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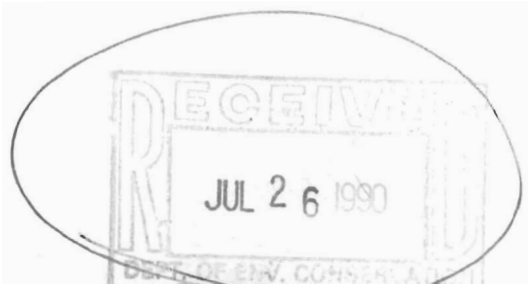

REPORT

OF

THE MARLEY SITE

PRELIMINARY INVESTIGATION

by

New York State Department of Environmental Conservation

Division of Hazardous Waste Remediation

Bureau of Hazardous Site Control

Performed on 13 July 1989

Table of Contents

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0.1 SITE BACKGROUND

The site is described in "HYDROGEOLOGIC CONDITIONS AT THE MARLEY PROPERTY", prepared by Dunn Geoscience Corporation, dated July 1988 and delivered to DEC in the autumn of that year.

Surface soils were found to have been contaminated by PCBs at two spots on the property, at concentrations exceeding 50 ppm. The contaminated soils were removed from these spots in July and August of 1988. The source of the PCBs probably was oil in scrap electrical equipment which may have been processed on the site in crushers.

The land surface has been extensively altered since its days as a scrap yard, by the grading necessary for the construction of the Carousel Center project.

0.2 ANALYSIS OF PREVIOUSLY EXISTING DATA

Previously existing data are in Appendix E, separately bound.

Region Seven's Water Program staff collected muddy water samples from pits dug into the ground surface at Marley's. Samples were analyzed for PCBs by the Wadsworth Laboratory, NYSDOH on the 12th, 13th and 15th of May, 1989. The lab reported, "There was a lot of light waste (sic) oil present in each sample."

One of the samples, "DOH SED 89-24-20 MARLEY SITE SOUTH" had a dry weight concentration of 42.2 ppm. Although this is slightly lower than the action level of 50 ppm for PCBs in soil, it is reasonable to suspect that this concentration of PCBs in the sediment portion of muddy water from a hole in the ground was derived from a patch of soil in which the concentration of PCBs probably exceeded the action level. This oily contaminated sample is sufficient basis to call for a verification by a site investigation team from the Division of Hazardous Waste Remediation. It is not sufficient to cause the listing the Marley property as an inactive hazardous waste disposal site, because the suspicion is raises is very speculative.

0.3 INVESTIGATION OBJECTIVES

This Preliminary Investigation was performed to verify or refute suspicions about the presence of PCBs in the soils at other locations on the Marley Property. The results of this investigation provide a basis to decide whether or not to list the property, or parts of the property, on the registry of inactive hazardous waste disposal sites.

The focus of this investigation is limited to the surface ten inches of the soils and to that ten inch subsurface zone which is situated at the top of the water table, because it is within these two zones that PCBs-bearing oils are most likely to collect, due to the forces of absorption and adhesion and of gravity.

The outline of this report is derived from Section 3.2, "ELEMENTS OF THE SAMPLING PLAN", of "Guidance on Remedial Investigations Under CERCLA", USEPA, Draft of May 1985.

0.4 SAMPLE TYPES

In order to characterize the source of hazardous wastes, it is necessary to identify their presence in concentrations that would trigger remedial action, that is, at or above 50 micrograms per gram, or parts per million by weight in the soil.

At each of the seven selected locations, a judgement was made as whether the top ten inches of ground represents the recent surface of the Marley Scrap Yard or if that surface had been removed. If it was original ground, then one grab soil sample was collected. Each surface soil grab sample was placed in a jar, labeled with the location number and packaged for shipment.

At each selected location, a soil test pit was dug by machine to a depth at which the water table was reached, but not deeper than five feet. At the water table level, one discrete grab sample was taken from the ten inch zone just above the water table, or if no water table was encountered, from that level at which there is evidence of oiliness in the soil or of a former water table level. Each discrete soil sample was placed in a jar, labeled with the location number and packed for shipment.

A total of eleven samples were taken. This provides a barely statistically significant number of samples from which a judgement might be made regarding the probability that hazardous wastes have been disposed at the site. Combined with the work done under the direction of Pyramid, there will be about 85 soil samples.

0.5 ANALYTES OF INTEREST

Total PCBs
VOA
EP TOX for metals

0.6 ANALYTICAL PROCEDURES FOLLOWED

As determined by the chemists, GC/MS methods should be used in the chemical analyses. Although no "CPL Package" is needed and only the data sheets need to be supplied by the lab, the standing contract calls for these items.

Coordination with the laboratories was accomplished by Tom Koch.

The preliminary data sheets were supplied for most of the organic analyses and are presented in Appendix D.

0.7 FIELD OPERATIONS

0.7.1 FIELD PROCEDURES:

1) Using a current large-scale plan of the site, the sampling locations were staked out in accordance with the grid network established by Pyramid's contractor.

2) A back hoe - front loader, with an operator, was supplied by Pyramid's contractor for our use, during regular working hours. He suddenly left at four o'clock; that was the end of the investigation.

3) Each sampling location and test pit were scanned for radiation levels using a scintillator. No readings above three times (3 x) background were observed.

4) Test pits were photographed, using a measuring tape for scale.

5) Grab samples were taken from one or two places in each pit, selected at the top of the water table or in zones which exhibit oiliness. If no oiliness is observed, then wetness will be the factor determining sample location.

6) Air quality monitoring was conducted before anybody entered a test pit. Staff entering the pit wore a respirator for volatiles.

7) Each pit was immediately refilled with the materials that were excavated.

