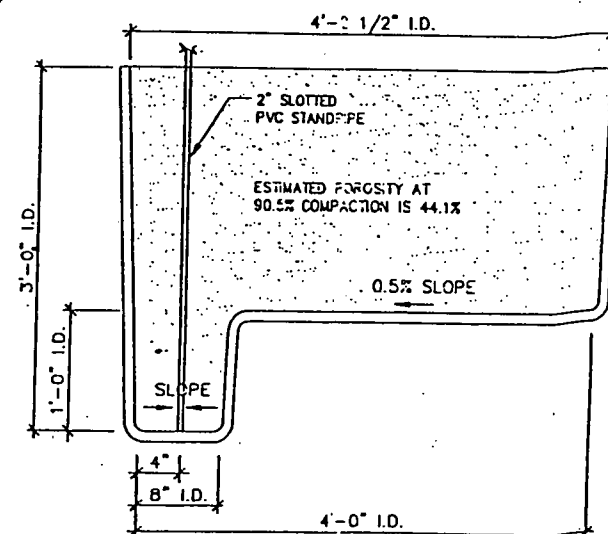


PLAN

SECTION B-B



SECTION A-A

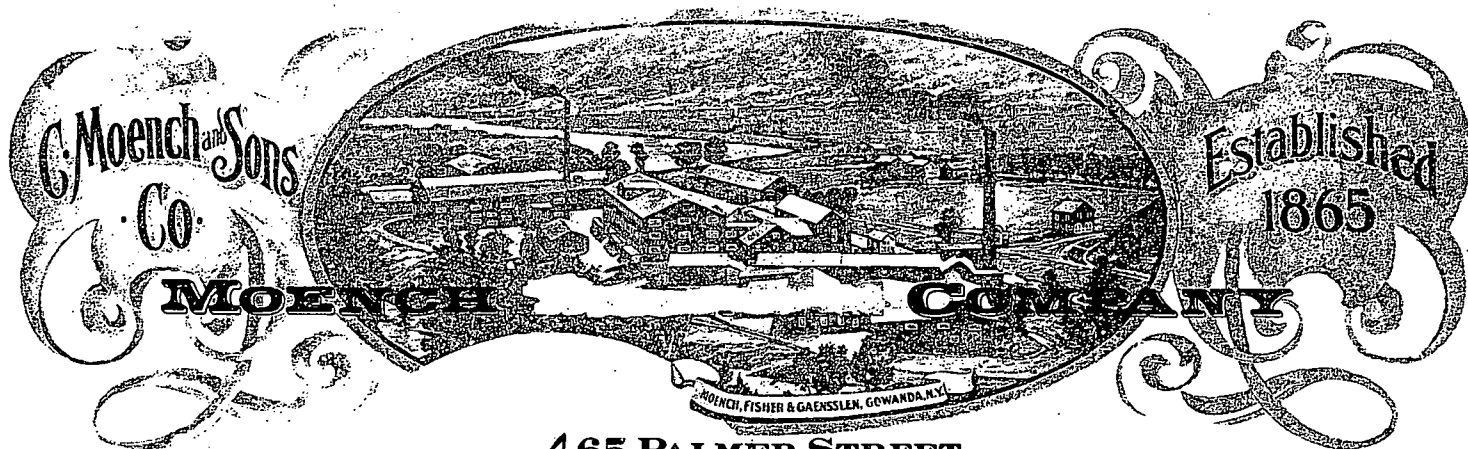


TYPICAL INFILTRMETER BY HEY'S ENTERPRISES
AS INSTALLED AT PALMER STREET LANDFILL

INFILTRMETER

MOENCH TANNING COMPANY

3/20 93



465 PALMER STREET
GOWANDA, NEW YORK 14070

TEL. 716-532-2201

FAX 716-532-5518

APPENDIX "C"

ANALYTICAL REPORT FROM LABORATORY:

FOR April 1st, 2015

MONITORING EVENT....

PALMER STREET LANDFILL



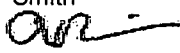
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Analysis Report

Client Moench Company
465 Palmer Street
Gowanda, NY 14070

Project Palmer Street Landfill

Report Date 4/20/2015
Status Final
ID NY1504019.0.43553

Batch Sample
Date 4/2/2015
Time 15:00
Description Palmer Street Landfill
Received 4/7/2015
Time 09:30
Batch Contact Jeffrey Smith
Authorized Signature 

Richard V. Finn, Manager of Chemical Testing

The following result table is for 11 samples received by IsleChem LLC on 4/7/2015 sampled by Client on 4/2/2015 and submitted by Client

Also enclosed are the Chain of Custody and Sample Receipt check list for this project.

Narrative:

Analyses were performed within the required holding times unless otherwise noted below. All quality control results were within acceptable limits unless specifically noted in the report. Quality control analyses were performed on the samples in this report or samples of similar matrix that were analyzed in the analytical batch on the dates indicated in the report.

Notes:

Volatiles vials contained air bubbles.

Sample Results

Report ID NY1504019.0.43553

Client Moench Company

Sample ID	Results	Units	Qualifiers	Analyst	Vessel ID	Date
019-0407-1	MW6D - Ground Water Sampled 4/2/2015					
Metals						
Field Grab	Method: EPA 200.7 Rev 4.4 / Prep: EPA 4.1.3					
Arsenic, Dissolved	< 0.005	mg/L		RVF	294454	2015-04-16
Chromium, Dissolved	< 0.01	mg/L		RVF	294454	2015-04-16
Lead, Dissolved	< 0.01	mg/L		RVF	294454	2015-04-16
Volatiles						
Field Grab	Method: EPA 8260C / Prep: EPA 5030C					
Vinyl acetate	< 10.0	ug/L		RRS	294455-294456	2015-04-15
Chloromethane	< 2.0	ug/L		RRS	294455-294456	2015-04-15
Vinyl chloride	< 2.0	ug/L		RRS	294455-294456	2015-04-15
Bromomethane	< 2.0	ug/L		RRS	294455-294456	2015-04-15
Chloroethane	< 2.0	ug/L		RRS	294455-294456	2015-04-15
Acetone	39.1	ug/L		RRS	294455-294456	2015-04-15
1,1-Dichloroethene	< 2.0	ug/L		RRS	294455-294456	2015-04-15
Methylene chloride	< 2.0	ug/L		RRS	294455-294456	2015-04-15
Carbon Disulfide	< 2.0	ug/L		RRS	294455-294456	2015-04-15
trans-1,2-Dichloroethene	< 2.0	ug/L		RRS	294455-294456	2015-04-15
1,1-Dichloroethane	< 2.0	ug/L		RRS	294455-294456	2015-04-15
2-Butanone (Methylethyl ketone)	< 10.0	ug/L		RRS	294455-294456	2015-04-15
cis-1,2-Dichloroethene	< 2.0	ug/L		RRS	294455-294456	2015-04-15
Chloroform	< 2.0	ug/L		RRS	294455-294456	2015-04-15
1,2-Dichloroethane	< 2.0	ug/L		RRS	294455-294456	2015-04-15
1,1,1-Trichloroethane	< 2.0	ug/L		RRS	294455-294456	2015-04-15
Carbon tetrachloride	< 2.0	ug/L		RRS	294455-294456	2015-04-15
Benzene	< 2.0	ug/L		RRS	294455-294456	2015-04-15
1,2-Dichloropropane	< 2.0	ug/L		RRS	294455-294456	2015-04-15
Trichloroethene	< 2.0	ug/L		RRS	294455-294456	2015-04-15
Bromodichloromethane	< 2.0	ug/L		RRS	294455-294456	2015-04-15
2-Chloroethylvinyl ether	< 2.0	ug/L	A3	RRS	294455-294456	2015-04-15
cis-1,3-Dichloropropene	< 2.0	ug/L		RRS	294455-294456	2015-04-15
4-Methyl-2-Pentanone	< 10.0	ug/L		RRS	294455-294456	2015-04-15
trans-1,3-Dichloropropene	< 2.0	ug/L		RRS	294455-294456	2015-04-15
1,1,2-Trichloroethane	< 2.0	ug/L		RRS	294455-294456	2015-04-15
Toluene	< 2.0	ug/L		RRS	294455-294456	2015-04-15
2-Hexanone	< 10.0	ug/L		RRS	294455-294456	2015-04-15
Dibromochloromethane	< 2.0	ug/L		RRS	294455-294456	2015-04-15
Tetrachloroethene	< 2.0	ug/L		RRS	294455-294456	2015-04-15
Chlorobenzene	< 2.0	ug/L		RRS	294455-294456	2015-04-15
Ethyl benzene	< 2.0	ug/L		RRS	294455-294456	2015-04-15
m,p-Xylene	< 10.0	ug/L		RRS	294455-294456	2015-04-15
Bromoform	< 2.0	ug/L		RRS	294455-294456	2015-04-15
Styrene	< 2.0	ug/L		RRS	294455-294456	2015-04-15
o-Xylene	< 2.0	ug/L		RRS	294455-294456	2015-04-15
1,1,2,2-Tetrachloroethane	< 2.0	ug/L		RRS	294455-294456	2015-04-15

019-0407-2 MW6 - Ground Water Sampled 4/2/2015

Metals

Field Grab	Method: EPA 200.7 Rev 4.4 / Prep: EPA 4.1.3					
Arsenic, Dissolved	< 0.005	mg/L		RVF	294457	2015-04-16
Chromium, Dissolved	< 0.01	mg/L		RVF	294457	2015-04-16

Sample Results

Report ID NY1504019.0.43553

Client Moench Company

Sample ID	Results	Units	Qualifiers	Analyst	Vessel ID	Date
019-0407-2	MW6 - Ground Water Sampled 4/2/2015					
Metals						
Field Grab	Method: EPA 200.7 Rev 4.4 / Prep: EPA 4.1.3					
Lead, Dissolved	< 0.01	mg/L		RVF	294457	2015-04-16
Volatiles						
Field Grab	Method: EPA 8260C / Prep: EPA 5030C					
Vinyl acetate	< 10.0	ug/L		RRS	294458-294459	2015-04-15
Chloromethane	< 2.0	ug/L		RRS	294458-294459	2015-04-15
Vinyl chloride	< 2.0	ug/L		RRS	294458-294459	2015-04-15
Bromomethane	< 2.0	ug/L		RRS	294458-294459	2015-04-15
Chloroethane	< 2.0	ug/L		RRS	294458-294459	2015-04-15
Acetone	< 10.0	ug/L		RRS	294458-294459	2015-04-15
1,1-Dichloroethene	< 2.0	ug/L		RRS	294458-294459	2015-04-15
Methylene chloride	< 2.0	ug/L		RRS	294458-294459	2015-04-15
Carbon Disulfide	< 2.0	ug/L		RRS	294458-294459	2015-04-15
trans-1,2-Dichloroethene	< 2.0	ug/L		RRS	294458-294459	2015-04-15
1,1-Dichloroethane	< 2.0	ug/L		RRS	294458-294459	2015-04-15
2-Butanone (Methylethyl ketone)	< 10.0	ug/L		RRS	294458-294459	2015-04-15
cis-1,2-Dichloroethene	< 2.0	ug/L		RRS	294458-294459	2015-04-15
Chloroform	< 2.0	ug/L		RRS	294458-294459	2015-04-15
1,2-Dichloroethane	< 2.0	ug/L		RRS	294458-294459	2015-04-15
1,1,1-Trichloroethane	< 2.0	ug/L		RRS	294458-294459	2015-04-15
Carbon tetrachloride	< 2.0	ug/L		RRS	294458-294459	2015-04-15
Benzene	< 2.0	ug/L		RRS	294458-294459	2015-04-15
1,2-Dichloropropane	< 2.0	ug/L		RRS	294458-294459	2015-04-15
Trichloroethene	< 2.0	ug/L		RRS	294458-294459	2015-04-15
Bromodichloromethane	< 2.0	ug/L		RRS	294458-294459	2015-04-15
2-Chloroethylvinyl ether	< 2.0	ug/L	A3	RRS	294458-294459	2015-04-15
cis-1,3-Dichloropropene	< 2.0	ug/L		RRS	294458-294459	2015-04-15
4-Methyl-2-Pentanone	< 10.0	ug/L		RRS	294458-294459	2015-04-15
trans-1,3-Dichloropropene	< 2.0	ug/L		RRS	294458-294459	2015-04-15
1,1,2-Trichloroethane	< 2.0	ug/L		RRS	294458-294459	2015-04-15
Toluene	< 2.0	ug/L		RRS	294458-294459	2015-04-15
2-Hexanone	< 10.0	ug/L		RRS	294458-294459	2015-04-15
Dibromochloromethane	< 2.0	ug/L		RRS	294458-294459	2015-04-15
Tetrachloroethene	< 2.0	ug/L		RRS	294458-294459	2015-04-15
Chlorobenzene	< 2.0	ug/L		RRS	294458-294459	2015-04-15
Ethyl benzene	< 2.0	ug/L		RRS	294458-294459	2015-04-15
m,p-Xylene	< 10.0	ug/L		RRS	294458-294459	2015-04-15
Bromoform	< 2.0	ug/L		RRS	294458-294459	2015-04-15
Styrene	< 2.0	ug/L		RRS	294458-294459	2015-04-15
o-Xylene	< 2.0	ug/L		RRS	294458-294459	2015-04-15
1,1,2,2-Tetrachloroethane	< 2.0	ug/L		RRS	294458-294459	2015-04-15
019-0407-3	MW4SR - Ground Water Sampled 4/2/2015					
Metals						
Field Grab	Method: EPA 200.7 Rev 4.4 / Prep: EPA 4.1.3					
Arsenic, Dissolved	< 0.005	mg/L		RVF	294460	2015-04-16
Chromium, Dissolved	0.010	mg/L		RVF	294460	2015-04-16
Lead, Dissolved	< 0.01	mg/L		RVF	294460	2015-04-16

Sample Results

Report ID NY1504019.0.43553

Client Moench Company

Sample ID	Results	Units	Qualifiers	Analyst	Vessel ID	Date
019-0407-3	MW4SR - Ground Water Sampled 4/2/2015					
Volatiles						
Field Grab	Method: EPA 8260C / Prep: EPA 5030C					
Vinyl acetate	< 10.0	ug/L	D1	RRS	294461-294462	2015-04-15
Chloromethane	< 2.0	ug/L		RRS	294461-294462	2015-04-15
Vinyl chloride	< 2.0	ug/L		RRS	294461-294462	2015-04-15
Bromomethane	< 2.0	ug/L		RRS	294461-294462	2015-04-15
Chloroethane	< 2.0	ug/L		RRS	294461-294462	2015-04-15
Acetone	154	ug/L		RRS	294461-294462	2015-04-15
1,1-Dichloroethene	< 2.0	ug/L		RRS	294461-294462	2015-04-15
Methylene chloride	< 2.0	ug/L		RRS	294461-294462	2015-04-15
Carbon Disulfide	< 2.0	ug/L		RRS	294461-294462	2015-04-15
trans-1,2-Dichloroethene	< 2.0	ug/L		RRS	294461-294462	2015-04-15
1,1-Dichloroethane	< 2.0	ug/L	A3	RRS	294461-294462	2015-04-15
2-Butanone (Methylethyl ketone)	< 10.0	ug/L		RRS	294461-294462	2015-04-15
cis-1,2-Dichloroethene	< 2.0	ug/L		RRS	294461-294462	2015-04-15
Chloroform	< 2.0	ug/L		RRS	294461-294462	2015-04-15
1,2-Dichloroethane	< 2.0	ug/L		RRS	294461-294462	2015-04-15
1,1,1-Trichloroethane	< 2.0	ug/L		RRS	294461-294462	2015-04-15
Carbon tetrachloride	< 2.0	ug/L		RRS	294461-294462	2015-04-15
Benzene	< 2.0	ug/L		RRS	294461-294462	2015-04-15
1,2-Dichloropropane	< 2.0	ug/L		RRS	294461-294462	2015-04-15
Trichloroethene	< 2.0	ug/L		RRS	294461-294462	2015-04-15
Bromodichloromethane	< 2.0	ug/L	A3	RRS	294461-294462	2015-04-15
2-Chloroethylvinyl ether	< 2.0	ug/L		RRS	294461-294462	2015-04-15
cis-1,3-Dichloropropene	< 2.0	ug/L		RRS	294461-294462	2015-04-15
4-Methyl-2-Pentanone	< 10.0	ug/L		RRS	294461-294462	2015-04-15
trans-1,3-Dichloropropene	< 2.0	ug/L		RRS	294461-294462	2015-04-15
1,1,2-Trichloroethane	< 2.0	ug/L		RRS	294461-294462	2015-04-15
Toluene	< 2.0	ug/L		RRS	294461-294462	2015-04-15
2-Hexanone	< 10.0	ug/L		RRS	294461-294462	2015-04-15
Dibromochloromethane	< 2.0	ug/L		RRS	294461-294462	2015-04-15
Tetrachloroethene	< 2.0	ug/L		RRS	294461-294462	2015-04-15
Chlorobenzene	< 2.0	ug/L	A3	RRS	294461-294462	2015-04-15
Ethyl benzene	< 2.0	ug/L		RRS	294461-294462	2015-04-15
m,p-Xylene	< 10.0	ug/L		RRS	294461-294462	2015-04-15
Bromoform	< 2.0	ug/L		RRS	294461-294462	2015-04-15
Styrene	< 2.0	ug/L		RRS	294461-294462	2015-04-15
o-Xylene	< 2.0	ug/L		RRS	294461-294462	2015-04-15
1,1,2,2-Tetrachloroethane	< 2.0	ug/L		RRS	294461-294462	2015-04-15

019-0407-4 MW4D - Ground Water Sampled 4/2/2015

Metals

Field Grab	Method: EPA 200.7 Rev 4.4 / Prep: EPA 4.1.3					
Arsenic, Dissolved	< 0.005	mg/L		RVF	294463	2015-04-16
Chromium, Dissolved	< 0.01	mg/L		RVF	294463	2015-04-16
Lead, Dissolved	< 0.01	mg/L		RVF	294463	2015-04-16

Volatiles

Field Grab	Method: EPA 8260C / Prep: EPA 5030C					
Vinyl acetate	< 10.0	ug/L		RRS	294464-294465	2015-04-15
Chloromethane	< 2.0	ug/L		RRS	294464-294465	2015-04-15

Sample Results

Report ID NY1504019.0.43553

Client Moench Company

Sample ID	Results	Units	Qualifiers	Analyst	Vessel ID	Date
019-0407-4	MW4D - Ground Water Sampled 4/2/2015					
Volatiles						
Field Grab	Method: EPA 8260C / Prep: EPA 5030C					
Vinyl chloride	< 2.0	ug/L		RRS	294464-294465	2015-04-15
Bromomethane	< 2.0	ug/L		RRS	294464-294465	2015-04-15
Chloroethane	< 2.0	ug/L		RRS	294464-294465	2015-04-15
Acetone	< 10.0	ug/L		RRS	294464-294465	2015-04-15
1,1-Dichloroethene	< 2.0	ug/L		RRS	294464-294465	2015-04-15
Methylene chloride	< 2.0	ug/L		RRS	294464-294465	2015-04-15
Carbon Disulfide	< 2.0	ug/L		RRS	294464-294465	2015-04-15
trans-1,2-Dichloroethene	< 2.0	ug/L		RRS	294464-294465	2015-04-15
1,1-Dichloroethane	< 2.0	ug/L		RRS	294464-294465	2015-04-15
2-Butanone (Methylethyl ketone)	< 10.0	ug/L		RRS	294464-294465	2015-04-15
cis-1,2-Dichloroethene	< 2.0	ug/L		RRS	294464-294465	2015-04-15
Chloroform	< 2.0	ug/L		RRS	294464-294465	2015-04-15
1,2-Dichloroethane	< 2.0	ug/L		RRS	294464-294465	2015-04-15
1,1,1-Trichloroethane	< 2.0	ug/L		RRS	294464-294465	2015-04-15
Carbon tetrachloride	< 2.0	ug/L		RRS	294464-294465	2015-04-15
Benzene	< 2.0	ug/L		RRS	294464-294465	2015-04-15
1,2-Dichloropropane	< 2.0	ug/L		RRS	294464-294465	2015-04-15
Trichloroethene	< 2.0	ug/L		RRS	294464-294465	2015-04-15
Bromodichloromethane	< 2.0	ug/L		RRS	294464-294465	2015-04-15
2-Chloroethylvinyl ether	< 2.0	ug/L	A3	RRS	294464-294465	2015-04-15
cis-1,3-Dichloropropene	< 2.0	ug/L		RRS	294464-294465	2015-04-15
4-Methyl-2-Pentanone	< 10.0	ug/L		RRS	294464-294465	2015-04-15
trans-1,3-Dichloropropene	< 2.0	ug/L		RRS	294464-294465	2015-04-15
1,1,2-Trichloroethane	< 2.0	ug/L		RRS	294464-294465	2015-04-15
Toluene	< 2.0	ug/L		RRS	294464-294465	2015-04-15
2-Hexanone	< 10.0	ug/L		RRS	294464-294465	2015-04-15
Dibromochloromethane	< 2.0	ug/L		RRS	294464-294465	2015-04-15
Tetrachloroethene	< 2.0	ug/L		RRS	294464-294465	2015-04-15
Chlorobenzene	< 2.0	ug/L		RRS	294464-294465	2015-04-15
Ethyl benzene	< 2.0	ug/L		RRS	294464-294465	2015-04-15
m,p-Xylene	< 10.0	ug/L		RRS	294464-294465	2015-04-15
Bromoform	< 2.0	ug/L		RRS	294464-294465	2015-04-15
Styrene	< 2.0	ug/L		RRS	294464-294465	2015-04-15
o-Xylene	< 2.0	ug/L		RRS	294464-294465	2015-04-15
1,1,2,2-Tetrachloroethane	< 2.0	ug/L		RRS	294464-294465	2015-04-15

019-0407-5 MW3D - Ground Water Sampled 4/2/2015

Metals

Field Grab	Method: EPA 200.7 Rev 4.4 / Prep: EPA 4.1.3					
Arsenic, Dissolved	0.005	mg/L	J	RVF	294466	2015-04-16
Chromium, Dissolved	< 0.01	mg/L		RVF	294466	2015-04-16
Lead, Dissolved	< 0.01	mg/L		RVF	294466	2015-04-16

Volatiles

Field Grab	Method: EPA 8260C / Prep: EPA 5030C					
Vinyl acetate	< 10.0	ug/L		RRS	294467-294468	2015-04-15
Chloromethane	< 2.0	ug/L		RRS	294467-294468	2015-04-15
Vinyl chloride	< 2.0	ug/L		RRS	294467-294468	2015-04-15
Bromomethane	< 2.0	ug/L		RRS	294467-294468	2015-04-15

Sample Results

Report ID NY1504019.0.43553

Client Moench Company

Sample ID	Results	Units	Qualifiers	Analyst	Vessel ID	Date
019-0407-5	MW3D - Ground Water Sampled 4/2/2015					
Volatiles						
Field Grab	Method: EPA 8260C / Prep: EPA 5030C					
Chloroethane	< 2.0	ug/L		RRS	294467-294468	2015-04-15
Acetone	16.0	ug/L		RRS	294467-294468	2015-04-15
1,1-Dichloroethene	< 2.0	ug/L		RRS	294467-294468	2015-04-15
Methylene chloride	< 2.0	ug/L		RRS	294467-294468	2015-04-15
Carbon Disulfide	< 2.0	ug/L		RRS	294467-294468	2015-04-15
trans-1,2-Dichloroethene	< 2.0	ug/L		RRS	294467-294468	2015-04-15
1,1-Dichloroethane	< 2.0	ug/L		RRS	294467-294468	2015-04-15
2-Butanone (Methylethyl ketone)	< 10.0	ug/L		RRS	294467-294468	2015-04-15
cis-1,2-Dichloroethene	< 2.0	ug/L		RRS	294467-294468	2015-04-15
Chloroform	< 2.0	ug/L		RRS	294467-294468	2015-04-15
1,2-Dichloroethane	< 2.0	ug/L		RRS	294467-294468	2015-04-15
1,1,1-Trichloroethane	< 2.0	ug/L		RRS	294467-294468	2015-04-15
Carbon tetrachloride	< 2.0	ug/L		RRS	294467-294468	2015-04-15
Benzene	< 2.0	ug/L		RRS	294467-294468	2015-04-15
1,2-Dichloropropane	< 2.0	ug/L		RRS	294467-294468	2015-04-15
Trichloroethene	< 2.0	ug/L		RRS	294467-294468	2015-04-15
Bromodichloromethane	< 2.0	ug/L		RRS	294467-294468	2015-04-15
2-Chloroethylvinyl ether	< 2.0	ug/L	A3	RRS	294467-294468	2015-04-15
cis-1,3-Dichloropropene	< 2.0	ug/L		RRS	294467-294468	2015-04-15
4-Methyl-2-Pentanone	< 10.0	ug/L		RRS	294467-294468	2015-04-15
trans-1,3-Dichloropropene	< 2.0	ug/L		RRS	294467-294468	2015-04-15
1,1,2-Trichloroethane	< 2.0	ug/L		RRS	294467-294468	2015-04-15
Toluene	< 2.0	ug/L		RRS	294467-294468	2015-04-15
2-Hexanone	< 10.0	ug/L		RRS	294467-294468	2015-04-15
Dibromochloromethane	< 2.0	ug/L		RRS	294467-294468	2015-04-15
Tetrachloroethene	< 2.0	ug/L		RRS	294467-294468	2015-04-15
Chlorobenzene	< 2.0	ug/L		RRS	294467-294468	2015-04-15
Ethyl benzene	< 2.0	ug/L		RRS	294467-294468	2015-04-15
m,p-Xylene	< 10.0	ug/L		RRS	294467-294468	2015-04-15
Bromoform	< 2.0	ug/L		RRS	294467-294468	2015-04-15
Styrene	< 2.0	ug/L		RRS	294467-294468	2015-04-15
o-Xylene	< 2.0	ug/L		RRS	294467-294468	2015-04-15
1,1,2,2-Tetrachloroethane	< 2.0	ug/L		RRS	294467-294468	2015-04-15

019-0407-6 BS3 - Ground Water Sampled 4/2/2015

Metals

Field Grab	Method: EPA 200.7 Rev 4.4 / Prep: EPA 4.1.3					
Arsenic, Dissolved	< 0.005	mg/L		RVF	294469	2015-04-16
Chromium, Dissolved	< 0.01	mg/L		RVF	294469	2015-04-16
Lead, Dissolved	< 0.01	mg/L		RVF	294469	2015-04-16

Volatiles

Field Grab	Method: EPA 8260C / Prep: EPA 5030C					
Vinyl acetate	< 10.0	ug/L		RRS	294470-294471	2015-04-15
Chloromethane	< 2.0	ug/L		RRS	294470-294471	2015-04-15
Vinyl chloride	< 2.0	ug/L		RRS	294470-294471	2015-04-15
Bromomethane	< 2.0	ug/L		RRS	294470-294471	2015-04-15
Chloroethane	< 2.0	ug/L		RRS	294470-294471	2015-04-15
Acetone	< 10.0	ug/L		RRS	294470-294471	2015-04-15

Sample Results

Report ID NY1504019.0.43553

Client Moench Company

Sample ID	Results	Units	Qualifiers	Analyst	Vessel ID	Date
019-0407-6	BS3 - Ground Water Sampled 4/2/2015					
Volatiles						
Field Grab	Method: EPA 8260C / Prep: EPA 5030C					
1,1-Dichloroethene	< 2.0	ug/L	A3	RRS	294470-294471	2015-04-15
Methylene chloride	< 2.0	ug/L		RRS	294470-294471	2015-04-15
Carbon Disulfide	< 2.0	ug/L		RRS	294470-294471	2015-04-15
trans-1,2-Dichloroethene	< 2.0	ug/L		RRS	294470-294471	2015-04-15
1,1-Dichloroethane	< 2.0	ug/L		RRS	294470-294471	2015-04-15
2-Butanone (Methylethyl ketone)	< 10.0	ug/L		RRS	294470-294471	2015-04-15
cis-1,2-Dichloroethene	< 2.0	ug/L		RRS	294470-294471	2015-04-15
Chloroform	< 2.0	ug/L		RRS	294470-294471	2015-04-15
1,2-Dichloroethane	< 2.0	ug/L		RRS	294470-294471	2015-04-15
1,1,1-Trichloroethane	< 2.0	ug/L		RRS	294470-294471	2015-04-15
Carbon tetrachloride	< 2.0	ug/L		RRS	294470-294471	2015-04-15
Benzene	< 2.0	ug/L		RRS	294470-294471	2015-04-15
1,2-Dichloropropane	< 2.0	ug/L		RRS	294470-294471	2015-04-15
Trichloroethene	< 2.0	ug/L		RRS	294470-294471	2015-04-15
Bromodichloromethane	< 2.0	ug/L		RRS	294470-294471	2015-04-15
2-Chloroethylvinyl ether	< 2.0	ug/L		RRS	294470-294471	2015-04-15
cis-1,3-Dichloropropene	< 2.0	ug/L		RRS	294470-294471	2015-04-15
4-Methyl-2-Pentanone	< 10.0	ug/L		RRS	294470-294471	2015-04-15
trans-1,3-Dichloropropene	< 2.0	ug/L		RRS	294470-294471	2015-04-15
1,1,2-Trichloroethane	< 2.0	ug/L		RRS	294470-294471	2015-04-15
Toluene	< 2.0	ug/L		RRS	294470-294471	2015-04-15
2-Hexanone	< 10.0	ug/L		RRS	294470-294471	2015-04-15
Dibromochloromethane	< 2.0	ug/L		RRS	294470-294471	2015-04-15
Tetrachloroethene	< 2.0	ug/L		RRS	294470-294471	2015-04-15
Chlorobenzene	< 2.0	ug/L		RRS	294470-294471	2015-04-15
Ethyl benzene	< 2.0	ug/L		RRS	294470-294471	2015-04-15
m,p-Xylene	< 10.0	ug/L	RRS	294470-294471	2015-04-15	
Bromoform	< 2.0	ug/L	RRS	294470-294471	2015-04-15	
Styrene	< 2.0	ug/L	RRS	294470-294471	2015-04-15	
o-Xylene	< 2.0	ug/L	RRS	294470-294471	2015-04-15	
1,1,2,2-Tetrachloroethane	< 2.0	ug/L	RRS	294470-294471	2015-04-15	

019-0407-7 MW8D - Ground Water Sampled 4/2/2015

Metals

Field Grab	Method: EPA 200.7 Rev 4.4 / Prep: EPA 4.1.3					
Arsenic, Dissolved	< 0.005	mg/L		RVF	294472	2015-04-16
Chromium, Dissolved	< 0.01	mg/L		RVF	294472	2015-04-16
Lead, Dissolved	< 0.01	mg/L		RVF	294472	2015-04-16

Volatiles

Field Grab	Method: EPA 8260C / Prep: EPA 5030C					
Vinyl acetate	< 10.0	ug/L		RRS	294473-294474	2015-04-15
Chloromethane	< 2.0	ug/L		RRS	294473-294474	2015-04-15
Vinyl chloride	< 2.0	ug/L		RRS	294473-294474	2015-04-15
Bromomethane	< 2.0	ug/L		RRS	294473-294474	2015-04-15
Chloroethane	< 2.0	ug/L		RRS	294473-294474	2015-04-15
Acetone	< 10.0	ug/L		RRS	294473-294474	2015-04-15
1,1-Dichloroethene	< 2.0	ug/L		RRS	294473-294474	2015-04-15
Methylene chloride	< 2.0	ug/L		RRS	294473-294474	2015-04-15

Sample Results

Report ID NY1504019.0.43553

Client Moench Company

Sample ID	Results	Units	Qualifiers	Analyst	Vessel ID	Date
019-0407-7	MW8D - Ground Water Sampled 4/2/2015					
Volatiles						
Field Grab	Method: EPA 8260C / Prep: EPA 5030C					
Carbon Disulfide	< 2.0	ug/L		RRS	294473-294474	2015-04-15
trans-1,2-Dichloroethene	< 2.0	ug/L		RRS	294473-294474	2015-04-15
1,1-Dichloroethane	< 2.0	ug/L		RRS	294473-294474	2015-04-15
2-Butanone (Methylethyl ketone)	< 10.0	ug/L		RRS	294473-294474	2015-04-15
cis-1,2-Dichloroethene	< 2.0	ug/L		RRS	294473-294474	2015-04-15
Chloroform	< 2.0	ug/L		RRS	294473-294474	2015-04-15
1,2-Dichloroethane	< 2.0	ug/L		RRS	294473-294474	2015-04-15
1,1,1-Trichloroethane	< 2.0	ug/L		RRS	294473-294474	2015-04-15
Carbon tetrachloride	< 2.0	ug/L		RRS	294473-294474	2015-04-15
Benzene	< 2.0	ug/L		RRS	294473-294474	2015-04-15
1,2-Dichloropropane	< 2.0	ug/L		RRS	294473-294474	2015-04-15
Trichloroethene	< 2.0	ug/L		RRS	294473-294474	2015-04-15
Bromodichloromethane	< 2.0	ug/L		RRS	294473-294474	2015-04-15
2-Chloroethylvinyl ether	< 2.0	ug/L	A3	RRS	294473-294474	2015-04-15
cis-1,3-Dichloropropene	< 2.0	ug/L		RRS	294473-294474	2015-04-15
4-Methyl-2-Pentanone	< 10.0	ug/L		RRS	294473-294474	2015-04-15
trans-1,3-Dichloropropene	< 2.0	ug/L		RRS	294473-294474	2015-04-15
1,1,2-Trichloroethane	< 2.0	ug/L		RRS	294473-294474	2015-04-15
Toluene	< 2.0	ug/L		RRS	294473-294474	2015-04-15
2-Hexanone	< 10.0	ug/L		RRS	294473-294474	2015-04-15
Dibromochloromethane	< 2.0	ug/L		RRS	294473-294474	2015-04-15
Tetrachloroethene	< 2.0	ug/L		RRS	294473-294474	2015-04-15
Chlorobenzene	< 2.0	ug/L		RRS	294473-294474	2015-04-15
Ethyl benzene	< 2.0	ug/L		RRS	294473-294474	2015-04-15
m,p-Xylene	< 10.0	ug/L		RRS	294473-294474	2015-04-15
Bromoform	< 2.0	ug/L		RRS	294473-294474	2015-04-15
Styrene	< 2.0	ug/L		RRS	294473-294474	2015-04-15
o-Xylene	< 2.0	ug/L		RRS	294473-294474	2015-04-15
1,1,2,2-Tetrachloroethane	< 2.0	ug/L		RRS	294473-294474	2015-04-15
019-0407-8	MW7D - Ground Water Sampled 4/2/2015					
Metals						
Field Grab	Method: EPA 200.7 Rev 4.4 / Prep: EPA 4.1.3					
Arsenic, Dissolved	< 0.005	mg/L		RVF	294475	2015-04-16
Chromium, Dissolved	< 0.01	mg/L		RVF	294475	2015-04-16
Lead, Dissolved	< 0.01	mg/L		RVF	294475	2015-04-16
Volatiles						
Field Grab	Method: EPA 8260C / Prep: EPA 5030C					
Vinyl acetate	< 10.0	ug/L		RRS	294476-294477	2015-04-15
Chloromethane	< 2.0	ug/L		RRS	294476-294477	2015-04-15
Vinyl chloride	< 2.0	ug/L		RRS	294476-294477	2015-04-15
Bromomethane	< 2.0	ug/L		RRS	294476-294477	2015-04-15
Chloroethane	< 2.0	ug/L		RRS	294476-294477	2015-04-15
Acetone	< 10.0	ug/L		RRS	294476-294477	2015-04-15
1,1-Dichloroethene	< 2.0	ug/L		RRS	294476-294477	2015-04-15
Methylene chloride	< 2.0	ug/L		RRS	294476-294477	2015-04-15
Carbon Disulfide	< 2.0	ug/L		RRS	294476-294477	2015-04-15
trans-1,2-Dichloroethene	< 2.0	ug/L		RRS	294476-294477	2015-04-15

Sample Results

Report ID NY1504019.0.43553

Client Moench Company

Sample ID	Results	Units	Qualifiers	Analyst	Vessel ID	Date
019-0407-8	MW7D - Ground Water Sampled 4/2/2015					
Volatiles						
Field Grab	Method: EPA 8260C / Prep: EPA 5030C					
1,1-Dichloroethane	< 2.0	ug/L	A3	RRS	294476-294477	2015-04-15
2-Butanone (Methylethyl ketone)	< 10.0	ug/L		RRS	294476-294477	2015-04-15
cis-1,2-Dichloroethene	< 2.0	ug/L		RRS	294476-294477	2015-04-15
Chloroform	< 2.0	ug/L		RRS	294476-294477	2015-04-15
1,2-Dichloroethane	< 2.0	ug/L		RRS	294476-294477	2015-04-15
1,1,1-Trichloroethane	< 2.0	ug/L		RRS	294476-294477	2015-04-15
Carbon tetrachloride	< 2.0	ug/L		RRS	294476-294477	2015-04-15
Benzene	< 2.0	ug/L		RRS	294476-294477	2015-04-15
1,2-Dichloropropane	< 2.0	ug/L		RRS	294476-294477	2015-04-15
Trichloroethene	< 2.0	ug/L		RRS	294476-294477	2015-04-15
Bromodichloromethane	< 2.0	ug/L		RRS	294476-294477	2015-04-15
2-Chloroethylvinyl ether	< 2.0	ug/L		RRS	294476-294477	2015-04-15
cis-1,3-Dichloropropene	< 2.0	ug/L		RRS	294476-294477	2015-04-15
4-Methyl-2-Pentanone	< 10.0	ug/L		RRS	294476-294477	2015-04-15
trans-1,3-Dichloropropene	< 2.0	ug/L		RRS	294476-294477	2015-04-15
1,1,2-Trichloroethane	< 2.0	ug/L		RRS	294476-294477	2015-04-15
Toluene	< 2.0	ug/L		RRS	294476-294477	2015-04-15
2-Hexanone	< 10.0	ug/L		RRS	294476-294477	2015-04-15
Dibromochloromethane	< 2.0	ug/L		RRS	294476-294477	2015-04-15
Tetrachloroethene	< 2.0	ug/L		RRS	294476-294477	2015-04-15
Chlorobenzene	< 2.0	ug/L	RRS	294476-294477	2015-04-15	
Ethyl benzene	< 2.0	ug/L	RRS	294476-294477	2015-04-15	
m,p-Xylene	< 10.0	ug/L	RRS	294476-294477	2015-04-15	
Bromoform	< 2.0	ug/L	RRS	294476-294477	2015-04-15	
Styrene	< 2.0	ug/L	RRS	294476-294477	2015-04-15	
o-Xylene	< 2.0	ug/L	RRS	294476-294477	2015-04-15	
1,1,2,2-Tetrachloroethane	< 2.0	ug/L	RRS	294476-294477	2015-04-15	

019-0407-9 Blind Dup - Ground Water Sampled 4/2/2015

Metals

Field Grab	Method: EPA 200.7 Rev 4.4 / Prep: EPA 4.1.3					
Arsenic, Dissolved	0.006	mg/L	J	RVF	294478	2015-04-16
Chromium, Dissolved	< 0.01	mg/L		RVF	294478	2015-04-16
Lead, Dissolved	< 0.01	mg/L		RVF	294478	2015-04-16

Volatiles

Field Grab	Method: EPA 8260C / Prep: EPA 5030C					
Vinyl acetate	< 10.0	ug/L		RRS	294479-294480	2015-04-15
Chloromethane	< 2.0	ug/L		RRS	294479-294480	2015-04-15
Vinyl chloride	< 2.0	ug/L		RRS	294479-294480	2015-04-15
Bromomethane	< 2.0	ug/L		RRS	294479-294480	2015-04-15
Chloroethane	< 2.0	ug/L		RRS	294479-294480	2015-04-15
Acetone	< 10.0	ug/L		RRS	294479-294480	2015-04-15
1,1-Dichloroethene	< 2.0	ug/L		RRS	294479-294480	2015-04-15
Methylene chloride	< 2.0	ug/L		RRS	294479-294480	2015-04-15
Carbon Disulfide	< 2.0	ug/L		RRS	294479-294480	2015-04-15
trans-1,2-Dichloroethene	< 2.0	ug/L		RRS	294479-294480	2015-04-15
1,1-Dichloroethane	< 2.0	ug/L		RRS	294479-294480	2015-04-15
2-Butanone (Methylethyl ketone)	< 10.0	ug/L		RRS	294479-294480	2015-04-15

Sample Results

Report ID NY1504019.0.43553

Client Moench Company

Sample ID	Results	Units	Qualifiers	Analyst	Vessel ID	Date
019-0407-9	Blind Dup - Ground Water Sampled 4/2/2015					
Volatiles						
Field Grab	Method: EPA 8260C / Prep: EPA 5030C					
cis-1,2-Dichloroethene	< 2.0	ug/L	A3	RRS	294479-294480	2015-04-15
Chloroform	< 2.0	ug/L		RRS	294479-294480	2015-04-15
1,2-Dichloroethane	< 2.0	ug/L		RRS	294479-294480	2015-04-15
1,1,1-Trichloroethane	< 2.0	ug/L		RRS	294479-294480	2015-04-15
Carbon tetrachloride	< 2.0	ug/L		RRS	294479-294480	2015-04-15
Benzene	< 2.0	ug/L		RRS	294479-294480	2015-04-15
1,2-Dichloropropane	< 2.0	ug/L		RRS	294479-294480	2015-04-15
Trichloroethene	< 2.0	ug/L		RRS	294479-294480	2015-04-15
Bromodichloromethane	< 2.0	ug/L		RRS	294479-294480	2015-04-15
2-Chloroethylvinyl ether	< 2.0	ug/L		RRS	294479-294480	2015-04-15
cis-1,3-Dichloropropene	< 2.0	ug/L		RRS	294479-294480	2015-04-15
4-Methyl-2-Pentanone	< 10.0	ug/L		RRS	294479-294480	2015-04-15
trans-1,3-Dichloropropene	< 2.0	ug/L		RRS	294479-294480	2015-04-15
1,1,2-Trichloroethane	< 2.0	ug/L		RRS	294479-294480	2015-04-15
Toluene	< 2.0	ug/L		RRS	294479-294480	2015-04-15
2-Hexanone	< 10.0	ug/L		RRS	294479-294480	2015-04-15
Dibromochloromethane	< 2.0	ug/L		RRS	294479-294480	2015-04-15
Tetrachloroethene	< 2.0	ug/L		RRS	294479-294480	2015-04-15
Chlorobenzene	< 2.0	ug/L		RRS	294479-294480	2015-04-15
Ethyl benzene	< 2.0	ug/L		RRS	294479-294480	2015-04-15
m,p-Xylene	< 10.0	ug/L	RRS	294479-294480	2015-04-15	
Bromoform	< 2.0	ug/L	RRS	294479-294480	2015-04-15	
Styrene	< 2.0	ug/L	RRS	294479-294480	2015-04-15	
o-Xylene	< 2.0	ug/L	RRS	294479-294480	2015-04-15	
1,1,2,2-Tetrachloroethane	< 2.0	ug/L	RRS	294479-294480	2015-04-15	

019-0407-10 Eq. Blank - Ground Water Sampled 4/2/2015

Metals

Field Grab	Method: EPA 200.7 Rev 4.4 / Prep: EPA 4.1.3					
Arsenic, Dissolved	< 0.005	mg/L		RVF	294481	2015-04-16
Chromium, Dissolved	< 0.01	mg/L		RVF	294481	2015-04-16
Lead, Dissolved	< 0.01	mg/L		RVF	294481	2015-04-16

Volatiles

Field Grab	Method: EPA 8260C / Prep: EPA 5030C					
Vinyl acetate	< 10.0	ug/L		RRS	294482-294483	2015-04-15
Chloromethane	< 2.0	ug/L		RRS	294482-294483	2015-04-15
Vinyl chloride	< 2.0	ug/L		RRS	294482-294483	2015-04-15
Bromomethane	< 2.0	ug/L		RRS	294482-294483	2015-04-15
Chloroethane	< 2.0	ug/L		RRS	294482-294483	2015-04-15
Acetone	< 10.0	ug/L		RRS	294482-294483	2015-04-15
1,1-Dichloroethene	< 2.0	ug/L		RRS	294482-294483	2015-04-15
Methylene chloride	< 2.0	ug/L		RRS	294482-294483	2015-04-15
Carbon Disulfide	< 2.0	ug/L		RRS	294482-294483	2015-04-15
trans-1,2-Dichloroethene	< 2.0	ug/L		RRS	294482-294483	2015-04-15
1,1-Dichloroethane	< 2.0	ug/L		RRS	294482-294483	2015-04-15
2-Butanone (Methylethyl ketone)	< 10.0	ug/L		RRS	294482-294483	2015-04-15
cis-1,2-Dichloroethene	< 2.0	ug/L		RRS	294482-294483	2015-04-15
Chloroform	< 2.0	ug/L		RRS	294482-294483	2015-04-15

Sample Results

Report ID NY1504019.0.43553

Client Moench Company

Sample ID	Results	Units	Qualifiers	Analyst	Vessel ID	Date
019-0407-10	Eq. Blank - Ground Water Sampled 4/2/2015					
Volatiles						
Field Grab	Method: EPA 8260C / Prep: EPA 5030C					
1,2-Dichloroethane	< 2.0	ug/L	A3	RRS	294482-294483	2015-04-15
1,1,1-Trichloroethane	< 2.0	ug/L		RRS	294482-294483	2015-04-15
Carbon tetrachloride	< 2.0	ug/L		RRS	294482-294483	2015-04-15
Benzene	< 2.0	ug/L		RRS	294482-294483	2015-04-15
1,2-Dichloropropane	< 2.0	ug/L		RRS	294482-294483	2015-04-15
Trichloroethene	< 2.0	ug/L		RRS	294482-294483	2015-04-15
Bromodichloromethane	< 2.0	ug/L		RRS	294482-294483	2015-04-15
2-Chloroethylvinyl ether	< 2.0	ug/L		RRS	294482-294483	2015-04-15
cis-1,3-Dichloropropene	< 2.0	ug/L		RRS	294482-294483	2015-04-15
4-Methyl-2-Pentanone	< 10.0	ug/L		RRS	294482-294483	2015-04-15
trans-1,3-Dichloropropene	< 2.0	ug/L		RRS	294482-294483	2015-04-15
1,1,2-Trichloroethane	< 2.0	ug/L		RRS	294482-294483	2015-04-15
Toluene	< 2.0	ug/L		RRS	294482-294483	2015-04-15
2-Hexanone	< 10.0	ug/L		RRS	294482-294483	2015-04-15
Dibromochloromethane	< 2.0	ug/L		RRS	294482-294483	2015-04-15
Tetrachloroethene	< 2.0	ug/L		RRS	294482-294483	2015-04-15
Chlorobenzene	< 2.0	ug/L		RRS	294482-294483	2015-04-15
Ethyl benzene	< 2.0	ug/L		RRS	294482-294483	2015-04-15
m,p-Xylene	< 10.0	ug/L		RRS	294482-294483	2015-04-15
Bromoform	< 2.0	ug/L		RRS	294482-294483	2015-04-15
Styrene	< 2.0	ug/L	RRS	294482-294483	2015-04-15	
o-Xylene	< 2.0	ug/L	RRS	294482-294483	2015-04-15	
1,1,2,2-Tetrachloroethane	< 2.0	ug/L	RRS	294482-294483	2015-04-15	

019-0407-11 Trip Blank - Deionized Water Sampled 4/2/2015

Volatiles

Trip Blank	Method: EPA 8260C / Prep: EPA 5030C					
Vinyl acetate	< 10.0	ug/L		RRS	294484	2015-04-15
Chloromethane	< 2.0	ug/L		RRS	294484	2015-04-15
Vinyl chloride	< 2.0	ug/L		RRS	294484	2015-04-15
Bromomethane	< 2.0	ug/L		RRS	294484	2015-04-15
Chloroethane	< 2.0	ug/L		RRS	294484	2015-04-15
Acetone	< 10.0	ug/L		RRS	294484	2015-04-15
1,1-Dichloroethene	< 2.0	ug/L		RRS	294484	2015-04-15
Methylene chloride	< 2.0	ug/L		RRS	294484	2015-04-15
Carbon Disulfide	< 2.0	ug/L		RRS	294484	2015-04-15
trans-1,2-Dichloroethene	< 2.0	ug/L		RRS	294484	2015-04-15
1,1-Dichloroethane	< 2.0	ug/L		RRS	294484	2015-04-15
2-Butanone (Methylethyl ketone)	< 10.0	ug/L		RRS	294484	2015-04-15
cis-1,2-Dichloroethene	< 2.0	ug/L		RRS	294484	2015-04-15
Chloroform	< 2.0	ug/L		RRS	294484	2015-04-15
1,2-Dichloroethane	< 2.0	ug/L		RRS	294484	2015-04-15
1,1,1-Trichloroethane	< 2.0	ug/L		RRS	294484	2015-04-15
Carbon tetrachloride	< 2.0	ug/L		RRS	294484	2015-04-15
Benzene	< 2.0	ug/L		RRS	294484	2015-04-15
1,2-Dichloropropane	< 2.0	ug/L		RRS	294484	2015-04-15
Trichloroethene	< 2.0	ug/L		RRS	294484	2015-04-15
Bromodichloromethane	< 2.0	ug/L		RRS	294484	2015-04-15
2-Chloroethylvinyl ether	< 2.0	ug/L	A3	RRS	294484	2015-04-15
cis-1,3-Dichloropropene	< 2.0	ug/L		RRS	294484	2015-04-15

Sample Results

Report ID NY1504019.0.43553

Client Moench Company

Sample ID	Results	Units	Qualifiers	Analyst	Vessel ID	Date
019-0407-11	Trip Blank - Deionized Water Sampled 4/2/2015					
Volatiles						
Trip Blank	Method: EPA 8260C / Prep: EPA 5030C					
4-Methyl-2-Pentanone	< 10.0	ug/L		RRS	294484	2015-04-15
trans-1,3-Dichloropropene	< 2.0	ug/L		RRS	294484	2015-04-15
1,1,2-Trichloroethane	< 2.0	ug/L		RRS	294484	2015-04-15
Toluene	< 2.0	ug/L		RRS	294484	2015-04-15
2-Hexanone	< 10.0	ug/L		RRS	294484	2015-04-15
Dibromochloromethane	< 2.0	ug/L		RRS	294484	2015-04-15
Tetrachloroethene	< 2.0	ug/L		RRS	294484	2015-04-15
Chlorobenzene	< 2.0	ug/L		RRS	294484	2015-04-15
Ethyl benzene	< 2.0	ug/L		RRS	294484	2015-04-15
m,p-Xylene	< 10.0	ug/L		RRS	294484	2015-04-15
Bromoform	< 2.0	ug/L		RRS	294484	2015-04-15
Styrene	< 2.0	ug/L		RRS	294484	2015-04-15
o-Xylene	< 2.0	ug/L		RRS	294484	2015-04-15
1,1,2,2-Tetrachloroethane	< 2.0	ug/L		RRS	294484	2015-04-15

Data Qualifiers and Definitions:

A3 Analyte cannot be recovered in an acid preserved sample. Result is estimated.

