DATE STARTED: 9-25-86	**eder associates BORING REPORT**	SHEET 1 OF 1	
DATE FINISHED: 9-25-86		BORING NO. SB 33	
CLIENT: HUKILL CHEMICAL CORP.			
PROJECT NAME AND LOCATION: SUBSURFACE INVESTIGATION PHASE II Bedford OHIO			
PROJECT NO. (S): 495 01			
DRILLING CONTRACTOR: TRIGGS GEOTECH		BORING FOREMAN: JOHN DINGLEDINE	
EDES ENGINEER:		INSPECTOR: NICK RECCHIA	

EQUIPMENT:	CASING	SOIL SAMPLER: SPLIT SPOON (SS)	SOIL SAMPLER: UNDISTURBED (US)	CORE BARREL	AUGER	OBS. WELL (OW): PIPE	OBS. WELL (OW): CAP	DRILLING RIG AND METHOD
TYPE:	—	STANDARD	—	—	HSA	—	—	CME 55 Mobile Drill
SIZE:	—	2" OD	—	—	4" ID	—	—	
HAMMER WT/ FALL	—	140/30	—	BIT.		—		

SURFACE ELEVATION: NORTH COORDINATE: EAST COORDINATE:

SURFACE CONDITIONS:

GROUNDWATER AT FT. AFTER HRS. FT. AFTER HRS.

DEPTH BELOW GND.	OVA READING	TYPE & NO.	DEPTH FROM – TO	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION AND REMARKS (Trace = 0–10% Little = 10–20% Some = 20–35% And = 35–50%)	Monitor Well Construction
0	0	SS98	.5-2	7		BRN SAND some SLAG BRICKS, GRAVEL + GLASS	
				3 3			
	4	SS99	2-3.5	3 3			Fill to 16.5
				4 4			
5	1	SS100	3.5-5	3 4		SAME @ 5'	
							TILL to 22
							Shale to EOB
	0	SS101	8-9.5	3 3		SAME	
10				3			
	1	SS102	12.5-14	3		SAME tr. GLASS	
				3 1			
15							
					16.5		
	0	SS103	17-18.5	6 9		BRN CLAY TILL	
				14			
20							
					22		
	0	SS104	23.5-24	60/.5		GRY/BRN weathered shale	
25						EOB @ 24'	

TYPE 4	BORING —	CASING —	TO —	FT THEN —	CASING —	TO — FT.
QUANTITIES:	22 L.F. SOIL	2 L.F. ROCK	7 SS SAMPLES	— US TUBES	— L.F. OW PIPE	

DATE STARTED: 9-26-86	**eder associates** BORING REPORT	SHEET 1 OF 1	
DATE FINISHED: 9-26-86		BORING NO. SB 43	

CLIENT: HUKILL CHEMICAL CORP

PROJECT NAME AND LOCATION: SUBSURFACE INVESTIGATION PHASE II Bedford OHIO

PROJECT NO. (S): 49501

BORING CONTRACTOR: TRIGGS GEOTECHNICAL | BORING FOREMAN: JOHN DINGLEDINE

ENGINEER: | INSPECTOR: NICK RECCHIA

EQUIPMENT:	CASING	SOIL SAMPLER: SPLIT SPOON (SS)	SOIL SAMPLER: UNDISTURBED (US)	CORE BARREL	AUGER	OBS. WELL (OW): PIPE	OBS. WELL (OW): CAP	DRILLING RIG AND METHOD
TYPE:	—	STANDARD	—	—	HSA	—	—	CME 55
SIZE:	—	2" OD	—	—	4" ID	—	—	Mobile Drill
HAMMER WT/ FALL	—	140/30	—	BIT.		—		

SURFACE ELEVATION: NA | NORTH COORDINATE: — | EAST COORDINATE: —

SURFACE CONDITIONS: NW FILL AREA

GROUNDWATER AT FT. AFTER HRS. FT. AFTER HRS.

DEPTH BELOW GND.	OVA READING	TYPE & NO.	DEPTH FROM – TO	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION AND REMARKS (Trace = 0–10% Little = 10–20% Some = 20–35% And = 35–50%)	Monitor Well Construction
0	2	SS14A	.5-2	1		BRN/BLK SAND, SLAG	
				0 4		FOUNDRY SAND, GLASS BRICK	FILL TO 4.5
	1.5	114B	2-3.5	6 6			
				7 7			
5	8.5	114C	3.5-5	10 13	4.5	BRN/GRY CLAY TILL	TILL TO EOB
	1	114D	8-9.5	11 18		BRN/GRY CLAY TILL	
10				25			
						EOB @ 10'	

TYPE	BORING	CASING	TO	FT THEN	CASING	TO	FT.
	—	—	—	—	—	—	—

QUANTITIES:	10 L.F. SOIL	0 L.F. ROCK	4 SS SAMPLES	— US TUBES	— L.F. OW PIPE

DATE STARTED: 9-17-86	**eder associates** BORING REPORT	SHEET 1 OF 1	
DATE FINISHED: 9-17-86		BORING NO. SB 34	

CLIENT: HUKILL CHEMICAL CORP.

PROJECT NAME AND LOCATION: SUBSURFACE INVESTIGATION PHASE II

PROJECT NO. (S): 49501

BORING CONTRACTOR: TRIGGS GEOTECHNICAL | BORING FOREMAN: JOHN DINGLEDINE

SOILS ENGINEER: | INSPECTOR: NICK RECCHIA

EQUIPMENT:	CASING	SOIL SAMPLER: SPLIT SPOON (SS)	SOIL SAMPLER: UNDISTURBED (US)	CORE BARREL	AUGER	OBS. WELL (OW): PIPE	OBS. WELL (OW): CAP	DRILLING RIG AND METHOD
TYPE:	—	STANDARD	—	—	HSA	—	—	CME 45
SIZE:	—	2" OD	—	—	4" ID	—	—	SKID RIG
HAMMER WT/ FALL	—	140/30	—	BIT.		—		

SURFACE ELEVATION: NA | NORTH COORDINATE: — | EAST COORDINATE: —

SURFACE CONDITIONS: Building boring concrete floor

GROUNDWATER AT FT. AFTER HRS. FT. AFTER HRS.

DEPTH BELOW GND.	OVA READING	TYPE & NO.	DEPTH FROM – TO	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION AND REMARKS (Trace = 0–10% Little = 10–20% Some = 20–35% And = 35–50%)	Monitor Well Construction
0	200	SS15	.5-2	4	.5	CONCRETE .5'	TILL to EOB
				4 5		BRN/GRY CLAY TILL	
	150	SS16	2-3.5	6 9			
				11 6		SAME @ 6'	
5	100	SS17	3.5-5	9 12			
						EOB @ 6'	

TYPE —	BORING —	CASING —	TO —	FT THEN —	CASING —	TO —	FT.
QUANTITIES:	6 L.F. SOIL	— L.F. ROCK	3 SS SAMPLES	— US TUBES	— L.F. OW PIPE		

DATE STARTED: 9-17-86	**eder associates** BORING REPORT	SHEET 1 OF 1	
DATE FINISHED: 9-17-86		BORING NO. SB 35	

CLIENT: HUKILL CHEMICAL CORP.

PROJECT NAME AND LOCATION: SUBSURFACE INVESTIGATION PHASE II Bedford OHIO

PROJECT NO. (S): 49501

BORING CONTRACTOR: TRIGGS GEOTECHNICAL | BORING FOREMAN: JOHN DINGLEDINE

SOILS ENGINEER: | INSPECTOR: NICK RECCHIA

EQUIPMENT:	CASING	SOIL SAMPLER: SPLIT SPOON (SS)	SOIL SAMPLER: UNDISTURBED (US)	CORE BARREL	AUGER	OBS. WELL (OW): PIPE	OBS. WELL (OW): CAP	DRILLING RIG AND METHOD
TYPE:	—	STANDARD	—	—	HSA	—	—	CME 45
SIZE:	—	2" OD	—	—	4" ID	—	—	SKID RIG
HAMMER WT/ FALL	—	140/30	—	BIT.				

SURFACE ELEVATION: NA | NORTH COORDINATE: — | EAST COORDINATE: —

SURFACE CONDITIONS: BUILDING BORING CONCRETE FLOOR

GROUNDWATER AT FT. AFTER HRS. FT. AFTER HRS.

DEPTH BELOW GND.	OVA READING	TYPE & NO.	DEPTH FROM – TO	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION AND REMARKS (Trace = 0–10% Little = 10–20% Some = 20–35% And = 35–50%)	Monitor Well Construction
0	1000+	SS1	.7-2	1 1 2	.7	CONCRETE	CONCRETE to .7'
	1000+	SS2	2-3.5	3 5 7 3		GRY/BRN SILTY CLAY (TILL)	TILL to 13'
5	—	SS3	3.5-5	7 5		SAME @ 5'	SHALE 13' to EOE
10	—	SS4	8-9.5	6 11 15		GRY/BRN CLAY SOME shale frgs. (TILL) "indurated"	
15	—	SS5	12.5-13.5	85 29	13	GRY weathered shale	
	100	SS6	17.5-18	170/.5		SAME	
20	30	SS7	19.5-20	175/.5		SAME WET SEAM @ 20'	
	35	SS8	22.5-23	210/.5		GRY weathered fissile shale (dry)	
						EOB @ 23'	

TYPE A	BORING —	CASING —	TO —	FT THEN —	CASING —	TO — FT.
QUANTITIES:	13 L.F. SOIL	10 L.F. ROCK	8 SS SAMPLES	— US TUBES	— L.F. OW PIPE	

DATE STARTED: 9-18-86	**eder associates** BORING REPORT	SHEET 1 OF 1	
DATE FINISHED: 9-18-86		BORING NO. SB 36	
CLIENT: HUKILL CHEMICAL CORP.			
PROJECT NAME AND LOCATION: SUBSURFACE INVESTIGATION PHASE II			
PROJECT NO. (S): 49501			
BORING CONTRACTOR: TRIGGS GEOTECHNICAL		BORING FOREMAN:	
SOILS ENGINEER:		INSPECTOR:	

EQUIPMENT:	CASING	SOIL SAMPLER: SPLIT SPOON (SS)	SOIL SAMPLER: UNDISTURBED (US)	CORE BARREL	AUGER	OBS. WELL (OW): PIPE	OBS. WELL (OW): CAP	DRILLING RIG AND METHOD
TYPE:	—	Standard	—	—	HSA	—	—	CME 45
SIZE:	—	2" OD	—	—	4" ID	—	—	SKID RIG
HAMMER WT/ FALL	—	140/30	—	BIT.				

SURFACE ELEVATION: NA	NORTH COORDINATE: —	EAST COORDINATE: —
SURFACE CONDITIONS: Building boring, concrete floor		
GROUNDWATER AT FT. AFTER HRS.	FT. AFTER HRS.	

DEPTH BELOW GND.	OVA READING	TYPE & NO.	DEPTH FROM – TO	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION AND REMARKS (Trace = 0–10% Little = 10–20% Some = 20–35% And = 35–50%)	Monitor Well Construction
0		SS23	.5-2	3	.5	CONCRETE .5'	FILL to EOB
				6 8	2 ▽	BRN SAND TR ASH	
		SS24	2-3.5	6 10		perched water @ 2'	
				15		pipe obstruction @ 3.9'	
5						EOB @ 3.9'	

TYPE —	BORING —	CASING —	TO —	FT THEN —	CASING —	TO —	FT.
QUANTITIES:	3.9 L.F. SOIL	— L.F. ROCK	2 SS SAMPLES	— US TUBES	— L.F. OW PIPE		

DATE STARTED: 9-18-86	**eder associates** BORING REPORT	SHEET 1 OF 1	
DATE FINISHED: 9-18-86		BORING NO. SB 36A	
CLIENT: HUKILL CHEMICAL CORP			
PROJECT NAME AND LOCATION: SUBSURFACE INVESTIGATION PHASE II			
PROJECT NO. (S): 49501			
DRILLING CONTRACTOR: TRIGGS GEOTECHNICAL		BORING FOREMAN: JOHN DINGLEDINE	
SOILS ENGINEER:		INSPECTOR: NICK RECCHIA	

EQUIPMENT:	CASING	SOIL SAMPLER: SPLIT SPOON (SS)	SOIL SAMPLER: UNDISTURBED (US)	CORE BARREL	AUGER	OBS. WELL (OW): PIPE	OBS. WELL (OW): CAP	DRILLING RIG AND METHOD
TYPE:	—	standard	—	—	HSA	—	—	CME 45
SIZE:	—	2" OD	—	—	4" ID	—	—	SKID RIG
HAMMER WT/ FALL	—	140/30	—	BIT.		—		

SURFACE ELEVATION: NA NORTH COORDINATE: — EAST COORDINATE: —

SURFACE CONDITIONS: Building borings concrete floor.

GROUNDWATER AT FT. AFTER HRS. FT. AFTER HRS.

DEPTH BELOW GND.	OVA READING	TYPE & NO.	DEPTH FROM – TO	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION AND REMARKS (Trace = 0–10% Little = 10–20% Some = 20–35% And = 35–50%)	Monitor Well Construction
0		SS25	.5-2	3	.5	CONCRETE .5'	FILL to EOB
				4 5	2'	BRN SAND	
		SS26	2-3.5	4 11			
				13 7		hit pipe @ 3.5'	
5		SS27	3.5-5	4 6			
						EOB @ 3.5'	
						Abandon hole @ 3.5'	

TYPE	—	BORING	—	CASING	—	TO	—	FT THEN	—	CASING	— TO — FT.
QUANTITIES:	3.5	L.F. SOIL	—	L.F. ROCK	3	SS SAMPLES	—	US TUBES	—	L.F. OW PIPE	

DATE STARTED: 9-18-86	**eder associates** BORING REPORT	SHEET 1 OF 1	
DATE FINISHED: 9-18-86		BORING NO. SB 37	

CLIENT: HUKILL CHEMICAL CORP.

PROJECT NAME AND LOCATION: SUBSURFACE INVESTIGATION PHASE II Bedford OHIO

PROJECT NO. (S): 49501

DRILLING CONTRACTOR: TRIGGS GEOTECHNICAL — BORING FOREMAN: JOHN DINGLEDINE

SOILS ENGINEER: — INSPECTOR: NICK RECCHIA

EQUIPMENT:	CASING	SOIL SAMPLER: SPLIT SPOON (SS)	SOIL SAMPLER: UNDISTURBED (US)	CORE BARREL	AUGER	OBS. WELL (OW): PIPE	OBS. WELL (OW): CAP	DRILLING RIG AND METHOD
TYPE:	—	STANDARD	—	—	HSA	—	—	CME 45
SIZE:	—	2" OD	—	—	4" ID	—	—	Skid Rig
HAMMER WT/ FALL	—	140/30	—	BIT.				

SURFACE ELEVATION: NA — NORTH COORDINATE: — — EAST COORDINATE: —

SURFACE CONDITIONS: Building borings, concrete

GROUNDWATER AT FT. AFTER HRS. FT. AFTER HRS.

DEPTH BELOW GND.	OVA READING	TYPE & NO.	DEPTH FROM – TO	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION AND REMARKS (Trace = 0–10% Little = 10–20% Some = 20–35% And = 35–50%)	Monitor Well Construction
0	12	SS18	.5-2	5	.5	CONCRETE .5'	FILL to 3.5'
				8 8		BRN SAND, GRAVEL brick show FILL	TILL to 13'
	380	SS19	2-3.5	8 13	3.5 ▽		SHALE to EOB
				10 14			
5	9.5	SS20	3.5-4.5	17		3.5' perched water	
	4	SS21	7-9.5	4 8		BRN SILT little clay little gravel tr. organics TILL	
10				18			
	3.5	SS22	12.5-13.5	53 155	13	GRY weathered shale	
15						EOB @ 13.5'	

TYPE A	BORING —	CASING —	TO —	FT THEN —	CASING —	TO —	FT.
QUANTITIES:	13.5 L.F. SOIL	0 L.F. ROCK	5 SS SAMPLES	— US TUBES	— L.F. OW PIPE		

DATE STARTED: 9-17-86	**eder associates** BORING REPORT	SHEET 1 OF 1	
DATE FINISHED: 9-17-86		BORING NO. SB 38	

CLIENT: HUKILL CHEMICAL CORP.

PROJECT NAME AND LOCATION: SUBSURFACE INVESTIGATION PHASE II

PROJECT NO. (S): 49501

BORING CONTRACTOR: TRIGGS GEOTECHNICAL | BORING FOREMAN: JOHN DINGLEDINE

SOILS ENGINEER: | INSPECTOR: NICK RECCHIA

EQUIPMENT:	CASING	SOIL SAMPLER: SPLIT SPOON (SS)	SOIL SAMPLER: UNDISTURBED (US)	CORE BARREL	AUGER	OBS. WELL (OW): PIPE	OBS. WELL (OW): CAP	DRILLING RIG AND METHOD
TYPE:	—	STANDARD	—	—	HSA	—	—	CME 45
SIZE:	—	2" OD	—	—	4" ID	—	—	SKID RIG
HAMMER WT/ FALL	—	140/30	—	BIT.				

SURFACE ELEVATION: NA | NORTH COORDINATE: — | EAST COORDINATE: —

SURFACE CONDITIONS: BUILDING BORING

GROUNDWATER AT FT. AFTER HRS. FT. AFTER HRS.

DEPTH BELOW GND.	OVA READING	TYPE & NO.	DEPTH FROM – TO	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION AND REMARKS (Trace = 0–10% Little = 10–20% Some = 20–35% And = 35–50%)	Monitor Well Construction
0	500	SS9	.5-2	2	-.5	CONCRETE -.5'	FILL to 3'
				7 4	3	BLK SAND + GRAVEL "SATURATED"	TILL to 13'
	1000+	SS10	2-3.5	5 7	▽		Shale to EOB
				13			
5	1000+	SS11	3.5-5			BRN CLAY w/ ORGANIC MATER	
	900	SS12	8-9.5	16 15		SAME	
10				11			
	12	SS13	12.5-13.5	42 80	13	weathered gry Shale (DRY)	
15							
	20	SS14	16.5-17	227/.5		DRY Shale	
20						EOB @ 17'	

TYPE A	BORING —	CASING —	TO —	FT THEN —	CASING —	TO — FT.
QUANTITIES:	13 L.F. SOIL	4 L.F. ROCK	6 SS SAMPLES	— US TUBES	— L.F. OW PIPE	

DATE STARTED: 9-30-86	**eder associates BORING REPORT**	SHEET 1 OF 1	
DATE FINISHED: 9-30-86		BORING NO. SB 39	

CLIENT: HUKILL CHEMICAL CORP.

PROJECT NAME AND LOCATION: SUBSURFACE INVESTIGATION PHASE II BEDFORD OHIO

PROJECT NO. (S): 49501

DRILLING CONTRACTOR: TRIGGS GEOTECHNICAL | BORING FOREMAN: JOHN DINGLEDINE

EDER ENGINEER: | INSPECTOR: NICK RECCHIA

EQUIPMENT:	CASING	SOIL SAMPLER: SPLIT SPOON (SS)	SOIL SAMPLER: UNDISTURBED (US)	CORE BARREL	AUGER	OBS. WELL (OW): PIPE	OBS. WELL (OW): CAP	DRILLING RIG AND METHOD
TYPE:	—	STANDARD	—	—	HSA	—	—	CME 55
SIZE:	—	2" OD	—	—	4" ID	—	—	Mobile Drill
HAMMER WT/ FALL	—	140/30	—	BIT.				

SURFACE ELEVATION: NA | NORTH COORDINATE: — | EAST COORDINATE: —

SURFACE CONDITIONS: DRY LEVEL, neutralization pit

GROUNDWATER AT FT. AFTER HRS. FT. AFTER HRS.

DEPTH BELOW GND.	OVA READING	TYPE & NO.	DEPTH FROM — TO	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION AND REMARKS (Trace = 0–10% Little = 10–20% Some = 20–35% And = 35–50%)	Monitor Well Construction
0		WPS4	0-1.5			BRN/BLK FILL CLAY, ASH WOOD, lime gravel	FILL to 4'
			1.5-3	31			TILL (Altered) to EO
				37 18	4'	SAME @ 3'	
5			3-4.5			BRN/GRY CLAY TILL	
		WPS5	4.5-6				
		WPS6	8-9.5			SAME @ 9.5	
10			9.5-11	9			
				15 22		chemically altered till	
						EOB @ 11'	

TYPE —	BORING —	CASING —	TO —	FT THEN —	CASING —	TO — FT.

QUANTITIES:	11 L.F. SOIL	— L.F. ROCK	3 SS SAMPLES	— US TUBES	— L.F. OW PIPE

DATE STARTED: 9-30-86	**eder associates BORING REPORT**	SHEET 1 OF 1	
DATE FINISHED: 9-30-86		BORING NO. SB 40	
CLIENT: HUKILL CHEMICAL CORP.			
PROJECT NAME AND LOCATION: SUBSURFACE INVESTIGATION PHASE II BEDFORD OHIO			
PROJECT NO. (S): 49501			
DRILLING CONTRACTOR: TRIGGS GEOTECHNICAL		BORING FOREMAN: JOHN DINGLEDINE	
WELLS ENGINEER:		INSPECTOR: NICK RECCHIA	

EQUIPMENT:	CASING	SOIL SAMPLER: SPLIT SPOON (SS)	SOIL SAMPLER: UNDISTURBED (US)	CORE BARREL	AUGER	OBS. WELL (OW): PIPE	OBS. WELL (OW): CAP	DRILLING RIG AND METHOD
TYPE:	—	STANDARD	—	—	HSA	—	—	CME 55
SIZE:	—	2" OD	—	—	4" ID	—	—	Mobile Drill
HAMMER WT/ FALL	—	140/30	—	BIT.				

SURFACE ELEVATION: — NORTH COORDINATE: — EAST COORDINATE: —

SURFACE CONDITIONS: dry level neutralization pit

GROUNDWATER AT FT. AFTER HRS. FT. AFTER HRS.

DEPTH BELOW GND.	OVA READING	TYPE & NO.	DEPTH FROM — TO	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION AND REMARKS (Trace = 0–10% Little = 10–20% Some = 20–35% And = 35–50%)	Monitor Well Construction
0		NPS1	0-1.5			WHT LIME .5' BRN CLAY, WOOD, LIME AND ASH	FILL to 6'
			1.5-3				TILL to EOB
5		NPS2	3-4.5	5	6'	SAND, ASH, LIME GRAVEL @ 4'	
			4.5-6	8 10		BRN/GRY CLAY TILL	
10		NPS3	9.5-11	9			
				18 40		BRN/GRY CLAY TILL "chemically altered" tr. white material	
						EOB @ 11'	

TYPE —	BORING —	CASING —	TO —	FT THEN —	CASING —	TO — FT.
QUANTITIES:	11 L.F. SOIL	— L.F. ROCK	3 SS SAMPLES	— US TUBES	— L.F. OW PIPE	

DATE STARTED: 9-30-86	**eder associates BORING REPORT**	SHEET 1 OF 1	
DATE FINISHED: 9-30-86		BORING NO. SB 41	
CLIENT: HOKILL CHEMICAL CORP.			
PROJECT NAME AND LOCATION: SUBSURFACE INVESTIGATION PHASE II Bedford OHIO			
PROJECT NO. (S): 49501			
DRILLING CONTRACTOR: TRIGGS GEOTECHNICAL		BORING FOREMAN: JOHN DINGLEDINE	
WELLS ENGINEER:		INSPECTOR: NICK RECCHIA	

EQUIPMENT:	CASING	SOIL SAMPLER: SPLIT SPOON (SS)	SOIL SAMPLER: UNDISTURBED (US)	CORE BARREL	AUGER	OBS. WELL (OW): PIPE	OBS. WELL (OW): CAP	DRILLING RIG AND METHOD
TYPE:	—	STANDARD	—	—	HSA	—	—	CME 55 Mobile Drill
SIZE:	—	2" OD	—	—	4" OD	—	—	
HAMMER WT/ FALL	—	140/30	—	BIT.				

SURFACE ELEVATION: NA NORTH COORDINATE: — EAST COORDINATE: —

SURFACE CONDITIONS: Neutralization pit borings

GROUNDWATER AT FT. AFTER HRS. FT. AFTER HRS.

DEPTH BELOW GND.	OVA READING	TYPE & NO.	DEPTH FROM – TO	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION AND REMARKS (Trace = 0–10% Little = 10–20% Some = 20–35% And = 35–50%)	Monitor Well Construction
0		WPS7	0-1.5			BRN/BLK FILL CLAY, ASH WOOD, lime gravel	FILL to 6'
			1.5-3			Rd/BRN SAND FILL white gravel	TILL to EOB
5		WPS8	4.5-6		6'		
			6-7.5			Chemically Altered TILL	
		WPS9	7.5-9			BRN CLAY TILL @ 10'	
10			9-10.5			EOB @ 10.5'	

TYPE —	BORING —	CASING —	TO —	FT THEN —	CASING —	TO — FT.
QUANTITIES:	10.5 L.F. SOIL	— L.F. ROCK	3 SS SAMPLES	— US TUBES	— L.F. OW PIPE	

DATE STARTED: 9-30-86	**eder associates** BORING REPORT	SHEET 1 OF 1	
DATE FINISHED: 9-30-86		BORING NO. SB 42	
CLIENT: HUKILL CHEMICAL CORP			
PROJECT NAME AND LOCATION: SUBSURFACE INVESTIGATION PHASE II Bedford OHIO			
PROJECT NO. (S): 49501			
BORING CONTRACTOR: TRIGGS GEOTECHNICAL		BORING FOREMAN: JOHN DINGLEDINE	
ELS ENGINEER:		INSPECTOR: NICK RECCHIA	

EQUIPMENT:	CASING	SOIL SAMPLER: SPLIT SPOON (SS)	SOIL SAMPLER: UNDISTURBED (US)	CORE BARREL	AUGER	OBS. WELL (OW): PIPE	OBS. WELL (OW): CAP	DRILLING RIG AND METHOD
TYPE:	—	STANDARD	—	—	HSA	—	—	CME 55 Mobile Drill
SIZE:	—	2" OD	—	—	4" ID	—	—	
HAMMER WT/ FALL	—	140/30	—	BIT.				