0.7.2 TEAM MEMBERS:

Tom Koch, BHSC, to direct sampling effort
Kernan Davis, BHSC, to log the test pits and select the locations
Richard Brazell, Engineer, Reg.7, to provide support services and local contacts

0.7.3 DUNN GEOSCIENCE TEAM

Jack McBurnie, project manager
Tom Johnson, hydrogeologist
Ed Fahrenkopf, chemical specialist

0.7.4 VISITORS

C.T.Male, III, R-7 Engineer
Wm. LaRow, DEC's "Oil City" Coordinator
Mike Shanley, Pyramid's lawyer
Greg Faucher, Pyramid's lawyer

0.8 RESULTS AND RECOMMENDATIONS

0.8.1 FIELD OBSERVATIONS

The following features were observed:

= vast exposure of unvegetated "sub-soil", consisting of fill materials which are being excavated as part of a major land sculpturing operation;

= a large excavation, for part of the mall foundation;

= huge berms of excavated material, piled along the northern and eastern boundaries and consisting of typical domestic landfill waste; decomposed garbage, wood, cloth, leather, rubber,

glass and metal objects in a sandy, gravelly soil and slag matrix, with masses of Solvay Process waste;

= a bentonite-soil slurry-filled cutoff wall, surrounding the "foot print" of the Center;

= a system of open trenchwork, into which drainage pipe and stone was being placed by half-naked workmen who were exposed to the variously colored liquids that ooze and pour into the trench;

(These trenches revealed excellent cross sections of the materials on site: a surface layer of domestic landfill waste, underlain by stratified layers of soft, pastey Solvay Process waste, underlain by the alluvial and swamp deposits of the original ground. Ground water was observed seeping into the trench from the landfill waste layer, on top of the Solvay Waste and from the coarser textured portions of the original ground. Odd colored liquids were also seen oozing in from the landfill waste.)

= a piece of newspaper, featuring items from the early 1950s.

0.8.2 THE TEST PITS

Descriptions: -- See Appendices A and B.

Locations Sampled

Z1 situated along the projected trace of the filled in original Onondaga Creek bed, this location was selected because of the expected presence of coarse-grained alluvium, which might form a trap for the non-aqueous phase liquids which might carry PCBs.

Z2 may be in the vicinity of suspected possible former crusher locations near the lake-side boundary.

Z3 situated in the corner of the property where local citizens have alleged that large electrical transformers have been buried.

Z4 situated near a zone where contamination had been found at higher levels than elsewhere on the site (while still not high enough to be considered hazardous waste.) in the adjoining rail yard, where suspected sources of contamination might occur.

Z5 along a previously existing service road, in an area where soil samples had not been taken earlier, because of interfere with stockpiles of scrap metal.

Z6 along a previously existing service road, in an area where soil samples had not been taken earlier, because of interfere with stockpiles of scrap metal.

Z7 along a previously existing service road, in an area where soil samples had not been taken earlier, because of interfere with stockpiles of scrap metal.

0.8.3 RESULTS OF CHEMICAL ANALYSES

Prelininary resluts of some anlayses were sent to DEC via electronic facsimile on August 2nd and re presented in Appendix D. A summary of these results if presented in tabular form of the next page.

SUMMARY OF ANALYSES OF SOILS SAMPLED ON 13 JULY 1989

SAMPLE NUMBER	LOCATION	RESULTS (Total parts per million) PCBs	VOAs	TICs
789001-01	Z1 @ surface	0.5	0.0	-.-
789001-02	Z1 @ ~5' depth	0.0	0.0	-.-
789001-03	Z2 @ ~3 1/2' depth	0.31	0.0	0.1996
789001-04	Z2 @ ~5' depth	0.0	0.010	0.0629
789001-05	Z3 @ ~5' depth	0.25	0.0	1.630
789001-06	Z4 @ ~2 1/2' depth	0.0	0.0	-.-
789001-07	Z4 @ ~1 inch depth	0.84	0.0	-.-
789001-08	Z5 @ surface	4.80	0.0	-.-
789001-09	Z5 @ ~3' depth; smelly	7.10	0.281	2.404
789001-10	Z6 @ ~2' depth	1.40	0.0	0.045
789001-11	Z7 @ ~5' depth; burnt wood	3.30	0.024	5.430

None of these data have been reviewed for Quality Assurance.

This information is offered for what it is worth, so that our agency can prepare to make a decision regarding the listing of the Marley Property.

The low level of PCBs in the soil samples might be the result of PCB-contaminated oils having passed through the soils, leaving only a very small trace behind. The de-watering operation at the construction site may be removing the contaminated oil and, in effect, may be cleaning the site. The heavy rainfall of this summer may be helping to scrub the soils, which appear to be quite pervious.

On the other hand, there may have been only a very low level of contamination in the first place, from occasional spillage of oils, incidental to scrap metal handling. That would cause several very small, isolated spots of higher PCBs contamination in an area of low level contamination. In any case, the soils present do not constitute hazardous waste.

0.8.4 RECOMMENDATIONS

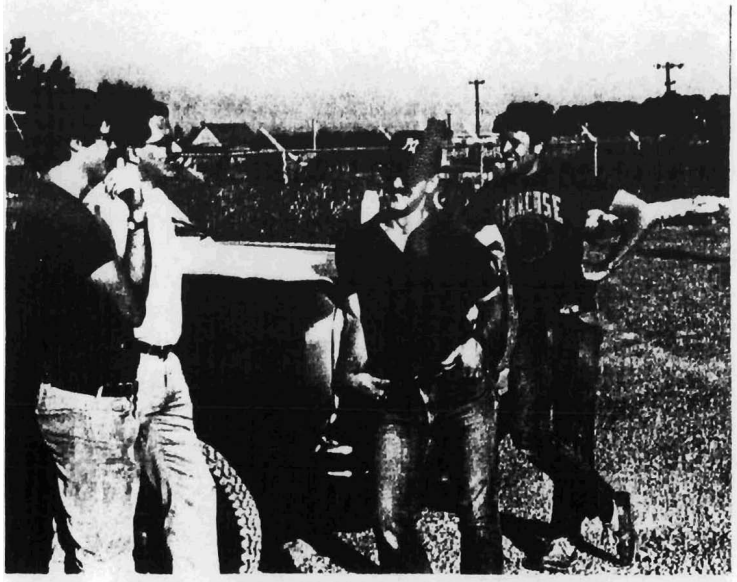
According to observations made during this "Z-Series" soil investigation, PCB contamination is wide spread and at a low level of concentration. It falls far below the action level of 50 ppm. Therefore, there is no basis for listing the Marley property as a site.

