L1410000000 - OGLE COUNTY
BYRON PWS WELL #2
ILD 981960776

CERCLA
Screening Site Inspection Report

Illinois Environmental Protection Agency
P.O. Box 19276
Springfield, IL 62794-9276

EPA Region 5 Records Ctr.
298835

TABLE OF CONTENTS

Section		Page
1	INTRODUCTION	1-1
2	SITE BACKGROUND	2-1
	2.1 INTRODUCTION	2-1
	2.2 SITE DESCRIPTION	2-1
	2.3 SITE HISTORY	2-1
3	SCREENING SITE INSPECTION PROCEDURES AND FIELD OBSERVATIONS	3-1
	3.1 INTRODUCTION	3-1
	3.2 SITE REPRESENTATIVE INTERVIEW	3-1
	3.3 RECONNAISSANCE INSPECTION	3-2
	3.4 SAMPLING PROCEDURES	3-4
4	ANALYTICAL RESULTS	
	4.1 INTRODUCTION	4-1
	4.2 RESULTS OF CHEMICAL ANALYSIS OF IEPA COLLECTED SAMPLES	4-1
5	BIBLIOGRAPHY	5-1

Appendix		Page

A Site 4-Mile Radius Map. A-1

B U.S. EPA Form 2070-13 . . . . . B-1

C U.S. EPA Immediate Removal Action Checksheet. C-1

D Target Compound List. D-1

E Chemical Analysis Data of IEPA Collected Samples. E-1

F IEPA Site Photographs F-1

1. INTRODUCTION

Illinois Environmental Protection Agency's Pre-Remedial Unit was tasked by the United States Environmental Protection Agency (U.S. EPA) to conduct a screening site inspection (SSI) of the Byron Public Water Supply Well #2 site.

The site was initially discovered by the Illinois Environmental Protection Agency (IEPA). The site was evaluated in the form of a Preliminary Assessment (PA) that was submitted to U.S. EPA. The PA was prepared by Gary Reside of the IEPA and is dated February 2, 1988. IEPA Pre-Remedial Unit prepared an SSI workplan for the Byron PWS site that was approved by U.S. EPA. The SSI of the Byron PWS site that was approved by U.S. EPA. The SSI of the Byron PWS site was conducted on August 3, 1988. The IEPA SSI included a reconnaissance inspection of the site and the collection of three soil samples.

The purposes of an SSI have been stated by U.S. EPA in a directive outlining Pre-Remedial Program strategies. The directive states:

> All sites will receive a screening SI to 1) collect additional data beyond the PA to enable a more refined preliminary HRS [Hazard Ranking System] score, 2) establish priorities among sites most likely to qualify for the NPL [National Priorities List], and 3) identify the most critical data requirements for the listing SI step. A screening SI will not have rigorous data quality objectives (DQOs). Based on the refined preliminary HRS score and other technical judgement factors, the site will then either be designated as NFRAP [no further remedial action planned], or carried forward as an NPL listing candidate. A listing SI will not automatically be done on these sites, however. First, they will go through a management evaluation to determine whether they can be addressed by another authority such as RCRA [Resource Conservation and Recovery Act]. . . Sites that are designated NFRAP or deferred to other statutes are not candidates for a listing SI.

The listing SI will address all the data requirements of the revised HRS using field screening and NPL level DQOs. It may also provide needed data in a format to support remedial investigation work plan development. Only sites that appear to score high enough for listing and that have not been deferred to another authority will receive a listing SI (U.S. EPA 1988).

U.S. EPA Region V has also instructed IEPA to identify sites during the SSI that may require removal action to remediate an immediate human health and/or environmental threat.

2. SITE BACKGROUND

2.1 INTRODUCTION

This section includes information obtained from the SSI workplan preparation.

2.2 SITE DESCRIPTION

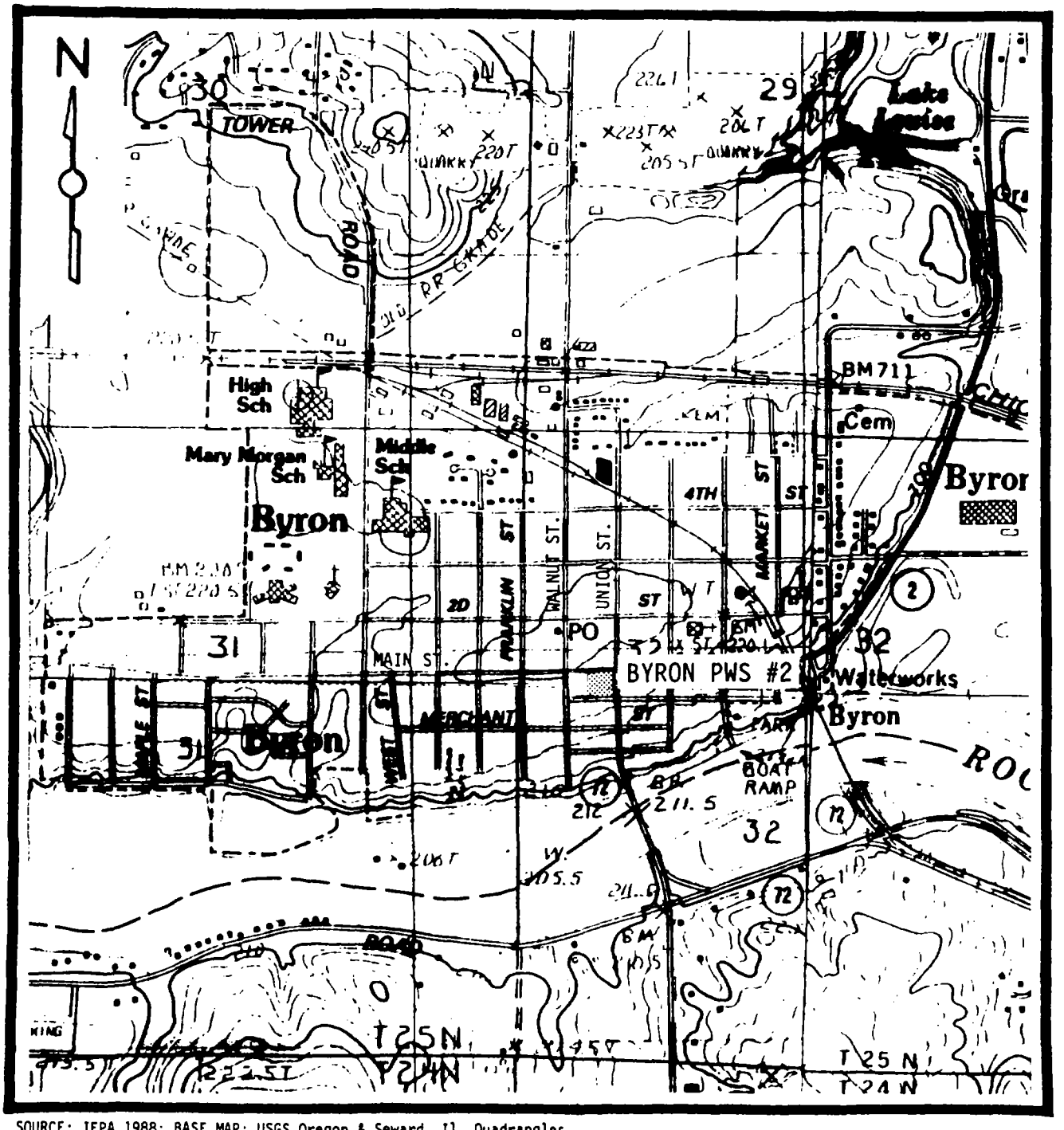
The Byron PWS #2 well is one of three wells in the Byron supply system. All three of the wells are still in operation. Well #2 is located on a 60 foot by 80 foot lot approximately 150 feet southwest of the intersection of Main Street (Route 2) and Union Street (Route 72). Well #2 is situated in a 40 foot by 60 foot pumphouse which also houses well #1 and two hydropneumatic tanks. The well house is located in the south-central section of Byron in Ogle County (Figure 2-1) in the SE 1/4, SW 1/4, NW 1/4 of Sec. 32, T.25N. - R.11E. (Figure 2-2). For potential groundwater migration, a 4-mile radius map surrounding the Byron PWS #2 well is provided in Appendix A.

2.3 SITE HISTORY

The well site is situated on City owned and maintained property. Well #2 was installed and operational in 1929. The well was drilled to a depth of 673 feet and cased with 8 inch diameter steel casing from the surface to 212 feet, which is 12 feet into the St. Peter Sandstone. The remainder of the well is 8 inch diameter open bore hole.

SITE LOCATION

FIGURE 2-1



SOURCE: IEPA 1988; BASE MAP: USGS Oregon & Seward, Il. Quadrangles 1983, 7.5 Minute Series

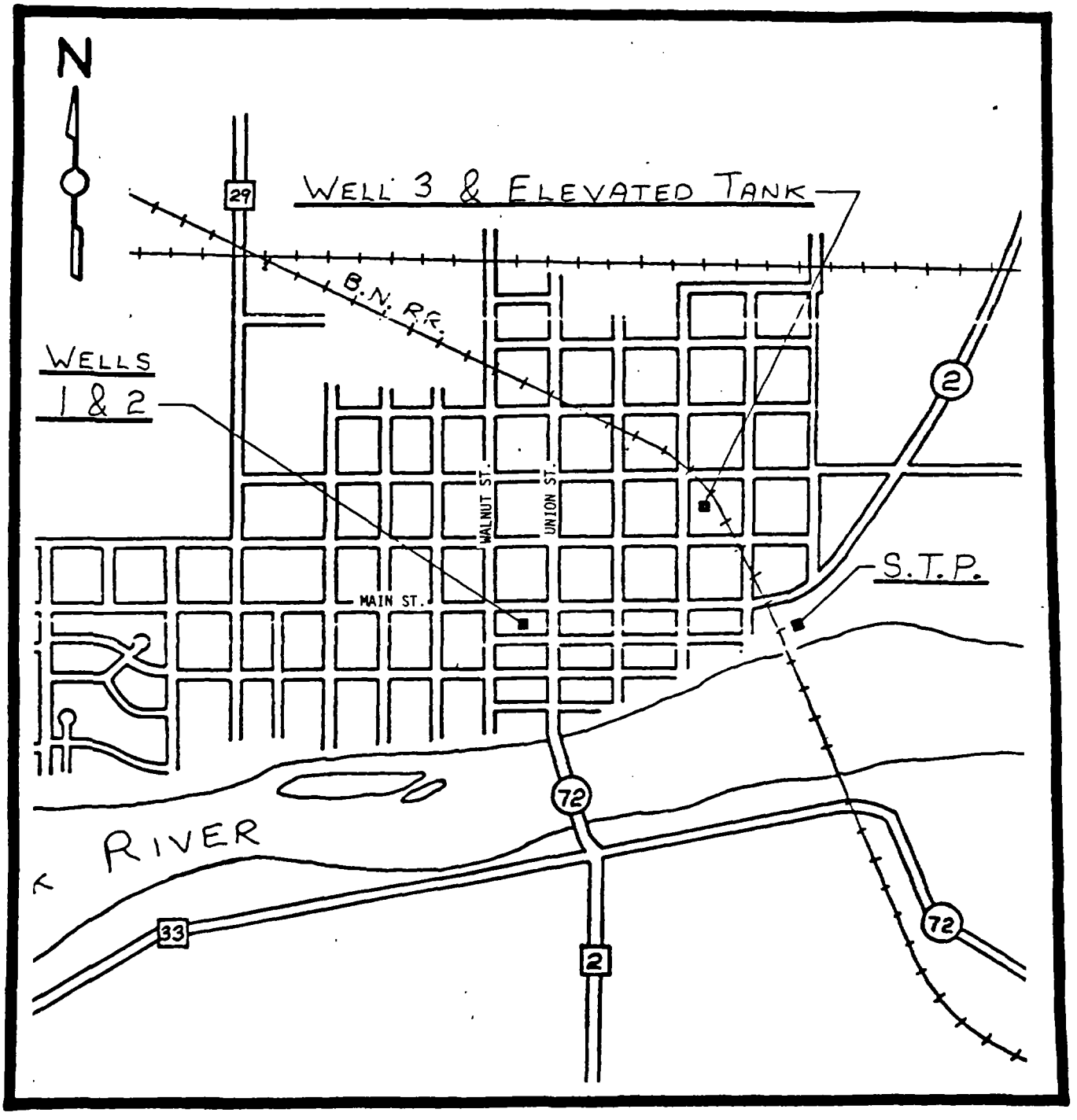
SITE MAP

FIGURE 2-2

The Illinois EPA's Pre-Remedial Unit became involved with the Byron Public Water Supply when routine sampling event analysis determined that there was trichloroethylene entering well #2. Concentrations have been recorded ranging from 3 parts per billion (ppb) to 10 ppb during the period from 1986 to 1988. The water supply system serves all of the City's population of approximately 3,050 residents. Water is obtained from multiple aquifers. The geologic log of Well #2 indicates that it is finished 93 feet into the Galesville Sandstone. The screened portion is in this strata. Above the Galesville is 85 feet of Franconia S.S. and shale, 55 feet of Trempealeau dolomite and chert, 240 feet of St. Peter sandstone and 200 feet of sand and gravel to the ground surface. There is no information at this time regarding the grout sealing of this well, therefore, investigations into the contamination problem must consider the possibility of vertical movement of groundwater along the well's side. Water obtained from Well #2 is combined with water from Well #1, chlorinated, fluoridated, placed into the pressure tanks and then to the distribution system. Well #3 water is chlorinated, fluoridated pumped to an elevated storage tank and then to the distribution system (Figure 2-3).

Prior to the above mentioned contamination, the City's wells were contaminated with hexavalent chromium. This discovery occurred in June 1973. The majority of the contamination had been found in Well #2 with a small amount found in #1. At this point Well #3 was activated and Well #2 was removed from service. Well #2 showed a contamination level of up to 1.2 parts per million (ppm) hexavalent chromium at that time (Table 2-1).

Two plating companies were suspect at that time. Quality Metal Finishing Company at Walnut Street and 4th Street and another (name unknown) located on



SOURCE: IEPA 1980; Division of Public Water Supplies

LOCATION OF CITY WELLS

FIGURE 2-3

TABLE 2-1

SAMPLES TAKEN FROM WATER TAP AT
QUALITY METAL FINISHING COMPANY

	6/23/73	6/18/73	9/15/73	5/7/74
Chromium as Cr^{-6}	0.05	0.075	0.03	0.045
Copper	ND	ND	ND	ND
Nickel	ND	ND	ND	ND
Cyanide	ND	ND	ND	ND

(all in ppm)
ND - Not detected

TABLE 2-2

WATER SAMPLES TAKEN
FROM PWS WELL #2

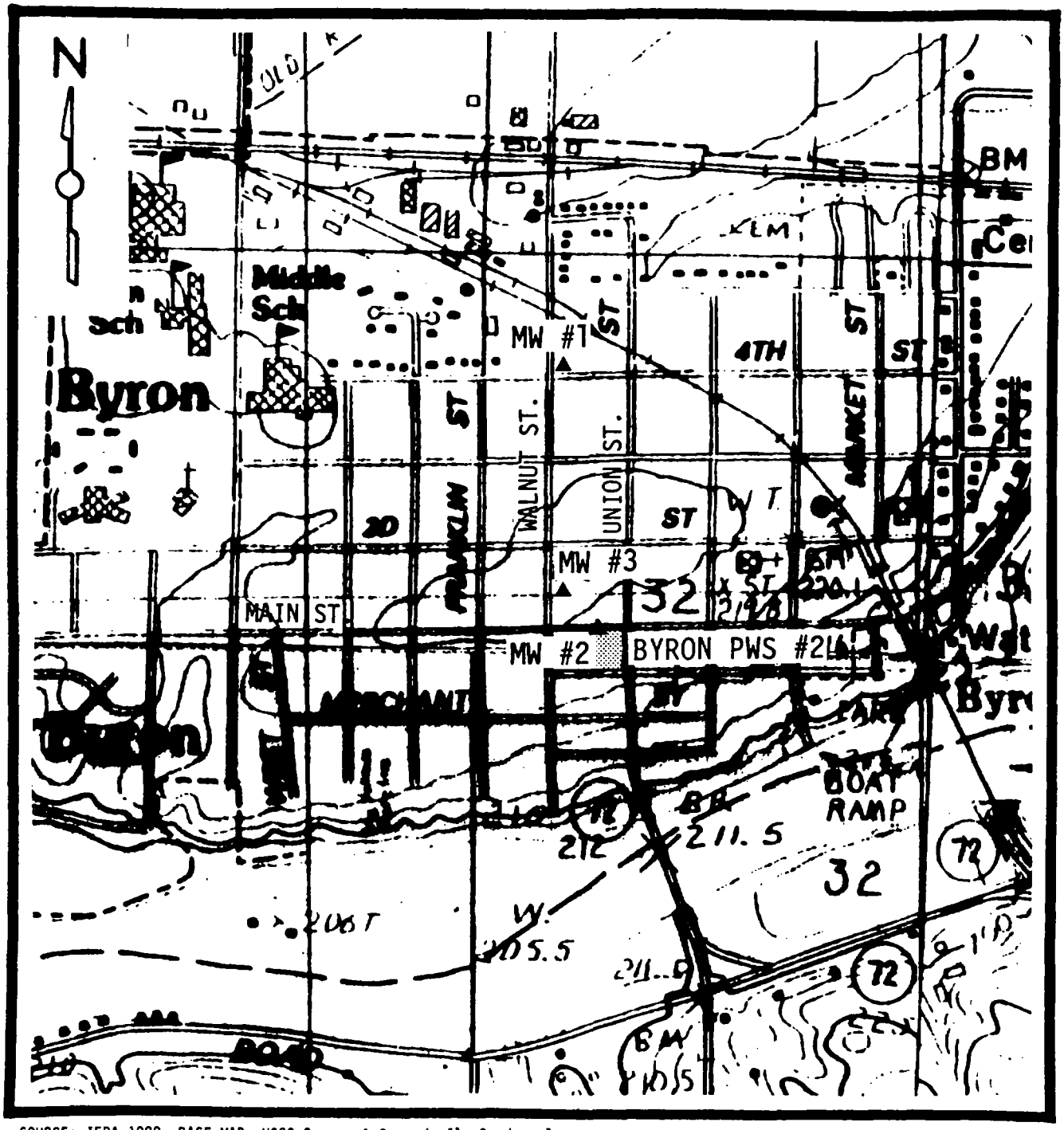
	Sample #1	Sample #2	Sample #3	Pvt. Well
Chromium as Cr^{-6}	0.58	1.20	0.95	ND
Copper	ND	ND	ND	ND
Nickel	ND	0.08	ND	ND

- Samples were taken on June 23, 1973 after Well #2 had been idle for 16 hours
- Sample #1 was taken immediately after the pump was started
- Sample #2 was taken after 3 minutes of pumping
- Sample #3 was taken after an hour of pumping
- The private well sample was obtained from a shallow well in the vicinity of Quality Metal Finishing

the north side of Main Street near Walnut Street. The latter was believed to have used dry wells to dispose of the plating wastes. Tap water samples taken from Quality Metal Finishing Company showed only 0.075 ppm hexavalent chromium (Table 2-2).