SURFACE ELEVATION: NA NORTH COORDINATE: — EAST COORDINATE: —

SURFACE CONDITIONS: Neutralization pit

GROUNDWATER AT FT. AFTER HRS. FT. AFTER HRS.

DEPTH BELOW GND.	OVA READING	TYPE & NO.	DEPTH FROM — TO	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION AND REMARKS (Trace = 0–10% Little = 10–20% Some = 20–35% And = 35–50%)	Monitor Well Construction
0		NPS10	0-1.5			BRN/BLK FILL CLAY ASH, GRAVEL white crystals	FILL TO EOB
			1.5-3				
5			3-4.5				
		UPS11	4.5-6			@ 4.5' CLAY, GRAVEL + LIMESTONE	
			6-7.5				
			7.5-9				
10		NPS12	9-10.5			@ 10' CLAY, GRAVEL AND RD/LIMESTONE	
						EOB @ 10.5'	

TYPE —	BORING —	CASING —	TO —	FT THEN —	CASING —	TO — FT.
QUANTITIES:	10.5 L.F. SOIL	— L.F. ROCK	3 SS SAMPLES	— US TUBES	— L.F. OW PIPE	

DATE STARTED: 9-23-86	**eder associates** BORING REPORT	SHEET 1 OF 1	
DATE FINISHED: 9-23-86		BORING NO. SB 47	
CLIENT: HUKILL CHEMICAL CORP.			
PROJECT NAME AND LOCATION: SUBSURFACE INVESTIGATION Phase II Bedford OHIO			
PROJECT NO. (S): 49501			
BORING CONTRACTOR: TRIGGS GEOTECHNICAL		BORING FOREMAN: JOHN DINGLEDINE	
EDS ENGINEER:		INSPECTOR: NICK RECCHIA	

EQUIPMENT:	CASING	SOIL SAMPLER: SPLIT SPOON (SS)	SOIL SAMPLER: UNDISTURBED (US)	CORE BARREL	AUGER	OBS. WELL (OW): PIPE	OBS. WELL (OW): CAP	DRILLING RIG AND METHOD
TYPE:	—	STANDARD	—	—	HSA	—	—	CME 45
SIZE:	—	2" OD	—	—	4" OD	—	—	SKID RIG
HAMMER WT/ FALL	—	140/30	—	BIT.		—		

SURFACE ELEVATION: NA NORTH COORDINATE: — EAST COORDINATE: —

SURFACE CONDITIONS: LEVEL

GROUNDWATER AT — FT. AFTER HRS. FT. AFTER HRS.

DEPTH BELOW GND.	OVA READING	TYPE & NO.	DEPTH FROM — TO	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION AND REMARKS (Trace = 0–10% Little = 10–20% Some = 20–35% And = 35–50%)	Monitor Well Construction
0	1.5	SS48	0-1.5	2 4 5 4		BRN SAND little gravel ash, brick show	
	75	SS49	1.5-3	4 4 1 1		SAME @ 3'	FILL to 7'
5	340	SS50	3-4.5	2 4 4 3		BLK/GRY CLAY little ash	
	150	SS51	4.5-6		7		
10	20	SS52	9-10.5	7 14 26		GRY/BRN CLAY TILL	TILL to 13'
	15	SS53	13.5-14.5	35 80	13	GRY weathered shale	Shale to EOB
15							
20		SS54	17.5-18.5	160/.5		EOB @ 18'	

TYPE A	BORING —	CASING —	TO —	FT THEN —	CASING —	TO —	FT.
QUANTITIES:	13 L.F. SOIL	5 L.F. ROCK	7 SS SAMPLES	— US TUBES	— L.F. OW PIPE		

DATE STARTED: 9-23-86	**eder associates** BORING REPORT	SHEET 1 OF 1	
DATE FINISHED: 9-23-86		BORING NO. SB 48	
CLIENT: HUKILL CHEMICAL CORP.			
PROJECT NAME AND LOCATION: SUBSURFACE INVESTIGATION PHASE II Bedford OHIO			
PROJECT NO. (S): 49501			
BORING CONTRACTOR: TRIGGS ASSOCIATES		BORING FOREMAN: JOHN DINGLEDINE	
DRILLS ENGINEER:		INSPECTOR: NICK RECCHIA	

EQUIPMENT:	CASING	SOIL SAMPLER: SPLIT SPOON (SS)	SOIL SAMPLER: UNDISTURBED (US)	CORE BARREL	AUGER	OBS. WELL (OW): PIPE	OBS. WELL (OW): CAP	DRILLING RIG AND METHOD
TYPE:	—	standard	—	—	HSA	—	—	CME 45
SIZE:	—	2" OD	—	—	4" OD	—	—	SKID RIG
HAMMER WT/ FALL	—	140/30	—	BIT. —				

SURFACE ELEVATION: — NORTH COORDINATE: — EAST COORDINATE: —

SURFACE CONDITIONS: LEVEL

GROUNDWATER AT FT. AFTER HRS. FT. AFTER HRS.

DEPTH BELOW GND.	OVA READING	TYPE & NO.	DEPTH FROM – TO	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION AND REMARKS (Trace = 0–10% Little = 10–20% Some = 20–35% And = 35–50%)	Monitor Well Construction
0	2	SS55	.5-2	3 4 4	2'	BRN CLAY some sand, ash gravel	Fill to 2'
	5.5	SS56	2-3.5	4 4 4 4		Rd/BRN CLAY TILL	Till to 9'
5	15	SS57	3.5-5	4 9		SAME sand/silt seams	
	13	SS58	8-9.5	13 22 25	9'		
10						GRY oxidized highly weathered shale fissile	Shale to EOB
	3	SS59	12.5-13.5	21 70		GRY shale wet seam @ 13'	
15	8	SS60	16.5-16.8	100/.3		GRY shale @ 16.8' DRY	
						EOB @ 16.8'	

TYPE A	BORING —	CASING —	TO —	FT THEN —	CASING —	TO —	FT.
QUANTITIES:	9 L.F. SOIL	7.8 L.F. ROCK	6 SS SAMPLES	— US TUBES	— L.F. OW PIPE		

DATE STARTED: 9-23-86	**eder associates** BORING REPORT	SHEET 1 OF 1	
DATE FINISHED: 9-23-86		BORING NO. SB49	
CLIENT: HUKILL CHEMICAL CORP.			
PROJECT NAME AND LOCATION: SUBSURFACE INVESTIGATION PHASE II Bedford OHIO			
PROJECT NO. (S): 49501			
BORING CONTRACTOR: TRIGGS GEOTECHNICAL		BORING FOREMAN: JOHN DINGLEDINE	
SOILS ENGINEER:		INSPECTOR: NICK RECCHIA	

EQUIPMENT:	CASING	SOIL SAMPLER: SPLIT SPOON (SS)	SOIL SAMPLER: UNDISTURBED (US)	CORE BARREL	AUGER	OBS. WELL (OW): PIPE	OBS. WELL (OW): CAP	DRILLING RIG AND METHOD
TYPE:	—	STANDARD	—	—	HSA	—	—	CME 45
SIZE:	—	2" OD	—	—	4" ID	—	—	SKID RIG
HAMMER WT/ FALL	—	140/30	—	BIT.				

SURFACE ELEVATION: NA NORTH COORDINATE: — EAST COORDINATE: —

SURFACE CONDITIONS: LEVEL

GROUNDWATER AT 7 FT. AFTER EOB HRS. FT. AFTER HRS.

DEPTH BELOW GND.	OVA READING	TYPE & NO.	DEPTH FROM – TO	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION AND REMARKS (Trace = 0–10% Little = 10–20% Some = 20–35% And = 35–50%)	Monitor Well Construction
0	2.6	SS61	.5-2	2			
				5 4		BLK/BRN SAND little ash gravel	Fill to 5'
	150	SS62	2-3.5	3 3			
				4 1		BRN CLAY little sand, ash	
5	200	SS63	3.5-5	1 4	5		TILL to 13'
						BRN/GRY CLAY TILL	SHALE to EOB
	20	SS64	8-9.5	8 9			
10				15		SAME @ 9.0	
	8	SS65	12.5-13.5	40	13		
				90		GRY weathered Shale	
15							
	3.5	SS66	16.5-16.8	100/.3		WET SEAM @ 16.5'	
						EOB @ 16.8	

TYPE A	BORING —	CASING —	TO —	FT THEN —	CASING —	TO — FT.

QUANTITIES:	13 L.F. SOIL	3.8 L.F. ROCK	6 SS SAMPLES	— US TUBES	— L.F. OW PIPE

DATE STARTED: 9-19-86	**eder associates** BORING REPORT	SHEET 1 OF 1	
DATE FINISHED: 9-19-86		BORING NO. WELL F	
CLIENT: NUKILL CHEMICAL CORP		HOLE DRY — NO WELL INSTALLED	
PROJECT NAME AND LOCATION: SUBSURFACE INVESTIGATION Phase II BEDFORD OHIO			
PROJECT NO. (S): 49501			
BORING CONTRACTOR: TRIGGS GEOTECHNICAL		BORING FOREMAN: JOHN DINGLEDINE	
DRILLS ENGINEER:		INSPECTOR: NICK RECCHIA	

EQUIPMENT:	CASING	SOIL SAMPLER: SPLIT SPOON (SS)	SOIL SAMPLER: UNDISTURBED (US)	CORE BARREL	AUGER	OBS. WELL (OW): PIPE	OBS. WELL (OW): CAP	DRILLING RIG AND METHOD
TYPE:	—	STANDARD	—	—	HSA	—	—	CME 45
SIZE:	—	2" OD	—	—	4" ID	—	—	SKID RIG
HAMMER WT/ FALL	—	140/30	—	BIT.	—			

SURFACE ELEVATION: — NORTH COORDINATE: — EAST COORDINATE: —

SURFACE CONDITIONS:

GROUNDWATER AT FT. AFTER HRS. FT. AFTER HRS.

DEPTH BELOW GND.	OVA READING	TYPE & NO.	DEPTH FROM – TO	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION AND REMARKS (Trace = 0–10% Little = 10–20% Some = 20–35% And = 35–50%)	Monitor Well Construction
0	7.6	SS28	.5-2	4		BRN SAND, CLAY + ASH tr gravel	
				7 4			
	1000+	SS29	2-3.5	4 12		GRY/BLK SAND some silt tr. ASH	FILL to 10.5'
				18 4			
5	1000+	SS30	3.5-5	2 3			TILL to 13'
	1000+	SS31	8-9.5	3 5		BRN/GRY Mottled SILT AND CLAY tr gravel	Shale to EOB
10				9			
						TILL @ 10.5'	
	300	SS32	12.5-14	20	13		
				32 60		Highly weathered BRN/GRY SHALE	
15							
	64	SS33	17-17.4	100/.4		SAME	
20							
	30	SS34	20.4-20.9	100/.4		SAME	
	30	SS35	24-24.4	100/.4		SAME	
25							
		SS36	27.5-27.8	100/.3		SAME	
30							
		SS37	30.5-30.7	100/.2		SAME	
	AUGER						
35							
						EOB @ 35.5 DRY	

TYPE 4	BORING —	CASING —	TO —	FT THEN —	CASING —	TO — FT.
QUANTITIES:	13 L.F. SOIL	22.5 L.F. ROCK	10 SS SAMPLES	— US TUBES	— L.F. OW PIPE	

DATE STARTED: 9-23-86	**eder associates BORING REPORT**	SHEET 1 OF 1	
DATE FINISHED: 9-23-86		BORING NO. SB 50	
CLIENT: HUKILL CHEMICAL CORP.			
PROJECT NAME AND LOCATION: SUBSURFACE INVESTIGATION PHASE II Bedford OHIO			
PROJECT NO. (S): 49501			
DRILLING CONTRACTOR: TRIGGS GEOTECHNICAL		BORING FOREMAN: JOHN DINGLEDINE	
SOILS ENGINEER:		INSPECTOR: NICK RECCHIA	

EQUIPMENT:	CASING	SOIL SAMPLER: SPLIT SPOON (SS)	SOIL SAMPLER: UNDISTURBED (US)	CORE BARREL	AUGER	OBS. WELL (OW): PIPE	OBS. WELL (OW): CAP	DRILLING RIG AND METHOD
TYPE:	—	STANDARD	—	—	HSA	—	—	CME 55 Mobile Drill
SIZE:	—	2" OD	—	—	4" ID	—	—	
HAMMER WT/ FALL	—	140/30	—	BIT.		—		

SURFACE ELEVATION: NA NORTH COORDINATE: — EAST COORDINATE: —

SURFACE CONDITIONS: API TANK BASIN

GROUNDWATER AT 20 FT. AFTER EOB HRS. FT. AFTER HRS.

DEPTH BELOW GND.	OVA READING	TYPE & NO.	DEPTH FROM — TO	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION AND REMARKS (Trace = 0–10% Little = 10–20% Some = 20–35% And = 35–50%)	Monitor Well Construction
0	2	SS75	.0-2	2 3 4 5	2	BRN SAND some clay tr. organic mat.	FILL to 2'
	3	SS76	2-3.5	9 12 6 6		Rd/BRN CLAY TILL	
5	3.5	SS77	3.5-5	8 12		SAME @ 5'	TILL to 13
							Shale to EOB
	2.5	SS78	8-9.5	16 25 40		GRY CLAY TILL tr. shale fragments	
10							
	2	SS79	12.5-13.5	100 27	13	GRY CLAY TILL (top)	
						GRY WEATHERED SHALE (Bot)	
15							
	6.5	SS80	16.5-17	100/.4		GRY weathered shale	
20					20 ▽		
	6	SS81	20-20.5	120/.5		WET SEAM @ 20'	
	50	SS82	23.5-24	140/.5		GRY shale (WET)	
25						EOB @ 24'	

TYPE A	BORING —	CASING —	TO —	FT THEN —	CASING —	TO —	FT.
QUANTITIES:	13 L.F. SOIL	11 L.F. ROCK	8 SS SAMPLES	— US TUBES	— L.F. OW PIPE		

DATE STARTED: 9-23-86	**eder associates** BORING REPORT	SHEET 1 OF 1	
DATE FINISHED: 9-23-86		BORING NO. SB 51	
CLIENT: HUKILL CHEMICAL CORP.			
PROJECT NAME AND LOCATION: SUBSURFACE INVESTIGATION Phase II Bedford OHIO			
PROJECT NO. (S): 49501			
DRILLING CONTRACTOR: TRIGGS GEOTECHNICAL		BORING FOREMAN: JOHN DINGLEDINE	
SOILS ENGINEER:		INSPECTOR: NICK RECCHIA	

EQUIPMENT:	CASING	SOIL SAMPLER: SPLIT SPOON (SS)	SOIL SAMPLER: UNDISTURBED (US)	CORE BARREL	AUGER	OBS. WELL (OW): PIPE	OBS. WELL (OW): CAP	DRILLING RIG AND METHOD
TYPE:	—	Standard	—	—	HSA	—	—	CME 55 Mobile Drill
SIZE:	—	2" OD	—	—	4" ID	—	—	
HAMMER WT/ FALL	—	140/30	—	BIT. —				

SURFACE ELEVATION: NA NORTH COORDINATE: — EAST COORDINATE: —

SURFACE CONDITIONS: API TANK BASIN

GROUNDWATER AT 27 FT. AFTER EOB HRS. FT. AFTER HRS.

DEPTH BELOW GND.	OVA READING	TYPE & NO.	DEPTH FROM — TO	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION AND REMARKS (Trace = 0–10% Little = 10–20% Some = 20–35% And = 35–50%)	Monitor Well Construction
0	350	SS67	.5-2	2 2 3 2		Rd/Brn SAND + GRAVEL tr. Asphalt	FILL to 8'
	780	SS68	2-3.5	3 2 2 2			
5	1000	SS69	3.5-5	1 2		SAME @ 5'	
					8		TILL to 13'
	400	SS70	8-9.5	3 4 5		Brn/Gry CLAY TILL	
10							SHALE to EOB
	250	SS71	12-13.5	22 40 55	13	Gry weathered shale	
15							
	15	SS72	16.5-17	100/.5		SAME	
20							
	12	SS73	20-20.4	100/.4		SAME	
	15	SS74	23.5-24	100/.4		SAME (dry)	
25							
		AUGER				WET SEEP @ 27'	
30						EOB @ 30'	

TYPE A	BORING —	CASING —	TO —	FT THEN —	CASING —	TO — FT.
QUANTITIES:	13 L.F. SOIL	17 L.F. ROCK	8 SS SAMPLES	— US TUBES	— L.F. OW PIPE	

DATE STARTED: 5-7-86	**eder associates** BORING REPORT	1 SHEET OF 1	
DATE FINISHED: 5-7-86		BORING NO. SBC 1	

CLIENT: NUKILL CHEMICAL CORPORATION

PROJECT NAME AND LOCATION: Potential Contamination Investigation BEDFORD, OHIO

PROJECT NO. (S): 495 01

DRILLING CONTRACTOR: TRIGGS GEOTECHNICAL | BORING FOREMAN: JOHN DINGLEDINE

SITE ENGINEER: NICK ANDRIANAS | INSPECTOR: NICK RECCHIA

EQUIPMENT:	CASING	SOIL SAMPLER		CORE BARREL	AUGER	OBS. WELL (OW)		DRILLING RIG AND METHOD
		SPLIT SPOON (SS)	UNDISTURBED (US)			PIPE	CAP	
TYPE:	—	CARBON STEEL	—	—	HSA	—	—	CME 55 Mobile Drill
SIZE:	—	2" OD	—	—	6"	—	—	
HAMMER WT/ FALL	—	140 / 30	—	BIT.				

SURFACE ELEVATION: | NORTH COORDINATE: | EAST COORDINATE:

SURFACE CONDITIONS: LEVEL, CONCRETE PAD, ADJACENT TO FILLING STATIONS

GROUNDWATER AT FT. AFTER HRS. FT. AFTER HRS.

DEPTH BELOW GND.	CASING BLOWS PER FT.	TYPE & NO.	DEPTH FROM — TO	BLOWS / 6" OR CORE TIME	STRATA DEPTH / ELEV.	DESCRIPTION AND REMARKS (Trace = 0–10% Little = 10–20% Some = 20–35% And = 35–50%)	Monitor Well Construction
0	SS	128	.5-2	3 5 6	.5	CEMENT .5' Rd/BRN SAND + SILT little G/gravel tr. fill mat.	FILL
	SS	129	2-3.5			SAME	
5	SS	130	5-6.5	3 4 2			
	SS	131	8-9.5	0 0 1		SAME	
10							
	SS	132	13-14.5	36 90 260	13.5	FRACTURED/WEATHERED GRY SHALE EOB @ 13.5'	SHALE
15							

TYPE A	BORING —	CASING —	TO — FT THEN —	CASING —	TO — FT.
QUANTITIES:	13.0 L.F. SOIL	.5 L.F. ROCK	5 SS SAMPLES	— US TUBES	— L.F. OW PIPE

DATE STARTED: 5·7·86	eder associates BORING REPORT	1 SHEET OF 1	
DATE FINISHED: 5·7·86		BORING NO. SBC 2	
CLIENT: HUKILL CHEMICAL CORPORATION			
PROJECT NAME AND LOCATION: POTENTIAL CONTAMINATION INVESTIGATION			
PROJECT NO. (S): 495 01			
DRILLING CONTRACTOR: TRIGGS GEOTECHNICAL		BORING FOREMAN: JOHN DINGLEDINE	
PROJECT ENGINEER: NICK ANDRIANAS		INSPECTOR: NICK RECCHIA	

EQUIPMENT:	CASING	SOIL SAMPLER: SPLIT SPOON (SS)	SOIL SAMPLER: UNDISTURBED (US)	CORE BARREL	AUGER	OBS. WELL (OW): PIPE	OBS. WELL (OW): CAP	DRILLING RIG AND METHOD
TYPE:	—	CARBON STEEL	—	—	HSA	—	—	CME 55 Mobile Drill
SIZE:	—	2" OD	—	—	6"	—	—	
HAMMER WT/ FALL	—	140/30	—	BIT.				

SURFACE ELEVATION: NORTH COORDINATE: EAST COORDINATE:

SURFACE CONDITIONS: CEMENT PAD, LEVEL, DRY

GROUNDWATER AT FT. AFTER HRS. FT. AFTER HRS.

DEPTH BELOW GND.	CASING BLOWS PER FT.	TYPE & NO.	DEPTH FROM – TO	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION AND REMARKS (Trace = 0–10% Little = 10–20% Some = 20–35% And = 35–50%)	Monitor Well Construction
0	SS	133	.5-2	3 5 6	.5	CONCRETE	FILL
5	SS	134	5-6.5	3 4 4		RD/GRY SAND + SILT tr. clay tr. fill mat.	
10	SS	135	8-9.5	8 14 22		SAME	
15	SS	136	13.5-14.5	55 250	13	Fractured/weathered GRY SHALE EOB @ 14.5	SHALE

TYPE A	BORING —	CASING —	TO —	FT THEN —	CASING —	TO — FT.
QUANTITIES:	13 L.F. SOIL	1.5 L.F. ROCK	4 SS SAMPLES	— US TUBES	— L.F. OW PIPE	

DATE STARTED: 5-8-86	**eder associates** BORING REPORT	1 SHEET OF 1	
DATE FINISHED: 5-8-86		BORING NO. SBC 3	
CLIENT: HOKILL CHEMICAL CORPORATION			
PROJECT NAME AND LOCATION: POTENTAIL CONTAMINATION INVESTIGATION			
PROJECT NO. (S): 495 01			
DRILLING CONTRACTOR: TRIGGS GEOTECHNICAL		BORING FOREMAN: JOHN DINGLEDINE	
SUPERVISING ENGINEER: NICK ANDRIANAS		INSPECTOR: NICK RECCHIA	

EQUIPMENT:	CASING	SOIL SAMPLER: SPLIT SPOON (SS)	SOIL SAMPLER: UNDISTURBED (US)	CORE BARREL	AUGER	OBS. WELL (OW): PIPE	OBS. WELL (OW): CAP	DRILLING RIG AND METHOD
TYPE:	—	CARBON STEEL	—	—	HSA			CME 55 Mobile Drill
SIZE:	—	2" OD	—	—				
HAMMER WT/ FALL	—	140/30	—	BIT.				

SURFACE ELEVATION: NORTH COORDINATE: EAST COORDINATE:

SURFACE CONDITIONS: LEVEL, CONCRETE PAD, DRY

GROUNDWATER AT 23 FT. AFTER EOB HRS. FT. AFTER HRS.

DEPTH BELOW GND.	CASING BLOWS PER FT.	TYPE & NO.	DEPTH FROM – TO	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION AND REMARKS (Trace = 0–10% Little = 10–20% Some = 20–35% And = 35–50%)	Monitor Well Construction
0	SS	137	.5-2	4 3 2	.5	CONCRETE BRN SAND + SILT little fill mat.	FILL
5	SS	138	5-6.5	3 2 2		SAME	
10	SS	139	8-9.5	2 2 2	13 ▼	GRY/BLK SAND + f/GRAVEL some silt → cinders	Perched water @ 13'
15	SS	140	13-14.5	1 0 28	13.5	Fractured/weathered GRY SHALE	SHALE
20	SS	141	18-18.5	225/.5		DRY SHALE	
25	SS	142	21.5-22	350/.5		SAME	
	SS	143	27-27.5	330/.5	26 ▼	Fractured GRY SHALE EOB @ 27.5	

TYPE A	BORING —	CASING —	TO —	FT THEN —	CASING —	TO — FT.
QUANTITIES:	13.5 L.F. SOIL	14 L.F. ROCK	7 SS SAMPLES	— US TUBES	— L.F. OW PIPE	

DATE STARTED: 5-8-86	eder associates BORING REPORT	1 SHEET OF 1	
DATE FINISHED: 5-8-86		BORING NO. SBC 4	
CLIENT: HUKILL CHEMICAL CORPORATION			
PROJECT NAME AND LOCATION: POTENTIAL CONTAMINATION INVESTIGATION			
PROJECT NO. (S): 495 01			
BORING CONTRACTOR: TRIGGS GEOTECHNICAL		BORING FOREMAN: JOHN DINGLEDINE	
ENGINEER: NICK ANDRIANAS		INSPECTOR: NICK RECCHIA	

EQUIPMENT:	CASING	SOIL SAMPLER: SPLIT SPOON (SS)	SOIL SAMPLER: UNDISTURBED (US)	CORE BARREL	AUGER	OBS. WELL (OW): PIPE	OBS. WELL (OW): CAP	DRILLING RIG AND METHOD
TYPE:	—	CARBON STEEL	—	—	HSA	—	—	CME 55 Mobile Drill
SIZE:	—	2" OD	—	—	6"	—	—	
HAMMER WT/ FALL	—	140 / 30	—	BIT. —				

SURFACE ELEVATION: NORTH COORDINATE: EAST COORDINATE:

SURFACE CONDITIONS: LEVEL, DRY, CONCRETE PAD

GROUNDWATER AT FT. AFTER HRS. FT. AFTER HRS.