However, we do recommend that an Environmental Monitor be employed by Pyramid to observe the progress of the drainage excavation work and to document the occurrence of the various materials exposed and to take grab samples of any liquids and solids that look they might be hazardous wastes.

A reasonable closure of this old landfill, which pre-dates the stat laws governing landfill closures, would be to control the rates of infiltration and runoff of precipitation and surface water. This would be accomplished by the roofing and paving and their attending drainage systems.

0.9 **APPENDIX A : PHOTOGRAPHS AND SITE MAP**


ONONDAGA LAKE
N.Y.C.R.R. CO. SYRACUSE JUNCTION BRANCH
CONSOLIDATED RAIL CORPORATION
(Formerly Lands of the NEW YORK CENTRAL RAILROAD)
Z1
Z2
Z3
Z4
Z5
Z6
Z7
S.M.L. 25
S.M.L. 25½
S.M.L. 26
S.M.L. 27
ABE COOPER-SYRACUSE, INC
Lands N/F of CLARY CONCRETE CO, INC
AREA = 3.543± AC
Lands N/F of ONONDAGA COUNTY INDUSTRIAL DEVELOPMENT AGENCY (N/F BUCKEYE TANK TERMINALS INC)
AREA = 3.569± AC
Lands N/F of HESS REALTY CORP
AREA = 0.342± AC
Lands N/F of ONONDAGA CO INDUSTRIAL DEVELOPMENT AGENCY TO BE RETAINED
AREA = 1.861± AC
INTERSTATE ROUTE 81
WEST HIAWATHA BOULEVARD
S. LAR ST.

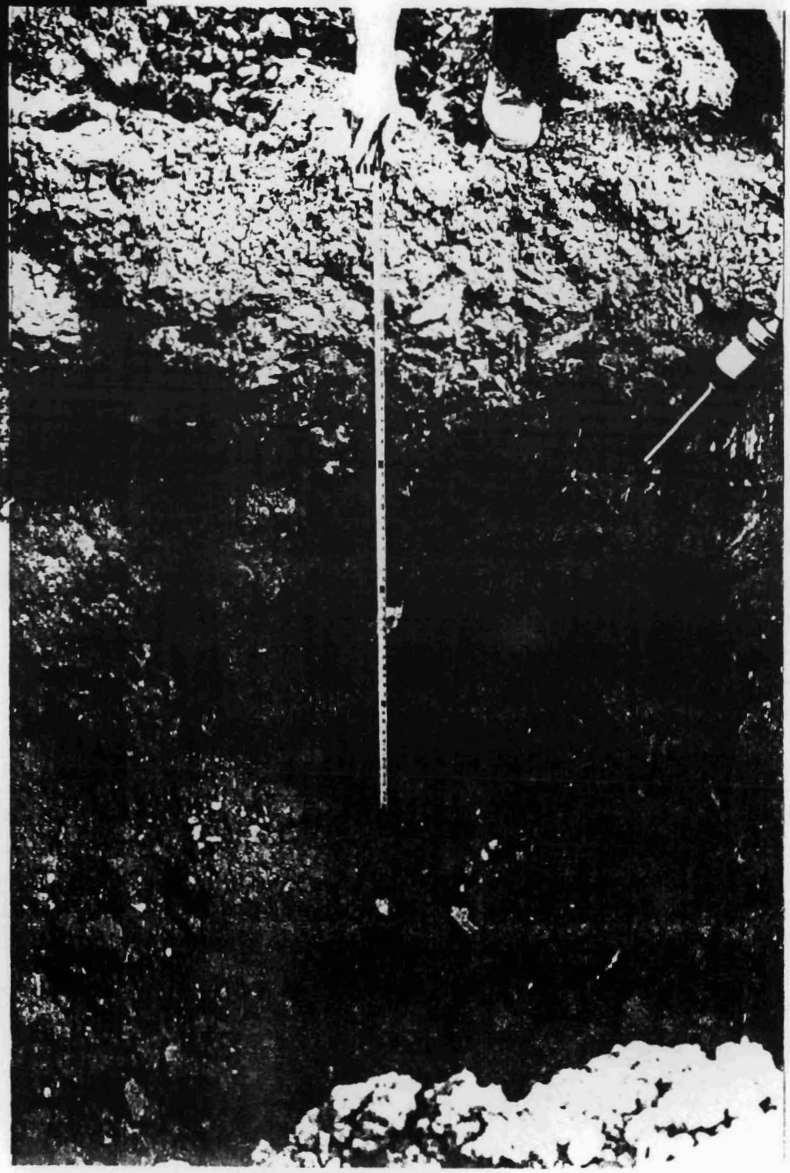


Fahrenkopf, McBurnie and Thompson of Dunn Geoscience with Tom Koch of DEC.

Tom Koch prepares bottles and checks HNU.