At a meeting on May 8, 1974, attended by Mayor Lyle Blanchard and Quality Metal Finishing Company personnel, it was decided that test holes should be drilled near the QMF plant and near the public well site. This was accomplished on May 27, 1974 by Testing Engineers, Inc., of Dixon, Illinois. One test hole (monitor well) was drilled near the north curb on 4th Street in front of QMF placing a 2 inch diameter plastic pipe to a depth of 60 feet. The other monitor well was placed approximately 5 feet south of the sidewalk at the northwest corner of the well house. This well was also 2 inch diameter plastic pipe set at 60 feet (Figure 2-4).

Samples obtained from these two wells (Table 2-3) showed no conclusive evidence of chromium contamination. Based on these results, another monitor well was drilled just north of the Standard Oil gas station which is located at the northeast corner of Main Street at Walnut Street. The location of the monitor well is at approximately the site of the old unnamed plating company. The well was constructed of 1 1/2 inch diameter plastic pipe set at 60 feet. Water was encountered at 49 feet. Results from sampling events at this well showed concentrations of hexavalent chromium ranging from 3.20 parts per million (ppm) to 5.12 ppm (Table 2-3). Additional tests were run on the sand and gravel taken from this well at various intervals. These consisted of taking equal volumes of sand and gravel from the split-spoon sampler, leaching them with 100 ml. of water and testing the leachate for contaminants (Table 2-4).



SOURCE: IEPA 1988; BASE MAP: USGS Oregon & Seward, Il. Quadrangles 1983, 7.5 Minute Series

OLD MONITOR WELL LOCATIONS

FIGURE 2-4

TABLE 2-3

SAMPLE RESULTS FROM THE
THREE GROUNDWATER MONITOR WELLS

Quality Metal Finishing Well

	5/27/74 3:30 pm	5/30/74 8:24am	6/14/74 8:00 am
Total Alkalinity, gr/gal. $CaCO_3$ eq.	28.9	23.5	24.5
Chlorides gr/gal. $CaCO_3$ eq.	1.8	2.9	2.5
Sulfates gr/gal. $CaCO_3$ eq.	2.4	2.3	3.7
Total Hardness gr/gal. $CaCO_3$ eq.	21.1	28.5	27.8
Calcium Hardness gr/gal. $CaCO_3$ eq.	15.2	ND	ND
Magnesium Hardness gr/gal. $CaCO_3$ eq.	7.9	ND	ND
Nitrates	1.45	ND	ND
Copper	ND	ND	ND
Chromium	ND	ND	ND
Nickel	ND	ND	ND
Cyanide	ND	ND	ND

WELL AT NW CORNER OF PWS WELL HOUSE

	5/27/74		5/30/74		6/14/74	
	12.00N	1:30P	9:15A	9.45A	8:35A	9:15A
Total Alkalinity, gr/gal. $CaCO_3$ eq.	28.7	29.1	27.3	28.6	30.2	30.6
Chlorides gr/gal. $CaCO_3$ eq.	11.0	13.9	9.4	10.9	2.3	2.9
Sulfates gr/gal. $CaCO_3$ eq.	1.6	1.0	1.0	1.0	0.8	0.5
Total Hardness gr/gal. $CaCO_3$ eq.	30.2	33.7	28.8	30.6	28.9	29.2
Calcium Hardness gr/gal. $CaCO_3$ eq.	18.2	20.1	-	-	-	-
Magnesium Hardness gr/gal. $CaCO_3$ eq.	12.0	13.6	-	-	-	-
Nitrates	1.25	0.75	-	-	-	-
Copper	ND	0.35	ND	ND	ND	ND
Chromium	0.02	ND	ND	ND	Nd	ND
Nickel	ND	0.50	ND	ND	ND	ND
Cyanide	ND	ND	ND	ND	ND	ND

(Table 2-3 Cont.)

WELL AT NW CORNER OF STANDARD OIL GAS STATION

	6/6/74		6/14/74	
	1st Bail	2:45P	9.25A	10:15A
Total Alkalinity, gr/gal. $CaCO_3$ eq.	26.2	18.9	12.8	19.8
Chlorides gr/gal. $CaCO_3$ eq.	1.3	1.1	1.1	1.4
Sulfates gr/gal. $CaCO_3$ eq.	2.4	2.9	-	3.7
Total Hardness gr/gal. $CaCO_3$ eq.	28.4	31.0	9.5	24.1
Calcium Hardness gr/gal. $CaCO_3$ eq.	17.3	16.7	-	-
Magnesium Hardness gr/gal. $CaCO_3$ eq.	11.1	7.5	-	-
Nitrates	-	-	-	-
Copper	ND	0.59	ND	ND
Chromium	3.20	0.38	5.12	0.65
Nickel	0.06	0.60	0.05	0.08
Cyanide	ND	ND	ND	ND

TABLE 2-4

TESTS OF LEACHED SOIL* AT
THE STANDARD OIL MONITOR WELL SITE'

Sample Level	Chromium as Cr^{-6}	Copper	Cyanide
6.5'	ND	ND	ND
9.0'	ND	ND	ND
11.5'	ND	ND	ND
14.0'-16.5'	0.05	ND	ND
16.5'	ND	ND	ND
21.5'	0.075	ND	ND
31.5'-36.5'	4.85	0.13	ND
36.5'	1.35	0.08	ND
41.5'	0.70	ND	ND
51.5'	0.045	ND	ND

*Approximately 40 ml. of sand and gravel from each level was leached with 100 ml. of water and the leachate tested.

KC:bls/3402j,13,15

Based on the findings of the sampling events, the old plating company near the Standard Oil gas station was the most likely source of chromium contamination.

There was never a solution to the contamination problem implemented. There were, however, suggested remedies discussed, as sealing Well #2 and drilling another public well, but never carried out.

From 1974 to 1985 the chromium contamination has diminished to where it is not detectable. Theories are that this contaminant has worked its way out of the soil and groundwater or has stabilized.

Since the discovery of TCE and various gasoline fractions in the groundwater, the IEPA's LUST/UST unit has become involved with this site (along with the pre-remedial unit) because of the nature of the contaminants and the proximity of the public wells to a number of gasoline service stations, operating or abandoned.

3. SCREENING SITE INSPECTION PROCEDURES AND FIELD OBSERVATIONS

3.1 INTRODUCTION

This section outlines procedures and observations of the SSI at the Byron PWS site. Individual subsections address the site representative interview, reconnaissance inspection and sampling procedures. The SSI was conducted in accordance with the U.S. EPA-approved workplan.

The U.S. EPA Potential Hazardous Waste Site Inspection Report (Form 2070-13) for the Byron PWS site is provided in Appendix B. The U.S. EPA Immediate Removal Action checksheet for the site is provided in Appendix C.

3.2 SITE REPRESENTATIVE INTERVIEW

At the time the site inspection took place there were no site representatives present. Contact was made by means of phone calls and by letter, prior to the actual site inspection. The letter indicated the general date of inspection.

During the phone conversations Harold Fry, water operator, was given an explanation of the Agency's plans, which were acceptable to him, and potential sample points.

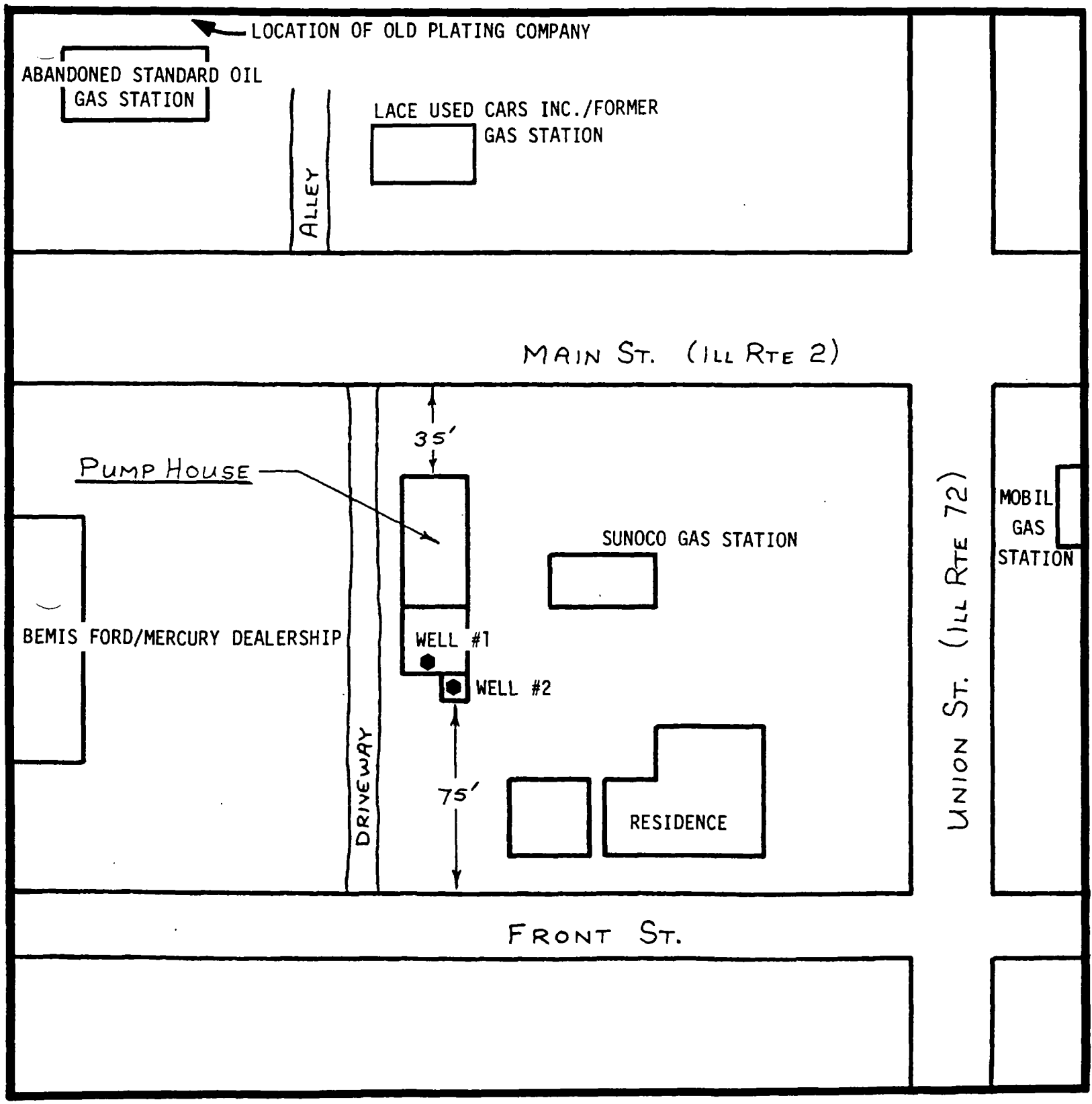
3.3 RECONNAISSANCE INSPECTION

Following arrival, IEPA personnel conducted a reconnaissance inspection of the Byron PWS site and surrounding area. The reconnaissance inspection included a walk-through of the site to specifically identify sampling points as identified in the approved work plan and to determine appropriate health and safety requirements. The reconnaissance inspection began at 9:30 a.m. on August 3, 1988. No site representative accompanied the IEPA personnel on the reconnaissance inspection.

Reconnaissance Inspection Observations. The Byron PWS site is, as was previously mentioned, located on a 60 foot by 80 foot lot on which is the pump house and the ground is covered with grass. Various other areas around the site are concrete and asphalt covered (streets and parking lots). Land use in the vicinity of the site is residential and commercial within a mile of the site becoming agricultural beyond 1 mile. The surface topography of the area surrounding the site is relatively flat within the City limits, once outside the City and away from the Rock River the topography becomes gently rolling. Site slope is generally south - southeast.

The site is bordered on the north by Main Street (Route 2), on the south by a 75 foot grass area, on the east by a "Sunoco" gas station and on the west by an automobile dealership (Figure 3-1). The site perimeter does not have any fencing, however, the wells, being located in the pump house, are secure and tamper proof as the door to the building is always locked.

The Sunoco station was noted to have three 55 gallon drums situated against the east wall of the well house. One drum was on its' side and contained some liquid. The ground in this area was observed to be a mixture of fine cinders, soil and some type of waste substance. At the south wall of



SOURCE: IEPA 1980; Division of Public Water Supplies

SITE FEATURES

FIGURE 3-1

the gas station, approximately 40 feet east of the east wall of the well house, there are two openings with covers for underground tanks. These are thought to be waste oil and solvent storage tanks. The ground near these openings was stained with a dark substance which had also run down a 3-4 foot slope into the backyard of the residence to the south of the gas station. A swing set was present near the stained yard area. There were no other areas near the well house or within a two block radius from the well house that were visibly contaminated or showed signs of casual use.

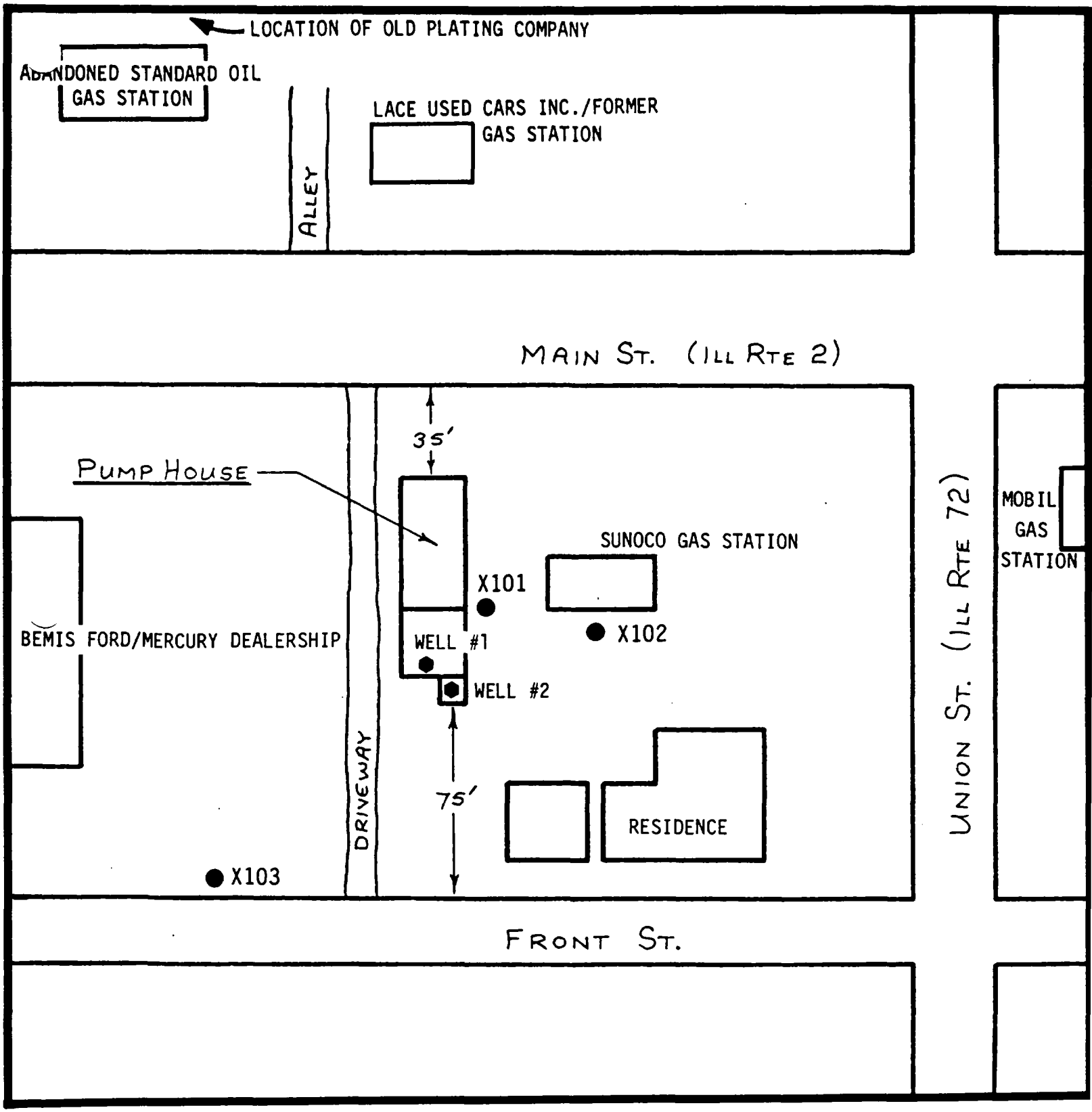
3.4 SAMPLING PROCEDURES

Samples were collected by IEPA personnel to determine levels of U.S. EPA Target Compound List (TCL) compounds present at the site. The TCL list is provided in Appendix D.

On August 3, 1988, IEPA personnel collected three soil samples, one of which was off-site as a potential background point (Figure 3-2 for sample locations).