D1 Sample diluted due to initial result outside of linear calibrated range of the instrument.

J Estimated value. Analyte result is less than reporting limit (RL) and greater than or equal to the method detection limit (MDL).

General Disclaimer

•The test results are submitted pursuant to IsleChem LLC's current terms and conditions of sale, including the company's standard warranty and limitation of liability provisions. No responsibility or liability is assumed for the manner in which the results are used or interpreted.

•This report is issued for the benefit of and may be relied upon by the client named above. The client bears full responsibility for deciding the level of testing for sample submitted to IsleChem LLC.

•These results pertain only to the items tested.

•This report shall not be reproduced except in full.

•If the sample(s) represented by these test results were not collected by IsleChem LLC then the test results are limited to the reported values determined by the analytical testing process. IsleChem LLC makes no representation regarding the sample's collection technique, condition, volume, homogeneity or any other aspect of the sample(s) prior to IsleChem LLC taking possession of the sample(s) and the influence it may have on the results.

•Unless notified in writing to return the samples covered by this report IsleChem LLC will store what remains of the sample(s), if anything, for a period of thirty (30) days, sixty (60) days for asbestos samples, before discarding, unless otherwise required by law. A shipping and handling fee will be charged for the return of any sample(s).

•Certain analytes may not be covered by the NYS DOH or NELAP fields of accreditation. Results for those analytes are generated by the cited method using QA/QC guidelines from IsleChem's Quality Control Manual, where applicable.

The test results in this report meet all NELAP requirements for parameters that are within IsleChem's field of accreditation. Any exceptions to NELAP requirements are noted in the comments field.

All results for solid samples are reported on a dry weight basis unless otherwise noted.

Visit us on the web at www.islechem.com



CHAIN OF CUSTODY / REQUEST FOR LABORATORY ANALYSIS

2801 Long Road, Grand Island, NY 14072 (716)773-8401 (716)773-8517 (Fax)

Page 1 of 2

Moench Company Organization Name		Palmer Street Landfill Routine Parameter List Project Name				7 Samples / 21 Bottles + Trip Blank # of Samples / # of Bottles					
465 Palmer Street Street Address		CHARGE TO VISA CARD Client PO / Release #				10 Days Turnaround Time/ Date Results Needed					
Gowanda, NY 14070 City, State, ZIP		4-1-15 Date Sampled				NY 1504019.43553 IsleChem Project #					
Jeffrey Smith Contact Person		For electronic report please provide e-mail below: jxsmith@browshoe.com				Rush Work Performed at Priority Rate (see below)					
716-532-2201 / 716-532-5518 Phone# and Fax#											
Sample ID	Sample Location	Matrix	Comp	Grab	Soluble Cr, Pb & As* (2374)	TCL Volatiles (2167)	Filtered by Client	Approved by Client	Yes	No	Initials
MWGD	Site 1	GW		X	X	294454					
"	Site 1	GW		X		X 294455	294456				
MW6	Site 2	GW		X	X	294457					
"	Site 2	GW		X		X 294458	294459				
BS1	Site 3	GW		X	X						
"	Site 3	GW		X							
MW5	Site 4	GW		X	X						
"	Site 4	GW		X							
MW4SR	Site 5	GW		X	X	294460					
"	Site 5	GW		X		X 294461	294462				
MW4D	Site 6	GW		X	X	294463					
"	Site 6	GW		X		X 294464	294465				
BS-2	Site 7	GW		X							
"	Site 7	GW		X							
Comments: * A low detection limit for Arsenic is required at 0.005 mg/L / Soluble metals will be filtered in the field.											
Sampled By: <i>J. Smith</i>		Date: <i>4/2/15</i>	Time: <i>1500</i>	Received by:		Date:	Time:	Received by:		Date:	Time:
Relinquished by: <i>J. Smith</i>		Date: <i>4/7/15</i>	Time: <i>700</i>	Relinquished by:		Date:	Time:	Received by lab: <i>Brenda Perinelli</i>		Date: <i>4/7/15</i>	Time: <i>930</i>

Standard turnaround time is 10 days.

RUSH WORK CHARGES: 3-6 times the standard cost for same day depending on the time needed ~ 2.5 times the standard cost for next day ~ 1.75 times the standard cost for 3 da

By relinquishing these samples to IsleChem, LLC, you are accepting the current IsleChem, LLC terms and conditions for the sale of services.



CHAIN OF CUSTODY / REQUEST FOR LABORATORY ANALYSIS

2801 Long Road, Grand Island, NY 14072 (716)773-8401 (716)773-8517 (Fax)

Page 2 of 2

Moench Company Organization Name		Palmer Street Landfill Routine Parameter List Project Name		7 Samples / 21 Bottles + Trip Blank # of Samples / # of Bottles	
465 Palmer Street Street Address		CHARGE TO VISA CARD Client PO / Release #		10 Days Turnaround Time/ Date Results Needed	
Gowanda, NY 14070 City, State, ZIP		4-1-15 Date Sampled		NY 1504019.43553 IsleChem Project #	
Jeffrey Smith Contact Person		For electronic report please provide e-mail below: jxsmith@browshoe.com		Rush Work Performed at Priority Rate (see below)	
6-532-2201 / 716-532-5518 Phone# and Fax#		E-mail		Approved by Client Yes No Initials	
Sample Location		Matrix		Approved by Lab Yes No Initials	
Site 8		GW		Bottle Type / Preservative	
Site 8		GW		250 ml Poly (HNO3)	
Site 9		GW		(2) 40 ml VOA Vials (HCL), zero headspace - 1 vial as backup	
Site 9		GW		250 ml Poly (HNO3)	
Site 10		GW		(2) 40 ml VOA Vials (HCL), zero headspace - 1 vial as backup	
Site 10		GW		250 ml Poly (HNO3)	
Site 11		GW		(2) 40 ml VOA Vials (HCL), zero headspace - 1 vial as backup	
Site 11		GW		250 ml Poly (HNO3)	
Site 12		GW		(2) 40 ml VOA Vials (HCL), zero headspace - 1 vial as backup	
Site 12		GW		250 ml Poly (HNO3)	
Site 13		GW		(2) 40 ml VOA Vials (HCL), zero headspace - 1 vial as backup	
Site 13		GW		250 ml Poly (HNO3)	
Site 14		GW		(2) 40 ml VOA Vials (HCL), zero headspace - 1 vial as backup	
Site 14		GW		250 ml Poly (HNO3)	
Trip Blank		DI Water		(2) 40 ml VOA Vials (HCL), zero headspace - 1 vial as backup	
				40 ml VOA Vials (HCL)	
Comments: * A low detection limit for Arsenic is required at 0.005 mg/L / Soluble metals will be filtered from the filter.					
Sampled By: J. Smith		Date: 4/2/15		Time: 1500	
Relinquished by: J. Smith		Date: 4/2/15		Time: 700	
Received by:		Date:		Time:	
Relinquished by:		Date:		Time:	
Received by lab: Brenda Kornelli		Date: 4/7/15		Time: 930	

Standard turnaround time is 10 days.

RUSH WORK CHARGES: 3-6 times the standard cost for same day depending on the time needed ~ 2.5 times the standard cost for next day ~ 1.75 times the standard cost for 3 day.

By relinquishing these samples to IsleChem, LLC, you are accepting the current IsleChem, LLC terms and conditions for the sale of services.

RECEIVED

AUG 11 2015

NYS DEC
REGION 9

MOENCH COMPANY
DIVISION OF CALERES*5*
465 PALMER ST.
GOWANDA, NEW YORK 14070
PHONE: 716-532-2201

✓ Mr. Stanley F. Radon
N.Y. State Dept. of Environmental Conservation
Division of Solid & Hazardous Waste
270 Michigan Ave.
Buffalo, New York 14203-2999

August 10, 2015

Re: Palmer St. Landfill, Groundwater Quality for July 2015 sample.

Mr. Radon:

Attached/enclosed is the Groundwater Quality report for our Palmer St. Landfill, for the July 2015 sample event. An electronic report in EDD format will be submitted by GEI Consultants. Also, I have forwarded a PDF file to you, from the UPS store.

Rain fall was more than normal, prior to the sampling, resulting in a rare sample form the MW-3 well. There was only enough volume for the sample though, therefore no purging took place.

There were no detections of metals above the "GA" standard at any of the monitoring points. There were no detections of VOCs, except at MW-6, for 1,2 Dichloroethane. This is considered an anomaly.

The Village of Gowanda continues to use the deep aquifer for its' water supply. This is reflected in the extreme drop in the water level in our MW-1D well, which is an indicator of the water level in the aquifer.

The results have shown for many years, the Palmer St. Landfill is having no effect on the surrounding environment, and should be delisted.

Please call me if you have any questions.

Sincerely,



Jeffrey Smith
Site Manager

(cov. Ltr & summary only)
Cc: Sandra Severson-Caleres *5*
St. Louis Mo.
Emily Schultz-Caleres *5*
St. Louis, Mo
Richard Frappa-GEI Consultants
Williamsville, NY

MOENCH COMPANY
DIVISION OF CALERES*5*
465 PALMER ST.
GOWANDA, NEW YORK 14070
PHONE: 716-532-2201

RECEIVED

AUG 11 2015

NYS DEC
REGION 9

PALMER ST. LANDFULL:

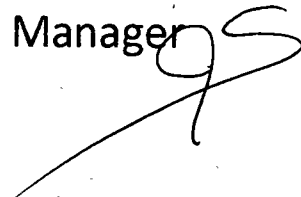
AUGUST 2015

GROUNDWATER QUALITY MONITORING REPORT:

JULY 16, 2015 MONITORING EVENT:

SECOND OF TWO SAMPLES FOR 2015

Jeffrey Smith
Site Manager

A handwritten signature in black ink, appearing to be 'JS' or 'Jeffrey Smith', written over the printed name and title.

PALMER STREET LANDFILL - MOENCH COMPANY. (DIV. OF CALERES*5*.)
GROUNDWATER MONITORING REPORT FOR JULY 2015, SAMPLING EVENT.

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- C LAB ANALYTICAL REPORT JULY 16TH, 2015
MONITORING EVENT. (ISLECHEM, LLC)

1.0 INTRODUCTION

1.1 BACKGROUND-LANDFILL.

THE MOENCH COMPANY, A DIVISION CALERES *5*, AND IS LOCATED NEAR THE SOUTHEAST CORNER OF THE VILLAGE OF GOWANDA, CATTARAUGUS COUNTY, NEW YORK. (FIGURE 1). THE PALMER STREET LANDFILL, WHICH WAS OPERATED BY MOENCH TANNING FROM 1900 (APPROX), THROUGH JULY 1983, LIES IMMEDIATELY SOUTHWEST OF THE (FORMER) TANNERY COMPLEX ON AN APPROXIMATELY 25-ACRE, PARCEL OF LAND. A VARIETY OF WASTE GENERATED BY MOENCH TANNING WERE DISPOSED OF AT THE PALMER STREET LANDFILL SITE. THESE WASTES INCLUDED SOLE LEATHER EXTRACT, RENDERING WASTE, SPRAY BOOTH CLEAN UP WASTE, WASTE FINISH, WASTE HAIR/LEATHER SCRAPS, WASTEWATER TREATMENT PLANT SLUDGE, AND OCCASIONAL CONSTRUCTION DEBRIS.

MOENCH TANNING HAS CLOSED THE PALMER STREET LANDFILL. ACCORDINGLY, THE CLOSURE/POST CLOSURE PLAN (REFERENCE 1), IS BEING PERFORMED. THE LONG-TERM POST CLOSURE MONITORING PROGRAM HAS BEEN APPROVED & IMPLIMENTED. (JULY 1993, REVISED MARCH 1994, MARCH 2001 & DECEMBER 2006).

IN JULY OF 2006, A PROPOSAL WAS MADE TO THE NEW YORK STATE DEPT. OF ENVIRONMENTAL (NYSDEC), TO RECONFIGURE THE GROUNDWATER MONITORING SYSTEM (REF#7). THIS WAS AGREED UPON IN EXCHANGE FOR THE ELIMINATION OF THE FIVE YEAR "COVER SYSTEM EVALUATION". THE NEW MONITORING SYSTEM IS DESCRIBED IN SECTION 2.0

1.2 PURPOSE AND SCOPE

SAMPLES ASSOCIATED WITH THE SECOND EVENT OF TWO, WATER QUALITY MONITORS, FOR 2015 YEAR, WERE COLLECTED ON JULY 16, 2015.

SAMPLES WERE OBTAINED ONLY AT BANK SEEP #3, OF THE THREE BANK SEEPS. NO SEEPS EXISTED AT BS-1 & BS-2.

SITES MW-5 WAS DRY, AND NO SAMPLE OBTAINED. THERE WAS A RARE SAMPLE AVAILABLE AT MW-3, AT MINIMAL VOLUME. THIS IS LIKELY DUE TO HIGHER RAIN VOLUME THE PAST THREE MONTHS.

2.0 MONITORING SYSTEM(RECONFIGURED 7/06)

THE RECONFIGURED GROUNDWATER MONITORING SYSTEM FOR THE PALMER STREET LANDFILL(FIG. 2), CONTAINS NINE(9) MONITORING WELLS AND THREE(3) BANK SEEPS. A REVISED POST CLOSURE PLAN, DESCRIBING THE DETAILS, WAS SUBMITTED TO THE NYSDEC 9, IN JANUARY 2007, AND ACCEPTED BY THEM.

<u>UPGRADIANT WELLS</u>	<u>OVERBURDEN/WASTE WELLS</u>	<u>BEDROCK WELLS</u>
	MW-3	MW-3D
MW-7D	MW-4SR	MW-4D
MW-8D	MW-5	MW-6D
	MW-6	

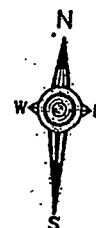
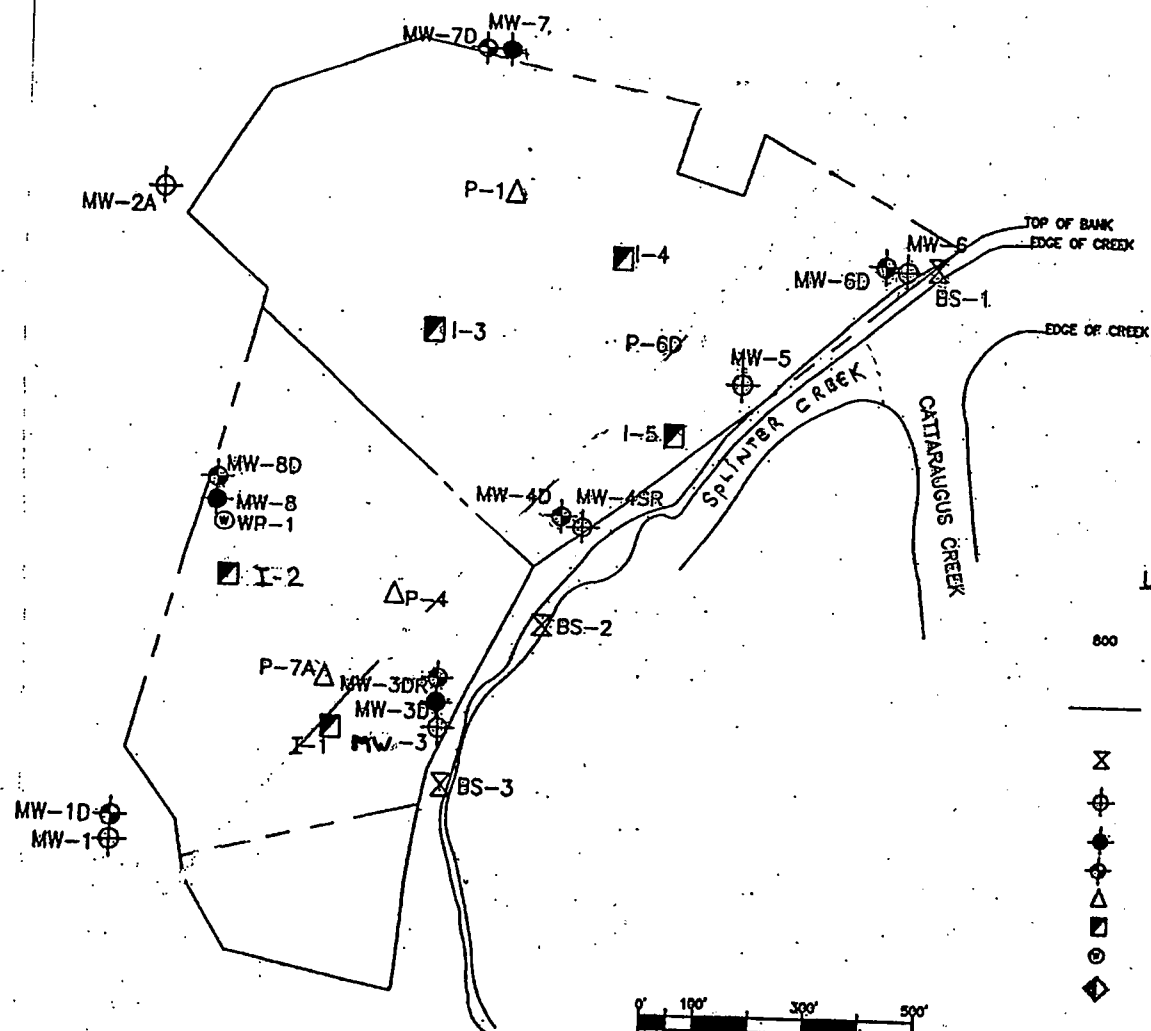
IN ADDITION TO THE WELLS, NYSDEC ALSO REQUIRES THE MONITORING OF THREE (3) BANK SEEPS DESIGNATED AS BS-1, BS-2 AND BS-3, RESPECTIVELY. THE ABILITY TO OBTAIN SAMPLES FROM THESE BANKSEEPS IS SPORADIC DUE TO VARYING WEATHER/MOISTURE CONDITIONS. A BANK SEEP SAMPLE WAS OBTAINED ONLY FROM BS-3.

MW-8D IS DOWNGRADIANT FROM GERNATT'S GRAVEL WASHING OPERATION, SETTLING PONDS. THE SILT ADJACENT TO THERE PONDS CONTAINS SEVERAL NATURAL METALS OF INTEREST.(arsenic).

TO AID IN THE EVALUATION OF COVER PERFORMACE, WATER LEVELS FROM FIVE (5) INFILTROMETERS ARE ALSO MONITORED. LOCATIONS OF MONITORING POINTS ARE SHOWN ON FIGURE 2. THE RESULTS CONTINUE TO INDICATE THAT THE COVER SYSTEM IS PERFORMING AS PLANNED. THESE SHOWED MINIMAL INFILTRATION FOR THIS SAMPLING EVENT; TABLE #4.

THE SUMMER/SPRING WEATHER WAS WETTER THAN NORMAL.

THE VILLAGE OF GOWANDA HAS BEEN OBTAINING ITS' WATER FROM THE DEEP AQUIFER, FOR THE PAST SEVERAL YEARS. THIS IS DUE TO THE CLOSURE OF THEIR RESRVIOR. THIS HAS RESULTED IS A DRASTIC REDUCTION IN THE WATER LEVEL IN THE MW-1D WELL, IN THE SOUTHWEST CORNER OF THE LANDFILL.



LAT. 42° 27' 0"
Long. 78° 55' 30"

LEGEND

- 800 ISOPOTENTIAL, DOTTED WHERE REFERRED
- GROUNDWATER FLOW DIRECTION
- LANDFILL BOUNDARY AND AREA BOUNDARY DIVIDER
- BANK SEEP
- UPPER OVERBURDEN MONITORING WELL
- LOWER OVERBURDEN MONITORING WELL
- REDROCK MONITORING WELL
- PIEZOMETER
- INFILTROMETER
- WELL POINT
- LYSIMETER

Fig. # 2

SCALE IN FEET

July '15 SAMPLE EVENT:



GEI APEX
Consultants, Inc.
Williamsville, NY

PALMER STREET LANDFILL
SITE PLAN

DATE DEC '11	PROJ. NO. 8104
FILE NO. N/A	DWG. NO. FIGURE 1.2

DATE: DEC '11

3.0 MONITORING METHODS

3.1 GROUNDWATER MONITORING -LANDFILL

SAMPLES COLLECTED DURING THE JULY 2015 MONITORING EVENT PERIOD, WERE COLLECTED BY MOENCH COMPANY PERSONNEL, AND ANALYZED BY ISLECHEM LLC, GRAND ISLAND, NEW YORK. THE ANALYSIS IS PERFORMED IN ACCORDANCE WITH THE SAMPLING PLAN/QUALITY ASSURANCE PLAN FOR THE PALMER STREET LANDFILL (REFERENCE 3).

LABORATORY ANALYSIS WERE PERFORMED IN ACCORDANCE WITH THE USEPA 200.7 FOR METALS, AND VOC 8260. THE MONITORING PARAMETERS ARE LISTED IN TABLE 1. SAMPLES WERE NOT AVAILABLE FROM ONE WELL AND TWO BANK SEEPS, IDENTIFIED IN SECTION 2.0.

PRIOR TO SAMPLING, STATIC WATER LEVEL ELEVATIONS WERE MEASURED IN THE MONITORING WELLS AND THE WELLS WERE PURGED (SEE TABLE 2. GROUNDWATER ELEVATIONS WERE ALSO MEASURED IN THE PIEZOMETERS, INFILTRMETERS, AND WELLS ON-SITE.

MOENCH PERSONNEL "DEVELOPED" THE WELLS PRIOR TO SAMPLING. THE BOTTOM ELEVATIONS OF THE WELLS WERE MEASURED AND REVISED ON TABLE #2.

FIELD SAMPLES WERE COLLECTED AND MEASURED FOR THE FIELD PARAMETERS IDENTIFIED IN TABLE 1. THE FIELD MEASUREMENTS ARE SUMMARIZED IN TABLE #3.

3.2 INFILTRMETER MONITORING

FIVE INFILTRMETERS HAVE BEEN INSTALLED BENEATH THE LANDFILL CAP TO AID IN THE ASSESSMENT OF PERFORMANCE OF THE CAP. DURING EACH SAMPLING EVENT, WATER LEVELS IN THE INFILTRMETER ARE MEASURED AND THE AMOUNT OF WATER INFILTRATING CALCULATED.

NOTE: IT IS BELIEVED THAT INFILTRMETER #1, IS OFTEN FLOODED DUE TO NEIGHBORING SPRINGS AND GRAVEL SETTLING PONDS. THIS CREATES A HIGH WATER TABLE, IN THE SOUTH END OF AREA #2.

A SCHEMATIC SHOWING THE DESIGN AND DIMENSIONS OF THE INFILTRMETERS IS PRESENTED IN APPENDIX "B".

TABLE 1

MOENCH TANNING COMPANY
PALMER STREET LANDFILL

MONITORING PARAMETERS *Twice/year

Soluble Arsenic⁽¹⁾
Soluble Chromium⁽¹⁾
Soluble Lead⁽¹⁾

Volatile Organics⁽²⁾⁽³⁾

pH⁽⁴⁾
Specific Conductance⁽⁴⁾
Turbidity⁽⁴⁾ - VISUAL
Groundwater Elevation⁽⁴⁾
Temperature⁽⁴⁾
Odor⁽⁴⁾
Sample Appearance⁽⁴⁾

Notes:

1. All samples collected for analysis of soluble metals are pressure-filtered in the field immediately upon sample collection.
2. The list of VOC analytes are those compounds included in SW-846, Method 8260.
3. Analysis for VOCs are not performed on pore water samples during performance monitoring events.
4. Field parameters (i.e., pH, specific conductance, temperature and turbidity) are measured in the field by sampling personnel. Laboratory analysis of these parameters will not be required.

MOENCH COMPANY
465 PALMER ST.
GOWANDA, NY 14070

SAMPLERS M. BEST

PALMER STREET LANDFILL :

DATE 7-14-15

GROUNDWATER ELEVATIONS: (TABLE #2)

WP. WHALE pump - DEDICATED

WELL #	ELEVATION TOP OF PVC(FT)	TOTAL DEPTH FROM TOP OF PVC(FT)	WATER DEPTH(FT) FROM TOP OF PVC	WATER(FT) ELEVATION
MW-1	826.05 ASL	31.90 (8-12)	4.50	821.55
MW-1D	827.82	188.20 "	76.33	751.49
MW-2A	810.62	16.15 "	2.65	807.97
MW-3	810.81	17.10 "	15.85	794.96
MW-3D	810.73	67.70 "	21.34	789.39
MW-3DR	810.47	102.30 "	24.07	786.40
MW-4 SR	806.75 WP	24.92 "	12.42	794.33
MW-4D	805.93	74.94 "	15.25	790.68
MW-5	805.35	18.15 "	DRY	—
MW-6	800.48 WP	18.78 "	15.90	784.58
MW-6D	800.63	37.03 "	17.62	783.01
			—	—
MW-7	800.50	30.60 (8-12)	6.85	793.65
MW-7D	800.39	41.90 "	6.41	793.98
MW-8	821.82	15.96 "	DRY-DAMP	DRY
MW-8D	821.89 WP	127.70	pump in	—

INFILTROMETERS:

LARGE AMOUNT RAIN B/4 MONITOR

#1	BEUCOUP RAIN	9.00	4.67	—
#2		8.80	7.20	—
#3		9.00	6.19	—
#4	POND	8.92	6.98	—
#5		9.00	6.95	—

Palmer st. Landfill

(TABLE #2) continued

7-14-15

smpl date

MB

GROUNDWATER ELEVATIONS:

WELL #	ELEVATION TOP OF PVC(FT)	TOTAL DEPTH FROM TOP OF PVC(FT)	WATER DEPTH(FT) FROM TOP OF PVC	WATER (FT) ELEVATION
P-1	811.85 ASL	18.30 (8/12)	16.30	795.55
P-4	813.54 "	19.70 "	14.65	798.89
P-6D	810.30 "	61.25 "	19.55	790.75
P-7A	816.92 "	23.90 "	19.61	797.31
WP-1	822.16 "	11.71 ^M _W 8	8.64	813.52

NOTE:

Aug 2012 ALL WELLS "DEVELOPED"

(7/15) WATER PONDING AROUND 3 wells
" " I-2

REV'd 9/12

Rev'd 2/12

4.0 GROUNDWATER QUALITY MONITORING RESULTS:

4.1 EVALUATION OF GROUNDWATER ELEVATION DATA:

GROUNDWATER ELEVATION MEASUREMENTS WERE TAKEN AT EACH OF THE ACCESSIBLE ON-SITE MONITORING WELLS, PIEZOMETERS, AND WELL POINTS, DURING THE JULY 2015, MONITORING EVENT. THE DATA ARE SUMMARIZED IN TABLE 2. BOTTOM ELEVATIONS WERE ALSO CONFIRMED.

PLOTS OF THE GROUNDWATER ELEVATIONS MEASURED IN THE MONITORING WELLS WITH RESPECT TO TIME ARE PRESENTED IN FIGURE 3, 4, AND 5, FOR THE SHALLOW OVERBURDEN, DEEP OVERBURDEN AND BEDROCK WELLS, ON THE LANDFILL, RESPECTIVELY. AS SHOWN IN FIGURES 3 AND 4, OVERBURDEN GROUNDWATER ELEVATIONS WERE GENERALLY CONSISTENT, THROUGHOUT THE MONITORING PERIOD. WATER LEVELS HAVE STABILIZED, AFTER THREE YEARS OF INCREASES. ('92-'94). THIS OCCURRED DUE TO CESSATION OF VILLAGE AND TANNERY PUMPING OF THE DEEP AQUIFERS. SOME SLIGHT SEASONAL FLUCTUATION DOES OCCUR. IN AUGUST, 2009, A DRAMATIC FLOOD OCCURRED IN THE GOWANDA AREA, THAT DISABLED THE VILLAGE RESERVIOR FOR AN EXTENDED TIME. THEY HAVE HAD TO USE THE DEEP WELL AGAIN, WHICH HAS HAD THE EFFECT OF LOWERING THE LEVELS IN SOME OF THE BEDROCK WELLS. THE VILLAGE HAS STARTED TO USE THE RESERVIOR BRIEFLY, BUT IS AGAIN USING THE AQUIFER.

4.2 THE GROUNDWATER AND SURFACE WATER QUALITY RESULTS FOR THE JULY 2015, MONITORING EVENTS, ARE PRESENTED IN TABLES #3 THROUGH #5.

. IT SHOULD BE NOTED THAT THESE TABLES INCLUDE ONLY THOSE PARAMETERS, WHICH WERE DETECTED ABOVE ANALYTICAL DETECTION LIMITS, AT A MINIMUM OF ONE LOCATION. COMPARISON OF THE MONITORING EVENT DATA TO THE NYSDEC CLASS "GA" GROUNDWATER QUALITY STANDARDS/GUIDANCE VALUES IS ALSO PRESENTED THESE TABLES.

BOTH THE SOIL AND WASTE AT THE PALMER STREET LANDFILL CONTAIN METALS-OF-INTEREST AS A COMPONENT OF THE SOIL OR WASTE PARTICLES (REFERENCE 5). THEREFORE, THE SEDIMENT (OR TURBIDITY) CONTENT OF ANY GROUNDWATER OR SURFACE WATER QUALITY SAMPLES WILL DIRECTLY IMPACT THE TOTAL METAL CONCENTRATION OF THE SAMPLES. THE TURBIDITY CONTENT OF THE GROUNDWATER SAMPLES COLLECTED AT THE SITE IS EXTREMELY VARIABLE AND RELATIVELY HIGH BECAUSE THE SOIL AND WASTE FILL BOTH CONTAIN HIGH PERCENTAGES OF FINE-GRAINED PARTICLES. AS NYSDEC HAS PREVIOUSLY AGREED, IN ORDER TO AVOID MIS-INTERPRETATION OF WATER QUALITY DATA, TOTAL METALS WILL NO LONGER SAMPLED FOR GROUNDWATER QUALITY STANDARDS OR EVALUATIONS, OF GROUNDWATER QUALITY IMPACTS WILL BE BASED ON SOLUBLE METAL CONCENTRATIONS.

ALSO, TOTAL NOR SOLUBLE BARIUM WILL NO LONGER BE SAMPLED FOR IN THE AGREEMENT WITH NYSDEC, AS THE ELEMENT, IS NATURALLY ELEVATED CONCENTRATION IN NATIVE SOIL. ARSENIC IS ALSO PRESENT IN THE NATIVE SOIL. Several monitoring wells are screened within the waste:

--THERE WERE NO METALS OF CONCERN DETECTED ABOVE THE CLASS "GA" STANDARD.

--A RARE SAMPLE OF MW-3 WAS OBTAINED, DUE TO RAIN VOLUME PRIOR.

--THERE WERE MANY YELLOW PARTICLES IN MW-4SR SAMPLE.

--1.2 DICHLOROETHANE WAS DETECTED AT MW-6, AT .002 MG/L. THIS IS CONSIDERED AN ANOMOLY.

TABLE 3

MOENCH COMPANY
PALMER STREET LANDFILL
7/16/15 MONITORING EVENT

SUMMARY OF FIELD MEASUREMENTS

INITIAL

Location	Sampling Date	Sampling Time	Temp. (°C)	pH (units)	Conductance ⁽¹⁾ (umhos/cm)	Turbidity	Sample Appearance	Sample Odor
* MW-3	7/16/15	0943	13	6.84	1800	NA	Slight	NO
*** MW-3D	7/16/15	1007	13.1	7.20	510	"	Clear	Finish
* MW-4SR	7/16/15	0905	12.4	6.52	960	"	Orange	NO
*** MW-4D	7/16/15	0920	13.2	7.19	710	"	Clear	NO
* MW-5	-	NO	sample	dry	-	"	-	-
* MW-6	7/16/15	0830	15.0	6.65	1400	"	Black-Turbid	NO
* MW-6D	7/16/15	0800	13.7	7.43	1200	"	Clear	NO
*** MW-7D	7/16/15	1137	14.1	7.43	670	"	Clear	NO
*** MW-8D	7/16/15	1055	13.2	7.18	480	"	Clear	NO
BS-1	-	NO	sample	NO	seep	"	Clear	NO
BS-2	-	NO	sample	NO	seep	"	-	-
BS-3	7/16/15	1030	9.0	7.01	800	"	Red Iron	NO

NOTES:

6.5-8.5 (std)

- (1) Conductivity readings corrected to 25°C.
- (2) Blind Duplicate MW-3D
- (3) MW-7D is apparent hydraulically upgradient bedrock well.

* Shallow Overburden Well
*** Bedrock Well

** Upgradient
BS Bank Seep

TABLE 4

MOENCH COMPANY
PALMER STREET LANDFILL
MONITORING EVENT

7-14-15

INFILTROMETER MEASUREMENTS

Infiltrometer	Static Water Level (ft) 7-14-15	Static Water Level (ft) 3-30-15	Δ Depth - gal (ft)	# Days Between Readings (#)	Infiltration Rate		Approx. Total Rainfall This Period (ft)	Infiltration (%)
					gal/day.ft ²	(cm/sec)		
I-1 (A)	4.67	4.55	NEG.	106	-	-	1.36	-
I-2	7.20	7.25	.05	"	.00023	1.1×10^{-8}	"	.2
I-3	6.19	6.80	.61	"	.0028	1.3×10^{-7}	"	3.4
I-4	6.98	6.20	NEG.	"	-	-	"	-
I-5	6.95	7.00	.05	"	.00023	1.1×10^{-8}	"	.2

Note:

**

Negative ΔD precludes calculation of meaningful data.

(A) I-1 OFTEN FLOODED BY NATURAL SPRINGS
& WASH PONDS, UPGRADIENT.

MUCH RAIN PRIOR TO SAMPLE; 7" IN JUNE.

I-3 - HISTORICALLY L.T. 2.0×10^{-8}

TABLE 5

MOENCH COMPANY
PALMER STREET LANDFILL
7/16/15 MONITORING EVENT⁽¹⁾

SUMMARY OF ANALYTICAL RESULTS

	Quantitation Limit	** MW-3	MW-3D	** MW-4SR	MW4D	** MW-5	** MW-6	MW-6D	Glass "GA" Std.
Metals (mg/l):									
Arsenic - Soluble	0.005	.008	ND	ND	ND	Dry	ND	ND	.025mg/l
Chromium - Soluble	0.005	ND	ND	.011	ND	N	ND	ND	.05
Lead - Soluble	0.005	ND	ND	ND	ND	0	ND	ND	.025
						S			

Volatiles mg/L		ND	ND	ND	ND	P	ND	ND	
ACETONE		ND	ND	ND	ND	L	11	11	Guid. Value = .05mg/L
1,2-Dichloroethane				ND	ND	e	.002	11	

** Screened in Waste/Overburden.

Blind Duplicate _____

TABLE 5

MOENCH COMPANY
PALMER STREET LANDFILL
7/16/15 MONITORING EVENT⁽¹⁾

SUMMARY OF ANALYTICAL RESULTS

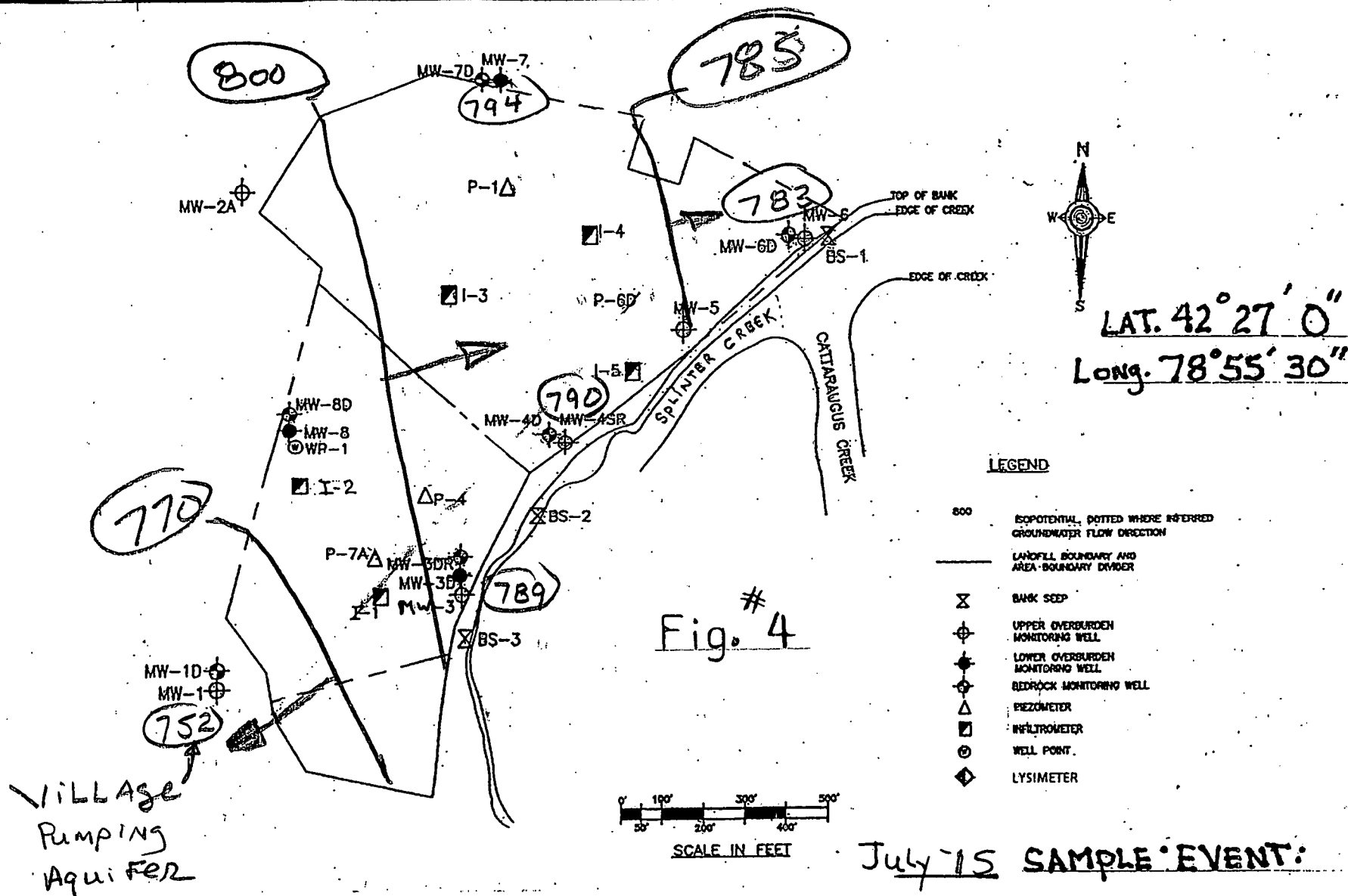
	Quantitation Limit	MW-7D	MW-8D	BS-1	BS-2	BS-3	Blind Duplicate	Class "GA" Std.
Metals (mg/l):								
Arsenic - Soluble	0.005	ND	ND	ND	ND	.005	ND	.025mg/l
Chromium - Soluble	0.005	ND	ND	Blank	Blank	ND	ND	.05
Lead - Soluble	0.005	ND	ND	Seep	Seep	ND	ND	.025

Volatiles mg/L		ND	ND	—	—	ND	ND	
ACETONE		—	—	—	—	ND	ND	GUID. VAL. = .05 mg/L

5.0 GROUNDWATER FLOW

A WATER TABLE ISOPOTENTIAL MAP, BEDROCK ISOPOTENTIAL MAP AND A BEDROCK WATER LEVEL HYDROGRAPH HAVE BEEN PREPARED FOR THE PALMER STREET LANDFILL AND ARE PRESENTED IN FIGURES 3, 4 AND 5, RESPECTIVELY. GROUNDWATER ELEVATIONS MEASURED ON JULY 16TH 2015, WERE USED IN PREPARING THE WATER TABLE AND BEDROCK ISOPOTENTIAL MAP. THEY INDICATE THAT THE SHALLOW GROUNDWATER FLOW IS PRIMARILY TO THE EAST, TOWARD CATTARAUGUS CREEK. THE BEDROCK ISOPOTENTIAL MAP AND THE BEDROCK WATER LEVEL HYDROGRAPH ILLUSTRATE A "LEVELING OFF" AFTER 3 YEARS ('92-94) OF RISING GROUNDWATER LEVELS AT WELLS MW-1D, MW-3DR AND MW-8D. MW-1D AND MW-8D, WHICH WERE FORMERLY (BEFORE '92) DOWNGRADIENT WELLS, ARE NOW UPGRADIENT OF THE LANDFILL.

AS MENTIONED PRIOR, THE VILLAGE HAS HAD TO USE THE DEEP AQUIFER, FOR A WATER SUPPLY SOURCE FOR THE PAST 6 YEARS. THIS HAS HAD AN EFFECT ON THE WATER LEVELS IN THE BEDROCK WELLS, AND SOME EFFECT ON THE GROUNDWATER FLOW.

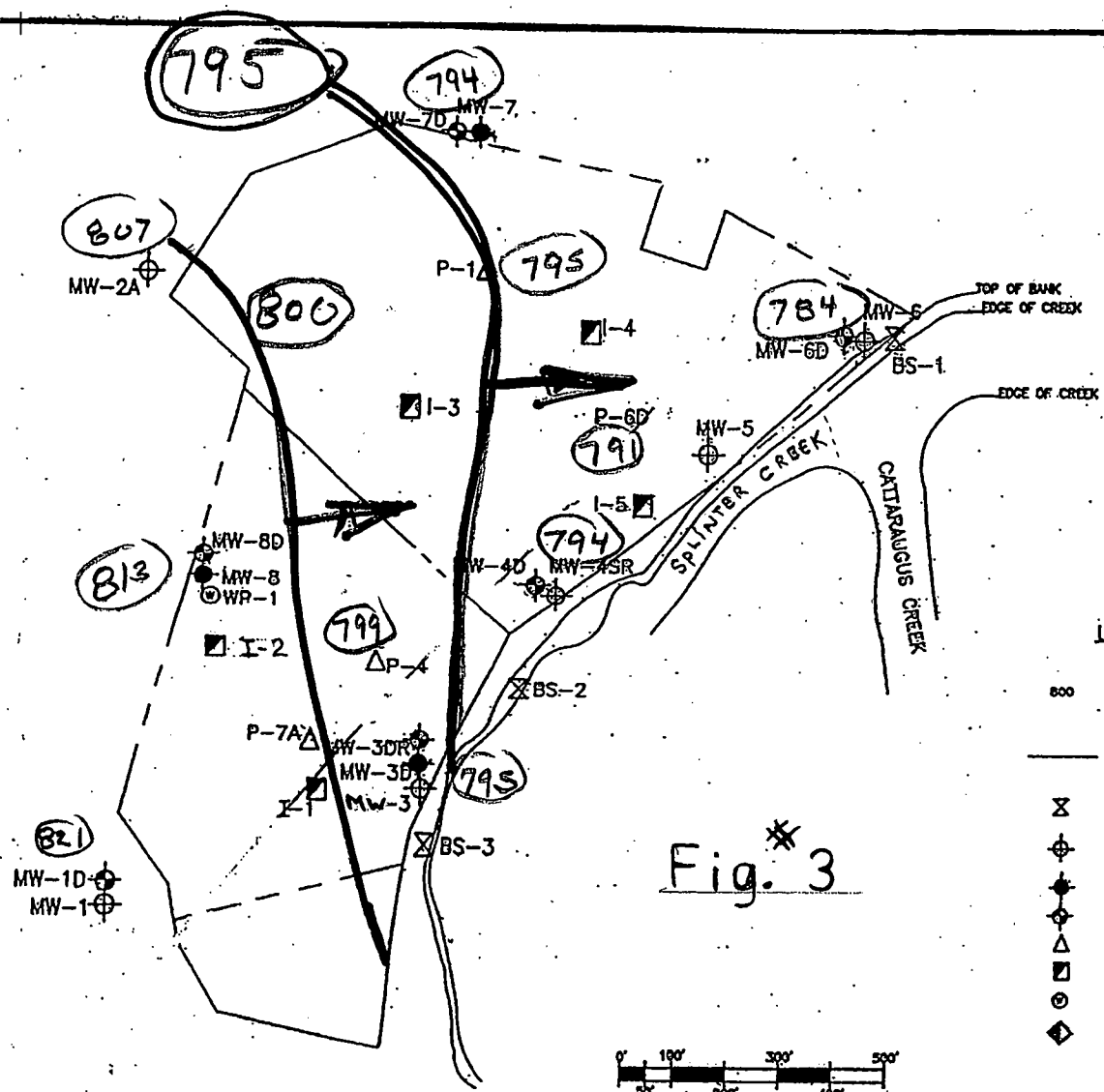


GEI Consultants, Inc.
Williamsville, NY

PALMER STREET LANDFILL

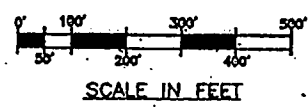
SITE PLAN

BEDROCK ISOPOTENTIAL MAP.



LAT. 42° 27' 0"
 Long. 78° 55' 30"

Fig. * 3



LEGEND

- 800 ISOPOTENTIAL, DOTTED WHERE INFERRED
- GROUNDWATER FLOW DIRECTION
- LANDFILL BOUNDARY AND AREA BOUNDARY DIVIDER
- BANK SEEP
- UPPER OVERBURDEN MONITORING WELL
- LOWER OVERBURDEN MONITORING WELL
- BEDROCK MONITORING WELL
- PIEZOMETER
- INFILTRATOR
- WELL POINT
- LYSIMETER

July '15 SAMPLE EVENT:

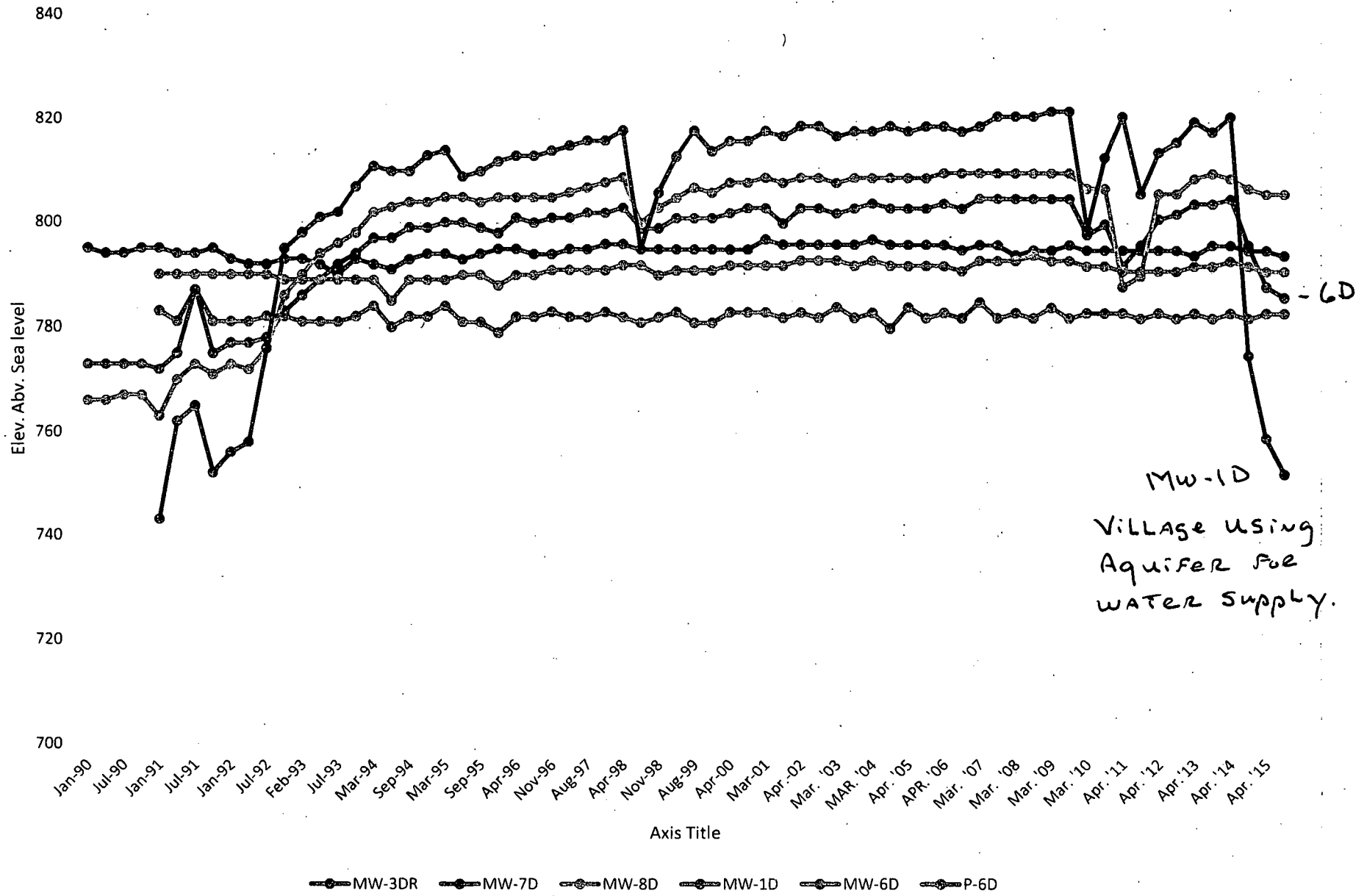


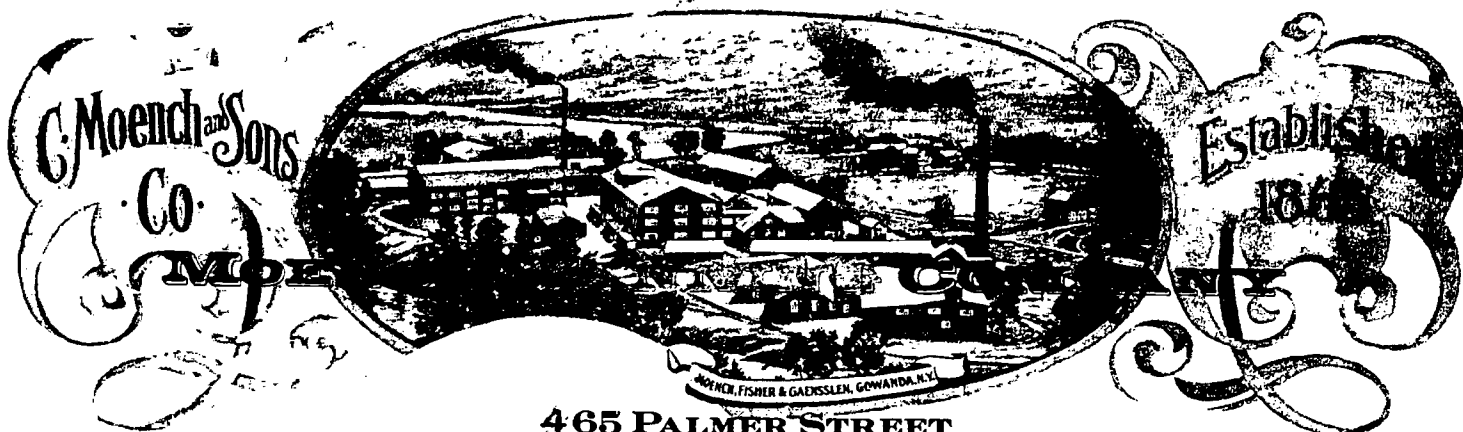
GEI Consultants, Inc.
 Williamsville, NY

PALMER STREET LANDFILL
 SITE PLAN

WATERTABLE
 ISOPOTENTIAL
 MAP.