Location Z·1

Surface

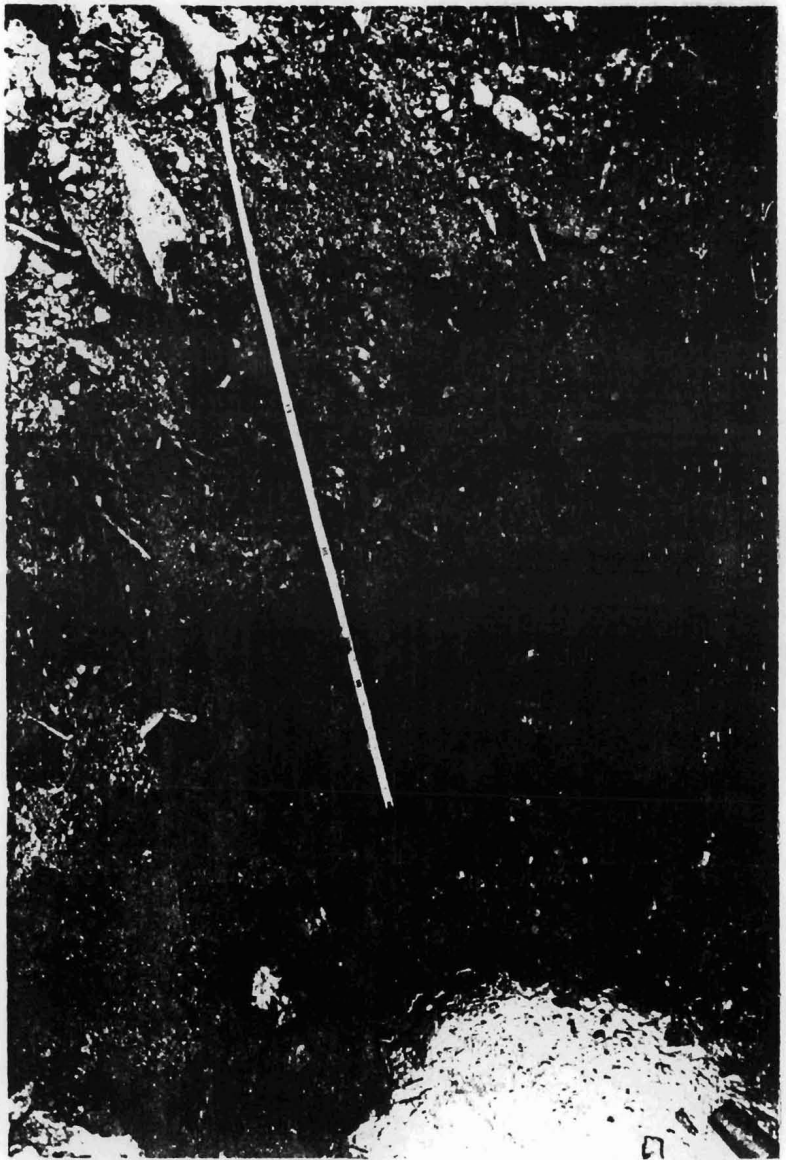


Pit →

tape is
5ft. long

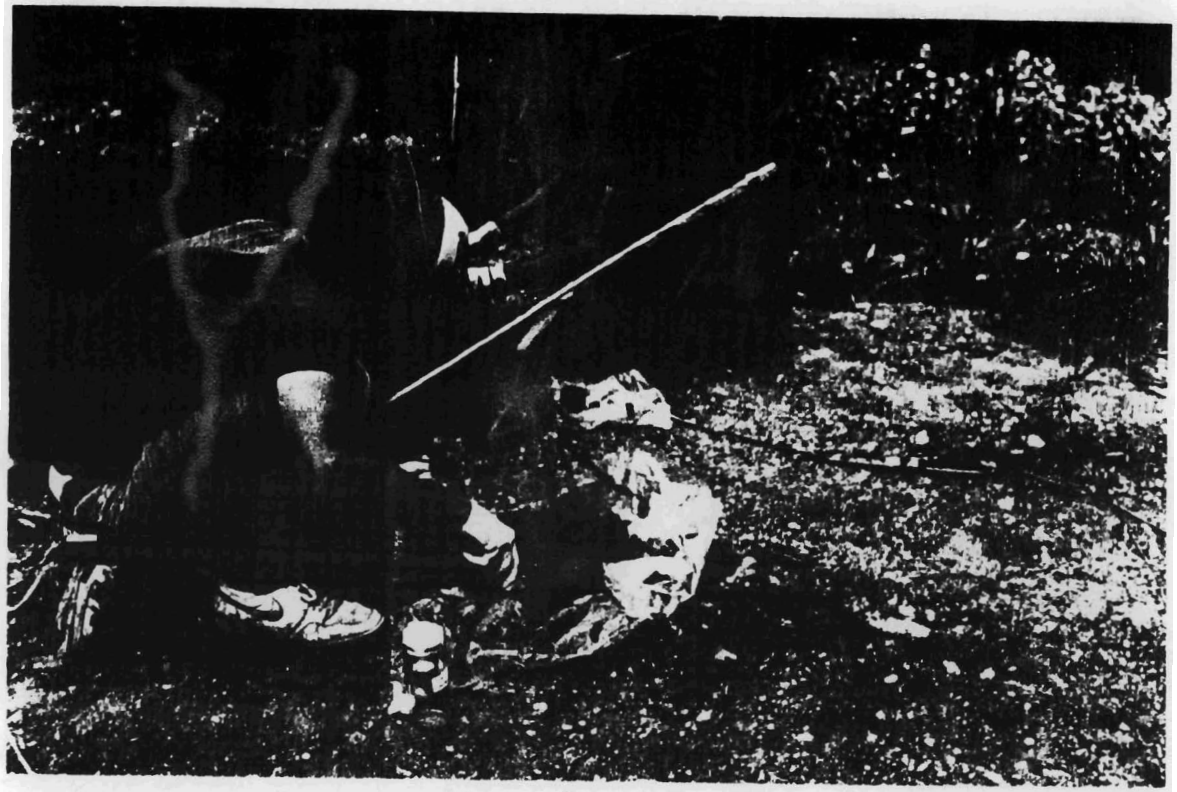
Location Z·2

Surface