DEPTH BELOW GND.	CASING BLOWS PER FT.	TYPE & NO.	DEPTH FROM – TO	BLOWS / 6" OR CORE TIME	STRATA DEPTH / ELEV.	DESCRIPTION AND REMARKS (Trace = 0–10% Little = 10–20% Some = 20–35% And = 35–50%)	Monitor Well Construction
0	SS	144	.5 - 2	6 5 5	.5	CONCRETE	
						Rd/BRN SAND + SILT little fill mat.	FILL
5	SS	145	5 - 6.5	1 1 0		SAME	
					8.5		
10	SS	146	8 - 9.5	6 18 11		GRY/GRN SILT + CLAY little S/SAND tr shale frags. TILL	TILL
					13'		
15	SS	147	13 - 14	35 160		Fractured/weathered GRY SHALE	SHALE

TYPE	BORING	CASING	TO	FT THEN	CASING	TO	FT.
QUANTITIES:	L.F. SOIL	L.F. ROCK	SS SAMPLES	US TUBES	L.F. OW PIPE		

DATE STARTED: 5-8-85	eder associates BORING REPORT	1 SHEET OF 1	
DATE FINISHED: 5-8-85		BORING NO. SBC 5	

CLIENT: HUKILL CHEMICAL CORPORATION

PROJECT NAME AND LOCATION: POTENTIAL CONTAMINATION INVESTIGATION

PROJECT NO. (S): 495 01

DRILLING CONTRACTOR: TRIGGS GEOTECHNICAL — BORING FOREMAN: JOHN DINGLEDINE

SITE ENGINEER: NICK ANDRIANAS — INSPECTOR: NICK RECCHIA

EQUIPMENT:	CASING	SOIL SAMPLER: SPLIT SPOON (SS)	SOIL SAMPLER: UNDISTURBED (US)	CORE BARREL	AUGER	OBS. WELL (OW): PIPE	OBS. WELL (OW): CAP	DRILLING RIG AND METHOD
TYPE:	—	CARBON STEEL	—	—	HSA	—	—	CME 55 Mobile Drill
SIZE:	—	2" OD	—	—	6"	—	—	
HAMMER WT/ FALL	—	140/30	—	BIT.				

SURFACE ELEVATION: — NORTH COORDINATE: — EAST COORDINATE:

SURFACE CONDITIONS: LEVEL, CONCRETE PAD, DRY

GROUNDWATER AT FT. AFTER HRS. FT. AFTER HRS.

DEPTH BELOW GND.	CASING BLOWS PER FT.	TYPE & NO.	DEPTH FROM – TO	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION AND REMARKS (Trace = 0–10% Little = 10–20% Some = 20–35% And = 35–50%)	Monitor Well Construction
0	SS	148	.5-2	6 5 7	.5	CONCRETE Rd/BRN SAND + SILT little Sill MAT.	FILL
5	SS	149	5-6.5	7 11 15	5.5	GRY/Rd/GRN SILT + SAND tr. gravel	TILL
10	SS	150	8-9.5	8 18 32		SAME	
15	SS	151	13-14	48 160	13.5	Fractured/weathered GRY SHALE EOB @ 14'	SHALE

TYPE A	BORING —	CASING —	TO —	FT THEN —	CASING —	TO — FT.
QUANTITIES:	13.5 L.F. SOIL	.5 L.F. ROCK	4 SS SAMPLES	— US TUBES	— L.F. OW PIPE	

DATE STARTED: 5-8-86	eder associates BORING REPORT	1 SHEET OF 1	
DATE FINISHED: 5-8-86		BORING NO. SBC 6	

CLIENT: HUKILL CHEMICAL CORPORATION

PROJECT NAME AND LOCATION: POTENTIAL CONTAMINATION INVESTIGATION

PROJECT NO. (S): 49501

DRILLING CONTRACTOR: TRIGGS GEOTECHNICAL — BORING FOREMAN: JOHN DINGLEDINE

PROJ. ENGINEER: NICK ANDRIANAS — INSPECTOR: NICK RECCHIA

EQUIPMENT:	CASING	SOIL SAMPLER: SPLIT SPOON (SS)	SOIL SAMPLER: UNDISTURBED (US)	CORE BARREL	AUGER	OBS. WELL (OW): PIPE	OBS. WELL (OW): CAP	DRILLING RIG AND METHOD
TYPE:	—	CARBON STEEL	—	—	HSA	—	—	CME 55 MOBILE DRILL
SIZE:	—	2" OD	—	—	6"	—	—	
HAMMER WT/ FALL	—	140/30	—	BIT.				

SURFACE ELEVATION: — NORTH COORDINATE: — EAST COORDINATE:

SURFACE CONDITIONS: LEVEL CONCRETE PAD, DRY

GROUNDWATER AT FT. AFTER HRS. FT. AFTER HRS.

DEPTH BELOW GND.	CASING BLOWS PER FT.	TYPE & NO.	DEPTH FROM – TO	BLOWS/6" OR CORE TIME		STRATA DEPTH/ ELEV.	DESCRIPTION AND REMARKS (Trace = 0–10% Little = 10–20% Some = 20–35% And = 35–50%)	Monitor Well Construction
0	SS	152	.5-2		2	.5		
				3	4		Rd/BRN/GRY SILT, SAND and CLAY tr fill mat.	FILL
5	SS	153	5-6.5	5	9			
				13		6	Rd/BRN SILT some CLAY tr S/gravel + sand TILL	TILL
	SS	154	8-9.5	12	22		SAME	
10				30				
						12 ▼	Perched water	
						13		
	SS	155	13-14	60	110		Fractured/weathered GRY SHALE (DRY) EOB @ 14'	SHALE
15								

TYPE A — BORING — — CASING — — TO — — FT THEN — — CASING — — TO — — FT.

QUANTITIES: 13 L.F. SOIL — 1 L.F. ROCK — 4 SS SAMPLES — — US TUBES — — L.F. OW PIPE

DATE STARTED: 4·28·86	**eder associates** BORING REPORT	1 SHEET OF 1	
DATE FINISHED: 4·28·86		BORING NO. WELL A	
CLIENT: HUKILL CHEMICAL CORPORATION			
PROJECT NAME AND LOCATION: POTENTIAL CONTAMINATION INVESTIGATION, BEDFORD OHIO			
PROJECT NO. (S): 495 01			
BORING CONTRACTOR: TRIGGS GEOTECHNICAL		BORING FOREMAN: JOHN DINGLEDINE	
ENGINEER: NICK ANDRIANAS		INSPECTOR: NICK RECCHIA	

EQUIPMENT:	CASING	SOIL SAMPLER: SPLIT SPOON (SS)	SOIL SAMPLER: UNDISTURBED (US)	CORE BARREL	AUGER	OBS. WELL (OW): PIPE	OBS. WELL (OW): CAP	DRILLING RIG AND METHOD
TYPE:	—	carbon steel	—	—	HSA	STAINLESS	LOCKING	CME 55
SIZE:	—	2" OD	—	—	6"	2" OD	4"	Mobile Drill
HAMMER WT/ FALL	—	140/30	—	BIT.				

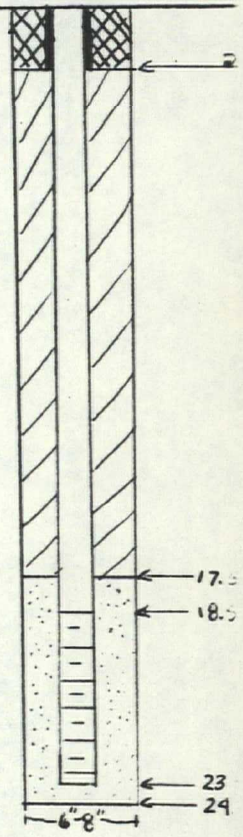
SURFACE ELEVATION: 979.59 NORTH COORDINATE: EAST COORDINATE:

SURFACE CONDITIONS: LEVEL, DRY CLEAR

GROUNDWATER AT 19.5 FT. AFTER EOB HRS. 12 FT. AFTER 24 HRS.

DEPTH BELOW GND.	CASING BLOWS PER FT.	TYPE & NO.	DEPTH FROM – TO	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION AND REMARKS (Trace = 0–10% Little = 10–20% Some = 20–35% And = 35–50%)
0		SS51	0 – 1.5	3 5 7 4	FILL	BRN SILT + CLAY little f/sand, tr f/gravel
		SS52	1.5 – 3	6 7 4 7	4'	GRY/BLK SILT + f/SAND some clay little f/gravel
5			3 – 4.5	11		NO RECOVERY 3–4.5
		SS53	7.5 – 9	11 12 16		Rd/BRN CLAY some silt tr f/sand + f/gravel (TILL)
10						
		SS54	12 – 13.5	14 34 83	13'	Fractured/weathered Gry SHALE (fissile)
15						
		SS55	16.5 – 17	120/.5		SAME
					19.5 ▼	
20		SS56	20 – 20.5	85/.5		SAME (WET)
	AUGER					
25					25.5'	EOB

Monitor Well Construction



CONCRETE TO 2.0'
BENTONITE TO 17.5'
fine clean SAND to 24.5

TYPE	A	BORING	4"	CASING	0	TO	2	FT THEN —	CASING — TO — FT.
QUANTITIES:	25.5 L.F. SOIL	— L.F. ROCK	6 SS SAMPLES	— US TUBES	23.5 L.F. OW PIPE				

DATE STARTED: 4·29·86	**eder associates** BORING REPORT	1 SHEET OF 1	
DATE FINISHED: 4·29·86		BORING NO. WELL B	

CLIENT: HUKILL CHEMICAL CORPORATION

PROJECT NAME AND LOCATION: POTENTIAL CONTAMINATION INVESTIGATION BEDFORD, OHIO

PROJECT NO. (S): 495 01

BORING CONTRACTOR: TRIGGS GEOTECHNICAL | BORING FOREMAN: JOHN DINGLEDINE

SOILS ENGINEER: NICK ANDRIANAS | INSPECTOR: NICK RECCHIA

EQUIPMENT:	CASING	SOIL SAMPLER: SPLIT SPOON (SS)	SOIL SAMPLER: UNDISTURBED (US)	CORE BARREL	AUGER	OBS. WELL (OW): PIPE	OBS. WELL (OW): CAP	DRILLING RIG AND METHOD
TYPE:	—	carbon steel	—	—	HSA	stainless	LOCKING	CME 55
SIZE:	—	2" OD	—	—	6"	2"	4"	Mobile Drill
HAMMER WT/ FALL	—	140/30"	—	BIT.				

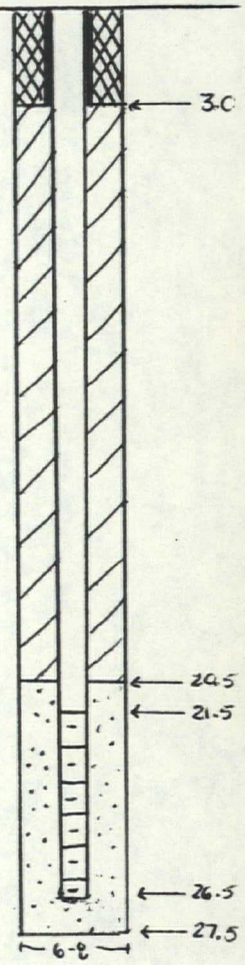
SURFACE ELEVATION: 979.05 | NORTH COORDINATE: | EAST COORDINATE:

SURFACE CONDITIONS: Level, dry, gravel

GROUNDWATER AT 22.5 FT. AFTER EOB HRS. 15.1 FT. AFTER 2.5 HRS.

DEPTH BELOW GND.	CASING BLOWS PER FT.	TYPE & NO.	DEPTH FROM – TO	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION AND REMARKS (Trace = 0–10% Little = 10–20% Some = 20–35% And = 35–50%)
0		SS57	0-1.5	5 5 9 11		Rd/BRN SILT little clay tr common fill mat.
		SS58	1.5-3	10 13 5 6		Rd/BRN MOTTLED SILT little clay little f/gravel + sand
5		SS59	3-4.5	9		SAME
		SS60	7.5-9	5 4 4		BLK f/SAND some silt common fill mat. glass frags. FILL
10						
		SS61	12-13.5	4 15 27	12.5'	SAME w/ rubber stripping
						Rd/BRN/GRY CLAY little silt tr f/gravel TILL
15						
		SS62	16.5-17.5	24 64	17'	GRY WEATHERED/FRACTURED SHALE (fissile)
20						
		SS63	20.5-21	70/.5'	22.5 ▼	GRY FRACTURED SHALE (fissile) oxidation Rd/BRN btwn seams.
25		SS64	24-24.5	74/.5'		SAME (WET)
	A U G 28' E R				28'	EOB
30						DRY SHALE @ 28'

Monitor Well Construction



CONCRETE TO 3.0'
BENTONITE TO 20.5'
CLEAN FINE SAND TO 27.5'

TYPE	A	BORING	4"	CASING	0	TO	3	FT THEN	—	CASING	—	TO	—	FT.
QUANTITIES:	17	L.F. SOIL	11	L.F. ROCK	8	SS SAMPLES	—	US TUBES	26.5	L.F. OW PIPE				

DATE STARTED: 4-30-86	**eder associates** BORING REPORT	1 SHEET OF 1	
DATE FINISHED: 4-30-86		BORING NO. WELL C	

CLIENT: HUKILL CHEMICAL CORPORATION

PROJECT NAME AND LOCATION: POTENTIAL CONTAMINATION INVESTIGATION BEDFORD OHIO

PROJECT NO. (S): 495 01

BORING CONTRACTOR: TRIGGS GEOTECHNICAL | BORING FOREMAN: JOHN DINGLEDINE

LOGGED ENGINEER: NICK ANDRIANAS | INSPECTOR: NICK RECCHIA

EQUIPMENT:	CASING	SOIL SAMPLER: SPLIT SPOON (SS)	SOIL SAMPLER: UNDISTURBED (US)	CORE BARREL	AUGER	OBS. WELL (OW): PIPE	OBS. WELL (OW): CAP	DRILLING RIG AND METHOD
TYPE:	—	CARBON STEEL	—	—	HSA	STAINLESS	LOCKING	CME 55 Mobile Drill
SIZE:	—	2" OD	—	—	6"	2" OD	4'	
HAMMER WT/ FALL	—	140/30	—	BIT.				

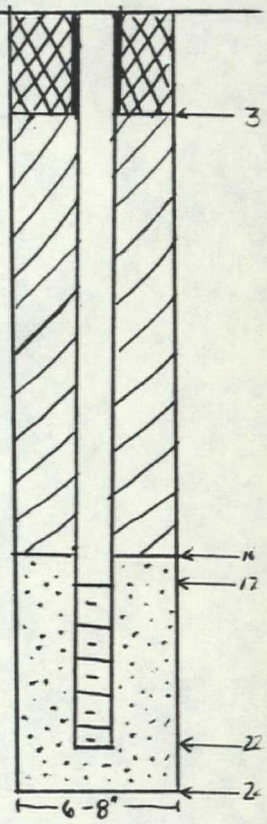
SURFACE ELEVATION: 979.4 | NORTH COORDINATE: | EAST COORDINATE:

SURFACE CONDITIONS: GRAVEL, WET, ADJACENT TO BERM

GROUNDWATER AT 18.5 FT. AFTER EOB HRS. 15.1 FT. AFTER 24 HRS.

DEPTH BELOW GND.	CASING BLOWS PER FT.	TYPE & NO.	DEPTH FROM – TO	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION AND REMARKS (Trace = 0–10% Little = 10–20% Some = 20–35% And = 35–50%)
0		SS65	0-1.5	7 8 6		GRY/BRN GRAVEL some cobbles little sand, silt + clay. FILL
		SS66	3-4.5	5 11		
5		SS67	4.5-6	9 9	5'	GRY/BRN CLAY some fill MAT.
				13 17		GRY/BRN CLAY some silt little sand TILL
		SS68	7.5-9	7		SAME
10				11 20		
		SS69	12-13.5	13 26 80	13'	
15						GRY WEATHERED/FRACTURED SHALE (fissile)
		SS70	16.5-17.5	40 180		SAME
					18.5 ▼	
20		SS71	20.5-21	95/.5		GRY FRACTURED SHALE oxidation in seams
	A U G E R TO 24'				24'	EOB
25						

Monitor Well Construction



CONCRETE TO 3'
BENTONITE TO 16.5'
SAND TO 24'

TYPE A	BORING 4"	CASING 0	TO 3	FT THEN —	CASING —	TO —	FT.
QUANTITIES:	13 L.F. SOIL	11 L.F. ROCK	7 SS SAMPLES	— US TUBES	22.5 L.F. OW PIPE		

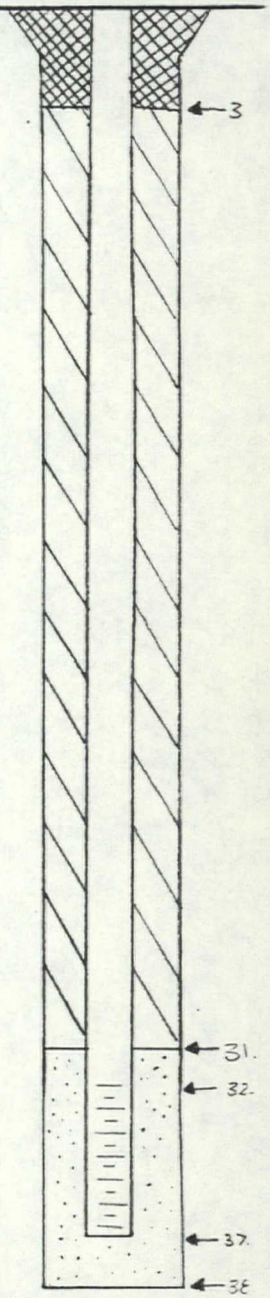
DATE STARTED: 10-1-86	**eder associates BORING REPORT**	SHEET 1 OF 1	
DATE FINISHED: 10-1-86		BORING NO. WELL E	
CLIENT: HUKILL CHEMICAL CORP			
PROJECT NAME AND LOCATION: SUBSURFACE INVESTIGATION PHASE II BEDFORD OHIO			
PROJECT NO. (S):			
DRILLING CONTRACTOR:		BORING FOREMAN:	
EDER'S ENGINEER:		INSPECTOR:	

EQUIPMENT:	CASING	SOIL SAMPLER: SPLIT SPOON (SS)	SOIL SAMPLER: UNDISTURBED (US)	CORE BARREL	AUGER	OBS. WELL (OW): PIPE	OBS. WELL (OW): CAP	DRILLING RIG AND METHOD
TYPE:	—	—	—	—	HSA	304	LOCK CAP	CME 55
SIZE:	—	—	—		4" ID	2"	4"x5"	Mobile Dr.
HAMMER WT/ FALL	—	—	—	BIT.		—		

SURFACE ELEVATION: NA	NORTH COORDINATE: —	EAST COORDINATE: —
SURFACE CONDITIONS: NW FILL AREA		
GROUNDWATER AT 24.9 FT. AFTER 48 HRS.	FT. AFTER HRS.	

DEPTH BELOW GND.	OVA READING	TYPE & NO.	DEPTH FROM – TO	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION AND REMARKS (Trace = 0–10% Little = 10–20% Some = 20–35% And = 35–50%)
0				AUGER		Fill material SAND, SLAG, BRICK GLASS.
5						
10						
15					13'	Highly weathered gry Shale
20						
25					25 ▽	
30						
35						water flow into augers @ 32.5'
						EOB @ 38.5

Monitor Well Construction



TYPE	BORING	CASING	TO	FT THEN	CASING	TO	FT.
QUANTITIES:	L.F. SOIL	L.F. ROCK	SS SAMPLES	US TUBES	L.F. OW PIPE		

DATE STARTED: 9-22-86	**eder associates** BORING REPORT	SHEET 1 OF 1	
DATE FINISHED: 9-22-86		BORING NO. SB46	
CLIENT: HUKILL CHEMICAL CORP.		installed WELL F here	
PROJECT NAME AND LOCATION: SUBSURFACE INVESTIGATION PHASE II Bedford OHIO			
PROJECT NO. (S): 49501			
BORING CONTRACTOR: TRIGGS GEOTECHNICAL		BORING FOREMAN: JOHN DINGLEDINE	
SOILS ENGINEER:		INSPECTOR: NICK RECCHIA	

EQUIPMENT:	CASING	SOIL SAMPLER: SPLIT SPOON (SS)	SOIL SAMPLER: UNDISTURBED (US)	CORE BARREL	AUGER	OBS. WELL (OW): PIPE	OBS. WELL (OW): CAP	DRILLING RIG AND METHOD
TYPE:	—	STANDARD	—	—	HSA	304	LOCK CAP	CME 45 SKID RIG
SIZE:	—	2" OD	—	—	4" ID	2"	4"x5'	
HAMMER WT/ FALL	—	140/30	—	BIT.		—		

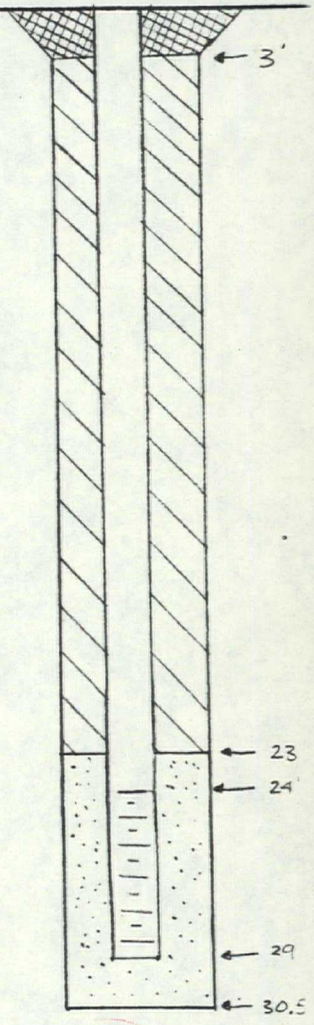
SURFACE ELEVATION: NA NORTH COORDINATE: — EAST COORDINATE: —

SURFACE CONDITIONS: Level curbside

GROUNDWATER AT 27 FT. AFTER 24 HRS. FT. AFTER HRS.

DEPTH BELOW GND.	OVA READING	TYPE & NO.	DEPTH FROM – TO	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION AND REMARKS (Trace = 0–10% Little = 10–20% Some = 20–35% And = 35–50%)
0	6.5	SS38	0-1.5	1 3 2 2		BRN CLAY + SILT tr SAND
	150	SS39	1.5-3	3 3 2 1		BLK/BRN SAND little silty clay tr. ASH + gravel
5	65.0	SS40	3-4.5	3 2 1 1		SAME
	1000+	SS41	4.5-6			SAME; some clay
10	990	SS42	9-10.5	5 9 13	10	Rd/GRY CLAY TILL little silt
15	75	SS43	13.5-14.5	36 100	13	GRY weathered shale
	40	SS44	17.5-17.9	100/.4		SAME
20	35	SS45	21-21.4	100/.4		SAME
25	45	SS46	24.5-25	130/.5	27 ▽	WET SEEP @ 24.5'
30	250	SS47	28-28.5	150/.5		GRY shale dry
						EOB @ 30.5'

Monitor Well Construction



concrete to 3'
bentonite to 23'
SAND to 30.5'

TYPE A	BORING —	CASING —	TO —	FT THEN —	CASING —	TO — FT.
QUANTITIES:	13 L.F. SOIL	17 L.F. ROCK	10 SS SAMPLES	— US TUBES	30.5 L.F. OW PIPE	

DATE STARTED: 9-29-86	**eder associates** BORING REPORT	SHEET 1 OF 1	
DATE FINISHED: 9-29-86		BORING NO. WELL G	
CLIENT: HUKILL CHEMICAL CORP.			
PROJECT NAME AND LOCATION: Subsurface investigation phase II			
PROJECT NO. (S): 49501			
BORING CONTRACTOR: TRIGGS GEOTECHNICAL		BORING FOREMAN: JOHN DINGLEDINE	
SOILS ENGINEER:		INSPECTOR: NICK RECCHIA	

EQUIPMENT:	CASING	SOIL SAMPLER: SPLIT SPOON (SS)	SOIL SAMPLER: UNDISTURBED (US)	CORE BARREL	AUGER	OBS. WELL (OW): PIPE	OBS. WELL (OW): CAP	DRILLING RIG AND METHOD
TYPE:	—	STANDARD	—	—	HSA	304	LOCKCAP	CME 55
SIZE:	—	2" OD	—	—	4" OD	2"	4"x5'	Mobile Drill
HAMMER WT/ FALL	—	140/30	—	BIT.		—		

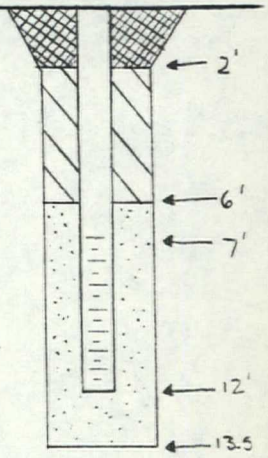
SURFACE ELEVATION: NA NORTH COORDINATE: — EAST COORDINATE: —

SURFACE CONDITIONS: embankment to creek edge

GROUNDWATER AT 7 FT. AFTER 1 HRS. 3.6 FT. AFTER 48 HRS.

DEPTH BELOW GND.	OVA READING	TYPE & NO.	DEPTH FROM – TO	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION AND REMARKS (Trace = 0–10% Little = 10–20% Some = 20–35% And = 35–50%)
0	8.5		.5–2	3		BRN/BLK CLAY tr ASH rebar + concrete disintergrated concrete
				7 15		
	40	SS121	2-3.5	10 8		
				7 4		
5	40		3.5-5	3 4		GRY/BLK CLAY tr SAND WOOD, ASH, CEMENT AND CLAY @ 6'
	150		5-6.5	1 2	7	
				3	▽	
				1		
10			9.5-11	1 2		WET SEEP @ 9.5'
				2 4		
	1000+		11-12.5	8 32		GRY/BLK CLAY little ORGANICS
	1000+		12.5-13.5	125	13	
15						GRY weathered shale (dry)
						EOB @ 13.5'

Monitor Well Construction



concrete to 2'
bentonite to 6'
sand to 13.5'

TYPE 4	BORING —	CASING —	TO —	FT THEN —	CASING —	TO —	FT.
QUANTITIES:	13 L.F. SOIL	.5 L.F. ROCK	1 SS SAMPLES	— US TUBES	13.5 L.F. OW PIPE		

DATE STARTED: 5-9-86	**eder associates** BORING REPORT	1 SHEET OF 2	
DATE FINISHED: 5-9-86		BORING NO. DEEP WELL PROBE	

CLIENT: HUKILL CHEMICAL CORPORATION

PROJECT NAME AND LOCATION: POTENTIAL CONTAMINATION INVESTIGATION

PROJECT NO. (S): 495 01

BORING CONTRACTOR: TRIGGS GEOTECHNICAL — BORING FOREMAN: JOHN DINGLEDINE

ENGINEER: NICK ANDRIANAS — INSPECTOR: NICK RECCHIA

EQUIPMENT:	CASING	SOIL SAMPLER: SPLIT SPOON (SS)	SOIL SAMPLER: UNDISTURBED (US)	CORE BARREL	AUGER	OBS. WELL (OW): PIPE	OBS. WELL (OW): CAP	DRILLING RIG AND METHOD
TYPE:	HW	CARBON STEEL	—	—	HSA	—	—	CME 55
SIZE:	4"	2" OD	—	—	6"	—	—	Mobile Drill
HAMMER WT/ FALL	140/30	140/30	—	BIT.				