Palmer L/fill; bedrock wells; GW elev.





465 PALMER STREET
GOWANDA, NEW YORK 14070

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FAX 716-532-5518

PALMER STREET LANDFILL
GROUNDWATER MONITORING

TABLE #8

July 115

calibrated by: Mike Best

RECORD OF CALIBRATION:

Instrument:

date 7/14 reading
b/4 - after

Test

Slope-Water Level
Indicator

7/14	WORKS

MB

Probe response to
water.

Grace-Conductivity meter

7/15	1300
	at 24°C

MB

Read standardize
liquid & calibrate.
zero calibrate.

Cole-Parmer(multi meter)

Ph---

7/15	7.02
7/15	10.02

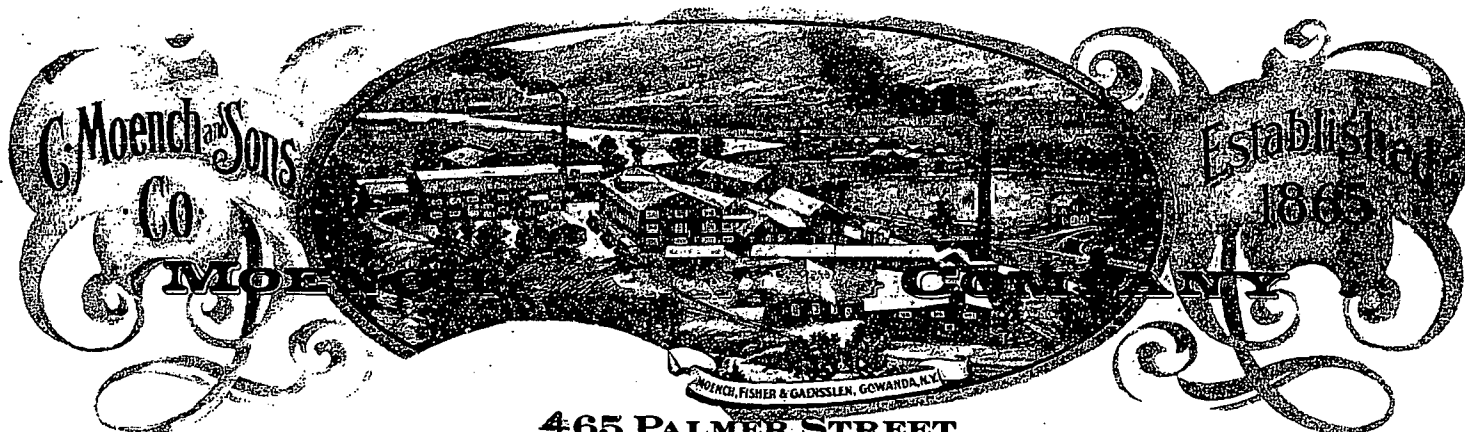
MB

Calibrate to buffer(s)
solutions.

ph-7 ph-10

Temperature

Calibrate to stand-
ard thermometer.



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revised 8/06

PALMER STREET LANDFILL
GROUNDWATER MONITORING

TABLE #7

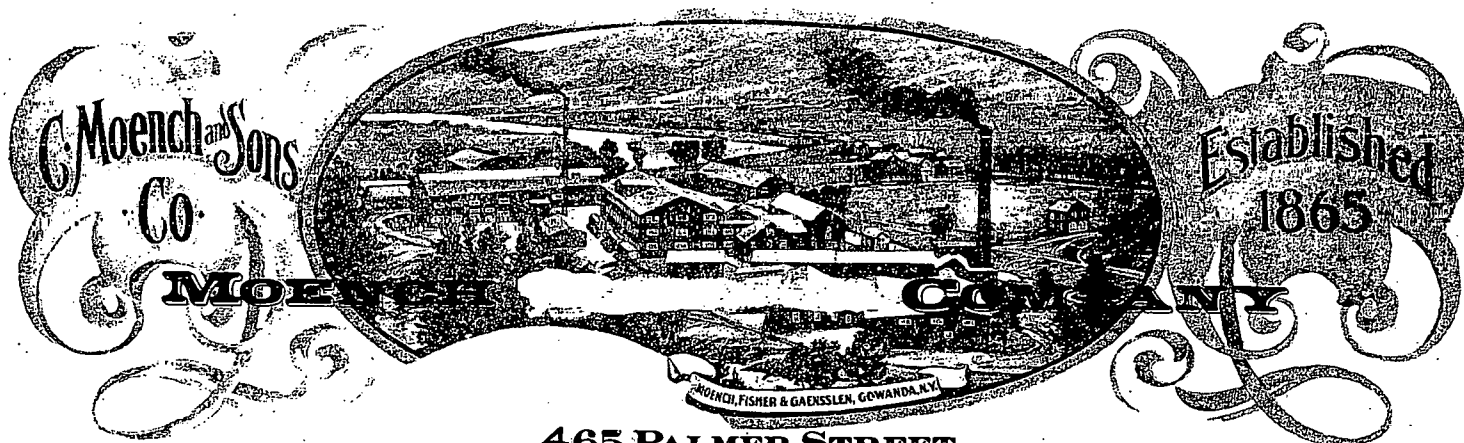
July 15

EQUIPMENT INVENTORY:

- (A) Slope Indicator Co. - Model 51453, water level indicator
- ✓ (B) W.R. Grace (Dearborn) - Model EP-10, Micromhos meter
(conductivity)
- ✓ (C) Cole-Parmer Instrumentation Co. - Model 5985-80, Ph, temp-
erature °C ,
with probes.
- ~~(D) Grundfos Purging System.~~
~~-Hose, VFD, Generator.~~
- ✓ (E) Norton Company - Part #865-3170, Posi-Filter for filtering
dissolved metals with filters. And vacuum pump/flask.
- ✓ (F) Wash bucket (5 gallon) with Alconox soap.
- ✓ (G) Rinse bucket with D.I. water. -buy 10 gal. distilled at store.
-get 2 gal. lab certified, eqpt. blank.
- ✓ (H) Rinse bottle with 10% Nitric Acid and water.
- ✓ (I) five gallon bucket to measure volume purged.
- ✓ (J) Latex gloves
- (K) Required bottles and coolers and ice.
- (L) Required field data forms.
- (M) Cell Phone
- (N) Watch
- ✓ (O) Head Radio
- ✓ (P) Board to hold Meters & equipment
- (Q) Liquid soap/water spray-bees.
- (R) Benedryl-bee sting.

6.0 REFERENCES

1. PALMER STREET LANDFILL CLOSURE/POST CLOSURE PLAN (EPA ID. NYDOO2126910), PREPARED BY MALCOLM PIRNIE, INC. REVISED FEBRUARY 1989. REVISED DECEMBER 2006.
2. PALMER STREET LANDFILL, SUPPLEMENTAL HYDROGEOLOGIC INVESTIGATION, PREPARED BY MALCOLM PIRNIE, INC. JANUARY 1989.
3. SAMPLING PLAN/QUALITY ASSURANCE PLAN FOR GROUNDWATER MONITORING - PALMER STREET LANDFILL. PREPARED BY MALCOLM PIRNIE, INC., AUGUST 1989. REVISED 12/2006.
4. TEST METHODS FOR EVALUATING SOLID WASTE; PHYSICAL/CHEMICAL METHODS, THIRD EDITION, USEPA OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, NOVEMBER 1986.
5. PALMER STREET LANDFILL, EVALUATION OF ALTERNATIVE COVER SYSTEMS, PREPARED BY MALCOLM PIRNIE, INC., JANUARY 1989.
6. COVER SYSTEM PERFORMANCE EVALUATION, PALMER STREET LANDFILL; PREPARED BY MALCOLM PIRNIE, INC. OCTOBER 1995. Second "Evaluation"; 3/99. THIRD EVALUATION; 8/03. (LAST)
7. JULY 27TH, 2006 LETTER FROM GEOMATRIX TO STAN RADON (NYSDEC) DOCUMENTING A JULY 19TH MEETING IN WHICH REVISIONS TO THE GROUNDWATER MONITORING SYSTEM, WERE AGREED UPON.
8. SEPTEMBER 7, 2006 LETTER FROM STAN RADON (NYSDEC) TO JEFFREY SMITH (MOENCH) CONFIRMING AGREEMENT OF REVISED GROUNDWATER MONITORING SYSTEM, AND COVER SYSTEM EVALUATION ELIMINATION.
9. JUNE 19, 2012 LETTER FROM JEFFREY SMITH (BROWN SHOE) TO STAN RADON (NYSDEC) REGARDING ARSENIC AT MW-6.



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APPENDIX "A"

FIELD DATA SHEETS FOR:

July 16th, 2015

MONITORING EVENT:
PALMER STREET LANDFILL

WELL DEVELOPMENT/PURGING LOG

MOENCH COMPANY

PROJECT TITLE: PALMER ST. LANDFILL - GWM

PROJECT NO.: 2 OF 2 ANNUAL EVENTS, 2015

STAFF: JEFF Smith - Mike Best

DATE: 7-16-15 - 943

FINISH 1003

WELL NO.: ⑦ MW-3 {USUALLY DRY}

WELL I.D.

VOL.
GAL./FT.

- 1 TOTAL CASING AND SCREEN LENGTH (ft.) 17.10
- 2 CASING INTERNAL DIAMETER (in.) 2"
- 3 WATER LEVEL BELOW TOP OF CASING (ft.) 15.85
- 4 VOLUME OF WATER IN CASING (gal.)

1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

$$V = 0.0408 (2^2 \times (1 - 3)) = .2 \text{ gal.}$$

RARE SAMPLE

PARAMETERS

ACCUMULATED VOLUME PURGED (GALLONS)

	I.N. I.T.																			
'pH'	6.84																			
APPEAR. TURBIDITY	SLIGHT																			
CONDUCTIVITY	1800																			
Temp °C	13																			

NO PURGE - ONLY FOR
EVALUATION
SAMPLE

COMMENTS:

RARE SAMPLE
F DUE TO MUCH RAIN.

WELL DEVELOPMENT/PURGING LOG

MOENCH CO.

BLIND
DUPSITE
6

PROJECT TITLE: PALMER ST. LANDFILL - GWM

PROJECT NO.: 2 OF 2 ANNUAL EVENTS, 2015

STAFF: J. Smith - M. Best, 2015

DATE: 7-16-15, ~~2015~~ 1007

WELL NO.: MW-3D (8)

WELL I.D.

VOL.
GAL./FT.

- | | | |
|---|---------------------------------------|--------------|
| 1 | TOTAL CASING AND SCREEN LENGTH (ft.) | <u>67.70</u> |
| 2 | CASING INTERNAL DIAMETER (in.) | <u>2"</u> |
| 3 | WATER LEVEL BELOW TOP OF CASING (ft.) | <u>21.34</u> |
| 4 | VOLUME OF WATER IN CASING (gal.) | |

1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

$$V = 0.0408 (2^2 \times (1 - 3)) = \underline{7.9} \text{ gal.}$$

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)									
	INIT.									
PH	7.18	7.21	7.20							
TURBID APPEAR.	CLEAR									
CONDUCTIVITY	500	510								
TEMP °C	13.1									

COMMENTS:

BLIND
DUP

WATER SAMPLING FIELD DATA SHEET

PROJECT: PALMER ST. 4/FILL-GW/14

TYPE OF SAMPLE: GROUNDWATER - GRAB

CLIENT: MOENCH CO.

LOCATION NO.: MW-3D

JOB NO.: 2 OF 2 SAMPLES
2015

LAB SAMPLE NO.: _____

WELL DATA:

DATE: 7/16/15

TIME: 1007

Casing Diameter (inches): 2"

Casing Material: PVC

Screened Interval (ft BGS): _____

Screen Material: PVC

Static Water Level Below TOR (ft): _____

Bottom Depth (ft): 67.70

Elevation Top of Well Riser: 810.73

Datum Ground Surface: _____

PURGING DATA:

DATE: 7/16/15

TIME: Start: 1007 Finish: 1022

Method: SUPER NOVA - Pump 12V.

Pumping Rate (gal/min): 0.5 gpm

Well Volumes Purged (V=TR²H/231): _____

Was well purged dry? _____ Yes X No

Standing Volume (gal): 8

Was well purged below sand pack? _____ Yes X No

Volume Purged (gal): 15

Is purging equipment dedicated to sample location?
Yes _____ No X

Well I.D. (inches)	Volume (gal/ft)
<u>2</u>	<u>0.17</u>
4	0.66
6	1.50

Field Personnel: J. Smith / M. BEST

SAMPLING DATA:

DATE: 7/16/15

TIME: Start: 1022 Finish: 1027

Method: TEFLON BAILER

Sampler: J. Smith + M. BEST

Present Water Level (ft): _____

Air Temperature (°F): 70

Depth of Sample (ft): _____

Weather Conditions: SUN'Y

Is sampling equipment dedicated to sample location?
Yes * No _____

PRESERVATION DATA:

DATE: 7/2/15 Isle Chem

TIME: Start: _____ Finish: _____

Filtered: * Yes _____ No _____

Cool to 4°C: *

Preservative: _____ H₂SO₄ * HNO₃ _____ NaOH HCl Other _____

PHYSICAL AND CHEMICAL DATA:

Appearance: Clear: * Turbid: _____ Color: 1

Contains Sediment: _____ Odor: SLGT FIN Other: _____

Temperature (°C): _____ pH: _____ Specific Conductivity (µmhos/cm): _____

Turbidity (NTU): _____ Other: _____

REMARKS: SAMPLE/FILTER EQUIPMENT: WASH'd w/ SOAP + WATER (3X).
RINSED IN DISTIL'd WATER. RINSE WITH 10% NITRIC
ACID WASH. FINAL RINSE W/ DISTIL'd WATER.

WELL DEVELOPMENT/PURGING LOG

MOENCH CO.

PROJECT TITLE: PALMER ST. LANDFILL - GWM

PROJECT NO.: 2 OF 2 ANNUAL EVENTS, 2015

STAFF: J. Smith + M. Best

DATE: 7-16-15, 905

WELL NO.: MW-4 SR (4)

WELL I.D.

VOL.
GAL./FT.

- 1 TOTAL CASING AND SCREEN LENGTH (ft.) 24.92
- 2 CASING INTERNAL DIAMETER (in.) 2"
- 3 WATER LEVEL BELOW TOP OF CASING (ft.) 12.42
- 4 VOLUME OF WATER IN CASING (gal.)

1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

$$V = 0.0408 (2^2 \times (1 - 3)) = 2.1 \text{ gal.}$$

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)									
	I N. T.									
PH	6.50	6.52								
TUR. APPEARANCE	TURBID - YELLOW PARTICLES									
CONDUCTIVITY	950	980								
Temp °C	13.7	12.4								

COMMENTS:

WATER SAMPLING FIELD DATA SHEET

PROJECT: PALMER ST. LANDFILL-GWM
 CLIENT: MOENCH CO.
 DATE: 2 of 2 Annual Events 2015
 TYPE OF SAMPLE: GROUNDFWATER-GRAB
 LOCATION NO.: MW-4SR
 LAB NUMBER: _____

WELL DATA: DATE: 7/16/15
 Casing Diameter (inches): 2"
 Screened Interval (ft BGS): _____
 Static Water Level Below TOR (ft): _____
 Elevation Top of Well Riser: 806.75 ASL

TIME: 905
 Casing Material: PVC
 Screen Material: PVC
 Bottom Depth (ft): 24.92
 Datum Ground Surface: _____

PURGING DATA: DATE: 7/16/15
 Method: DEDICATED BAILER
 Well Volumes Purged (V=TRZ/H/231): _____
 Standing Volume (gal): _____
 Volume Purged (gal): _____
 Is purging equipment dedicated to sample location?
 Yes * No _____
 Field Personnel: J. Smith + M. Best

TIME: Start: 905 Finish: 912
 Pumping Rate (gal/min): 1.0
 Was well purged dry? _____ Yes X No
 Was well purged below sand pack? X Yes _____ No

Well I.D. (inches)	Volume (gal/ft)
2	0.17
4	0.66
6	1.50

SAMPLING DATA: DATE: 7/16/15
 Method: DEDICATED BAILER
 Present Water Level (ft): _____
 Depth of Sample (ft): _____
 Is sampling equipment dedicated to sample location?
 Yes * No _____

TIME: Start: 912 Finish: 916
 Sampler: J. Smith - Mike Best
 Air Temperature (°F): _____
 Weather Conditions: _____
 Yes * No _____

PRESERVATION DATA: DATE: 7/2/15 Isle Chem TIME: Start: _____ Finish: _____
 Filtered: * Yes _____ No _____
 Cool to 4°C: *
 Preservative: _____ H_2SO_4 * HNO_3 _____ $NaOH$ HCl Other _____

PHYSICAL AND CHEMICAL DATA:

Appearance: Clear: _____ Turbid: * Color: ORANGE
 Contains Sediment: _____ Odor: ND Other: _____
 Temperature (°C): _____ pH: _____ Specific Conductivity (umhos/cm): _____
 Turbidity (NTU): _____ Other: _____

REMARKS: SAMPLE/FILTER EQUIPMENT: WASH w/ SOAP + WATER (3X).
RINSED With DISTILL'd WATER. RINSED With 10% NITRIC ACID WASH. FINAL RINSE w/ DISTILL'd WATER.

WELL DEVELOPMENT/PURGING LOG

MOENCH CO.

PROJECT TITLE: PALMER ST. LANDFILL - G.W.M.

PROJECT NO.: 2 OF 2 ANNUAL EVENTS, 2015

STAFF: JEFF SMITH - Mike Desl

DATE: 7-16-15 920

WELL NO.: MW-4D (5)

WELL I.D.

VOL.
GAL./FT.

1 TOTAL CASING AND SCREEN LENGTH (ft.) 74.94

10

0.04

2 CASING INTERNAL DIAMETER (in.) 2"

(2)

(0.17

31

$$0.38$$

3 WATER LEVEL BELOW TOP OF CASING (ft.) 15.25

4'

0.66

51

1.04

4 VOLUME OF WATER IN CASING (gal.)

6.

1.50

8th

2.60

$$V = 0.0408 \text{ (}^2 \times (1 - 3) \text{)} = \underline{10.2} \text{ gal.}$$

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)									
PH	7.27	7.19								
VISUAL TURBIDITY	Clear									
CONDUCTIVITY	700	710								
TEMP. °C	13.2									
COMMENTS:										

WATER SAMPLING FIELD DATA SHEETS

PROJECT: PALMER ST. L/F - G.W.M.
MOENCH CO.
2 OF 2 ANNUAL EVENTS

TYPE OF SAMPLE: GROUND WATER
LOCATION NO.: MW-4D

WELL DATA: DATE: 7/16/15

Casing Diameter (Inches): 2"

Screened Interval (ft BGS):

Static Water Level Below TDR (ft.):

Elevation Top of Well Riser: 805.93

Elevation Top of Screen: 72.9

TIME: 920
Casing Material: PVC
Screen Material: PVC
Bottom Depth (ft.) 74.94
Datum Ground Surface:

PURGING DATA: DATE: 7/16/15
Method: ELECTRIC PUMP - NOT DEDUCT'ed

TIME: Start: 920 Finish: 931

Well Volumes Purged (m³N/231): _____
Standing Volume (GAL.) 10
Volume Purged (GAL.) 16

Pumping Rate (gal/min): 1-2 gpm

Was well purged dry? Yes No ☒

Was Well purged below sand pack? Yes No ☒

Is purging equipment dedicated to sample location?
Yes No *

Well I.D. (inches)	Volume (gal/ft)
2	0.17
4	0.66
6	1.50

Field Personnel: J. Smith - Mike Basil

SAMPLING DATA: DATE: 7/16/15
Method: DEDICATED BAILER

TIME: Start: 9:31 Finish: 7:15

Present Water Level (ft.): _____
Depth of Sample (ft.): _____

Sampler: JS + MB

Air Temperature (F°): 70
Weather Conditions: SUN

Is sampling equipment dedicated to sample location: Yes *

Source and type of water used in field for QC purposes:

PRESERVATION DATA: DATE: 7/2/15 IsleChem

TIME: Starts _____ Finish: _____

Filtered: Yes * No

Cool to 4°C: *

Preservative: H₂O₂ ~~NaOCl~~

other ACI

PHYSICAL AND CHEMICAL

Appearance: Clear * Turbid

Color: _____

Containing Sediment

Order: NO Other: _____

Temperature (°C): _____ pH: _____

Specific Conductivity ($\mu\text{mhos/cm}$):

Turbidity (NTU): _____

Other:

E. FLASK + DR

REMARKS: NA - NOT APPLICABLE. TEFLON BAILER USED FOR SAMPLE WAS WASHED WITH SOAP, RINSED WITH LABORATORY WATER/ RINSED WITH 10% NITRIC ACID WASH, THEN FINAL RINSE WITH LAB. GRADE WATER PRIOR TO USE.

WELL DEVELOPMENT/PURGING LOG

Dry

MOENCH CO.

PROJECT TITLE: PALMER ST. LANDFILL - GWM

PROJECT NO.: 2 OF 2 SAMPLES, ANNUALLY.

STAFF: J. Smith + M. Best

DATE: 7-16-15 9:00

WELL NO.: MW-53 { USUALLY DRY }

WELL I.D.

VOL.
GAL./FT.

- | | WELL I.D. | VOL. GAL./FT. |
|---|-----------|---------------|
| 1 TOTAL CASING AND SCREEN LENGTH (ft.) | 18.15 | 0.04 |
| 2 CASING INTERNAL DIAMETER (in.) | 2" | 0.17 |
| 3 WATER LEVEL BELOW TOP OF CASING (ft.) | 3" | 0.38 |
| 4 VOLUME OF WATER IN CASING (gal.) | 4" | 0.66 |
| | 5" | 1.04 |
| | 6" | 1.50 |
| | 8" | 2.60 |

$$V = 0.0408 (\pi \times (1.3)^2 \times 18.15) = \text{NO SAMPLE}$$

PARAMETERS

ACCUMULATED VOLUME PURGED (GALLONS)

IN.
T.

PH

TURBID
APPEAR.

CONDUCTIVITY

TEMP °C

COMMENTS:

WELL DEVELOPMENT/PURGING LOG

MOENCH CO.

PROJECT TITLE: PALMER ST. LANDFILL - GWM
PROJECT NO.: 2 OF 2 ANNUAL EVENTS, 2015

STAFF: J. Smith - Mike Best

DATE: 7-16-15, 830

WELL NO.: MW-6 (2)

WELL I.D.

VOL.
GAL./FT.

- 1 TOTAL CASING AND SCREEN LENGTH (ft.) 18.78
- 2 CASING INTERNAL DIAMETER (in.) 2"
- 3 WATER LEVEL BELOW TOP OF CASING (ft.) 15.90
- 4 VOLUME OF WATER IN CASING (gal.)

1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

$$V = 0.0408 (2^2 \times (1 - 3)) = 1.49 \text{ gal.}$$

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)									
	I N. T.									
PH	6.64	6.65								
TURBID. APPEAR.	TURBID	BLACK								
CONDUCTIVITY	1400	1460								
Temp °C	15.5	15.1								

COMMENTS:

WATER SAMPLING FIELD DATA SHEET

PROJECT: PALMER ST. LANDFILL

CLIENT: MOENCH CO.

JOB NO.: 2 OF 2 ANNUAL EV.

2015

TYPE OF SAMPLE: GROUNDWATER

LOCATION NO.: MW-6

LAB SAMPLE NO.: _____

WELL DATA:

DATE: 7/16/15

TIME: 830

Casing Diameter (inches): 2"

Casing Material: PVC

Screened Interval (ft BGS): _____

Screen Material: PVC

Static Water Level Below TOR (ft): _____

Bottom Depth (ft): 18.78

Elevation Top of Well Riser: 800.48 ASL

Datum Ground Surface: _____

PURGING DATA:

DATE: 7/16/15

TIME: Start: 830 Finish: 840

Method: DEDICATED WHALE Pump

Pumping Rate (gal/min): 1.0

Well Volumes Purged ($V = \pi R^2 H / 2.31$): _____

Was well purged dry? _____ Yes _____ No

Standing Volume (gal): _____

Was well purged below sand pack? _____ Yes _____ No

Volume Purged (gal): _____

Is purging equipment dedicated to sample location?

Yes X No _____

Well I.D. (inches)	Volume (gal/ft)
2	0.17
4	0.66
6	1.50

Field Personnel: J. Smith + M.B

SAMPLING DATA:

DATE: 7/16/15

TIME: Start: 840 Finish: 850

Method: DEDICATED Pump

Sampler: J. Smith - Mike Best

Present Water Level (ft): _____

Air Temperature (°F): 63

Depth of Sample (ft): _____

Weather Conditions: Sunny

Is sampling equipment dedicated to sample location?

Yes X No _____

PRESERVATION DATA:

DATE: 7/2/15 Isle Chem

TIME: Start: _____ Finish: _____

Filtered: * Yes _____ No _____

Cool to 4°C: *

Preservative: _____ H_2SO_4 * HNO_3 _____ $NaOH$ HCl Other _____

PHYSICAL AND CHEMICAL DATA:

Appearance: Clear: _____ Turbid: X Color: BLACK

Contains Sediment: _____ Odor: _____ Other: _____

Temperature (°C): _____ pH: _____ Specific Conductivity (µmhos/cm): _____

Turbidity (NTU): _____ Other: _____

REMARKS: DEDICATED BAILER FOR SAMPLE, & FILTER EQUIPMENT.
WASHED (3X), RINSED WITH LAB GRADE WATER. RINSED w/ 10%
NITRIC ACID WASH. FINAL RINSE D.I. WATER.

WELL DEVELOPMENT/PURGING LOG

MOENCH CO.

PROJECT TITLE: PALMER ST. LANDFILL - G.W.M.

PROJECT NO.: 2 OF 2 ANNUAL EVENTS, 2015

STAFF: JEFF SMITH - Mike Best

DATE: 7-16-15, 800

WELL NO.: MW - GD ①

WELL I.D.

VOL.
GAL./FT.

- 1 TOTAL CASING AND SCREEN LENGTH (ft.) 37.03
- 2 CASING INTERNAL DIAMETER (in.) 2"
- 3 WATER LEVEL BELOW TOP OF CASING (ft.) 17.62
- 4 VOLUME OF WATER IN CASING (gal.)

1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

$$V = 0.0408 (2^2 \times (1 - 3)) = 3.3 \text{ gal.}$$

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)									
	I _N - I _T									
PH	7.42	7.43								
TURBIDITY	Clear									
CONDUCTIVITY	1200	1200								
TEMP. °C	14.0	13.7								

COMMENTS:

WATER SAMPLING FIELD DATA SHEETS

PROJECT: PALMER ST. LANDFILL
MOENCH CO.
2 OF 2 ANNUAL EVENTS.
2015

TYPE OF SAMPLE: GROUNDWATER
 LOCATION NO.: MW-6D

WELL DATA: DATE: 7/16/15
 Casing Diameter (Inches): 2
 Screened Interval (ft BGS): NA
 Static Water Level Below TDR (ft.):
 Elevation Top of Well Riser: 800.63
 Elevation Top of Screens: NA

TIME: 800
 Casing Material: PVC
 Screen Material: PVC
 Bottom Depth (ft.): 37.03
 Datum Ground Surface:

PURGING DATA: DEDICATED DATE: 7-16-15
 Method: TEFLON BAILER-HAND
 Well Volumes Purged (SRM/231):
 Standing Volume (GAL.)
 Volume Purged (GAL.)
 Is purging equipment dedicated to sample location?
 Yes * No
 Field Personnel: JS + MB

TIME: Start: 800 Finish: 817
 Pumping Rate (gal/min): 59 gpm
 Was well purged dry? Yes X No
 Was well purged below sand pack? Yes X No

Well I.D. (Inches)	Volume (gal/ft)
2	0.17
4	0.66
6	1.50

SAMPLING DATA: DATE: 7-16-15
 Method: DEDIC. TEFLON BAILER-HAND
 Present Water Level (ft.):
 Depth of Sample (ft.):
 Is sampling equipment dedicated to sample location? Yes * No
 Source and type of water used in field for QC purposes: IsleChem LAB

TIME: Start: 817 Finish: 821
 Samplers: J. Smith - Mike BEST
 Air Temperature (F°): 61
 Weather Conditions: SUNNY

PRESERVATION DATA: DATE: 7/2/15 IsleChem
 Filtered: Yes * No
 Preservatives: H₂SO₄ NO₃ * NaOH Other HCl

TIME: Start: Finish:
 Cool to 4°C: *

PHYSICAL AND CHEMICAL
 Appearance: Clear * Turbidity:
 Contains Sediment
 Temperature (°C): pH:
 Turbidity (NTU):

Color:
 Odor: NO Others:
 Specific Conductivity (µmhos/cm):
 Other:

REMARKS: E. FLASK +/OR
TEFLON BAILER USED FOR SAMPLING WAS WASHED WITH
SOAP, RINSED WITH LABORATORY WATER / RINSED WITH 10%o
NITRIC WASH THEN FINAL RINSE WITH LAB. GRADE WATER
PRIOR TO USE.

WELL DEVELOPMENT/PURGING LOG

MOENCH CO.

PROJECT TITLE: PALMER ST. LANDFILL - G.W.M.

PROJECT NO.: 2 OF 2 ANNUAL EVENTS, 2015

STAFF: JEFF SMITH + Mike Best

DATE: 7-16-15, 1137

WELL NO.: MW-7D (11)

- 1 TOTAL CASING AND SCREEN LENGTH (ft.) 41.90
- 2 CASING INTERNAL DIAMETER (in.) 2"
- 3 WATER LEVEL BELOW TOP OF CASING (ft.) 6.41
- 4 VOLUME OF WATER IN CASING (gal.)

WELL I.D.	VOL. GAL./FT.
1"	0.04
2"	0.17
3"	0.38
4"	0.66
5"	1.04
6"	1.50
8"	2.60

$$V = 0.0408 (2^2 \times (1 - 3)) = 6.0 \text{ gal.}$$

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)									
	INIT.									
"PH"	7.37	7.43								
TURBIDITY		Clear								
CONDUCTIVITY	660	670								
TEMP. °C	14.1									

COMMENTS:

WELL DEVELOPMENT/PURGING LOG

MOENCH CO.

YEAR - '75

PROJECT TITLE: PALMER ST. LANDFILL - G.W.M.

PROJECT NO.: 2 OF 2 ANNUAL EVENTS, 2015

STAFF: JEFF SMITH - Mike Best

DATE: 7/16/15 1055

WELL NO.: MW-8D (10)

WELL I.D.

VOL. .
GAL./FT.

1 TOTAL CASING AND SCREEN LENGTH (ft.) 127.70

14

0.04

2 CASING INTERNAL DIAMETER (in.) 2"

②

0.17

3 WATER LEVEL BELOW TOP OF CASING (ft.) 40.10

3¹¹

0.38

4 VOLUME OF WATER IN CASING (gal.)

41

0.66

5"

1.04

6.

1.50

83

2.60

$$V = 0.0408 \text{ (in}^2 \times (1 - 3)) = \underline{14.9 \text{ gal.}}$$

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)									
	I N I T.									
"PH"	7.11	7.18								
TURBIDITY	Clear									
CONDUCTIV.	480	480								
TEMP. °C	13.2									
COMMENTS: Pump Hose Needs - Discharge LPAKS - Repair										

WATER SAMPLING FIELD DATA SHEETS

PROJECT: PALMER ST. LANDFILL
MOENCH COMPANY
2 OF 2 ANNUAL EVENTS
2015

TYPE OF SAMPLE: GROUND WATER - GRAB
 LOCATION NO.: MW-8D

WELL DATA: DATE: 7/14/15
 Casing Diameter (Inches): 2"
 Screened Interval (ft BGS): NA
 Static Water Level Below TOR (ft.):
 Elevation Top of Well Riser: 821.89
 Elevation Top of Screen: NA

TIME: 1055
 Casing Material: PVC
 Screen Material: PVC
 Bottom Depth (ft.): 127.70
 Datum Ground Surface: -

PURGING DATA: DEDICATED DATE: 7-16-15
 Method: ELECTRIC Pump - 80, 12V. WHALE
 Well Volumes Purged (NRW/231):
 Standing Volume (GAL.) 15
 Volume Purged (GAL.) 20

TIME: Start: 1055 Finish: 1117
 Pumping Rate (gal/min): 1-2 gpm
 Was well purged dry? Yes No X
 Was well purged below sand pack? Yes No X

Is purging equipment dedicated to sample location?
 Yes * No

Well I.D. (Inches)	Volume (gal/ft)
2	0.17
4	0.66
6	1.50

Field Personnel: JS + M. Best

SAMPLING DATA: DATE: 7-16-15
 Method: DEDICATE BAILER -
 Present Water Level (ft.):
 Depth of Sample (ft.):

TIME: Start: 1117 Finish: 1129
 Sampler: JS + M.B
 Air Temperature (F°): 70
 Weather Conditions: SUNNY

Is sampling equipment dedicated to sample location? Yes * No

Source and type of water used in field for QC purposes: IsleChem LAB

RESERVATION DATA: DATE: 7/2/15 IsleChem

TIME: Starts Finish:

Filtered: Yes * No

Cool to 4°C: *

Preservative: H₂SO₄ HNO₃ * NaOH Other HCl

PHYSICAL AND CHEMICAL

Appearance: Clear * Turbids:
 Contains Sediment:

Color:
 Odor: NO Others:

Temperature (°C): pH:

Specific Conductivity (µmhos/cm):

Turbidity (NTU):

Other:

E. FLASK +/OR

MARKS: TEFLON BAILER USED FOR SAMPLING WAS WASHED WITH
SOAP, RINSED WITH LAB. WATER / RINSED WITH 10% 90
NITRIC WASH THEN FINAL RINSE WITH LAB. GRADE
WATER PRIOR TO USE.

WATER SAMPLING FIELD DATA SHEETS

BS-1

PROJECT: PALMER ST. LANDFILL

TYPE OF SAMPLE: SURFACE / GROUND WATER

MOENCH CO.

LOCATION NO.: BS-1

2 OF 2 ANNUAL EVENTS.

(BANK SEEP SOUTH OF MWG)

2015

WELL DATA:

DATE:

TIME:

Casing Diameter (Inches):

N/A

Casing Material:

N/A

Screened Interval (ft BGS):

Static Water Level Below TOR (ft.):

Elevation Top of Well Riser:

Elevation Top of Screen:

Screen Material:

Bottom Depth (ft.):

Datum Ground Surface:

PURGING DATA:

DATE:

TIME: Start:

Finish:

Method:

NA

Pumping Rate (gal/min):

N/A

Well Volumes Purged (at W/231):

NA

Was well purged dry? Yes No

Standing Volume (GAL.):

NA

Was Well purged below sand pack? Yes No

Volume Purged (GAL.):

NA

Is purging equipment dedicated to sample location?

Yes *

No

Field Personnel:

JS + MB

Well I.D.
(Inches)Volume
(gal/ft)

2

0.17

4

0.66

6

1.50

SAMPLING DATA:

DATE:

TIME: Start:

Finish:

Method: SURFACE WATER GRAB

Samplers:

J. SMITH - MIKE BEST

Static Water Level (ft.):

NA

Air Temperature (F°):

Depth of Sample (ft.):

NA

Weather Conditions:

Is sampling equipment dedicated to sample location? Yes *

No

Source and type of water used in field for QC purposes:

Islechem LAB

PRESERVATION DATA:

DATE:

7/2/15 Islechem

TIME: Start:

Finish:

Filtered: Yes *

No

Cool to 4°C: *

Preservatives: H₂SO₄HNO₃

*

NaOH

Other

HCl

PHYSICAL AND CHEMICAL

Appearance:

Clear

Turbid:

Color:

Contains Sediment

Odor:

Others:

Temperature (°C):

pH:

Specific Conductivity (µmhos/cm):

Turbidity (NTU):

Others:

REMARKS: NA - NOT APPLICABLE - E. FLASK +/OR
WAS WASHED WITH SOAP, RINSED WITH LABORATORY WATER -
RINSED WITH 10% NITRIC ACID WASH, FINAL RINSE WITH
LAB. GRADE WATER, PRIOR TO EACH USE.

WATER SAMPLING FIELD DATA SHEET

PROJECT: PALMER ST. LANDFILL
 CLIENT: MOENCH CO.
 NO.: 2 OF 2 ANNUAL EV.
2015

TYPE OF SAMPLE: GROUNDWATER - GRAB
 LOCATION NO.: BS-2
 LAB SAMPLE NO.: _____

WELL DATA: DATE: 7/16/15
 Casing Diameter (inches): _____
 Screened Interval (ft BGS): _____
 Static Water Level Below TOR (ft): _____
 Elevation Top of Well Riser: _____

TIME: 935

Casing Material: _____

Screen Material: _____

Bottom Depth (ft): _____

Datum Ground Surface: _____

PURGING DATA:

DATE: _____

TIME: Start: _____

Finish: _____

Method: _____

Well Volumes Purged (V=TR²H/231): N/A

Pumping Rate (gal/min): _____

Standing Volume (gal): _____

Was well purged dry? _____

Yes

No

Volume Purged (gal): _____

Was well purged below sand pack? _____

Yes

No

Is purging equipment dedicated to sample location? _____

Yes

No

Field Personnel: _____

Well I.D.

(inches)

Volume

(gal/ft)

2

0.17

4

0.66

6

1.50

SAMPLING DATA:

DATE: _____

TIME: Start: _____

Finish: _____

Method: GRAB

Sampler: J. Smith - M. Best

Present Water Level (ft): _____

Air Temperature (°F): _____

Depth of Sample (ft): _____

Weather Conditions: _____

Is sampling equipment dedicated to sample location? _____

Yes

No

*

PRESERVATION DATA:

DATE: 7/2/15 Isle Chem

TIME: Start: _____

Finish: _____

Filtered: *

Yes

No

Cool to 4°C: *

Preservative: _____

H₂SO₄

*

HNO₃

NaOH

HCL

Other

PHYSICAL AND CHEMICAL DATA:

Appearance: Clear: _____

Turbid: _____

Color: _____

Contains Sediment: _____

Odor: _____

Other: _____

Temperature (°C): _____

pH: _____

Specific Conductivity (µmhos/cm): _____

Turbidity (NTU): _____

Other: _____

REMARKS:

SAMPLE/FILTER EQUIPMENT: WASH W/SOAP + WATER (3X).
RINSED W/DISTL'd WATER. RINSE WITH 10% NITRIC
ACID WASH. FINAL RINSE W/DISTL'd WATER.

WATER SAMPLING FIELD DATA SHEETS

BS-3 ⑨PROJECT: PALMER ST. LANDFILL
MOENCH CO.
2 OF 2 ANNUAL EVENTS
2015TYPE OF SAMPLE: SURFACE/GROUND WATER
LOCATION NO.: BS-3 (BANK SEEP
SOUTH OF MW-3)

WELL DATA:

DATE: 7/16/15TIME: 1030Casing Diameter (Inches): NA
Screened Interval (ft BGS): ~
Static Water Level Below TOR (ft.): ~
Elevation Top of Well Riser: ~
Elevation Top of Screen: ~Casing Material: N/A
Screen Material: ~
Bottom Depth (ft.): ~
Datum Ground Surface: ~

PURGING DATA:

DATE: 7/16/15TIME: Start: ~ Finish: ~Method: NA
Well Volumes Purged (xR⁴M/231): NA
Standing Volume (GAL.): NA
Volume Purged (GAL.): NAPumping Rate (gal/min): N/A
Was well purged dry? Yes ~ No ~
Was well purged below sand pack? Yes ~ No ~Is purging equipment dedicated to sample location?
Yes X No ~

Well I.D. (Inches)	Volume (gal/ft)
2	0.17
4	0.66
6	1.50

Field Personnel: J. Smith + M. Best

SAMPLING DATA:

DATE: 7-16-15TIME: Start: 1030 Finish: 1050Method: SURFACE WATER GRAB
Present Water Level (ft.): NA
Depth of Sample (ft.): NASampler: J. Smith + M. BestIs sampling equipment dedicated to sample location? Yes X No ~Air Temperature (F°): 75
Weather Conditions: SUNNY

Source and type of water used in field for QC purposes:

IsieChem LAB

PRESERVATION DATA:

DATE: 7/2/15TIME: Start: ~ Finish: ~Filtered: Yes X No ~Cool to 4°C: XPreservatives: H₂SO₄ HNO₃ NaOH Other X HCl

PHYSICAL AND CHEMICAL

Appearance: Clear Turbidity: XColor: Red MUCH IRONContains Sediment: ~Odor: NO Others: ~Temperature (°C): 9.0 pH: 7.01Specific Conductivity (µmhos/cm): 800Turbidity (NTU): ~Other: ~REMARKS: N/A - NOT APPLICABLE. E. FLASK +/OR TEFLON BAILER USEDFOR SAMPLING/FILTERING, WAS WASHED WITH ALCONOX SOAP,
RINSED W/ LAB GRADE WATER, RINSED W/ 10% NITRIC WASH,
FINAL RINSE WITH LAB GRADE WATER PRIOR TO USE.

WELL DEVELOPMENT/PURGING LOG

MOENCH COMPANY

PROJECT TITLE: PALMER ST. LANDFILL - G.W.M.

PROJECT NO.: 2 OF 2 ANNUAL EVENTS, 2015

STAFF: JEFF SMITH / Mike Best

DATE: 7-16-15, 1210

WELL NO.: EQUIPMENT BLANK (12)

WELL I.D.

VOL.
GAL./FT.

- 1 TOTAL CASING AND SCREEN LENGTH (ft.) NA
- 2 CASING INTERNAL DIAMETER (in.) _____
- 3 WATER LEVEL BELOW TOP OF CASING (ft.) _____
- 4 VOLUME OF WATER IN CASING (gal.) _____

- | | |
|----|------|
| 1" | 0.04 |
| 2" | 0.17 |
| 3" | 0.38 |
| 4" | 0.66 |
| 5" | 1.04 |
| 6" | 1.50 |
| 8" | 2.60 |

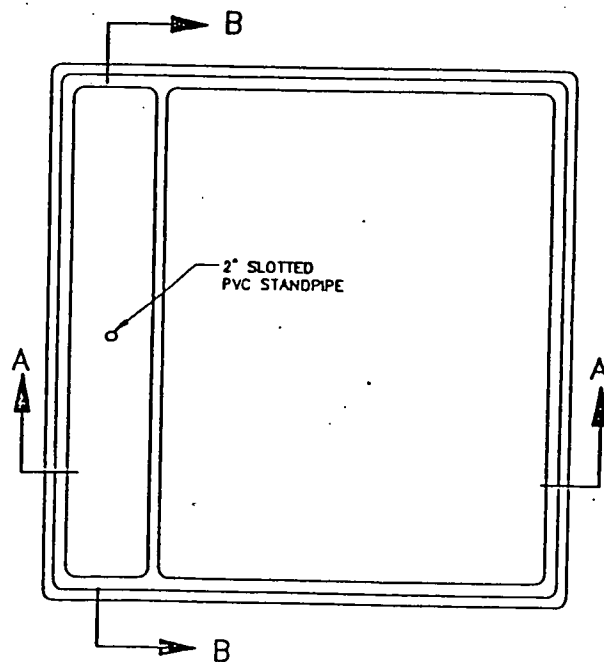
$$V = 0.0408 \text{ (}^2 \times (1 - 3) = \underline{\underline{NA}} \text{ gal.}$$

PARAMETERS	ACCUMULATED VOLUME PURGED (GALLONS)									
	ONLY									
"PH"	4.53									
VISUAL TURBIDITY	clear									
CONDUCTIVITY	290									
TEMP. °C	9.6									

COMMENTS:

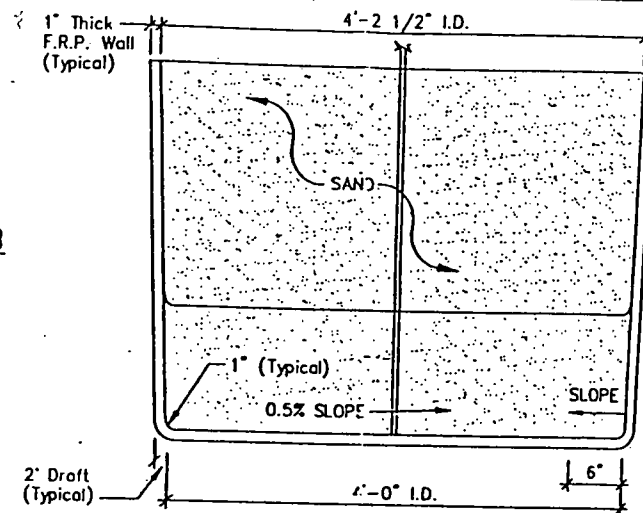
D.I. WATER (Q.C) FROM: IsleChem Lab.

APPENDIX B
INFILTROMETER DESIGN

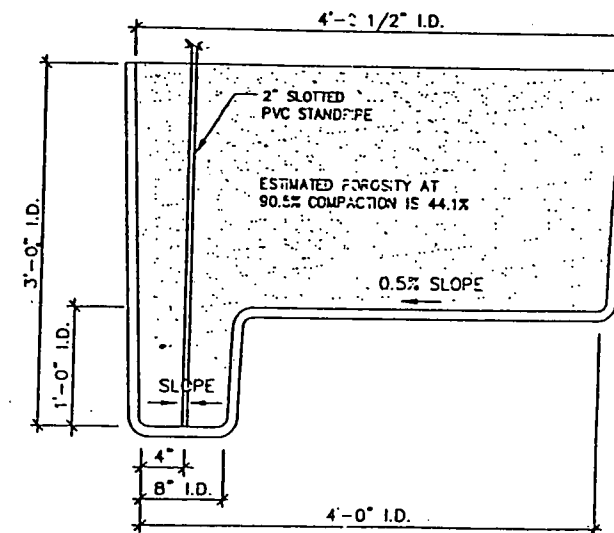


PLAN

SECTION B-B



SECTION A-A



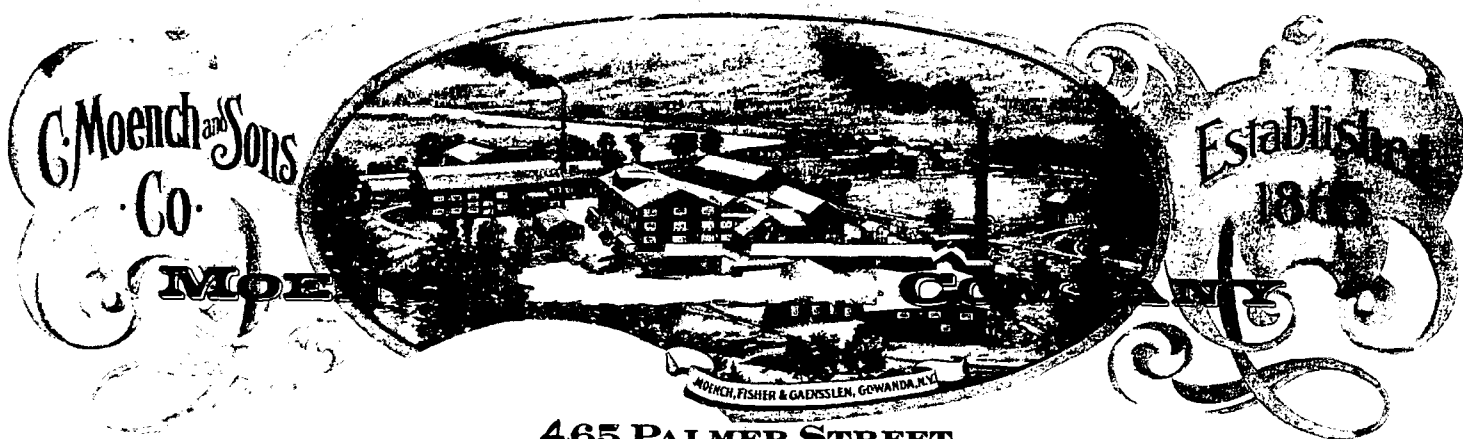
MTC-23-INF

TYPICAL INFILTRATOR BY HEY'S ENTERPRISES
AS INSTALLED AT PALMER STREET LANDFILL

INFILTRATOR

MOENCH TANNING COMPANY

3/20 93



465 PALMER STREET
GOWANDA, NEW YORK 14070

TEL. 716-532-2201

FAX 716-532-5518

APPENDIX "C"

ANALYTICAL REPORT FROM LABORATORY:

FOR July 16, 2015

MONITORING EVENT....

PALMER STREET LANDFILL



2801 Long Road
Grand Island, NY 14072
(716) 773-8401
(800) 699-8606
(716) 773-8517 (fax)
www.islechem.com

Analysis Report

Client Moench Company
465 Palmer Street
Gowanda, NY 14070

Project Palmer Street Landfill Routine Parameter List

Report Date 7/24/2015
Status Final
ID NY1507104.0.44720

Batch Sample
Date 7/16/2015
Time 15:00
Description Palmer Street Landfill
Received 7/17/2015
Time: 13:30

Batch Contact Jeffrey Smith

Authorized Signature

Mary Ferguson, Manager of Chemical Testing

The following result table is for 12 samples received by IsleChem LLC on 7/17/2015 sampled by Client on 7/16/2015 and submitted by Client

Also enclosed are the Chain of Custody and Sample Receipt check list for this project.