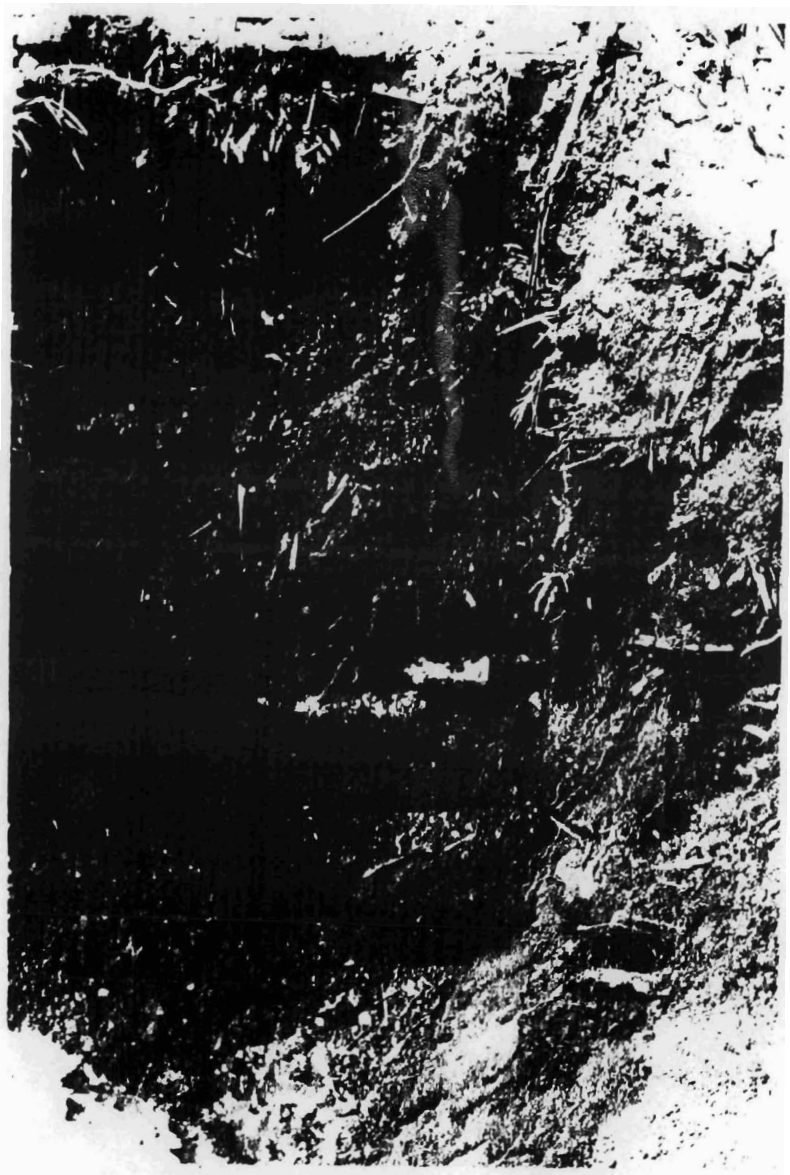


Pit, with wet bottom

Location Z-3



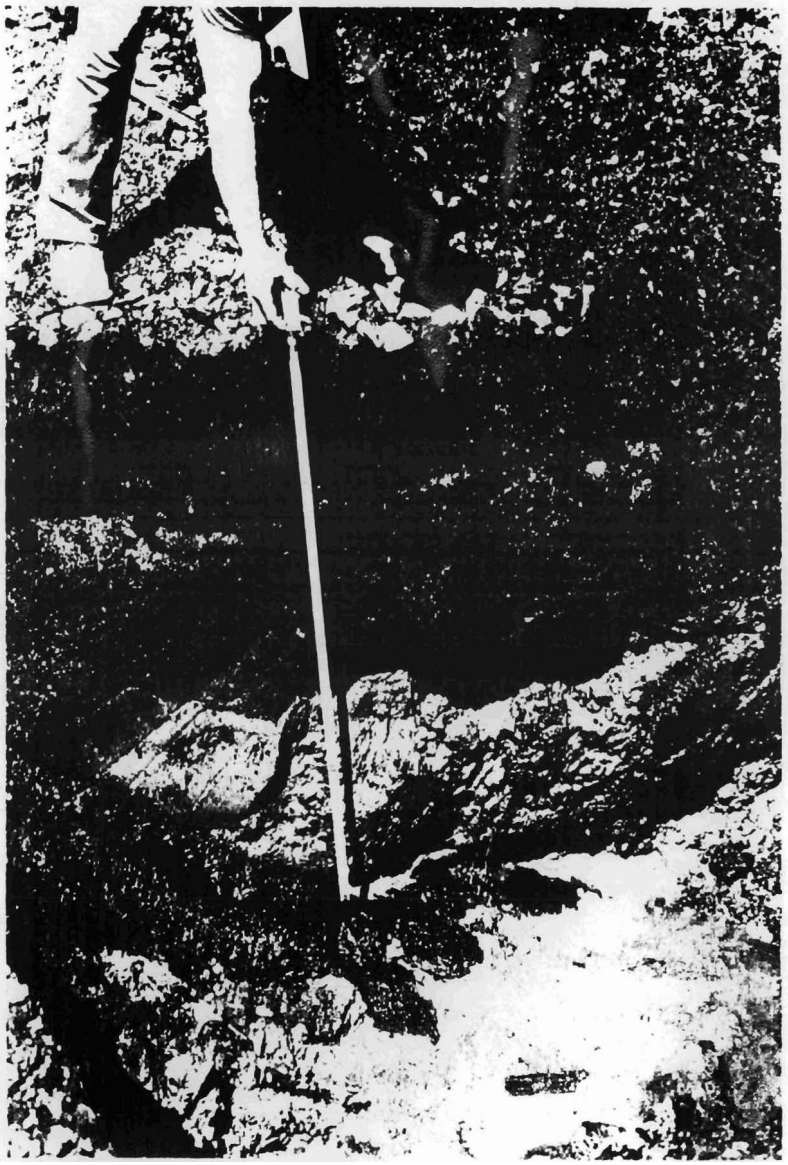
surface



↑ wet bottom

(This is the David Yarrow Area)