Soil Sampling Procedures. All soil samples were taken from 0-6 inches deep. X101 was taken 4 feet east of the east wall and 20 feet north of the south wall of the well house in an area where the Sunoco gas station had stored 55 gallon drums and discarded tires. X102 was taken approximately 40 feet east of the east wall of the well house and 8 feet south of the south wall of the Sunoco gas station. X103 was taken approximately 75 feet south and 40 feet west of the well house in a grass covered area. Photographs of the Byron PWS site are provied in Appendix F.

All soil samples were collected by using a stainless steel spoon and placed in appropriate sample jars. The samples were evidence taped, packaged in accordance with U.S. EPA required procedures and were analyzed for TCL compounds by ARDL laboratory of Mt. Vernon, Illinois.



SOURCE: IEPA 1980; Division of Public Water Supplies

SAMPLE LOCATIONS

FIGURE 3-2

Decontamination Procedures: Standard Illinois Environmental Protection Agency decontamination procedures were followed prior to the collection of all samples. The procedures included the scrubbing of all equipment (bailers, spoons, pans, etc.) with a non-foaming Trisodium Phosphate solution, rinsing with hot tap water, rinsing with acetone, rinsing with hot tap water again and final rinsed with distilled water. All equipment is air dried, then wrapped and stored in heavy duty aluminum foil for transport to the field. Field decontamination procedures include all of the above except the hot tap water rinse.

4. ANALYTICAL RESULTS

4.1 INTRODUCTION

This section includes the analytical results of IEPA-Collected samples for TCL compounds.

4.2 ANALYTICAL RESULTS OF IEPA-COLLECTED SAMPLES

Chemical analysis of soil samples collected by IEPA personnel revealed the following substances from the TCL: Volatile organics, pesticides, base/neutrals, heavy metals, common laboratory artifacts and common soil constituents.

(Table 4-1 for the summary of soil sample chemical analysis results.) Complete laboratory analytical data of all samples may be found in Appendix E.

SAMPLE SUMMARY FORM

(ppb) SAMPLE #	ug/kg X101	ug/kg X102	ug/kg X103						
VOLATILES									
chloromethane									
bromomethane									
vinyl chloride									
chloroethane									
methylene chloride	3700 B	3700 B	16 B						
acetone	2200 B	3800 B	8 JB						
carbon disulfide									
1,1-dichloroethene									
1,1-dichloroethane									
1,2-dichloroethene (total)									
1,2-dichloropropane									
chloroform	420 JB	390 JB							
1,2-dichloroethane									
2-butanone									
1,1,1-trichloroethane									
carbon tetrachloride									
vinyl acetate									
dichlorobromomethane									
c-1,3-dichloropropene									
trichloroethene			7.0						
benzene									
chlorodibromomethane									
1,1,2-trichloroethane									
t-1,3-dichloropropene									
bromoform									
2-hexanone									
4-methyl-2-pentanone		880 B							
1,2,2-tetrachloroethane									
trachloroethene									
toluene									
chlorobenzene									
ethylbenzene	200 J	760							
styrene									
total xylenes	950	4200							
PESTICIDES (ppb)									
alpha-BHC									
beta-BHC									
delta-BHC									
Lindane (gamma-BHC)									
Heptachlor		310							
Aldrin			110						
Heptachlor epoxide									
Endosulfan I									
4,4'-DDE									
Dieldrin									
Endrin									
4,4'-DDD									
Endosulfan II									
4,4'-DDT									
Endrin ketone									
Endosulfan sulfate									
Methoxychlor									
alpha-Chlordane									
gamma-Chlordane		1300							
Toxaphene									
Arochlor-1016									
Arochlor-1221									
Arochlor-1232									
Arochlor-1242									
Arochlor-1248									
Arochlor-1254									
Arochlor-1260									

SAMPLE SUMMARY FORM
(CONT)

SAMPLE #	ug/kg	ug/kg	ug/kg						
ACIDS	X101	X102	X103						
Benzoic Acid									
Phenol									
2-chlorophenol									
2-nitrophenol									
2-methylphenol									
2,4-dimethylphenol									
4-methylphenol									
2,4-dichlorophenol									
2,4,6-trichlorophenol									
2,4,5-trichlorophenol									
4-chloro-3-methylphenol									
2,4-dinitrophenol									
2-methyl-4,6-dinitrophenol									
Pentachlorophenol									
4-nitrophenol									
BASE/NEUTRALS (PPb)									
Hexachloroethane									
Bis (2-chloroethyl) ether									
Benzyl Alcohol									
Bis (2-chloroisopropyl) ether									
N-nitrosodi-n-propylamine									
Nitrobenzene									
Hexachlorobutadiene									
2-Methylnaphthalene		7800 JD							
1,2,4-trichlorobenzene									
Isophorone									
Naphthalene									
4-Chloroaniline									
Bis (2-chloroethoxy) methane									
Hexachlorocyclopentadiene									
2-chloronaphthalene									
2-Nitroaniline									
Acenaphthylene									
3-Nitroaniline									
Acenaphthene									
Dibenzofuran									
Dimethylphthalate									
2,6-Dinitrotoluene									
Fluorene									
4-Nitroaniline									
4-Chlorophenyl-phenyl ether									
2,4-Dinitrotoluene									
Diethylphthalate									
N-Nitrosodiphenylamine									
Hexachlorobenzene									
Phenanthrene		7800 JD	570 JD						
4-Bromophenyl-phenyl ether									
Anthracene									
Dibutylphthalate			1900 JD						
Fluoranthene		5900 JD	1100 JD						
Pyrene		11,000 JD	930 JD						
Butyl benzyl phthalate			370 JD						
Bis (2-ethylhexyl) phthalate									
Chrysene									
Benzo (a) anthracene									
3,3'-Dichlorobenzidene									
Di-n-octyl phthalate									
Benzo (b) fluoranthene			460 JD						
Benzo (k) fluoranthene									
Benzo (a) pyrene			390 JD						
Indeno (1,2,3-cd) pyrene									
Dibenzo (a,h) anthracene									
Benzo (g,h,i) perylene									
1,2-Dichlorobenzene									
1,3-Dichlorobenzene									
1,4-Dichlorobenzene									

SAMPLE SUMMARY FORM
(CONT)

METALS (PPM) / SAMPLE #	mg/kg X101	mg/kg X102	mg/kg X103						
Aluminum	2500	7000	6900						
Antimony	64								
Arsenic	2.2	2.6	2.0						
Barium	48	210	100						
Beryllium									
Cadmium									
Calcium	100,000	25,000	40,000						
Chromium	14	18	22						
Cobalt		[7.1]	[5.7]						
Copper	27	30	14						
Iron	6600	9600	9300						
Lead	500	1100	94						
Magnesium	71,000	12,000	19,000						
Manganese	190	430	440						
Mercury			.082						
Nickel	9.1	18	13						
Potassium	[510]	1300	1,000						
Selenium									
Silver	3.9	4.4	6.9						
Sodium	[200]	[130]	[350]						
Thallium									
Vanadium		16	14						
Zinc	360	1200	100						
OTHERS (PPM)									
Cyanide									
Sulfide		15							
Phenols									
Nitrogen-Ammonia									
Nitrogen, Total Kjeldahl									
Nitrogen-Nitrate									
Boron									
pH									
Sulfate	130	130	210						
Chloride									

TC:tk:4/30/12-1(6/2/88)

QUALIFIER	DEFINITION
U	Indicates element or compound was analyzed for but not detected. Report the detection limit value (e.g., 10U).
J	Indicates an estimated value. This flag is used either when estimating a concentration for TIC's where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the CRDL.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides greater than or equal to 10 ng/ul in the final extract shall be confirmed by GC/MS.
B	This flag is used when the analyte is found in the blank as well as the sample. This flag must be used for a TIC as well as for a positively identified TCL compound.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample numbers (both lab and EPA) on the Form 1 for the diluted sample, and all concentration values reported on that Form 1 are flagged with the "D" flag.
E	This flag identifies compounds whose concentrations exceed the calibration range of the instrument for that specific analysis. If one or more compounds have a response greater than full scale, the sample or extract must be diluted and re-analyzed. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the Form 1 for the original analysis. If the dilution

QUALIFIER	DEFINITION
	of the extract causes any compounds identified in the first analysis to be below the calibration range in the second analysis, then the results of both analyses shall be reported on separate Forms 1. The Form 1 for the diluted sample shall have the "DL" suffix appended to the lab sample number and the EPA sample number.
S	Indicates value determined by Method of Standard Addition
N	Indicates spike sample recovery is not within control limits.
*	Indicates duplicate analysis is not within control limits.
+	Indicates the correlation coefficient for method of standard addition is less than 0.995.
[ ]	Result is greater than or equal to the instrument detection limit but less than the contract required detection limit.

5. BIBLOIOGRAPHY

Fry, Harold, City of Byron, Water Superintendent, 8-1-88, contacted by Kenneth W. Corkill of IEPA.

IEPA, 1988. Potential Hazardous Waste Site Preliminary Assessment, for Byron Public Water Supply Well #2, Byron, Illinois, U.S. EPA ID: ILD981960776, prepared by Gary Reside, Springfield, Illinois.

IEPA, 5-9-88. Byron Wellhead Survey Report, prepared by Greg White, Division of Public Water Supplies, Rockford, Illinois.

Illinois State Water Survey, 1980, Assessment of Public Groundwater Supplies in Illinois, Urbana, Illinois

Porter, Lyle B., P.E., Groundwater Survey - City of Byron, Illinois, 1974 prepared by Lyle B. Porter, P.E., Rockford, Illinois, June 29, 1974.

U.S. Geological Survey, 1983, Oregon, Illinois Quadrangle, 7.5 Minute Series; 1:24,000.

U.S. Geological Survey, 1983, Seward, Illinois Quadrangle, 7.5 Minute Series; 1:24,000.

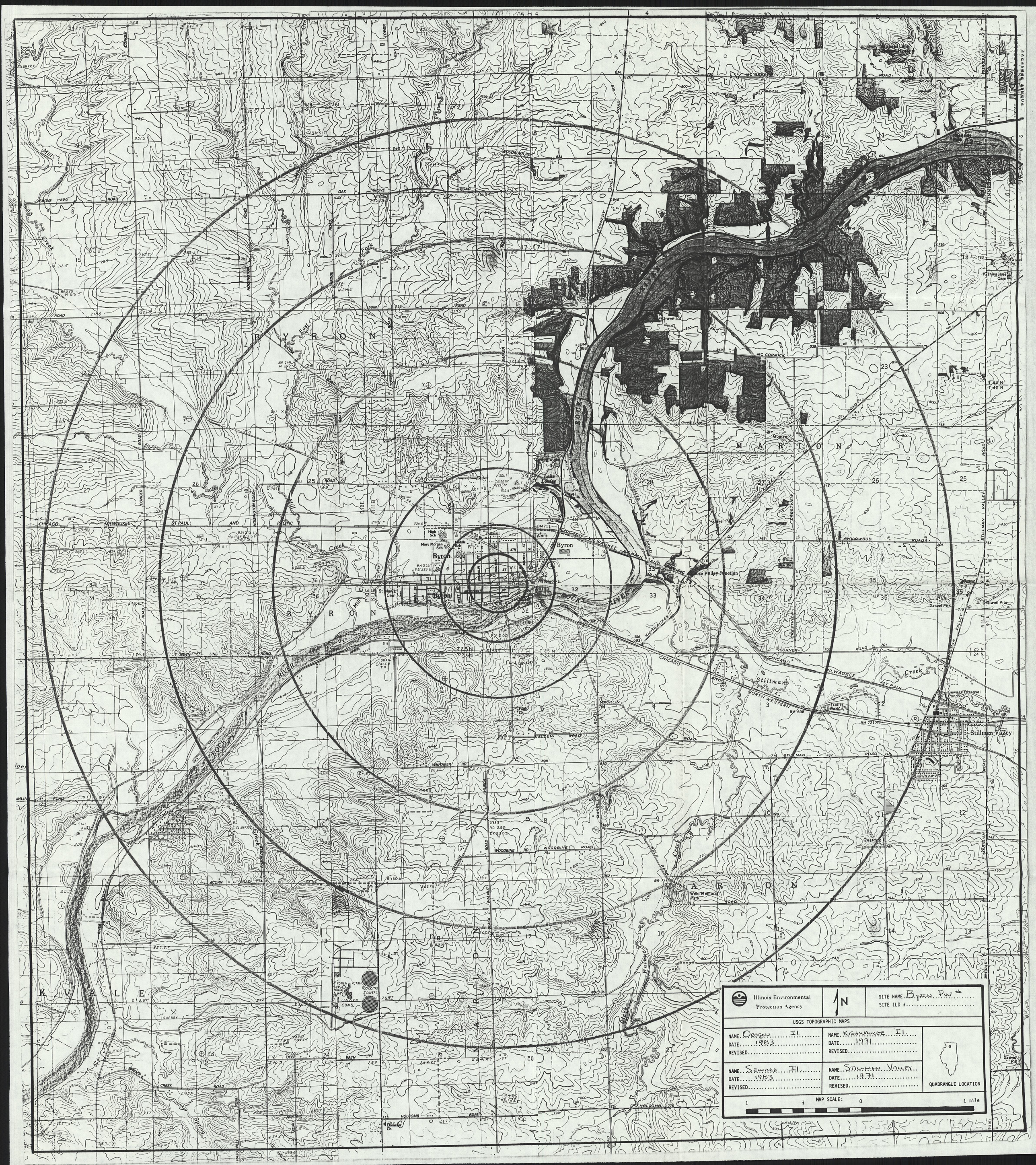
U.S. Geological Survey, 1971, Kishwaukee, Illinois Quadrangle, 7.5 Minute Series; 1:24,000.

U.S. Geological Survey, 1971, photo revised 1976, Stillman Valley, Illinois Quadrangle, 7.5 Minute Series; 1:24,000.

KC:jas/3349j,67-79

APPENDIX A

Site 4-Mile Radius Map


Illinois Environmental Protection Agency
N
SITE NAME. Byron PWTP
SITE ILD #
USGS TOPOGRAPHIC MAPS
NAME. Oregon Il.
DATE. 1983
REVISED
NAME. Kishwaukee Il.
DATE. 1971
REVISED
NAME. Seward Il.
DATE. 1983
REVISED
NAME. Stillman Valley
DATE. 1971
REVISED
QUADRANGLE LOCATION
MAP SCALE: 1 0 1 mile
BYRON
MARION
Byron
Stillman Valley
ROCK RIVER
Lake Louise
Rose Pulley Junction
Weld Memorial Park
Sewage Disposal Ponds
Trailer Park
Gravel Pit
Kishwaukee Cem
Mary Morgan Sch
High Sch
Middle Sch
St Mary's Cem
Chenesey Ch
POWER PLANT
COOLING TOWERS
UNDER CONS.
CHICAGO MILWAUKEE ST PAUL AND PACIFIC
CHICAGO MILWAUKEE ST PAUL AND NORTH WESTERN
KISHWAUKEE
Stillman Creek
Kyte River
Coppus Creek
Mill Creek
Spring Creek
Weld Creek
Walnut Creek
Woodburn Creek
Fork
East Fork
MC GREGOR ROAD
MC CORMICK ROAD
WOODBURN RD
OAK GROVE ROAD
LYNN ROAD
KENNEDY ROAD
HOSMER ROAD
HOSMINGTON ROAD
CONGER ROAD
TOWER ROAD
HEDGE ROAD
BARKER ROAD
STILLMAN ROAD
STILLMAN VALLEY ROAD
CRESTVIEW ROAD
HALES CORNER ROAD
WALDEN ROAD
WHITAKER RD
WOODBINE ROAD
ACORN ROAD
HOLCOMB ROAD
DEER PATH
TOWN LINE ROAD
T 25 N
T 24 N
T 43 N
T 42 N

APPENDIX B

U.S. EPA Form 2070-13

Site Inspection Report

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
ILD	981960776

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
BYRON PWS WELL #2	MAIN ST. + UNION ST.