Narrative:

Analyses were performed within the required holding times unless otherwise noted below. All quality control results were within acceptable limits unless specifically noted in the report. Quality control analyses were performed on the samples in this report or samples of similar matrix that were analyzed in the analytical batch on the dates indicated in the report.

Notes:

Sample Results

Report ID NY1507104.0.44720

Client Moench Company

Sample ID	Results	Units	Qualifiers	Analyst	Vessel ID	Date
104-0717-1	MW-6D - Ground Water Sampled 7/16/2015					
Metals						
Field Grab	Method: EPA 200.7 Rev 4.4 / Prep: EPA 4.1.3					
Arsenic, Dissolved	< 0.005	mg/L		MF	302060	2015-07-24
Chromium, Dissolved	< 0.01	mg/L		MF	302060	2015-07-24
Lead, Dissolved	< 0.01	mg/L		MF	302060	2015-07-24
Volatiles						
Field Grab	Method: EPA 8260C / Prep: EPA 5030C					
Vinyl acetate	< 10.0	ug/L		RRS	302061-302062	2015-07-17
Chloromethane	< 2.0	ug/L		RRS	302061-302062	2015-07-17
Vinyl chloride	< 2.0	ug/L		RRS	302061-302062	2015-07-17
Bromomethane	< 2.0	ug/L		RRS	302061-302062	2015-07-17
Chloroethane	< 2.0	ug/L		RRS	302061-302062	2015-07-17
Acetone	< 10.0	ug/L		RRS	302061-302062	2015-07-17
1,1-Dichloroethene	< 2.0	ug/L		RRS	302061-302062	2015-07-17
Methylene chloride	< 2.0	ug/L		RRS	302061-302062	2015-07-17
Carbon Disulfide	< 2.0	ug/L		RRS	302061-302062	2015-07-17
trans-1,2-Dichloroethene	< 2.0	ug/L		RRS	302061-302062	2015-07-17
1,1-Dichloroethane	< 2.0	ug/L		RRS	302061-302062	2015-07-17
2-Butanone (Methylethyl ketone)	< 10.0	ug/L		RRS	302061-302062	2015-07-17
cis-1,2-Dichloroethene	< 2.0	ug/L		RRS	302061-302062	2015-07-17
Chloroform	< 2.0	ug/L		RRS	302061-302062	2015-07-17
1,2-Dichloroethane	< 2.0	ug/L		RRS	302061-302062	2015-07-17
1,1,1-Trichloroethane	< 2.0	ug/L		RRS	302061-302062	2015-07-17
Carbon tetrachloride	< 2.0	ug/L		RRS	302061-302062	2015-07-17
Benzene	< 2.0	ug/L		RRS	302061-302062	2015-07-17
1,2-Dichloropropane	< 2.0	ug/L		RRS	302061-302062	2015-07-17
Trichloroethene	< 2.0	ug/L		RRS	302061-302062	2015-07-17
Bromodichloromethane	< 2.0	ug/L		RRS	302061-302062	2015-07-17
2-Chloroethylvinyl ether	< 2.0	ug/L	A3	RRS	302061-302062	2015-07-17
cis-1,3-Dichloropropene	< 2.0	ug/L		RRS	302061-302062	2015-07-17
4-Methyl-2-Pentanone	< 10.0	ug/L		RRS	302061-302062	2015-07-17
trans-1,3-Dichloropropene	< 2.0	ug/L		RRS	302061-302062	2015-07-17
1,1,2-Trichloroethane	< 2.0	ug/L		RRS	302061-302062	2015-07-17
Toluene	< 2.0	ug/L		RRS	302061-302062	2015-07-17
2-Hexanone	< 10.0	ug/L		RRS	302061-302062	2015-07-17
Dibromochloromethane	< 2.0	ug/L		RRS	302061-302062	2015-07-17
Tetrachloroethene	< 2.0	ug/L		RRS	302061-302062	2015-07-17
Chlorobenzene	< 2.0	ug/L		RRS	302061-302062	2015-07-17
Ethyl benzene	< 2.0	ug/L		RRS	302061-302062	2015-07-17
m,p-Xylene	< 10.0	ug/L		RRS	302061-302062	2015-07-17
Bromoform	< 2.0	ug/L		RRS	302061-302062	2015-07-17
Styrene	< 2.0	ug/L		RRS	302061-302062	2015-07-17
o-Xylene	< 2.0	ug/L		RRS	302061-302062	2015-07-17
1,1,2,2-Tetrachloroethane	< 2.0	ug/L		RRS	302061-302062	2015-07-17

104-0716-2 MW-6 - Ground Water Sampled 7/16/2015

Metals

Field Grab	Method: EPA 200.7 Rev 4.4 / Prep: EPA 4.1.3					
Arsenic, Dissolved	0.032	mg/L		MF	302063	2015-07-24
Chromium, Dissolved	< 0.01	mg/L		MF	302063	2015-07-24

Sample Results

Report ID NY1507104.0.44720

Client Moench Company

Sample ID	Results	Units	Qualifiers	Analyst	Vessel ID	Date
104-0716-2	MW-6 - Ground Water Sampled 7/16/2015					
Metals						
Field Grab	Method: EPA 200.7 Rev 4.4 / Prep: EPA 4.1.3					
Lead, Dissolved	< 0.01	mg/L		MF	302063	2015-07-24
Volatiles						
Field Grab	Method: EPA 8260C / Prep: EPA 5030C					
Vinyl acetate	< 10.0	ug/L		RRS	302064-302065	2015-07-17
Chloromethane	< 2.0	ug/L		RRS	302064-302065	2015-07-17
Vinyl chloride	< 2.0	ug/L		RRS	302064-302065	2015-07-17
Bromomethane	< 2.0	ug/L		RRS	302064-302065	2015-07-17
Chloroethane	< 2.0	ug/L		RRS	302064-302065	2015-07-17
Acetone	< 10.0	ug/L		RRS	302064-302065	2015-07-17
1,1-Dichloroethene	< 2.0	ug/L		RRS	302064-302065	2015-07-17
Methylene chloride	< 2.0	ug/L		RRS	302064-302065	2015-07-17
Carbon Disulfide	< 2.0	ug/L		RRS	302064-302065	2015-07-17
trans-1,2-Dichloroethene	< 2.0	ug/L		RRS	302064-302065	2015-07-17
1,1-Dichloroethane	< 2.0	ug/L		RRS	302064-302065	2015-07-17
2-Butanone (Methylethyl ketone)	< 10.0	ug/L		RRS	302064-302065	2015-07-17
cis-1,2-Dichloroethene	< 2.0	ug/L		RRS	302064-302065	2015-07-17
Chloroform	< 2.0	ug/L		RRS	302064-302065	2015-07-17
1,2-Dichloroethane	2.2	ug/L		RRS	302064-302065	2015-07-17
1,1,1-Trichloroethane	< 2.0	ug/L		RRS	302064-302065	2015-07-17
Carbon tetrachloride	< 2.0	ug/L		RRS	302064-302065	2015-07-17
Benzene	< 2.0	ug/L		RRS	302064-302065	2015-07-17
1,2-Dichloropropane	< 2.0	ug/L		RRS	302064-302065	2015-07-17
Trichloroethene	< 2.0	ug/L		RRS	302064-302065	2015-07-17
Bromodichloromethane	< 2.0	ug/L		RRS	302064-302065	2015-07-17
2-Chloroethylvinyl ether	< 2.0	ug/L	A3	RRS	302064-302065	2015-07-17
cis-1,3-Dichloropropene	< 2.0	ug/L		RRS	302064-302065	2015-07-17
4-Methyl-2-Pentanone	< 10.0	ug/L		RRS	302064-302065	2015-07-17
trans-1,3-Dichloropropene	< 2.0	ug/L		RRS	302064-302065	2015-07-17
1,1,2-Trichloroethane	< 2.0	ug/L		RRS	302064-302065	2015-07-17
Toluene	< 2.0	ug/L		RRS	302064-302065	2015-07-17
2-Hexanone	< 10.0	ug/L		RRS	302064-302065	2015-07-17
Dibromochloromethane	< 2.0	ug/L		RRS	302064-302065	2015-07-17
Tetrachloroethene	< 2.0	ug/L		RRS	302064-302065	2015-07-17
Chlorobenzene	< 2.0	ug/L		RRS	302064-302065	2015-07-17
Ethyl benzene	< 2.0	ug/L		RRS	302064-302065	2015-07-17
m,p-Xylene	< 10.0	ug/L		RRS	302064-302065	2015-07-17
Bromoform	< 2.0	ug/L		RRS	302064-302065	2015-07-17
Styrene	< 2.0	ug/L		RRS	302064-302065	2015-07-17
o-Xylene	< 2.0	ug/L		RRS	302064-302065	2015-07-17
1,1,2,2-Tetrachloroethane	< 2.0	ug/L		RRS	302064-302065	2015-07-17

104-0716-4 MW-4SR - Ground Water Sampled 7/16/2015

Metals

Field Grab	Method: EPA 200.7 Rev 4.4 / Prep: EPA 4.1.3					
Arsenic, Dissolved	< 0.005	mg/L		MF	302066	2015-07-24
Chromium, Dissolved	0.011	mg/L		MF	302066	2015-07-24
Lead, Dissolved	< 0.01	mg/L		MF	302066	2015-07-24

Sample Results

Report ID NY1507104.0.44720

Client Moench Company

Sample ID	Results	Units	Qualifiers	Analyst	Vessel ID	Date
104-0716-4	MW-4SR - Ground Water Sampled 7/16/2015					
Volatiles						
Field Grab	Method: EPA 8260C / Prep: EPA 5030C					
Vinyl acetate	< 10.0	ug/L		RRS	302067-302068	2015-07-17
Chloromethane	< 2.0	ug/L		RRS	302067-302068	2015-07-17
Vinyl chloride	< 2.0	ug/L		RRS	302067-302068	2015-07-17
Bromomethane	< 2.0	ug/L		RRS	302067-302068	2015-07-17
Chloroethane	< 2.0	ug/L		RRS	302067-302068	2015-07-17
Acetone	< 10.0	ug/L		RRS	302067-302068	2015-07-17
1,1-Dichloroethene	< 2.0	ug/L		RRS	302067-302068	2015-07-17
Methylene chloride	< 2.0	ug/L		RRS	302067-302068	2015-07-17
Carbon Disulfide	< 2.0	ug/L		RRS	302067-302068	2015-07-17
trans-1,2-Dichloroethene	< 2.0	ug/L		RRS	302067-302068	2015-07-17
1,1-Dichloroethane	< 2.0	ug/L		RRS	302067-302068	2015-07-17
2-Butanone (Methylethyl ketone)	< 10.0	ug/L		RRS	302067-302068	2015-07-17
cis-1,2-Dichloroethene	< 2.0	ug/L		RRS	302067-302068	2015-07-17
Chloroform	< 2.0	ug/L		RRS	302067-302068	2015-07-17
1,2-Dichloroethane	< 2.0	ug/L		RRS	302067-302068	2015-07-17
1,1,1-Trichloroethane	< 2.0	ug/L		RRS	302067-302068	2015-07-17
Carbon tetrachloride	< 2.0	ug/L		RRS	302067-302068	2015-07-17
Benzene	< 2.0	ug/L		RRS	302067-302068	2015-07-17
1,2-Dichloropropane	< 2.0	ug/L		RRS	302067-302068	2015-07-17
Trichloroethene	< 2.0	ug/L		RRS	302067-302068	2015-07-17
Bromodichloromethane	< 2.0	ug/L		RRS	302067-302068	2015-07-17
2-Chloroethylvinyl ether	< 2.0	ug/L	A3	RRS	302067-302068	2015-07-17
cis-1,3-Dichloropropene	< 2.0	ug/L		RRS	302067-302068	2015-07-17
4-Methyl-2-Pentanone	< 10.0	ug/L		RRS	302067-302068	2015-07-17
trans-1,3-Dichloropropene	< 2.0	ug/L		RRS	302067-302068	2015-07-17
1,1,2-Trichloroethane	< 2.0	ug/L		RRS	302067-302068	2015-07-17
Toluene	< 2.0	ug/L		RRS	302067-302068	2015-07-17
2-Hexanone	< 10.0	ug/L		RRS	302067-302068	2015-07-17
Dibromochloromethane	< 2.0	ug/L		RRS	302067-302068	2015-07-17
Tetrachloroethene	< 2.0	ug/L		RRS	302067-302068	2015-07-17
Chlorobenzene	< 2.0	ug/L		RRS	302067-302068	2015-07-17
Ethyl benzene	< 2.0	ug/L		RRS	302067-302068	2015-07-17
m,p-Xylene	< 10.0	ug/L		RRS	302067-302068	2015-07-17
Bromoform	< 2.0	ug/L		RRS	302067-302068	2015-07-17
Styrene	< 2.0	ug/L		RRS	302067-302068	2015-07-17
o-Xylene	< 2.0	ug/L		RRS	302067-302068	2015-07-17
1,1,2,2-Tetrachloroethane	< 2.0	ug/L		RRS	302067-302068	2015-07-17

104-0716-5 MW-4D - Ground Water Sampled 7/16/2015

Metals

Field Grab	Method: EPA 200.7 Rev 4.4 / Prep: EPA 4.1.3					
Arsenic, Dissolved	< 0.005	mg/L		MF	302069	2015-07-24
Chromium, Dissolved	< 0.01	mg/L		MF	302069	2015-07-24
Lead, Dissolved	< 0.01	mg/L		MF	302069	2015-07-24

Volatiles

Field Grab	Method: EPA 8260C / Prep: EPA 5030C					
Vinyl acetate	< 10.0	ug/L		RRS	302070-302071	2015-07-17
Chloromethane	< 2.0	ug/L		RRS	302070-302071	2015-07-17

Sample Results

Report ID NY1507104.0.44720

Client Moench Company

Sample ID	Results	Units	Qualifiers	Analyst	Vessel ID	Date
104-0716-5	MW-4D - Ground Water Sampled 7/16/2015					
Volatiles						
Field Grab	Method: EPA 8260C / Prep: EPA 5030C					
Vinyl chloride	< 2.0	ug/L	A3	RRS	302070-302071	2015-07-17
Bromomethane	< 2.0	ug/L		RRS	302070-302071	2015-07-17
Chloroethane	< 2.0	ug/L		RRS	302070-302071	2015-07-17
Acetone	< 10.0	ug/L		RRS	302070-302071	2015-07-17
1,1-Dichloroethene	< 2.0	ug/L		RRS	302070-302071	2015-07-17
Methylene chloride	< 2.0	ug/L		RRS	302070-302071	2015-07-17
Carbon Disulfide	< 2.0	ug/L		RRS	302070-302071	2015-07-17
trans-1,2-Dichloroethene	< 2.0	ug/L		RRS	302070-302071	2015-07-17
1,1-Dichloroethane	< 2.0	ug/L		RRS	302070-302071	2015-07-17
2-Butanone (Methylethyl ketone)	< 10.0	ug/L		RRS	302070-302071	2015-07-17
cis-1,2-Dichloroethene	< 2.0	ug/L		RRS	302070-302071	2015-07-17
Chloroform	< 2.0	ug/L		RRS	302070-302071	2015-07-17
1,2-Dichloroethane	< 2.0	ug/L		RRS	302070-302071	2015-07-17
1,1,1-Trichloroethane	< 2.0	ug/L		RRS	302070-302071	2015-07-17
Carbon tetrachloride	< 2.0	ug/L		RRS	302070-302071	2015-07-17
Benzene	< 2.0	ug/L		RRS	302070-302071	2015-07-17
1,2-Dichloropropane	< 2.0	ug/L		RRS	302070-302071	2015-07-17
Trichloroethene	< 2.0	ug/L		RRS	302070-302071	2015-07-17
Bromodichloromethane	< 2.0	ug/L		RRS	302070-302071	2015-07-17
2-Chloroethylvinyl ether	< 2.0	ug/L		RRS	302070-302071	2015-07-17
cis-1,3-Dichloropropene	< 2.0	ug/L		RRS	302070-302071	2015-07-17
4-Methyl-2-Pentanone	< 10.0	ug/L		RRS	302070-302071	2015-07-17
trans-1,3-Dichloropropene	< 2.0	ug/L		RRS	302070-302071	2015-07-17
1,1,2-Trichloroethane	< 2.0	ug/L		RRS	302070-302071	2015-07-17
Toluene	< 2.0	ug/L		RRS	302070-302071	2015-07-17
2-Hexanone	< 10.0	ug/L		RRS	302070-302071	2015-07-17
Dibromochloromethane	< 2.0	ug/L		RRS	302070-302071	2015-07-17
Tetrachloroethene	< 2.0	ug/L		RRS	302070-302071	2015-07-17
Chlorobenzene	< 2.0	ug/L		RRS	302070-302071	2015-07-17
Ethyl benzene	< 2.0	ug/L		RRS	302070-302071	2015-07-17
m,p-Xylene	< 10.0	ug/L	RRS	302070-302071	2015-07-17	
Bromoform	< 2.0	ug/L	RRS	302070-302071	2015-07-17	
Styrene	< 2.0	ug/L	RRS	302070-302071	2015-07-17	
o-Xylene	< 2.0	ug/L	RRS	302070-302071	2015-07-17	
1,1,2,2-Tetrachloroethane	< 2.0	ug/L	RRS	302070-302071	2015-07-17	

104-0716-6 Blind Dup - Ground Water Sampled 7/16/2015

Metals

Field Duplicate	Method: EPA 200.7 Rev 4.4 / Prep: EPA 4.1.3					
Arsenic, Dissolved	< 0.005	mg/L		MF	302072	2015-07-24
Chromium, Dissolved	< 0.01	mg/L		MF	302072	2015-07-24
Lead, Dissolved	< 0.01	mg/L		MF	302072	2015-07-24

Volatiles

Field Duplicate	Method: EPA 8260C / Prep: EPA 5030C					
Vinyl acetate	< 10.0	ug/L		RRS	302073-302074	2015-07-17
Chloromethane	< 2.0	ug/L		RRS	302073-302074	2015-07-17
Vinyl chloride	< 2.0	ug/L		RRS	302073-302074	2015-07-17
Bromomethane	< 2.0	ug/L		RRS	302073-302074	2015-07-17

Sample Results

Report ID NY1507104.0.44720

Client Moench Company

Sample ID	Results	Units	Qualifiers	Analyst	Vessel ID	Date
104-0716-6	Blind Dup - Ground Water Sampled 7/16/2015					
Volatiles						
Field Duplicate	Method: EPA 8260C / Prep: EPA 5030C					
Chloroethane	< 2.0	ug/L		RRS	302073-302074	2015-07-17
Acetone	< 10.0	ug/L		RRS	302073-302074	2015-07-17
1,1-Dichloroethene	< 2.0	ug/L		RRS	302073-302074	2015-07-17
Methylene chloride	< 2.0	ug/L		RRS	302073-302074	2015-07-17
Carbon Disulfide	< 2.0	ug/L		RRS	302073-302074	2015-07-17
trans-1,2-Dichloroethene	< 2.0	ug/L		RRS	302073-302074	2015-07-17
1,1-Dichloroethane	< 2.0	ug/L		RRS	302073-302074	2015-07-17
2-Butanone (Methylethyl ketone)	< 10.0	ug/L		RRS	302073-302074	2015-07-17
cis-1,2-Dichloroethene	< 2.0	ug/L		RRS	302073-302074	2015-07-17
Chloroform	< 2.0	ug/L		RRS	302073-302074	2015-07-17
1,2-Dichloroethane	< 2.0	ug/L		RRS	302073-302074	2015-07-17
1,1,1-Trichloroethane	< 2.0	ug/L		RRS	302073-302074	2015-07-17
Carbon tetrachloride	< 2.0	ug/L		RRS	302073-302074	2015-07-17
Benzene	< 2.0	ug/L		RRS	302073-302074	2015-07-17
1,2-Dichloropropane	< 2.0	ug/L		RRS	302073-302074	2015-07-17
Trichloroethene	< 2.0	ug/L		RRS	302073-302074	2015-07-17
Bromodichloromethane	< 2.0	ug/L		RRS	302073-302074	2015-07-17
2-Chloroethylvinyl ether	< 2.0	ug/L	A3	RRS	302073-302074	2015-07-17
cis-1,3-Dichloropropene	< 2.0	ug/L		RRS	302073-302074	2015-07-17
4-Methyl-2-Pentanone	< 10.0	ug/L		RRS	302073-302074	2015-07-17
trans-1,3-Dichloropropene	< 2.0	ug/L		RRS	302073-302074	2015-07-17
1,1,2-Trichloroethane	< 2.0	ug/L		RRS	302073-302074	2015-07-17
Toluene	< 2.0	ug/L		RRS	302073-302074	2015-07-17
2-Hexanone	< 10.0	ug/L		RRS	302073-302074	2015-07-17
Dibromochloromethane	< 2.0	ug/L		RRS	302073-302074	2015-07-17
Tetrachloroethene	< 2.0	ug/L		RRS	302073-302074	2015-07-17
Chlorobenzene	< 2.0	ug/L		RRS	302073-302074	2015-07-17
Ethyl benzene	< 2.0	ug/L		RRS	302073-302074	2015-07-17
m,p-Xylene	< 10.0	ug/L		RRS	302073-302074	2015-07-17
Bromoform	< 2.0	ug/L		RRS	302073-302074	2015-07-17
Styrene	< 2.0	ug/L		RRS	302073-302074	2015-07-17
o-Xylene	< 2.0	ug/L		RRS	302073-302074	2015-07-17
1,1,2,2-Tetrachloroethane	< 2.0	ug/L		RRS	302073-302074	2015-07-17

104-0716-7 MW-3 - Ground Water Sampled 7/16/2015

Metals

Field Grab	Method: EPA 200.7 Rev 4.4 / Prep: EPA 4.1.3					
Arsenic, Dissolved	0.008	mg/L		MF	302075	2015-07-24
Chromium, Dissolved	< 0.01	mg/L		MF	302075	2015-07-24
Lead, Dissolved	< 0.01	mg/L		MF	302075	2015-07-24

Volatiles

Field Grab	Method: EPA 8260C / Prep: EPA 5030C					
Vinyl acetate	< 10.0	ug/L		RRS	302076-302077	2015-07-17
Chloromethane	< 2.0	ug/L		RRS	302076-302077	2015-07-17
Vinyl chloride	< 2.0	ug/L		RRS	302076-302077	2015-07-17
Bromomethane	< 2.0	ug/L		RRS	302076-302077	2015-07-17
Chloroethane	< 2.0	ug/L		RRS	302076-302077	2015-07-17
Acetone	< 10.0	ug/L		RRS	302076-302077	2015-07-17

Sample Results

Report ID NY1507104.0.44720

Client Moench Company

Sample ID	Results	Units	Qualifiers	Analyst	Vessel ID	Date
104-0716-7	MW-3 - Ground Water Sampled 7/16/2015					
Volatiles						
Field Grab	Method: EPA 8260C / Prep: EPA 5030C					
1,1-Dichloroethene	< 2.0	ug/L	A3	RRS	302076-302077	2015-07-17
Methylene chloride	< 2.0	ug/L		RRS	302076-302077	2015-07-17
Carbon Disulfide	< 2.0	ug/L		RRS	302076-302077	2015-07-17
trans-1,2-Dichloroethene	< 2.0	ug/L		RRS	302076-302077	2015-07-17
1,1-Dichloroethane	< 2.0	ug/L		RRS	302076-302077	2015-07-17
2-Butanone (Methylethyl ketone)	< 10.0	ug/L		RRS	302076-302077	2015-07-17
cis-1,2-Dichloroethene	< 2.0	ug/L		RRS	302076-302077	2015-07-17
Chloroform	< 2.0	ug/L		RRS	302076-302077	2015-07-17
1,2-Dichloroethane	< 2.0	ug/L		RRS	302076-302077	2015-07-17
1,1,1-Trichloroethane	< 2.0	ug/L		RRS	302076-302077	2015-07-17
Carbon tetrachloride	< 2.0	ug/L		RRS	302076-302077	2015-07-17
Benzene	< 2.0	ug/L		RRS	302076-302077	2015-07-17
1,2-Dichloropropane	< 2.0	ug/L		RRS	302076-302077	2015-07-17
Trichloroethene	< 2.0	ug/L		RRS	302076-302077	2015-07-17
Bromodichloromethane	< 2.0	ug/L		RRS	302076-302077	2015-07-17
2-Chloroethylvinyl ether	< 2.0	ug/L		RRS	302076-302077	2015-07-17
cis-1,3-Dichloropropene	< 2.0	ug/L		RRS	302076-302077	2015-07-17
4-Methyl-2-Pentanone	< 10.0	ug/L		RRS	302076-302077	2015-07-17
trans-1,3-Dichloropropene	< 2.0	ug/L		RRS	302076-302077	2015-07-17
1,1,2-Trichloroethane	< 2.0	ug/L		RRS	302076-302077	2015-07-17
Toluene	< 2.0	ug/L		RRS	302076-302077	2015-07-17
2-Hexanone	< 10.0	ug/L		RRS	302076-302077	2015-07-17
Dibromochloromethane	< 2.0	ug/L		RRS	302076-302077	2015-07-17
Tetrachloroethene	< 2.0	ug/L		RRS	302076-302077	2015-07-17
Chlorobenzene	< 2.0	ug/L		RRS	302076-302077	2015-07-17
Ethyl benzene	< 2.0	ug/L		RRS	302076-302077	2015-07-17
m,p-Xylene	< 10.0	ug/L		RRS	302076-302077	2015-07-17
Bromoform	< 2.0	ug/L		RRS	302076-302077	2015-07-17
Styrene	< 2.0	ug/L	RRS	302076-302077	2015-07-17	
o-Xylene	< 2.0	ug/L	RRS	302076-302077	2015-07-17	
1,1,2,2-Tetrachloroethane	< 2.0	ug/L	RRS	302076-302077	2015-07-17	

104-0716-8 MW-3D - Ground Water Sampled 7/16/2015

Metals

Field Grab	Method: EPA 200.7 Rev 4.4 / Prep: EPA 4.1.3					
Arsenic, Dissolved	< 0.005	mg/L		MF	302078	2015-07-24
Chromium, Dissolved	< 0.01	mg/L		MF	302078	2015-07-24
Lead, Dissolved	< 0.01	mg/L		MF	302078	2015-07-24

Volatiles

Field Grab	Method: EPA 8260C / Prep: EPA 5030C					
Vinyl acetate	< 10.0	ug/L		RRS	302079-302080	2015-07-17
Chloromethane	< 2.0	ug/L		RRS	302079-302080	2015-07-17
Vinyl chloride	< 2.0	ug/L		RRS	302079-302080	2015-07-17
Bromomethane	< 2.0	ug/L		RRS	302079-302080	2015-07-17
Chloroethane	< 2.0	ug/L		RRS	302079-302080	2015-07-17
Acetone	< 10.0	ug/L		RRS	302079-302080	2015-07-17
1,1-Dichloroethene	< 2.0	ug/L		RRS	302079-302080	2015-07-17
Methylene chloride	< 2.0	ug/L		RRS	302079-302080	2015-07-17

Sample Results

Report ID NY1507104.0.44720

Client Moench Company

Sample ID	Results	Units	Qualifiers	Analyst	Vessel ID	Date
104-0716-8	MW-3D - Ground Water Sampled 7/16/2015					
Volatiles						
Field Grab	Method: EPA 8260C / Prep: EPA 5030C					
Carbon Disulfide	< 2.0	ug/L	A3	RRS	302079-302080	2015-07-17
trans-1,2-Dichloroethene	< 2.0	ug/L		RRS	302079-302080	2015-07-17
1,1-Dichloroethane	< 2.0	ug/L		RRS	302079-302080	2015-07-17
2-Butanone (Methylethyl ketone)	< 10.0	ug/L		RRS	302079-302080	2015-07-17
cis-1,2-Dichloroethene	< 2.0	ug/L		RRS	302079-302080	2015-07-17
Chloroform	< 2.0	ug/L		RRS	302079-302080	2015-07-17
1,2-Dichloroethane	< 2.0	ug/L		RRS	302079-302080	2015-07-17
1,1,1-Trichloroethane	< 2.0	ug/L		RRS	302079-302080	2015-07-17
Carbon tetrachloride	< 2.0	ug/L		RRS	302079-302080	2015-07-17
Benzene	< 2.0	ug/L		RRS	302079-302080	2015-07-17
1,2-Dichloropropane	< 2.0	ug/L		RRS	302079-302080	2015-07-17
Trichloroethene	< 2.0	ug/L		RRS	302079-302080	2015-07-17
Bromodichloromethane	< 2.0	ug/L		RRS	302079-302080	2015-07-17
2-Chloroethylvinyl ether	< 2.0	ug/L		RRS	302079-302080	2015-07-17
cis-1,3-Dichloropropene	< 2.0	ug/L		RRS	302079-302080	2015-07-17
4-Methyl-2-Pentanone	< 10.0	ug/L		RRS	302079-302080	2015-07-17
trans-1,3-Dichloropropene	< 2.0	ug/L		RRS	302079-302080	2015-07-17
1,1,2-Trichloroethane	< 2.0	ug/L		RRS	302079-302080	2015-07-17
Toluene	< 2.0	ug/L		RRS	302079-302080	2015-07-17
2-Hexanone	< 10.0	ug/L		RRS	302079-302080	2015-07-17
Dibromochloromethane	< 2.0	ug/L		RRS	302079-302080	2015-07-17
Tetrachloroethene	< 2.0	ug/L		RRS	302079-302080	2015-07-17
Chlorobenzene	< 2.0	ug/L		RRS	302079-302080	2015-07-17
Ethyl benzene	< 2.0	ug/L		RRS	302079-302080	2015-07-17
m,p-Xylene	< 10.0	ug/L	RRS	302079-302080	2015-07-17	
Bromoform	< 2.0	ug/L	RRS	302079-302080	2015-07-17	
Styrene	< 2.0	ug/L	RRS	302079-302080	2015-07-17	
o-Xylene	< 2.0	ug/L	RRS	302079-302080	2015-07-17	
1,1,2,2-Tetrachloroethane	< 2.0	ug/L	RRS	302079-302080	2015-07-17	
104-0716-9	BS-3 - Ground Water Sampled 7/16/2015					
Metals						
Field Grab	Method: EPA 200.7 Rev 4.4 / Prep: EPA 4.1.3					
Arsenic, Dissolved	0.005	mg/L		MF	302081	2015-07-24
Chromium, Dissolved	< 0.01	mg/L		MF	302081	2015-07-24
Lead, Dissolved	< 0.01	mg/L		MF	302081	2015-07-24
Volatiles						
Field Grab	Method: EPA 8260C / Prep: EPA 5030C					
Vinyl acetate	< 10.0	ug/L		RRS	302082-302083	2015-07-17
Chloromethane	< 2.0	ug/L		RRS	302082-302083	2015-07-17
Vinyl chloride	< 2.0	ug/L		RRS	302082-302083	2015-07-17
Bromomethane	< 2.0	ug/L		RRS	302082-302083	2015-07-17
Chloroethane	< 2.0	ug/L		RRS	302082-302083	2015-07-17
Acetone	< 10.0	ug/L		RRS	302082-302083	2015-07-17
1,1-Dichloroethene	< 2.0	ug/L		RRS	302082-302083	2015-07-17
Methylene chloride	< 2.0	ug/L		RRS	302082-302083	2015-07-17
Carbon Disulfide	< 2.0	ug/L		RRS	302082-302083	2015-07-17
trans-1,2-Dichloroethene	< 2.0	ug/L		RRS	302082-302083	2015-07-17

Sample Results

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Client Moench Company

Sample ID	Results	Units	Qualifiers	Analyst	Vessel ID	Date
104-0716-9	BS-3 - Ground Water Sampled 7/16/2015					
Volatiles						
Field Grab	Method: EPA 8260C / Prep: EPA 5030C					
1,1-Dichloroethane	< 2.0	ug/L	A3	RRS	302082-302083	2015-07-17
2-Butanone (Methylethyl ketone)	< 10.0	ug/L		RRS	302082-302083	2015-07-17
cis-1,2-Dichloroethene	< 2.0	ug/L		RRS	302082-302083	2015-07-17
Chloroform	< 2.0	ug/L		RRS	302082-302083	2015-07-17
1,2-Dichloroethane	< 2.0	ug/L		RRS	302082-302083	2015-07-17
1,1,1-Trichloroethane	< 2.0	ug/L		RRS	302082-302083	2015-07-17
Carbon tetrachloride	< 2.0	ug/L		RRS	302082-302083	2015-07-17
Benzene	< 2.0	ug/L		RRS	302082-302083	2015-07-17
1,2-Dichloropropane	< 2.0	ug/L		RRS	302082-302083	2015-07-17
Trichloroethene	< 2.0	ug/L		RRS	302082-302083	2015-07-17
Bromodichloromethane	< 2.0	ug/L		RRS	302082-302083	2015-07-17
2-Chloroethylvinyl ether	< 2.0	ug/L		RRS	302082-302083	2015-07-17
cis-1,3-Dichloropropene	< 2.0	ug/L		RRS	302082-302083	2015-07-17
4-Methyl-2-Pentanone	< 10.0	ug/L		RRS	302082-302083	2015-07-17
trans-1,3-Dichloropropene	< 2.0	ug/L		RRS	302082-302083	2015-07-17
1,1,2-Trichloroethane	< 2.0	ug/L		RRS	302082-302083	2015-07-17
Toluene	< 2.0	ug/L		RRS	302082-302083	2015-07-17
2-Hexanone	< 10.0	ug/L		RRS	302082-302083	2015-07-17
Dibromochloromethane	< 2.0	ug/L		RRS	302082-302083	2015-07-17
Tetrachloroethene	< 2.0	ug/L		RRS	302082-302083	2015-07-17
Chlorobenzene	< 2.0	ug/L	RRS	302082-302083	2015-07-17	
Ethyl benzene	< 2.0	ug/L	RRS	302082-302083	2015-07-17	
m,p-Xylene	< 10.0	ug/L	RRS	302082-302083	2015-07-17	
Bromoform	< 2.0	ug/L	RRS	302082-302083	2015-07-17	
Styrene	< 2.0	ug/L	RRS	302082-302083	2015-07-17	
o-Xylene	< 2.0	ug/L	RRS	302082-302083	2015-07-17	
1,1,2,2-Tetrachloroethane	< 2.0	ug/L	RRS	302082-302083	2015-07-17	

104-0716-10 MW-8D - Ground Water Sampled 7/16/2015

Metals

Field Grab	Method: EPA 200.7 Rev 4.4 / Prep: EPA 4.1.3					
Arsenic, Dissolved	< 0.005	mg/L		MF	302084	2015-07-24
Chromium, Dissolved	< 0.01	mg/L		MF	302084	2015-07-24
Lead, Dissolved	< 0.01	mg/L		MF	302084	2015-07-24

Volatiles

Field Grab	Method: EPA 8260C / Prep: EPA 5030C					
Vinyl acetate	< 10.0	ug/L		RRS	302085-302086	2015-07-17
Chloromethane	< 2.0	ug/L		RRS	302085-302086	2015-07-17
Vinyl chloride	< 2.0	ug/L		RRS	302085-302086	2015-07-17
Bromomethane	< 2.0	ug/L		RRS	302085-302086	2015-07-17
Chloroethane	< 2.0	ug/L		RRS	302085-302086	2015-07-17
Acetone	< 10.0	ug/L		RRS	302085-302086	2015-07-17
1,1-Dichloroethene	< 2.0	ug/L		RRS	302085-302086	2015-07-17
Methylene chloride	< 2.0	ug/L		RRS	302085-302086	2015-07-17
Carbon Disulfide	< 2.0	ug/L		RRS	302085-302086	2015-07-17
trans-1,2-Dichloroethene	< 2.0	ug/L		RRS	302085-302086	2015-07-17
1,1-Dichloroethane	< 2.0	ug/L		RRS	302085-302086	2015-07-17
2-Butanone (Methylethyl ketone)	< 10.0	ug/L		RRS	302085-302086	2015-07-17

Sample Results

Report ID NY1507104.0.44720

Client Moench Company

Sample ID	Results	Units	Qualifiers	Analyst	Vessel ID	Date
104-0716-10	MW-8D - Ground Water Sampled 7/16/2015					
Volatiles						
Field Grab	Method: EPA 8260C / Prep: EPA 5030C					
cis-1,2-Dichloroethene	< 2.0	ug/L	A3	RRS	302085-302086	2015-07-17
Chloroform	< 2.0	ug/L		RRS	302085-302086	2015-07-17
1,2-Dichloroethane	< 2.0	ug/L		RRS	302085-302086	2015-07-17
1,1,1-Trichloroethane	< 2.0	ug/L		RRS	302085-302086	2015-07-17
Carbon tetrachloride	< 2.0	ug/L		RRS	302085-302086	2015-07-17
Benzene	< 2.0	ug/L		RRS	302085-302086	2015-07-17
1,2-Dichloropropane	< 2.0	ug/L		RRS	302085-302086	2015-07-17
Trichloroethene	< 2.0	ug/L		RRS	302085-302086	2015-07-17
Bromodichloromethane	< 2.0	ug/L		RRS	302085-302086	2015-07-17
2-Chloroethylvinyl ether	< 2.0	ug/L		RRS	302085-302086	2015-07-17
cis-1,3-Dichloropropene	< 2.0	ug/L		RRS	302085-302086	2015-07-17
4-Methyl-2-Pentanone	< 10.0	ug/L		RRS	302085-302086	2015-07-17
trans-1,3-Dichloropropene	< 2.0	ug/L		RRS	302085-302086	2015-07-17
1,1,2-Trichloroethane	< 2.0	ug/L		RRS	302085-302086	2015-07-17
Toluene	< 2.0	ug/L		RRS	302085-302086	2015-07-17
2-Hexanone	< 10.0	ug/L		RRS	302085-302086	2015-07-17
Dibromochloromethane	< 2.0	ug/L		RRS	302085-302086	2015-07-17
Tetrachloroethene	< 2.0	ug/L		RRS	302085-302086	2015-07-17
Chlorobenzene	< 2.0	ug/L		RRS	302085-302086	2015-07-17
Ethyl benzene	< 2.0	ug/L		RRS	302085-302086	2015-07-17
m,p-Xylene	< 10.0	ug/L	RRS	302085-302086	2015-07-17	
Bromoform	< 2.0	ug/L	RRS	302085-302086	2015-07-17	
Styrene	< 2.0	ug/L	RRS	302085-302086	2015-07-17	
o-Xylene	< 2.0	ug/L	RRS	302085-302086	2015-07-17	
1,1,2,2-Tetrachloroethane	< 2.0	ug/L	RRS	302085-302086	2015-07-17	

104-0716-11 MW-7D - Ground Water Sampled 7/16/2015

Metals

Field Grab	Method: EPA 200.7 Rev 4.4 / Prep: EPA 4.1.3					
Arsenic, Dissolved	< 0.005	mg/L		MF	302087	2015-07-24
Chromium, Dissolved	< 0.01	mg/L		MF	302087	2015-07-24
Lead, Dissolved	< 0.01	mg/L		MF	302087	2015-07-24

Volatiles

Field Grab	Method: EPA 8260C / Prep: EPA 5030C					
Vinyl acetate	< 10.0	ug/L		RRS	302088-302089	2015-07-17
Chloromethane	< 2.0	ug/L		RRS	302088-302089	2015-07-17
Vinyl chloride	< 2.0	ug/L		RRS	302088-302089	2015-07-17
Bromomethane	< 2.0	ug/L		RRS	302088-302089	2015-07-17
Chloroethane	< 2.0	ug/L		RRS	302088-302089	2015-07-17
Acetone	< 10.0	ug/L		RRS	302088-302089	2015-07-17
1,1-Dichloroethene	< 2.0	ug/L		RRS	302088-302089	2015-07-17
Methylene chloride	< 2.0	ug/L		RRS	302088-302089	2015-07-17
Carbon Disulfide	< 2.0	ug/L		RRS	302088-302089	2015-07-17
trans-1,2-Dichloroethene	< 2.0	ug/L		RRS	302088-302089	2015-07-17
1,1-Dichloroethane	< 2.0	ug/L		RRS	302088-302089	2015-07-17
2-Butanone (Methylethyl ketone)	< 10.0	ug/L		RRS	302088-302089	2015-07-17
cis-1,2-Dichloroethene	< 2.0	ug/L		RRS	302088-302089	2015-07-17
Chloroform	< 2.0	ug/L		RRS	302088-302089	2015-07-17

Sample Results

Report ID NY1507104.0.44720

Client Moench Company

Sample ID	Results	Units	Qualifiers	Analyst	Vessel ID	Date
104-0716-11	MW-7D - Ground Water Sampled 7/16/2015					
Volatiles						
Field Grab	Method: EPA 8260C / Prep: EPA 5030C					
1,2-Dichloroethane	< 2.0	ug/L	A3	RRS	302088-302089	2015-07-17
1,1,1-Trichloroethane	< 2.0	ug/L		RRS	302088-302089	2015-07-17
Carbon tetrachloride	< 2.0	ug/L		RRS	302088-302089	2015-07-17
Benzene	< 2.0	ug/L		RRS	302088-302089	2015-07-17
1,2-Dichloropropane	< 2.0	ug/L		RRS	302088-302089	2015-07-17
Trichloroethene	< 2.0	ug/L		RRS	302088-302089	2015-07-17
Bromodichloromethane	< 2.0	ug/L		RRS	302088-302089	2015-07-17
2-Chloroethylvinyl ether	< 2.0	ug/L		RRS	302088-302089	2015-07-17
cis-1,3-Dichloropropene	< 2.0	ug/L		RRS	302088-302089	2015-07-17
4-Methyl-2-Pentanone	< 10.0	ug/L		RRS	302088-302089	2015-07-17
trans-1,3-Dichloropropene	< 2.0	ug/L		RRS	302088-302089	2015-07-17
1,1,2-Trichloroethane	< 2.0	ug/L		RRS	302088-302089	2015-07-17
Toluene	< 2.0	ug/L		RRS	302088-302089	2015-07-17
2-Hexanone	< 10.0	ug/L		RRS	302088-302089	2015-07-17
Dibromochloromethane	< 2.0	ug/L		RRS	302088-302089	2015-07-17
Tetrachloroethene	< 2.0	ug/L		RRS	302088-302089	2015-07-17
Chlorobenzene	< 2.0	ug/L		RRS	302088-302089	2015-07-17
Ethyl benzene	< 2.0	ug/L		RRS	302088-302089	2015-07-17
m,p-Xylene	< 10.0	ug/L		RRS	302088-302089	2015-07-17
Bromoform	< 2.0	ug/L		RRS	302088-302089	2015-07-17
Styrene	< 2.0	ug/L		RRS	302088-302089	2015-07-17
o-Xylene	< 2.0	ug/L		RRS	302088-302089	2015-07-17
1,1,2,2-Tetrachloroethane	< 2.0	ug/L		RRS	302088-302089	2015-07-17

104-0716-12 Equipment Blank - Deionized Water Sampled 7/16/2015

Metals

Field Blank	Method: EPA 200.7 Rev 4.4 / Prep: EPA 4.1.3					
Arsenic, Dissolved	< 0.005	mg/L		MF	302090	2015-07-24
Chromium, Dissolved	< 0.01	mg/L		MF	302090	2015-07-24
Lead, Dissolved	< 0.01	mg/L		MF	302090	2015-07-24

Volatiles

Field Blank	Method: EPA 8260C / Prep: EPA 5030C					
Vinyl acetate	< 10.0	ug/L		RRS	302091-302092	2015-07-17
Chloromethane	< 2.0	ug/L		RRS	302091-302092	2015-07-17
Vinyl chloride	< 2.0	ug/L		RRS	302091-302092	2015-07-17
Bromomethane	< 2.0	ug/L		RRS	302091-302092	2015-07-17
Chloroethane	< 2.0	ug/L		RRS	302091-302092	2015-07-17
Acetone	< 10.0	ug/L		RRS	302091-302092	2015-07-17
1,1-Dichloroethene	< 2.0	ug/L		RRS	302091-302092	2015-07-17
Methylene chloride	< 2.0	ug/L		RRS	302091-302092	2015-07-17
Carbon Disulfide	< 2.0	ug/L		RRS	302091-302092	2015-07-17
trans-1,2-Dichloroethene	< 2.0	ug/L		RRS	302091-302092	2015-07-17
1,1-Dichloroethane	< 2.0	ug/L		RRS	302091-302092	2015-07-17
2-Butanone (Methylethyl ketone)	< 10.0	ug/L		RRS	302091-302092	2015-07-17
cis-1,2-Dichloroethene	< 2.0	ug/L		RRS	302091-302092	2015-07-17
Chloroform	< 2.0	ug/L		RRS	302091-302092	2015-07-17
1,2-Dichloroethane	< 2.0	ug/L		RRS	302091-302092	2015-07-17
1,1,1-Trichloroethane	< 2.0	ug/L		RRS	302091-302092	2015-07-17

Sample Results

Report ID NY1507104.0.44720

Client Moench Company

Sample ID	Results	Units	Qualifiers	Analyst	Vessel ID	Date
104-0716-12	Equipment Blank - Deionized Water Sampled 7/16/2015					
Volatiles						
Field Blank	Method: EPA 8260C / Prep: EPA 5030C					
Carbon tetrachloride	< 2.0	ug/L		RRS	302091-302092	2015-07-17
Benzene	< 2.0	ug/L		RRS	302091-302092	2015-07-17
1,2-Dichloropropane	< 2.0	ug/L		RRS	302091-302092	2015-07-17
Trichloroethene	< 2.0	ug/L		RRS	302091-302092	2015-07-17
Bromodichloromethane	< 2.0	ug/L		RRS	302091-302092	2015-07-17
2-Chloroethylvinyl ether	< 2.0	ug/L	A3	RRS	302091-302092	2015-07-17
cis-1,3-Dichloropropene	< 2.0	ug/L		RRS	302091-302092	2015-07-17
4-Methyl-2-Pentanone	< 10.0	ug/L		RRS	302091-302092	2015-07-17
trans-1,3-Dichloropropene	< 2.0	ug/L		RRS	302091-302092	2015-07-17
1,1,2-Trichloroethane	< 2.0	ug/L		RRS	302091-302092	2015-07-17
Toluene	< 2.0	ug/L		RRS	302091-302092	2015-07-17
2-Hexanone	< 10.0	ug/L		RRS	302091-302092	2015-07-17
Dibromochloromethane	< 2.0	ug/L		RRS	302091-302092	2015-07-17
Tetrachloroethene	< 2.0	ug/L		RRS	302091-302092	2015-07-17
Chlorobenzene	< 2.0	ug/L		RRS	302091-302092	2015-07-17
Ethyl benzene	< 2.0	ug/L		RRS	302091-302092	2015-07-17
m,p-Xylene	< 10.0	ug/L		RRS	302091-302092	2015-07-17
Bromoform	< 2.0	ug/L		RRS	302091-302092	2015-07-17
Styrene	< 2.0	ug/L		RRS	302091-302092	2015-07-17
o-Xylene	< 2.0	ug/L		RRS	302091-302092	2015-07-17
1,1,2,2-Tetrachloroethane	< 2.0	ug/L		RRS	302091-302092	2015-07-17

104-0716-13 Trip Blank - Deionized Water Sampled 7/16/2015

Volatiles

Trip Blank	Method: EPA 8260C / Prep: EPA 5030C					
Vinyl acetate	< 10.0	ug/L		RRS	302093	2015-07-17
Chloromethane	< 2.0	ug/L		RRS	302093	2015-07-17
Vinyl chloride	< 2.0	ug/L		RRS	302093	2015-07-17
Bromomethane	< 2.0	ug/L		RRS	302093	2015-07-17
Chloroethane	< 2.0	ug/L		RRS	302093	2015-07-17
Acetone	< 10.0	ug/L		RRS	302093	2015-07-17
1,1-Dichloroethene	< 2.0	ug/L		RRS	302093	2015-07-17
Methylene chloride	< 2.0	ug/L		RRS	302093	2015-07-17
Carbon Disulfide	< 2.0	ug/L		RRS	302093	2015-07-17
trans-1,2-Dichloroethene	< 2.0	ug/L		RRS	302093	2015-07-17
1,1-Dichloroethane	< 2.0	ug/L		RRS	302093	2015-07-17
2-Butanone (Methylethyl ketone)	< 10.0	ug/L		RRS	302093	2015-07-17
cis-1,2-Dichloroethene	< 2.0	ug/L		RRS	302093	2015-07-17
Chloroform	< 2.0	ug/L		RRS	302093	2015-07-17
1,2-Dichloroethane	< 2.0	ug/L		RRS	302093	2015-07-17
1,1,1-Trichloroethane	< 2.0	ug/L		RRS	302093	2015-07-17
Carbon tetrachloride	< 2.0	ug/L		RRS	302093	2015-07-17
Benzene	< 2.0	ug/L		RRS	302093	2015-07-17
1,2-Dichloropropane	< 2.0	ug/L		RRS	302093	2015-07-17
Trichloroethene	< 2.0	ug/L		RRS	302093	2015-07-17
Bromodichloromethane	< 2.0	ug/L		RRS	302093	2015-07-17
2-Chloroethylvinyl ether	< 2.0	ug/L	A3	RRS	302093	2015-07-17
cis-1,3-Dichloropropene	< 2.0	ug/L		RRS	302093	2015-07-17
4-Methyl-2-Pentanone	< 10.0	ug/L		RRS	302093	2015-07-17
trans-1,3-Dichloropropene	< 2.0	ug/L		RRS	302093	2015-07-17

Sample Results

Report ID NY1507104.0.44720

Client Moench Company

Sample ID	Results	Units	Qualifiers	Analyst	Vessel ID	Date
104-0716-13	Trip Blank - Deionized Water Sampled 7/16/2015					
Volatiles						
Trip Blank	Method: EPA 8260C / Prep: EPA 5030C					
1,1,2-Trichloroethane	< 2.0	ug/L		RRS	302093	2015-07-17
Toluene	< 2.0	ug/L		RRS	302093	2015-07-17
2-Hexanone	< 10.0	ug/L		RRS	302093	2015-07-17
Dibromochloromethane	< 2.0	ug/L		RRS	302093	2015-07-17
Tetrachloroethene	< 2.0	ug/L		RRS	302093	2015-07-17
Chlorobenzene	< 2.0	ug/L		RRS	302093	2015-07-17
Ethyl benzene	< 2.0	ug/L		RRS	302093	2015-07-17
m,p-Xylene	< 10.0	ug/L		RRS	302093	2015-07-17
Bromoform	< 2.0	ug/L		RRS	302093	2015-07-17
Styrene	< 2.0	ug/L		RRS	302093	2015-07-17
o-Xylene	< 2.0	ug/L		RRS	302093	2015-07-17
1,1,2,2-Tetrachloroethane	< 2.0	ug/L		RRS	302093	2015-07-17

Data Qualifiers and Definitions:

A3 Analyte cannot be recovered in an acid preserved sample. Result is estimated.