SURFACE ELEVATION: — NORTH COORDINATE: — EAST COORDINATE:

SURFACE CONDITIONS: WET 5' S of EAST SIDE BERM → TANK FARM (WELL C vicinity)

GROUNDWATER AT FT. AFTER HRS. FT. AFTER HRS.

DEPTH BELOW GND.	CASING BLOWS PER FT.	TYPE & NO.	DEPTH FROM – TO	BLOWS/6" OR CURE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION AND REMARKS (Trace = 0–10% Little = 10–20% Some = 20–35% And = 35–50%)	Monitor Well Construction
0	AUGER					FILL	
5					5		
	TO 34'					TILL	
10							
15	ROLLER				13	Fractured/weathered SHALE	
20	BIT						
25	WATER						
30						Roller bit becomes difficult	
35	↓					bottom of casing	← 34
40	OPEN SS	156	40-40.2	300/.2		well consolidated GRY SHALE (DRY)	

TYPE	BORING	CASING	TO	FT THEN	CASING	TO	FT.
QUANTITIES:	13 L.F. SOIL	21 L.F. ROCK		SS SAMPLES	— US TUBES	— L.F. OW PIPE	

DATE STARTED:	**eder associates** BORING REPORT	2 SHEET OF 2
DATE FINISHED:		BORING NO. DEEP WELL PROBE

CLIENT:

PROJECT NAME AND LOCATION

PROJECT NO. (S):

BORING CONTRACTOR: | BORING FOREMAN:

SOILS ENGINEER: | INSPECTOR:

EQUIPMENT:	CASING	SOIL SAMPLER		CORE BARREL	AUGER	OBS. WELL (OW)		DRILLING RIG AND METHOD
		SPLIT SPOON (SS)	UNDISTURBED (US)			PIPE	CAP	
TYPE:								
SIZE:								
HAMMER WT/ FALL				BIT.				

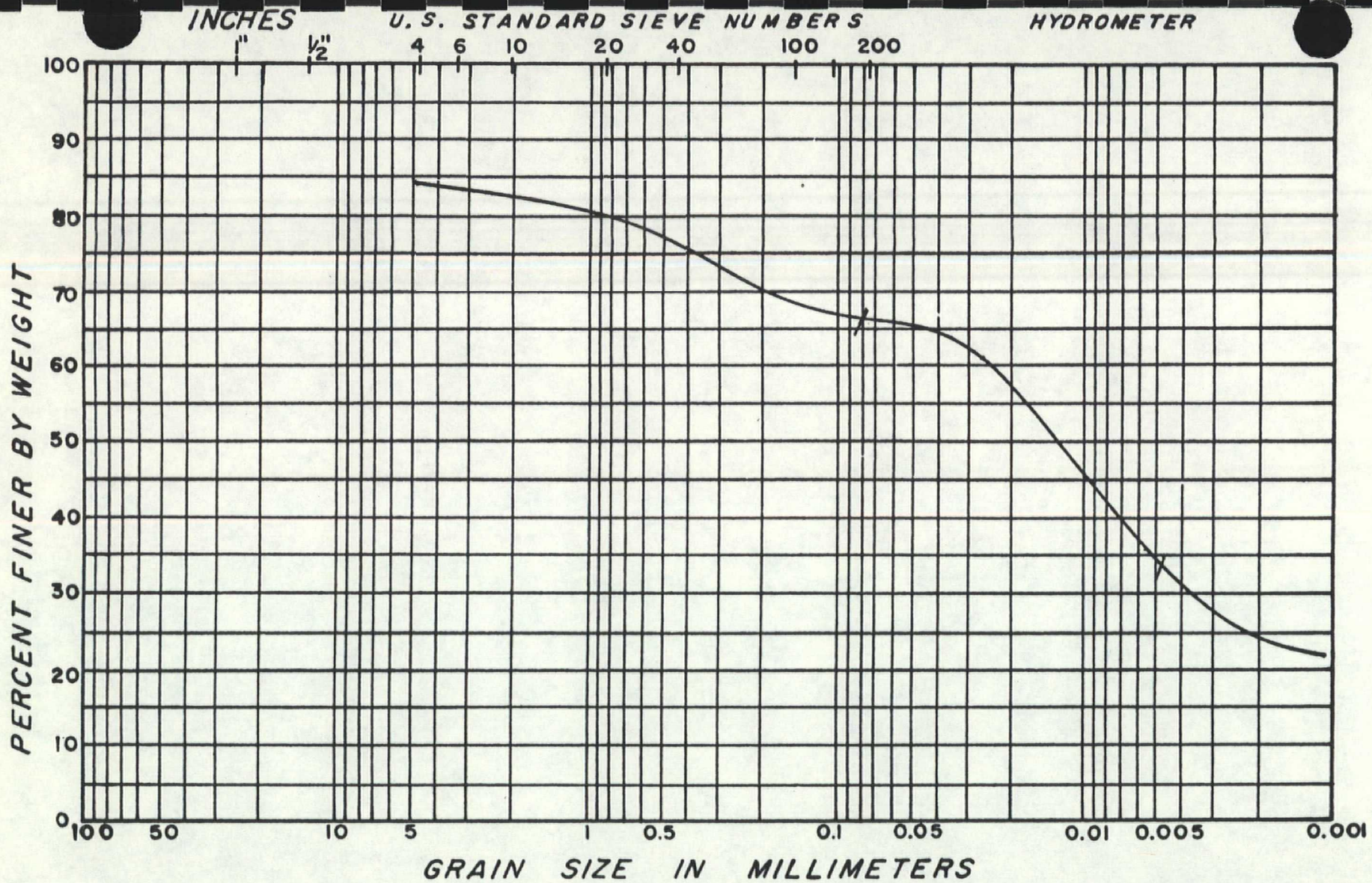
SURFACE ELEVATION: | NORTH COORDINATE: | EAST COORDINATE:

SURFACE CONDITIONS:

GROUNDWATER AT FT. AFTER HRS. FT. AFTER HRS.

DEPTH BELOW GND.	CASING BLOWS PER FT.	TYPE & NO.	DEPTH FROM – TO	BLOWS/6" OR CORE TIME	STRATA DEPTH/ ELEV.	DESCRIPTION AND REMARKS Trace = 0–10% Little = 10–20% Some = 20–35% And = 35–50%	Monitor Well Construction
40						CASING push down to 34'	
						OPEN HOLE 34-44' DRILL	drill water
45						WATER BAILED TO 43.5'	

TYPE	BORING	CASING	TO	FT THEN	CASING	TO	FT.
QUANTITIES:	L.F. SOIL	L.F. ROCK	SS SAMPLES	US TUBES	L.F. OW PIPE		



GRAIN SIZE ANALYSIS

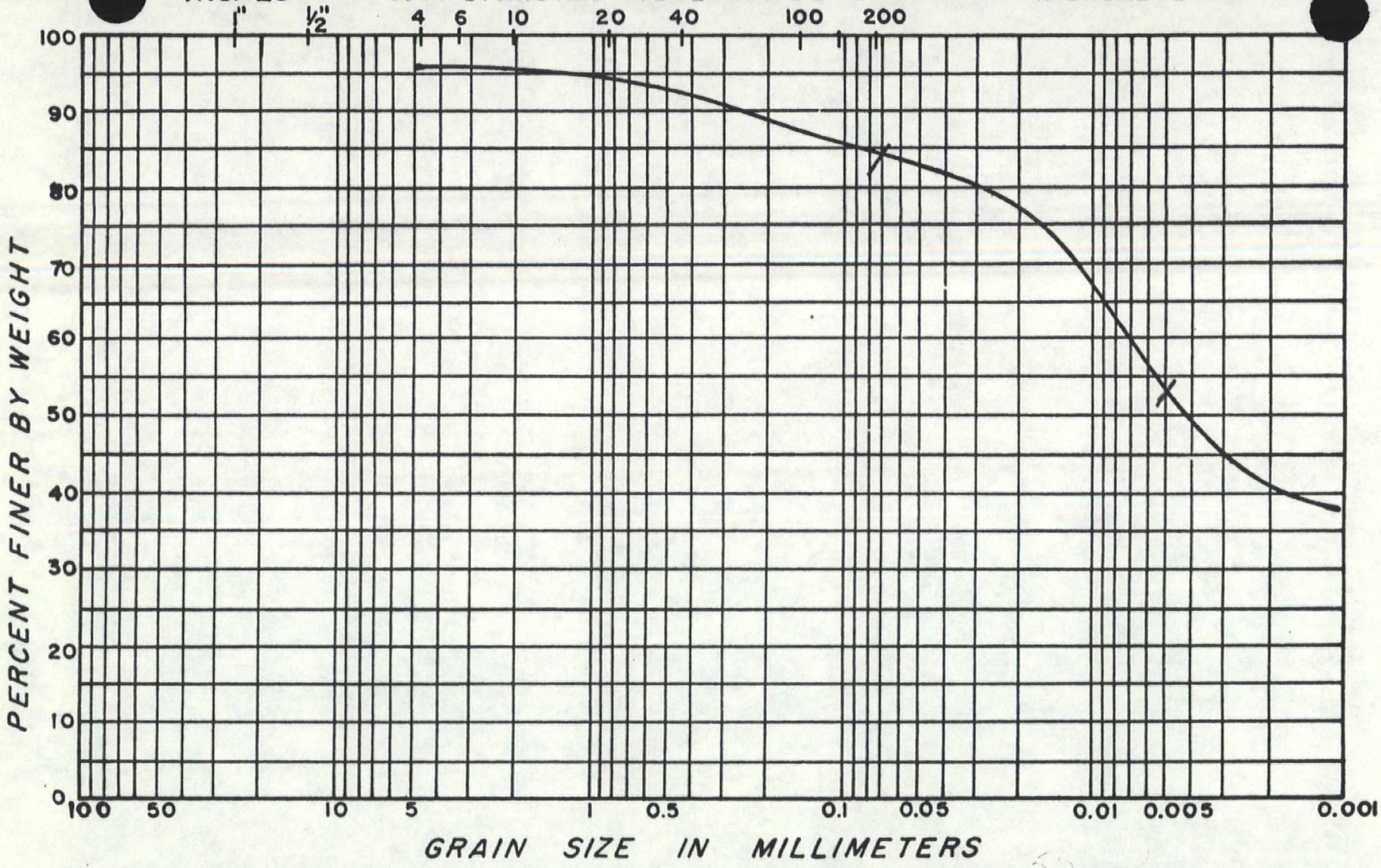
GRAVEL		SAND			SILT	CLAY
COARSE	FINE	COARSE	MEDIUM	FINE		

OWNER HUKILL CHEMICAL PROJECT HUKILL CHEMICAL

LOCATION BEDFORD, OHIO BORING NO. SB11 SAMPLE NO. SS94 3.0-4.5'

TRIGGS & ASSOCIATES, INC.

35% SAND 30% SILT 35% CLAY Fill



GRAIN SIZE ANALYSIS

GRAVEL		SAND			SILT	CLAY
COARSE	FINE	COARSE	MEDIUM	FINE		

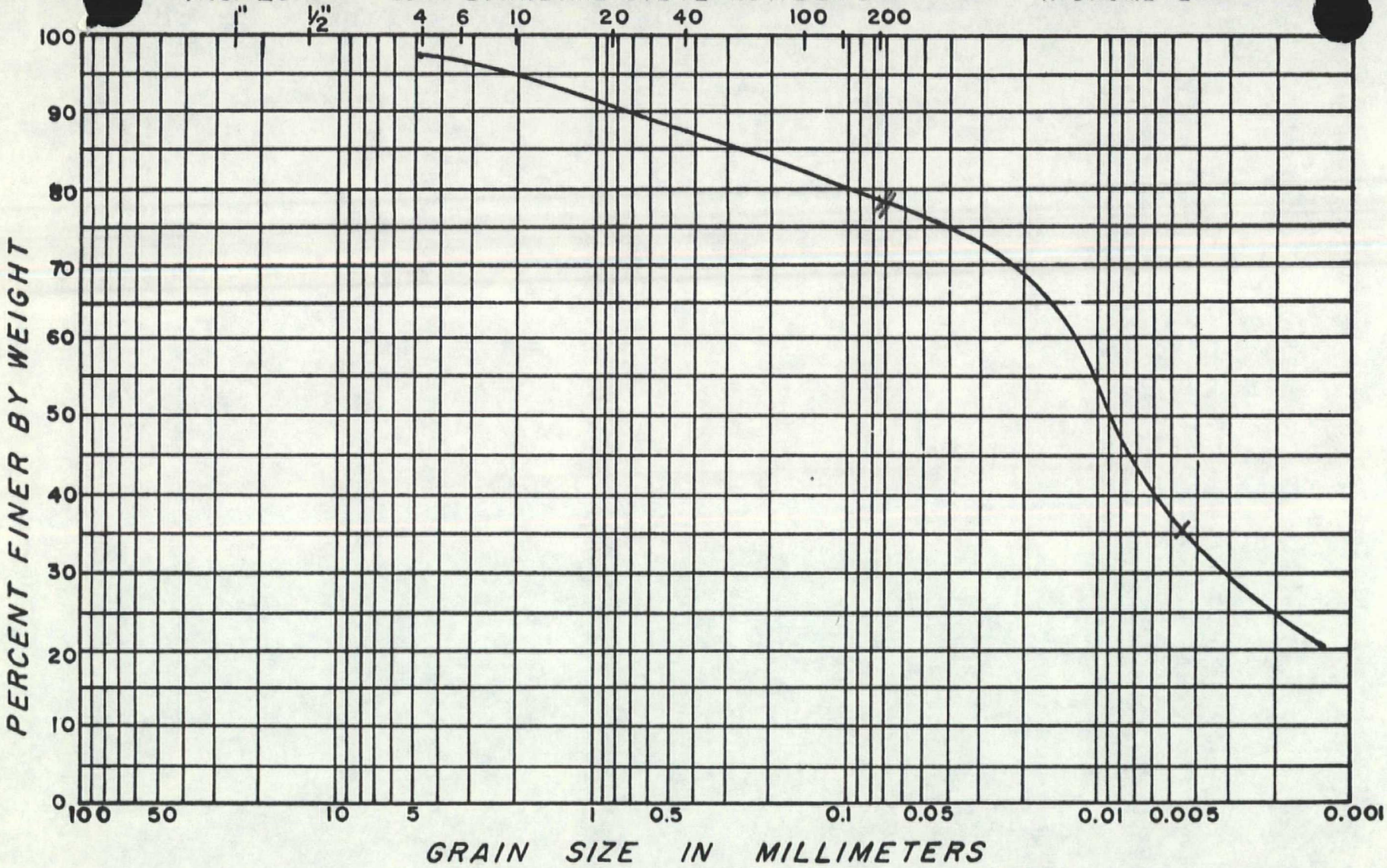
OWNER HUKILL CHEMICAL PROJECT HUKILL CHEMICAL

LOCATION BEDFORD, OHIO BORING NO. SB12 SAMPLE NO. SS100 1.5-3.0'

TRIGGS & ASSOCIATES, INC.

15% SAND 30% SILT 55% CLAY

F-11



GRAVEL		SAND			SILT	CLAY
COARSE	FINE	COARSE	MEDIUM	FINE		

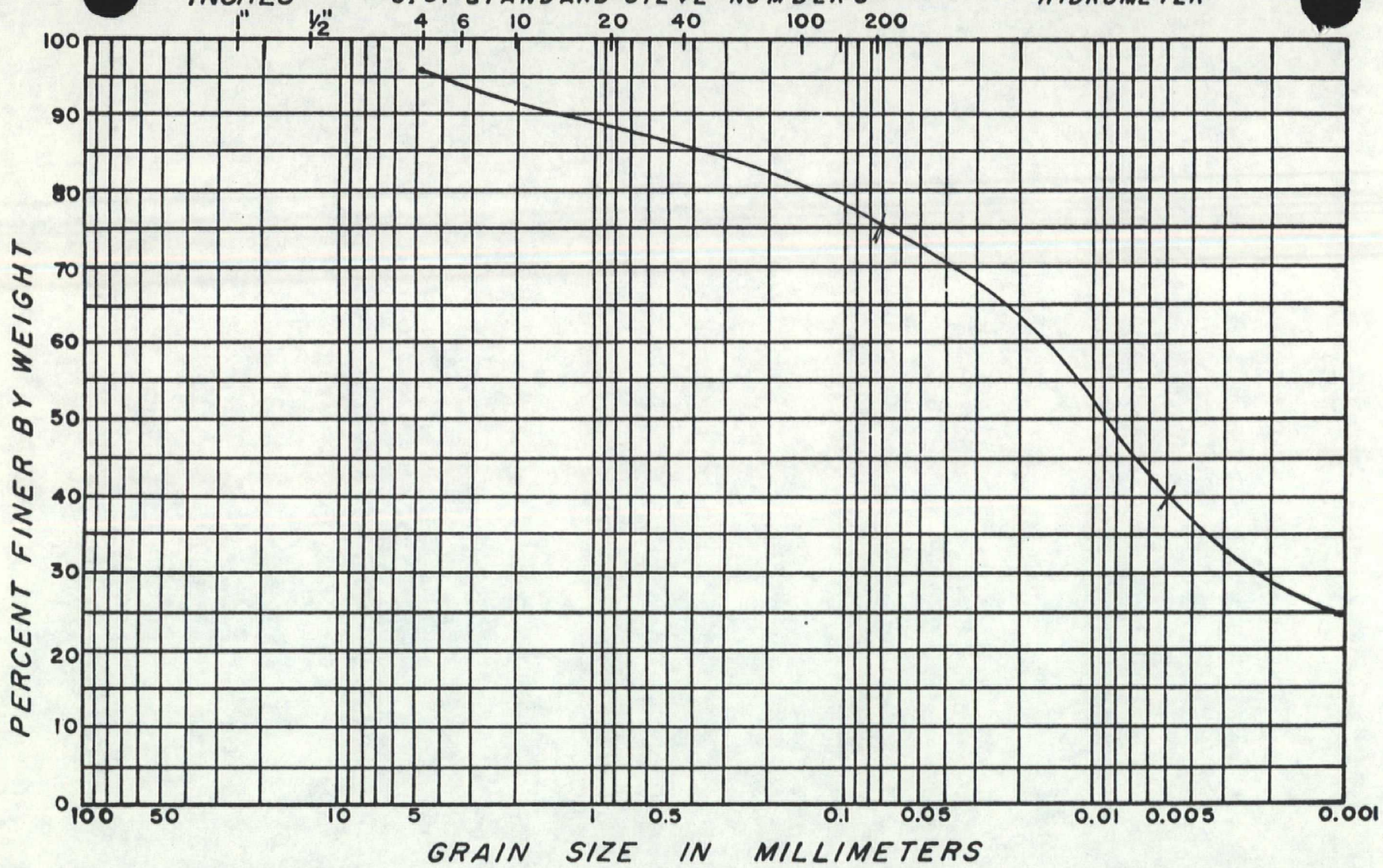
OWNER HUKILL CHEMICAL — PROJECT HUKILL CHEMICAL

LOCATION BEDFORD, OHIO — BORING NO. SB12 — SAMPLE NO. SS102 7.5-9.0'

GRAIN SIZE ANALYSIS

TRIGGS & ASSOCIATES, INC.

20% SAND 45% SILT 35% CLAY TILL



GRAVEL		SAND			SILT	CLAY
COARSE	FINE	COARSE	MEDIUM	FINE		

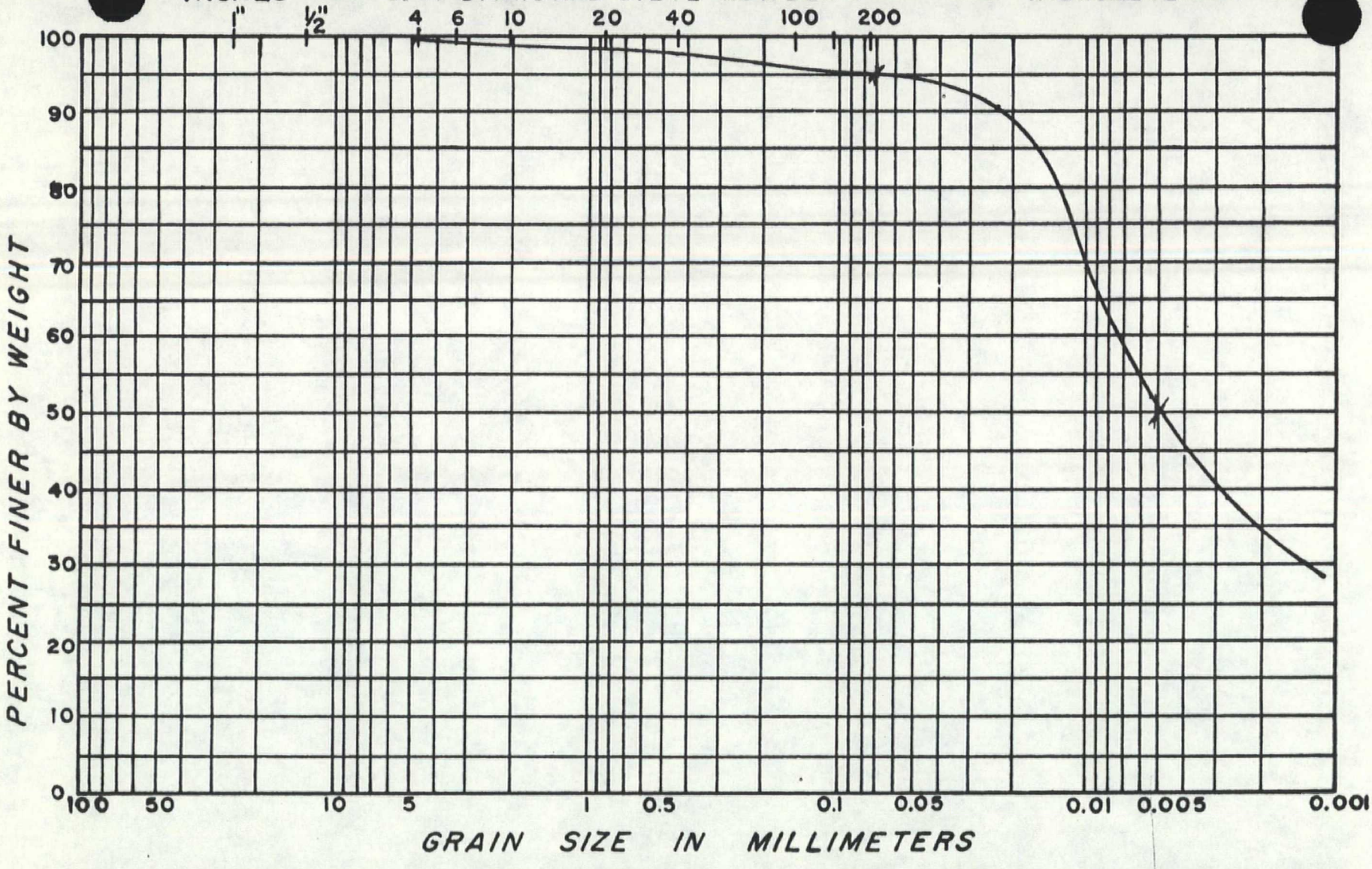
OWNER HUKILL CHEMICAL PROJECT HUKILL CHEMICAL

LOCATION BEDFORD, OHIO BORING NO. SB12 SAMPLE NO. 3.0-4.5' SS101

GRAIN SIZE ANALYSIS

TRIGGS & ASSOCIATES, INC.