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
BYRON	IL	61010	OGLE	141	16

09 COORDINATES LATITUDE	LONGITUDE	10 TYPE OF OWNERSHIP (Check one)
42 07 30.0	089 15 30.0	☐ A. PRIVATE ☐ B. FEDERAL ____ ☐ C. STATE ☐ D. COUNTY ☒ E. MUNICIPAL ☐ F. OTHER ____ ☐ G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION	02 SITE STATUS	03 YEARS OF OPERATION
8 / 3 / 88 (MONTH DAY YEAR)	☒ ACTIVE ☐ INACTIVE	1929 / IN OPERATION (BEGINNING YEAR / ENDING YEAR) ____ UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply)

☐ A. EPA ☐ B. EPA CONTRACTOR ____ (Name of firm) ☐ C. MUNICIPAL ☐ D. MUNICIPAL CONTRACTOR ____ (Name of firm)
☒ E. STATE ☐ F. STATE CONTRACTOR ____ (Name of firm) ☐ G. OTHER ____ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO
KENNETH W. CORKILL	EPS III	IEPA/RPMS	(217) 782-6760

09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO.
GARY RESIDE	EPS I	IEPA/RPMS	(217) 782-6760
			( )
			( )
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
NONE PRESENT DURING SI			( )
			( )
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
☒ PERMISSION ☐ WARRANT	9:30 AM	SUNNY - HOT - 90° - SW WIND @ 5 MPH

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO
HAROLD FRY	BYRON WATER SUPERINTENDANT	(815) 234-2762

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
KENNETH W. CORKILL	IEPA	RPMS	(217) 782-6760	11 / 2 / 88 (MONTH DAY YEAR)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
ILD	981960776

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- ☐ A SOLID
- ☐ B POWDER, FINES
- ☐ C SLUDGE
- ☐ D OTHER _____ (Specify)
- ☐ E SLURRY
- ☒ F LIQUID
- ☐ G GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

TONS _____
CUBIC YARDS UNKNOWN
NO OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

- ☒ A TOXIC
- ☐ B CORROSIVE
- ☐ C RADIOACTIVE
- ☒ D PERSISTENT
- ☐ E SOLUBLE
- ☐ F INFECTIOUS
- ☐ G FLAMMABLE
- ☐ H IGNITABLE
- ☐ I HIGHLY VOLATILE
- ☐ J EXPLOSIVE
- ☐ K REACTIVE
- ☐ L INCOMPATIBLE
- ☐ M NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE	UNKNOWN		
SOL	SOLVENTS	UNKNOWN		← DETECTED IN SOIL NEAR WELL HOUSE
PSD	PESTICIDES	UNKNOWN		AND IN WELL #2
OCC	OTHER ORGANIC CHEMICALS	UNKNOWN		
IOC	INORGANIC CHEMICALS			
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS	UNKNOWN		

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
SOL	TRICHLOROETHYLENE (IN WELL)	79-01-6	UNKNOWN	3 - 10	PPB
SOL	TRICHLOROETHYLENE (IN SOIL)	79-01-6	UNKNOWN / ON GROUND	7	PPB
OCC	ETHYLBENZENE (WATER)	100-41-4	UNKNOWN	750	PPB
OCC	TOTAL XYLENES (WATER)	133-02-7	UNKNOWN	4,200	PPB
PSD	HEPTACHLOR (SOIL)	76-44-8	UNKNOWN	310	PPB
PSD	ALDRIN (SOIL)	309-00-2	UNKNOWN	110	PPB
PSD	gamma-CHLORDANE (SOIL)	5103-74-2	UNKNOWN	1,300	PPB
MES	ANTIMONY (SOIL)	7440-36-0	UNKNOWN	64	PPM
MES	BARIUM (SOIL)	7440-39-3	UNKNOWN	210	PPM
MES	CALCIUM (SOIL)	7440-70-2	UNKNOWN	100,000	PPM
MES	COPPER (SOIL)	7440-50-8	UNKNOWN	30	PPM
MES	LEAD (SOIL)	7439-92-1	UNKNOWN	9,600	PPM
MES	MAGNESIUM (SOIL)	7439-95-4	UNKNOWN	71,000	PPM
MES	SILVER (SOIL)	7440-22-4	UNKNOWN	5.9	PPM
MES	ZINC (SOIL)	7440-66-6	UNKNOWN	1,200	PPM

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS			FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

IEPA - LAND FILES
IEPA - PUBLIC WATER SUPPLIES FILES
IEPA - PA/SI UNIT SITE INSPECTION
USGS TOPOGRAPHIC MAPS
HAROLD FRY - WATER SUPER. FOR BYRON, IL.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
ILD	981960776

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 [X] A. GROUNDWATER CONTAMINATION — 02 [X] OBSERVED (DATE 8-25-87) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED 3,300 — 04 NARRATIVE DESCRIPTION

SAMPLES OF PUBLIC WELL #2 WERE TAKEN ON 6-25-86, 11-5-86 + 8-25-87 WHICH REVEALED THE PRESENCE OF TRICHLOROETHYLENE AT CONCENTRATIONS OF 3.0 ppb, 6 ppb. + 10 ppb. RESPECTIVELY. A SOIL SAMPLE TAKEN NEAR THE WELL ON 8-3-88 SHOWED TCE @ 7 ppb.

01 [X] B. SURFACE WATER CONTAMINATION — 02 ☐ OBSERVED (DATE ____) [X] POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED 0 — 04 NARRATIVE DESCRIPTION

THERE HAS NOT BEEN ANY EVIDENCE OF CONTAMINATION TO THE ROCK RIVER BY TCE. THE PUBLIC WELL IS SLIGHTLY OVER 1/4 MILE FROM THE RIVER. THERE ARE NO KNOWN INTAKES DOWNSTREAM OF THE SITE.

01 ☐ C. CONTAMINATION OF AIR — 02 ☐ OBSERVED (DATE ____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED ____ — 04 NARRATIVE DESCRIPTION

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS — 02 ☐ OBSERVED (DATE ____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED ____ — 04 NARRATIVE DESCRIPTION

01 [X] E. DIRECT CONTACT — 02 ☐ OBSERVED (DATE ____) [X] POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED 2,000 — 04 NARRATIVE DESCRIPTION

REFERENCE "F" BELOW A SWING SET WAS PRESENT (WITHIN 10 FEET) NEAR THE CONTAMINATED SOIL. CONTAMINANTS CONSISTED OF ETHYLBENZENE, TOTAL XYLENES, HEPTACHLOR, gamma-CHLORDANE, VARIOUS ESTIMATED VALUES OF BASE/NEUTRALS, AND HIGH VALUES OF BARIUM, CALCIUM, LEAD, MAGNESIUM AND ZINC.

01 [X] F. CONTAMINATION OF SOIL — 02 [X] OBSERVED (DATE 8-3-88) ☐ POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED 4' x 8' x (UNKNOWN DEPTH) — 04 NARRATIVE DESCRIPTION

SOIL WAS NOTED TO BE STAINED WITH A DARK OILY SUBSTANCE NEXT TO THE EAST WALL OF THE WELL HOUSE AND APPROXIMATELY 40 FEET EAST OF THE EAST WALL. ALSO, CONTAMINANTS WERE FOUND IN A GRASSY AREA APPROXIMATELY 100 FEET S.W. OF THE WELL HOUSE DURING THE SITE INVESTIGATION SAMPLING EVENT.

01 [X] G. DRINKING WATER CONTAMINATION — 02 [X] OBSERVED (DATE 8-25-87) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED 3,300 — 04 NARRATIVE DESCRIPTION

REFERENCE "A" ABOVE

01 ☐ H. WORKER EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE ____) ☐ POTENTIAL ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED ____ — 04 NARRATIVE DESCRIPTION

01 [X] I. POPULATION EXPOSURE/INJURY — 02 [X] OBSERVED (DATE 8-25-87) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED 3,300 — 04 NARRATIVE DESCRIPTION

REFERENCE "A" + "B" ABOVE

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: ILD | 02 SITE NUMBER: 981960776

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 [X] J. DAMAGE TO FLORA — 02 [X] OBSERVED (DATE 8-3-88) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
AT THE AREA OF DARK STAINING EAST OF THE WELL HOUSE, IN THE BACKYARD OF THE RESIDENCE, THERE IS DEAD GRASS & DEAD WEEDS ALONG THE SUBSTANCES PATH.

01 ☐ K. DAMAGE TO FAUNA — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include name(s) of species)

01 ☐ L. CONTAMINATION OF FOOD CHAIN — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 [X] M. UNSTABLE CONTAINMENT OF WASTES (Spills, Runoff, Standing liquids, Leaking drums) — 02 [X] OBSERVED (DATE 8-25-87, 8-3-88) ☐ POTENTIAL [X] ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 3,300
04 NARRATIVE DESCRIPTION
SOMEWHERE IN THE IMMEDIATE VICINITY THERE IS UNSTABLE CONTAINMENT OF TCE, AS IT IS GETTING INTO WELL #2.

01 [X] N. DAMAGE TO OFFSITE PROPERTY — 02 [X] OBSERVED (DATE 8-3-88) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION
THE DARK STAINING OF SOIL NEAR THE WELL HOUSE IS LOCATED IN THE BACK-YARD OF A RESIDENCE SOUTH OF THE WELL HOUSE. THE SUBSTANCE HAS RUN DOWN A SMALL SLOPE FROM TWO UNDERGROUND STORAGE TANK OPENINGS WHICH ARE SOUTH OF THE SUNOCO GAS STATION WHICH IS LOCATED EAST OF THE WELL HOUSE.

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 [X] P. ILLEGAL/UNAUTHORIZED DUMPING — 02 ☐ OBSERVED (DATE _____) ☐ POTENTIAL [X] ALLEGED
04 NARRATIVE DESCRIPTION
THERE HAS NOT BEEN ANY CONCLUSIVE EVIDENCE POINTING TO ILLEGAL OR UNAUTHORIZED DUMPING, HOWEVER, THIS WOULD SEEM VERY LIKELY.

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

III. TOTAL POPULATION POTENTIALLY AFFECTED: 3,300

IV. COMMENTS

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

- REFERENCE PART 2 - VI
- GROUNDWATER WITHDRAWALS IN ILLINOIS WITH EMPHASIS ON PWS SYSTEMS, 1981.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
ILD	981960776

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
☐ A. NPDES				
☐ B. UIC				
☐ C. AIR				
☐ D. RCRA				
☐ E. RCRA INTERIM STATUS				
☐ F. SPCC PLAN				
☐ G. STATE (Specify)				
☐ H. LOCAL (Specify)				
☐ I. OTHER (Specify)				
☒ J. NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE
☐ A. SURFACE IMPOUNDMENT		
☐ B. PILES		
☐ C. DRUMS, ABOVE GROUND		
☐ D. TANK, ABOVE GROUND		
☐ E. TANK, BELOW GROUND		
☐ F. LANDFILL		
☐ G. LANDFARM		
☐ H. OPEN DUMP		
☒ I. OTHER NONE (Specify)		

04 TREATMENT (Check all that apply)

- ☐ A. INCENERATION
- ☐ B. UNDERGROUND INJECTION
- ☐ C. CHEMICAL/PHYSICAL
- ☐ D. BIOLOGICAL
- ☐ E. WASTE OIL PROCESSING
- ☐ F. SOLVENT RECOVERY
- ☐ G. OTHER RECYCLING/RECOVERY
- ☒ H. OTHER NONE (Specify)

05 OTHER

- ☒ A. BUILDINGS ON SITE

06 AREA OF SITE

.18 (Acres)

07 COMMENTS

THE PUBLIC WATER SUPPLY SYSTEM DOES NOT STORE OR DISPOSE OF ANY OF THE NOTED CONTAMINANTS. THE GAS STATION DOES HAVE UNDERGROUND TANKS FOR STORAGE OF WASTE OILS + SOLVENTS.

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

☐ A. ADEQUATE, SECURE ☐ B. MODERATE ☒ C. INADEQUATE, POOR ☐ D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.

- INTEGRETY OF UNDERGROUND TANKS IS UNKNOWN.
- DRUMS STORED NEXT TO WELL HOUSE WERE RUSTY, WITH ONE BEING ON ITS SIDE WITH WATERY LIQUID IN IT AND A CAP MISSING.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE ☒ YES ☐ NO

02 COMMENTS

REFERENCE PART 3 - "F" + "N".

VI. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sampling analysis, reports)

REFERENCE PART 3 - V

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 6 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
ILD	981960776

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check all applicable)

	SURFACE	WELL
COMMUNITY	A. ☐	B. ☒
NON-COMMUNITY	C. ☐	D. ☒

02 STATUS

ENDANGERED	AFFECTED	MONITORED
A. ☐	B. ☒	C. ☐
D. ☒	E. ☐	F. ☐

03 DISTANCE TO SITE

A. 0 (mi)
B. .65 (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

☒ A. ONLY SOURCE FOR DRINKING
☐ B. DRINKING (Other sources available) COMMERCIAL, INDUSTRIAL, IRRIGATION (No other water sources available)
☐ C. COMMERCIAL, INDUSTRIAL, IRRIGATION (Limited other sources available)
☐ D. NOT USED, UNUSEABLE

02 POPULATION SERVED BY GROUND WATER 3,300

03 DISTANCE TO NEAREST DRINKING WATER WELL 0 (mi)

04 DEPTH TO GROUNDWATER	05 DIRECTION OF GROUNDWATER FLOW	06 DEPTH TO AQUIFER OF CONCERN	07 POTENTIAL YIELD OF AQUIFER	08 SOLE SOURCE AQUIFER
35 (ft)	UNKNOWN	35 (ft)	UNKNOWN (gpd)	☒ YES ☐ NO

09 DESCRIPTION OF WELLS (Including average depth and location relative to population and buildings)

WELL #2 - 673 FEET DEEP, 8 INCH DIAMETER BORE HOLE, STEEL CASED THROUGH 200 FT. OF SAND & GRAVEL & 12 FT. INTO THE ST. PETER SANDSTONE AFTER WHICH THE WELL IS OPEN BORE HOLE TO THE GALESVILLE SANDSTONE.

10 RECHARGE AREA
☐ YES
☐ NO
COMMENTS

11 DISCHARGE AREA
☒ YES
☐ NO
COMMENTS GENERALLY YES, GROUNDWATER DISCHARGES TO ROCK RIVER

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

☒ A. RESERVOIR, RECREATION DRINKING WATER SOURCE
☐ B. IRRIGATION, ECONOMICALLY IMPORTANT RESOURCES
☐ C. COMMERCIAL, INDUSTRIAL
☐ D. NOT CURRENTLY USED

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME	AFFECTED	DISTANCE TO SITE
ROCK RIVER	☐	.28 (mi)
LAKE LOUISE	☐	1.0 (mi)
	☐	(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE
A. 2159 NO. OF PERSONS	B. 2797 NO. OF PERSONS	C. 3300 NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION 50 FT. ~~(mi)~~

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE ≈1000

04 DISTANCE TO NEAREST OFF-SITE BUILDING 10 FT. ~~(mi)~~

05 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within vicinity of site (e.g., rural, village, density, suburban, urban area))

POPULATION WITHIN 1 MILE OF THIS SITE IS COMMERCIAL & URBAN. BEYOND THE ONE MILE RADIUS THE POPULATION BECOMES RURAL.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
ILD	981960776

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

☐ A. $10^{-6} - 10^{-8}$ cm/sec ☐ B. $10^{-4} - 10^{-6}$ cm/sec ☐ C. $10^{-4} - 10^{-3}$ cm/sec ☒ D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK (Check one)

☐ A. IMPERMEABLE (Less than 10^{-6} cm/sec) ☐ B. RELATIVELY IMPERMEABLE ($10^{-4} - 10^{-6}$ cm/sec) ☒ C. RELATIVELY PERMEABLE ($10^{-2} - 10^{-4}$ cm/sec) ☐ D. VERY PERMEABLE (Greater than 10^{-2} cm/sec)

03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL pH
200 (ft)	51.0 (ft)	UNKNOWN

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL
2.0 (in)	2.5 (in)

08 SLOPE		
SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
1 %	S - SE	2 %

09 FLOOD POTENTIAL

SITE IS IN 150 YEAR FLOODPLAIN

10 ☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE N/A OTHER

A. _____ (mi) B. _____ (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species) NONE

_____ (mi)

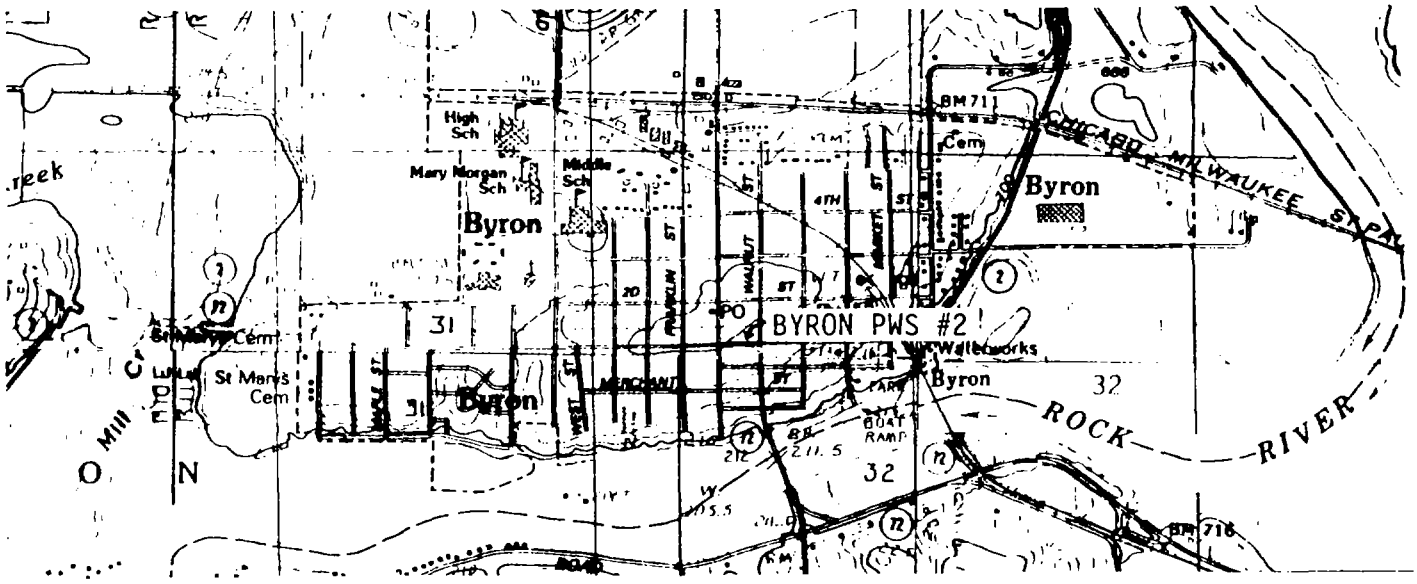
ENDANGERED SPECIES: _____

13 LAND USE IN VICINITY

DISTANCE TO

COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREAS, NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS PRIME AG LAND	AGRICULTURAL LANDS AG LAND
A 10 FT ~~(mi)~~	B 50 FT ~~(mi)~~	C .60 (mi)	D .60 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY



VII. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sample analysis, reports)

- REFERENCE PART 3 - V
- ENDANGERED & THREATENED SPECIES IN ILLINOIS, JAN. 1981

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 6 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
ILD	981960776

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER			
SURFACE WATER			
WASTE			
AIR			
RUNOFF			
SPILL			
SOIL	3	ARDL LAB — MT. VERNON, IL.	10-11-88
VEGETATION			
OTHER			

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
HNU	- METER READ 5 UNITS BACKGROUND FOR ALL INITIAL READINGS
	TAKEN.
	- READINGS TAKEN OF SOIL SAMPLES WERE NBACKGROUND
	EXCEPT X102, WHICH READ 10 UNITS.