General Disclaimer

- The test results are submitted pursuant to IsleChem LLC's current terms and conditions of sale, including the company's standard warranty and limitation of liability provisions. No responsibility or liability is assumed for the manner in which the results are used or interpreted.
- This report is issued for the benefit of and may be relied upon by the client named above. The client bears full responsibility for deciding the level of testing for sample submitted to IsleChem LLC.
- These results pertain only to the items tested.
- This report shall not be reproduced except in full.
- If the sample(s) represented by these test results were not collected by IsleChem LLC then the test results are limited to the reported values determine by the analytical testing process. IsleChem LLC makes no representation regarding the sample's collection technique, condition, volume, homogeneity or any other aspect of the sample(s) prior to IsleChem LLC taking possession of the sample(s) and the influence it may have on the results.
- Unless notified in writing to return the samples covered by this report IsleChem LLC will store what remains of the sample(s), if anything, for a period of thirty (30) days, sixty (60) days for asbestos samples, before discarding, unless otherwise required by law. A shipping and handling fee will be charged for the return of any sample(s).
- Certain analytes may not be covered by the NYS DOH or NELAP fields of accreditation. Results for those analytes are generated by the cited method using QA/QC guidelines from IsleChem's Quality Control Manual, where applicable.

The test results in this report meet all NELAP requirements for parameters that are within IsleChem's field of accreditation. Any exceptions to NELAP requirements are noted in the comments field.

All results for solid samples are reported on a dry weight basis unless otherwise noted.

Visit us on the web at www.islechem.com



CHAIN OF CUSTODY / REQUEST FOR LABORATORY ANALYSIS

2801 Long Road, Grand Island, NY 14072 (716)773-8401 (716)773-8517 (Fax)

Page 1 of 2

Moench Company Organization Name		Palmer Street Landfill Routine Parameter List Project Name				7 Samples / 21 Bottles + Trip Blank # of Samples / # of Bottles			
465 Palmer Street Street Address		CHARGE TO VISA CARD Client PO / Release #				10 Days Turnaround Time/ Date Results Needed			
Gowanda, NY 14070 City, State, ZIP		7-16-15 Date Sampled				NY 1507104 AA720 IsleChem Project #			
Jeffrey Smith Contact Person		For electronic report please provide e-mail below: jsmith@browshoe.com				Rush Work Performed at Priority Rate (see below)			
716-532-2201 / 716-532-5518 Phone# and Fax#									
E-mail		Soluble Cr, Pb & As* (2374)				Approved by Client Yes No Initials			
Sample ID		Matrix				Approved by Lab Yes No Initials			
Sample Location		Comp				Bottle Type / Preservative			
Grab		TCL Volatiles (2187)							
MW-6D	Site 1	GW		X	X	302060	Filtered by Client	250 ml Poly (HNO3)	
"	Site 1	GW		X	X	302061, 302062		(2) 40 ml VOA Vials (HCL) , zero headspace - 1 vial as backup	
MW-6	Site 2	GW		X	X	302063	Filtered by Client	250 ml Poly (HNO3)	
"	Site 2	GW		X	X	302064, 302065		(2) 40 ml VOA Vials (HCL) , zero headspace - 1 vial as backup	
MW-5	Site 3	GW		X	X		Filtered by Client	250 ml Poly (HNO3)	
"	Site 3	GW		X	X			(2) 40 ml VOA Vials (HCL) , zero headspace - 1 vial as backup	
MW-45r	Site 4	GW		X	X	302066	Filtered by Client	250 ml Poly (HNO3)	
"	Site 4	GW		X	X	302067, 302068		(2) 40 ml VOA Vials (HCL) , zero headspace - 1 vial as backup	
MW-4D	Site 5	GW		X	X	302069	Filtered by Client	250 ml Poly (HNO3)	
"	Site 5	GW		X	X	302070, 302071		(2) 40 ml VOA Vials (HCL) , zero headspace - 1 vial as backup	
BLIND	Site 6	GW		X	X	302072	Filtered by Client	250 ml Poly (HNO3)	
DUP	Site 6	GW		X	X	302073, 302074		(2) 40 ml VOA Vials (HCL) , zero headspace - 1 vial as backup	
MW-3	Site 7	GW		X	X	302075	Filtered by Client	250 ml Poly (HNO3)	
"	Site 7	GW		X	X	302076, 302077		(2) 40 ml VOA Vials (HCL) , zero headspace - 1 vial as backup	

Comments: * A low detection limit for Arsenic is required at 0.005 mg/L / Soluble metals will be filtered in the field.

Sampled By: M. Best	Date: 7/14/15	Time: 1500	Received by: [Signature]	Date: 07/17/15	Time:
Relinquished by: J. Smith	Date: 7/17/15	Time: 7:00	Relinquished by: [Signature]	Date: 07/17/15	Time: 1220

Standard turnaround time is 10 days.

RUSH WORK CHARGES: 3-6 times the standard cost for same day depending on the time needed ~ 2.5 times the standard cost for next day ~ 1.75 times the standard cost for 3 days. By relinquishing these samples to IsleChem, LLC, you are accepting the current IsleChem, LLC terms and conditions for the sale of services.



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Page 2 of 2

Standard turnaround time is 10 days.
RUSH WORK CHARGES: 3-6 times the standard cost for same day depending on the time needed ~ 2.5 times the standard cost for next day ~ 1.75 times the standard cost for 3 day.
By relinquishing these samples to IsleChem, LLC, you are accepting the current IsleChem, LLC terms and conditions for the sale of services.

Sample Receipt Checklist



Client Name: Muench

IsleChem, LLC Job Number: N.I. 1507109

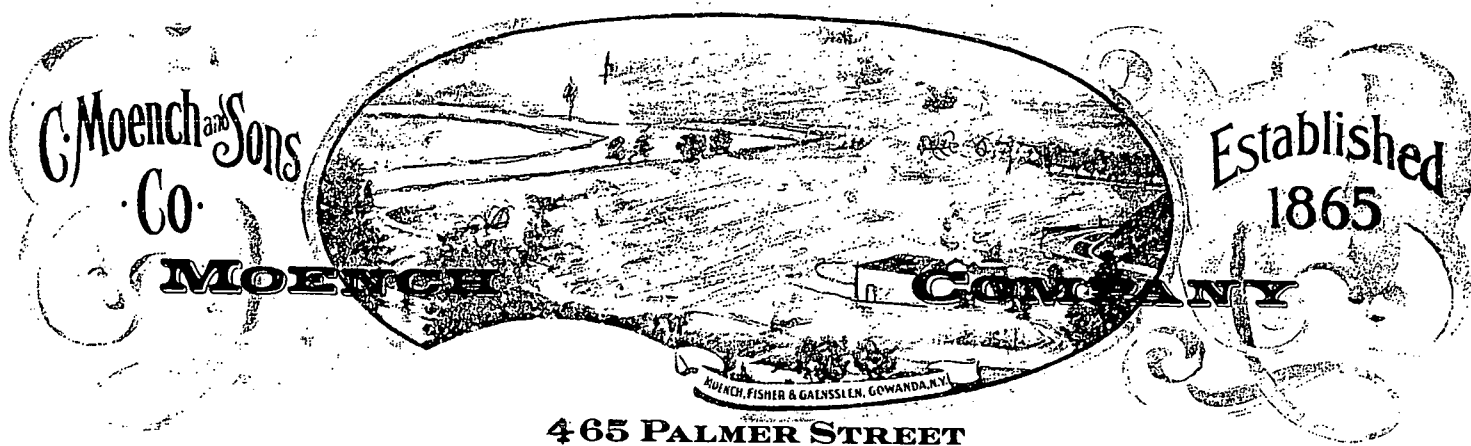
Sample(s) received by: [Signature] Date: 7/17/15 Time: 1:15p

1. Is the chain of custody identified clearly with complete documentation including:

Sample location/identification	<u>YES</u>	NO	N/A	Corrected
Sample date / time	<u>YES</u>	NO	N/A	Corrected
Client name/ Preservation type	<u>YES</u>	NO	N/A	Corrected
Required analysis is listed on each bottle	<u>YES</u>	NO	N/A	Corrected
2. Are the sample labels clear and do they provide a unique identification of the sample ID linked to COC?	<u>YES</u>	NO	N/A	Corrected
3. Are the sample containers appropriate?	<u>YES</u>	NO	N/A	Corrected
4. Is the sample date within the required hold times?	<u>YES</u>	NO	N/A	Corrected
5. Is there adequate volume available for requested analysis?	<u>YES</u>	NO	N/A	Corrected
6. Did the customer list what sample analysis is required?	<u>YES</u>	NO	N/A	Corrected
7. Is a chain of custody included?	<u>YES</u>	NO	N/A	Corrected
8. Is the chain of custody complete?	<u>YES</u>	NO	N/A	Corrected
9. Are the sample(s) free of apparent damage?	<u>YES</u>	NO	N/A	Corrected
10. Temperature <u>8°C</u> Has cooling begun?	<u>YES</u>	NO	N/A	-
11. Is temperature, $\leq 6^{\circ}\text{C}$ if sample(s) were held prior to delivery date?	YES	<u>NO</u>	N/A	-
12. Has sample preservation been verified? If necessary.	<u>YES</u>	NO	N/A	Corrected
13. Has the Residual Chlorine been checked? If necessary.	YES	NO	<u>N/A</u>	Corrected
14. VOA sample vials do not have headspace or visible "pea-sized" air bubbles $> (1/4")$ in diameter.	<u>YES</u>	NO	N/A	-
15. If necessary, Lab Management has been notified of any short hold or quick-TAT samples.	YES	NO	<u>N/A</u>	-
16. If necessary, Client or Lab Management has been notified of any samples that don't meet sample acceptance criteria.	YES	NO	<u>N/A</u>	-

Comments/Actions: _____

STAMP



465 PALMER STREET
GOWANDA, NEW YORK 14070

TEL. 716-532-2201

FAX 716-532-5518

ANNUAL GROUNDWATER QUALITY MONITORING
REPORT.
FOR CALENDAR YEAR **2015**
AT PALMER STREET LANDFILL.

MOENCH COMPANY
GOWANDA, NEW YORK 14070

RECEIVED

DEC 11 2015

N. J. DEC
REGION 9

Jeffrey Smith
Site Manager

A handwritten signature, likely of Jeffrey Smith, consisting of stylized initials 'JS'.

MOENCH COMPANY
DIVISION OF CALERES*5*
465 PALMER ST.
GOWANDA, NEW YORK 14070
PHONE: 716-532-2201

Mr. Stanley Radon, CPG
NYSDEC, region 9
270 Michigan Ave.
Buffalo, NY 14203-2999

March 24, 2016

Re: Palmer St. Landfill; Hydrogeo flow

Mr. Radon

Enclosed are the revised "Hydrogeo Flow" for our Palmer St. Landfill, initially, from the August 2015 report. The revised flow maps are created from the limited water level information.

As I have previously reported, the Village of Gowanda has been using the deep aquifer for its' water supply, off & on, since the major flood of 2009. The drastic water level reduction at MW-1D, reflects that change, on the August 2015 graph.

Recently the Village has informed me that they have begun using the natural springs that feed their reservoir as a water source.

The attached water level graph, indicates a sudden rise in the water level at MW-1D, of approximately 40 feet, from our March 2016 measurements. This should result in a continuous flow, as previously, from MW-1D, to the Northeast, to Cattaraugus Creek.

Do you want me to send as a PDF file?

Call me if you have any questions.

Jeffrey Smith
Site Manager
Moench Co.
Gowanda, NY



RECEIVED
MAR 28 2016
NYS DEC
REGION 9

December 10, 2015

Alecia: Enclosed is the Palmer St. Landfill, Annual report for 2015. It is a compilation of the two individual reports, created from the sampling events in April and July. In the Annual Report I create graphs that show the trends of contamination levels, at the various sampling points.

This Annual is required by the N.Y. State Dept. of Environmental Conservation.

It shows minimal levels of contamination in the Palmer St. Landfill.

It does also show a drastic reduction in the water level in the deep aquifer in the area. This is attributed to the Village of Gowanda using the Aquifer as a water supply, a result of their reservoir being decommissioned as a result of flooding.

The change in water level in the Aquifer will affect the migration of contaminants in the landfill.

WE must stay aware of this.

I will send you only summaries in the future.

Call me if you have any questions about this.

Jeffrey Smith
Site Manager
Moench Co.
Gowanda, NY

STAN
I GUESS I'LL USE THIS
AS MY COVER LETTER.
ALECIA JARUZEL IS
MY NEW BOSS @
CALERES (WAS BROWN
SHOE).

RECEIVED

DEC 11 2015

NYS DEC
REGION 9

DON'T KNOW WHY
'PH' IS 'DROPPING'
AT 45 + 6??

Jeff

CALL ME IF QUESTIONS

3/23/16 CORRECTION

\$



LAT. 42° 27' 0"
LONG. 78° 55' 30"

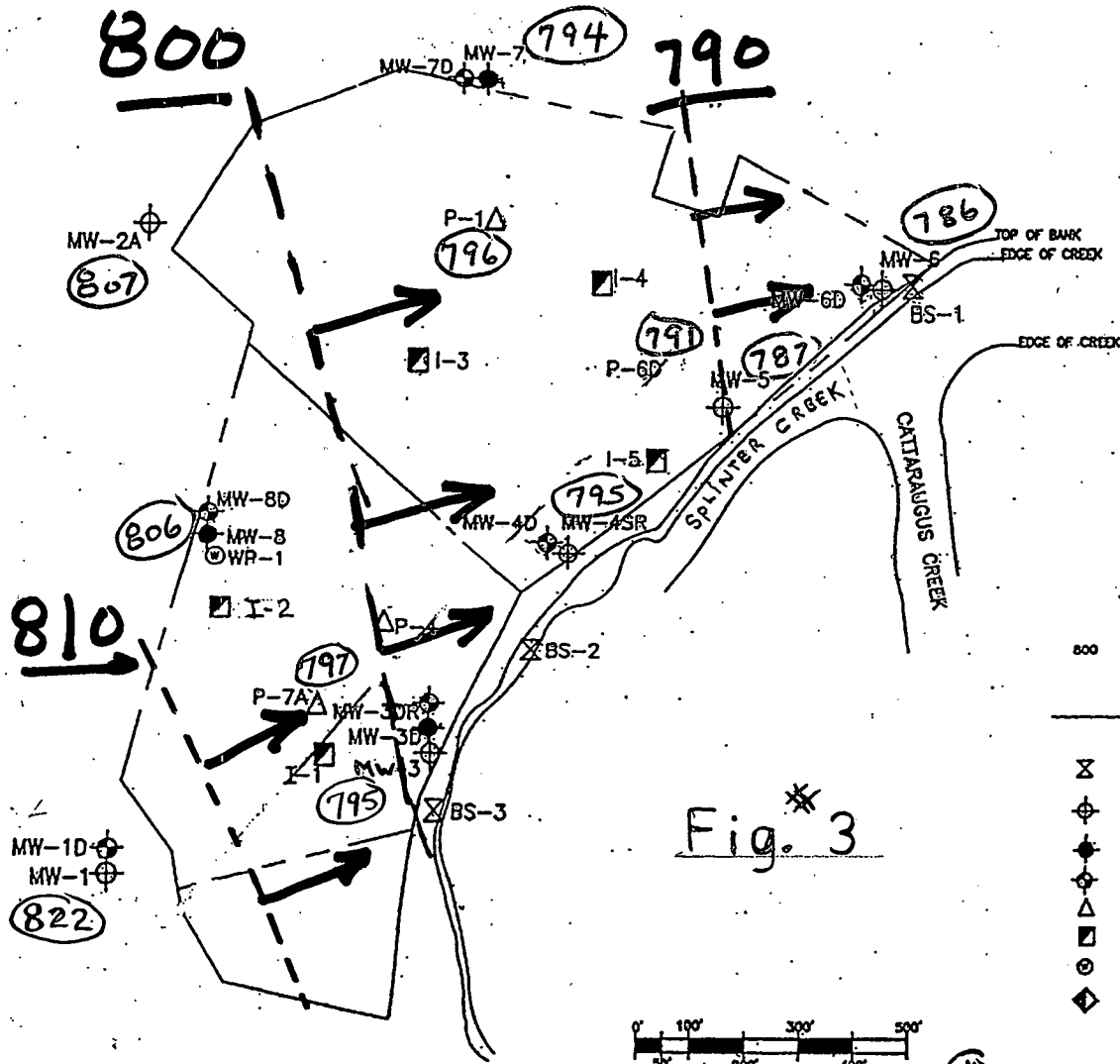
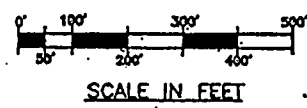


Fig. 3



LEGEND

- 800 ISOPOTENTIAL, DOTTED WHERE REFERRED
- GROUNDWATER FLOW DIRECTION
- LANDFILL BOUNDARY AND AREA BOUNDARY DIVIDER
- BANK SEEP
- UPPER OVERBURDEN MONITORING WELL
- LOWER OVERBURDEN MONITORING WELL
- BEDROCK MONITORING WELL
- PIEZOMETER
- INFILTRATOR
- WELL POINT
- LYSIMETER

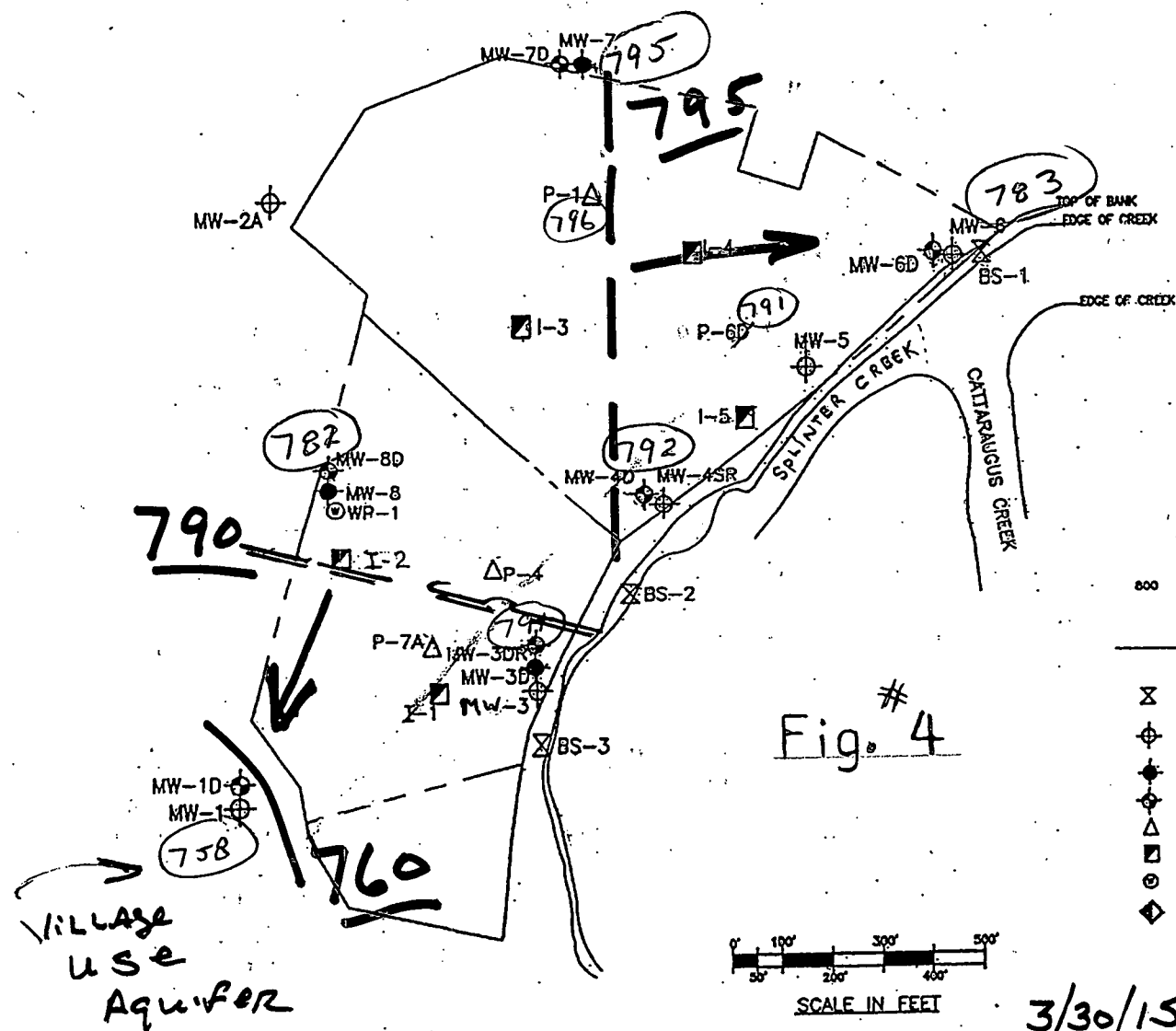
3/30/15 SAMPLE EVENT:



GEI Consultants, Inc.
Williamsville, NY

PALMER STREET LANDFILL
SITE PLAN

WATERTABLE
ISOPOTENTIAL
MAP.



LAT. 42° 27' 0"
LONG. 78° 55' 30"

LEGEND

- 800 ISOPOTENTIAL, DOTTED WHERE INFERRED
- GROUNDWATER FLOW DIRECTION
- LANDFILL BOUNDARY AND AREA BOUNDARY DIVIDER
- BANK SEEP
- UPPER OVERBURDEN MONITORING WELL
- LOWER OVERBURDEN MONITORING WELL
- BEDROCK MONITORING WELL
- PIEZOMETER
- INFILTRATOR
- WELL POINT
- LYSIMETER

REVISED
3/22/16

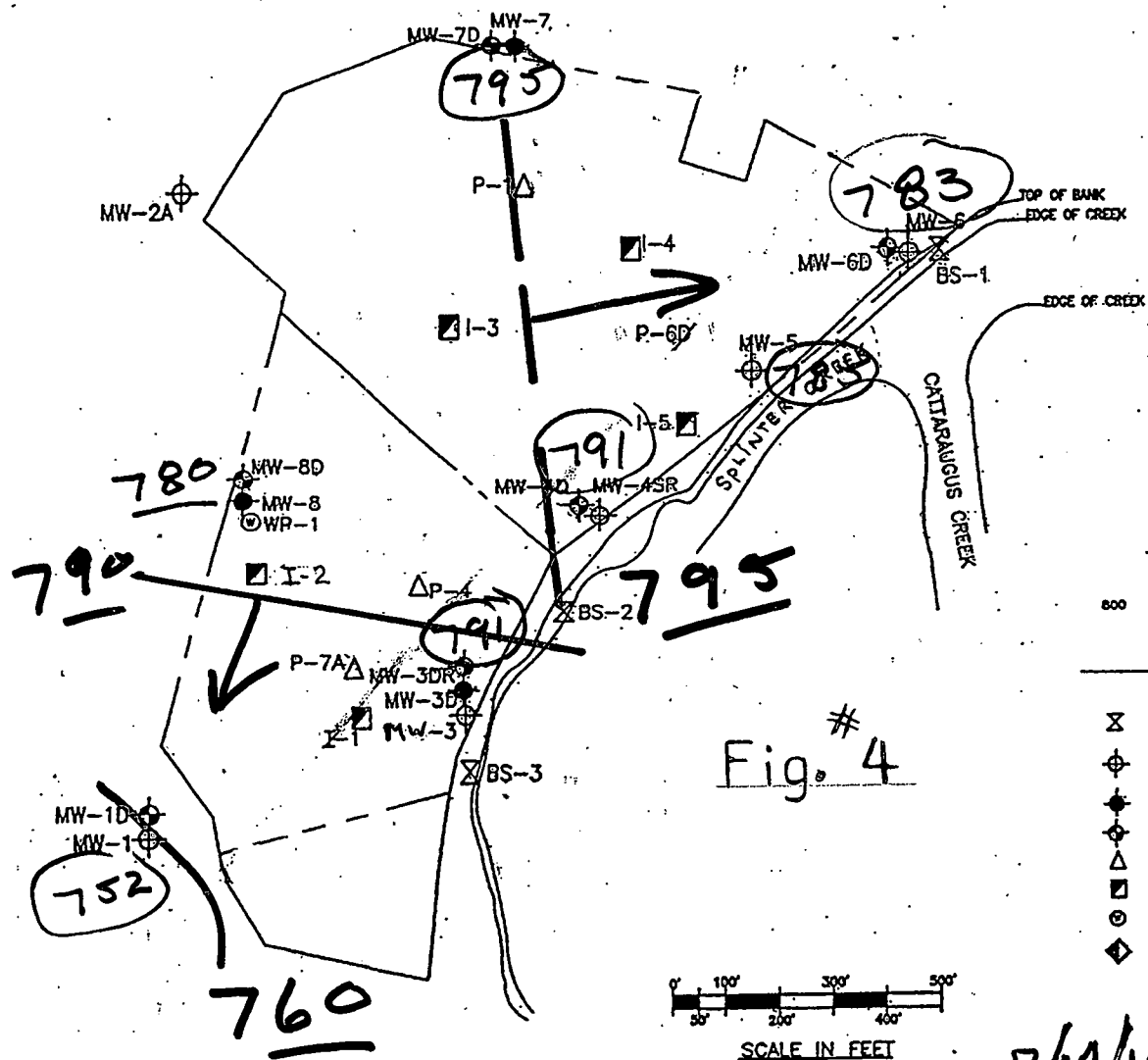
3/30/15 SAMPLE EVENT:



GEI Consultants, Inc.
Williamsville, NY

PALMER STREET LANDFILL
SITE PLAN

BEDROCK
ISOPOTENTIAL
MAP.



LAT. 42° 27' 0"
LONG. 78° 55' 30"

LEGEND

- 800 ISOPOTENTIAL, DOTTED WHERE INFERRED
- GROUNDWATER FLOW DIRECTION
- LANDFILL BOUNDARY AND AREA BOUNDARY DIVIDER
- BANK SEEP
- UPPER OVERBURDEN MONITORING WELL
- LOWER OVERBURDEN MONITORING WELL
- BEDROCK MONITORING WELL
- PIEZOMETER
- INFILTRATOR
- WELL POINT
- LYSIMETER

Revised
3/22/16
95

7/14/15 SAMPLE EVENT:



GEI Consultants, Inc.
Williamsville, NY

PALMER STREET LANDFILL

SITE PLAN

BEDROCK
ISOPOTENTIAL
MAP.

MOENCH COMPANY A DIVISION NOW OF CALERES *5*
PALMER STREET LANDFILL
 2015 ANNUAL GROUNDWATER MONITORING REPORT.....

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B	GROUNDWATER ELEVATION DATA & GRAPHS.
B1	FIELD MEASUREMENT TRENDS; "PH", CONDUCTIVITY, ETC.
C	GRAPH: METALS CONCENTRATION vs TIME; GROUPED BY MONITORING POINT; WHERE DETECTED.
C1	SOLUBLE METALS; NEW MONITORING LOCATIONS.
D	GRAPH: VOLATILES vs TIME; GROUPED BY MONITORING POINT; WHERE DETECTED.
E	FIELD MEASUREMENT DATA SHEETS; SUBMITTED IN PREVIOUS SEMI-ANNUAL REPORTS OF: APRIL & JULY, 2015.
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1.0 INTRODUCTION

1.1 BACKGROUND

THE MOENCH COMPANY, A DIVISION OF CALERES *5*, HEADQUARTERED IN ST. LOUIS, MO., THE LANDFILL IS LOCATED NEAR THE SOUTHEAST CORNER OF THE VILLAGE OF GOWANDA, CATTARAUGUS COUNTY, NEW YORK, 14070 (FIGURE 1). THE PALMER STREET LANDFILL, WHICH WAS OPERATED BY MOENCH TANNING FROM 1900 THROUGH JULY 1983, LIES IMMEDIATELY SOUTHWEST OF THE FORMER SITE COMPLEX ON AN APPROXIMATELY 25-ACRE, PARCEL OF LAND. A VARIETY OF WASTE GENERATED BY MOENCH TANNING WERE DISPOSED OF AT THE PALMER STREET LANDFILL SITE. THESE WASTES INCLUDED SOLE LEATHER EXTRACT, RENDERING WASTE, SPRAY BOOTH CLEAN UP WASTE, WASTE FINISH, WASTE HAIR/LEATHER SCRAPS, WASTEWATER TREATMENT PLANT SLUDGE, AND OCCASIONAL CONSTRUCTION DEBRIS.

MOENCH TANNING HAS CLOSED THE PALMER STREET LANDFILL (1983). ACCORDINGLY, THE CLOSURE/POST-CLOSURE PLAN (REFERENCE 1), IS BEING PERFORMED. THE LONG-TERM POST CLOSURE MONITORING PROGRAM HAS BEEN APPROVED & IMPLEMENTED.

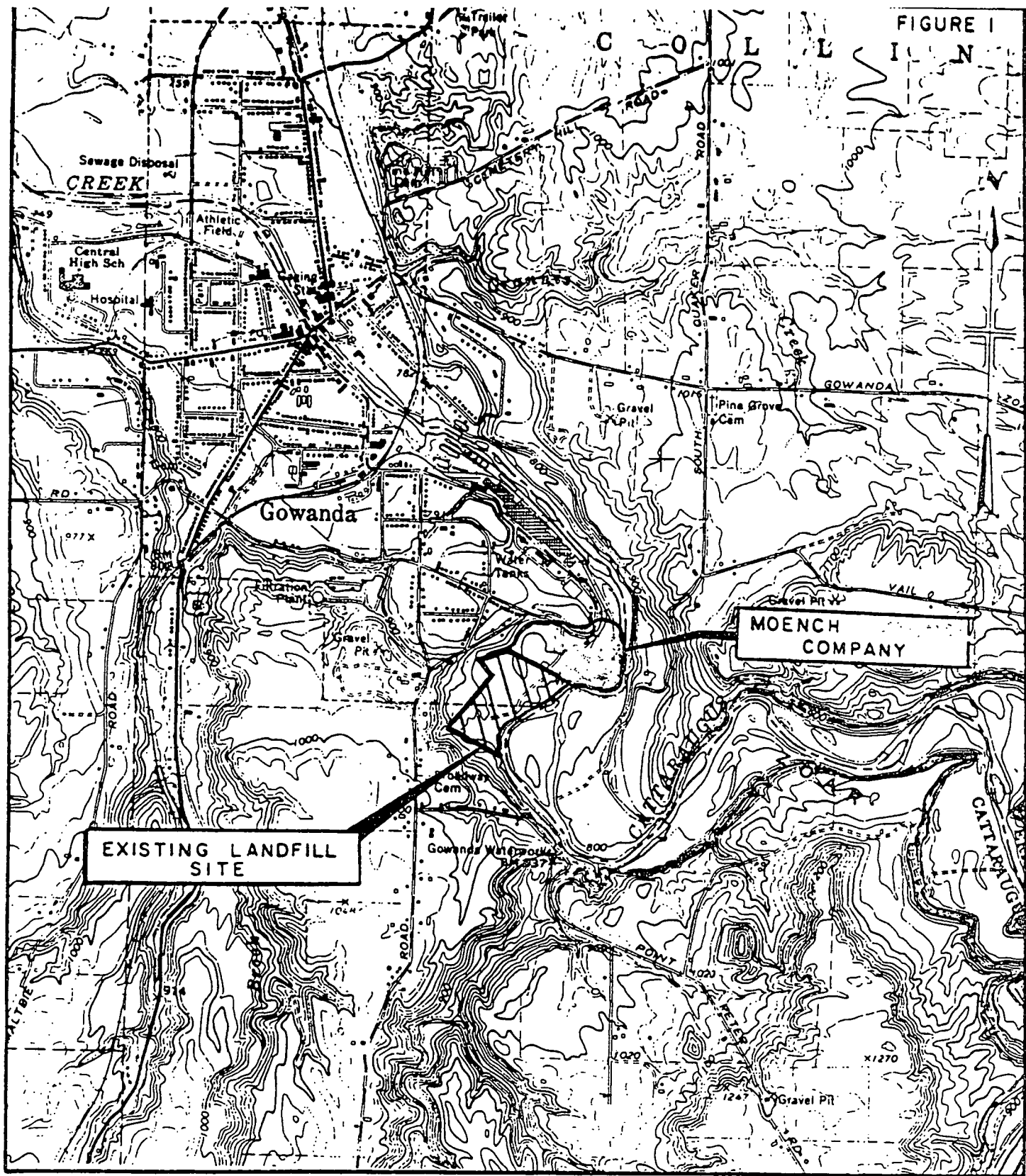
(JULY 1993, REVISED MARCH 1994; REVISED DECEMBER 2006.

THE ENTIRE MOENCH OPERATION WAS TERMINATED IN 1992. ALL BUILDINGS WERE DEMOLISHED, EXCEPT FOR A SMALL OFFICE AND MAINTAINANCE SHOP.

1.2 PUPOSE AND SCOPE

SAMPLES ASSOCIATED WITH TWO ROUNDS OF WATER QUALITY MONITORING, FOR THE 2015 CALENDAR YEAR, WERE COLLECTED IN APRIL & JULY OF 2015, FOR THE LANDFILL. THE PURPOSE OF THIS REPORT IS TO PROVIDE A SUMMARY OF THE DATA GENERATED, AND GENERAL TRENDS, FOR THE PALMER STREET LANDFILL DURING 2015. IT SHOULD BE NOTED THAT THE SAMPLING LOCATIONS WERE MODIFIED IN 2006, THE RESULTS OF A MEETING WITH NYSDEC9 AND OUR ENVIRONMENTAL CONSULTANTS. THE NEW DETECTION MONITORING SYSTEM BETTER REPRESENTS POTENTIAL PARAMETER MIGRATION. (REF# 7 & 8)

C



{ Figure 1 }

NOTE:
TOPOGRAPHY TAKEN FROM 1963 GOWANDA, N.Y.
U.S.G.S. QUADRANGLE 7.5 MIN. SERIES
SCALE: 1" = 2000'

SITE LOCATION MAP
PALMER STREET LANDFILL
GOWANDA, N.Y.

6-94

MOENCH CO.



QUADRANGLE LOCATION

2.0 MONITORING SYSTEM

2.1 REVISED MONITORING SYSTEM(8/06)

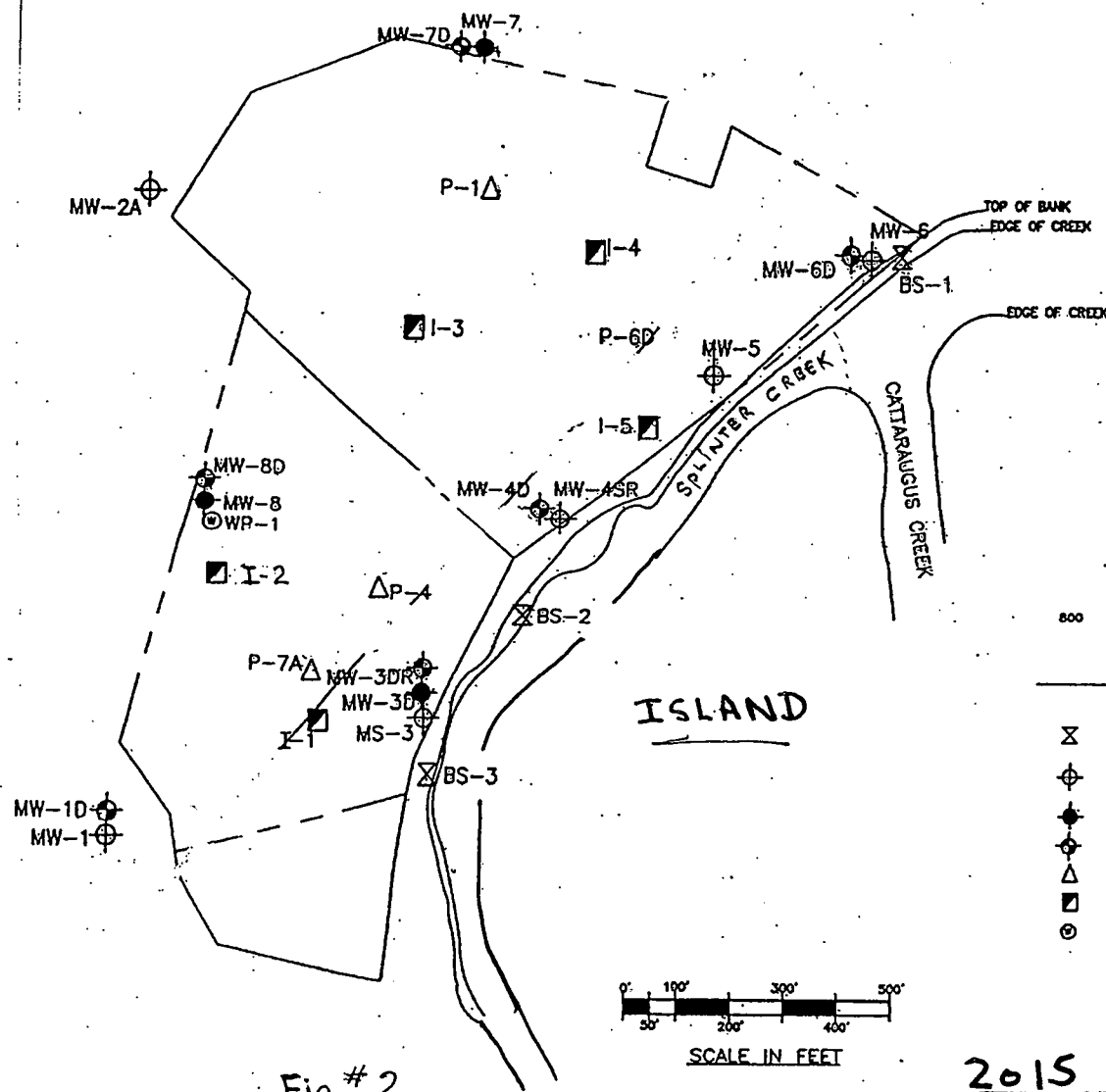
IN JULY 2006, A MEETING WITH NEW YORK STATE DEPARTMENTAL CONSERVATION, GEOMATRIX CONSULTANT, AND MOENCH COMPANY, RESULTED IN A RECONFIGURING OF THE DETECTION MONITORING SYSTEM. THIS WAS DONE AFTER CONSIDERING THE THREE PRIOR "COVER SYSTEM PERFORMANCE MONITORING SYSTEM" RESULTS. THE DETECTION MONITORING SYSTEM IS NOW AS FOLLOWS:

<u>DOWNGRAIDENT WELLS</u> (screened in waste)		<u>UPGRADIENT WELLS</u>	<u>BANK SEEPS</u>
<u>OVERBURDEN</u>	<u>BEDROCK</u>		
MW-3	MW-3D	MW-7D	BS-1
MW-4SR	MW-4D	MW-8D	BS-2
MW-5	MW-6D		BS-3
MW-6			

NINE(9) GROUNDWATER MONITORING WELLS, AT THE PALMER STREET LANDFILL, WERE EVALUATED IN 2015, IN ACCORDANCE WITH THE LONG TERM POST CLOSURE MONITORING PLAN.(REF. #1) NYSDEC HAS APPROVED THIS PLAN.

IN ADDITION TO THE WELLS, NYSDEC ALSO REQUIRES THE MONITORING OF THREE(3); BS-1, BS-2, BS-3. THE ABILITY TO OBTAIN BANK SEEPS VARIES DUE TO WET/DRY WEATHER. BANKSEEP SAMPLE WAS AVAILABLE ONLY AT BS-3, FOR THE APRIL & JULY SAMPLES.

TO AID IN THE EVALUATION OF THE COVER SYSTEM PERFORMANCE, LEVELS FROM FIVE(5) INFILTROMETERS, ARE ALSO MEASURED. LOCATIONS OF THE MONITORING POINTS ARE SHOWN ON FIGURE #2.



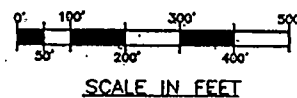
LAT. 42° 27' 0"
Long. 78° 55' 30"

LEGEND

- 800 ISOPOTENTIAL, DOTTED WHERE INFERRED
- GROUNDWATER FLOW DIRECTION
- LANDFILL BOUNDARY AND AREA BOUNDARY DIVIDER
- ⊗ BANK SEEP
- ⊕ UPPER OVERBURDEN MONITORING WELL
- ⊙ LOWER OVERBURDEN MONITORING WELL
- ⊕ BEDROCK MONITORING WELL
- △ PIEZOMETER
- INFILTRATOR
- ⊙ WELL POINT

REVISED
12/12

Fig. #2



2015 ANNUAL
SAMPLE EVENT:



AMEX
Consultants, Inc.
Williamsville, NY

PALMER STREET LANDFILL

SITE PLAN

DATE
[Signature]

PROJ. NO.
8104

FILE NO.

N/A

DWG. NO.

FIGURE 1.2

3.0 MONITORING METHODS

3.1 GROUNDWATER MONITORING:

SAMPLES COLLECTED DURING THE TWO MONITORING EVENTS, FOR THE LANDFILL, WERE COLLECTED BY MOENCH COMPANY PERSONNEL, IN 2015. THE ANALYTICAL WORK WAS PERFORMED BY ISLECHEM LLC, OF GRAND ISLAND, NEW YORK. THE ANALYSIS WAS PERFORMED IN ACCORDANCE WITH THE SAMPLING PLAN/QUALITY ASSURANCE PLAN FOR THE PALMER ST. LANDFILL. (REFERENCE 3).

LABORATORY ANALYSES WERE PERFORMED IN ACCORDANCE WITH THE USEPA 200.7, FOR METALS, AND VOC 8260. (REFERENCE 4). THE MONITORING PARAMETERS ARE LISTED IN TABLE 1. SAMPLES WERE COLLECTED FROM EACH OF THE, MONITORING LOCATIONS IDENTIFIED IN SECTION 2.0. PRIOR TO SAMPLING, STATIC WATER LEVEL ELEVATIONS WERE MEASURED IN THE MONITORING WELLS AND THE WELLS WERE PURGED (SEE TABLE 4). GROUNDWATER ELEVATIONS WERE ALSO MEASURED IN THE PIEZOMETERS, INFILTRMETERS, AND WELLS ON-SITE. ALL WELLS WERE "DEVELOPED" IN YEAR(2012); CLEARED OF SEDIMENT.

IN JULY OF 2011, MANY UNECESSARY AND OBSELETE WELLS, PIEZOMETERS, LYSIMETERS AND A WELL POINT WERE REMOVED FROM THE LANDFILL. THIS WAS DONE WITHIN AN AGREEMENT WITH NYSDEC-9. NEW YORK STATE PROCEDURES WERE FOLLOWED.

FIELD SAMPLES WERE COLLECTED AND MEASURED FOR THE FIELD PARAMETERS IDENTIFIED IN TABLE 1. THE FIELD MEASUREMENTS ARE SUMMARIZED IN TABLE 5.

3.2 INFILTRMETER MONITORING

FIVE INFILTRMETERS HAVE BEEN INSTALLED(1991) BENEATH THE LANDFILL CAP TO AID IN THE ASSESSMENT OF PERFORMANCE OF THE CAP. DURING EACH SEMIANNUAL EVENT, WATER LEVELS IN THE INFILTRMETER ARE MEASURED AND THE AMOUNT OF WATER INFILTRATING IS CALCULATED.

THE CALCULATED INFILTRATION RATES ARE PRESENTED ON TABLE 2 & 3. CALCULATED INFILTRATION RATES ARE USUALLY WITHIN THE DESIGNED INFILTRATION RATE OF 1×10^{-7} CM/SEC, EXCEPT ARE NOTED ON THE TABLE. A SCHEMATIC SHOWING THE DESIGN AND DIMENSIONS OF THE INFILTRMETERS IS PRESENTED IN ATTACHMENT A.

TABLE 1

**MOENCH COMPANY
PALMER STREET LANDFILL**

ROUTINE GROUNDWATER QUALITY MONITORING PARAMETERS

Soluble Arsenic
Soluble Chromium
Soluble Lead
Volatile Organics⁽²⁾⁽³⁾

pH⁽¹⁾

Conductivity⁽¹⁾
Turbidity⁽¹⁾ - visual only
Groundwater Elevation⁽¹⁾
Temperature⁽¹⁾

All samples collected for analysis of soluble metals will be pressure-filtered in the field immediately upon sample collection.

NOTES:

1. All field parameters (i.e., pH, specific conductance, temperature and turbidity) will be measured in the field. No analysis of these parameters will be required by the laboratory.
2. Volatile organic compounds will be those compounds determined by SW-846, Method 8260.

TABLE X 2

MOENCH COMPANY
PALMER STREET LANDFILL
MONITORING EVENT

3-31-15 INFILTRMETER MEASUREMENTS

Infiltrometer	Static Water Level (ft) 3-30-15	Static Water Level (ft) 8-4-14	Δ Depth - gal. (ft)	# Days Between Readings (#)	Infiltration Rate		Approx. Total Rainfall This Period (ft)	Infiltration (%)
					gal/day.ft ²	(cm/sec)		
I-1 (A)	4.55	4.63	.08	236	.0002	1.0×10^{-8}	2.52	.5 %
I-2	7.25	7.34	.09	"	.0002	1.0×10^{-8}	"	.5
I-3	6.80	6.45	-	"	-	-	"	-
I-4	6.20	6.38	.18	"	.0004	2.0×10^{-8}	"	1.0
I-5	7.00	7.13	.13	"	.0003	1.4×10^{-8}	"	.7

Note:

**

Negative ΔD precludes calculation of meaningful data.

(A) I-1 OFTEN FLOODED BY NATURAL SPRINGS
+ WASH PONDS, UPGRADIENT.

TABLE # 3

MOENCH COMPANY
PALMER STREET LANDFILL
MONITORING EVENT

7-14-15

INFILTROMETER MEASUREMENTS

Infiltrometer	Static Water Level (ft) 7-14-15	Static Water Level (ft) 3-30-15	Δ Depth - gal (ft)	# Days Between Readings (#)	Infiltration Rate		Approx. Total Rainfall This Period (ft)	Infiltration (%)
					gal/day.ft ²	(cm/sec)		
I-1 (A)	4.67	4.55	NEG.	106	-	-	1.36	-
I-2	7.20	7.25	.05	"	.00023	1.1×10^{-8}	"	.2
I-3	6.19	6.80	.61	"	.0028	1.3×10^{-7}	"	3.4
I-4	6.98	6.20	NEG.	"	-	-	"	-
I-5	6.95	7.00	.05	"	.00023	1.1×10^{-8}	"	.2

Note:

** Negative ΔD precludes calculation of meaningful data.

(A) I-1 OFTEN FLOODED BY NATURAL SPRINGS

* WASH PONDS, UPGRADIENT.

MUCH RAIN PRIOR TO SAMPLE; 7" IN JUNE.

I-3 - HISTORICALLY L.T. 2.0×10^{-8}

TABLE #4
PALMER STREET LANDFILL
SUMMARY OF GROUNDWATER ELEVATIONS(1)

	EVENT	
	MAR. 30, 2015	JULY 14, 2015
MW-1	821.95	821.55
MW-1D	(A) 758.37	(A) 751.49
MW-2A	807.87	807.97
MW-3	795.11	794.96
MW-3D	790.83	789.39
MW-3DR	788.37	786.40
MW-4SR	794.75	794.33
MW-4D	791.63	790.68
MW-5	787.20	DRY
MW-6	785.68	784.58
MW-6D	782.93	783.01
MW-7	793.65	793.65
MW-7D	794.74	793.98
MW-8/D	805.86/781.79	DRY/ 779.99
P-1	795.55	795.55
P-4	798.79	798.89
P-6D	791.20	790.75
P-7A	797.52	797.31
WP-1	813.71	813.52

Notes:

(1) Measured in feet above sea level.

MW= Monitoring Wells P=Piezometers. WP=Well Piont.

(A) DRASTIC LOWER DUE TO VILLAGE
USING AQUIFER FOR WATER SUPPLY.

4.0 GROUNDWATER QUALITY MONITORING RESULTS

4.1 EVALUATION OF GROUNDWATER ELEVATION DATA:

GROUNDWATER ELEVATION MEASUREMENTS WERE TAKEN AT ALL ACCESSIBLE ONSITE MONITORING POINTS DURING THE TWO ANNUAL 2015 MONITORING EVENTS. THE DATA IS SUMMARIZED ON TABLE #4.

PLOTS OF THE GROUNDWATER ELEVATIONS MEASURED IN THE MONITORING WELLS WITH RESPECT TO TIME, ARE PRESENTED IN FIGURE 3, 4, & 5, FOR THE "SHALLOW OVERBURDEN, DEEP OVERBURDEN AND BEDROCK WELLS, RESPECTIVELY. AS SHOWN IN FIGURES 3, AND 4, OVERBURDEN GROUNDWATER ELEVATIONS WERE GENERALLY CONSISTENT THROUGHOUT THE MONITORING PERIOD IN AUGUST 2009, A SEVERE FLOOD CONTAMINATED THE VILLAGE'S WATER RESERVIOR. THEY HAVE VARIED IN USE OF THEIR DEEP WELL, AND THE RESERVIOR, SINCE THEN. A RESENT EVENT HAS AGAIN DISABLED THE VILLAGE RESERVIOR. THE RESULTS ARE SHOWN IN OUR DEEP WELLS.

4.2 THE GROUNDWATER AND SURFACE WATER QUALITY RESULTS FOR THE TWO MONITORINGS EVENTS, AT THE PALMER STREET LANDFILL, ARE PRESENTED IN TABLES #5 THROUGH #7.

COMPARISON OF THE MONITORING DATA TO THE NYSDEC CLASS "GA" GROUNDWATER QUALITY STANDARDS/GUIDANCE VALUES ARE PRESENTED IN THE TABLES.

BOTH THE SOIL AND WASTE AT THE PALMER STREET LANDFILL CONTAIN METALS-OF-INTEREST AS A COMPONENT OF THE SOIL OR WASTE PARTICLES (REFERENCE 5). THEREFORE, THE SEDIMENT (OR TURBIDITY) CONTENT OF ANY GROUNDWATER OR SURFACE WATER QUALITY SAMPLES WILL DIRECTLY IMPACT THE TOTAL METAL CONCENTRATION OF THE SAMPLES. THE TURBIDITY CONTENT OF THE GROUNDWATER SAMPLES COLLECTED AT THE SITE IS EXTREMELY VARIABLE AND RELATIVELY HIGH BECAUSE THE SOIL AND WASTE FILL BOTH CONTAIN HIGH PERCENTAGES OF FINE-GRAINED PARTICLES. AS NYSDEC HAS PREVIOUSLY AGREED, IN ORDER TO AVOID MIS-INTERPRETATION OF WATER QUALITY DATA, "TOTAL" METALS WILL NO LONGER ANALYZED FOR GROUNDWATER QUALITY STANDARDS OR EVALUATION OF GROUNDWATER QUALITY. IMPACTS WILL BE BASED ON SOLUBLE METALS CONCENTRATION.