Location Z 4

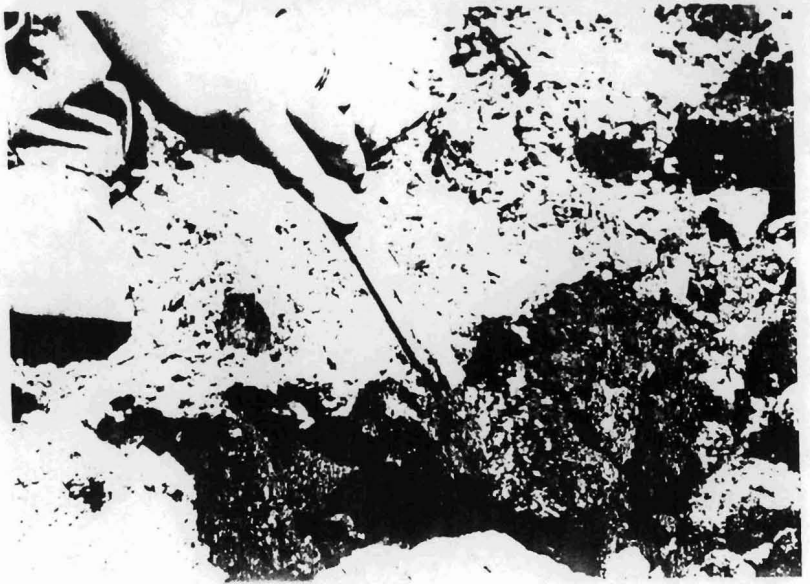


Water inflow

(This is in the former rail yard)

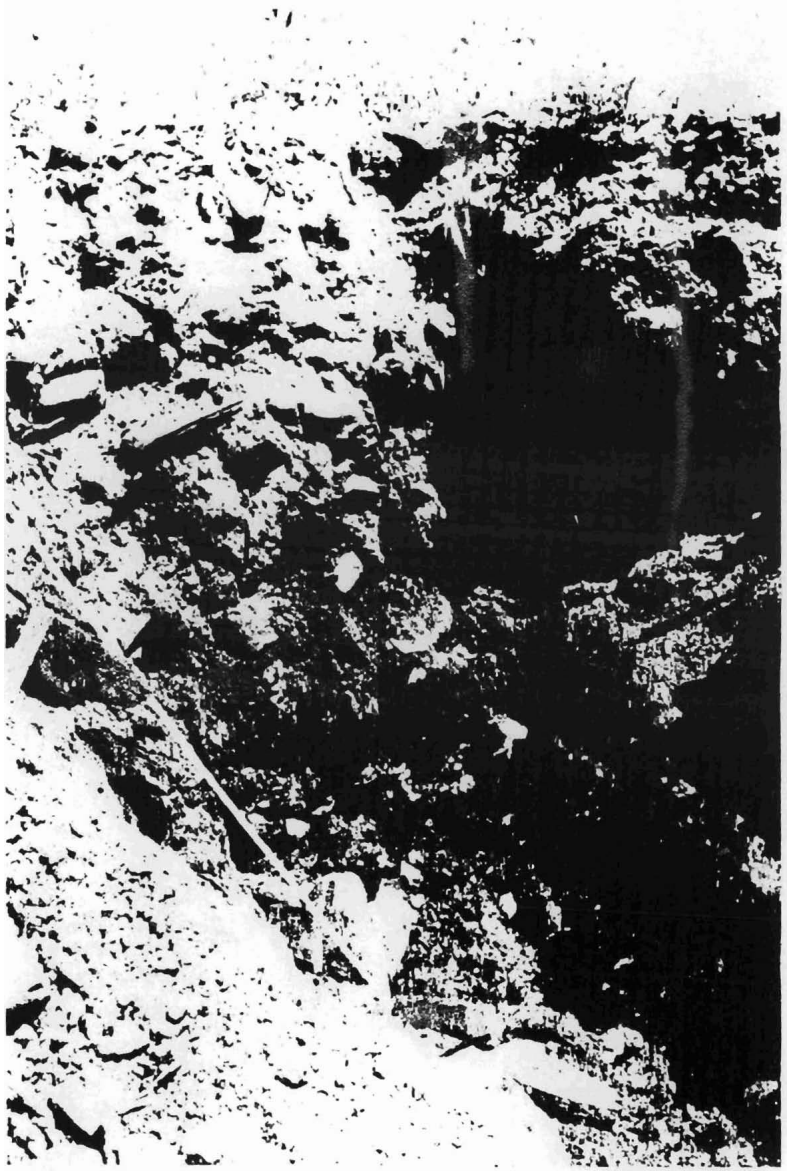
Location Z-5

Bottle of "Gum Turps" in the land fill



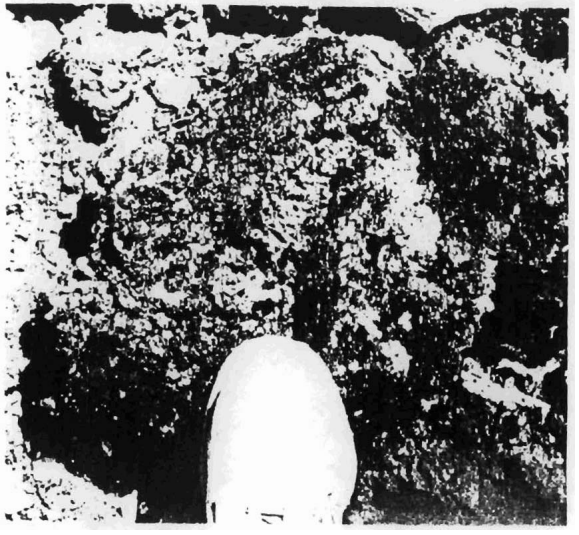
outcrop of "GOOP" (Tape is 4ft. long)