IV. PHOTOGRAPHS AND MAPS

01 TYPE ☒ GROUND ☐ AERIAL

02 IN CUSTODY OF IEPA (Name of organization or individual)

03 MAPS ☒ YES ☐ NO

04 LOCATION OF MAPS 2200 CHURCHILL RD, SPRINGFIELD, IL.

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

REFERENCE PART 2 - VI

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 7 - OWNER INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
ILD	981960776

II. CURRENT OWNER(S) / PARENT COMPANY (if applicable)

01 NAME	02 D+B NUMBER	08 NAME	09 D+B NUMBER
CITY OF BYRON			

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE
120 NORTH UNION STREET			

05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE
BYRON	IL	61010			

01 NAME	02 D+B NUMBER	08 NAME	09 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE

01 NAME	02 D+B NUMBER	08 NAME	09 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE

01 NAME	02 D+B NUMBER	08 NAME	09 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	12 CITY	13 STATE	14 ZIP CODE

III. PREVIOUS OWNER(S) (List most recent first) / IV. REALTY OWNER(S) (if applicable; list most recent first)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	06 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE	05 CITY	06 STATE	07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

REFERENCE PART 2 - ~~VI~~

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 8 - OPERATOR INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
ILD	981960776

II. CURRENT OPERATOR (Provide if different from owner)			OPERATOR'S PARENT COMPANY (If applicable)		
01 NAME: CITY OF BYRON		02 D+B NUMBER	10 NAME		11 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE
08 YEARS OF OPERATION: 59	09 NAME OF OWNER: CITY OF BYRON				

III. PREVIOUS OPERATOR(S) (List most recent first; provide only if different from owner)			PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)		
01 NAME		02 D+B NUMBER	10 NAME		11 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE
08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD				
01 NAME		02 D+B NUMBER	10 NAME		11 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE
08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD				
01 NAME		02 D+B NUMBER	10 NAME		11 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)		04 SIC CODE	12 STREET ADDRESS (P.O. Box, RFD #, etc.)		13 SIC CODE
05 CITY	06 STATE	07 ZIP CODE	14 CITY	15 STATE	16 ZIP CODE
08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD				

IV. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

REFERENCE PART 2 - VI

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 9 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
ILD	981960776

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER
NONE	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

III. OFF-SITE GENERATOR(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
NONE			
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY / 06 STATE	07 ZIP CODE	05 CITY / 06 STATE	07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY / 06 STATE	07 ZIP CODE	05 CITY / 06 STATE	07 ZIP CODE

IV. TRANSPORTER(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
NONE			
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY / 06 STATE	07 ZIP CODE	05 CITY / 06 STATE	07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY / 06 STATE	07 ZIP CODE	05 CITY / 06 STATE	07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

REFERENCE PART 2 - VI

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION
01 STATE: ILD
02 SITE NUMBER: 981960776

II. PAST RESPONSE ACTIVITIES

01 ☒ A. WATER SUPPLY CLOSED — 02 DATE 6/73 — 03 AGENCY PWS
04 DESCRIPTION BECAUSE OF HEXAVALENT CHROMIUM CONTAMINATION IN WELL #2 IT WAS TAKEN OUT OF SERVICE. HOWEVER, IT WAS REACTIVATED WHEN CONTAMINANT LEVELS FELL TO NOT DETECTABLE LIMITS.

01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED — 02 DATE — 03 AGENCY
04 DESCRIPTION

01 ☒ C. PERMANENT WATER SUPPLY PROVIDED — 02 DATE 6/73 — 03 AGENCY CITY OF BYRON
04 DESCRIPTION WHEN WELL #2 WAS REMOVED FROM SERVICE IN 1973 WELL #3 WAS ACTIVATED. IT IS STILL A WORKING PART OF BYRON'S SYSTEM.

01 ☐ D. SPILLED MATERIAL REMOVED — 02 DATE — 03 AGENCY
04 DESCRIPTION

01 ☐ E. CONTAMINATED SOIL REMOVED — 02 DATE — 03 AGENCY
04 DESCRIPTION

01 ☐ F. WASTE REPACKAGED — 02 DATE — 03 AGENCY
04 DESCRIPTION

01 ☐ G. WASTE DISPOSED ELSEWHERE — 02 DATE — 03 AGENCY
04 DESCRIPTION

01 ☐ H. ON SITE BURIAL — 02 DATE — 03 AGENCY
04 DESCRIPTION

01 ☐ I. IN SITU CHEMICAL TREATMENT — 02 DATE — 03 AGENCY
04 DESCRIPTION

01 ☐ J. IN SITU BIOLOGICAL TREATMENT — 02 DATE — 03 AGENCY
04 DESCRIPTION

01 ☐ K. IN SITU PHYSICAL TREATMENT — 02 DATE — 03 AGENCY
04 DESCRIPTION

01 ☐ L. ENCAPSULATION — 02 DATE — 03 AGENCY
04 DESCRIPTION

01 ☐ M. EMERGENCY WASTE TREATMENT — 02 DATE — 03 AGENCY
04 DESCRIPTION

01 ☐ N. CUTOFF WALLS — 02 DATE — 03 AGENCY
04 DESCRIPTION

01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION — 02 DATE — 03 AGENCY
04 DESCRIPTION

01 ☐ P. CUTOFF TRENCHES/SUMP — 02 DATE — 03 AGENCY
04 DESCRIPTION

01 ☐ Q. SUBSURFACE CUTOFF WALL — 02 DATE — 03 AGENCY
04 DESCRIPTION

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION
01 STATE: ILD
02 SITE NUMBER: 981960776

II. PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R. BARRIER WALLS CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ S. CAPPING/COVERING — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ T. BULK TANKAGE REPAIRED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ U. GROUT CURTAIN CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ V. BOTTOM SEALED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ W. GAS CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ X. FIRE CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ Y. LEACHATE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ Z. AREA EVACUATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ 1. ACCESS TO SITE RESTRICTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ 2. POPULATION RELOCATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

01 ☐ 3. OTHER REMEDIAL ACTIVITIES — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

REFERENCE PART 2 - VI

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
ILD	981960776

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☐ YES ☒ NO

02 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

REFERENCE PART 2 - VI

APPENDIX C

U.S. EPA Immediate Removal Action Checksheet

IMMEDIATE REMOVAL ACTION CHECK SHEET

Site Name: BYRON PWS WELL #2

ILD 981960776
LPC 1410000000

	High	Moderate	Low
Fire and Explosion Hazard:			
Flammable Materials:		✓	
Explosives:			✓
Incompatible Chemicals:			✓
Direct Contact with Acutely Toxic Chemicals:			
Site Security:			✓
Leaking Drums or Tanks:		✓*	
Open Lagoons or Pits:			✓
Materials on Surface:			
Proximity of Population:	✓		
Evidence of Casual Site Use:		✓*	
Contaminated Water Supply:			
Exceeds 10 Day Snarl:			✓
Gross Taste or Odors:			✓
Alternate Water Available: NO			
Potential Contamination: CONTAMINATED			
Is the site abandoned or active? ACTIVE			

Comments: * THE ONLY EVIDENCE OF CASUAL USE EXISTS BEHIND THE SUNOCO GAS STATION EAST OF THE WELL HOUSE. NO OTHER CASUAL USE WAS OBSERVED WITHIN A TWO BLOCK RADIUS OF THE WELL HOUSE.

* AS OF SEPT. 1988 THE IEPA'S LUST/UST UNIT IS INVESTIGATING THE POSSIBILITY OF LEAKING TANKS (UNDERGROUND) IN THE AREA OF THE WELL HOUSE.

APPENDIX D

Target Compound List

TARGET COMPOUND LIST

Volatile Target Compounds

Compound	Water CRDL	Soil/Solid CRDL
1. chloromethane	10 ug/l	10 ug/kg
2. bromomethane	10	10
3. vinyl chloride	10	10
4. chloroethane	10	10
5. methylene chloride	5	5
6. acetone	10	10
7. carbon disulfide	5	5
8. 1,1-dichloroethene	5	5
9. 1,1-dichloroethane	5	5
10. t-1.2-dichloroethene	5	5
11. 1,2-dichloropropane	5	5
12. chloroform	5	5
13. 1,2-dichloroethane	5	5
14. 2-butanone	10	10
15. 1,1,1-trichloroethane	5	5
16. carbon tetrachloride	5	5
17. vinyl acetate	10	10
18. dichlorobromomethane	5	5
19. c-1,3-dichloropropene	5	5
20. trichloroethene	5	5
21. benzene	5	5
22. chlorodibromomethane	5	5
23. 1,1,2-trichloroethane	5	5
24. t-1,3-dichloropropene	5	5
25. 2-chloroethyl vinyl ether	10	10
26. bromoform	5	5
27. 2-hexanone	10	10
28. 4-methyl-2-pentanone	10	10
29. 1,1,2,2-tetrachloroethane	5	5
30. tetrachloroethene	5	5
31. toluene	5	5
32. chlorobenzene	5	5
33. ethylbenzene	5	5
34. styrene	5	5
35. total xylenes	15	15

CRDL - Contract Required Detection Limit

Base/Neutral Target Compounds

Compound	Water CRDL	Soil/Solid CRDL
1. Hexachloroethane	10 ug/l	330 ug/kg
2. Bis (2-chloroethyl) ether	10	330
3. Benzyl Alcohol	10	330
4. Bis (2-chloroisopropyl) ether	10	330
5. N-nitrosodi-n-propylamine	10	330
6. Nitrobenzene	10	330
7. Hexachlorobutadiene	10	330
8. 2-Methylnaphthalene	10	330
9. 1,2,4-trichlorobenzene	10	330
10. Isophorone	10	330
11. Naphthalene	10	330
12. 4-Chloroaniline	10	330
13. Bis (2-chloroethoxy) methane	10	330
14. Hexachlorocyclopentadiene	10	330
15. 2-chloronaphthalene	10	330
16. 2-Nitroaniline	50	1600
17. Acenaphthylene	10	330
18. 3-Nitroaniline	50	1600
19. Acenaphthene	10	330
20. Dibenzofuran	10	330
21. Dimethylphthalate	10	330
22. 2,6-Dinitrotoluene	10	330
23. Fluorene	10	330
24. 4-Nitroaniline	50	1600
25. 4-Chlorophenyl-phenyl ether	10	330
26. 2,4-Dinitrotoluene	10	330
27. Diethylphthalate	10	330
28. N-Nitrosodiphenylamine	10	330
29. Hexachlorobenzene	10	330
30. Phenanthrene	10	330
31. 4-Bromophenyl-phenyl ether	10	330
32. Anthracene	10	330
33. Dibutylphthalate	10	330
34. Fluoranthene	10	330
35. Pyrene	10	330
36. Butyl benzyl phthalate	10	330
37. Bis (2-ethylhexyl) phthalate	10	330
38. Chrysene	10	330
39. Benzo (a) anthracene	10	330
40. 3,3'-Dichlorobenzidene	20	660
41. Di-n-octyl phthalate	10	330
42. Benzo (b) fluoranthene	10	330
43. Benzo (k) fluoranthene	10	330
44. Benzo (a) pyrene	10	330
45. Indeno (1,2,3-cd) pyrene	10	330
46. Dibenzo (a,h) anthracene	10	330
47. Benzo (g,h,i) perylene	10	330
48. 1,2-Dichlorobenzene	10	330
49. 1,3-Dichlorobenzene	10	330
50. 1,4-Dichlorobenzene	10	330

Acid Target Compounds

Compound	Water CRDL	Soil/Solid CRDL
1. Benzoic Acid	50 ug/l	1600 ug/kg
2. Phenol	10	330
3. 2-chlorophenol	10	330
4. 2-nitrophenol	50	1600
5. 2-methylphenol	10	330
6. 2,4-dimethylphenol	10	330
7. 4-methylphenol	10	330
8. 2,4-dichlorophenol	10	330
9. 2,4,6-trichlorophenol	10	330
10. 2,4,5-trichlorphenol	50	1600
11. 4-chloro-3-methylphenol	10	330
12. 2,4-dinitrophenol	50	1600
13. 2-methyl-4,6-dinitrophenol	50	1600
14. Pentachlorophenol	50	1600
15. 4-nitrophenol	50	1600

Pesticide Target Compounds

Compound	Water CRDL	Soil/Solid CRDL
1. alpha-BHC	.05 ug/l	8.0 ug/kg
2. beta-BHC	.05	8.0
3. delta-BHC	.05	8.0
4. Lindane (gamma-BHC)	.05	8.0
5. Heptachlor	.05	8.0
6. Aldrin	.05	8.0
7. Heptachlor epoxide	.05	8.0
8. Endosulfan I	.05	8.0
9. 4,4'-DDE	.10	16.0
10. Dieldrin	.10	16.0
11. Endrin	.10	16.0
12. 4,4'-DDD	.10	16.0
13. Endosulfan II	.10	16.0
14. 4,4'-DDT	.10	16.0
15. Endrin aldehyde	.10	16.0
16. Endosulfan sulfate	.10	16.0
17. Methoxychlor	.50	80.0
18. Chlordane	.50	80.0
19. Toxaphene	.50	80.0
20. Arochlor-1016	1.0	160.0
21. Arochlor-1221	.50	80.0
22. Arochlor-1232	.50	80.0
23. Arochlor-1242	.50	80.0
24. Arochlor-1248	.50	80.0
25. Arochlor-1254	1.0	160.0
26. Arochlor-1260	1.0	160.0

Inorganic Target Compounds

Metals Analyses (CRDL)-ug/l*	
Aluminum	200
Antimony	60
Arsenic	10
Barium	200
Beryllium	5
Cadmium	5
Chromium	10
Cobalt	50
Copper	25
Iron	100
Lead	5
Manganese	15
Mercury	0.2
Nickel	40
Selenium	5
Silver	10
Thallium	10
Vanadium	50
Zinc	20

Other Inorganics
Cyanide
Sulfide
Phenols
Nitrogen-Ammonia
Nitrogen, Total Kjeldahl
Nitrogen-Nitrate
Boron
pH

*Any analytical method specified in the Quality Assurance Project Plan (QAPP) may be utilized as long as the documented instrument or method detection limits meet the Contract Required Detection Level requirements. Higher detection levels may only be used in the following circumstance:

If the sample concentration exceeds two times the detection limit of the instrument or method in use, the value may be reported even though the instrument or method detection limit may not equal the CRDL. This is illutrated in the example below:

For lead:

Method in use -- ICP
Instrument Detection Limit (IDL) = 40
Sample Concentration = 85
Contract Required Detection Level (CRDL) = 5

The value of 85 may be reported even though instrument detection limit is greater than required detection level. The instrument or method detection limit must be documented as described in Form IIIX.

These CRDL are the instrument detection limits obtained in pure water that must be met using ICP/Flame AA or Furnace AA. The detection limits for samples may be considerably higher depending on the sample matrix.

APPENDIX E

Chemical Analysis Data of IEPA Collected Samples

1410100000 / OGle
Byron PWS #2
S.F. Tech Reports

ARDL Inc.

applied research & development laboratory

CHEMISTRY • BIOLOGY • PHYSIOLOGY
ENGINEERING • ENVIRONMENTAL ANALYSIS

30 September 1988

Original lab Data

Ms. Sue Doubit
Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, IL 62706

SUBJECT: Data Package
Byron P.W.S. 2
ARDL ID: 200058
Site Inventory No.: 1410100000

Dear Ms. Doubit:

Enclosed please find ARDL's data package for analyses performed on samples delivered to our laboratory by IEPA personnel on 8/4/88. The data package consists of the following:

1. Letter of Transmittal

2. Tabulated Analytical Results

3. Chain-of-Custody Documentation

4. Data Package

   a. Volume 1 - Inorganic Data Package
   b. Volume 2 - Organic Sample Data Summary Package
   c. Volume 3 - Volatiles Analysis Data Package
   d. Volume 4 - Semi-Volatiles Analysis Data Package
   e. Volume 5 - Pesticide/PCB's Analysis Data Package

We appreciate the opportunity to be of service to the IEPA.

Thank you.

Sincerely yours,

Daniel J. Gillespie

Daniel J. Gillespie
Technical Services Manager

RECEIVED
OCT 11 1988
IEPA-DLPC

DJG/clf

Enclosures

P.O. Box 1566 • 1801 W. Forest Street • Mt. Vernon, Illinois 62864 • (618) 244-3235
"Test Everything - Keep The Good" 1 Thes. 5:21

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND POLLUTION CONTROL
CHAIN OF CUSTODY

I certify that the samples listed below were collected in my presence and that each sample bottle was sealed intact by me and that I wrote my initials and the date on the seal of each bottle.

Site Inventory No. 1410100000 County OGLE

Federal I.D. No. 981960776 BYRON PWS #2
(Facility Name)

SAMPLING TEAM

Sample No.	Initials	Consisting of the Indicated No. of Bottles	Date Collected	Time Sealed
X101	KWC	3	8-3-88	10:45 AM/PM
X102	KWC	3	8-3-88	10:45 AM/PM
X103	KWC	3	8-3-88	10:45 AM/PM
				AM/PM
				AM/PM
				AM/PM
				AM/PM
				AM/PM
				AM/PM
				AM/PM

Sealer's Signature Ken Corkill Date 8-3-88 Time 10:45 AM/PM

Sampler(s) Ken Corkill Gary L Reede

CARRIERS

I certify I received the above samples, with each seal on each bottle intact and the sealer's initials written on each sample seal.

Relinquished By (Signature)	Date	Time	Received By (Signature)	Date	Time
Ken Corkill	8-3-88	6:00 AM/PM			AM/PM
		AM/PM			AM/PM
		AM/PM			AM/PM
		AM/PM			AM/PM
		AM/PM			AM/PM
		AM/PM			AM/PM
		AM/PM			AM/PM

LAB CUSTODIAN

I certify I received the above samples with each seal on each bottle intact, and the sealer's initials written on each sample seal. After recording these samples in the official record book, these same samples will be in the custody of competent laboratory personnel at all times or locked in a secured area.

Signature Marti Pruitt Date 8/4/88 Time 15:20 A.M. P.M.