ALSO TOTAL NOR SOLUABLE BARIUM WILL NO LONGER BE SAMPLED FOR IN THE AGREEMENT WITH NYSDEC, AS THE ELEMENT IS NATURALLY ELEVATED IN CONCENTRATION IN NATIVE SOIL. 2015 ANNUAL SUMMARIES AS FOLLOWS:

- THERE WAS NO DETECTION OF ANY METALS, ABOVE THE CLASS "GA" STANDARD, AT ANY OF THE MONITORING LOCATIONS.
- THERE WAS NO DETECTION OF ANY VOCs, ABOVE THE CLASS "GA" STANDARD, AT ANY OF THE SAMPLING LOCATIONS. THERE WAS A SLIGHT DETECTION OF ACETONE AT MW-4SR & MW-3D, IN THE APRIL SAMPLE.
- 1,2 DICHLOROETHANE WAS DETECTED AT MW-6, JULY SAMPLE, AT .002 MG/L. THIS IS CONSIDERED AN ANOMOLY.
- "Ph" CONTINUED TO BE BELOW NEUTRAL AT MW-4S AND MW-6.????

TABLE X 5

MOENCH COMPANY

PALMER STREET LANDFILL

4-1-15

MONITORING EVENT

SUMMARY OF FIELD MEASUREMENTS

INITIAL

Location	Sampling Date	Sampling Time	Temp. (°C)	pH (units)	Conductance ⁽¹⁾ (umhos/cm)	Turbidity NA	Sample Appearance	Sample Odor
* MW-3	4-1-15	1200	(NO SAMPLE)	(NO SAMPLE)	(NO SAMPLE)	NA	—	—
*** MW-3D	"	1210	19.0	7.22	380	"	CLEAR	NO
* MW-4SR	"	1055	9.7	6.41	700	"	CLEAR	FINISH
*** MW-4D	"	1125	16.3	7.14	650	"	CLEAR	FINISH
* MW-5	"	—	(NO SAMPLE)	(NO SAMPLE)	(NO SAMPLE)	"	—	—
* MW-6	"	1035	11.9	6.71	1400	"	BLK-TURB	NO
* MW-6D	"	1007	13.8	7.61	1200	"	CLEAR	NO
*** MW-7D	"	1340	8.0	7.47	580	"	CLEAR	NO
*** MW-8D	"	1300	19.8	7.10	500	"	CLEAR	NO
BS-1	"	1050	(NO SAMPLE)	(NO SAMPLE)	(NO SAMPLE)	"	—	—
BS-2	"	1110	(NO SAMPLE)	(NO SAMPLE)	(NO SAMPLE)	"	—	—
BS-3	"	1240	9.0	7.00	800	"	RED-IRON	NO

NOTES:

6.5-8.5 (STD)

- (1) Conductivity readings corrected to 25°C.
- (2) Blind Duplicate MW-3D.
- (3) MW-7D is apparent hydraulically upgradient bedrock well.

* Shallow Overburden Well

*** Bedrock Well

** Upgradient
BS Bank Seep

TABLE ~~X~~ 5

MOENCH COMPANY
PALMER STREET LANDFILL
7/16/15 MONITORING EVENT

SUMMARY OF FIELD MEASUREMENTS

INITIAL

Location	Sampling Date	Sampling Time	Temp. (°C)	pH (units)	Conductance ⁽¹⁾ (umhos/cm)	Turbidity NA	Sample Appearance	Sample Odor
* MW-3	7/16/15	0943	13	6.84	1800	NA	Slight	NO
*** MW-3D	7/16/15	1007	13.1	7.20	510	"	clear	Finish
* MW-4SR	7/16/15	0905	12.4	6.52	960	"	Orange	NO
*** MW-4D	7/16/15	0920	13.2	7.19	710	"	clear	NO
* MW-5	-	NO	sample	dry	-	"	-	-
* MW-6	7/16/15	0830	15.0	6.65	1400	"	Black-Turbid	NO
*** MW-6D	7/16/15	0800	13.7	7.43	1200	"	clear	NO
*** MW-7D	7/16/15	1137	14.1	7.43	670	"	clear	NO
*** MW-8D	7/16/15	1055	13.2	7.18	4.80	"	clear	NO
BS-1	-	NO	sample	NO	seep	"	-	-
BS-2	-	NO	sample	NO	seep	"	-	-
BS-3	7/16/15	1030	9.0	7.01	800	"	Red Iron	NO

NOTES:

- (1) Conductivity readings corrected to 25°C.
 (2) Blind Duplicate MW-3D
 (3) MW-7D is apparent hydraulically upgradient bedrock well.

* Shallow Overburden Well

*** Bedrock Well

** Upgradient
BS Bank Seep

TABLE 5

MOENCH COMPANY
PALMER STREET LANDFILL
4-1-15 MONITORING EVENT⁽¹⁾

SUMMARY OF ANALYTICAL RESULTS

	Quantitation Limit	** MW-3	MW-3D	** MW-4SR	MW4D	** MW-5	** MW-6	MW-6D	Glass "GA" Std.
Metals (mg/l):									
Arsenic - Soluble	0.005	D R Y	.005	ND	ND	D R Y	ND	ND	.025mg/l
Chromium - Soluble	0.005	N O	ND	.01	ND	N O	ND	ND	.05
Lead - Soluble	0.005	S M P L	ND	ND	ND	S M P L	ND	ND	.025

Volatiles mg/L		-	-	-	ND	L	ND	ND	Guid. Value = .05mg/L
ACETONE		-	.016	.154	"	-	"	"	
		-	-	-	"	-	"	"	
		-	-	-	"	-	"	"	

** Screened in Waste/Overburden.

Blind Duplicate _____

MOENCH COMPANY
PALMER STREET LANDFILL
15 MONITORING EVENT⁽¹⁾

4-1-15

MW-3D

SUMMARY OF ANALYTICAL RESULTS								Class
	Quantitation Limit	MW-7D	MW-8D	BS-1	BS-2	BS-3	Blind Duplic	"GA" Std.
Metals (mg/l):								
Arsenic - Soluble	0.005	ND	ND	ND	ND	ND	ND	.025mg/l
Chromium - Soluble	0.005	ND	ND	BAK	BAK	ND	ND	.05
Lead - Soluble	0.005	ND	ND	See	See	ND	ND	.025

Volatiles mg/L	ND	ND	-	-	ND	ND	GUID. VALU = 0.05 mg/L
ACETONE	-	-	-	-	-	-	

TABLE 6

MOENCH COMPANY
PALMER STREET LANDFILL
MONITORING EVENT⁽¹⁾

7/16/15

SUMMARY OF ANALYTICAL RESULTS

	Quantitation Limit	** MW-3	MW-3D	** MW-4SR	MW4D	** MW-5	** MW-6	MW-6D	Glass "GA" Std.
Metals (mg/l):									
Arsenic - Soluble	0.005	.008	ND	ND	ND	Dry	ND	ND	.025mg/l
Chromium - Soluble	0.005	ND	ND	.011	ND	N	ND	ND	.05
Lead - Soluble	0.005	ND	ND	ND	ND	0	ND	ND	.025
						S-			

Volatiles mg/L		ND	ND	ND	ND	P	ND	ND	
ACETONE		ND	ND	ND	ND	L	11	11	Guid. Value = .05mg/L
1,2-Dichloroethane				ND	ND	e	.002	11	

** Screened in Waste/Overburden.

Blind Duplicate _____

TABLE X 6

MÖENCH COMPANY
PALMER STREET LANDFILL
7/16/15 MONITORING EVENT⁽¹⁾

SUMMARY OF ANALYTICAL RESULTS

	Quantitation Limit	MW-7D	MW-8D	BS-1	BS-2	BS-3	Blind Duplic	Class "GA" Std.
Metals (mg/l):								
Arsenic - Soluble	0.005	ND	ND	ND	ND	.005	ND	.025mg/l
Chromium - Soluble	0.005	ND	ND	Blank	Blank	ND	ND	.05
Lead - Soluble	0.005	ND	ND	Seep	Seep	ND	ND	.025

Volatiles mg/L	ND	ND	—	—	ND	ND		
ACETONE	—	—	—	—	ND	ND		GUID. VALU = .05 mg/L

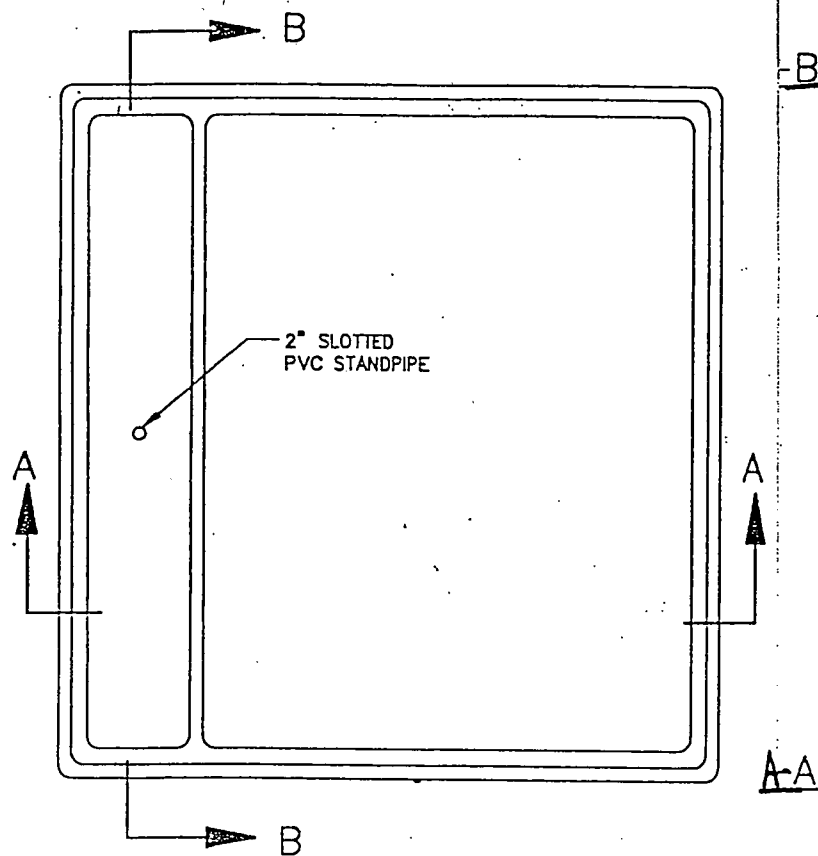
ATTACHMENT A

INFILTROMETER DESIGN

PALMER STREET LANDFILL
GROUNDWATER MONITORING REPORT...

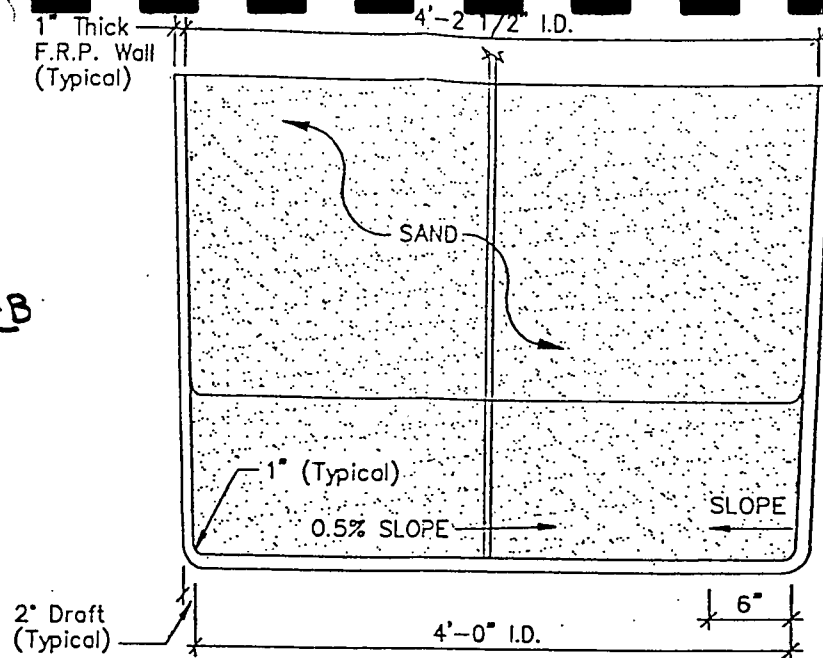
2015

SAMPLING EVENT..

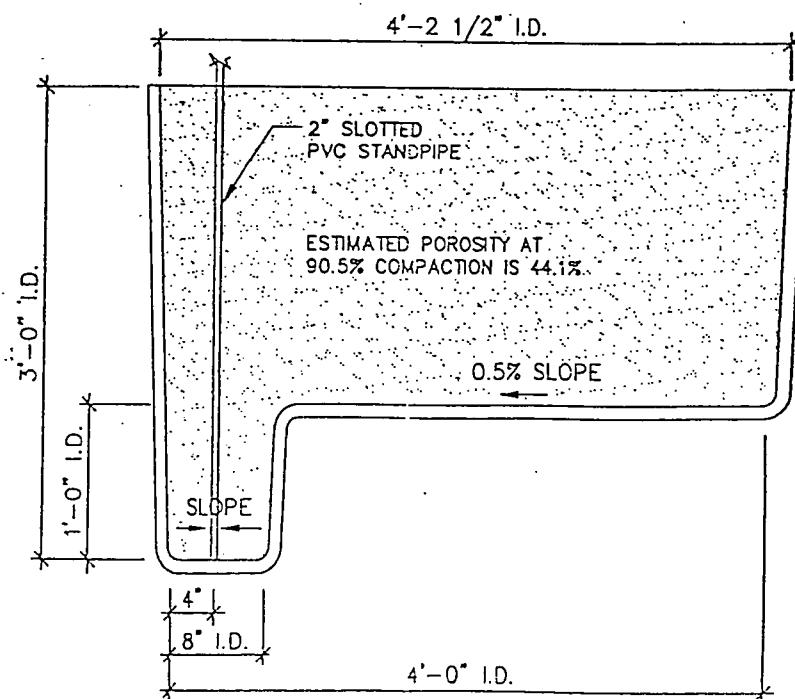


PLAN

B-B



A-A



TYPICAL INFILTRATOR BY HEY'S ENTERPRISES
AS INSTALLED AT PALMER STREET LANDFILL

INFILTRATOR

ATTACHMENT B

GROUNDWATER ELEVATION
DATA & GRAPHS

MONITORING EVENTS 2015

FIGURE #3		PALMER STREET LANDFILL MOENCH COMPANY GROUNDWATER ELEVATION vs TIME (FEET ABOVE SEA LEVEL) SHALLOW OVERBURDEN MONITOR WELLS																						
	Jan-90	Apr-90	Jul-90	Oct-90	Jan-91	May-91	Jul-91	Oct-91	Jan-92	May-92	Jul-92	Oct-92	Feb-93	May-93	Jul-93	Oct-93	Mar-94	Jun-94	Sep-94	Dec-94	Mar-95	Jun-95	Sep-95	
MW-1	818	819	817	817	819	817	818	818	819	820	818	820	820	821	819	820	821	821	822	822	823	822	821	
MW-3	798	798	794	793	794	793	792	792	793	794	793	793	794	794	793	794	794	794	794	794	794	793	793	
MW-5	785	785	784	784	786	784	782	782	783	784	784	783	783	784	782	783	786	783	783	784	784	784	784	
MW-6	784	784	783	784	785	784	784	784	784	784	784	783	784	784	784	784	784	783	783	784	784	783	783	
MW-7S	795	795	793	795	795	794	792	792	793	793	792	792	793	793	792	793	788	792	791	792	794	791	791	
MW-4SR																787	792	791	789	791	791	790	790	

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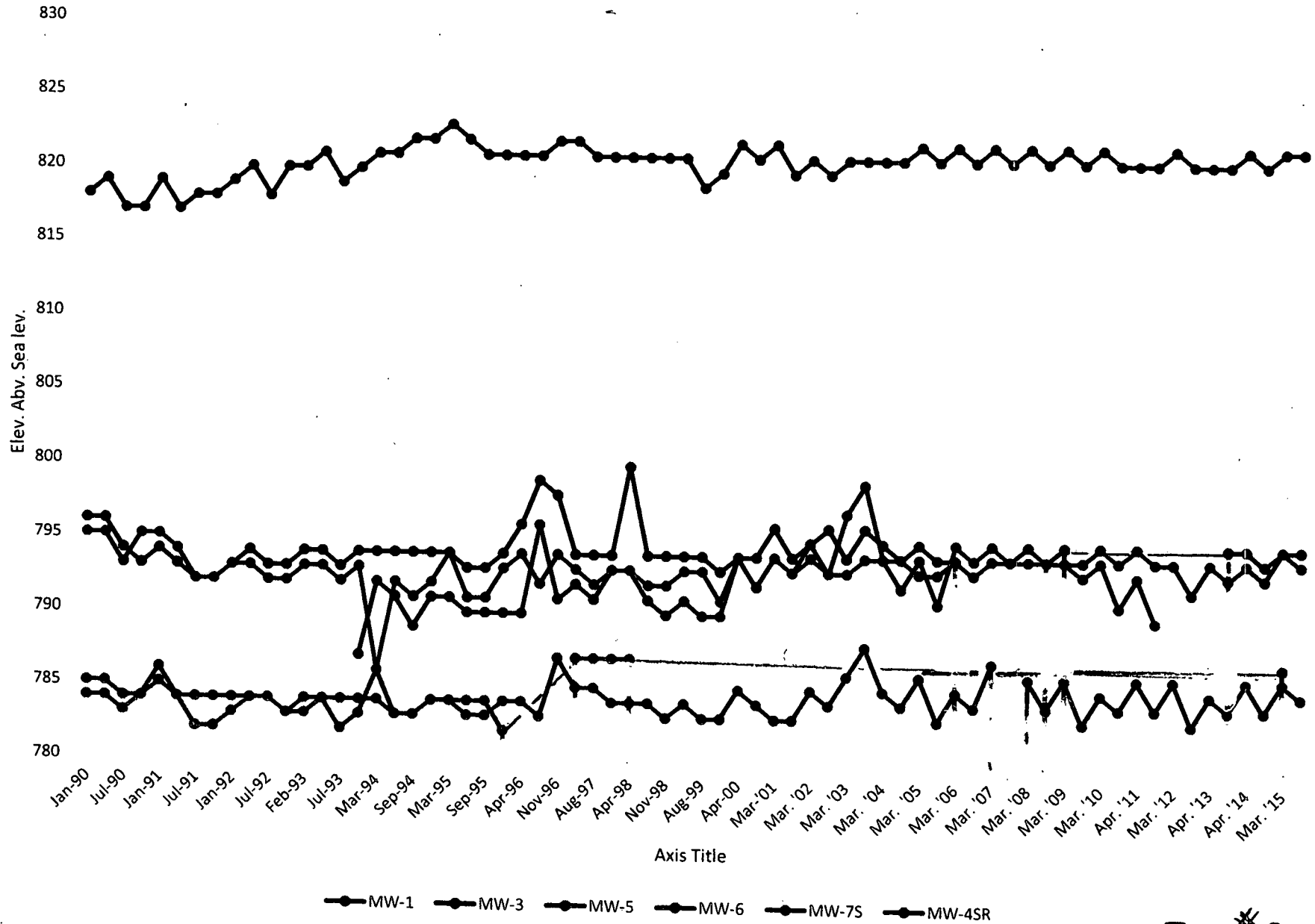
p1rgwelv.xls x.xls

Fig # 3

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P1rgwelv

Palmer L/fill;shallow GW Elev.



Fig*3

Plrgwelv

Figure #4		PALMER STREET LANDFILL MOENCH COMPANY GROUNDWATER ELEVATION vs TIME (FEET ABOVE SEA LEVEL) DEEP OVERBURDEN MONITOR WELLSS																				Fig. #4	
	Jan-90	Apr-90	Jul-90	Oct-90	Jan-91	May-91	Jul-91	Oct-91	Jan-92	May-92	Jul-92	Oct-92	Feb-93	May-93	Jul-93	Oct-93	Mar-94	Jun-94	Sep-94	Dec-94	Mar-95	Jun-95	Sep-95
MW-3D	777	777	777	777	778	778	779	778	778	779	779	781	784	787	789	791	792	793	795	797	798	797	797
MW-7	794	793	793	793	794	793	793	794	793	792	793	794	793	792	792	793	792	791	793	794	793	792	794
MW-4D																787	790	789	791	792	783	793	793

plmrgw2.xls.xls

																						Fig. #4	
	Dec-95	Apr-96	Aug-96	Nov-96	Apr-97	Aug-97	Nov-97	Apr-98	Aug-98	Nov-98	Apr-99	Aug-99	Nov-99	Apr-00	Sep-00	Mar-01	Aug-01	Mar-02	Aug-02	Mar-03	Aug-03	Mar-04	Aug-04
MW-3D	797	799	801	799	799	799	799	794	798	797	798	799	799	799	800	800	800	801	800	801	801	801	801
MW-7	794	794	794	794	794	794	795	794	795	796	794	793	795	794	795	794	792	794	793	794	795	795	796
MW-4D	788	795	794	794	795	795	795	795	794	793	794	794	795	795	795	796	796	799	795	796	795	796	796

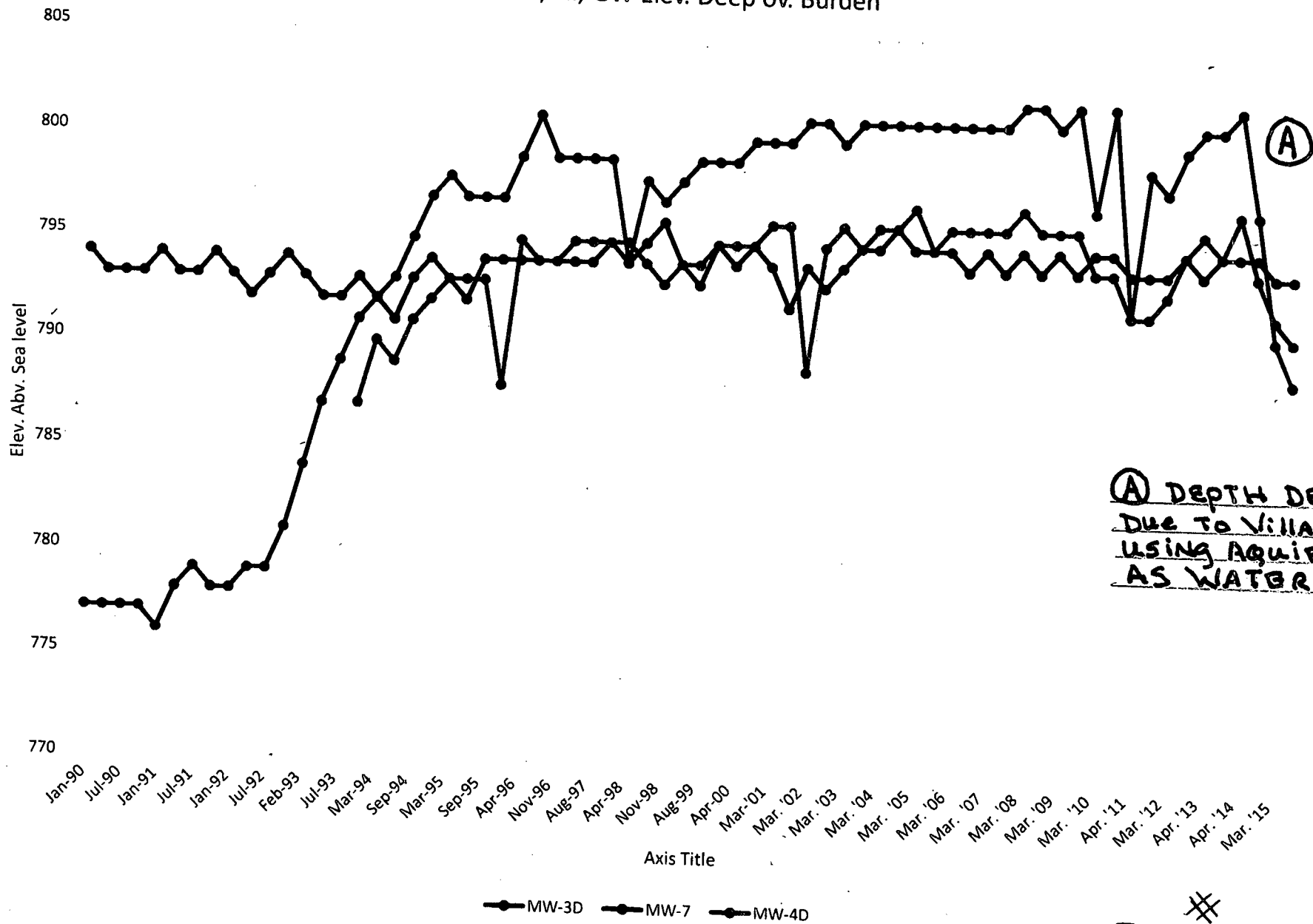
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Fig. #4

Plmrgw2

Palmer L/fill; GW Elev. Deep ov. Burden



① DEPTH DECREASE
DUE TO VILLAGE
USING AQUIFER
AS WATER Supply.

Fig. 4

PALMER STREET LANDFILL MOENCH COMPANY GROUNDWATER ELEVATION vs TIME BEDROCK MONITOR WELLS & PIEZOMETERS																							
(FIG.#5)												Aug. '15											
												FIG. #5											
	Jan-90	Apr-90	Jul-90	Oct-90	Jan-91	May-91	Jul-91	Oct-91	Jan-92	May-92	Jul-92	Oct-92	Feb-93	May-93	Jul-93	Oct-93	Mar-94	Jun-94	Sep-94	Dec-94	Mar-95	Jun-95	Sep-95
MW-3DR	773	773	773	773	772	775	787	775	777	777	778	783	786	789	792	794	797	797	789	799	800	800	798
MW-7D	795	794	794	795	795	794	794	795	793	782	792	793	793	792	790	793	792	791	793	794	794	793	794
MW-8D	768	768	767	767	763	770	773	771	773	772	776	788	790	794	796	798	802	803	804	804	805	805	804
MW-1D					743	762	765	752	756	758	778	795	798	801	802	807	811	810	810	813	814	809	810
MW-6D					783	781	787	781	781	781	782	782	781	781	781	782	784	780	782	782	784	781	781
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PLMRGW3.xlsx.xls

Apr. 15																							
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												Fig. #5											
	Dec-85	Apr-86	Aug-86	Nov-86	Apr-87	Aug-87	Nov-87	Apr-88	Aug-88	Nov-88	Apr-89	Aug-89	Nov-89	Apr-90	Sep-90	Mar-91	Aug-91	Apr-92	Aug-92	Mar-93	Aug-93	MAR-94	AUG-94
MW-3DR	798	801	800	801	801	802	802	803	799	799	801	801	801	802	803	803	800	803	796	796	802	803	804
MW-7D	795	795	794	794	795	795	796	796	795	795	795	795	795	795	795	797	796	796	796	796	796	797	798
MW-8D	805	805	805	805	806	807	808	809	800	803	805	807	808	808	808	809	808	809	809	808	808	809	809
MW-1D	812	813	813	814	815	816	816	816	795	806	813	818	814	816	816	818	817	819	819	817	818	818	819
MW-6D	779	782	782	783	782	782	783	782	781	782	783	781	781	783	783	783	782	782	782	782	782	783	780
P-6D	788	790	790	791	791	791	791	792	792	790	791	791	791	792	792	792	792	793	793	793	792	793	792

PLMRGW3.xlsx.xls

Fig 5

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**MW-8D depth measured at MW6, after April 2011

Village using deep equifer for water supply since 2009. Hydrant on often,

PLMRGW 3

Palmer L/fill; bedrock wells; GW elev

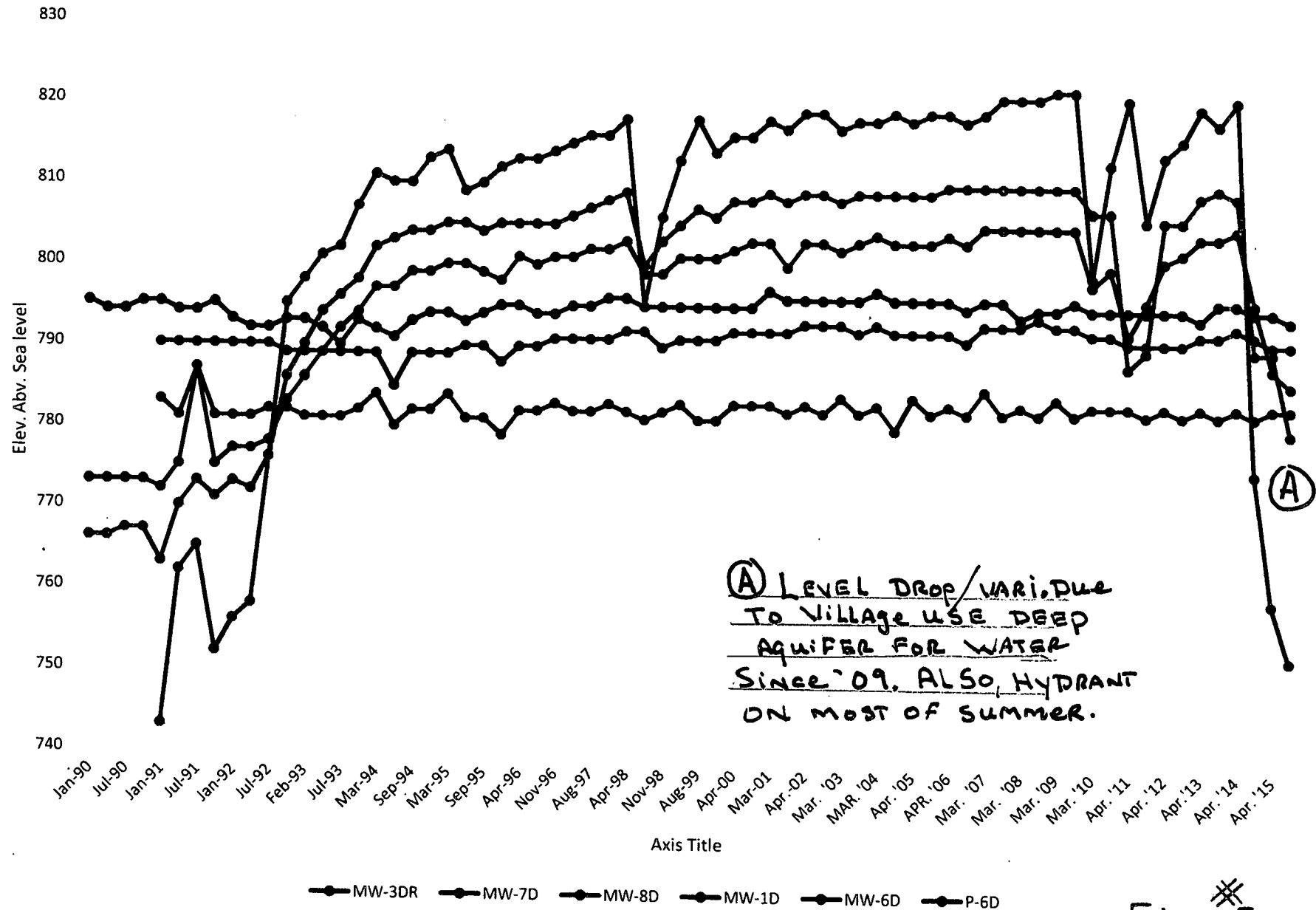


Fig. #5

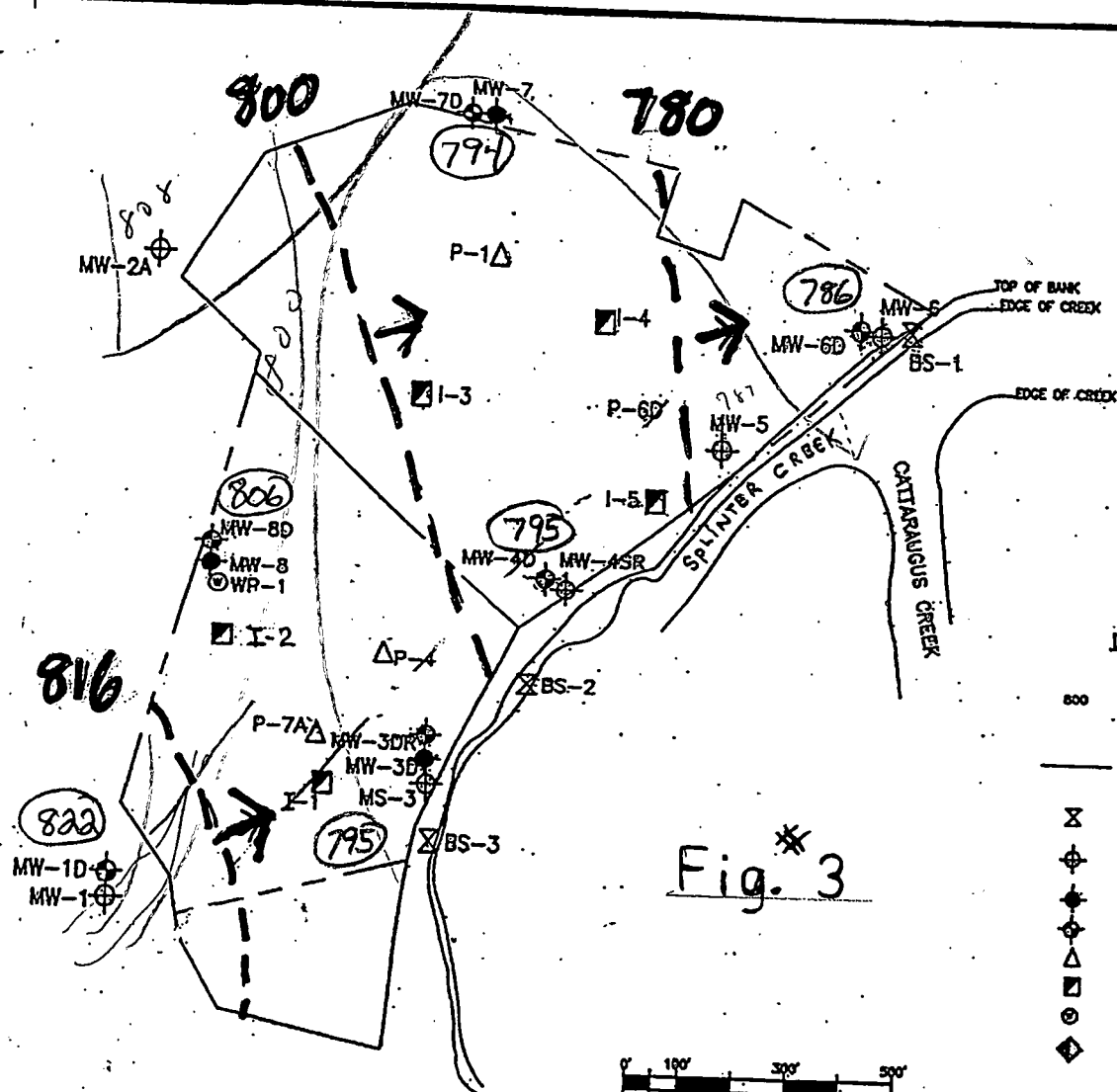
5.0 GROUNDWATER FLOW

A WATER TABLE ISOPOTENTIAL MAP, BEDROCK ISOPOTENTIAL MAP AND A BEDROCK WATER LEVEL HYDROGRAPH HAVE BEEN PREPARED FOR THE PALMER STREET LANDFILL AND ARE PRESENTED IN FIGURES 3,4 AND 5, RESPECTIVELY. GROUNDWATER ELEVATIONS MEASURED THROUGH 2015 WERE USED IN PREPARING THE WATER TABLE AND BEDROCK ISO-POTENTIAL MAP INDICATED THAT THE SHALLOW GROUNDWATER FLOW IS PRIMARILY TO THE EAST TOWARD CATTARAUGUS CREEK. THE BEDROCK ISOPOTENTIAL MAP AND THE BEDROCK WATER LEVEL HYDROGRAPH ILLUSTRATE A "LEVELING OFF" AFTER THREE YEARS ('92-'94) OF RISING LEVELS AT WELLS MW-1D, MW-3DR AND MW-8D. MW-1D AND MW-8D, WHICH WERE FORMERLY DOWNGRAIENT WELLS ARE NOW UPGRADIENT OF THE LAND-FILL.

AS PREVIOUSLY MENTIONED, DUE TO FLOOD DAMAGE TO THE VILLAGE RESERVIOR, (8/09) THE VILLAGE WAS OBTAINING ITS' WATER SUPPLY FROM THE DEEP WELLS. THESE WELLS TAP THE DEEP AQUIFER. THIS WAS CURTAILED SOMEWHAT IN 2012, BUT A RECENT EVENT HAS CAUSED THE VILLAGE OF GOWANDA TO AGAIN USE THE DEEP WELLS. THE SOUTH PORTION OF THE LANDFILL, NOW HAS THE DEEP WATER TABLE FLOWING AWAY FROM THE CATTARAUGUS CREEK.

AS MENTIONED PRIOR, MANY UNUSED WELLS, PIEZOMETERS, LYSIMETERS AND A WELL POINT WERE REMOVED IN 2011. NONE OF THESE WILL EFFECT THE EVALUATION OF GROUNDWATER FLOW.

THE WEATHER THROUGHOUT 2015 WAS SLIGHTLY WET..



LAT. $42^{\circ}27'0''$
Long. $78^{\circ}55'30''$

LEGEND

- 800 ISOPOTENTIAL, DOTTED WHERE INFERRED
- GROUNDWATER FLOW DIRECTION
- LANDFILL BOUNDARY AND AREA BOUNDARY DIVIDER
- ⊗ BANK SEEP
- ⊕ UPPER OVERBURDEN MONITORING WELL
- ⊙ LOWER OVERBURDEN MONITORING WELL
- ⊛ BEDROCK MONITORING WELL
- Δ PIEZOMETER
- INFILTRATOR
- ⊙ WELL POINT
- ◇ LYSIMETER

Fig. * 3

0 100' 200' 300' 400' 500'
SCALE IN FEET

4/2/15 SAMPLE EVENT:

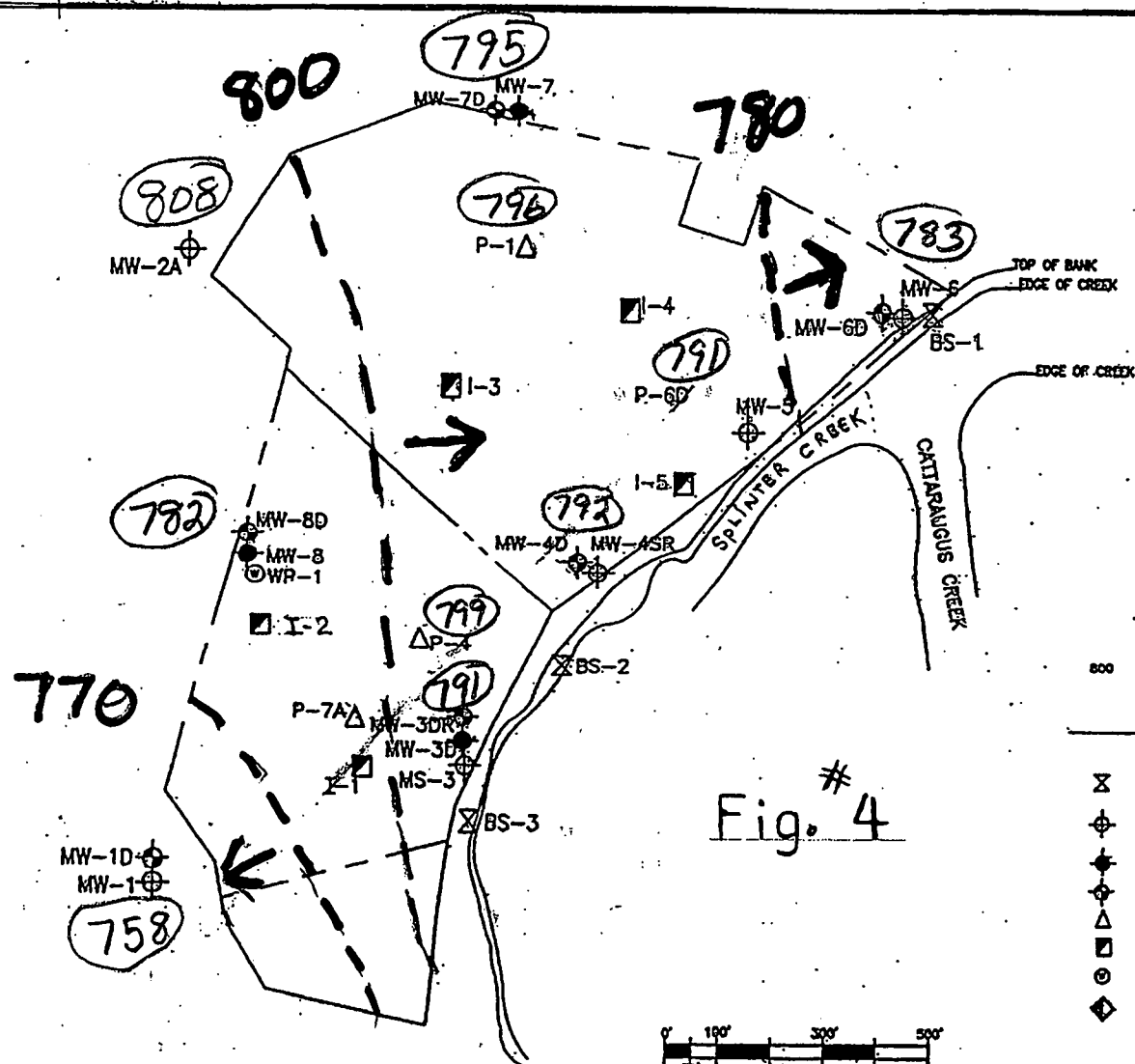


AMEX
Geomatrix Consultants, Inc.
Williamsville, NY

PALMER STREET LANDFILL

SITE PLAN

**WATERTABLE
ISOPOTENTIAL
MAP.**



LAT. 42° 27' 0"
Long. 78° 55' 30"

LEGEND

- 800 ISOPOTENTIAL, DOTTED WHERE INFERRED
- GROUNDWATER FLOW DIRECTION
- LANDFILL BOUNDARY AND AREA BOUNDARY DIVIDER
- ⊗ BANK SEEP
- ⊕ UPPER OVERBURDEN MONITORING WELL
- ⊖ LOWER OVERBURDEN MONITORING WELL
- ⊙ BEDROCK MONITORING WELL
- △ PIEZOMETER
- INFILTROMETER
- ⊙ WELL POINT
- ◇ LYSIMETER

0 100 200 300 400 500
SCALE IN FEET

Fig. # 4

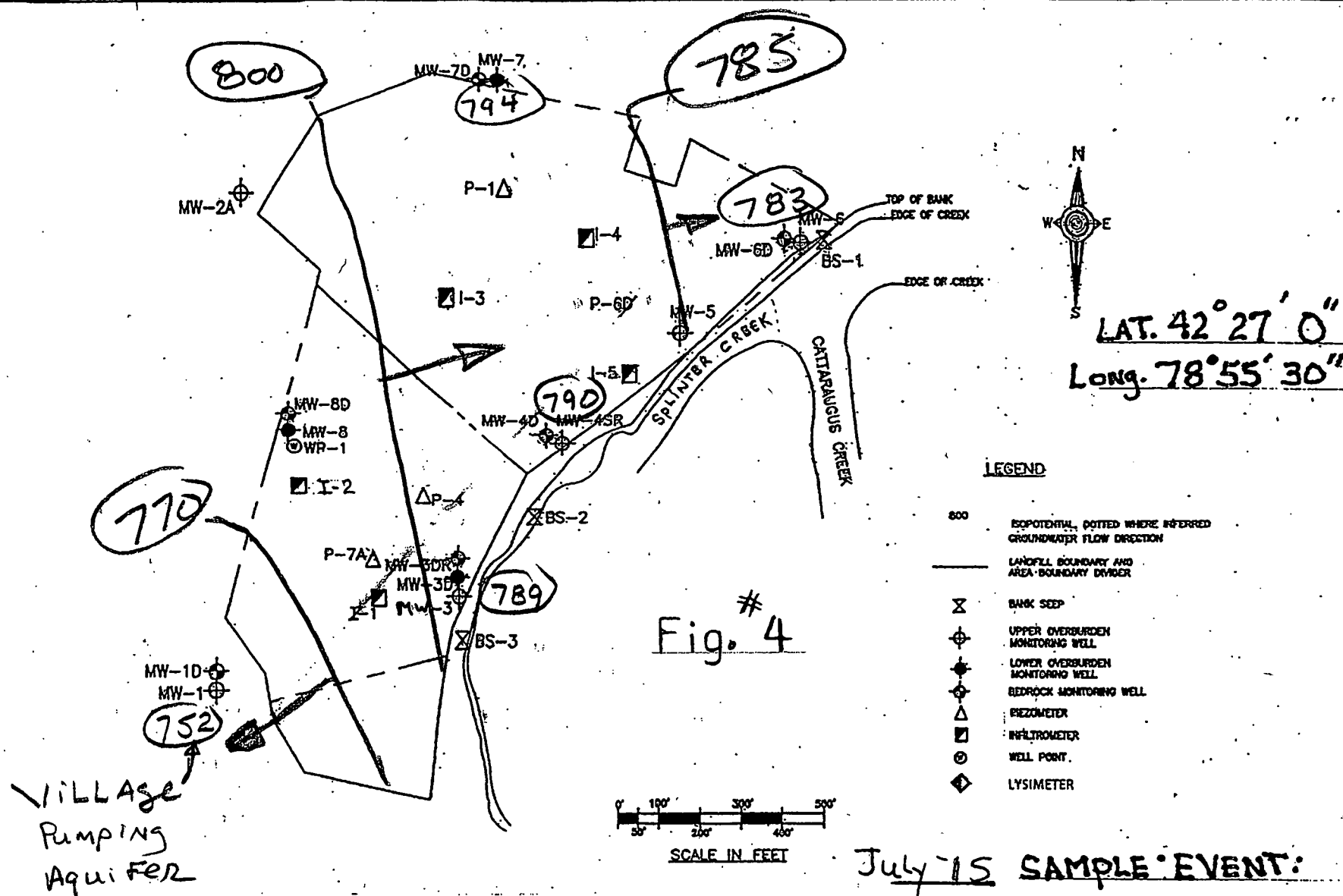
4/2/15 SAMPLE EVENT:



AMEX
Consultants, Inc.
Williamsville, NY

PALMER STREET LANDFILL
SITE PLAN

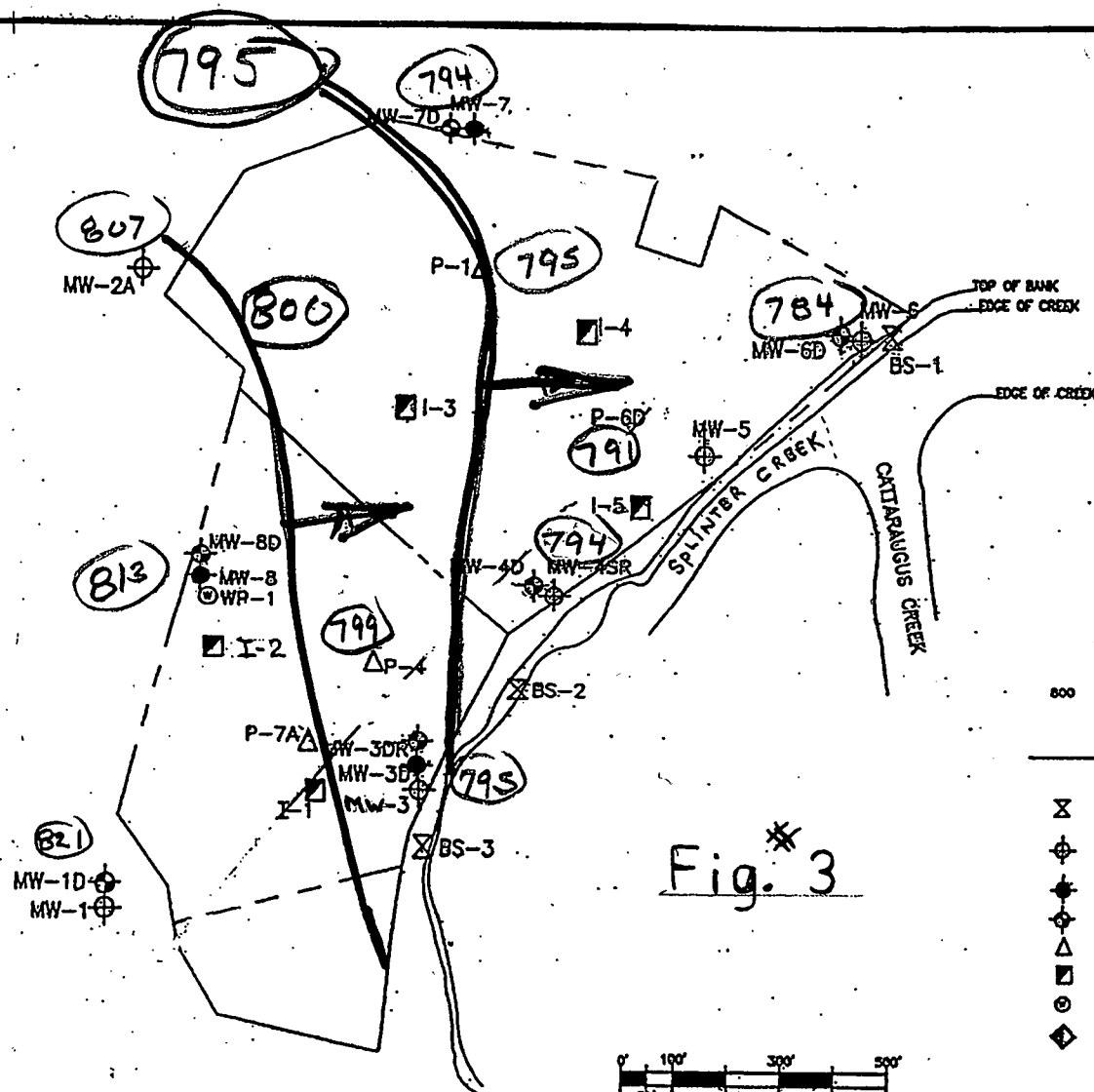
**BEDROCK
ISOPOTENTIAL
MAP.**



GEI Consultants, Inc.
Williamsville, NY

PALMER STREET LANDFILL
SITE PLAN

BEDROCK
ISOPOTENTIAL
MAP.