Location Z-5



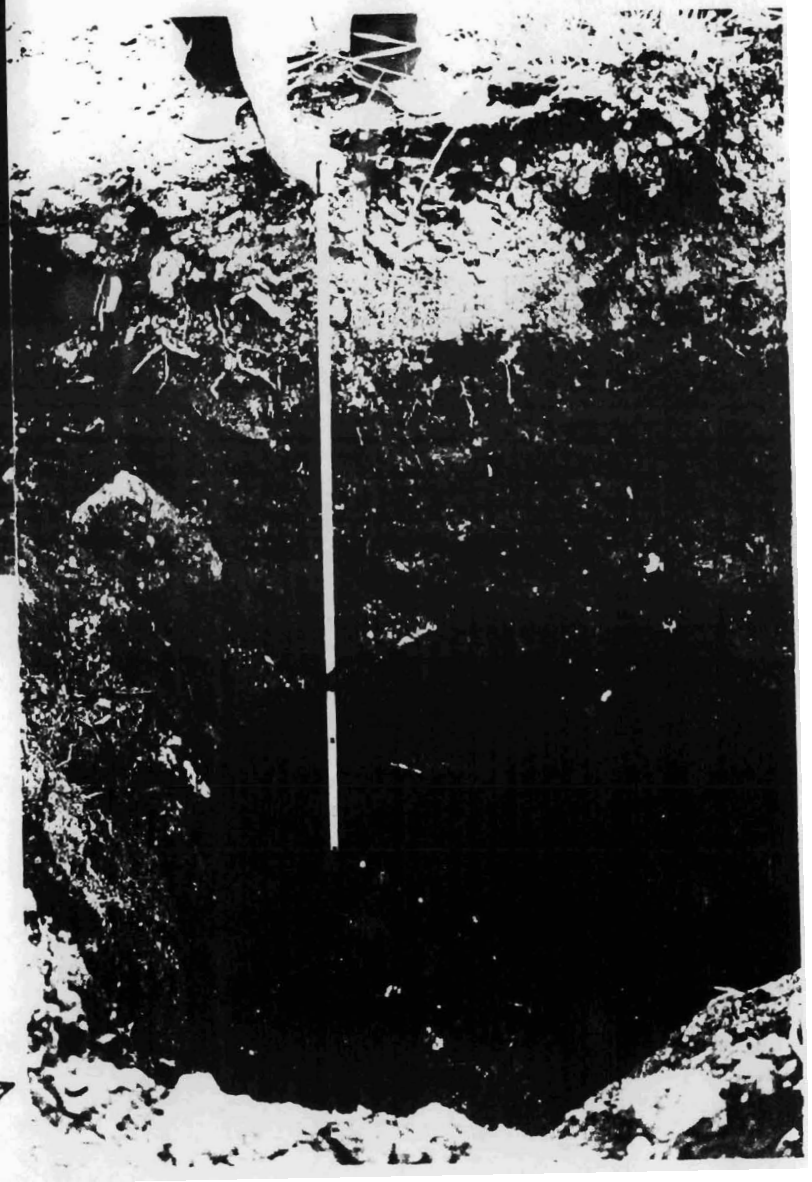
Test pit cut into "out crop"

Greenish "Goop" from pit



Visitor Greg Faucher observes the works, as Tom and Ed split a sample.

Locations Z6 and Z7



Z-7 Pit →

0.10 **APPENDIX B : SAMPLER'S FIELD NOTES**

Field Notes

Marley Property
Syracuse, N.Y.
Onondaga Co.

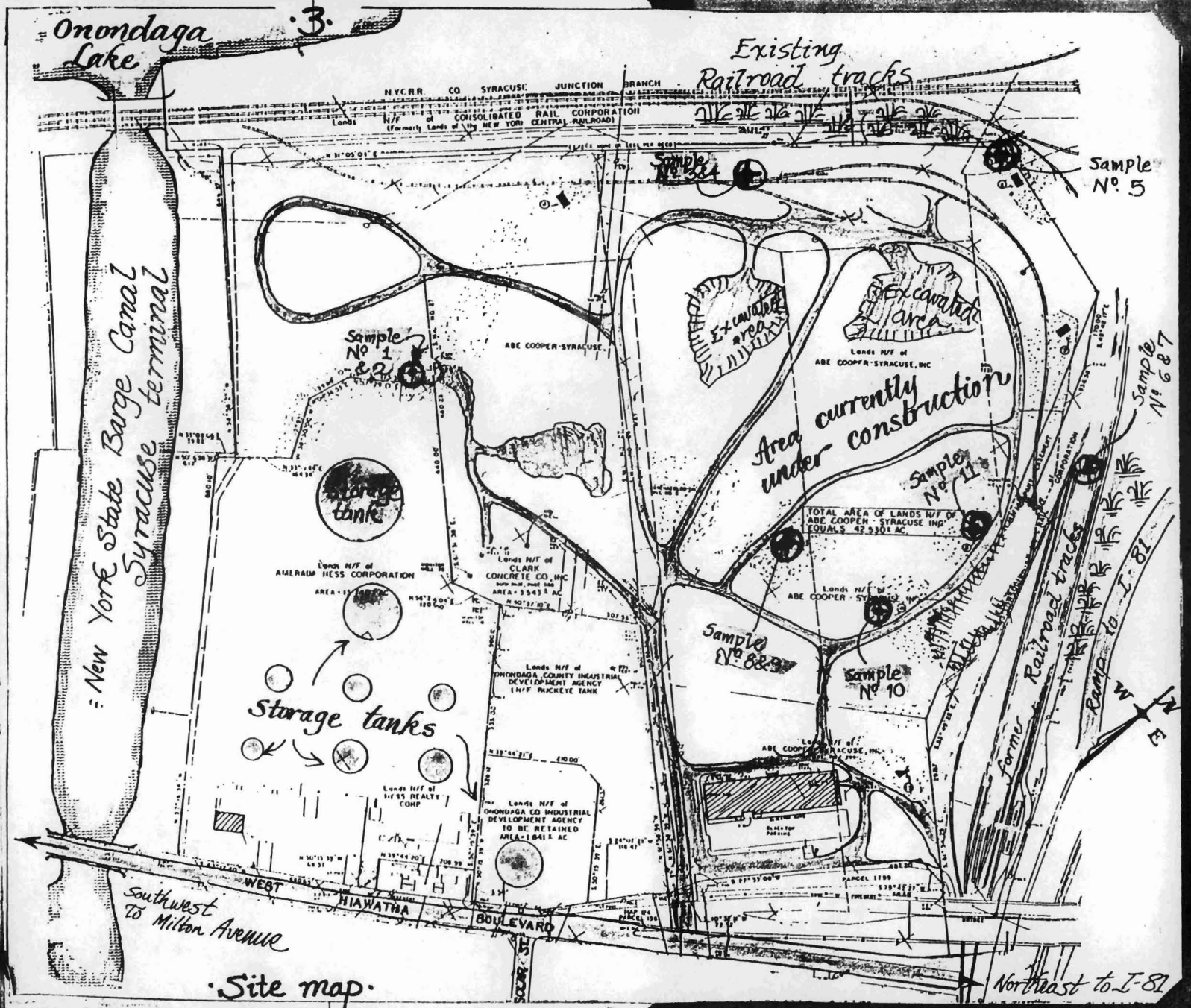
Marley Property
Hiawatha Blvd. (West)
Syracuse
Onondaga County