Lab Location Mt Vernon (City)

IEPA - CLP
CHAIN OF CUSTODY

Seal #: 3649

Date Sealed: 8/1/88 By: AWW

Facility
Name : BYRON P.W.S.2
Region : ROCKFORD
County : OGLE

Site Inventory # : 1410100000
Site Billing Code : SA-06
Project Manager : KEN CORKILL

LA[redacted]	SAMPLE I.D.	SAMPLE DATE	SAMPLE TIME
20005[redacted]	X101	8-3-88	9:45A

Sample Appearance: MED BRN SOIL SOME STAINING OF SOIL

Collection Criteria: 30 day turnaround

Sample Signature: Gary Reside Division/Company: IEPA

CONTAINER No.	Code	Size	Pres	ANALYSIS	FILTERED (Y/N)	Date	Time
1	5	32oz		BNA,PEST/PCB	N	8-3-88	9:45
1	5	32oz		total metals,CYANIDE,SULFIDES	N	8-3-88	9:45
				SULFATES,MERCURY	N	8-3-88	9:45
1	12	2oz		VOA	N	8-3-88	9:45

CHAIN OF CUSTODY CHRONICLE

[illegible]

Collector (print): Gary Reside Signature: Gary Reside

Date: 8-3-88 Time: 9:35 Seal #: 3649 Intact: O

[illegible]

Sampler (print): Gary Reside Signature: Gary Reside

Date: 8-3-88 Time: 10:45A Seal #: 3650

Sample pickup: Fed Ex

[redacted]

Opened by [illegible]

Date: [illegible]

Lab Name: [illegible]

IEPA - CLP
CHAIN OF CUSTODY

Seal #: 3649

Date Sealed: 8/1/88 By: AWW

Facility
Name : BYRON P.W.S.2
Region: ROCKFORD
County: OGLE

Site Inventory # : 1410100000
Site Billing Code: SA-06
Project Manager : KEN CORKILL

LA[redacted]	SAMPLE I.D.	SAMPLE DATE	SAMPLE TIME
200[redacted]	X102	8-3-88	10:00 A

Sample Appearance: DARK OILY SUBSTANCE ON SOIL

Cooler or Container: 30 DAY TURN AROUND

Sampler Signature: Ken Corkill Division/Company: LPC/IEPA

CONTAINER				ANALYSIS	FILTERING		
No.	Code	Size	Pres		(Y/N)	Date	Time
1	5	32oz		BNA,PEST/PCB	N	8-3-88	10:00
1	5	32oz		total metals,CYANIDE,SULFIDES	↓	↓	↓
				SULFATES,MERCURY			
1	12	2oz		VOA			

CHAIN OF CUSTODY CHRONICLE

[illegible] K. CORKILL Signature K. Corkill

8-3-88 Time 9:35 Seal #: 3649 Intact: O

[illegible] (print): K. CORKILL Signature K Corkill

8-3-88 Time: 10:45 Seal #: 3650

[illegible] sample pickup: FED EX

Cour[redacted]

I c[redacted]

Opened [redacted]

Date: [redacted]

Lab [redacted]

IEPA - CLP
CHAIN OF CUSTODY

Seal #: 3649

Date Sealed: 8/1/88 By: AWW

Facility
Name : BYRON P.W.S.2
Region: ROCKFORD
County: OGLE

Site Inventory # : 1410100000
Site Billing Code: SA-06
Project Manager : KEN CORKILL

[redacted]

SAMPLE I.D.	SAMPLE DATE	SAMPLE TIME
X103	8-3-88	10:30A

Sample Appearance: LT BRN.

Collector Comments: BACKGROUND 30 DAY TURNAROUND

Sampler Signature: K. Corkill Division/Company: LPC/IEPA

CONTAINER No.	Code	Size	Pres	ANALYSIS	FILTERING (Y/N)	Date	Time
1	5	32oz		BNA, PEST/PCB	N	8-3-88	10:30
1	5	32oz		total metals, CYANIDE, SULFIDES	↓	↓	↓
				SULFATES, MERCURY			
1	12	2oz		VOA			

CHAIN OF CUSTODY CHRONICLE

[illegible]

Planned by (print): K. CORKILL Signature: K. Corkill

Date: 8-3-88 Time: 9:35 Seal #: 3649 Intact? O

[illegible]

Planned by (print): K. CORKILL Signature: K. Corkill

Date: 8-3-88 Time: 10:45 Seal # 3650

Other - Sample pickup: FED EX

[redacted]

FORM IA

INORGANIC ANALYSIS DATA SHEET
METALS

Lab Name: ARDL, Inc. IEPA Sample No.: X101
Matrix (soil/water): Soil Lab Sample ID: 200058-1
Level (low/Med): Date Received: 8-4-88
% Solids: 86.8

Concentration Units (ug/L or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum	2500		P	E
7440-36-0	Antimony	64		P	N
7440-38-2	Arsenic	2.2		BH	
7440-39-3	Barium	48		P	E
7440-41-7	Beryllium	0.18u		P	
7440-43-9	Cadmium	0.91u		P	N
7440-70-2	Calcium	100,000		P	E
7440-47-3	Chromium	14		P	* E
7440-48-4	Cobalt	1.8u		P	
7440-50-8	Copper	27		P	*
7439-89-6	Iron	6600		P	* E
7439-92-1	Lead	500		P	* E
7439-95-4	Magnesium	71,000		P	E
7439-96-5	Manganese	190		P	* E
7439-97-6	Mercury	0.035u		CV	
7440-02-0	Nickel	9.1		P	N
7440-09-7	Potassium	[510]		P	
7782-49-2	Selenium	0.37u		BH	
7440-22-4	Silver	3.9		P	N
7440-23-5	Sodium	[200]		P	
7440-28-0	Thallium	1.8u		F	
7440-62-2	Vanadium	2.7u		P	
7440-66-6	Zinc	360		P	* E

Color Before: Clarity Before: Texture:
Color After: Clarity After: Artifacts:

FORM IB

INORGANIC ANALYSIS DATA SHEET
OTHER INORGANICS

Lab Name: ARDL, Inc. IEPA Sample No.: X101

Matrix (soil/water): Soil Lab Sample ID: 200058-1

Level (low/Med): Date Received: 8-4-88

% Solids: 86.8

Concentration Units (ug/L or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	M	Q
	Cyanide	0.058 u			N
	Phenol				
	Sulfate	130			
	Sulfide	5.8 u			

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X101

Name: ARDL, INC Contract: BYRON PWS

Lab Code: ----- Case No.: 200058 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) SOIL Lab Sample ID: 200058-1

Sample wt/vol: 4.0 (g/mL) G Lab File ID: >V0156

Level: (low/med) MED Date Received: 08/04/88

% Moisture: not dec.--- Date Analyzed: 8/12/88

Column: (pack/cap) PACK Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
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	5900.	B
67-64-1	Acetone	21000.	B
75-15-0	Carbon Disulfide	500.	U
75-35-4	1,1-Dichloroethene	500.	U
75-34-3	1,1-Dichloroethane	500.	U
540-59-0	1,2-Dichloroethene (total)	500.	U
67-66-3	Chloroform	500.	U
107-02-2	1,2-Dichloroethane	500.	U
78-93-3	2-Butanone	1000.	U
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
78-87-5	1,2-Dichloropropane	500.	U
10061-01-5	cis-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
10061-02-6	trans-1,3-Dichloropropene	500.	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	Tetrachloroethene	500.	U
79-34-5	1,1,2,2-Tetrachloroethane	500.	U
108-88-3	Toluene	500.	U
108-90-7	Chlorobenzene	500.	U
100-41-4	Ethylbenzene	500.	U
100-42-5	Styrene	500.	U
133-02-7	Xylene (total)	500.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO. X101

Lab Name: ARDL, INC Contract: BYRON PWS

Lab Code: _____ Case No.: 200058 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 200058-1

Sample wt/vol: 4 (g/mL) g Lab File ID: >V0156

Level: (low/med) MED Date Received: 8/04/88

% Moisture: not dec. _____ Date Analyzed: 8/12/88

Column: (pack/cap) PACK Dilution Factor: 1

Number TICs found: 10 CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		unknown	7.26	880	
2.		unknown	8.73	4200	
3.	76131	1,1,2-trichloro-1,2,2-trifluoroethane	13.81	1600	
4.		unknown	14.31	1800	
5.		unknown	27.69	500	
6.		unknown	31.10	8900	
7.		unknown	33.55	600	
8.		unknown	33.74	600	
9.		unknown	34.83	2100	
10.		unknown	39.36	500	
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X101RE

Lab Name: ARDL, INC Contract: BYRON PWS

Lab Code: ----- Case No.: 200058 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) SOIL Lab Sample ID: 200058-1RE

Sample wt/vol: 4.0 (g/mL) G Lab File ID: >V0522

Level: (low/med) MED Date Received: 08/04/88

% Moisture: not dec.--- Date Analyzed: 9/27/88

Column: (pack/cap) PACK Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
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	3700.	B
67-64-1	Acetone	2200.	B
75-15-0	Carbon Disulfide	500.	U
75-35-4	1,1-Dichloroethene	500.	U
75-34-3	1,1-Dichloroethane	500.	U
540-59-0	1,2-Dichloroethene (total)	500.	U
67-66-3	Chloroform	420.	JB
107-02-2	1,2-Dichloroethane	500.	U
78-93-3	2-Butanone	1000.	U
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
78-87-5	1,2-Dichloropropane	500.	U
10061-01-5	cis-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
10061-02-6	trans-1,3-Dichloropropene	500.	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	Tetrachloroethene	500.	U
79-34-5	1,1,2,2-Tetrachloroethane	500.	U
108-88-3	Toluene	500.	U
108-90-7	Chlorobenzene	500.	U
100-41-4	Ethylbenzene	200.	J
100-42-5	Styrene	500.	U
133-02-7	Xylene (total)	950.	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X101RE

Lab Name: ARDL, Inc. Contract: Byron PWS

Lab Code: _____ Case No.: 200058 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Soil Lab Sample ID: 200058-1RE

Sample wt/vol: 4.0 (g/mL) g Lab File ID: >V0522

Level: (low/med) Med Date Received: 8/04/88

% Moisture: not dec. _____ Date Analyzed: 9/27/88

Column: (pack/cap) Pack Dilution Factor: 1.0

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	1.39	3200	
2.		Unknown	27.55	1400	
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X101

ab Name: AROL, INC Contract: BYRON PW

ab Code: ----- Case No.: 200058 SAS No.: ----- SDG No.: -----

latrix: (soil/water) SOIL Lab Sample ID: 200058-1

ample wt/vol: 30 (g/mL) G Lab File ID: >D0344

evel: (low/med) LOW Date Received: 08/04/88

Moisture: not dec.--- dec. --- Date Extracted: 08/12/88

xtraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 9/15/88

PC Cleanup: (Y/N) N pH: --- Dilution Factor: 100.0000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	33000.	U D
111-44-4	bis(-2-Chloroethyl)Ether	33000.	U D
95-57-8	2-Chlorophenol	33000.	U D
541-73-1	1,3-Dichlorobenzene	33000.	U D
106-46-7	1,4-Dichlorobenzene	33000.	U D
100-51-6	Benzyl alcohol	33000.	U D
95-50-1	1,2-Dichlorobenzene	33000.	U D
95-48-7	2-Methylphenol	33000.	U D
39638-32-9	bis(2-chloroisopropyl)ether	33000.	U D
106-44-5	4-Methylphenol	33000.	U D
621-64-7	N-Nitroso-Di-n-propylamine	33000.	U D
67-72-1	Hexachloroethane	33000.	U D
98-95-3	Nitrobenzene	33000.	U D
78-59-1	Isophorone	33000.	U D
88-75-5	2-Nitrophenol	33000.	U D
105-67-9	2,4-Dimethylphenol	33000.	U D
65-85-0	Benzoic acid	160000.	U D
111-91-1	bis(-2-Chloroethoxy)Methane	33000.	U D
120-83-2	2,4-Dichlorophenol	33000.	U D
120-82-1	1,2,4-Trichlorobenzene	33000.	U D
91-20-3	Naphthalene	33000.	U D
106-47-8	4-Chloroaniline	33000.	U D
87-68-3	Hexachlorobutadiene	33000.	U D
59-50-7	4-Chloro-3-methylphenol	33000.	U D
91-57-6	2-Methylnaphthalene	33000.	U D
77-47-4	Hexachlorocyclopentadiene	33000.	U D
88-06-2	2,4,6-Trichlorophenol	33000.	U D
95-95-4	2,4,5-Trichlorophenol	160000.	U D
91-58-7	2-Chloronaphthalene	33000.	U D
88-74-4	2-Nitroaniline	160000.	U D
131-11-3	Dimethyl Phthalate	33000.	U D
208-96-8	Acenaphthylene	33000.	U D
606-20-2	2,6-Dinitrotoluene	33000.	U D

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X101

ab Name: ARDL, INC Contract: BYRON PW

ab Code: ----- Case No.: 200058 SAS No.: ----- SDG No.: -----

atrix: (soil/water) SOIL Lab Sample ID: 200058-1

ample wt/vol: 30 (g/mL) G Lab File ID: >D0344

evel: (low/med) LOW Date Received: 08/04/88

Moisture: not dec.--- dec. --- Date Extracted: 08/12/88

xtraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 9/15/88

PC Cleanup: (Y/N) N pH: --- Dilution Factor: 100.0000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	160000.	U D
83-32-9	Acenaphthene	33000.	U D
51-28-5	2,4-Dinitrophenol	160000.	U D
100-02-7	4-Nitrophenol	160000.	U D
132-64-9	Dibenzofuran	33000.	U D
121-14-2	2,4-Dinitrotoluene	33000.	U D
84-66-2	Diethylphthalate	33000.	U D
7005-72-3	4-Chlorophenyl-phenylether	33000.	U D
86-73-7	Fluorene	33000.	U D
100-01-6	4-Nitroaniline	160000.	U D
534-52-1	4,6-Dinitro-2-methylphenol	160000.	U D
86-30-6	N-Nitrosodiphenylamine (1)	33000.	U D
101-55-3	4-Bromophenyl-phenylether	33000.	U D
118-74-1	Hexachlorobenzene	33000.	U D
87-86-5	Pentachlorophenol	160000.	U D
85-01-8	Phenanthrene	33000.	U D
120-12-7	Anthracene	33000.	U D
84-74-2	Di-n-butylphthalate	33000.	U D
206-44-0	Fluoranthene	33000.	U D
129-00-0	Pyrene	33000.	U D
85-68-7	Butylbenzylphthalate	33000.	U D
91-94-1	3,3'-Dichlorobenzidine	66000.	U D
56-55-3	Benzo(a)anthracene	33000.	U D
218-01-9	Chrysene	33000.	U D
117-81-7	bis(2-Ethylhexyl)phthalate	33000.	U D
117-84-0	Di-n-Octyl_Phthalate	33000.	U D
205-99-2	Benzo(b)fluoranthene	33000.	U D
207-08-9	Benzo(k)fluoranthene	33000.	U D
50-32-8	Benzo(a)pyrene	33000.	U D
193-39-5	Indeno(1,2,3-cd)pyrene	33000.	U D
53-70-3	Dibenzo(a,h)Anthracene	33000.	U D
191-24-2	Benzo(g,h,i)perylene	33000.	U D

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X101

Lab Name: ARDL, INC. Contract: BYRON PW

Lab Code: _____ Case No.: 200058 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 200058-1

Sample wt/vol: 30 (g/mL) g Lab File ID: >D0344

Level: (low/med) LOW Date Received: 8/04/88

Moisture: not dec. _____ dec. _____ Date Extracted: 8/12/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 9/15/88

GC Cleanup: (Y/N) N pH: ____ Dilution Factor: 100

Number TICs found: 4

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		unknown	8.34	29,000	
2.		unknown	20.32	4000	
3.		unknown alkane	21.37	7900	
4.		unknown	23.12	3600	
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

EPA SAMPLE NO.
X101

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: ARDL
Matrix: (soil/water) SOIL
Sample wt/vol: 30.0 (g/mL) G
Level: (low/med) LOW
% Moisture: not dec. _____ dec. _____
Extraction: (SepF/Cont/Sonc) SONC
GPC Cleanup: (Y/N) N pH: _____

Contract: BYRON PWS
Lab Sample ID: 200058-1
Lab File ID: _____
Date Received: 08/04/88
Date Extracted: 08/12/88
Date Analyzed: 09/25/88
Dilution Factor: 0.05

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
319-84-6----	alpha-BHC	8.0	U
319-85-7----	beta-BHC	8.0	U
319-86-8----	delta-BHC	8.0	U
58-89-9-----	gamma-BHC (Lindane)	8.0	U
76-44-8-----	Heptachlor	8.0	U
309-00-2----	Aldrin	8.0	U
1024-57-3---	Heptachlor epoxide	8.0	U
959-98-8----	Endosulfan I	8.0	U
60-57-1-----	Dieldrin	16	U
72-55-9-----	4,4'-DDE	16	U
72-20-8-----	Endrin	16	U
33213-65-9--	Endosulfan II	16	U
72-54-8-----	4,4'-DDD	16	U
1031-07-8---	Endosulfan sulfate	16	U
50-29-3-----	4,4'-DDT	16	U
72-43-5-----	Methoxychlor	80	U
53494-70-5--	Endrin ketone	16	U
5103-71-9---	alpha-Chlordane	80	U
5103-74-2---	gamma-Chlordane	80	U
8001-35-2---	Toxaphene	160	U
12674-11-2--	Arochlor-1016	80	U
11104-28-2--	Arochlor-1221	80	U
11141-16-5--	Arochlor-1232	80	U
53469-21-9--	Arochlor-1242	80	U
12672-29-6--	Arochlor-1248	80	U
11097-69-1--	Arochlor-1254	160	U
11096-82-5--	Arochlor-1260	160	U

FORM I PEST

FORM IA

INORGANIC ANALYSIS DATA SHEET
METALS

Lab Name: ARDL, Inc. IEPA Sample No.: X102

Matrix (soil/water): Soil Lab Sample ID: 200058-2

Level (low/Med): Date Received: 8-4-88

% Solids: 73.9

Concentration Units (ug/L or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum	7000		P	E
7440-36-0	Antimony	8.5u		P	N
7440-38-2	Arsenic	2.6		BH	
7440-39-3	Barium	210		P	E
7440-41-7	Beryllium	0.19u		P	
7440-43-9	Cadmium	0.94u		P	N
7440-70-2	Calcium	25,000		P	E
7440-47-3	Chromium	18		P	*E
7440-48-4	Cobalt	[7.1]		P	
7440-50-8	Copper	30		P	*
7439-89-6	Iron	9600		P	*E
7439-92-1	Lead	1100		P	*E
7439-95-4	Magnesium	12,000		P	E
7439-96-5	Manganese	430		P	*E
7439-97-6	Mercury	0.041u		CV	
7440-02-0	Nickel	18		P	N
7440-09-7	Potassium	1300		P	
7782-49-2	Selenium	0.38u		BH	
7440-22-4	Silver	4.4		P	N
7440-23-5	Sodium	[130]		P	
7440-28-0	Thallium	2.0U		F	
7440-62-2	Vanadium	16		P	
7440-66-6	Zinc	1200		P	*E