LAT. 42° 27' 0"
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LEGEND

- 800 ISOPOTENTIAL, DOTTED WHERE INFERRED
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- LOWER OVERBURDEN MONITORING WELL
- BEDROCK MONITORING WELL
- PIEZOMETER
- INFILTRATOR
- WELL POINT
- LYSIMETER

Fig. 3

0 100 200 300 400 500
SCALE IN FEET

July '15 SAMPLE EVENT:



GEI Consultants, Inc.
Williamsville, NY

PALMER STREET LANDFILL

SITE PLAN

WATERTABLE
ISOPOTENTIAL
MAP.

6.0 REFERENCES

1. PALMER STREET LANDFILL CLOSURE/POST CLOSURE PLAN (EPA ID. NYDOO2126910), PREPARED BY MALCOLM PIRNIE, INC. REVISED FEBRUARY 1989, July 1993, Dec. 2006.
2. PALMER STREET LANDFILL, SUPPLEMENTAL HYDROGEOLOGIC INVESTIGATION, PREPARED BY MALCOLM PIRNIE, INC. JANUARY 1989.
3. SAMPLING PLAN/QUALITY ASSURANCE PLAN FOR GROUNDWATER MONITORING - PALMER STREET LANDFILL. PREPARED BY MALCOLM PIRNIE, INC., AUGUST 1989. REVISED-7/93, 8/94, 12/06.
4. TEST METHODS FOR EVALUATING SOLID WASTE, PHYSICAL/CHEMICAL METHODS, USEPA 200.7, FOR METALS, AND VOC 8260.
5. PALMER STREET LANDFILL, EVALUATION OF ALTERNATIVE COVER SYSTEMS, PREPARED BY MALCOLM PIRNIE, INC., JANUARY 1989.
6. COVER SYSTEM PERFORMANCE EVALUATION; PALMER STREET LANDFILL; PREPARED BY MALCOLM PIRNIE, INC. OCTOBER 1995 & FEBRUARY 1999. THIRD EVALUATION(8/03) PERFORMED BY GEOMATRIX CONSULTANTS. Report Feb. 2004.
7. FORMER TANNERY PLANT SITE, WELL INSTALLATION REPORT; PREPARED BY BENCHMARK ENVIRONMENTAL ENGINEERING SCIENCE CO., AUGUST 2000.
- 8.(previously #3) Letter to Mr. Jeffrey Smith, Moench Tanning Co., from New York State Dept. of Environmental Conservation, dated
A August 31, 1993.
9. JULY 27TH, 2006 LETTER FROM GEOMATRIX TO STAN RADON(NYSDEC9), DOCUMENTING A JULY 19TH MEETING IN WHICH REVISIONS TO THE GROUNDWATER MONITORING SYSTEM WERE AGREED UPON.
10. SEPTEMBER 7TH, 2006 LETTER FROM STAN RADON(NYSDEC9), TO JEFFREY SMITH(MOENCH), CONFIRMING THE AGREEMENT TO REVISED GROUNDWATER MONITORING SYSTEM, AND COVER SYSTEM EVALUATION ELIMINATION.

ATTACHMENT B1

PALMER ST. LANDFILL

FIELD MEASUREMENT TRENDS

MONITORING EVENTS Apr. 2015

July 2015

		PALMER ST UF, MOENCH COMPANY																						
		"PH" vs TIME					Fig.#6																	
		MONITOR POINTS & BANK SEEP																						
	Jan-80	Apr-90	Jul-90	Oct-90	Jan-91	May-91	Jul-91	Oct-91	Jan-92	May-92	Jul-92	Oct-92	Feb-93	May-93	Jul-93	Nov-93	Mar-94	Jun-94	Sep-94	Dec-94	Mar-95	Jun-95	Sep-95	
MW-1D	8.2	7.5	7.7	7.9	7.4	7.9	7.8	8	7.8	7.9	7.8	8	8.3	8.3	7.3	7.5	7	7.1	7	6.9	7.2	7.2	7.1	
P-6D	START 94																							
MW-3DR	8.3	8	7.2	8.1	7.5	8	8.5	8.2	8.4	8	8.2	7.8	7.7	8.8	7.8	8	7.3		7.1	7	7.7	7.7	7.7	
MW-5	7	7.3	7	7	7.2	7	7	7.1	7.3	7.1	7	6.9	7.3	7.4	6.8	7.2		7.2	7.2	7.2	7	7.8	7.8	7.5
MW-6D	6.6	6.7	6.7	6.7	6.7	6.7	8	6.9	6.9	6.7	6.7	6.5	6.9	7	6.6	6.7	7.1	7.4	7.5	7.2	7.8	7.6	7.5	
MW-4SR																								
MW-4D	6.8				6.9	7	6.8																	
MW-3																	7.2	7.2	7.5	7	7.7	7.7	7.4	
MW-3D																								
MW-6																								

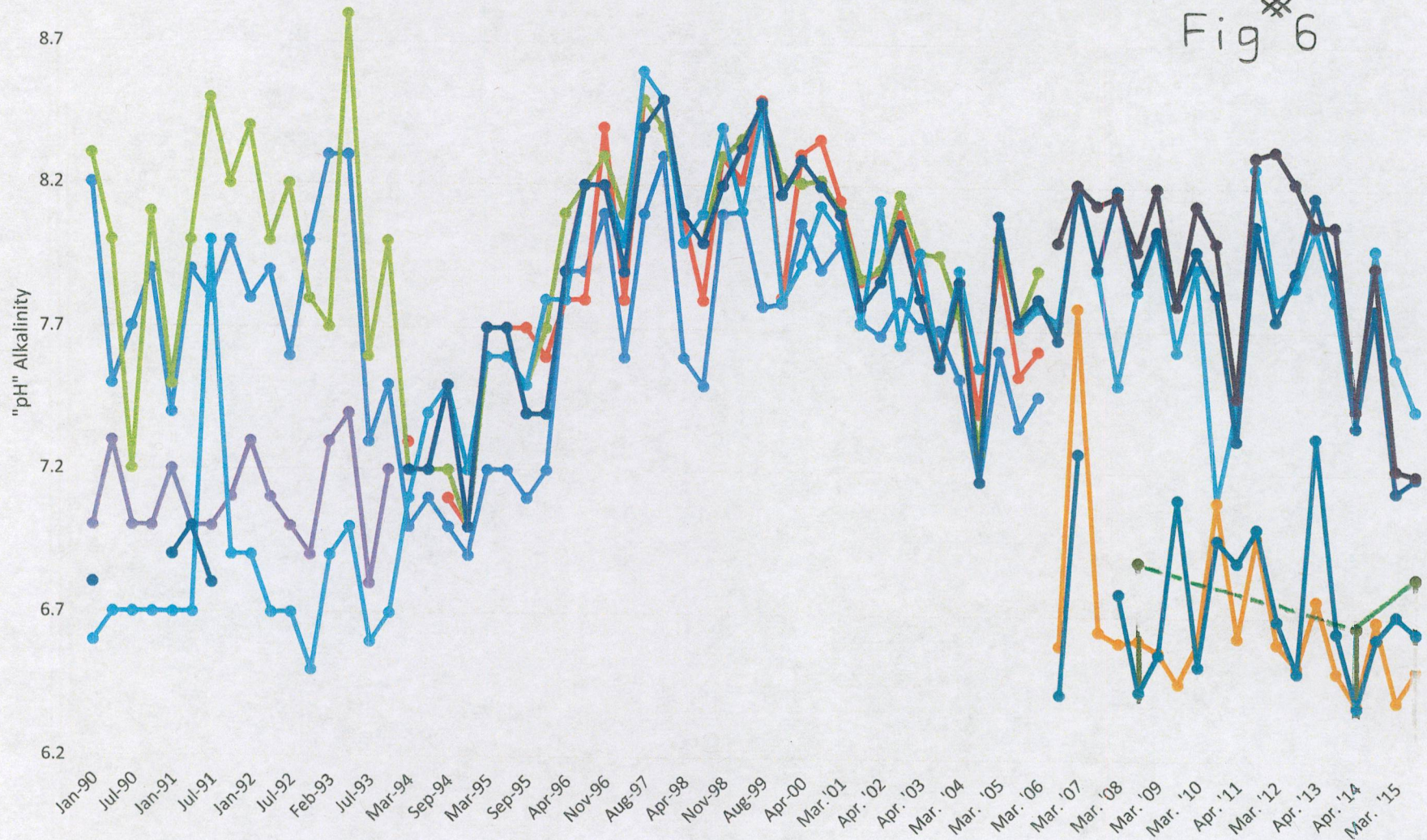
	Dec-95	Apr-96	Aug-96	Nov-96	Apr-97	Aug-97	Nov-97	Apr-98	Aug-98	Nov-98	Apr-99	Aug-99	Nov-99	Apr-00	Sep-00	Mar-01	Aug-01	Apr-02	Aug-02	Apr-03	Aug-03	Mar-04	Aug-04
MW-1D	7.2	7.9	7.9	8.1	7.6	8.1	8.3	7.6	7.5	8.1	8.11	7.78	7.79	8.07	7.91	8	7.73	7.68	7.8	7.71	7.7	7.53	7.17
P-6D	7.6	7.8	7.8	8.4	7.8	8.5	8.4	8.1	7.8	8.3	8.22	8.5	7.81	8.31	8.36	8.15	7.87	7.91	8.1	7.91	7.81	7.62	7.41
MW-3DR	7.7	8.1	8.2	8.3	8.1	8.5	8.4	8.1	8	8.3	8.36	8.47	8.23	8.21	8.22	8.11	7.88	7.91	8.17	7.97	7.96	7.76	7.27
MW-5																							
MW-6D	7.8	7.8	8.2	8.2	8	8.6	8.5	8	8.1	8.4	8.11	8.48	7.8	7.93	8.13	8.03	7.72	8.15	7.65	7.97	7.58	7.91	7.57
MW-4SR																							
MW-4D	7.4	7.9	8.2	8.2	7.9	8.4	8.5	8.1	8	8.2	8.33	8.49	8.17	8.29	8.2	8.1	7.78	7.87	8.07	7.81	7.57	7.87	7.17
MW-3																							
MW-3D																							
MW-6																							

Fig #6

	Mar-05	Aug-05	Mar-06	Aug-06	Mar-07	July-07	Mar-08	Aug-08	Mar-09	Aug-09	Mar-10	July-10	Apr-11	Aug-11	Mar-12	Aug-12	Apr-13	July-13	Apr-14	Aug-14	Mar-15	July-15
MW-1D	7.63	7.38	7.47										no more	no more	no more	no more	no more	no more	no more	no more	no more	no more
P-6D	7.95	7.54	7.63										no more	no more	no more	no more	no more	no more	no more	no more	no more	no more
MW-3DR	8.02	7.73	7.91										no more	no more	no more	no more	no more	no more	no more	no more	no more	no more
MW-5													no more	no more	no more	no more	no more	no more	no more	no more	no more	no more
MW-6D		7.71	7.78	7.73	8.2	7.91	7.51	7.84	8.04	7.83	7.92	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
MW-4SR				6.8	7.78	6.85	6.61	6.62	6.58	6.47	6.61	7.1	7.43	8.27	7.81	7.88	8.08	7.81	7.37	7.99	7.81	7.43
MW-4D	8.1	7.73	7.81	7.67	8.21	7.92	8.19	7.67	8.05	7.79	7.98	7.83	7.32	8.07	7.74	7.91	8.17	7.91	7.37	7.78	7.14	7.19
MW-3			new sample locat.																			
MW-3D				8.01	8.21	8.14	8.17	7.98	8.2	7.79	8.14	8.01	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
MW-6				6.43	7.27		6.78	6.44	6.57	7.11	6.53	6.97	6.89	7.01	6.69	6.51	7.33	6.65	6.39	6.63	6.71	6.65

Palmer L/F: "pH"

Fig*6



(A) MW-1D (A) P-6D (A) MW-3DR (A) MW-5 (A) MW-6D (B) MW-4SR (B) MW-4D (B) MW-3 (B) MW-3D (B) MW-6
 ALWAYS DRY
 Axis Title
 (A) NO Longer SAMPLED (B) TREND Acidic?
 USUALLY DRY

Dimeqwf.

PALMER ST L/F, MOENCH COMPANY																							
"PH" vs TIME								FIG.#6															
MONITOR POINTS & BANK SEEPS																							
	Jan-90	Apr-90	Jul-90	Oct-90	Jan-91	May-91	Jul-91	Oct-91	Jan-92	May-92	Jul-92	Oct-92	Feb-93	May-93	Jul-93	Nov-93	Mar-94	Jun-94	Sep-94	Dec-94	Mar-95	Jun-95	Sep-95
P-6B																							
MW-7D	7.7	7.8	7.9	8	7.5	7.8	7.8	7.8	7.8	8.2	8.2	7.9	7.8	8.3	7.8	8.3	7.1	7.1	7	7	7.1	7.1	7.2
MW-8D	10	9.2	9	9.5	9	9.3	9.1	8.6	8.8	8.7	8.8	8.6	8.8	8.6	8.1								
BS-1	7.1	7.3	6.7	6.8	7.4	7			8.5	7.7	7.6	7.8	8.1	7.5									
BS-3	7	7.9	7.1	7.3	7.1	7.3			7.9	7.6	7.2	7.1	7.4	7.1	7.8								
BS-2																	7.9	7.3	6.8	6.8	6.9	6.7	6.9

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Fig. #6

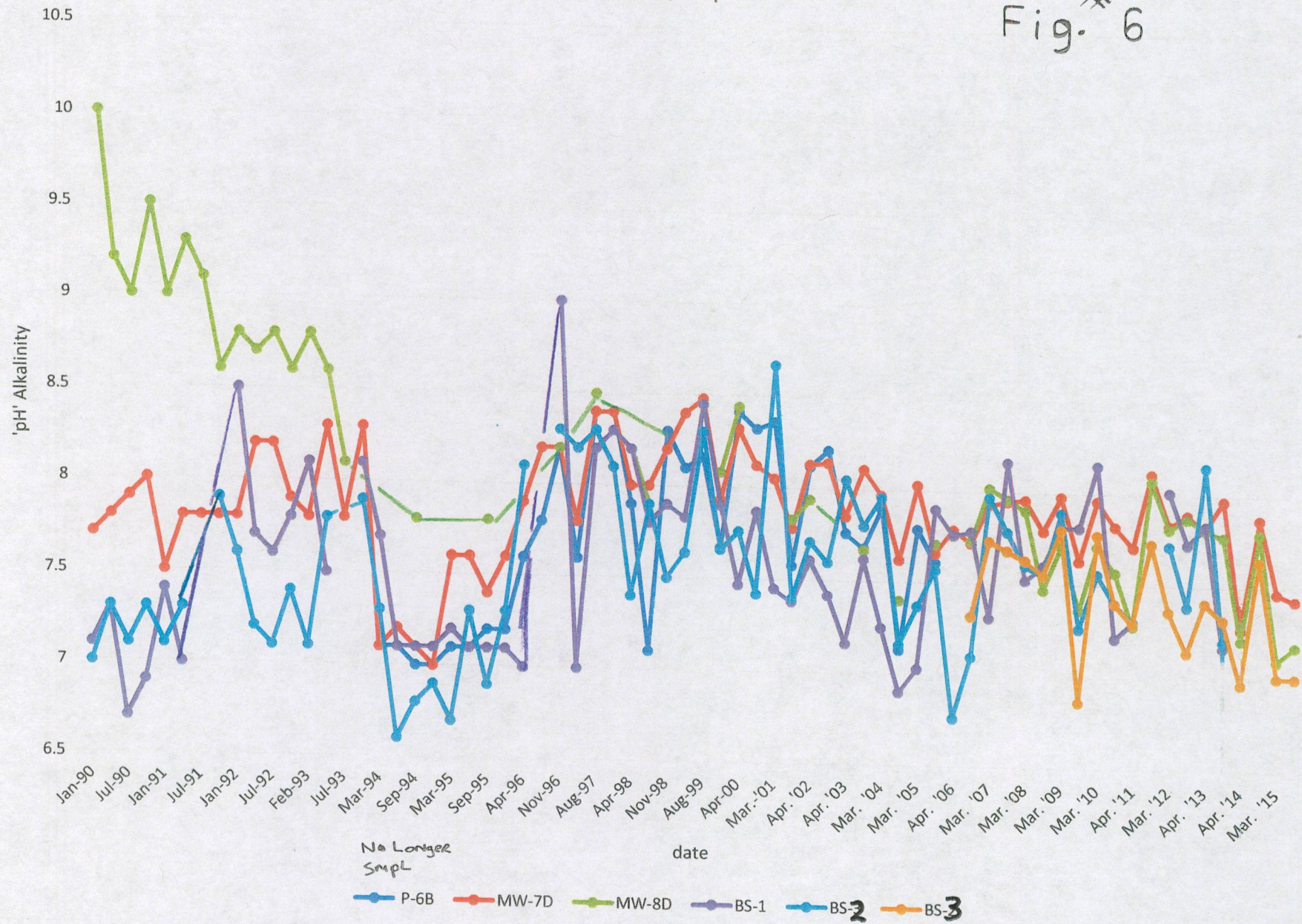
												Figure #6											
	Mar. '05	Aug. '05	Apr. '06	Aug. '06	Mar. '07	Aug. '07	Mar. '08	Aug. '08	Mar. '09	Aug. '09	Mar. '10	July '10	Apr. '11	Aug. '11	Mar. '12	Aug. '12	Apr. '13	July '13	Apr. '14	Aug. '14	Mar. '15	July '15	
P-6B	7.79	7.61									no longer												
MW-7D	8.03	7.66	7.79	7.72	7.93	7.95	7.96	7.79	7.88	7.83	7.96	7.82	7.71	8.11	7.83	7.89	7.81	7.97	7.27	7.87	7.47	7.43	
MW-8D		7.71		7.73	8.02	7.96	7.9	7.47	7.71	7.36	7.71	7.57	7.28	8.07	7.81	7.87	7.81	7.77	7.21	7.79	7.1	7.18	
BS-1	7.03	7.9	7.78	7.78	7.31	8.16	7.52	7.6	7.81	7.81	8.15	7.21	7.3		8.01	7.73	7.83	7.17	no smpl	no smpl	no smpl	no smpl	
BS-3	7.37	7.57	6.76	7.1	7.97	7.78	7.6	7.55	7.89	7.26	7.58	7.4	7.3		7.72	7.39	8.15	7.2	no smpl	no smpl	no smpl	no smpl	
BS-2				7.32	7.73	7.68	7.63	7.55	7.8	6.86	7.77	7.4	7.29	7.73	7.36	7.14	7.41	7.32	6.97	7.64	7.01	7.01	
											Bank Sec	p samples	often creek samples		if no BS avail.								

Bank Seep p samples often creek samples, if no BS avail.

PLmr 5Ph

Palmer L/F: 'pH'

Fig. 6



Plmr5Ph

PALMER ST L/F; M OENCH CO. SPECIFIC CONDUCTIVITY vs TIME MONITOR WELLS & BANK SEEPS																								
FIGURE#7																								Fig. #7
	Jan-90	Apr-90	Jul-90	Oct-90	Jan-91	May-91	Jul-91	Oct-91	Jan-92	May-92	Jul-92	Oct-92	Feb-93	May-93	Jul-93	Nov-93	Mar-94	Jun-94	Sep-94	Dec-94	Mar-95	Jun-95	Sep-95	
MW-1D	0.6	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1	1	0.8	0.9	0.8	0.8	0.8
P-6B	START94																							
MW-3DR	0.8	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.7	0.6	0.7	0.7	0.6	0.6	0.9	0.4	0.7	0.8	
MW-5	3.8	2.7	1.5	1.7	1.9	5	3	4.2	5.8	4.2	4.1	4.2	4	6.8	3.3	3.7		0.8	0.4	0.8	0.4	0.5	0.5	
MW-6D	5.3	5.4	4.9	3.1	3.5	3.6	3.2	4.9	4.1	3.3	2.8	2.8	2.7	4.3	3.8	3.3								
MW-4D																								
MW-3																								
MW-3D																								
MW-4SR																								

plmrsc1.xlsx.xls

FIG. #7																								
	Dec-95	Apr-96	Aug-96	Nov-96	Apr-97	Aug-97	Nov-97	Apr-98	Aug-98	Nov-98	Apr-99	Aug-99	Nov-99	Apr-00	Sep-00	Mar-'01	Aug-'01	Apr-'02	Aug-'02	Apr-'03	Aug-'03	Mar-'04	Aug-'04	
MW-1D	0.8	1	0.8	0.9	0.9	0.9	1	0.7	0.6	1.1	0.62	0.9	0.9	0.8	0.81	0.79	0.68	0.82	0.71	0.8	0.74	0.74	0.81	
P-6B	0.6	0.4	0.5	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.7	0.6	0.44	0.48	0.48	0.44	0.89	0.5	0.58	0.44	0.71	
MW-3DR	0.5	0.5	0.5	0.6	0.6	0.5	0.7	0.5	0.5	0.6	0.53	0.6	0.6	0.4	0.42	0.41	0.57	0.5	0.49	0.52	0.54	0.48	0.48	
MW-5																								
MW-6D	0.9	1	1.1	1	1.2	1	1.9	1.2	0.9	1.1	0.9	0.8	1	1.25	1.1	1.1	0.77	1.1	0.8	0.85	1	1	0.95	
MW-4D	0.7	0.8	0.7	0.9	0.8	0.7	0.6	0.7	0.8	0.7	0.7	0.6	0.6	0.8	0.57	0.63	0.58	0.61	0.6	0.56	0.62	0.58	0.64	
MW-3																								
MW-3D																								
MW-4SR																								

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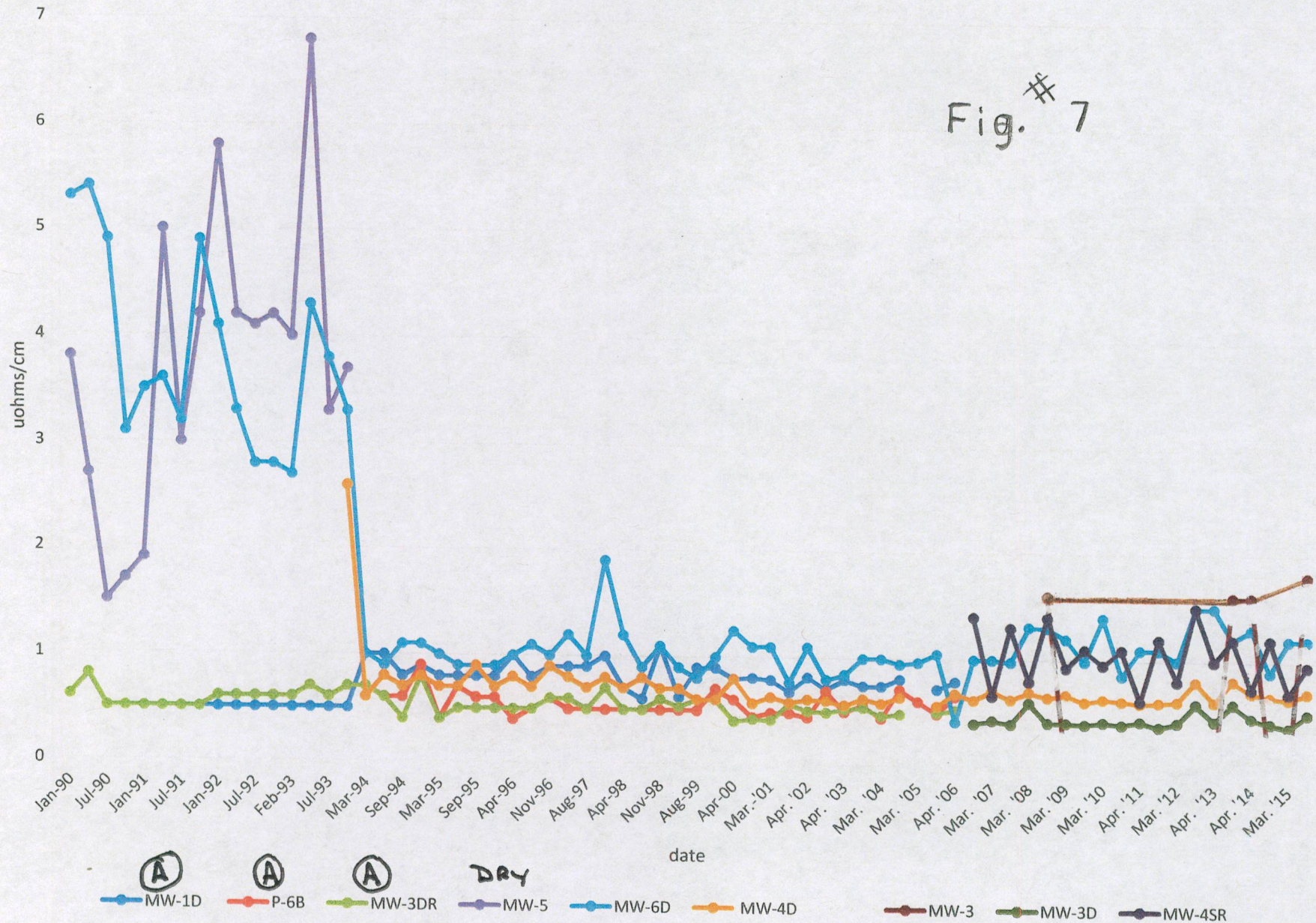
Fig. 7

					Fig. #7																			
	Mar. '05	Aug. '05	Apr. '06	Aug. '06	Mar. '07	Aug. '07	Mar. '08	Aug. '08	Mar. '09	Aug. '09	Mar. '10	July '10	Apr. '11	Aug. '11	Mar. '12	Aug. '12	Apr. '13	July '13	Apr. '14	Aug. '14	Mar. '15	July '15		
MW-1D		0.72	0.79																					
P-6B	0.6	0.49	0.65														no more	no more	no more	no more	no more	no more	no more	
MW-3DR		0.5	0.52														no more	no more	no more	no more	no more	no more	no more	
MW-5																	no more	no more	no more	no more	no more	no more	no more	
MW-6D	0.97	1.05	0.41	1	1	0.88	1.31	1.3			dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	
MW-4D		0.56	0.68	0.62	0.71	0.63	0.7	0.65	0.68	0.61	0.64	0.62	0.6	0.61	0.62	0.81	0.62	0.82	0.71	0.67	0.65	0.71		
		New Sample points																						
MW-3									1.8	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	
MW-3D				0.4	0.43	0.4	0.6	0.41	0.41	0.4	0.42	0.4	0.43	0.38	0.42	0.6	0.44	0.6	0.47	0.42	0.38	0.51		
MW-4SR				1.4	0.66	1.3	0.8	1.4	0.93	1.1	0.96	1.1	0.62	1.2	0.61	1.5	1	1.2	0.74	1.2	0.7	0.96		

Plmrsc1

Palmer L/F: Spec. Conduct.

Fig. # 7



A MW-1D
 A P-6B
 A MW-3DR
 DRY MW-5
 MW-6D
 MW-4D
 MW-3
 MW-3D
 MW-4SR

A No Longer Sampled

OFTEN
DRY

Plmrsc1

PALMER ST. LANDFILL, MOENCH COMPANY																							
FIGURE # 7		SPECIFIC CONDUCTIVITY vs TIME		(umhos/CM)(THOUSANDS)																			
		MONITOR WELLS & BANK SEEPS																					
	Jan-90	Apr-90	Jul-90	Oct-90	Jan-91	May-91	Jul-91	Oct-91	Jan-92	May-92	Jul-92	Oct-92	Feb-93	May-93	Jul-93	Nov-93	Mar-94	Jun-94	Sep-94	Dec-94	Mar-95	Jun-95	Sep-95
P-6D	STRT-94																						
MW-7D	1	1	0.7	0.8	0.5	0.7	0.8	0.7	0.5	0.8	0.8	0.8	0.6	0.7	0.8	0.7	0.8	0.7	0.8	0.8	0.5	0.8	0.8
MW-8D	0.5	0.8	0.3	0.3	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.7	0.7	0.7	0.7	1	0.5	0.5	0.5
BS-1	2.7	2.8	3	2.9	1	1.8		1.3	1.3	1.3	0.8	0.8	0.8	0.5									0.3
BS-2	2.8	2.9	1.8	1.8	1	1.8		1.1	0.9	0.9	1.1	0.5	0.5	0.7		0.8	0.7	0.8		0.8	1.1	0.7	1
BS-3																0.7	0.8	1	0.8	0.9	1.2	0.5	1.4

plmr2sc.xlsx.xls

FIGURE #																							
	Dec-95	Apr-98	Aug-98	Nov-98	Apr-97	Aug-97	Nov-97	Apr-98	Aug-98	Nov-98	Apr-99	Aug-99	Nov-99	Apr-00	Sep-00	Mar-'01	Aug-'01	Apr-'02	Aug-'02	Apr-'03	Aug-'03	Mar-'04	Aug-'04
P-6D	0.4	0.8	0.8	0.7	0.8	0.8	0.8	0.8	0.5	0.7	0.6	0.5	0.57	0.7	0.58	0.85	0.52	0.48	0.72	0.82	0.54	0.3	0.58
MW-7D	0.6	0.8	0.8	0.7	0.7	0.8	0.7	0.6	0.7	0.7	0.62	0.81	0.59	0.7	0.8	0.65	0.58	0.79	0.59	0.68	0.78	0.72	0.72
MW-8D				0.3		0.3			0.5				0.53	0.4			0.4	0.44			0.36		0.54
BS-1		1	0.7	0.3	1.5	0.5	0.5	0.5	0.8	0.7	0.9	0.82	0.8	1.05	0.52	1.05	0.39	1.1	0.42	0.9	0.54	1.1	0.7
BS-2	0.5	0.2	0.5	0.5	0.5	0.8	0.8	0.8	0.4	1.1	0.8	0.58	0.58	0.8	1.1	0.39	1.6	1.2	0.32	0.44	0.24	0.52	0.62

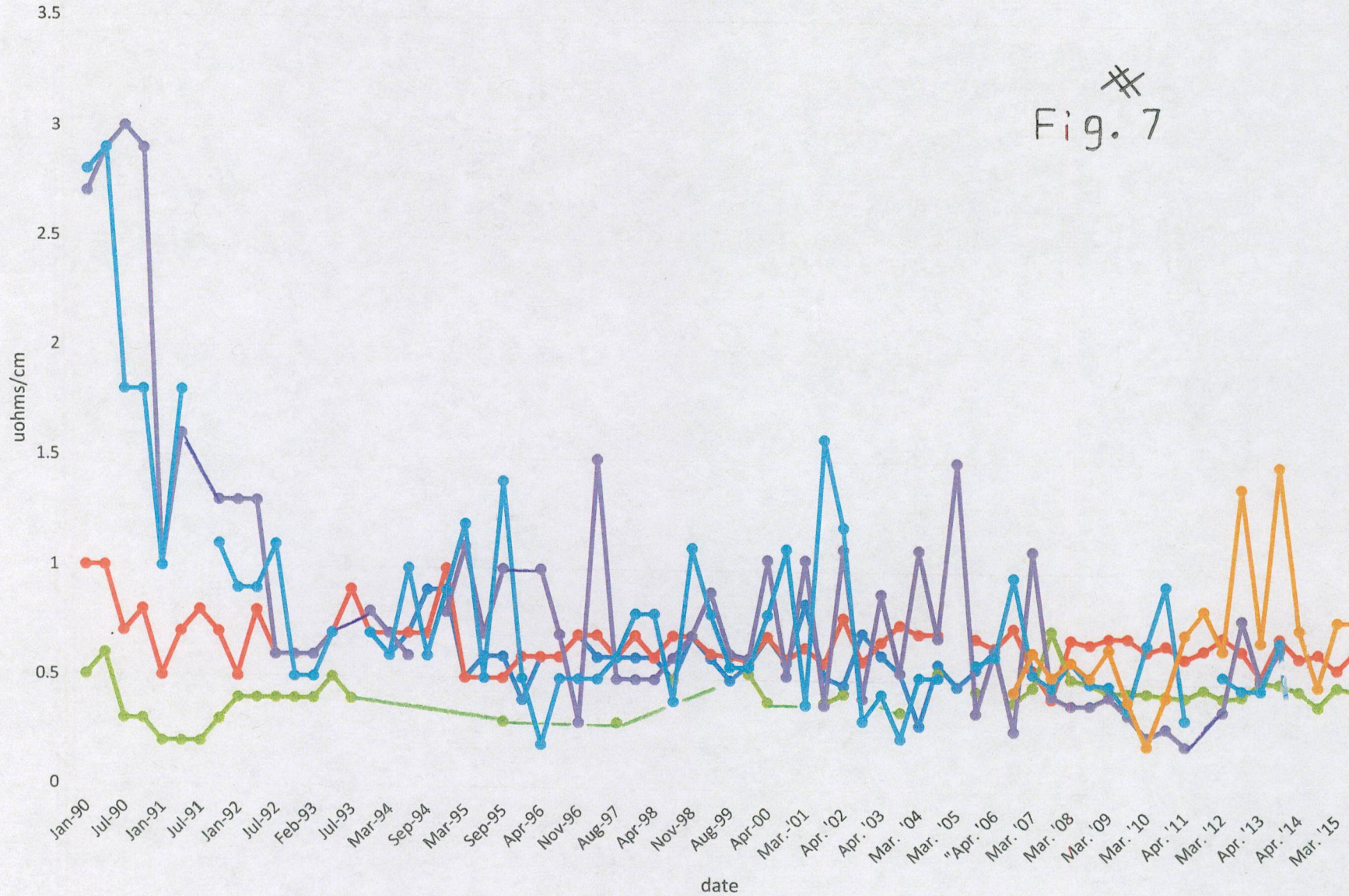
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Fig # 7

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PLmr2sc

Palmer L/F: Spec. Conduct.



P-6D MW-7D MW-8D BS-1 BS-2 BS-3

No
Longer
Smpl

No seep

Plmr2sc

Fig. 7

43 RATE OF CONTAMINANT MIGRATION

Contaminant migration and potential environmental impacts for the Palmer Street Landfill are discussed in detail in the report entitled "Palmer Street Landfill - Evaluation of Alternative Cover Systems" prepared by Malcolm Pirnie, Inc., January 1989 (Reference 7). As described in the above-mentioned report, groundwater migrates from the landfill through the shallow water-bearing zone along both the eastern and northern boundaries of the waste/fill area. A reasonable assumption in determining the rate of contaminant migration across the site is the rate of contaminant migration is equivalent to the rate at which groundwater leaves the site. This latter calculation can be performed through the application of Darcy's Law which is expressed as:

$$V = \frac{ki}{\theta}$$

where: V = velocity of shallow groundwater flow (feet/day)
k = hydraulic conductivity of the shallow water bearing zone (feet/day)
i = hydraulic gradient (dimensionless)
 θ = average porosity of the shallow water bearing zone (dimensionless)

Values for k and θ were previously determined (see Reference 2) as 4.1 ft/day and 0.35, respectively. The hydraulic gradient (i) is measured perpendicular to the primary direction of groundwater flow (viz., to the east toward Cattaraugus Creek - see Section 5.0) using average water level elevations as measured in MW-1 and MW-3 and elevation as measured in MW-2A and MW-5 during the 1993 monitoring year. The hydraulic gradient for MW-1 and MW-3 is thus:

$$\frac{\Delta H}{\Delta X} = \frac{26.3}{600} = 0.044$$

where

ΔH = difference in average groundwater elevations between MW-1 and MW-3 (feet)
 ΔX = distance between MW-1 and MW-3 (feet)

Upon inserting this value into the Darcy's Law expression for velocity, the following result is obtained:

1.4

$$V = \frac{K}{\theta} \frac{(4.1)(0.044)}{0.35} = 0.52 \text{ ft/day}$$

Thus, the rate of contaminant migration across the site is approximately 0.52 feet/day between monitoring wells MW-1 and MW-3.

The hydraulic gradient for MW-2A and MW-5 is as follows:

$$\frac{\Delta H}{\Delta X} = \frac{24.5}{1085} = 0.022$$

ΔH = difference in average groundwater elevations between MW-2A and MW-5 (feet)

ΔX = distance between MW-2A and MW-5 (feet)

$$V = \frac{K}{\theta} \frac{(4.1)(0.022)}{0.35} = 0.26 \text{ ft/day}$$

The rate of contaminant migration across the site is approximately 0.26 ft/day between monitoring wells MW-2A and MW-5.

ATTACHMENT C

SOLUBLE METALS CONCENTRATION VS. TIME

MONITORING EVENTS: Apr. 2015
July 2015

PALMER ST. LANDFILL; MOENCH COMPANY															
MW-3 SOLUBLE METALS vs. TIN/IME*** SCREENED IN WASTE***															
ATTACHMENT C1															
	12/84	10/85	5/86	9/87	9/88	9/89	10/90	10/91	10/92	11/93	9/94	9/98	9/03	8/06	3/07
Arsenic (soluble)	0.005	0.005	0.003	0.005	0.012	0.01	0.005	0.02	0.02	0.007	0.008	0.01	0.02	dry	dry
Chrome (soluble)	0.013	0.014	0.01	0.005	0.012	0.01	0.05	0.01	0.008	0.006	0.009	0.01	0.008	dry	dry
Lead	0.005	0.005	0.01	0.005	0.005	0.005	0.005	0.01	0.005	0.008	0.005	0.01	0.02	dry	dry

Attach: C1

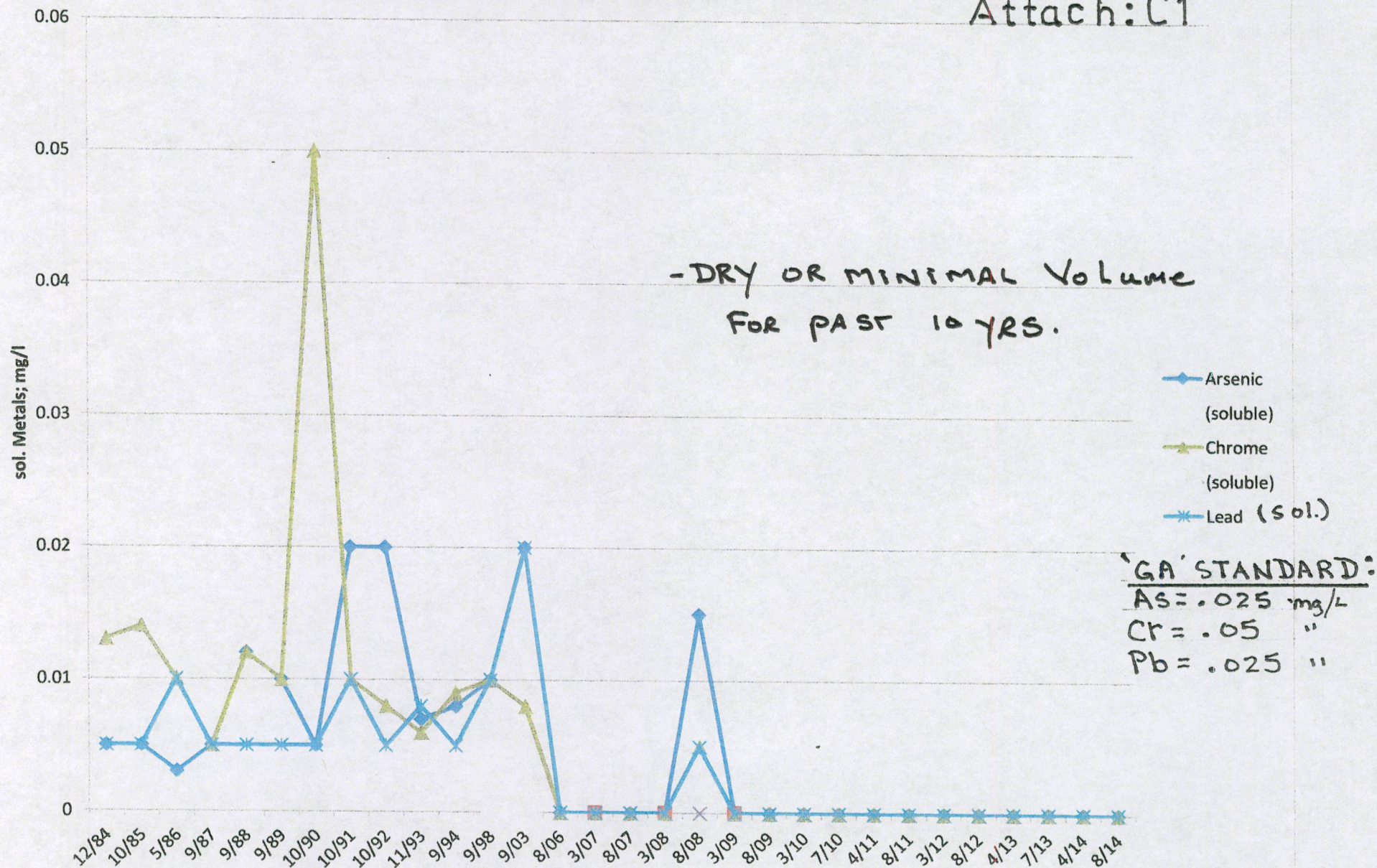
	8/07	3/08	8/08	3/09	8/09	3/10	7/10	4/11	8/11	3/12	8/12	4/13	7/13	4/14	8/14
Arsenic (soluble)	dry	dry	0.015	dry	dry	dry	dry	dry	dry	dry	dry	dry	<.005	<.005	dry
Chrome (soluble)	dry	dry	0.005	dry	dry	dry	dry	dry	dry	dry	dry	dry	<.005	<.005	dry
Lead	dry	dry	0.005	dry	dry	dry	dry	dry	dry	dry	dry	dry	<.005	<.005	dry

Dry or inadequate vol. past ¹⁰ ~~8~~ yrs.

Plmr. MTL-MW3

Palmer L/Fill; MW3; sol. Metals

Attach: C1



PALMER ST. LANDFILL; MOENCH COMPANY															
MW-3D, SOLUBLE METALS; (BEDROCK, IN WASTE)															
ATTACHMENT-C1															
	9/87	9/88	7/90	7/91	7/92	7/93	8/06	3/07	8/07	3/08	8/08	3/09	8/09	3/10	7/10
Arsenic (soluble)	0.005	0.007	0.005	0.005	0.007	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	0.009	<.005
Chrome (soluble)	0.005	0.005	0.005	0.005	0.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005
Lead	0.005	0.005	0.005	0.005	0.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005

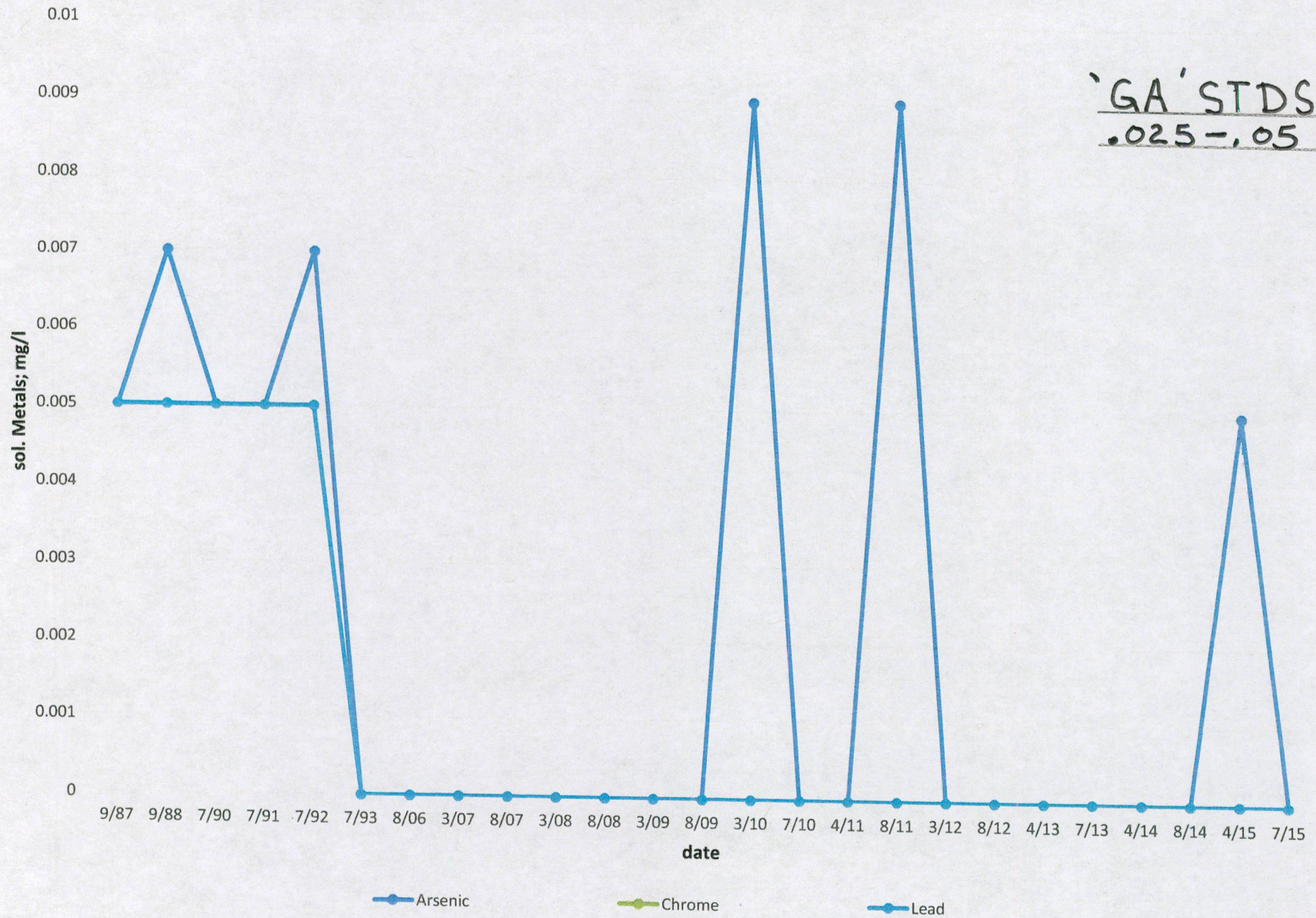
attach: C1

	4/11	8/11	3/12	8/12	4/13	7/13	4/14	8/14	4/15	7/15
Arsenic (soluble)	<.005	0.009	<.005	<.005	<.0005	<.005	<.005	<.005	0.005	<.005
Chrome (soluble)	<.005	<.005	<.005	<.005	<.0005	<.005	<.005	<.005	<.005	<.005
Lead	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005

MDL=.005 mg/l

Palmer L/fill; MW3D; sol. Metals; bedrock in waste

'GA' STDS:
.025-.05 mg/L



PALMER ST. LANDFILL; MOENCH COMPANY																		
MW-4SR SOLUBLE METALS; ***SCREENED IN WASTE***																		
	12/84	4/85	5/86	9/87	10/88	9/89	10/90	7/91	11/93	9/94	8/98	9/98	5/03	8/06	3/07	8/07	3/08	8/08
Arsenic (soluble)	0.006	0.007	0.003	0.014	0.018	0.01	0.016	0.01	0.008	0.01	0.01	0.017	0.01	<.005	<.005	<.005	<.005	<.005
Chrome (soluble)	0.006	0.015	0.03	0.019	0.025	0.02	0.06	0.027	0.009	0.028	0.042	0.029	0.014	0.014	<.005	0.012	0.007	0.015
Lead	0.005	0.005	0.01	0.005	0.005	0.005	0.005	0.01	0.005	0.005	0.005	0.005	0.01	<.005	<.005	<.005	<.005	<.005

Screened in waste

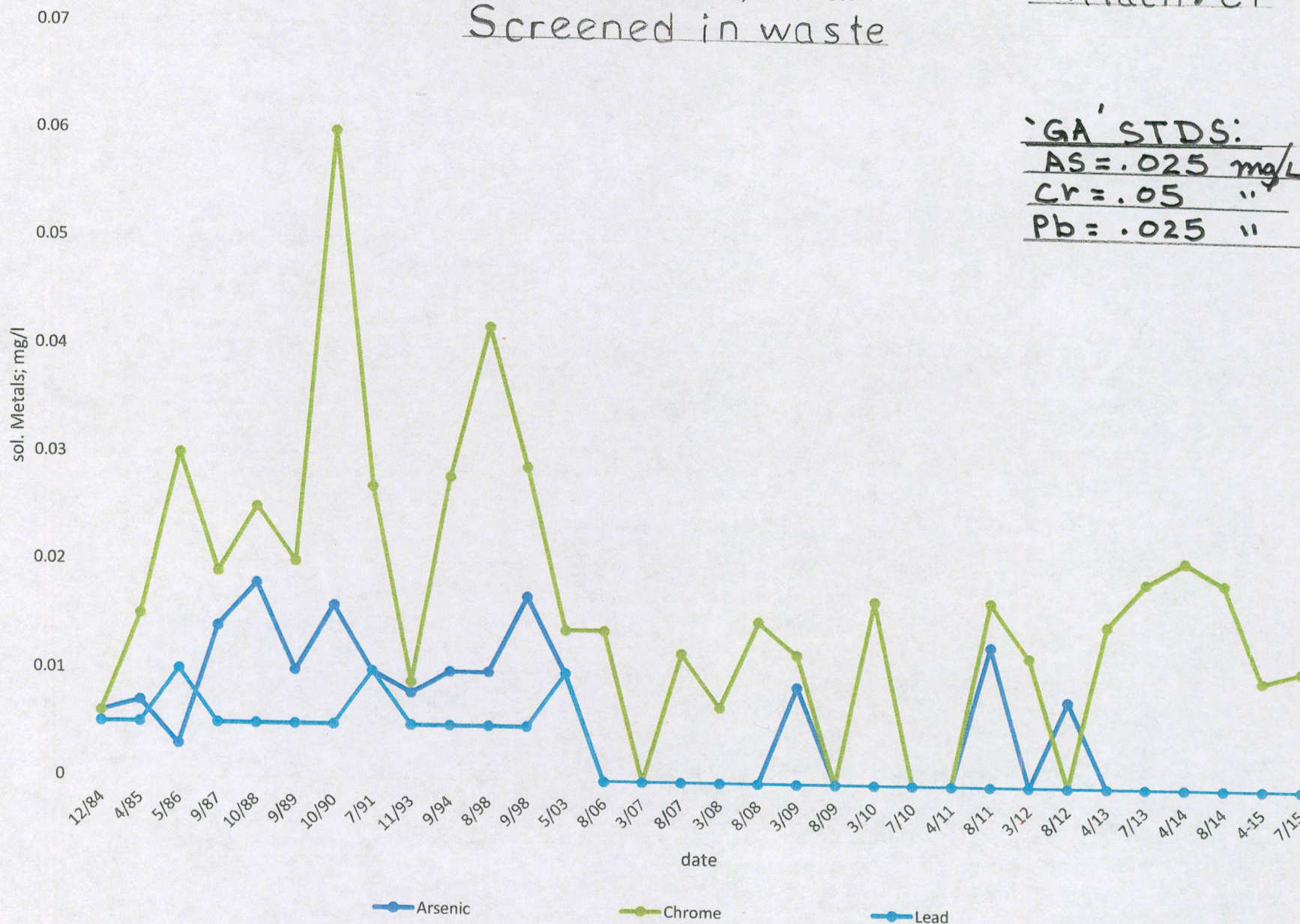
Attach: C1

	3/09	8/09	3/10	7/10	4/11	8/11	3/12	8/12	4/13	7/13	4/14	8/14	4-15	7/15
Arsenic (soluble)	0.009	<.005	<.005	<.005	<.005	0.013	<.005	0.008	<.005	<.005	<.005	<.005	<.005	<.005
Chrome (soluble)	0.012	<.005	0.017	<.005	<.005	0.017	0.012	<.005	0.015	0.019	0.021	0.019	0.01	0.011
Lead	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005

Palmer I/fill; sol. Metals; MW-4SR
Screened in waste

Attach: C1

'GA' STDS:
AS = .025 mg/L
Cr = .05 "
Pb = .025 "



		PALMER ST L/F, MOENCH COMPANY																											
		MW-4D Soluble Metals, Bedrock.														Dec. '14													
																Attach: C1													

p1m+L1.xlsx.xls

MW-4D Bedrock

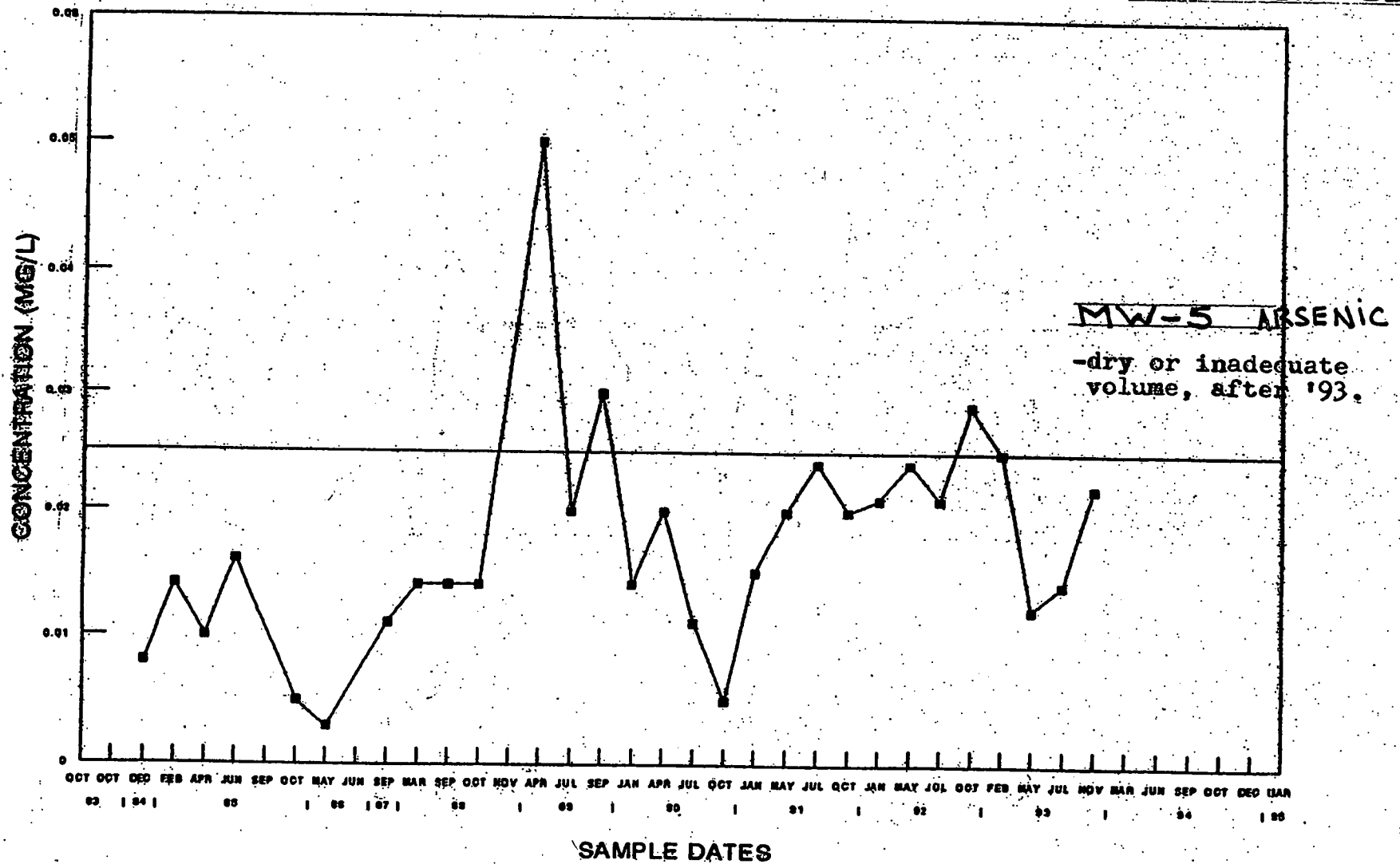
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No graph due to minimal detection; thru 2015.