25% SAND 35% SILT 40% CLAY Fill/Till



GRAVEL		SAND			SILT	CLAY
COARSE	FINE	COARSE	MEDIUM	FINE		

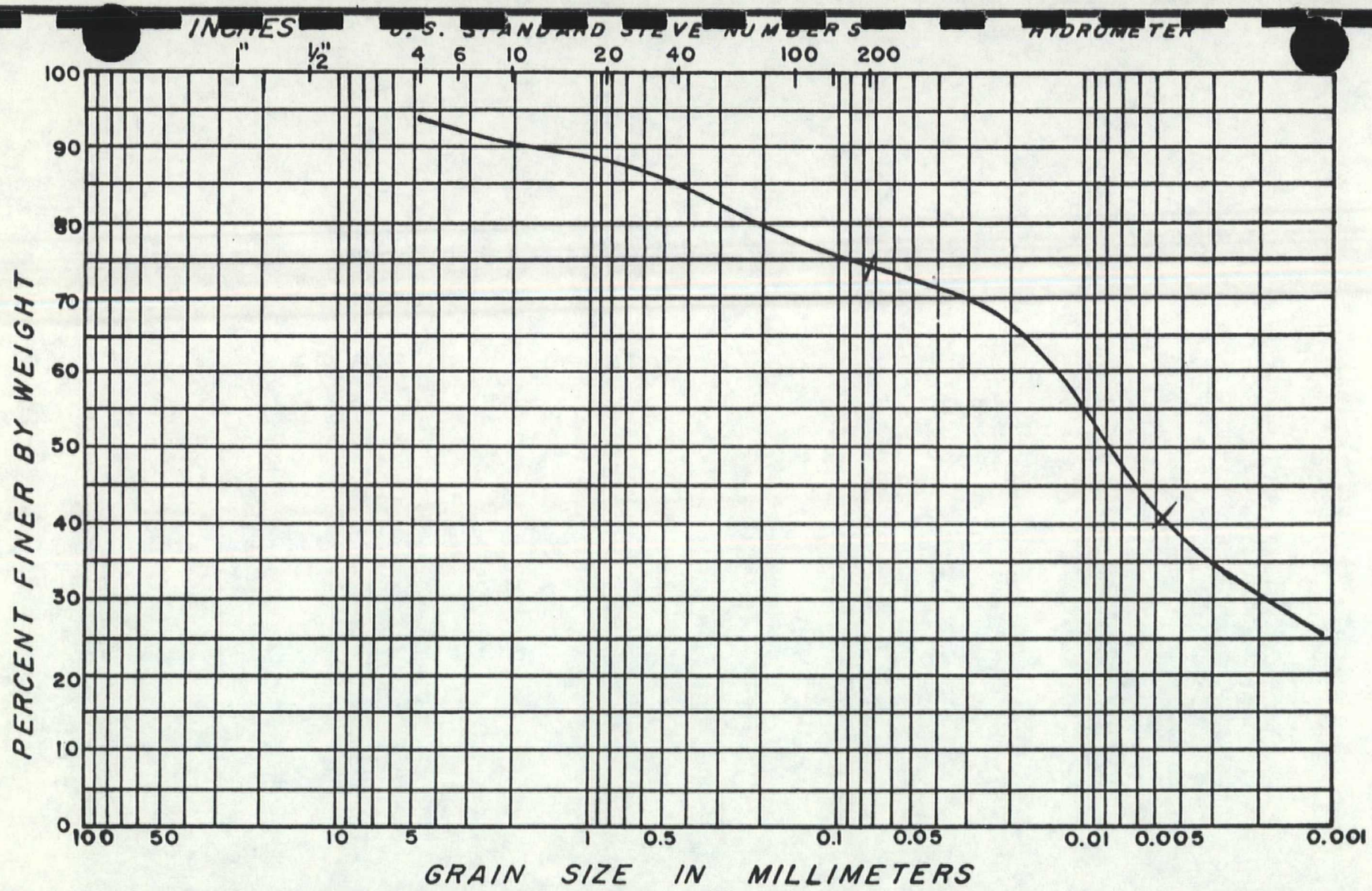
OWNER HUKILL CHEMICAL PROJECT HUKILL CHEMICAL

LOCATION BEDFORD, OHIO BORING NO. SBW 16 SAMPLE NO. GSH 7.5-9.0' SS42

GRAIN SIZE ANALYSIS

TRIGGS & ASSOCIATES, INC.

5% SAND
45% SILT 50% CLAY Till



GRAIN SIZE ANALYSIS

GRAVEL		SAND			SILT	CLAY
COARSE	FINE	COARSE	MEDIUM	FINE		

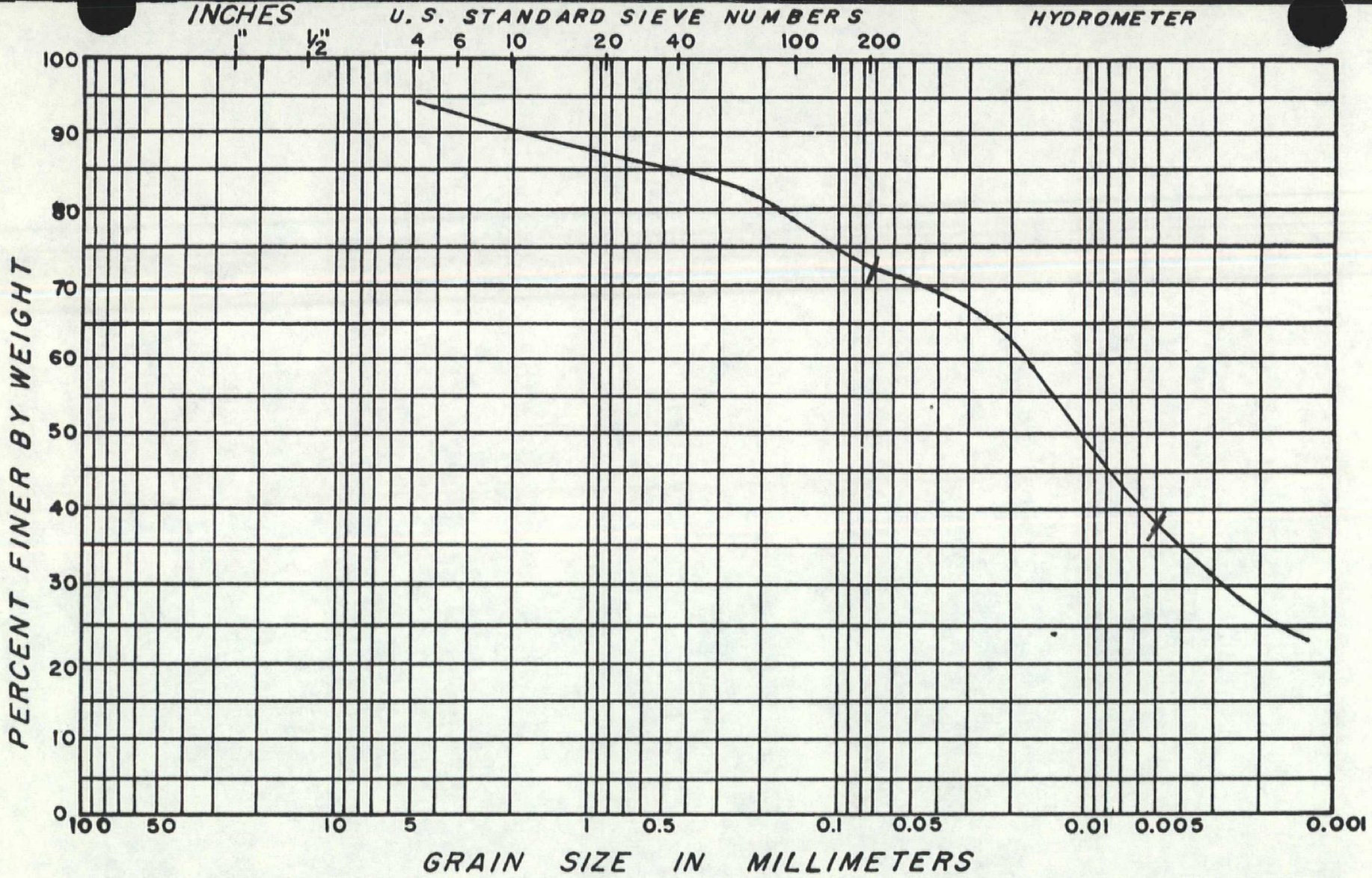
OWNER HUKILL CHEMICAL PROJECT HUKILL CHEMICAL

LOCATION BEDFORD, OHIO BORING NO. SBW16 SAMPLE NO. GSH 3.0-4.5' 5546

TRIGGS & ASSOCIATES, INC.

25% SAND 35% SILT 40% CLAY

F-4



GRAIN SIZE ANALYSIS

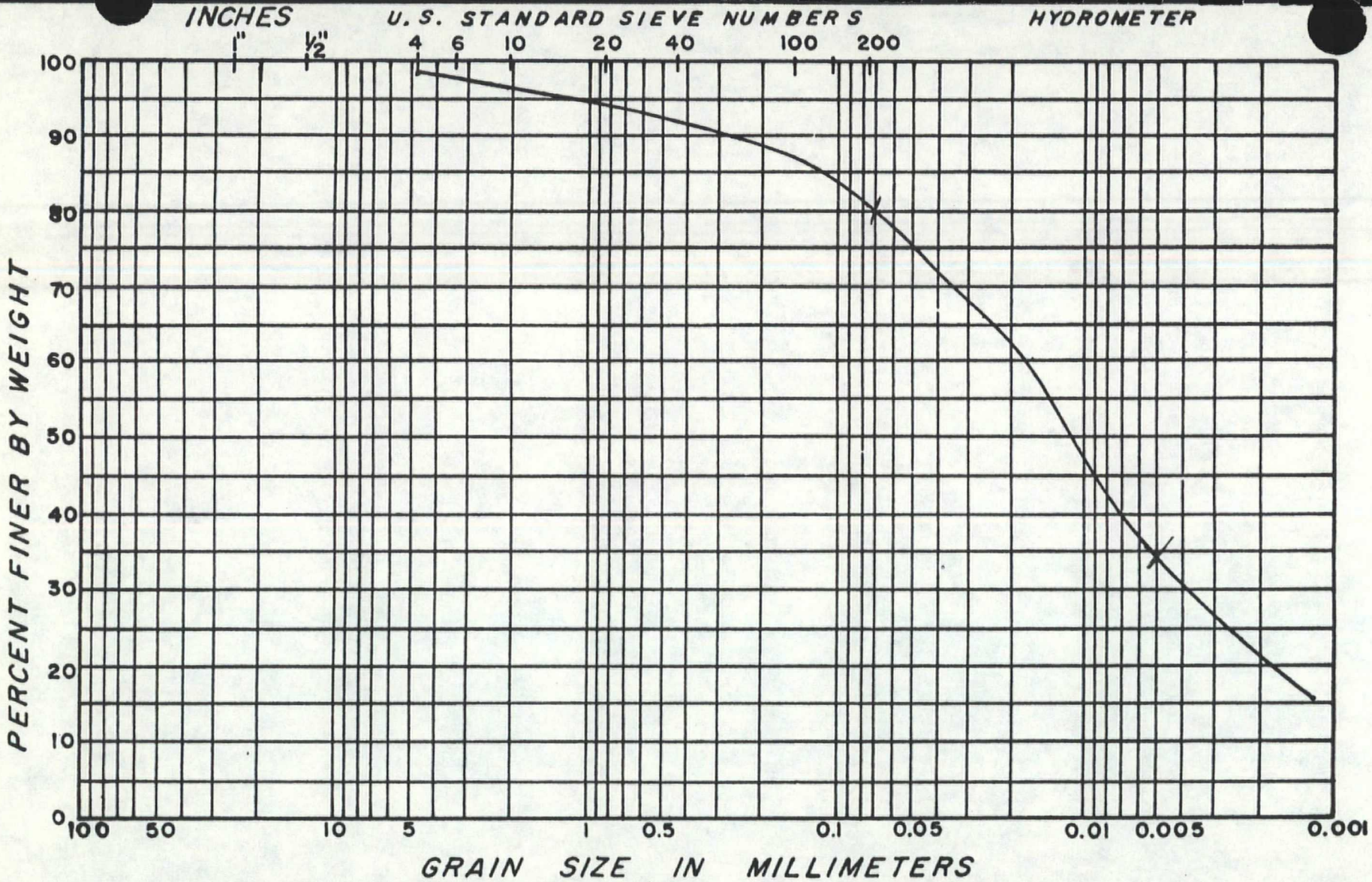
GRAVEL		SAND			SILT	CLAY
COARSE	FINE	COARSE	MEDIUM	FINE		

OWNER	HUCKILL CHEMICAL	PROJECT	HUCKILL CHEMICAL		
LOCATION	BEDFORD, OHIO	BORING NO.	SB-17	SAMPLE NO.	SS 109; 3.0 - 4.5'

TRIGGS & ASSOCIATES, INC.

30% SAND 35% SILT 35% CLAY

Till



GRAIN SIZE ANALYSIS

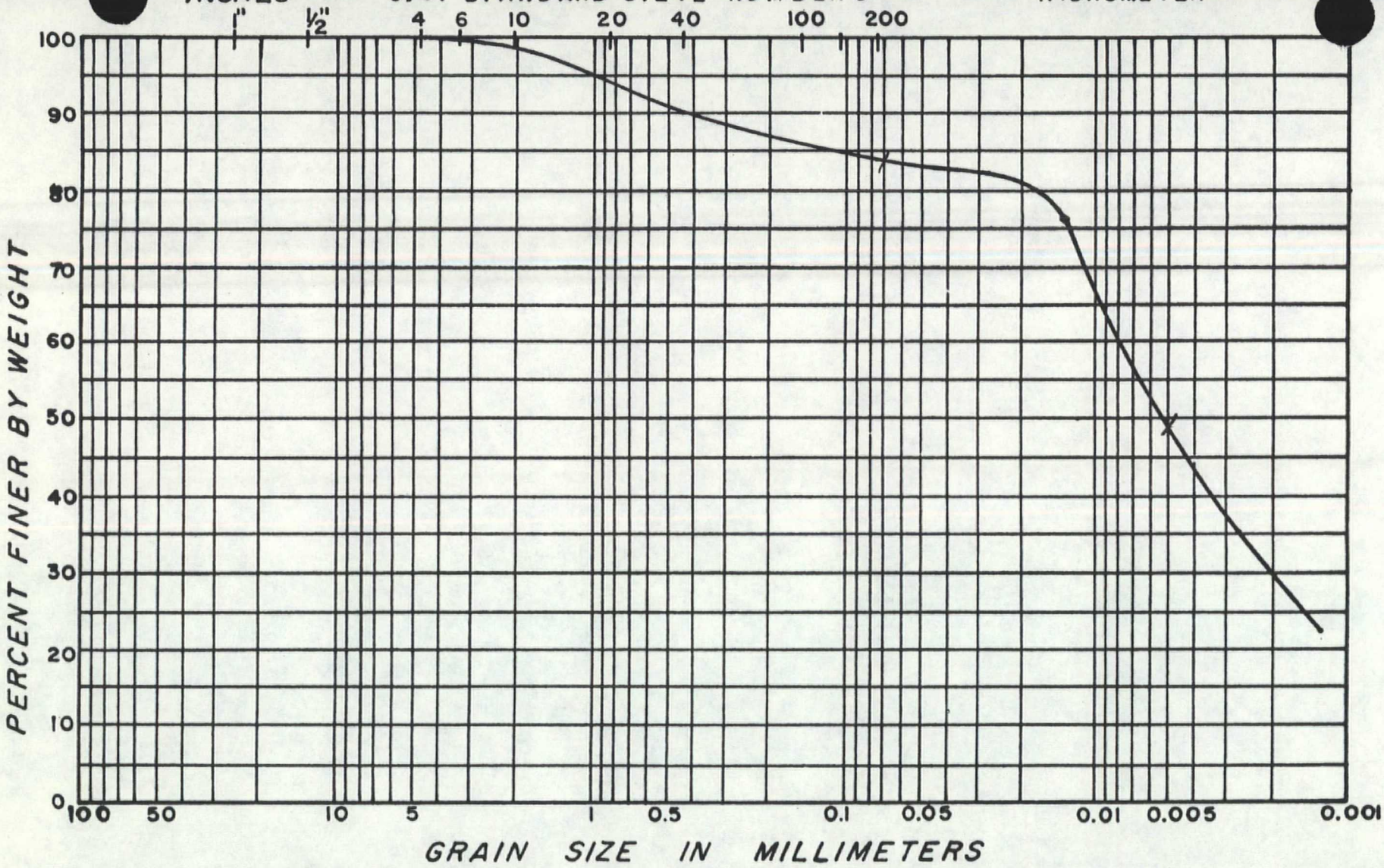
GRAVEL		SAND			SILT	CLAY
COARSE	FINE	COARSE	MEDIUM	FINE		

OWNER HUKILL CHEMICAL PROJECT HUKILL CHEMICAL

LOCATION BEDFORD, OHIO BORING NO. SB-17 SAMPLE NO. SS107 0-1.5'

TRIGGS & ASSOCIATES, INC.

20% SAND 45% SILT 35% CLAY Fill



GRAVEL		SAND			SILT	CLAY
COARSE	FINE	COARSE	MEDIUM	FINE		

OWNER HUKILL CHEMICAL PROJECT HUKILL CHEMICAL

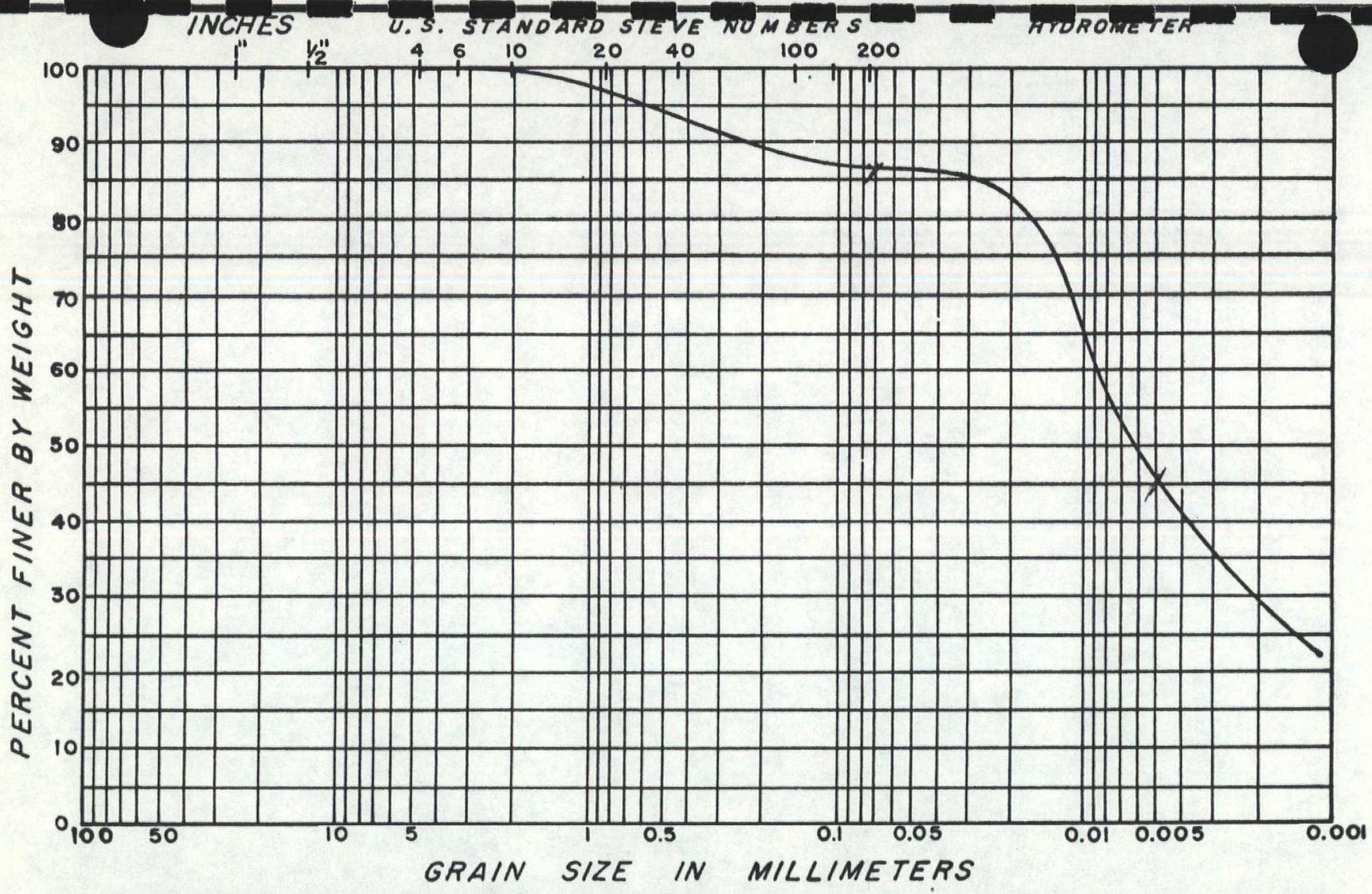
LOCATION BEDFORD, OHIO BORING NO. SB-17 SAMPLE NO. SS111 12.0-13.5'

GRAIN SIZE ANALYSIS

TRIGGS & ASSOCIATES, INC.

15% SAND 35% SILT 50% CLAY

Till



GRAVEL		SAND			SILT	CLAY
COARSE	FINE	COARSE	MEDIUM	FINE		

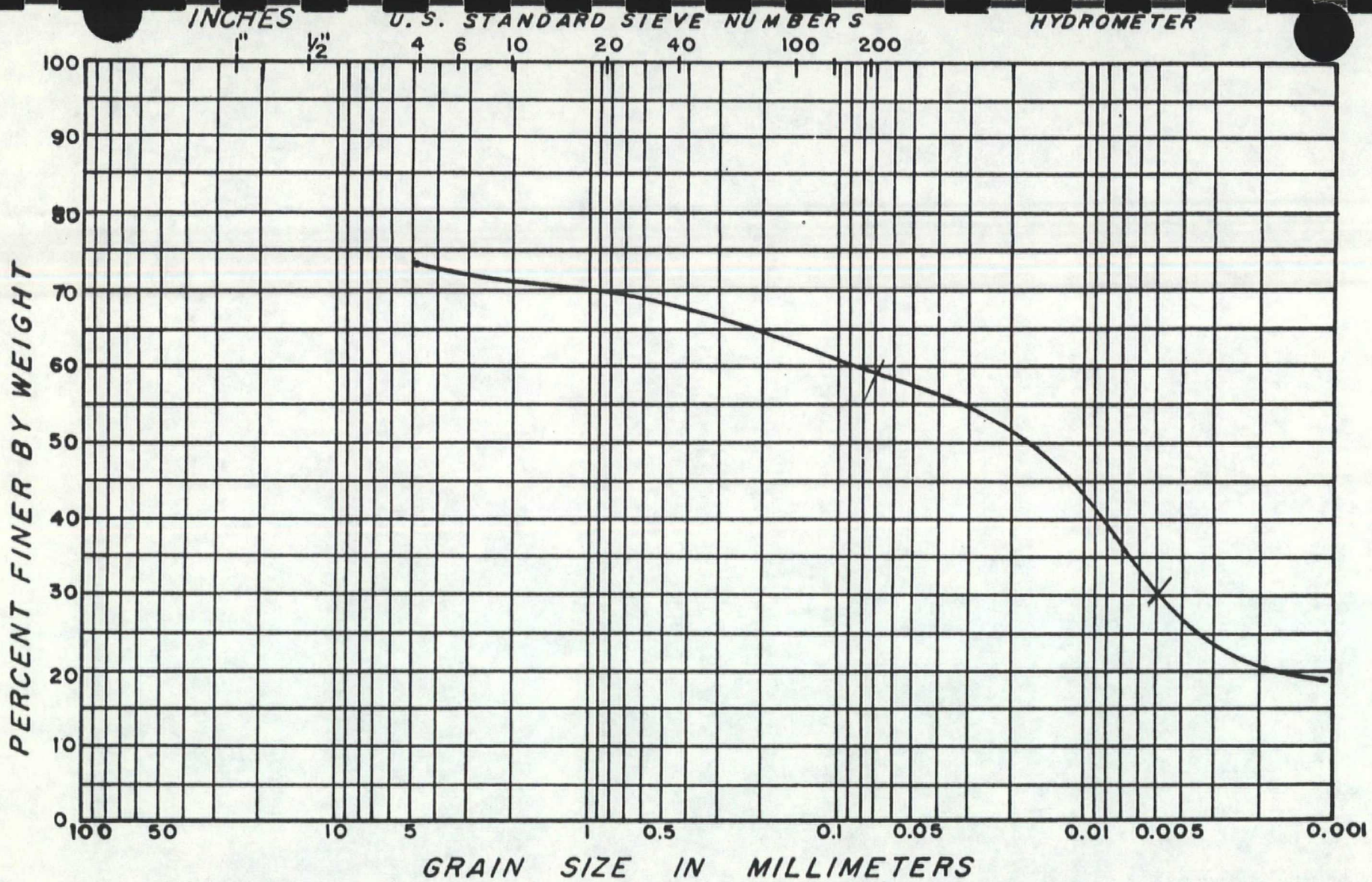
OWNER HUKILL CHEMICAL PROJECT HUKILL CHEMICAL

LOCATION BEDFORD, OHIO BORING NO. SB17 SAMPLE NO. SS110 7.5-9.0'

GRAIN SIZE ANALYSIS

TRIGGS & ASSOCIATES, INC.

15% SAND 40% SILT 45% CLAY TEY



GRAVEL		SAND			SILT	CLAY
COARSE	FINE	COARSE	MEDIUM	FINE		

OWNER HUKILL CHEMICAL — PROJECT HUKILL CHEMICAL

LOCATION BEDFORD, OHIO — BORING NO. SB17 — SAMPLE NO SS108 1.5-3.0'

GRAIN SIZE ANALYSIS

TRIGGS & ASSOCIATES, INC.

40% SAND 30% SILT 30% CLAY

Fill

FORM I

U.S. EPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 - ALEXANDRIA, VA 22313
703/557-2490 FTS:8-557-2490

EPA SAMPLE NO.
WELLBSSM59

DATE 86/05/28

INORGANIC ANALYSIS DATA SHEET

LAB NAME WILSON LABORATORIES
SOW NO. 784
LAB SAMPLE ID. NO. 8605-0895

CASE NO. HUKILL
QC REPORT NO. HUKILL

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM
MATRIX: WATER SOIL X SLUDGE OTHER

UG/L OR MG/KG DRY WEIGHT (CIRCLE ONE)

1.	ALUMINUM		13.	MAGNESIUM	
2.	ANTIMONY		14.	MANGANESE	
3.	ARSENIC	14 F	15.	MERCURY	.12 U
4.	BARIUM	[70] P	16.	NICKEL	
5.	BERYLLIUM		17.	POTASSIUM	
6.	CADMIUM	2.9 U P	18.	SELENIUM	2.9 U R F
7.	CALCIUM		19.	SILVER	5.8 U P
8.	CHROMIUM	19 R P	20.	SODIUM	
9.	COBALT		21.	THALLIUM	
10.	COPPER		22.	TIN	
11.	IRON		23.	VANADIUM	
12.	LEAD	50 * F	24.	ZINC	

CYANIDE

PERCENT SOLIDS (%) 86

FOOTNOTES: FOR REPORTING RESULTS TO EPA, STANDARD RESULT QUALIFIERS ARE USED AS DEFINED ON COVER PAGE. ADDITIONAL FLAGS OR FOOTNOTES EXPLAINING RESULTS ARE ENCOURAGED. DEFINITION OF SUCH FLAGS MUS BE EXPLICIT AND CONTAINED ON COVER PAGE, HOWEVER.