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

FORM IB

INORGANIC ANALYSIS DATA SHEET
OTHER INORGANICS

Lab Name: ARDL, Inc. IEPA Sample No.: X102

Matrix (soil/water): Soil Lab Sample ID: 200058-2

Level (low/Med): Date Received: 8-4-88

% Solids: 73.9

Concentration Units (ug/L or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	M	Q
	Cyanide	0.068 u			N
	Phenol				
	Sulfate	130			
	Sulfide	15			

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X102

Lab Name: ARDL, INC Contract: BYRON PWS

Lab Code: ----- Case No.: 200058 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) SOIL Lab Sample ID: 200058-2

Sample wt/vol: 4.0 (g/mL) G Lab File ID: >V0157

Level: (low/med) MED Date Received: 08/04/88

% Moisture: not dec.--- Date Analyzed: 8/12/88

Column: (pack/cap) PACK Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
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	4000.	B
67-64-1	Acetone	19000.	B
75-15-0	Carbon Disulfide	500.	U
75-35-4	1,1-Dichloroethene	500.	U
75-34-3	1,1-Dichloroethane	500.	U
540-59-0	1,2-Dichloroethene (total)	500.	U
67-66-3	Chloroform	500.	U
107-02-2	1,2-Dichloroethane	500.	U
78-93-3	2-Butanone	1000.	U
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
78-87-5	1,2-Dichloropropane	500.	U
10061-01-5	cis-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
10061-02-6	trans-1,3-Dichloropropene	500.	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	Tetrachloroethene	500.	U
79-34-5	1,1,2,2-Tetrachloroethane	500.	U
108-88-3	Toluene	500.	U
108-90-7	Chlorobenzene	500.	U
100-41-4	Ethylbenzene	500.	U
100-42-5	Styrene	500.	U
133-02-7	Xylene (total)	500.	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X102

Lab Name: ARDL, INC Contract: BYRON PWS

Lab Code: _____ Case No.: 200058 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 200058-2

Sample wt/vol: 4 (g/mL) g Lab File ID: >V0157

Level: (low/med) MED Date Received: 8/04/88

% Moisture: not dec. _____ Date Analyzed: 8/12/88

Column: (pack/cap) PACK Dilution Factor: 1

Number TICs found: 3

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	8.96	1500	
2.	unknown	13.85	1400	
3.	unknown	34.87	2400	
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X102RE

Lab Name: ARDL, INC Contract: BYRON PWS

Lab Code: ----- Case No.: 200058 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) SOIL Lab Sample ID: 200058-2RE

Sample wt/vol: 4.0 (g/mL) G Lab File ID: >V0523

Level: (low/med) MED Date Received: 08/04/88

% Moisture: not dec.--- Date Analyzed: 9/27/88

Column: (pack/cap) PACK Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
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	3700.	B
67-64-1	Acetone	3800.	B
75-15-0	Carbon Disulfide	500.	U
75-35-4	1,1-Dichloroethene	500.	U
75-34-3	1,1-Dichloroethane	500.	U
540-59-0	1,2-Dichloroethene (total)	500.	U
67-66-3	Chloroform	390.	JB
107-02-2	1,2-Dichloroethane	500.	U
78-93-3	2-Butanone	1000.	U
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
78-87-5	1,2-Dichloropropane	500.	U
10061-01-5	cis-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
10061-02-6	trans-1,3-Dichloropropene	500.	U
75-25-2	Bromoform	500.	U
108-10-1	4-Methyl-2-pentanone	880.	B
591-78-6	2-Hexanone	1000.	U
127-18-4	Tetrachloroethene	500.	U
79-34-5	1,1,2,2-Tetrachloroethane	500.	U
108-88-3	Toluene	500.	U
108-90-7	Chlorobenzene	500.	U
100-41-4	Ethylbenzene	750.	
100-42-5	Styrene	500.	U
133-02-7	Xylene (total)	4200.	

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X102RE

Lab Name: ARDL, Inc. Contract: Byron PWS

Lab Code: _____ Case No.: 200058 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) Soil Lab Sample ID: 200058-2RE

Sample wt/vol: 4.0 (g/mL) g Lab File ID: >V0523

Level: (low/med) Med. Date Received: 8/4/88

% Moisture: not dec. _____ Date Analyzed: 9/27/88

Column: (pack/cap) Pack Dilution Factor: 1

Number TICs found: 7

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	0.67	4900	
2.		Unknown	1.02	6100	
3.		Unknown	16.02	880	
4.		Unknown	20.82	1100	
5.		Unknown	24.24	720	
6.		Unknown	26.17	500	
7.		Unknown	27.46	1100	
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X102

Lab Name: ARDL, INC Contract: BYRON PW

Lab Code: ----- Case No.: 200058 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) SOIL Lab Sample ID: 200058-2

Sample wt/vol: 30 (g/mL) G Lab File ID: >D0345

Level: (low/med) LOW Date Received: 08/04/88

% Moisture: not dec.--- dec. --- Date Extracted: 08/12/88

Extraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 9/15/88

GPC Cleanup: (Y/N) N pH: --- Dilution Factor: 100.0000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	33000.	U D
111-44-4	bis(-2-Chloroethyl)Ether	33000.	U D
95-57-8	2-Chlorophenol	33000.	U D
541-73-1	1,3-Dichlorobenzene	33000.	U D
106-46-7	1,4-Dichlorobenzene	33000.	U D
100-51-6	Benzyl alcohol	33000.	U D
95-50-1	1,2-Dichlorobenzene	33000.	U D
95-48-7	2-Methylphenol	33000.	U D
39638-32-9	bis(2-chloroisopropyl)ether	33000.	U D
106-44-5	4-Methylphenol	33000.	U D
621-64-7	N-Nitroso-Di-n-propylamine	33000.	U D
67-72-1	Hexachloroethane	33000.	U D
98-95-3	Nitrobenzene	33000.	U D
78-59-1	Isophorone	33000.	U D
88-75-5	2-Nitrophenol	33000.	U D
105-67-9	2,4-Dimethylphenol	33000.	U D
65-85-0	Benzoic acid	160000.	U D
111-91-1	bis(-2-Chloroethoxy)Methane	33000.	U D
120-83-2	2,4-Dichlorophenol	33000.	U D
120-82-1	1,2,4-Trichlorobenzene	33000.	U D
91-20-3	Naphthalene	33000.	U D
106-47-8	4-Chloroaniline	33000.	U D
87-68-3	Hexachlorobutadiene	33000.	U D
59-50-7	4-Chloro-3-methylphenol	33000.	U D
91-57-6	2-Methylnaphthalene	7900.	J D
77-47-4	Hexachlorocyclopentadiene	33000.	U D
88-06-2	2,4,6-Trichlorophenol	33000.	U D
95-95-4	2,4,5-Trichlorophenol	160000.	U D
91-58-7	2-Chloronaphthalene	33000.	U D
88-74-4	2-Nitroaniline	160000.	U D
131-11-3	Dimethyl Phthalate	33000.	U D
208-96-8	Acenaphthylene	33000.	U D
606-20-2	2,6-Dinitrotoluene	33000.	U D

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X102

.ab Name: ARDL, INC Contract: BYRON PW

ab Code: ----- Case No.: 200058 SAS No.: ----- SDG No.: -----

latrix: (soil/water) SOIL Lab Sample ID: 200058-2

ample wt/vol: 30 (g/mL) G Lab File ID: >D0345

evel: (low/med) LOW Date Received: 08/04/88

Moisture: not dec.--- dec. --- Date Extracted: 08/12/88

xtraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 9/15/88

PC Cleanup: (Y/N) N pH: --- Dilution Factor: 100.0000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	160000.	U D
83-32-9	Acenaphthene	33000.	U D
51-28-5	2,4-Dinitrophenol	160000.	U D
100-02-7	4-Nitrophenol	160000.	U D
132-64-9	Dibenzofuran	33000.	U D
121-14-2	2,4-Dinitrotoluene	33000.	U D
84-66-2	Diethylphthalate	33000.	U D
7005-72-3	4-Chlorophenyl-phenylether	33000.	U D
86-73-7	Fluorene	33000.	U D
100-01-6	4-Nitroaniline	160000.	U D
534-52-1	4,6-Dinitro-2-methylphenol	160000.	U D
86-30-6	N-Nitrosodiphenylamine (1)	33000.	U D
101-55-3	4-Bromophenyl-phenylether	33000.	U D
118-74-1	Hexachlorobenzene	33000.	U D
87-86-5	Pentachlorophenol	160000.	U D
85-01-8	Phenanthrene	7800.	J D
120-12-7	Anthracene	33000.	U D
84-74-2	Di-n-butylphthalate	33000.	U D
206-44-0	Fluoranthene	5900.	J D
129-00-0	Pyrene	11000.	J D
85-68-7	Butylbenzylphthalate	33000.	U D
91-94-1	3,3'-Dichlorobenzidine	66000.	U D
56-55-3	Benzo(a)anthracene	33000.	U D
218-01-9	Chrysene	33000.	U D
117-81-7	bis(2-Ethylhexyl)phthalate	33000.	U D
117-84-0	Di-n-Octyl_Phthalate	33000.	U D
205-99-2	Benzo(b)fluoranthene	33000.	U D
207-08-9	Benzo(k)fluoranthene	33000.	U D
50-32-8	Benzo(a)pyrene	33000.	U D
193-39-5	Indeno(1,2,3-cd)pyrene	33000.	U D
53-70-3	Dibenzo(a,h)Anthracene	33000.	U D
191-24-2	Benzo(g,h,i)perylene	33000.	U D

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X10Z

Lab Name: ARDL, INC Contract: BYRON PW

Lab Code: _____ Case No.: 200058 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 200058-2

Sample wt/vol: 30 (g/mL) g Lab File ID: 200345

Level: (low/med) LOW Date Received: 8/04/88

Moisture: not dec. _____ dec. _____ Date Extracted: 8/12/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 9/15/88

GC Cleanup: (Y/N) N pH: _____ Dilution Factor: 100

Number TICs found: 18

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		unknown	15.61	4000	
2.		unknown	16.32	6300	
3.		unknown	16.61	1800	
4.	571619	dimethyl naphthalene	17.48	3600	
5.		unknown	17.64	3300	
6.		unknown	17.68	4600	
7.		unknown	17.73	3300	
8.		unknown	18.07	3600	
9.		unknown	18.34	2400	
10.	2245387	trimethyl naphthalene	18.99	2100	
11.		unknown	19.19	7900	
12.		unknown	19.92	1700	
13.		unknown	20.26	3600	
14.		unknown	20.32	6900	
15.		unknown	21.07	2500	
16.		unknown	21.25	2500	
17.		unknown	21.37	7600	
18.					
19.		unknown	23.13	4600	
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

EPA SAMPLE NO.
X102

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: ARDL
Matrix: (soil/water) SOIL
Sample wt/vol: 30.0 (g/mL) G
Level: (low/med) LOW
% Moisture: not dec. _____ dec. _____
Extraction: (SepF/Cont/Sonc) SONC
GPC Cleanup: (Y/N) N pH: _____

Contract: BYRON PWS
Lab Sample ID: 200058-2
Lab File ID: _____
Date Received: 08/04/88
Date Extracted: 08/12/88
Date Analyzed: 09/23/88
Dilution Factor: 0.05

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
319-84-6----	alpha-BHC	8.0	U
319-85-7----	beta-BHC	8.0	U
319-86-8----	delta-BHC	8.0	U
58-89-9-----	gamma-BHC (Lindane)	8.0	U
76-44-8-----	Heptachlor	310	
309-00-2----	Aldrin	8.0	U
1024-57-3---	Heptachlor epoxide	8.0	U
959-98-8----	Endosulfan I	8.0	U
60-57-1-----	Dieldrin	16	U
72-55-9-----	4,4'-DDE	16	U
72-20-8-----	Endrin	16	U
33213-65-9--	Endosulfan II	16	U
72-54-8-----	4,4'-DDD	16	U
1031-07-8---	Endosulfan sulfate	16	U
50-29-3-----	4,4'-DDT	16	U
72-43-5-----	Methoxychlor	80	U
53494-70-5--	Endrin ketone	16	U
5103-71-9---	alpha-Chlordane	80	U
5103-74-2---	gamma-Chlordane	1300	
8001-35-2---	Toxaphene	160	U
12674-11-2--	Arochlor-1016	80	U
11104-28-2--	Arochlor-1221	80	U
11141-16-5--	Arochlor-1232	80	U
53469-21-9--	Arochlor-1242	80	U
12672-29-6--	Arochlor-1248	80	U
11097-69-1--	Arochlor-1254	160	U
11096-82-5--	Arochlor-1260	160	U

FORM I PEST

FORM IA

INORGANIC ANALYSIS DATA SHEET
METALS

Lab Name: ARDL, Inc. IEPA Sample No.: Y103

Matrix (soil/water): Soil Lab Sample ID: 200058-3

Level (low/Med): Date Received: 8-4-88

% Solids: 85.6

Concentration Units (ug/L or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	M	Q
7429-90-5	Aluminum	6900		P	E
7440-36-0	Antimony	7.7 u		P	N
7440-38-2	Arsenic	2.0		BH	
7440-39-3	Barium	100		P	E
7440-41-7	Beryllium	0.17 u		P	
7440-43-9	Cadmium	0.86 u		P	N
7440-70-2	Calcium	40,000		P	E
7440-47-3	Chromium	22		P	* E
7440-48-4	Cobalt	[5.7]		P	
7440-50-8	Copper	14		P	*
7439-89-6	Iron	9300		P	* E
7439-92-1	Lead	94		P	* E
7439-95-4	Magnesium	19,000		P	E
7439-96-5	Manganese	440		P	* E
7439-97-6	Mercury	0.082		CV	
7440-02-0	Nickel	13		P	N
7440-09-7	Potassium	1000		P	
7782-49-2	Selenium	0.34 u		BH	
7440-22-4	Silver	5.9		P	N
7440-23-5	Sodium	[350]		P	
7440-28-0	Thallium	0.92 u		F	
7440-62-2	Vanadium	14		P	
7440-66-6	Zinc	100		P	* E

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

FORM IB

INORGANIC ANALYSIS DATA SHEET
OTHER INORGANICS

Lab Name: ARDL, Inc. IEPA Sample No.: X103

Matrix (soil/water): Soil Lab Sample ID: 200058-3

Level (low/Med): Date Received: 8-4-88

% Solids: 85.6

Concentration Units (ug/L or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	M	Q
	Cyanide	0.0584			N
	Phenol				
	Sulfate	210			
	Sulfide	5.8 u			

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X103

Lab Name: ARDL, INC Contract: BYRON PWS

Lab Code: ----- Case No.: 200058 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) SOIL Lab Sample ID: 200058-3

Sample wt/vol: 5.0 (g/mL) G Lab File ID: >V0164

Level: (low/med) LOW Date Received: 08/04/88

% Moisture: not dec.--- Date Analyzed: 8/13/88

Column: (pack/cap) PACK Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
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	16.	B
67-64-1	Acetone	8.	JB
75-15-0	Carbon Disulfide	5.	U
75-35-4	1,1-Dichloroethene	5.	U
75-34-3	1,1-Dichloroethane	5.	U
540-59-0	1,2-Dichloroethene (total)	5.	U
67-66-3	Chloroform	5.	U
107-02-2	1,2-Dichloroethane	5.	U
78-93-3	2-Butanone	10.	U
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
78-87-5	1,2-Dichloropropane	5.	U
10061-01-5	cis-1,3-Dichloropropene	5.	U
79-01-6	Trichloroethene	7.	
124-48-1	Dibromochloromethane	5.	U
79-00-5	1,1,2-Trichloroethane	5.	U
71-43-2	Benzene	5.	U
10061-02-6	trans-1,3-Dichloropropene	5.	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	Tetrachloroethene	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
108-38-3	m-Xylene	5.	U
106-42-3	o & p-Xylene	5.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X103

Lab Name: ARDL, INC Contract: BYRON PWS

Lab Code: _____ Case No.: 200058 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 200058-3

Sample wt/vol: 5 (g/mL) g Lab File ID: >V0164

Level: (low/med) LOW Date Received: 8/04/88

% Moisture: not dec. _____ Date Analyzed: 8/13/88

Column: (pack/cap) PACK Dilution Factor: 1

Number TICs found: 0

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/kg

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X103

ab Name: ARDL, INC Contract: BYRON PW

ab Code: ----- Case No.: 200058 SAS No.: ----- SDG No.: -----

latrix: (soil/water) SOIL Lab Sample ID: 200058-3

ample wt/vol: 30 (g/mL) G Lab File ID: >D0341

evel: (low/med) LOW Date Received: 08/04/88

Moisture: not dec.--- dec. --- Date Extracted: 08/12/88

xtraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 9/15/88

PC Cleanup: (Y/N) N pH: --- Dilution Factor: 10.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
108-95-2	Phenol	3300.	U D
111-44-4	bis(-2-Chloroethyl)Ether	3300.	U D
95-57-8	2-Chlorophenol	3300.	U D
541-73-1	1,3-Dichlorobenzene	3300.	U D
106-46-7	1,4-Dichlorobenzene	3300.	U D
100-51-6	Benzyl alcohol	3300.	U D
95-50-1	1,2-Dichlorobenzene	3300.	U D
95-48-7	2-Methylphenol	3300.	U D
39638-32-9	bis(2-chloroisopropyl)ether	3300.	U D
106-44-5	4-Methylphenol	3300.	U D
621-64-7	N-Nitroso-Di-n-propylamine	3300.	U D
67-72-1	Hexachloroethane	3300.	U D
98-95-3	Nitrobenzene	3300.	U D
78-59-1	Isophorone	3300.	U D
88-75-5	2-Nitrophenol	3300.	U D
105-67-9	2,4-Dimethylphenol	3300.	U D
65-85-0	Benzoic acid	16 000.	U D
111-91-1	bis(-2-Chloroethoxy)Methane	3300.	U D
120-83-2	2,4-Dichlorophenol	3300.	U D
120-82-1	1,2,4-Trichlorobenzene	3300.	U D
91-20-3	Naphthalene	3300.	U D
106-47-8	4-Chloroaniline	3300.	U D
87-68-3	Hexachlorobutadiene	3300.	U D
59-50-7	4-Chloro-3-methylphenol	3300.	U D
91-57-6	2-Methylnaphthalene	3300.	U D
77-47-4	Hexachlorocyclopentadiene	3300.	U D
88-06-2	2,4,6-Trichlorophenol	3300.	U D
95-95-4	2,4,5-Trichlorophenol	16000.	U D
91-58-7	2-Chloronaphthalene	3300.	U D
88-74-4	2-Nitroaniline	16000.	U D
131-11-3	Dimethyl Phthalate	3300.	U D
208-96-8	Acenaphthylene	3300.	U D
606-20-2	2,6-Dinitrotoluene	3300.	U D