P1m+L1.xlsx

PALMER STREET LANDFILL
MW-5 SOLUBLE ARSENIC (screened in the waste)

ATTACHMENT C1

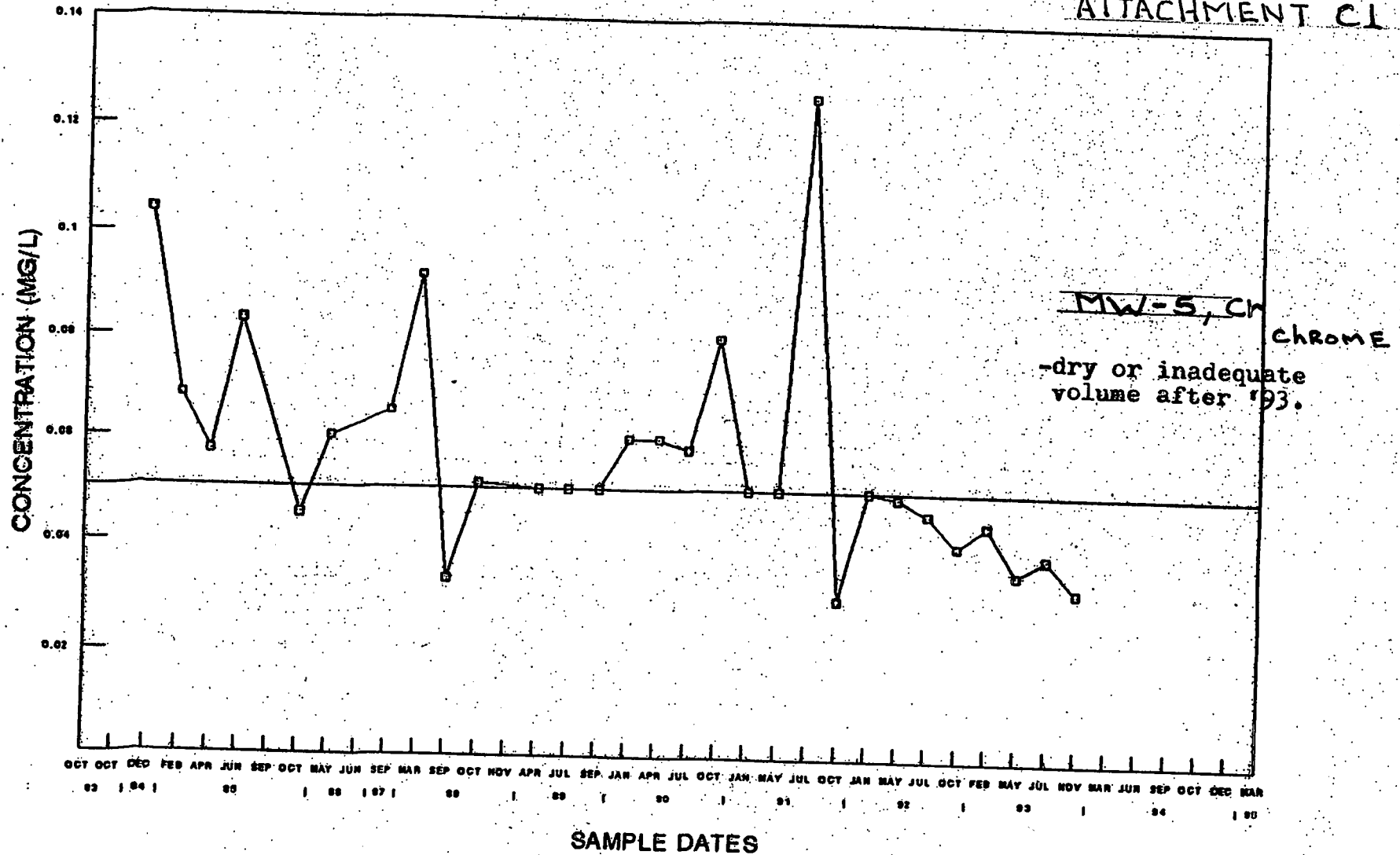


• ARSENIC (SOLUBLE) — NYSDEC STANDARD

NOT ON COMPUTER

PALMER STREET LANDFILL
MW-5 SOLUBLE CHROMIUM (screened in the waste)

ATTACHMENT 'CI'



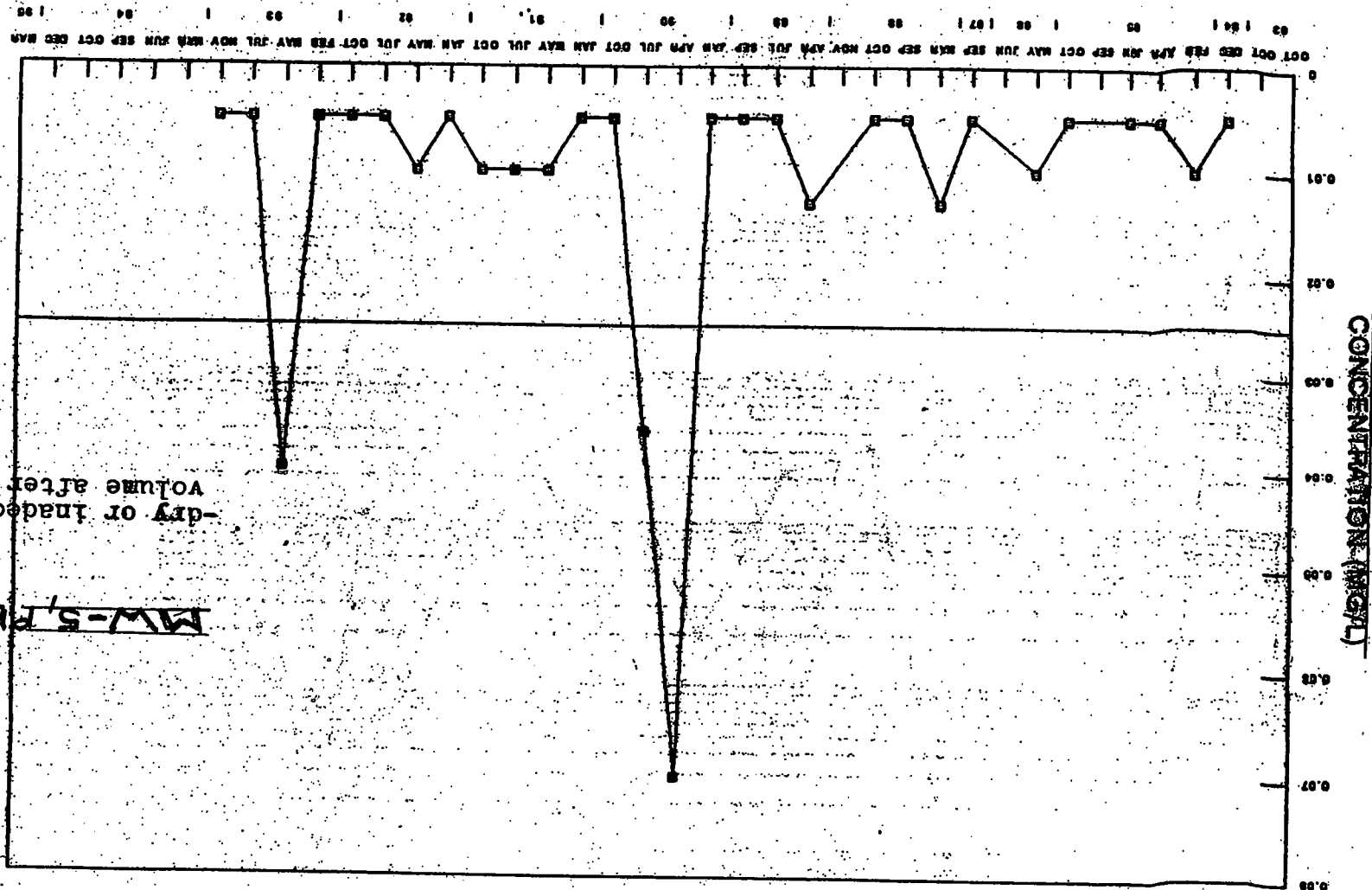
— NYSDEC STANDARD — CHROMIUM (SOLUBLE)

NOT ON COMPUTER

PALMER STREET LANDFILL
MW-5 SOLUBLE LEAD (screened in the waste)

ATTACHMENT C.1

#



LEAD (SOLUBLE) - NYSDEC STANDARD

SAMPLE DATES

CONCENTRATION (MG/L)

-dry or inadequate
volume after 1993.5

MW-5, Pb
LEAD

Not on Comput

PALMER ST. LANDFILL; MOENCH COMPANY															
MW-6 SOLUBLE METAL (SCREENED IN WASTE)															
	2/85	5/86	9/87	9/88	9/89	10/90	10/91	10/92	7/93	10/94	8/98	8/03	8/06	3/07	8/07
Arsenic (soluble)	0.01	0.005	0.02	0.02	0.01	0.01	0.02	0.02	0.01	0.04	0.03	0.005	0.026	0.044	
Chrome (soluble)	0.02	0.01	0.01	0.02	0.01	0.05	0.01	0.01	0.01	0.01	0.03	0.007	0.005	0.005	dry
Lead (soluble)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.005	0.005	0.005	dry

	3/08	8/08	3/09	8/09	3/10	7/10	4/11	8/11	3/12	8/12	4/13	7/13	4/14	8/14	4/15
Arsenic (soluble)	0.014	0.056	0.005	0.066	0.04	0.051	0.005	0.062	0.005	0.039	0.005	0.005	0.007	<.005	<.005
Chrome (soluble)	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	<.005	<.005
Lead (soluble)	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	<.005	<.005

	7/15
Arsenic (soluble)	<.005
Chrome (soluble)	<.005
Lead (soluble)	<.005

Screened in waste

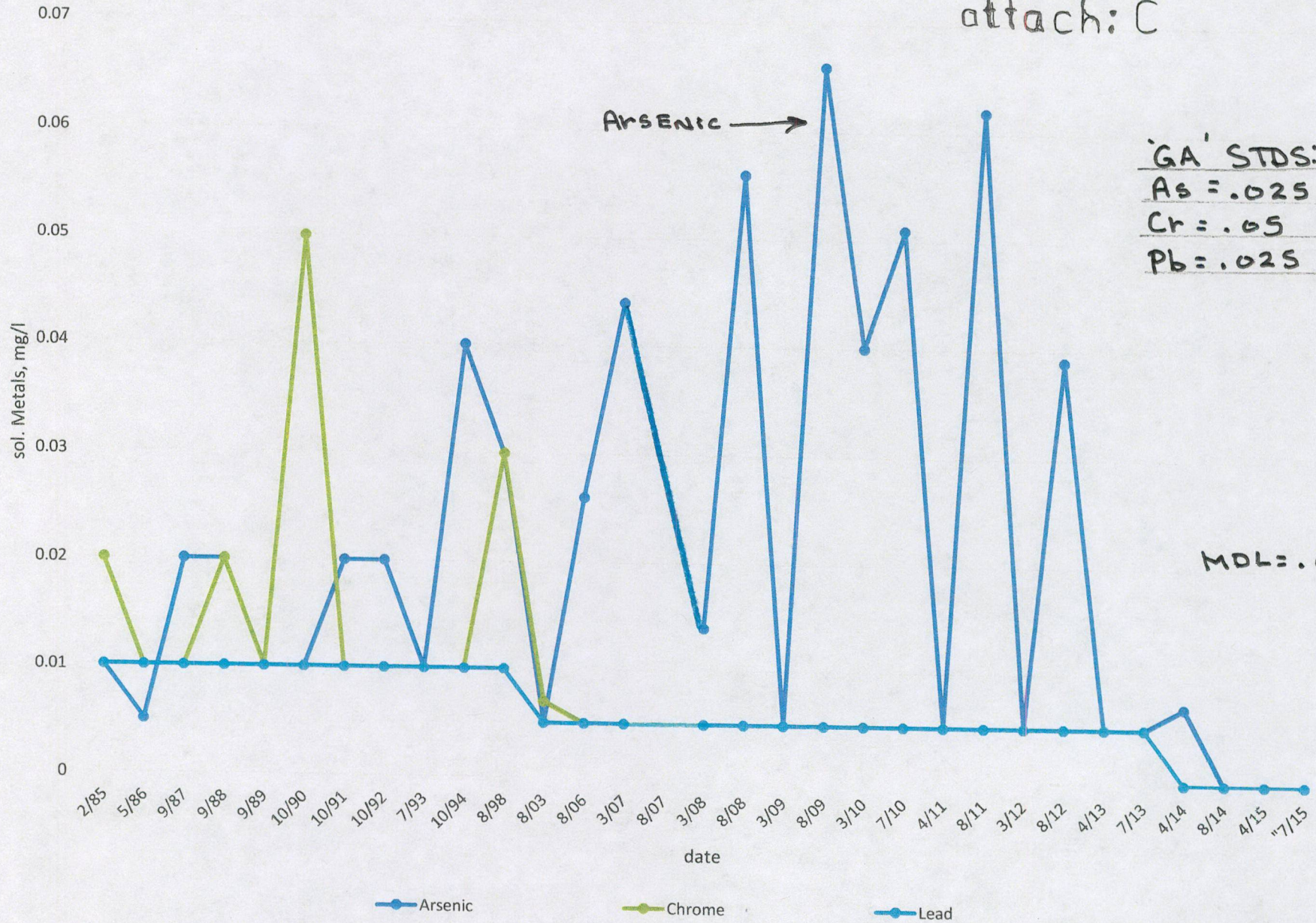
attach: C

Plm r m l m w 6

Palmer L/F; sol. Metals; MW6

attach: C

'GA' STDS:
As = .025 mg/L
Cr = .05 "
Pb = .025 "



			PALMER ST L/F, MOENCH COMPANY																					
			ARSENIC (SOLUBLE) vs TIME (MG/L)																					
	Dec.' 14		MONITOR WELLS & BANK SEEPS																					
													Attachment 'C'											
			Soluble ARSENIC: 6D, 7D, 8D																					
	Sep-87	Mar-88	Sep-88	Oct-88	Nov-88	Apr-89	Jul-89	Sep-89	Jan-90	Apr-90	Jul-90	Oct-90	Jan-91	May-91	Jul-91	Oct-91	Jan-92	May-92	Jul-92	Oct-92	Feb-93			
MW-6D	START94																							
MW-7D	0.005	0.005	0.005	0.005	0.005	0.03	0.01	0.01	0.005	0.005	0.005	0.005	0.005	0.01	0.01	0.01	0.005	0.01	0.005	0.005	0.005			
MW-8D	0.01	0.005	0.005	0.005	0.007	0.05	0.01	0.01	0.005	0.005	0.005	0.005	0.005	0.01	0.01	0.01	0.005	0.01	0.005	0.005	0.005			

		Attachment 'C'																				
	May-93	Jul-93	Nov-93	Mar-94	Jun-94	Oct-94	Dec-94	Mar-95	Jun-95	Sep-95	Dec-95	Apr-96	Aug-96	Nov-96	Apr-97	Aug-97	Nov-97	Apr-98	Aug-98	Nov-98	Apr-99	
MW-6D				<.005	0.007	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	
MW-7D	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	
MW-8D	<.005	<.005			<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	<.01	

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		enic									
		Aug-'09	Mar-'10	July '10	Apr-'11	Aug-'11	Mar-'12	Aug-'12	Apr-'13	July '13	Apr-'14
MW-6D		<.005	<.005	<.005	<.005	0.008	<.005	<.005	<.005	<.005	<.005
MW-7D		<.005	<.005	<.005	<.005	0.005	<.005	<.005	<.005	<.005	<.005
MW-8D		<.005	<.005	0.008	<.005	<.005	<.005	<.005	<.005	<.005	<.005

No graphs due to
minimal detection
past 20 years.

No DETECTION; 2015

			PALMER ST L/F, MOENCH COMPANY																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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SOLUBLE Chrome: 6D, 7D, 8D.

Attachment "C"																					
May-93		Jul-93	Nov-93	Mar-94	Jun-94	Oct-94	Dec-94	Mar-95	Jun-95	Sep-95	Dec-95	Apr-96	Aug-96	Nov-96	Apr-97	Aug-97	Nov-97	Apr-98	Aug-98	Nov-98	Apr-99
MW-6D				<.005	<.01	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.01	<.005	<.01	<.01	<.01	<.01	<.01	<.01	<.01
MW-7D	<.005	<.005	<.005	<.005	<.005	0.025	<.005	<.005	<.005	<.005	<.005	<.005	<.01	<.005	<.01	<.01	<.01	<.01	<.01	<.01	<.01
MW-8D	<.005	<.005				<.005								<.005	<.01	<.01	<.01	<.01	<.01	<.01	<.01

Attachment "C"																					
Aug-99		Nov-99	Apr-00	Sep-00	Mar-'01	Aug-'01	Apr-'02	Aug-'02	Apr-'03	Aug-'03	Mar-'04	Aug-'04	Mar-'05	Aug-'05	Apr-'06	Aug-'06	Mar-'07	Aug-'07	Mar-'08	Aug-'08	Mar-'09
MW-6D	<.01	<.01	<.005	<.005	<.004	<.004	<.004	<.004	<.004	<.004	<.004	<.004	<.004	<.004	<.004	<.004	<.004	<.004	<.004	<.004	<.004
MW-7D	<.01	<.01	<.005	<.005	<.004	<.004	<.004	<.004	<.004	<.004	<.004	<.004	<.004	<.004	<.004	<.004	<.004	<.004	<.004	<.004	<.004
MW-8D	<.01	<.01	<.005			0.005	<.004							<.004	<.004	<.004	<.004	<.004	<.004	<.004	<.004

No graphs; minimal
detections past
20 years.

No DETECTION ; 2015

				PALMER ST. L/F, MOENCH COMPANY LEAD(SOLUBLE) vs TIME (MG/L)																
	Dec. '14			MONITOR WELLS & I																

SOLUBLE LEAD: MW-6D, 7D, 8D

SOLUBLE LEAD: MW-6D, 7D, 8																				
Attachment 'C'																				
	Oct-92	Feb-93	May-93	Jul-93	Nov-93	Mar-94	Jun-94	Oct-94	Dec-94	Mar-95	Jun-95	Sep-95	Dec-95	Apr-96	Aug-96	Nov-96	Apr-97	Aug-97	Nov-97	
MW-6D						<.005	0.013	<.005	<.005	<.005	<.005	<.005	<.005	0.006	<.005	<.005	<.005	<.005	<.005	
MW-7D	0.007	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	0.015	<.005	<.005	0.214	<.005	
MW-8D	<.005	<.005	<.005	<.005			<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005		<.005	<.005		<.005	

				Attachment "C"																
	Apr-98	Aug-98	Nov-98	Apr-99	Aug-99	Nov-99	Apr-00	Sep-00	Mar-'01	Aug-'01	Apr. '02	Aug. '02	Apr. '03	Aug. '03	Mar. '04	Aug. '04	Mar. '05	Aug. '05	Apr. '06	
MW-6D	<.005	<.005	<.005	0.008	<.005	<.005	<.02	<.02	0.027	<.02	<.02	<.02	<.02	<.02	<.02	<.02	<.005	<.005	<.005	
MW-7D	<.005	<.005	<.005	<.005	<.005	<.005	<.02	<.02	<.02	<.02	<.02	<.02	<.02	<.02	<.02	<.02	<.005	<.005	<.005	
MW-8D	<.005	<.005				<.005	<.02	<.02	<.02	<.02	<.02	<.02	<.02	<.02	<.02	<.02	<.005	<.005	<.005	
										<.02	<.02			<.02		<.02		<.005		

NO DETECTION
IN 2015

No graphs: minimal
detection past 20
years.

PLM7

ATTACHMENT "D"

TOTAL VOLATILES vs TIME
(grouped by monitoring point)

MONITORING EVENTS: APRIL 2015
July 2015

PALMER ST. LANDFILL; MOENCH CO.																		
TOTAL VOLATILE ORGANICS										OF RELEVANT: ACETONE, TOLUENE, XYLENE								
MW3, MW4, MW5, MW6; ALL SCREENED U IN WASTE										Dec. 15		(ATTACHMENT "D")						
	10/85	5/86	9/87	10/88	7/90	7/91	7/92	7/93	9/94	8/98	8/03	8/06	3/07	8/07	3/08	8/08	3/09	8/09
MW-3	8.97	<.005	<.005	<.005	<.005	0.011	<.005	<.005	<.005	<.005		0.36	dry	dry	dry			
MW-4/4sr	2.46	<.005	<.005	<.005	<.005	<.005	<.005	<.005	0.586	2.1	0.125	0.293	0.052	0.062	0.021	<.005	<.005	<.005
MW-5	2.02	<.005	<.005	<.005	0.022	<.005	0.019	<.005	<.005	<.005	dry	dry	dry	dry	acetone			
MW-6	4.82	<.005	<.005	<.005	<.005	<.005	0.009	<.005	<.005	<.005	<.005	<.005	0.01	dry		0.05	0.078	0.099
															acetone	acetone	acetone	<.005

ALL WELLS SCREENED IN WASTE.

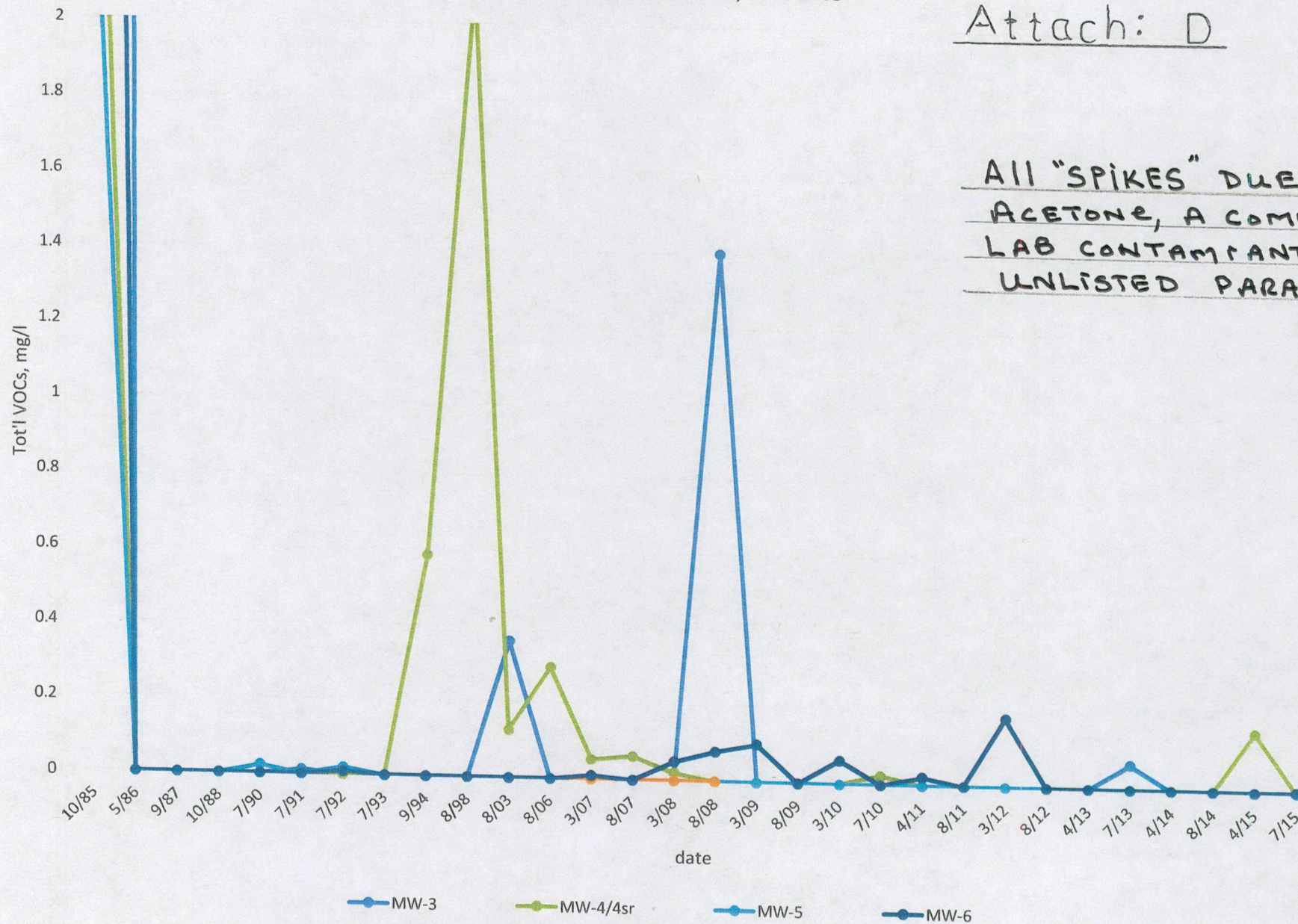
	3/10	7/10	4/11	8/11	3/12	8/12	4/13	7/13	4/14	8/14	4/15	7/15
MW-3	dry	dry	dry	dry	dry	dry	dry	0.065	<.005	dry	dry	<.005
MW-4/4sr	<.005	0.024	<.005	<.005	<.005	<.005	<.005	acetone	<.005	<.005	0.154	<.005
		acetone						<.005	<.005	<.005		
MW-5	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	acetone	dry
MW-6	0.062	<.005	0.022	<.005	0.18	<.005	<.005	<.005	<.005	<.005	<.005	0.002
	acetone		acetone		acetone							

WELLS IN WASTE - TOTAL VOC

Palmer L/F; tot'l VOCs; in waste

Attach: D

All "SPIKES" DUE TO
ACETONE, A COMMON
LAB CONTAMINANT &
UNLISTED PARAMETER.



WELLS IN WASTE, TOTAL VOC

				PALMER ST. LANDFILL; MOENCH COMPANY									
	DEC. '15			TOTAL RELEVANT VOCs; BEDROCK WELLS(acetone, toluene,xylene)									
	9/87	11/88	7/90	7/91	7/92	7/93	8/06	3/07	8/07	3/08	8/08	3/09	8/09
MW-3D	<.005	<.005	<.005	<.007	<.005	<.005	<.005	<.005	<.005	0.021	0.019	<.005	<.005
MW-4D						<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005
										acetone	acetone		

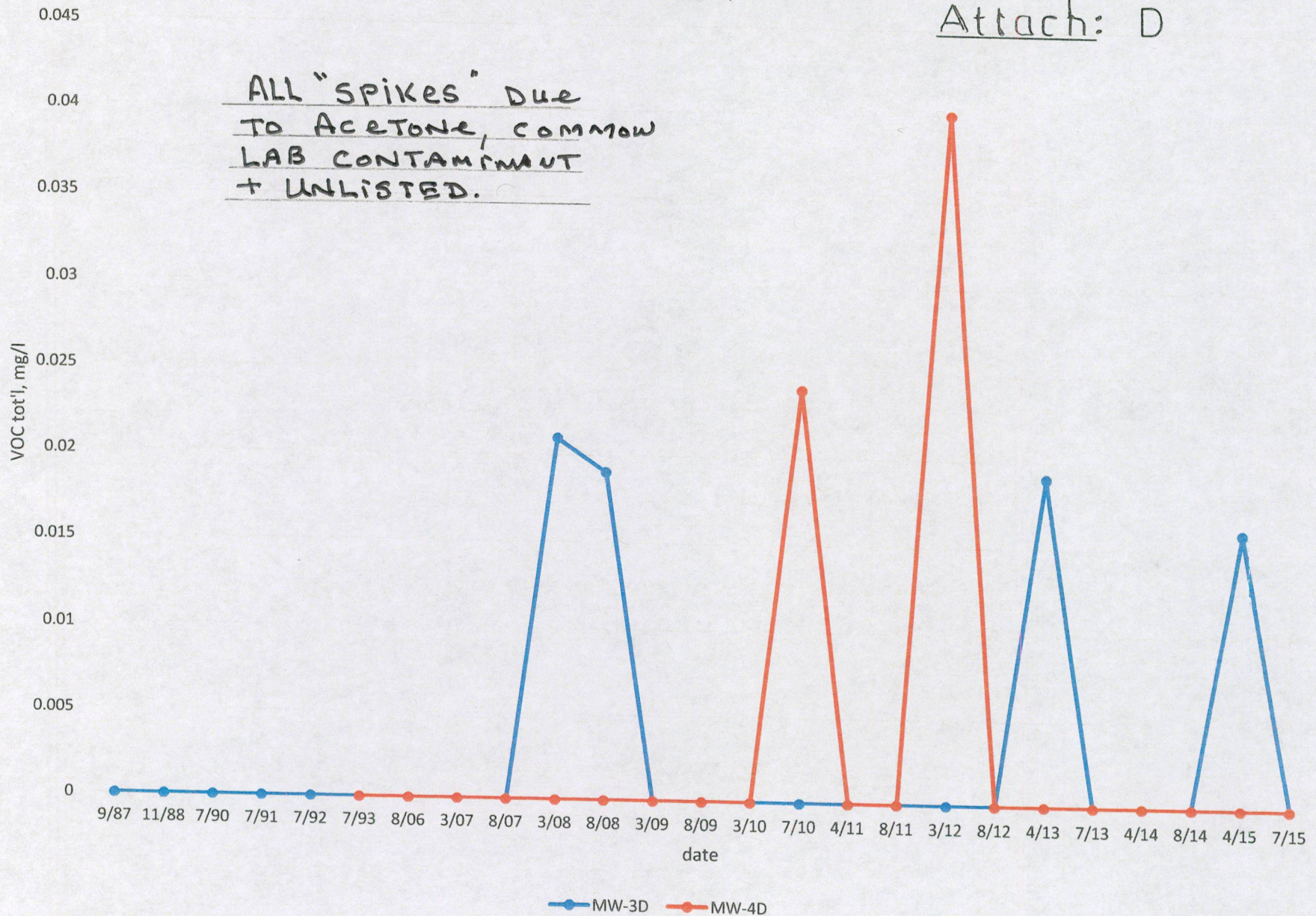
	3/10	7/10	4/11	8/11	3/12	8/12	4/13	7/13	4/14	8/14	4/15	7/15
MW-3D	<.005	<.005	<.005	<.005	<.005	<.005	0.019	<.005	<.005	<.005	0.016	<.005
MW-4D	<.005	0.024	<.005	<.005	0.04	<.005	<.005	<.005	<.005	<.005	<.005	<.005
					acetone		acetone					

Plmr. Voc. BEDROCK

Palmer L/F: Tot'l VOC; Bedrock

Attach: 'D'

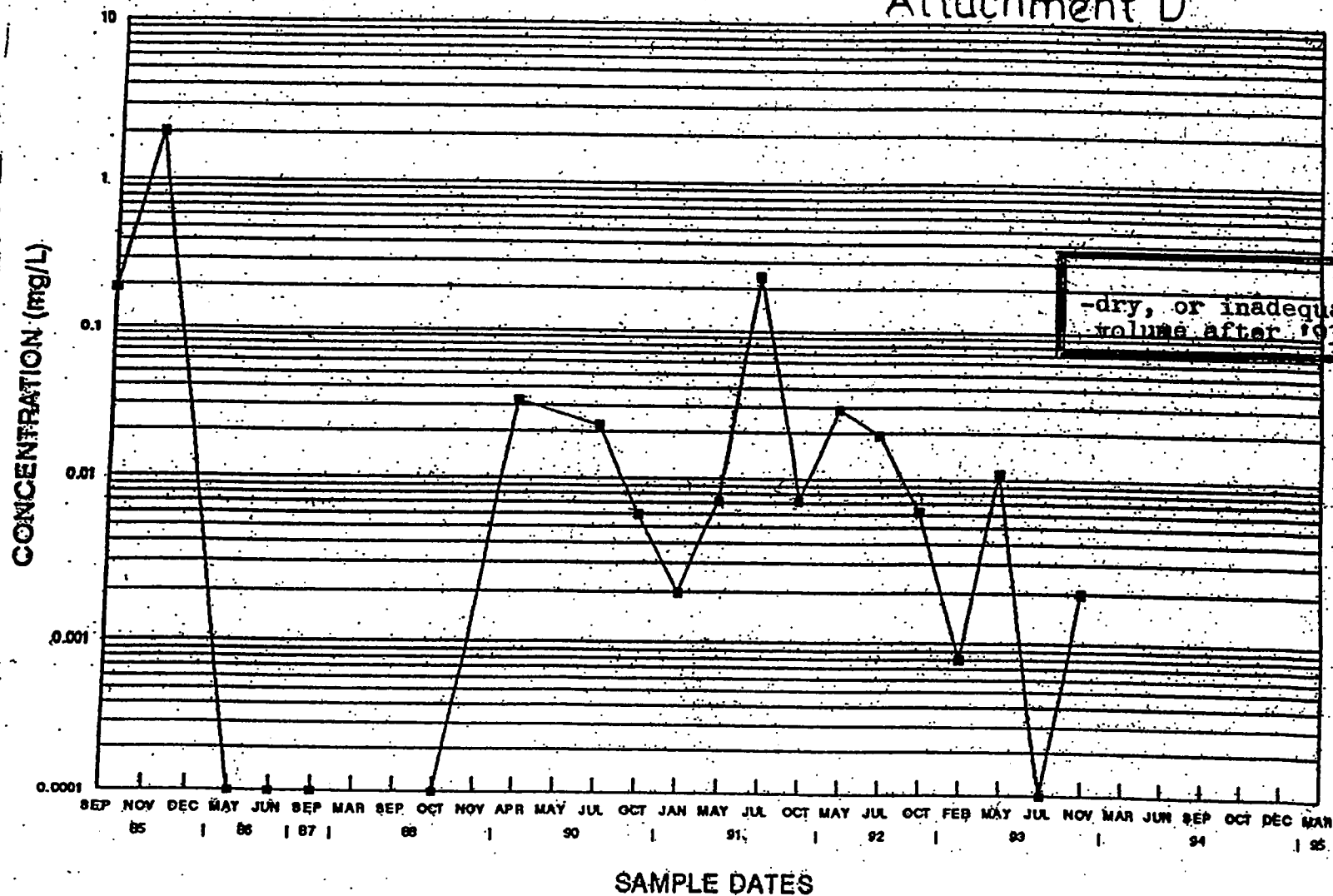
ALL "SPIKES" DUE
TO ACETONE, COMMON
LAB CONTAMINANT
+ UNLISTED.



PLMR.VOC. BEDROCK

PALMER STREET LANDFILL
TOTAL VOLATILE ORGANICS (screened in the waste)
MW-5

Attachment D



PALMER ST. L/F. MOENCH COMPANY																					
TOTAL VOLATILE ORGANICS vs TIME (MG/L)											***relevant VOCs; acetone, toluene, xylene										
MONITOR WELLS &											Attachment 'D'										
	Dec. '15																				
	Sep-87	Mar-88	Sep-88	Oct-88	Nov-88	Apr-89	Jul-89	Sep-89	Jan-90	Apr-90	Jul-90	Oct-90	Jan-91	May-91	Jul-91	Oct-91	Jan-92	May-92	Jul-92	Oct-92	Feb-93
MW-6D	START90									0.2	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005
MW-7D	<.005				<.005					<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005
MW-8D	<.005			0.012						<.005	0.07	<.005	<.005	0.011	<.005			<.005	<.005	<.005	<.005
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	Attachment 'D'																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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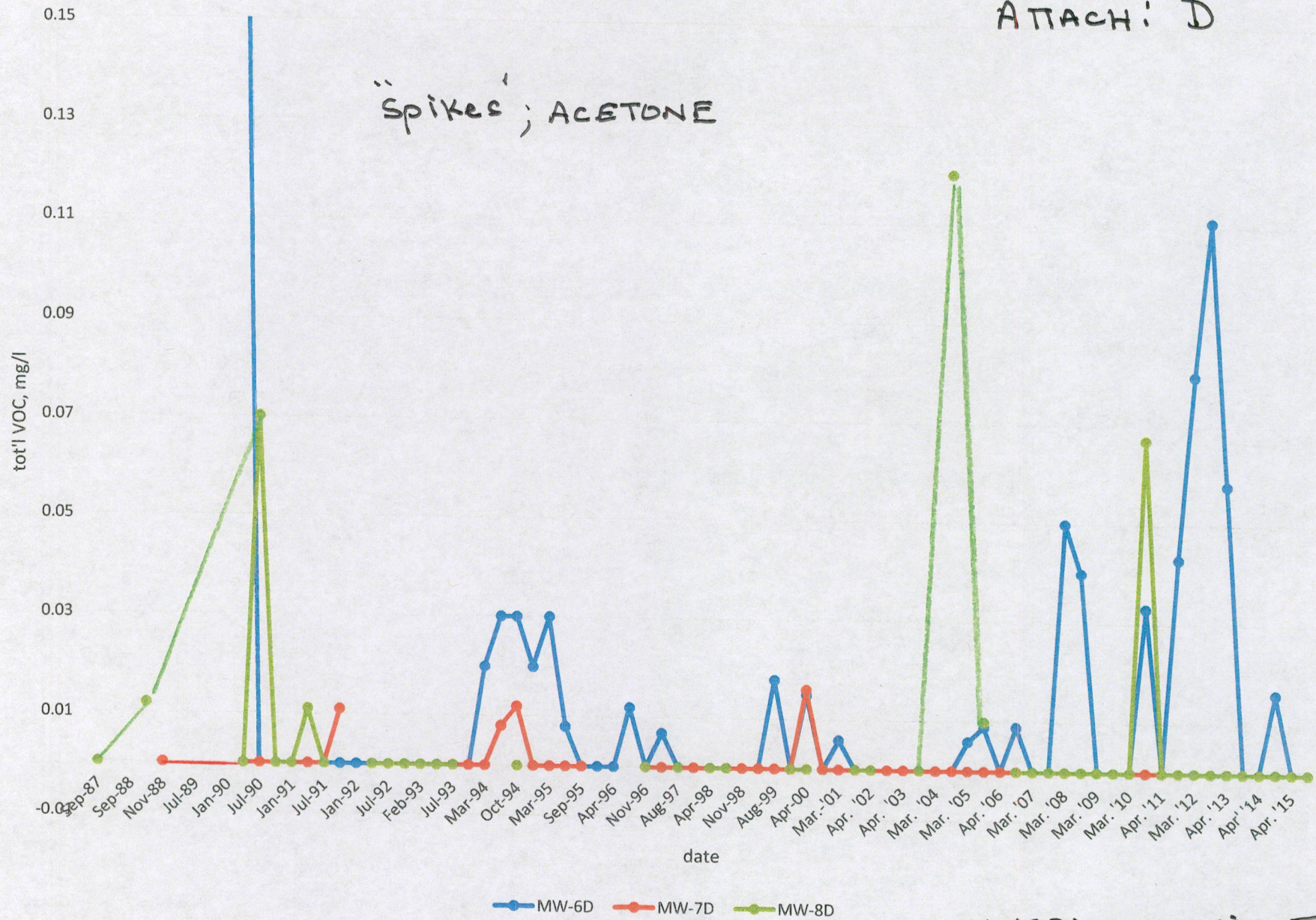
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attachment D														
	Aug.'09	Mar. '10	July '10	Apr. '11	Aug. '11	Mar. '12	Aug. '12	Apr. '13	July '13	Apr. '14	Aug. '14	Apr. '15	July '15	
MW-6D	<.005	<.005	0.033	<.005	0.043	0.08	0.111	0.058	<.005	<.005	0.016	<.005	<.005	
MW-7D	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	
MW-8D	<.005	<.005	0.067	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	
			ace/CS2		acetone	acetone	acetone	acetone			acetone		<.005	

Palmer l/f; tot'l VOC

ATTACH: 'D'

"Spikes"; ACETONE



MW8D; Upgradient

PALMER ST. L/F, MOENCH COMPANY															
TOTAL VOLATILE ORGANICS vs TIME (MG/L)															
BANK SEEPS															
BS-1,2,3															
	Dec. '15														
	Mar-94	Jun-94	Sep-94	Dec-94	Mar-95	Jun-95	Sep-95	Dec-95	Apr-96	Aug-96	Nov-96	Apr-97	Aug-97	Nov-97	Apr-98
BS-1	0.13			0.009	<.005	<.005			<.005	<.005	<.005	<.005	<.005	<.005	<.005
BS-2	(started in 2006)														
BS-3					<.005	<.005			<.005	<.005	<.005	<.005	<.005	<.005	<.005

(Attachment 'D')															
	Aug-98	Nov-98	Apr-99	Aug-99	Nov-99	Apr-00	Sep-00	Mar.-'01	Aug.-'01	Apr. '02	Aug. '02	Apr. '03	Aug. '03	Mar. '04	Aug. '04
BS-1	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005
BS-2															
BS-3	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005	<.005

acetone															
Attachment 'D'															
	Mar. '05	Aug. '05	Apr. '06	Aug. '06	Mar. '07	Aug. '07	Mar. '08	Aug. '08	Mar. '09	Aug. '09	Mar. '10	July '10	Apr. '11	Aug. '11	Mar. '12
BS-1	0.006	<.005 b	<.005 b	<.005 b	<.005 b	<.005 b	<.005 b	<.005 b	<.005 b	<.005 b	<.005 b	<.005 b	<.005	na	ND
BS-2															
BS-3	<.005 b	<.005 b	<.005 b	<.005 b	<.005 b	<.005 b	<.005 b	<.005 b	<.005 b	<.005 b	<.005 b	<.005 b	<.005	na	ND
		Often no Bank seep					0.011	<.005 b	<.005	<.005	<.005	<.005	<.005	<.005	ND

	Aug. '12	Apr. '13	July '13	Apr. '14	Aug. '14	Apr. '15	July '15
BS-1	ND	<.005	<.005	na	na	NA	NA
BS-2	ND	<.005	<.005	na	na	NA	NA
BS-3	ND	<.005	<.005	ND	ND	ND	ND

NO graphs Due TO MINIMAL DETECTION
PAST 20+ YEARS. NO BANK SEEP @ BS1
OR BS3, PAST 3 YRS (NA). ND =
NOW DETECT.

ATTACHMENT "E"

* FIELD MEASUREMENT DATA SHEETS;

SAMPLE EVENTS: Apr. + July 2015

*Individual "field data sheets" were submitted with prior actual sample event reports. Contact Moench if you require them.

ATTACHMENT "F"

ANALYTICAL DATA EVENTS: April + July 2015

*Analytical data from
was submitted in the prior individual semi-annual reports.
Please contact Moench Co. if you require them.

6.0 REFERENCES

1. PALMER STREET LANDFILL CLOSURE/POST CLOSURE PLAN (EPA ID. NYDOO2126910), PREPARED BY MALCOLM PIRNIE, INC. REVISED FEBRUARY 1989 July 1993, DEC. 2006.
2. PALMER STREET LANDFILL, SUPPLEMENTAL HYDROGEOLOGIC INVESTIGATION, PREPARED BY MALCOLM PIRNIE, INC. JANUARY 1989.
3. SAMPLING PLAN/QUALITY ASSURANCE PLAN FOR GROUNDWATER MONITORING - PALMER STREET LANDFILL. PREPARED BY MALCOLM PIRNIE, INC., AUGUST 1989. REVISED-7/93, 8/94, 12/06.
4. TEST METHODS FOR EVALUATING SOLID WASTE, PHYSICAL/CHEMICAL METHODS, THIRD EDITION, USEPA OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, NOVEMBER 1986.
5. PALMER STREET LANDFILL, EVALUATION OF ALTERNATIVE COVER SYSTEMS, PREPARED BY MALCOLM PIRNIE, INC., JANUARY 1989.
6. COVER SYSTEM PERFORMANCE EVALUATION, PALMER STREET LANDFILL; PREPARED BY MALCOLM PIRNIE, INC. OCTOBER 1995 & FEBRUARY 1999.
7. FORMER TANNERY PLANT SITE, WELL INSTALLATION REPORT; PREPARED BY BENCHMARK ENVIRONMENTAL ENGINEERING SCIENCE CO., AUGUST 2000.
8. (previously #3) Letter to Mr. Jeffrey Smith, Moench Tanning Co., from New York State Dept. of Environmental Conservation, dated August 31, 1993.
9. PALMER ST. LANDFILL; COVER SYSTEM PERFORMANCE SYSTEM EVALUATION, PREPARED BY GEOMATRIX CONSULTANTS, WILLIAMSVILLE, NY. FEBRUARY 2004.
10. JULY 27, 2006 LETTER FROM RICHARD FRAPPA, GEOMATRIX CONSULTANT, WILLIAMSVILLE, NY; DOCUMENTING THE AGREEMENT WITH N.Y. STATE DEPT. OF ENVIRONMENTAL CONSERVATION, REGION 9; REVISED MONITORING (DETECTION) PROGRAM. LETTER TO STAN RADON.
11. SEPTEMBER 7, 2006 LETTER FROM STAN RADON (NYSDEC9) TO JEFFREY SMITH (MOENCH), CONFIRMING THE ACCEPTANCE OF THE REVISED DETECTION MONITORING SYSTEM, AND THE ELIMINATION OF THE PERFORMANCE MONITORING PLAN-COVER SYSTEM EVALUATION.