COMMENTS:

LAB MANAGER Kathi a mitchell

FORM I

U.S. EPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 - ALEXANDRIA, VA 22313
703/557-2490 FTS:8-557-2490

EPA SAMPLE NO.
WELLBSSM59DUP

DATE 86/05/28

INORGANIC ANALYSIS DATA SHEET

LAB NAME WILSON LABORATORIES
SOW NO. 784
LAB SAMPLE ID. NO. 8605-0896

CASE NO. HUKILL
QC REPORT NO. HUKILL

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM
MATRIX: WATER SOIL X SLUDGE OTHER

UG/L OR MG/KG DRY WEIGHT (CIRCLE ONE)

1.	ALUMINUM		13.	MAGNESIUM	
2.	ANTIMONY		14.	MANGANESE	
3.	ARSENIC	14 F	15.	MERCURY	.12 U
4.	BARIUM	[82] P	16.	NICKEL	
5.	BERYLLIUM		17.	POTASSIUM	
6.	CADMIUM	5.9 P	18.	SELENIUM	2.9 U R F
7.	CALCIUM		19.	SILVER	5.9 U P
8.	CHROMIUM	29 U R R	20.	SODIUM	
9.	COBALT		21.	THALLIUM	
10.	COPPER		22.	TIN	
11.	IRON		23.	VANADIUM	
12.	LEAD	51 * F	24.	ZINC	
	CYANIDE			PERCENT SOLIDS (%)	85

FOOTNOTES: FOR REPORTING RESULTS TO EPA, STANDARD RESULT QUALIFIERS ARE USED AS DEFINED ON COVER PAGE. ADDITIONAL FLAGS OR FOOTNOTES EXPLAINING RESULTS ARE ENCOURAGED. DEFINITION OF SUCH FLAGS MUST BE EXPLICIT AND CONTAINED ON COVER PAGE, HOWEVER.

COMMENTS:

LAB MANAGER Kathi A. Mitchell

FORM I

U.S. EPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 - ALEXANDRIA, VA 22313
703/557-2490 FTS:8-557-2490

EPA SAMPLE NO.
WELLBSSM59BLK

DATE 86/05/28

INORGANIC ANALYSIS DATA SHEET

LAB NAME WILSON LABORATORIES
SOW NO. 784
LAB SAMPLE ID. NO. 8605-0897

CASE NO. HUKILL
QC REPORT NO. HUKILL

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM
MATRIX: WATER X SOIL X SLUDGE OTHER

B.L.F. 86/08/06

~~UG/L~~ OR MG/KG DRY WEIGHT (CIRCLE ONE)

1.	ALUMINUM		13.	MAGNESIUM	
2.	ANTIMONY		14.	MANGANESE	
3.	ARSENIC	5 U F	15.	MERCURY	.1 U
4.	BARIUM	30 U P	16.	NICKEL	
5.	BERYLLIUM		17.	POTASSIUM	
6.	CADMIUM	2.5 U P	18.	SELENIUM	2.5 U R F
7.	CALCIUM		19.	SILVER	5 U P
8.	CHROMIUM	5 U R P	20.	SODIUM	
9.	COBALT		21.	THALLIUM	
10.	COPPER		22.	TIN	
11.	IRON		23.	VANADIUM	
12.	LEAD	2.5 U * F	24.	ZINC	
	CYANIDE			PERCENT SOLIDS (%)	100

FOOTNOTES: FOR REPORTING RESULTS TO EPA, STANDARD RESULT QUALIFIERS ARE USED AS DEFINED ON COVER PAGE. ADDITIONAL FLAGS OR FOOTNOTES EXPLAINING RESULTS ARE ENCOURAGED. DEFINITION OF SUCH FLAGS MUS BE EXPLICIT AND CONTAINED ON COVER PAGE, HOWEVER.

COMMENTS: This is a field blank. It was digested as if it were a solid

LAB MANAGER Kathy A. Mitchell

Sample Number

SS-66

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: NUS CORPORATION
Lab Sample ID No: 16050298
Sample Matrix: Soil
Data Release Authorized By:

Case No: EDER ASSOCIATES
QC Report No:
Contract No:
Date Sample Received: 05/07/86

****

Volatile Compounds

Concentration: Medium
Date Extracted/Prepared: 05/16/86
Date Analyzed: 05/16/86
Conc/Dil Factor: 1.0 pH NR
Percent Moisture: 14
Percent Moisture (Decanted): NR

CAS Number		ug/kg
74-87-3	Chloromethane	1200 u
74-83-9	Bromomethane	1200 u
75-01-4	Vinyl Chloride	1200 u
75-00-3	Chloroethane	1200 u
75-09-2	Methylene Chloride	4600 B
67-64-1	Acetone	7400 B
75-15-0	Carbon Disulfide	600 u
75-35-4	1,1-Dichloroethene	600 u
75-34-3	1,1-Dichloroethane	600 u
156-60-5	Trans-1,2-Dichloroethene	600 u
67-66-3	Chloroform	600 u
107-06-2	1,2-Dichloroethane	600 u
78-93-3	2-Butanone	3200 B
71-55-6	1,1,1-Trichloroethane	600 u
56-23-5	Carbon Tetrachloride	600 u
108-05-4	Vinyl Acetate	1200 u
75-27-4	Bromodichloromethane	600 u

Data reporting qualifiers are explained on Page 2.
****

Laboratory Name: NUS CORPORATION Sample Number
Case No: EDER ASSOCIATES SS-66

Organics Analysis Data Sheet
(Page 2)

Volatile Compounds (continued)

CAS Number		ug/kg
78-87-5	1,2-Dichloropropane	600 u
10061-02-6	Trans-1,3-Dichloropropene	600 u
79-01-6	Trichloroethene	600 u
124-48-1	Dibromochloromethane	600 u
79-00-5	1,1,2-Trichloroethane	600 u
71-43-2	Benzene	600 u
10061-01-5	cis-1,3-Dichloropropene	600 u
110-75-8	2-Chloroethylvinylether	1200 u
75-25-2	Bromoform	600 u
108-10-1	4-Methyl-2-Pentanone	1200 u
591-78-6	2-Hexanone	1200 u
127-18-4	Tetrachlorethene	600 u
79-34-5	1,1,2,2-Tetrachloroethane	600 u
108-88-3	Toluene	1400 B
108-90-7	Chlorobenzene	600 u
100-41-4	Ethylbenzene	1300
100-42-5	Styrene	600 u
	Total Xylenes	6300

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value - If the result is a value greater than or equal to the detection limit, report the value

U - Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration/dilution actions. (This is not necessarily the instrument detection limit.) The footnote should read U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the indicated detection limit but greater than zero (e.g. 10J).

C - This flag applies to pesticide parameters where the identification has been comfirmed by GC/MS. Single component pesticides>=10ng/ul in the final extract should be confirmed by GC/MS.

B - This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

- Spiked compound.

NR - No value required.

Laboratory Name: NUS CORPORATION Sample Number
Case No: EDER ASSOCIATES SS-66

Organics Analysis Data Sheet
(Page 6)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	Scan Number	Estimated concentration ug/kg
**********	**********	****	****	******
526-73-8	BENZENE, 1,2,3-TRIMETHYL-	VOA	437	4000 J
611-14-3	BENZENE, 1-ETHYL-2-METHYL-	VOA	485	3000 J

Sample Number

SS-70

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: NUS CORPORATION
Lab Sample ID No: 16050299
Sample Matrix: Soil
Data Release Authorized By:

Case No: EDER ASSOCIATES
QC Report No:
Contract No:
Date Sample Received: 05/07/86

****

Volatile Compounds

Concentration: Medium
Date Extracted/Prepared: 05/16/86
Date Analyzed: 05/16/86
Conc/Dil Factor: 1.0 pH NR
Percent Moisture: 7
Percent Moisture (Decanted): NR

CAS Number		ug/kg
74-87-3	Chloromethane	1100 u
74-83-9	Bromomethane	1100 u
75-01-4	Vinyl Chloride	1100 u
75-00-3	Chloroethane	1100 u
75-09-2	Methylene Chloride	21000 B
67-64-1	Acetone	4100 B
75-15-0	Carbon Disulfide	550 u
75-35-4	1,1-Dichloroethene	550 u
75-34-3	1,1-Dichloroethane	300 J
156-60-5	Trans-1,2-Dichloroethene	550 u
67-66-3	Chloroform	550 u
107-06-2	1,2-Dichloroethane	550 u
78-93-3	2-Butanone	5200 B
71-55-6	1,1,1-Trichloroethane	550 u
56-23-5	Carbon Tetrachloride	550 u
108-05-4	Vinyl Acetate	1100 u
75-27-4	Bromodichloromethane	550 u

Data reporting qualifiers are explained on Page 2.
****

Laboratory Name: NUS CORPORATION Sample Number
Case No: EDER ASSOCIATES SS-70

Organics Analysis Data Sheet
(Page 2)

Volatile Compounds (continued)

CAS Number		ug/kg
		**********
78-87-5	1,2-Dichloropropane	550 u
10061-02-6	Trans-1,3-Dichloropropene	550 u
79-01-6	Trichloroethene	550 u
124-48-1	Dibromochloromethane	550 u
79-00-5	1,1,2-Trichloroethane	550 u
71-43-2	Benzene	550 u
10061-01-5	cis-1,3-Dichloropropene	550 u
110-75-8	2-Chloroethylvinylether	1100 u
75-25-2	Bromoform	550 u
108-10-1	4-Methyl-2-Pentanone	1100 u
591-78-6	2-Hexanone	1100 u
127-18-4	Tetrachlorethene	550 u
79-34-5	1,1,2,2-Tetrachloroethane	550 u
108-88-3	Toluene	4500 B
108-90-7	Chlorobenzene	550 u
100-41-4	Ethylbenzene	440 J
100-42-5	Styrene	550 u
	Total Xylenes	2000

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value - If the result is a value greater than or equal to the detection limit, report the value

U - Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration/dilution actions. (This is not necessarily the instrument detection limit.) The footnote should read U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the indicated detection limit but greater than zero (e.g. 10J).

C - This flag applies to pesticide parameters where the identification has been comfirmed by GC/MS. Single component pesticides)=10ng/ul in the final extract should be confirmed by GC/MS.

B - This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

- Spiked compound.

NR - No value required.

Sample Number

SS-70 DUP

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: NUS CORPORATION
Lab Sample ID No: 16050297
Sample Matrix: Soil
Data Release Authorized By:

Case No: EDER ASSOCIATES
QC Report No:
Contract No:
Date Sample Received: 05/07/86

****

Volatile Compounds

Concentration: Medium
Date Extracted/Prepared: 05/16/86
Date Analyzed: 05/16/86
Conc/Dil Factor: 1.0 pH NR
Percent Moisture: 4
Percent Moisture (Decanted): NR

CAS Number		ug/kg
74-87-3	Chloromethane	1000 u
74-83-9	Bromomethane	1000 u
75-01-4	Vinyl Chloride	1000 u
75-00-3	Chloroethane	1000 u
75-09-2	Methylene Chloride	16000 B
67-64-1	Acetone	2800 B
75-15-0	Carbon Disulfide	500 u
75-35-4	1,1-Dichloroethene	500 u
75-34-3	1,1-Dichloroethane	300 J
156-60-5	Trans-1,2-Dichloroethene	500 u
67-66-3	Chloroform	500 u
107-06-2	1,2-Dichloroethane	500 u
78-93-3	2-Butanone	3200 B
71-55-6	1,1,1-Trichloroethane	500 u
56-23-5	Carbon Tetrachloride	500 u
108-05-4	Vinyl Acetate	1000 u
75-27-4	Bromodichloromethane	500 u

Data reporting qualifiers are explained on Page 2.
****

Laboratory Name: NUS CORPORATION Sample Number
Case No: EDER ASSOCIATES SS-70 DUP

Organics Analysis Data Sheet
(Page 2)

Volatile Compounds (continued)

CAS Number		ug/kg
		**********
78-87-5	1,2-Dichloropropane	500 u
10061-02-6	Trans-1,3-Dichloropropene	500 u
79-01-6	Trichloroethene	500 u
124-48-1	Dibromochloromethane	500 u
79-00-5	1,1,2-Trichloroethane	500 u
71-43-2	Benzene	500 u
10061-01-5	cis-1,3-Dichloropropene	500 u
110-75-8	2-Chloroethylvinylether	1000 u
75-25-2	Bromoform	500 u
108-10-1	4-Methyl-2-Pentanone	1000 u
591-78-6	2-Hexanone	1000 u
127-18-4	Tetrachlorethene	320 J
79-34-5	1,1,2,2-Tetrachloroethane	500 u
108-88-3	Toluene	10000 B
108-90-7	Chlorobenzene	500 u
100-41-4	Ethylbenzene	720
100-42-5	Styrene	500 u
	Total Xylenes	3300

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value - If the result is a value greater than or equal to the detection limit, report the value

U - Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration/dilution actions. (This is not necessarily the instrument detection limit.) The footnote should read U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the indicated detection limit but greater than zero (e.g. 10J).

C - This flag applies to pesticide parameters where the identification has been comfirmed by GC/MS. Single component pesticides>=10ng/ul in the final extract should be confirmed by GC/MS.

B - This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

- Spiked compound.

NR - No value required.

Sample Number

SS-70 BLANK

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: NUS CORPORATION
Lab Sample ID No: 16050292
Sample Matrix: Soil
Data Release Authorized By:

Case No: EDER ASSOCIATES
QC Report No:
Contract No:
Date Sample Received: 05/07/86

****

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 05/16/86
Date Analyzed: 05/16/86
Conc/Dil Factor: 1 pH NR
Percent Moisture: NR
Percent Moisture (Decanted): NR

CAS Number		ug/kg
74-87-3	Chloromethane	10 u
74-83-9	Bromomethane	10 u
75-01-4	Vinyl Chloride	10 u
75-00-3	Chloroethane	10 u
75-09-2	Methylene Chloride	15 B
67-64-1	Acetone	2 J B
75-15-0	Carbon Disulfide	5 u
75-35-4	1,1-Dichloroethene	5 u
75-34-3	1,1-Dichloroethane	5 u
156-60-5	Trans-1,2-Dichloroethene	5 u
67-66-3	Chloroform	1 J
107-06-2	1,2-Dichloroethane	5 u
78-93-3	2-Butanone	3 J B
71-55-6	1,1,1-Trichloroethane	5 u
56-23-5	Carbon Tetrachloride	5 u
108-05-4	Vinyl Acetate	10 u
75-27-4	Bromodichloromethane	5 u

Data reporting qualifiers are explained on Page 2.
****

Laboratory Name: NUS CORPORATION Sample Number
Case No: EDER ASSOCIATES SS-70 BLANK

Organics Analysis Data Sheet
(Page 2)

Volatile Compounds (continued)

CAS Number		ug/kg
		**********
78-87-5	1,2-Dichloropropane	5 u
10061-02-6	Trans-1,3-Dichloropropene	5 u
79-01-6	Trichloroethene	5 u
124-48-1	Dibromochloromethane	5 u
79-00-5	1,1,2-Trichloroethane	5 u
71-43-2	Benzene	5 u
10061-01-5	cis-1,3-Dichloropropene	5 u
110-75-8	2-Chloroethylvinylether	10 u
75-25-2	Bromoform	5 u
108-10-1	4-Methyl-2-Pentanone	10 u
591-78-6	2-Hexanone	10 u
127-18-4	Tetrachlorethene	5 u
79-34-5	1,1,2,2-Tetrachloroethane	5 u
108-88-3	Toluene	5 u
108-90-7	Chlorobenzene	5 u
100-41-4	Ethylbenzene	5 u
100-42-5	Styrene	5 u
	Total Xylenes	5 u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value - If the result is a value greater than or equal to the detection limit, report the value

U - Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g. 10U) based on necessary concentration/dilution actions. (This is not necessarily the instrument detection limit.) The footnote should read U - Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the indicated detection limit but greater than zero (e.g. 10J).

C - This flag applies to pesticide parameters where the identification has been comfirmed by GC/MS. Single component pesticides>=10ng/ul in the final extract should be confirmed by GC/MS.

B - This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

- Spiked compound.

NR - No value required.

FORM I

U.S. EPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 - ALEXANDRIA, VA 22313
703/557-2490 FTS:8-557-2490

EPA SAMPLE NO.
SSM167SB3

DATE 86/09/08

INORGANIC ANALYSIS DATA SHEET

LAB NAME WILSON LABORATORIES
SOW NO. 784
LAB SAMPLE ID. NO. 8609-1017

CASE NO. HUKILL
QC REPORT NO. HUKIL

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM
MATRIX: WATER SOIL X SLUDGE OTHER

UG/L OR MG/KG DRY WEIGHT (CIRCLE ONE)

1.	ALUMINUM		13.	MAGNESIUM	
2.	ANTIMONY		14.	MANGANESE	
3.	ARSENIC	19 F	15.	MERCURY	.11 U
4.	BARIUM	34 U P	16.	NICKEL	
5.	BERYLLIUM		17.	POTASSIUM	
6.	CADMIUM	2.8 U P	18.	SELENIUM	2.8 U
7.	CALCIUM		19.	SILVER	5.6 U
8.	CHROMIUM	28 U P	20.	SODIUM	
9.	COBALT		21.	THALLIUM	
10.	COPPER		22.	TIN	
11.	IRON		23.	VANADIUM	
12.	LEAD	23 F	24.	ZINC	
	CYANIDE			PERCENT SOLIDS (%)	88

FOOTNOTES: FOR REPORTING RESULTS TO EPA, STANDARD RESULT QUALIFIERS ARE USED AS DEFINED ON COVER PAGE. ADDITIONAL FLAGS OR FOOTNOTES EXPLAINING RESULTS ARE ENCOURAGED. DEFINITION OF SUCH FLAGS BE EXPLICIT AND CONTAINED ON COVER PAGE, HOWEVER.

COMMENTS:

LAB MANAGER Kathi A. Mitchell

FORM I

U.S. EPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 - ALEXANDRIA, VA 22313
703/557-2490 FTS:8-557-2490

EPA SAMPLE NO.
SSM173SB6

DATE 86/09/08

INORGANIC ANALYSIS DATA SHEET

LAB NAME WILSON LABORATORIES
SOW NO. 784
LAB SAMPLE ID. NO. 8609-1018

CASE NO. HUKILL
QC REPORT NO. HUKI

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM
MATRIX: WATER SOIL X SLUDGE OTHER

UG/L OR MG/KG DRY WEIGHT (CIRCLE ONE)

1.	ALUMINUM		13.	MAGNESIUM	
2.	ANTIMONY		14.	MANGANESE	
3.	ARSENIC	15 F	15.	MERCURY	.11 U
4.	BARIUM	[45] P	16.	NICKEL	
5.	BERYLLIUM		17.	POTASSIUM	
6.	CADMIUM	2.8 U P	18.	SELENIUM	2.8 U
7.	CALCIUM		19.	SILVER	5.6 U
8.	CHROMIUM	5.6 U P	20.	SODIUM	
9.	COBALT		21.	THALLIUM	
10.	COPPER		22.	TIN	
11.	IRON		23.	VANADIUM	
12.	LEAD	10 F	24.	ZINC	
	CYANIDE			PERCENT SOLIDS (%)	88

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U.S. EPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 - ALEXANDRIA, VA 22313
703/557-2490 FTS:8-557-2490

EPA SAMPLE NO.
SSM92SB11

DATE 86/09/08

INORGANIC ANALYSIS DATA SHEET

LAB NAME WILSON LABORATORIES
CASE NO. HUKILL
SOW NO. 784
LAB SAMPLE ID. NO. 8609-1016
QC REPORT NO. HUKI

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM
MATRIX: WATER SOIL X SLUDGE OTHER

UG/L OR MG/KG DRY WEIGHT (CIRCLE ONE)

1.	ALUMINUM		13.	MAGNESIUM	
2.	ANTIMONY		14.	MANGANESE	
3.	ARSENIC	13 F	15.	MERCURY	.11 U
4.	BARIUM	202 P	16.	NICKEL	
5.	BERYLLIUM		17.	POTASSIUM	
6.	CADMIUM	4.8 P	18.	SELENIUM	2.7 U
7.	CALCIUM		19.	SILVER	5.3 U
8.	CHROMIUM	5.3 U P	20.	SODIUM	
9.	COBALT		21.	THALLIUM	
10.	COPPER		22.	TIN	
11.	IRON		23.	VANADIUM	
12.	LEAD	5.3 F	24.	ZINC	
	CYANIDE			PERCENT SOLIDS (%)	93

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U.S. EPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 - ALEXANDRIA, VA 22313
703/557-2490 FTS:8-557-2490

EPA SAMPLE NO. SSM167SB3TOX

DATE 86/09/08

INORGANIC ANALYSIS DATA SHEET

LAB NAME WILSON LABORATORIES
CASE NO. HUKILL
SOW NO. 784
LAB SAMPLE ID. NO. 8609-1017
QC REPORT NO. HUKI

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM
MATRIX: WATER SOIL SLUDGE OTHER X E.P.

UG/L OR MG/KG DRY WEIGHT (CIRCLE ONE)

1.	ALUMINUM		13.	MAGNESIUM	
2.	ANTIMONY		14.	MANGANESE	
3.	ARSENIC	10 U F	15.	MERCURY	~~5~~ 10 U
4.	BARIUM	60 U P	16.	NICKEL	
5.	BERYLLIUM		17.	POTASSIUM	
6.	CADMIUM	5 U P	18.	SELENIUM	5 U
7.	CALCIUM		19.	SILVER	10 U
8.	CHROMIUM	10 U P	20.	SODIUM	
9.	COBALT		21.	THALLIUM	
10.	COPPER		22.	TIN	
11.	IRON		23.	VANADIUM	
12.	LEAD	5 U F	24.	ZINC	
CYANIDE			PERCENT SOLIDS (%)		

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SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 - ALEXANDRIA, VA 22313
703/557-2490 FTS:8-557-2490

EPA SAMPLE NO. SSM173SB6TOX

DATE 86/09/08

INORGANIC ANALYSIS DATA SHEET

LAB NAME WILSON LABORATORIES
CASE NO. HUKILL
SOW NO. 784
LAB SAMPLE ID. NO. 8609-1018
QC REPORT NO. HUKIL

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM
MATRIX: WATER SOIL SLUDGE OTHER X E.P.t

UG/L OR MG/KG DRY WEIGHT (CIRCLE ONE)

1.	ALUMINUM		13.	MAGNESIUM	
2.	ANTIMONY		14.	MANGANESE	
3.	ARSENIC	10 U F	15.	MERCURY	~~6~~ 10 U
4.	BARIUM	550 P	16.	NICKEL	
5.	BERYLLIUM		17.	POTASSIUM	
6.	CADMIUM	5 U P	18.	SELENIUM	5 U
7.	CALCIUM		19.	SILVER	10 U
8.	CHROMIUM	10 U P	20.	SODIUM	
9.	COBALT		21.	THALLIUM	
10.	COPPER		22.	TIN	
11.	IRON		23.	VANADIUM	
12.	LEAD	5 U F	24.	ZINC	
	CYANIDE			PERCENT SOLIDS (%)	

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U.S. EPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 - ALEXANDRIA, VA 22313
703/557-2490 FTS:8-557-2490

EPA SAMPLE NO.
SSM92SB11TOX

DATE 86/09/08

INORGANIC ANALYSIS DATA SHEET

LAB NAME WILSON LABORATORIES
SOW NO. 784
LAB SAMPLE ID. NO. 8609-1016

CASE NO. HUKILL
QC REPORT NO. HUKI

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM
MATRIX: WATER SOIL SLUDGE OTHER X E.P.

UG/L OR MG/KG DRY WEIGHT (CIRCLE ONE)

1.	ALUMINUM		13.	MAGNESIUM	
2.	ANTIMONY		14.	MANGANESE	
3.	ARSENIC	10 U F	15.	MERCURY	~~5~~ 10 U
4.	BARIUM	1200 P	16.	NICKEL	
5.	BERYLLIUM		17.	POTASSIUM	
6.	CADMIUM	5 U P	18.	SELENIUM	5 U
7.	CALCIUM		19.	SILVER	10 U
8.	CHROMIUM	10 U P	20.	SODIUM	
9.	COBALT		21.	THALLIUM	
10.	COPPER		22.	TIN	
11.	IRON		23.	VANADIUM	
12.	LEAD	5 U F	24.	ZINC	
	CYANIDE			PERCENT SOLIDS (%)	

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U.S. EPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 - ALEXANDRIA, VA 22313
703/557-2490 FTS:8-557-2490

EPA SAMPLE NO.
KP-3

DATE 86/10/27

INORGANIC ANALYSIS DATA SHEET

LAB NAME WILSON LABORATORIES
CASE NO. HUK-I
SOW NO. 784
LAB SAMPLE ID. NO. 8611-0023
QC REPORT NO. HUK-I

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM
MATRIX: WATER SOIL X SLUDGE OTHER

UG/L OR MG/KG DRY WEIGHT (CIRCLE ONE)

1.	ALUMINUM		13.	MAGNESIUM	
2.	ANTIMONY		14.	MANGANESE	453 R
3.	ARSENIC	7.9 U * F	15.	MERCURY	.16 U R
4.	BARIUM	[79] * P	16.	NICKEL	84
5.	BERYLLIUM		17.	POTASSIUM	
6.	CADMIUM	6.3 P	18.	SELENIUM	3.9 U
7.	CALCIUM		19.	SILVER	7.9 U
8.	CHROMIUM	70 R P	20.	SODIUM	
9.	COBALT		21.	THALLIUM	
10.	COPPER	152 R P	22.	TIN	
11.	IRON	61100 P	23.	VANADIUM	
12.	LEAD	72 F	24.	ZINC	289 R *
	CYANIDE			PERCENT SOLIDS (%)	63

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P.O. BOX 818 - ALEXANDRIA, VA 22313
703/557-2490 FTS:8-557-2490

EPA SAMPLE NO.
KP-10

DATE 86/10/27

INORGANIC ANALYSIS DATA SHEET

LAB NAME WILSON LABORATORIES
CASE NO. HUK-I
SOW NO. 784
LAB SAMPLE ID. NO. 8611-0024
QC REPORT NO. HUK-I

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM
MATRIX: WATER SOIL X SLUDGE OTHER

UG/L OR MG/KG DRY WEIGHT (CIRCLE ONE)

1.	ALUMINUM		13.	MAGNESIUM	
2.	ANTIMONY		14.	MANGANESE	533 R
3.	ARSENIC	6.2 * F	15.	MERCURY	.13 U R
4.	BARIUM	[87] * P	16.	NICKEL	28
5.	BERYLLIUM		17.	POTASSIUM	
6.	CADMIUM	3.1 U P	18.	SELENIUM	3.1 U
7.	CALCIUM	18400 P	19.	SILVER	6.2 U
8.	CHROMIUM	18 R P	20.	SODIUM	
9.	COBALT		21.	THALLIUM	
10.	COPPER	35 R P	22.	TIN	
11.	IRON	27200 P	23.	VANADIUM	
12.	LEAD	22 S F	24.	ZINC	103 R *
	CYANIDE			PERCENT SOLIDS (%)	80

FOOTNOTES: FOR REPORTING RESULTS TO EPA, STANDARD RESULT QUALIFIERS ARE USED AS DEFINED ON COVER PAGE. ADDITIONAL FLAGS OR FOOTNOTES EXPLAINING RESULTS ARE ENCOURAGED. DEFINITION OF SUCH FLAGS M BE EXPLICIT AND CONTAINED ON COVER PAGE, HOWEVER.