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X103

ab Name: ARDL, INC Contract: BYRON PW

ab Code: ----- Case No.: 200058 SAS No.: ----- SDG No.: -----

atrix: (soil/water) SOIL Lab Sample ID: 200058-3

ample wt/vol: 30 (g/mL) G Lab File ID: >D0341

evel: (low/med) LOW Date Received: 08/04/88

Moisture: not dec.--- dec. --- Date Extracted: 08/12/88

xtraction: (Sepf/Cont/Sonc) SONC Date Analyzed: 9/15/88

PC Cleanup: (Y/N) N pH: --- Dilution Factor: 10.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg	Q
99-09-2	3-Nitroaniline	16000.	U D
83-32-9	Acenaphthene	3300.	U D
51-28-5	2,4-Dinitrophenol	16000.	U D
100-02-7	4-Nitrophenol	16000.	U D
132-64-9	Dibenzofuran	3300.	U D
121-14-2	2,4-Dinitrotoluene	3300.	U D
84-66-2	Diethylphthalate	3300.	U D
7005-72-3	4-Chlorophenyl-phenylether	3300.	U D
86-73-7	Fluorene	3300.	U D
100-01-6	4-Nitroaniline	16000.	U D
534-52-1	4,6-Dinitro-2-methylphenol	16000.	U D
86-30-6	N-Nitrosodiphenylamine (1)	3300.	U D
101-55-3	4-Bromophenyl-phenylether	3300.	U D
118-74-1	Hexachlorobenzene	3300.	U D
87-86-5	Pentachlorophenol	16000.	U D
85-01-8	Phenanthrene	570.	J D
120-12-7	Anthracene	3300.	U D
84-74-2	Di-n-butylphthalate	1900.	J D
206-44-0	Fluoranthene	1100.	J D
129-00-0	Pyrene	930.	J D
85-68-7	Butylbenzylphthalate	340.	J D
91-94-1	3,3'-Dichlorobenzidine	6600.	U D
56-55-3	Benzo(a)anthracene	3300.	U D
218-01-9	Chrysene	3300.	U D
117-81-7	bis(2-Ethylhexyl)phthalate	3300.	U D
117-84-0	Di-n-Octyl_Phthalate	3300.	U D
205-99-2	Benzo(b)fluoranthene	460.	J D
207-08-9	Benzo(k)fluoranthene	3300.	U D
50-32-8	Benzo(a)pyrene	390.	J D
193-39-5	Indeno(1,2,3-cd)pyrene	3300.	U D
53-70-3	Dibenzo(a,h)Anthracene	3300.	U D
191-24-2	Benzo(g,h,i)perylene	3300.	U D

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X103

Lab Name: ARDL, INC Contract: BYRON PW

Lab Code: _____ Case No.: 200058 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 200058-3

Sample wt/vol: 30 (g/mL) g Lab File ID: >D0341

Level: (low/med) LOW Date Received: 8/04/88

Moisture: not dec. _____ dec. _____ Date Extracted: 8/12/88

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 9/15/88

GC Cleanup: (Y/N) N pH: _____ Dilution Factor: 10

Number TICs found: 7

CONCENTRATION UNITS: (ug/L or ug/Kg) ug/Kg

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		unknown	6.10	1700	
2.	141797	4-methyl-3-pentene-2-one	7.46	3200	
3.		unknown	8.33	4000	
4.		unknown	8.91	1300	
5.		unknown	11.03	4300	
6.		unknown	22.16	920	
7.		unknown	33.66	1400	
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

EPA SAMPLE NO.
X103

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: ARDL
Matrix: (soil/water) SOIL
Sample wt/vol: 30.0 (g/mL) G
Level: (low/med) LOW
% Moisture: not dec. _____ dec. _____
Extraction: (SepF/Cont/Sonc) SONC
GPC Cleanup: (Y/N) N pH: _____

Contract: BYRON PWS
Lab Sample ID: 200058-3
Lab File ID: _____
Date Received: 08/04/88
Date Extracted: 08/12/88
Date Analyzed: 09/23/88
Dilution Factor: 0.05

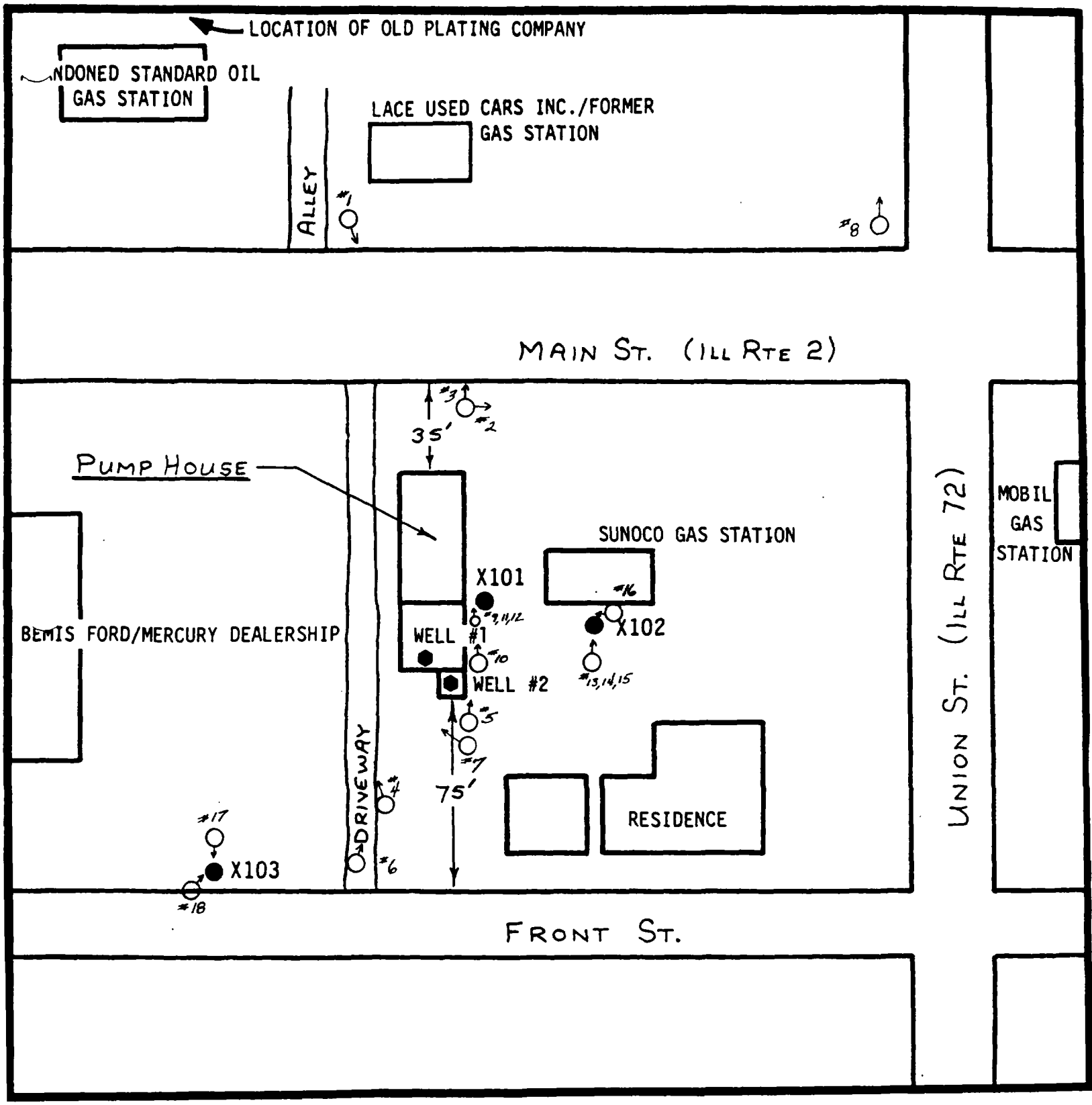
CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q
319-84-6----	alpha-BHC	8.0	U
319-85-7----	beta-BHC	8.0	U
319-86-8----	delta-BHC	8.0	U
58-89-9-----	gamma-BHC (Lindane)	8.0	U
76-44-8-----	Heptachlor	8.0	U
309-00-2----	Aldrin	110	
1024-57-3---	Heptachlor epoxide	8.0	U
959-98-8----	Endosulfan I	8.0	U
60-57-1-----	Dieldrin	16	U
72-55-9-----	4,4'-DDE	16	U
72-20-8-----	Endrin	16	U
33213-65-9--	Endosulfan II	16	U
72-54-8-----	4,4'-DDD	16	U
1031-07-8---	Endosulfan sulfate	16	U
50-29-3-----	4,4'-DDT	16	U
72-43-5-----	Methoxychlor	80	U
53494-70-5--	Endrin ketone	16	U
5103-71-9---	alpha-Chlordane	80	U
5103-74-2---	gamma-Chlordane	80	U
8001-35-2---	Toxaphene	160	U
12674-11-2--	Arochlor-1016	80	U
11104-28-2--	Arochlor-1221	80	U
11141-16-5--	Arochlor-1232	80	U
53469-21-9--	Arochlor-1242	80	U
12672-29-6--	Arochlor-1248	80	U
11097-69-1--	Arochlor-1254	160	U
11096-82-5--	Arochlor-1260	160	U

FORM I PEST

APPENDIX F

IEPA Site Photographs



SOURCE: IEPA 1980; Division of Public Water Supplies

PHOTO LOCATION

Date: 5-10-88

Time: 9:00 (A.M.) P.M.

Photograph By:

K. CORKILL

Location: LPC-1410000000

OGLE Co.

BYRON PWS #1 + #2

Comments: Photograph taken

toward the S.E.

MONITOR WELL + WELL

HOUSE - RIGHT SIDE OF

PHOTO.

(#1)

Date: 5-10-88

Time: 9:00 (A.M.) P.M.

Photograph By:

K. CORKILL

Location: LPC-1410000000

OGLE Co.

BYRON PWS #1 + #2

Comments: Photograph taken

toward the EAST

NORTH OF THE WELL

HOUSE

(#2)

Date: 5-10-88

Time: 9:15 A.M. P.M.

Photograph By:

K. CORKILL

Location: LPC-1410000000

OGLE Co.

BYRON PWS #1 + #2

Comments: Photograph taken

toward the NORTH

FROM THE WELL HOUSE

#3

Date: 5-10-88

Time: 9:15 A.M. P.M.

Photograph By:

K. CORKILL

Location: LPC-1410000000

OGLE Co.

BYRON PWS #1 + #2

Comments: Photograph taken

toward the N.W. FROM

THE SW CORNER OF THE

WELL HOUSE

#4

Date: 5-10-88

Time: 9:25 (A.M.) P.M.

Photograph By:

K. CORKILL

Location: LPC-1410000000

OGLE Co.

BYRON PWS #1+#2

Comments: Photograph taken toward the NORTH LOOKING DOWN EAST WALL OF WELL HOUSE. SUNOCO GAS STATION ON RIGHT.

#5

Date: 5-10-88

Time: 9:30 (A.M.) P.M.

Photograph By:

K. CORKILL

Location: LPC-1410000000

OGLE Co.

BYRON PWS #1+#2

Comments: Photograph taken toward the NORTH TOWARD WELL HOUSE

#6

Date: 5-10-88

Time: 9:40 A.M. P.M.

Photograph By:

K. CORKILL

Location: LPC-1410000000

OGLE Co.

BYRON PWS #1 + #2

Comments: Photograph taken toward the W-NW FROM SE CORNER OF WELL HOUSE

#7

Date: 5-10-88

Time: 9:50 A.M. P.M.

Photograph By:

K. CORKILL

Location: LPC-1410000000

OGLE Co.

BYRON PWS #1 & #2

Comments: Photograph taken toward the NORTH ON UNION ST. 1 BLOCK N.E. OF WELL HOUSE.

#8

Date: 8-3-88

Time: 9:45 (A.M.) P.M.

Photograph By:

K. CORKILL

Location: LPC-1410000000

OGLE Co (X101)

BYRON PWS #1 & #2

Comments: Photograph taken toward the NW AT THE EAST WALL OF PUMP HOUSE

(#9)

Date: 8-3-88

Time: 9:40 A.M. P.M.

Photograph By:

GARY RESIDE

Location: LPC-1410000000

OGLE Co.

BYRON PWS #1 & #2

Comments: Photograph taken toward the NORTH AT THE EAST WALL OF PUMP HOUSE ADJACENT TO SUNOCO STA.

(#10)

Date: 8-3-88

Time: 9:40 (A.M.) P.M.

Photograph By:

G. RESIDE

Location: LPC-1410000000

OGLE Co.

BYRON PWS #1+#2

Comments: Photograph taken

toward the NE. AT THE

EAST WALL OF PUMP HOUSE

(#11)

Date: 8-3-88

Time: 9:45 (A.M.) P.M.

Photograph By:

G. RESIDE

Location: LPC-1410000000

OGLE Co (X101)

BYRON PWS #1+#2

Comments: Photograph taken

toward the NORTH AT THE

EAST WALL OF PUMP HOUSE

(#12)

Date: 8-3-88

Time: 10:00 (A.M.) P.M.

Photograph By:

K. CORKILL

Location: LPC-1410000000

OGLE Co (X102)

BYRON PWS #1 + #2

Comments: Photograph taken

toward the NORTH AT

SOUTH WALL OF SUNOCO

GAS STATION

(#13)

Date: 8-3-88

Time: 10:00 (A.M.) P.M.

Photograph By:

K. CORKILL

Location: LPC-1410000000

OGLE Co (X102)

BYRON PWS #1 + #2

Comments: Photograph taken

toward the NORTH AT

SOUTH WALL OF SUNOCO

GAS STATION

(#14)

Date: 8-3-88

Time: 9:55 (A.M.) P.M.

Photograph By:

G. RESIDE

Location: LPC-1410000000

OGLE Co.

BYRON PWS #1+2

Comments: Photograph taken toward the NORTH AT SOUTH WALL OF SUNOCO GAS STATION

#15

Date: 8-3-88

Time: 9:55 (A.M.) P.M.

Photograph By:

G RESIDE

Location: LPC-1410000000

OGLE Co.

BYRON PWS #1+#2

Comments: Photograph taken toward the WEST AT THE SOUTH WALL OF SUNOCO GAS STATION

#16

Date: 8-3-88

Time: 10:30 (A.M.) P.M.

Photograph By:

K. CORKILL

Location: LPC-1410000000

OGLE Co. (X103)

BYRON PWS #1 + #2

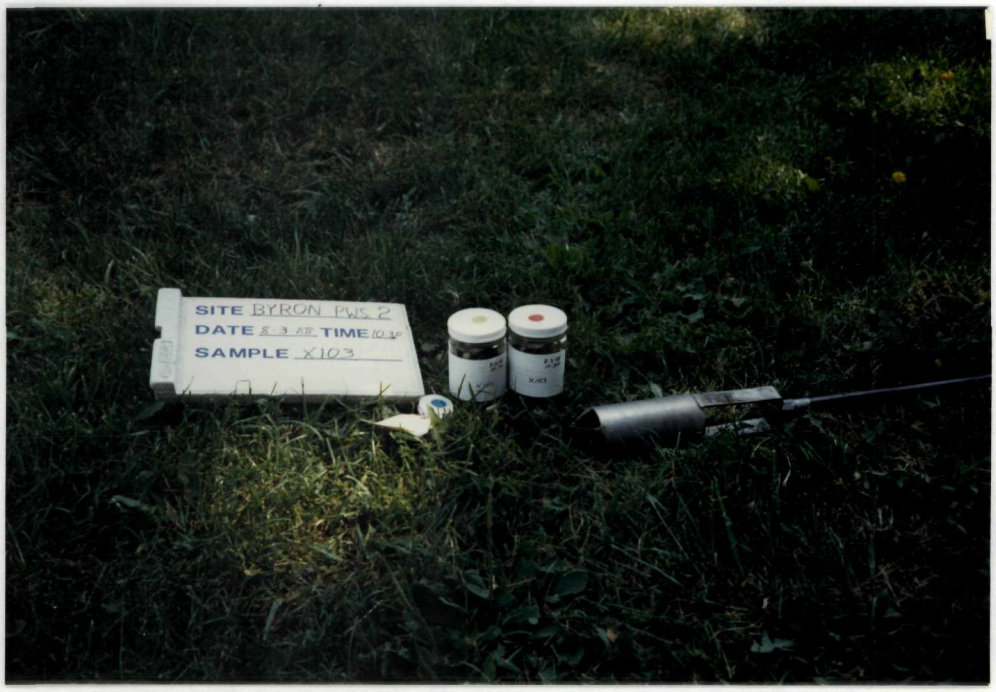
Comments: Photograph taken

toward the NE

BACKGROUND @ ABOUT 200'

SW OF WELL HOUSE

(#17)



Date: 8-3-88

Time: 10:30 (A.M.) P.M.

Photograph By:

Location: LPC-1410000000

OGLE Co. (X103)

BYRON PWS #1 + #2

Comments: Photograph taken

toward the N.E.

WELL HOUSE IN TOP

OF PHOTO. BACKGROUND

(#18)