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U.S. EPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 - ALEXANDRIA, VA 22313
703/557-2490 FTS:8-557-2490

EPA SAMPLE NO.

SB10SSM81

DATE 86/05/28

INORGANIC ANALYSIS DATA SHEET

LAB NAME WILSON LABORATORIES
SOW NO. 784
LAB SAMPLE ID. NO. 8605-0919

CASE NO. HUKILL
QC REPORT NO. HUKILL

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM
MATRIX: WATER SOIL X SLUDGE OTHER

UG/L OR MG/KG DRY WEIGHT (CIRCLE ONE)

1.	ALUMINUM		13.	MAGNESIUM	
2.	ANTIMONY		14.	MANGANESE	
3.	ARSENIC	12 U F	15.	MERCURY	.24 U
4.	BARIUM	[119] P	16.	NICKEL	
5.	BERYLLIUM		17.	POTASSIUM	
6.	CADMIUM	12 P	18.	SELENIUM	6 U R F
7.	CALCIUM		19.	SILVER	12 U P
8.	CHROMIUM	255 R P	20.	SODIUM	
9.	COBALT		21.	THALLIUM	
10.	COPPER		22.	TIN	
11.	IRON		23.	VANADIUM	
12.	LEAD	110 * F	24.	ZINC	
	CYANIDE			PERCENT SOLIDS (%)	42

FOOTNOTES: FOR REPORTING RESULTS TO EPA, STANDARD RESULT QUALIFIERS ARE USED AS DEFINED ON COVER PAGE. ADDITIONAL FLAGS OR FOOTNOTES EXPLAINING RESULTS ARE ENCOURAGED. DEFINITION OF SUCH FLAGS MUST BE EXPLICIT AND CONTAINED ON COVER PAGE, HOWEVER.

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FORM I

U.S. EPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 - ALEXANDRIA, VA 22313
703/557-2490 FTS:8-557-2490

EPA SAMPLE NO.
SB10SSM82

DATE 86/05/28

INORGANIC ANALYSIS DATA SHEET

LAB NAME WILSON LABORATORIES
SOW NO. 784
LAB SAMPLE ID. NO. 8605-0920

CASE NO. HUKILL
QC REPORT NO. HUKILL

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM
MATRIX: WATER SOIL X SLUDGE OTHER

UG/L OR MG/KG DRY WEIGHT (CIRCLE ONE)

1.	ALUMINUM		13.	MAGNESIUM	
2.	ANTIMONY		14.	MANGANESE	
3.	ARSENIC	6 U F	15.	MERCURY	.12 U
4.	BARIUM	[54] P	16.	NICKEL	
5.	BERYLLIUM		17.	POTASSIUM	
6.	CADMIUM	6.5 P	18.	SELENIUM	3 U R F
7.	CALCIUM		19.	SILVER	6 U P
8.	CHROMIUM	27 R P	20.	SODIUM	
9.	COBALT		21.	THALLIUM	
10.	COPPER		22.	TIN	
11.	IRON		23.	VANADIUM	
12.	LEAD	~~[0]~~ 48.9 S * F	24.	ZINC	
	CYANIDE			PERCENT SOLIDS (%)	84

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FORM I

U.S. EPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 - ALEXANDRIA, VA 22313
703/557-2490 FTS:8-557-2490

EPA SAMPLE NO. SB10SSM84

DATE 86/05/28

INORGANIC ANALYSIS DATA SHEET

LAB NAME WILSON LABORATORIES
SOW NO. 784
LAB SAMPLE ID. NO. 8605-0922

CASE NO. HUKILL
QC REPORT NO. HUKILL

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM
MATRIX: WATER SOIL X SLUDGE OTHER

UG/L OR MG/KG DRY WEIGHT (CIRCLE ONE)

1.	ALUMINUM		13.	MAGNESIUM	
2.	ANTIMONY		14.	MANGANESE	
3.	ARSENIC	19 F	15.	MERCURY	.16 U
4.	BARIUM	[121] P	16.	NICKEL	
5.	BERYLLIUM		17.	POTASSIUM	
6.	CADMIUM	6.5 P	18.	SELENIUM	4 U R F
7.	CALCIUM		19.	SILVER	8.1 U P-1
8.	CHROMIUM	40 U R P	20.	SODIUM	
9.	COBALT		21.	THALLIUM	
10.	COPPER		22.	TIN	
11.	IRON		23.	VANADIUM	
12.	LEAD	73 * F	24.	ZINC	
	CYANIDE			PERCENT SOLIDS (%)	62

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FORM I

U.S. EPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 - ALEXANDRIA, VA 22313
703/557-2490 FTS:8-557-2490

EPA SAMPLE NO.
KP-1

DATE 86/10/27

INORGANIC ANALYSIS DATA SHEET

LAB NAME WILSON LABORATORIES
CASE NO. HUK-I
SOW NO. 784
LAB SAMPLE ID. NO. 8611-0021
QC REPORT NO. HUK-I

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM
MATRIX: WATER SOIL X SLUDGE OTHER

UG/L OR MG/KG DRY WEIGHT (CIRCLE ONE)

1.	ALUMINUM		13.	MAGNESIUM	
2.	ANTIMONY		14.	MANGANESE	440 R
3.	ARSENIC	6.4 U * 1	15.	MERCURY	.13 U R
4.	BARIUM	[51] * P	16.	NICKEL	20 U
5.	BERYLLIUM		17.	POTASSIUM	
6.	CADMIUM	3.9 P	18.	SELENIUM	3.2 U
7.	CALCIUM	14700 P	19.	SILVER	6.4 U
8.	CHROMIUM	11 R P	20.	SODIUM	
9.	COBALT		21.	THALLIUM	
10.	COPPER	11 U R P	22.	TIN	
11.	IRON	38100 P	23.	VANADIUM	
12.	LEAD	23 S F	24.	ZINC	41 R *
	CYANIDE			PERCENT SOLIDS (%)	77

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COMMENTS:

LAB MANAGER Kathi A. Mitchell

FORM I

U.S. EPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 - ALEXANDRIA, VA 22313
703/557-2490 FTS:8-557-2490

EPA SAMPLE NO.
KP-2

DATE 86/10/27

INORGANIC ANALYSIS DATA SHEET

LAB NAME WILSON LABORATORIES
CASE NO. HUK-I
SOW NO. 784
LAB SAMPLE ID. NO. 8611-0022
QC REPORT NO. HUK-

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM
MATRIX: WATER SOIL X SLUDGE OTHER

UG/L OR MG/KG DRY WEIGHT (CIRCLE ONE)

1.	ALUMINUM		13.	MAGNESIUM	
2.	ANTIMONY		14.	MANGANESE	552 R
3.	ARSENIC	8.1 * F	15.	MERCURY	.16 U R
4.	BARIUM	[73] * P	16.	NICKEL	25 U
5.	BERYLLIUM		17.	POTASSIUM	
6.	CADMIUM	4.1 U P	18.	SELENIUM	4.1 U
7.	CALCIUM		19.	SILVER	8.1 U
8.	CHROMIUM	207 R P	20.	SODIUM	
9.	COBALT		21.	THALLIUM	
10.	COPPER	51 R P	22.	TIN	
11.	IRON	26300 P	23.	VANADIUM	
12.	LEAD	KAM 11/10/87 ~~29~~ ~~8~~ 69 F	24.	ZINC	144 R *
	CYANIDE			PERCENT SOLIDS (%)	61

FOOTNOTES: FOR REPORTING RESULTS TO EPA, STANDARD RESULT QUALIFIERS ARE USED AS DEFINED ON COVER PAGE. ADDITIONAL FLAGS OR FOOTNOTES EXPLAINING RESULTS ARE ENCOURAGED. DEFINITION OF SUCH FLAGS BE EXPLICIT AND CONTAINED ON COVER PAGE, HOWEVER.

COMMENTS:

LAB MANAGER Kathi A. Mitchell

FORM I

U.S. EPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 - ALEXANDRIA, VA 22313
703/557-2490 FTS:8-557-2490

EPA SAMPLE NO.
KP-3

DATE 86/10/22

INORGANIC ANALYSIS DATA SHEET

LAB NAME WILSON LABORATORIES
SOW NO. 784
LAB SAMPLE ID. NO. 8611-0023

CASE NO. HUK-III
QC REPORT NO. HUK-II

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM
MATRIX: WATER SOIL SLUDGE OTHER X Ep.to

UG/L OR MG/KG DRY WEIGHT (CIRCLE ONE)

1.	ALUMINUM		13.	MAGNESIUM	
2.	ANTIMONY		14.	MANGANESE	1590
3.	ARSENIC	10 U F	15.	MERCURY	.2 U
4.	BARIUM	270 P	16.	NICKEL	202
5.	BERYLLIUM		17.	POTASSIUM	
6.	CADMIUM	5 U P	18.	SELENIUM	5 U F
7.	CALCIUM		19.	SILVER	
8.	CHROMIUM	10 U P	20.	SODIUM	
9.	COBALT		21.	THALLIUM	
10.	COPPER	66 P	22.	TIN	
11.	IRON	80 U P	23.	VANADIUM	
12.	LEAD	5 U F	24.	ZINC	108
CYANIDE			PERCENT SOLIDS (%)		

FOOTNOTES: FOR REPORTING RESULTS TO EPA, STANDARD RESULT QUALIFIERS ARE USED AS DEFINED ON COVER PAGE. ADDITIONAL FLAGS OR FOOTNOTES EXPLAINING RESULTS ARE ENCOURAGED. DEFINITION OF SUCH FLAGS M BE EXPLICIT AND CONTAINED ON COVER PAGE, HOWEVER.

COMMENTS:

LAB MANAGER Kathy a. mitchell

WILSON LABORATORIES

525 NORTH EIGHTH STREET - P.O. BOX 1884 - SALINA, KANSAS 67402-1884 - (913)825-7186

LABORATORY REPORT

CLIENT: HUKILL CHEMICAL CORP.
ATTN:
7013 KRICK ROAD
BEDFORD, OH 44146

DATE RPTD: 10/27/86
DATE RCVD: 10/04/86
PURCHASE AUTH:
FILE NO.: 86-9681
ORDER NO.: 4638

LAB NUMBER: 86110023
SAMPLE DESCRIPTION: KP-3 SOIL

DATE SAMPLED: 10/02/86
TIME SAMPLED: 1305

ANALYSIS	CONCENTRATION	UNITS	BOOK-PAGE
FLUORIDE, EP TOXICITY	0.8	MG/L	614-31
SULFATE, EP TOXICITY	1330.	MG/L	635-192
CHLORIDE, EP TOXICITY	56.	MG/L	639-224
NITRATE, EP TOXICITY	4.7	MG/L	632-197
PHOSPHORUS, EP TOXICITY	ND(0.2)	MG/L	636-182

—CONCLUSION—LAB NUMBER: 86110023 KP-3 SOIL

ND(), WHERE NOTED, INDICATES NONE DETECTED WITH THE DETECTION LIMIT IN PARENTHESES.

ANALYSES WERE PERFORMED ON SAMPLES AS RECEIVED IN ACCORDANCE WITH PROCEDURES PUBLISHED IN THE FEDERAL REGISTER, VOL. 49, NO. 209, OCT. 26, 1984 OR IN EPA PUBLICATION, SW 846, 2ND EDITION, JULY 1982 AND IN THE PROPOSED ADDITION TO SW 846, 1984.

SAMPLES WILL BE RETAINED FOR 30 DAYS UNLESS OTHERWISE NOTIFIED.

WILSON LABORATORIES

Lynn R Newcomer

LYNN R. NEWCOMER
CHIEF CHEMIST

FORM I

U.S. EPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 - ALEXANDRIA, VA 22313
703/557-2490 FTS:8-557-2490

EPA SAMPLE NO.
KP-10

DATE 86/10/22

INORGANIC ANALYSIS DATA SHEET

LAB NAME WILSON LABORATORIES
SOW NO. 784
LAB SAMPLE ID. NO. 8611-0024

CASE NO. HUK-III
QC REPORT NO. HUK-I

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM
MATRIX: WATER SOIL SLUDGE OTHER X E.P. to

UG/L OR MG/KG DRY WEIGHT (CIRCLE ONE)

1.	ALUMINUM		13.	MAGNESIUM	
2.	ANTIMONY		14.	MANGANESE	10600
3.	ARSENIC	10 U F	15.	MERCURY	.2 U
4.	BARIUM	540 P	16.	NICKEL	42
5.	BERYLLIUM		17.	POTASSIUM	
6.	CADMIUM	5 U P	18.	SELENIUM	5U F
7.	CALCIUM		19.	SILVER	
8.	CHROMIUM	10 U P	20.	SODIUM	
9.	COBALT		21.	THALLIUM	
10.	COPPER	36 P	22.	TIN	
11.	IRON	1950 P	23.	VANADIUM	
12.	LEAD	14 F	24.	ZINC	126
CYANIDE			PERCENT SOLIDS (%)		

FOOTNOTES: FOR REPORTING RESULTS TO EPA, STANDARD RESULT QUALIFIERS ARE USED AS DEFINED ON COVER PAGE. ADDITIONAL FLAGS OR FOOTNOTES EXPLAINING RESULTS ARE ENCOURAGED. DEFINITION OF SUCH FLAGS M BE EXPLICIT AND CONTAINED ON COVER PAGE, HOWEVER.

COMMENTS:

LAB MANAGER Kathy A. Mitchell

WILSON LABORATORIES

525 NORTH EIGHTH STREET - P.O. BOX 1884 - SALINA, KANSAS 67402-1884 - (913)825-7186

LABORATORY REPORT

CLIENT: HUKILL CHEMICAL CORP.
ATTN:
7013 KRICK ROAD
BEDFORD, OH 44146

DATE RPTD: 10/27/86
DATE RCVD: 10/04/86
PURCHASE AUTH:
FILE NO.: 86-9681
ORDER NO.: 4638

LAB NUMBER: 86110024
SAMPLE DESCRIPTION: KP-10 SOIL

DATE SAMPLED: 10/01/86
TIME SAMPLED: 1700

ANALYSIS	CONCENTRATION	UNITS	BOOK-PAGE
FLUORIDE, EP TOXICITY	0.3	MG/L	614-31
SULFATE, EP TOXICITY	18.	MG/L	635-191
CHLORIDE, EP TOXICITY	47.	MG/L	639-224
NITRATE, EP TOXICITY	ND(0.1)	MG/L	632-197
PHOSPHORUS, EP TOXICITY	ND(0.2)	MG/L	636-182

—CONCLUSION—LAB NUMBER: 86110024 KP-10 SOIL

ND(), WHERE NOTED, INDICATES NONE DETECTED WITH THE DETECTION LIMIT IN PARENTHESES.

ANALYSES WERE PERFORMED ON SAMPLES AS RECEIVED IN ACCORDANCE WITH PROCEDURES PUBLISHED IN THE FEDERAL REGISTER, VOL. 49, NO. 209, OCT. 26, 1984 OR IN EPA PUBLICATION, SW 846, 2ND EDITION, JULY 1982 AND IN THE PROPOSED ADDITION TO SW 846, 1984.

SAMPLES WILL BE RETAINED FOR 30 DAYS UNLESS OTHERWISE NOTIFIED.

WILSON LABORATORIES

Lynn R Newcomer

LYNN R. NEWCOMER
CHIEF CHEMIST

FORM I

U.S. EPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 - ALEXANDRIA, VA 22313
703/557-2490 FTS:8-557-2490

EPA SAMPLE NO.
KP-1

DATE 86/10/22

INORGANIC ANALYSIS DATA SHEET

LAB NAME WILSON LABORATORIES
SOW NO. 784
LAB SAMPLE ID. NO. 8611-0021

CASE NO. HUK-III
QC REPORT NO. HUK-I

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM
MATRIX: WATER SOIL SLUDGE OTHER X Ep.

(UG/L) OR MG/KG DRY WEIGHT (CIRCLE ONE)

1.	ALUMINUM		13.	MAGNESIUM	
2.	ANTIMONY		14.	MANGANESE	3950
3.	ARSENIC	10 U F	15.	MERCURY	.2 U
4.	BARIUM	210 P	16.	NICKEL	47
5.	BERYLLIUM		17.	POTASSIUM	
6.	CADMIUM	5 U P	18.	SELENIUM	5 U
7.	CALCIUM		19.	SILVER	
8.	CHROMIUM	10 U P	20.	SODIUM	
9.	COBALT		21.	THALLIUM	
10.	COPPER	[18] P	22.	TIN	
11.	IRON	7200 P	23.	VANADIUM	
12.	LEAD	5 U F	24.	ZINC	81
CYANIDE			PERCENT SOLIDS (%)		

FOOTNOTES: FOR REPORTING RESULTS TO EPA, STANDARD RESULT QUALIFIERS ARE USED AS DEFINED ON COVER PAGE. ADDITIONAL FLAGS OR FOOTNOTES EXPLAINING RESULTS ARE ENCOURAGED. DEFINITION OF SUCH FLAGS BE EXPLICIT AND CONTAINED ON COVER PAGE, HOWEVER.

COMMENTS:

LAB MANAGER Kathi A. Mitchell

WILSON LABORATORIES

525 NORTH EIGHTH STREET - P.O. BOX 1884 - SALINA, KANSAS 67402-1884 - (913)825-7186

LABORATORY REPORT

CLIENT: HUKILL CHEMICAL CORP.
ATTN:
7013 KRICK ROAD
BEDFORD, OH 44146

DATE RPTD: 10/27/86
DATE RCVD: 10/04/86
PURCHASE AUTH:
FILE NO.: 86-9681
ORDER NO.: 4638

LAB NUMBER: 86110021
SAMPLE DESCRIPTION: KP-1 SOIL

DATE SAMPLED: 10/01/86
TIME SAMPLED: 1315

ANALYSIS	CONCENTRATION	UNITS	BOOK-PAGE
FLUORIDE, EP TOXICITY	0.2	MG/L	614-31
SULFATE, EP TOXICITY	57.	MG/L	635-191
CHLORIDE, EP TOXICITY	2.	MG/L	639-224
NITRATE, EP TOXICITY	ND(0.1)	MG/L	632-197
PHOSPHORUS, EP TOXICITY	ND(0.2)	MG/L	636-182

—CONCLUSION—LAB NUMBER: 86110021 KP-1 SOIL

ND(), WHERE NOTED, INDICATES NONE DETECTED WITH THE DETECTION LIMIT IN PARENTHESES.

ANALYSES WERE PERFORMED ON SAMPLES AS RECEIVED IN ACCORDANCE WITH PROCEDURES PUBLISHED IN THE FEDERAL REGISTER, VOL. 49, NO. 209, OCT. 26, 1984 OR IN EPA PUBLICATION, SW 846, 2ND EDITION, JULY 1982 AND IN THE PROPOSED ADDITION TO SW 846, 1984.

SAMPLES WILL BE RETAINED FOR 30 DAYS UNLESS OTHERWISE NOTIFIED.

WILSON LABORATORIES

Lynn R. Newcomer

LYNN R. NEWCOMER
CHIEF CHEMIST

FORM I

U.S. EPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 - ALEXANDRIA, VA 22313
703/557-2490 FTS:8-557-2490

EPA SAMPLE NO.
KP-2

DATE 86/10/22

INORGANIC ANALYSIS DATA SHEET

LAB NAME WILSON LABORATORIES
SOW NO. 784
LAB SAMPLE ID. NO. 8611-0022

CASE NO. HUK-III
QC REPORT NO. HUK-I

ELEMENTS IDENTIFIED AND MEASURED

CONCENTRATION: LOW X MEDIUM
MATRIX: WATER SOIL SLUDGE OTHER X Earth

UG/L OR MG/KG DRY WEIGHT (CIRCLE ONE)

1.	ALUMINUM		13.	MAGNESIUM	
2.	ANTIMONY		14.	MANGANESE	898
3.	ARSENIC	10 U F	15.	MERCURY	.2 U
4.	BARIUM	250 P	16.	NICKEL	31 U
5.	BERYLLIUM		17.	POTASSIUM	
6.	CADMIUM	5 U P	18.	SELENIUM	5 U
7.	CALCIUM		19.	SILVER	
8.	CHROMIUM	3860 P	20.	SODIUM	
9.	COBALT		21.	THALLIUM	
10.	COPPER	60 P	22.	TIN	
11.	IRON	170 P	23.	VANADIUM	
12.	LEAD	5 U F	24.	ZINC	75
CYANIDE			PERCENT SOLIDS (%)		

FOOTNOTES: FOR REPORTING RESULTS TO EPA, STANDARD RESULT QUALIFIERS ARE USED AS DEFINED ON COVER PAGE. ADDITIONAL FLAGS OR FOOTNOTES EXPLAINING RESULTS ARE ENCOURAGED. DEFINITION OF SUCH FLAGS BE EXPLICIT AND CONTAINED ON COVER PAGE, HOWEVER.

COMMENTS:

LAB MANAGER Kathi A. Mitchell

WILSON LABORATORIES

525 NORTH EIGHTH STREET - P.O. BOX 1884 - SALINA, KANSAS 67402-1884 - (913)825-7186

LABORATORY REPORT

CLIENT: HUKILL CHEMICAL CORP.
ATTN:
7013 KRICK ROAD
BEDFORD, OH 44146

DATE RPTD: 10/27/86
DATE RCVD: 10/04/86
PURCHASE AUTH:
FILE NO.: 86-9681
ORDER NO.: 4638

LAB NUMBER: 86110022
SAMPLE DESCRIPTION: KP-2 SOIL

DATE SAMPLED: 10/01/86
TIME SAMPLED: 1327

ANALYSIS	CONCENTRATION	UNITS	BOOK-PAGE
FLUORIDE, EP TOXICITY	0.5	MG/L	614-31
SULFATE, EP TOXICITY	900.	MG/L	635-192
CHLORIDE, EP TOXICITY	14.	MG/L	639-224
NITRATE, EP TOXICITY	7.	MG/L	632-197
PHOSPHORUS, EP TOXICITY	ND(0.2)	MG/L	636-182

—CONCLUSION—LAB NUMBER: 86110022 KP-2 SOIL

ND(), WHERE NOTED, INDICATES NONE DETECTED WITH THE DETECTION LIMIT IN PARENTHESES.

ANALYSES WERE PERFORMED ON SAMPLES AS RECEIVED IN ACCORDANCE WITH PROCEDURES PUBLISHED IN THE FEDERAL REGISTER, VOL. 49, NO. 209, OCT. 26, 1984 OR IN EPA PUBLICATION, SW 846, 2ND EDITION, JULY 1982 AND IN THE PROPOSED ADDITION TO SW 846, 1984.

SAMPLES WILL BE RETAINED FOR 30 DAYS UNLESS OTHERWISE NOTIFIED.

WILSON LABORATORIES

Lynn R. Newcomer

LYNN R. NEWCOMER
CHIEF CHEMIST

Sample Number

SS-120

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: NUS CORPORATION
Lab Sample ID No: 16091569
Sample Matrix: Soil
Data Release Authorized By: David A. Danner

Case No: EDER ASSOCIATES
QC Report No:
Contract No:
Date Sample Received: 09/27/86

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 10/05/86
Date Analysed: 10/05/86
Conc/Dil Factor: 1 pH NR
Percent Moisture: 9
Percent Moisture (Not Decanted): NR

CAS Number		ug/kg	CAS Number		ug/kg
74-87-3	Chloromethane	11 u	78-87-5	1,2-Dichloropropane	5 u
74-83-9	Bromomethane	11 u	10061-02-6	Trans-1,3-Dichloropropene	5 u
75-01-4	Vinyl Chloride	11 u	79-01-6	Trichloroethene	5 u
75-00-3	Chloroethane	11 u	124-48-1	Dibromochloromethane	5 u
75-09-2	Methylene Chloride	10 B	79-00-5	1,1,2-Trichloroethane	5 u
67-64-1	Acetone	8 J,B	71-43-2	Benzene	5 u
75-15-0	Carbon Disulfide	5 u	10061-01-5	cis-1,3-Dichloropropene	5 u
75-35-4	1,1-Dichloroethene	5 u	110-75-8	2-Chloroethylvinylether	11 u
75-34-3	1,1-Dichloroethane	5 u	75-25-2	Bromoform	5 u
156-60-5	Trans-1,2-Dichloroethene	5 u	108-10-1	4-Methyl-2-Pentanone	11 u
67-66-3	Chloroform	5 u	591-78-6	2-Hexanone	11 u
107-06-2	1,2-Dichloroethane	5 u	127-18-4	Tetrachloroethene	5 u
78-93-3	2-Butanone	11 u	79-34-5	1,1,2,2-Tetrachloroethane	5 u
71-55-6	1,1,1-Trichloroethane	5 u	108-88-3	Toluene	3 J,B
56-23-5	Carbon Tetrachloride	5 u	108-90-7	Chlorobenzene	5 u
108-05-4	Vinyl Acetate	11 u	100-41-4	Ethylbenzene	5 u
75-27-4	Bromodichloromethane	5 u	100-42-5	Styrene	5 u
				Total Xylenes	5 u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analysed for but not detected. Report the minimum detection limit for the sample with the U(e.g., 10U)based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analysed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero.(e.g.10J). If limit of detection is 10ug/l and a concentration of 3ug/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides)=10ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take the appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

S — Spiked Compound

NR — No value required

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275

412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: EDER ASSOCIATES
ADDRESS: PO BOX-H,85 FOREST AVE
LOCUST VALLEY, NY 11560
ATTENTION: MR. NICK ANDRIANAS

REPORT DATE: 11/04/86

NUS CLIENT NO: 893902
NUS SAMPLE NO: 16091569
VENDOR NO: 05626100
WORK ORDER NO: 55830
DATE RECEIVED: 09/27/86

SAMPLE IDENTIFICATION: SS-120 COMPOSITE 09/24

TEST	DETERMINATION	RESULTS	UNITS
0122	POLYNUCLEAR AROMATICS-SOLID		
0B51	Acenaphthene	< 370	ug/kg
0B52	Acenaphthylene	< 370	ug/kg
0B53	Anthracene	< 370	ug/kg
0B55	Benzo(a)Anthracene	< 370	ug/kg
0B56	Benzo(a)Pyrene	< 370	ug/kg
0B57	3,4-Benzofluoranthene	< 370	ug/kg
0B58	Benzo(ghi)Perylene	< 370	ug/kg
0B59	Benzo(k)Fluoranthene	< 370	ug/kg
0B68	Chrysene	< 370	ug/kg
0B69	Dibenzo(a,h)Anthracene	< 370	ug/kg
0B81	Fluoranthene	< 370	ug/kg
0B82	Fluorene	< 370	ug/kg
0B87	Indeno(1,2,3cd) Pyrene	< 370	ug/kg
0B89	Naphthalene	< 370	ug/kg
0B94	Phenanthrene	< 370	ug/kg
0B95	Pyrene	< 370	ug/kg
0D42	2-Methylnaphthalene	< 370	ug/kg
0E22	LLS - Extraction		
0F19	HSL-Volatile Organic Acid-Soil		

COMMENTS:

Reviewed and Approved by: JMC

CC: INVOICE

Sample Number

SS-120 DUP

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: NUS CORPORATION
Lab Sample ID No: 16091570
Sample Matrix: Soil
Data Release Authorized By:

Case No: EDER ASSOCIATES
QC Report No:
Contract No:
Date Sample Received: 09/27/86

Volatile Compounds
Concentration: Low
Date Extracted/Prepared: 10/05/86
Date Analyzed: 10/05/86
Conc/Dil Factor: 1 pH NR
Percent Moisture: 10
Percent Moisture (Not Decanted): NR

CAS Number		ug/kg	CAS Number		ug/kg
74-87-3	Chloromethane	11 u	78-87-5	1,2-Dichloropropane	5 u
74-83-9	Bromomethane	11 u	10061-02-6	Trans-1,3-Dichloropropene	5 u
75-01-4	Vinyl Chloride	11 u	79-01-6	Trichloroethene	5 u
75-00-3	Chloroethane	11 u	124-48-1	Dibromochloromethane	5 u
75-09-2	Methylene Chloride	9 B	79-00-5	1,1,2-Trichloroethane	5 u
67-64-1	Acetone	7 J,B	71-43-2	Benzene	5 u
75-15-0	Carbon Disulfide	5 u	10061-01-5	cis-1,3-Dichloropropene	5 u
75-35-4	1,1-Dichloroethene	5 u	110-75-8	2-Chloroethylvinylether	11 u
75-34-3	1,1-Dichloroethane	5 u	75-25-2	Bromoform	5 u
156-60-5	Trans-1,2-Dichloroethene	5 u	108-10-1	4-Methyl-2-Pentanone	11 u
67-66-3	Chloroform	5 u	591-78-6	2-Hexanone	11 u
107-06-2	1,2-Dichloroethane	5 u	127-18-4	Tetrachloroethene	5 u
78-93-3	2-Butanone	11 u	79-34-5	1,1,2,2-Tetrachloroethane	5 u
71-55-6	1,1,1-Trichloroethane	5 u	108-88-3	Toluene	3 J,B
56-23-5	Carbon Tetrachloride	5 u	108-90-7	Chlorobenzene	5 u
108-05-4	Vinyl Acetate	11 u	100-41-4	Ethylbenzene	5 u
75-27-4	Bromodichloromethane	5 u	100-42-5	Styrene	5 u
				Total Xylenes	5 u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

alue If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U(e.g., 10U)based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero.(e.g.10J). If limit of detection is 10ug/l and a concentration of 3ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides)=10ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take the appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

S Spiked Compound

NR No value required.

FORM I

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275

412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: EDER ASSOCIATES
ADDRESS: PO BOX-H,85 FOREST AVE
LOCUST VALLEY, NY 11560
ATTENTION: MR. NICK ANDRIANAS

REPORT DATE: 11/04/86

NUS CLIENT NO: 893902
NUS SAMPLE NO: 16091570
VENDOR NO: 05626100
WORK ORDER NO: 55830
DATE RECEIVED: 09/27/86

SAMPLE IDENTIFICATION: SS-120 COMPOSITE-DUPLICATE 09/24

TEST	DETERMINATION	RESULTS	UNITS
0122	POLYNUCLEAR AROMATICS-SOLID		
0B51	Acenaphthene	< 400	ug/kg
0B52	Acenaphthylene	< 400	ug/kg
0B53	Anthracene	< 400	ug/kg
0B55	Benzo(a)Anthracene	< 400	ug/kg
0B56	Benzo(a)Pyrene	< 400	ug/kg
0B57	3,4-Benzofluoranthene	< 400	ug/kg
0B58	Benzo(ghi)Perylene	< 400	ug/kg
0B59	Benzo(k)Fluoranthene	< 400	ug/kg
0B68	Chrysene	< 400	ug/kg
0B69	Dibenzo(a,h)Anthracene	< 400	ug/kg
0B81	Fluoranthene	< 400	ug/kg
0B82	Fluorene	< 400	ug/kg
0B87	Indeno(1,2,3cd) Pyrene	< 400	ug/kg
0B89	Naphthalene	< 400	ug/kg
0B94	Phenanthrene	< 400	ug/kg
0B95	Pyrene	< 400	ug/kg
0D42	2-Methylnaphthalene	< 400	ug/kg
0E22	LLS - Extraction		
0F19	HSL-Volatile Organic Acid-Soil		

COMMENTS:

Reviewed and Approved by: JMC

CC: INVOICE

Sample Number

SS-120 BLANK

Organics Analysis Data Sheet

(Page 1)

Laboratory Name: NUS CORPORATION
Case No: EDER ASSOCIATES
Lab Sample ID No: 16091571
QC Report No:
Sample Matrix: Water
Contract No:
Data Release Authorized By:
Date Sample Received: 09/27/86

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 10/05/86
Date Analyzed: 10/05/86
Conc/Dil Factor: 1 pH NR
Percent Moisture: NR
Percent Moisture (Not Decanted): NR

CAS Number		ug/l	CAS Number		ug/l
74-87-3	Chloromethane	10 u	78-87-5	1,2-Dichloropropane	5 u
74-83-9	Bromomethane	10 u	10061-02-6	Trans-1,3-Dichloropropene	5 u
75-01-4	Vinyl Chloride	10 u	79-01-6	Trichloroethene	5 u
75-00-3	Chloroethane	10 u	124-48-1	Dibromochloromethane	5 u
75-09-2	Methylene Chloride	31 B	79-00-5	1,1,2-Trichloroethane	5 u
67-64-1	Acetone	6 J,B	71-43-2	Benzene	5 u
75-15-0	Carbon Disulfide	5 u	10061-01-5	cis-1,3-Dichloropropene	5 u
75-35-4	1,1-Dichloroethene	5 u	110-75-8	2-Chloroethylvinylether	10 u
75-34-3	1,1-Dichloroethane	5 u	75-25-2	Bromoform	5 u
156-60-5	Trans-1,2-Dichloroethene	5 u	108-10-1	4-Methyl-2-Pentanone	10 u
67-66-3	Chloroform	5 u	591-78-6	2-Hexanone	10 u
107-06-2	1,2-Dichloroethane	5 u	127-18-4	Tetrachloroethene	5 u
78-93-3	2-Butanone	10 u	79-34-5	1,1,2,2-Tetrachloroethane	5 u
71-55-6	1,1,1-Trichloroethane	5 u	108-88-3	Toluene	1 J,B
56-23-5	Carbon Tetrachloride	5 u	108-90-7	Chlorobenzene	5 u
108-05-4	Vinyl Acetate	10 u	100-41-4	Ethylbenzene	5 u
75-27-4	Bromodichloromethane	5 u	100-42-5	Styrene	5 u
				Total Xylenes	5 u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U(e.g., 10U)based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero.(e.g.10J). If limit of detection is 10ug/l and a concentration of 3ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides)=10ug/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take the appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

S Spiked Compound

NR No value required

Laboratory Name: NUS CORPORATION

Case No: EDER ASSOCIATES

Sample Number

SS-120 BLANK

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	Scan Number	Estimated concentration ug/l
1 .	1066-40-6	SILANOL, TRIMETHYL-	VOA	306	3 J,B
2 .					
3 .					
4 .					
5 .					
6 .					
7 .					
8 .					
9 .					
10 .					
11 .					
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30 .					

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275

412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: EDER ASSOCIATES
ADDRESS: PO BOX-H,85 FOREST AVE
LOCUST VALLEY, NY 11560
ATTENTION: MR. NICK ANDRIANAS

REPORT DATE: 11/04/86

NUS CLIENT NO: 893902
NUS SAMPLE NO: 16091571
VENDOR NO: 05626100
WORK ORDER NO: 55830
DATE RECEIVED: 09/27/86

SAMPLE IDENTIFICATION: SS-120 BLANK(WATER) 09/24

TEST	DETERMINATION	RESULTS	UNITS
0118	POLYNUCLEAR AROMATICS		
0B01	Acenaphthene	< 20	ug/l
0B02	Acenaphthylene	< 20	ug/l
0B03	Anthracene	< 20	ug/l
0B05	Benzo(a)Anthracene	< 20	ug/l
0B06	Benzo(a)Pyrene	< 20	ug/l
0B07	3,4-Benzofluoranthene	< 20	ug/l
0B08	Benzo(ghi)Perylene	< 20	ug/l
0B09	Benzo(k)Fluoranthene	< 20	ug/l
0B18	Chrysene	< 20	ug/l
0B19	Dibenzo(a,h)Anthracene	< 20	ug/l
0B31	Fluoranthene	< 20	ug/l
0B32	Fluorene	< 20	ug/l
0B37	Indeno(1,2,3 cd)Pyrene	< 20	ug/l
0B39	Naphthalene	< 20	ug/l
0B44	Phenanthrene	< 20	ug/l
0B45	Pyrene	< 20	ug/l
0D12	2-Methylnaphthalene	< 20	ug/l
0E25	Base Neutral Extraction-Water		
0F02	HSL - Volatile Organic Acids		

COMMENTS:

Reviewed and Approved by: JMC

INVOICE

A Halliburton Company

CLIENT ORIGINAL

Sample Number

SS-119

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: NUS CORPORATION
Lab Sample ID No: 16091567
Sample Matrix: Soil
Data Release Authorized By:

Case No: EDER ASSOCIATES
QC Report No:
Contract No:
Date Sample Received: 09/27/86

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 10/05/86
Date Analysed: 10/05/86
Conc/Dil Factor: 1 pH NR
Percent Moisture: 9
Percent Moisture (Not Decanted): NR

CAS Number		ug/kg	CAS Number		ug/kg
74-87-3	Chloromethane	11 u	78-87-5	1,2-Dichloropropane	5 u
74-83-9	Bromomethane	11 u	10061-02-6	Trans-1,3-Dichloropropene	5 u
75-01-4	Vinyl Chloride	11 u	79-01-6	Trichloroethene	5 u
75-00-3	Chloroethane	11 u	124-48-1	Dibromochloromethane	5 u
75-09-2	Methylene Chloride	7 B	79-00-5	1,1,2-Trichloroethane	5 u
67-64-1	Acetone	10 B	71-43-2	Benzene	5 u
75-15-0	Carbon Disulfide	5 u	10061-01-5	cis-1,3-Dichloropropene	5 u
75-35-4	1,1-Dichloroethene	5 u	110-75-8	2-Chloroethylvinylether	11 u
75-34-3	1,1-Dichloroethane	5 u	75-25-2	Bromoform	5 u
156-60-5	Trans-1,2-Dichloroethene	5 u	108-10-1	4-Methyl-2-Pentanone	11 u
67-66-3	Chloroform	5 u	591-78-6	2-Hexanone	11 u
107-06-2	1,2-Dichloroethane	5 u	127-18-4	Tetrachloroethene	5 u
78-93-3	2-Butanone	11 u	79-34-5	1,1,2,2-Tetrachloroethane	5 u
71-55-6	1,1,1-Trichloroethane	5 u	108-88-3	Toluene	2 J,B
56-23-5	Carbon Tetrachloride	5 u	108-90-7	Chlorobenzene	5 u
108-05-4	Vinyl Acetate	11 u	100-41-4	Ethylbenzene	5 u
75-27-4	Bromodichloromethane	5 u	100-42-5	Styrene	5 u
				Total Xylenes	5 u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analysed for but not detected. Report the minimum detection limit for the sample with the U(e.g., 10U)based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analysed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero.(e.g.10J). If limit of detection is 10ug/l and a concentration of 3ug/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides)=10ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take the appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

S — Spiked Compound

NR — No value required

NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275
412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: EDER ASSOCIATES
ADDRESS: PO BOX-H,85 FOREST AVE
LOCUST VALLEY, NY 11560
ATTENTION: MR. NICK ANDRIANAS

REPORT DATE: 11/04/86

NUS CLIENT NO: 893902
NUS SAMPLE NO: 16091567
VENDOR NO: 05626100
WORK ORDER NO: 55830
DATE RECEIVED: 09/27/86

SAMPLE IDENTIFICATION: SS-119 COMPOSITE 09/24

TEST	DETERMINATION	RESULTS	UNITS
0122	POLYNUCLEAR AROMATICS-SOLID		
0B51	Acenaphthene	< 370	us/ks
0B52	Acenaphthylene	< 370	us/ks
0B53	Anthracene	< 370	us/ks
0B55	Benzo(a)Anthracene	< 370	us/ks
0B56	Benzo(a)Pyrene	< 370	us/ks
0B57	3,4-Benzofluoranthene	< 370	us/ks
0B58	Benzo(ghi)Perylene	< 370	us/ks
0B59	Benzo(k)Fluoranthene	< 370	us/ks
0B68	Chrysene	< 370	us/ks
0B69	Dibenzo(a,h)Anthracene	< 370	us/ks
0B81	Fluoranthene	< 370	us/ks
0B82	Fluorene	< 370	us/ks
0B87	Indeno(1,2,3cd) Pyrene	< 370	us/ks
0B89	Naphthalene	< 370	us/ks
0B94	Phenanthrene	< 370	us/ks
0B95	Pyrene	< 370	us/ks
0B42	2-Methylnaphthalene	< 370	us/ks
0E22	LLS - Extraction		
0F19	HSL-Volatile Organic Acid-Soil		

COMMENTS:

Reviewed and Approved by: JMC

A Halliburton Company

CLIENT ORIGINAL

Sample Number

SS-84

Organics Analysis Data Sheet

(Page 1)

Laboratory Name: NUS CORPORATION
Lab Sample ID No: 16091565
Sample Matrix: Soil
Data Release Authorized By:

Case No: EDER ASSOCIATES
QC Report No:
Contract No:
Date Sample Received: 09/27/86

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 10/12/86
Date Analyzed: 10/12/86
Conc/Dil Factor: 1 pH NR
Percent Moisture: 12
Percent Moisture (Not Decanted): NR

CAS Number		ug/kg	CAS Number		ug/kg
74-87-3	Chloromethane	11 u	78-87-5	1,2-Dichloropropane	5 u
74-83-9	Bromomethane	11 u	10061-02-6	Trans-1,3-Dichloropropene	5 u
75-01-4	Vinyl Chloride	11 u	79-01-6	Trichloroethene	5 u
75-00-3	Chloroethane	11 u	124-48-1	Dibromochloromethane	5 u
75-09-2	Methylene Chloride	5 u	79-00-5	1,1,2-Trichloroethane	5 u
67-64-1	Acetone	13 B	71-43-2	Benzene	5 u
75-15-0	Carbon Disulfide	5 u	10061-01-5	cis-1,3-Dichloropropene	5 u
75-35-4	1,1-Dichloroethene	5 u	110-75-8	2-Chloroethylvinylether	11 u
75-34-3	1,1-Dichloroethane	5 u	75-25-2	Bromoform	5 u
156-60-5	Trans-1,2-Dichloroethene	5 u	108-10-1	4-Methyl-2-Pentanone	11 u
67-66-3	Chloroform	5 u	591-78-6	2-Hexanone	11 u
107-06-2	1,2-Dichloroethane	5 u	127-18-4	Tetrachloroethene	5 u
78-93-3	2-Butanone	11 u	79-34-5	1,1,2,2-Tetrachloroethane	5 u
71-55-6	1,1,1-Trichloroethane	5 u	108-88-3	Toluene	5 B
56-23-5	Carbon Tetrachloride	5 u	108-90-7	Chlorobenzene	5 u
108-05-4	Vinyl Acetate	11 u	100-41-4	Ethylbenzene	5 u
75-27-4	Bromodichloromethane	5 u	100-42-5	Styrene	5 u
				Total Xylenes	5 u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

lue If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U(e.g., 10U)based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero.(e.g.10J). If limit of detection is 10ug/l and a concentration of 3ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides)>10ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in tl blank as well as a sample. It indicates possible/ probable blank contamination and warns the data user to take the appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such descriptior attached to the data summary report.

S Spiked Compound

NR No value required.

Laboratory Name: NUS CORPORATION

Case No: EDER ASSOCIATES

Sample Number

SS-04

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	Scan Number	Estimated concentration ug/kg
1 .	1066-40-6	SILANOL, TRIMETHYL-	VOA	278	10 J,B
2 .		UNKNOWN	VOA	583	10 J
3 .					
4 .					
5 .					
6 .					
7 .					
8 .					
9 .					
10 .					
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NUS CORPORATION

Laboratory Services Division
5350 Campbells Run Road
Pittsburgh, PA 15205

REMIT TO:
Park West Two
Cliff Mine Road
Pittsburgh, PA 15275
412-788-1080

LAB ANALYSIS REPORT

CLIENT NAME: EDER ASSOCIATES
ADDRESS: PO BOX-H,85 FOREST AVE
LOCUST VALLEY, NY 11560

REPORT DATE: 11/04/86

ATTENTION: MR. NICK ANDRIANAS

NUS CLIENT NO: 893902
NUS SAMPLE NO: 16091565
VENDOR NO: 05626100
WORK ORDER NO: 55830
DATE RECEIVED: 09/27/86

SAMPLE IDENTIFICATION: SS-84 SB-29 09/24

TEST	DETERMINATION	RESULTS	UNITS
0122	POLYNUCLEAR AROMATICS-SOLID		
0B51	Acenaphthene	< 370	ug/kg
0B52	Acenaphthylene	< 370	ug/kg
0B53	Anthracene	< 370	ug/kg
0B55	Benzo(a)Anthracene	< 370	ug/kg
0B56	Benzo(a)Pyrene	< 370	ug/kg
0B57	3,4-Benzofluoranthene	< 370	ug/kg
0B58	Benzo(ghi)Perylene	< 370	ug/kg
0B59	Benzo(k)Fluoranthene	< 370	ug/kg
0B68	Chrysene	< 370	ug/kg
0B69	Dibenzo(a,h)Anthracene	< 370	ug/kg
0B81	Fluoranthene	< 370	ug/kg
0B82	Fluorene	< 370	ug/kg
0B87	Indeno(1,2,3cd) Pyrene	< 370	ug/kg
0B89	Naphthalene	< 370	ug/kg
0B94	Phenanthrene	< 370	ug/kg
0B95	Pyrene	< 370	ug/kg
0D42	2-Methylnaphthalene	< 370	ug/kg
0E22	LLS - Extraction		
0F19	HSL-Volatile Organic Acid-Soil		

COMMENTS:

Reviewed and Approved by: JMC

Sample Number

SS-04 RA

Organics Analysis Data Sheet

(Page 1)

Laboratory Name: NUS CORPORATION
Lab Sample ID No: 16091565RA
Sample Matrix: Soil
Data Release Authorized By:

Case No: EDER ASSOCIATES
QC Report No:
Contract No:
Date Sample Received: 09/27/86

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 10/12/86
Date Analysed: 10/12/86
Conc/Dil Factor: 1 pH NR
Percent Moisture: 12
Percent Moisture (Not Decanted): NR

CAS Number		ug/kg	CAS Number		ug/kg
74-87-3	Chloromethane	11 u	78-87-5	1,2-Dichloropropane	5 u
74-83-9	Bromomethane	11 u	10061-02-6	Trans-1,3-Dichloropropene	5 u
75-01-4	Vinyl Chloride	11 u	79-01-6	Trichloroethene	5 u
75-00-3	Chloroethane	11 u	124-48-1	Dibromochloromethane	5 u
75-09-2	Methylene Chloride	5 u	79-00-5	1,1,2-Trichloroethane	5 u
67-64-1	Acetone	11 B	71-43-2	Benzene	5 u
75-15-0	Carbon Disulfide	5 u	10061-01-5	cis-1,3-Dichloropropene	5 u
75-35-4	1,1-Dichloroethene	5 u	110-75-8	2-Chloroethylvinylether	11 u
75-34-3	1,1-Dichloroethane	5 u	75-25-2	Bromoform	5 u
156-60-5	Trans-1,2-Dichloroethene	5 u	108-10-1	4-Methyl-2-Pentanone	11 u
67-66-3	Chloroform	5 u	591-78-6	2-Hexanone	11 u
107-06-2	1,2-Dichloroethane	5 u	127-18-4	Tetrachloroethene	5 u
78-93-3	2-Butanone	5 J	79-34-5	1,1,2,2-Tetrachloroethane	5 u
71-55-6	1,1,1-Trichloroethane	5 u	108-88-3	Toluene	3 J
56-23-5	Carbon Tetrachloride	5 u	108-90-7	Chlorobenzene	5 u
108-05-4	Vinyl Acetate	11 u	100-41-4	Ethylbenzene	5 u
75-27-4	Bromodichloromethane	5 u	100-42-5	Styrene	5 u
				Total Xylenes	5 u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value — If the result is a value greater than or equal to the detection limit, report the value.

U — Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U(e.g., 10U)based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J — Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero.(e.g.10J). If limit of detection is 10ug/l and a concentration of 3ug/l is calculated, report as 3J.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides)=10ng/ul in the final extract should be confirmed by GC/MS.

B — This flag is used when the analyte is found in t blank as well as a sample. It indicates possible probable blank contamination and warns the data user to take the appropriate action.

Other — Other specific flags and footnotes may be required to properly define the results. If used they must be fully described and such descriptio attached to the data summary report.

S — Spiked Compound

NR — No value required.

Laboratory Name: NUS CORPORATION

Case No: EDER ASSOCIATES

Sample Number

SS-84 RA

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	Scan Number	Estimated concentration ug/kg
1 .	1066-40-6	SILANOL, TRIMETHYL-	VOA	279	10 J,B
2 .		UNKNOWN	VOA	583	8 J
3 .					
4 .					
5 .					
6 .					
7 .					
8 .					
9 .					
10 .					
11 .					
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Sample Number

SS-05

Organics Analysis Data Sheet

(Page 1)

Laboratory Name: NUS CORPORATION
Lab Sample ID No: 16091578
Sample Matrix: Soil
Date Release Authorized By:

Case No: EDER ASSOCIATES
QC Report No:
Contract No:
Date Sample Received: 09/27/86

Volatile Compounds

Concentration: Low
Date Extracted/Prepared: 10/06/86
Date Analyzed: 10/06/86
Conc/Dil Factor: 1 pH NR
Percent Moisture: 10
Percent Moisture (Not Decanted): NR

CAS Number		ug/kg	CAS Number		ug/kg
74-87-3	Chloromethane	12 u	78-87-5	1,2-Dichloropropane	6 u
74-83-9	Bromomethane	12 u	10061-02-6	Trans-1,3-Dichloropropene	6 u
75-01-4	Vinyl Chloride	12 u	79-01-6	Trichloroethene	6 u
75-00-3	Chloroethane	12 u	124-48-1	Dibromochloromethane	6 u
75-09-2	Methylene Chloride	18 B	79-00-5	1,1,2-Trichloroethane	6 u
67-64-1	Acetone	34 B	71-43-2	Benzene	6 u
75-15-0	Carbon Disulfide	6 u	10061-01-5	cis-1,3-Dichloropropene	6 u
75-35-4	1,1-Dichloroethene	6 u	110-75-8	2-Chloroethylvinylether	12 u
75-34-3	1,1-Dichloroethane	6 u	75-25-2	Bromoform	6 u
156-60-5	Trans-1,2-Dichloroethene	6 u	108-10-1	4-Methyl-2-Pentanone	12 u
67-66-3	Chloroform	6 u	591-78-6	2-Hexanone	12 u
107-06-2	1,2-Dichloroethane	6 u	127-18-4	Tetrachloroethene	6 u
78-93-3	2-Butanone	12 u	79-34-5	1,1,2,2-Tetrachloroethane	6 u
71-55-6	1,1,1-Trichloroethane	6 u	108-88-3	Toluene	21 B
56-23-5	Carbon Tetrachloride	6 u	108-90-7	Chlorobenzene	6 u
108-05-4	Vinyl Acetate	12 u	100-41-4	Ethylbenzene	6 u
75-27-4	Bromodichloromethane	6 u	100-42-5	Styrene	6 u
				Total Xylenes	6 u

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

alue If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analysed for but not detected. Report the minimum detection limit for the sample with the U(e.g., 10U)based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analysed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero.(e.g.10J). If limit of detection is 10ug/l and a concentration of 3ug/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides)=10ug/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take the appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

S Spiked Compound

NR No value required.