Note:
Not a site @ this time
(July 11, 1989)

Sampling is scheduled for Thursday, July 13th 1989. A total of 20 soil/sediment samples are scheduled to be taken here.
The samples are to be analysed for
- VOA's
- E.P. toxicity (metals)
- PCB's

Sampling analysis is to be done by Compuchem Lab in Research Triangle Park, N.C. I contacted Mike McFaddin on Monday, July 10th, '89 & placed an order for the bottles.
Bottles arrived on Wednesday July 12th — All were in good shape.


81
81


Onondaga Lake
Existing Railroad tracks
N.Y.C.R.R. CO. SYRACUSE JUNCTION BRANCH
Lands N/F of CONSOLIDATED RAIL CORPORATION (formerly Lands of the NEW YORK CENTRAL RAILROAD)
Sample No. 4
Sample No. 5
New York State Barge Canal Syracuse terminal
Excavated area
Excavated area
Sample No. 1 & 2
ABE COOPER-SYRACUSE, INC
Lands N/F of ABE COOPER-SYRACUSE, INC
Area currently under construction
Sample No. 6 & 7
Sample No. 11
storage tank
TOTAL AREA OF LANDS N/F OF ABE COOPER-SYRACUSE INC EQUALS 42.930± AC.
Lands N/F of AMERADA HESS CORPORATION
Lands N/F of CLARK CONCRETE CO., INC
Lands N/F of ABE COOPER-SYRACUSE, INC
Sample No. 8 & 9
Sample No. 10
Lands N/F of ONONDAGA COUNTY INDUSTRIAL DEVELOPMENT AGENCY I.N/F BUCKEYE TANK
Storage tanks
Lands N/F of HESS REALTY CORP
Lands N/F of ONONDAGA CO. INDUSTRIAL DEVELOPMENT AGENCY TO BE RETAINED AREA - 1.641± AC.
former Railroad tracks
Ramp to I-81
WEST HIAWATHA BOULEVARD
Southwest to Milton Avenue
Northeast to I-81
N
W
E

·Site map·

Arrived on site @ 7:05 AM. on July 13, 1989

Present for sampling:

- TM Koch
- Kernan Davis
- Dick Brazell
- Ed Fahrenkopf } Dunn Geoscience
- Tom Johnson }

Weather conditions @ time of arrival:

- Clear (a few clouds)
- Cool (low 60°s)
- Low Humidity

After arriving on the Marley property we talked w/ Ed Fahrenkopf & Tom Johnson about the sampling plans & areas where we anticipated taking the sediment samples.

Before getting into the site we were required to sign in @ the Security trailer near the front gate.

While discussing the plans we met up Jack McBirney of Dunn Geoscience office in New Jersey.

After this we walked around the entire perimeter of the property. There is currently a lot of ~~co~~ heavy earth moving equipment operating here. The site was pretty dusty as a result of the construction activity There were NO heavy chemical odors on the property that could sense however.

After walking about the site perimeter I went back to the truck & labelled all of the bottles. Kernan Davis & Ed Fahrenkopf staked out the locations where samples are intended to be taken. All of these locations

were marked off on the large plot plan map. We anticipate taking 2 samples @ each location, one on the surface & 1 about 5 ft. down. The deep sample will be taken from a pit dug out by a backhoe.

Before proceeding out to the sampling locations I checked to make sure that the HNu was working alright by checking it w/ fumes from the gas tank. It was okay.

Samples N° 1 & 2
RHA 789-001-[01&02]

01- Taken @ the surface. Sample was taken by Jill Koch w/ a clean decontaced stainless steel trowel supplied by Ed Fahrenkopf. Time of sampling was approx. 10:05 AM. HNu readings were right @ zero. There was no odor here @ all

Soil is dry & gravelly here. Scraped the top ½ inch of soil off w/ the shovel & took the sample w/ the trowel. Note: Samples were also split w/ Dunn GeoScience. Their samples are to be analysed by Recra Labs for the same parameters. Sample was finished here @ 10:15 AM. The soil was very hard to dig into.

02- Taken approx 5 ft. below the surface. Backhoe operator finished digging here @ 10:35 AM ± He took out 1 additional shovel full @ the 5 ft. level & from which we took the samples. Samples collected by Ed Farenkopf & me @ about 10:40 AM. HNu reading taken @ about 2 ft. down in the pit - Reading was zero. Slight odor noted here though - reminiscent of tarry odor. Samples taken @ 10:40 - 10:45 AM. Soil was sandy / gravelly & slightly moist Some traces of glass fragments & wire in the soil.

Samples N° 3&4
RH 789-001-[03-04]

03- Taken about 3½ ft below the surface. Note: a surface sample was NOT taken @ this location.

The area of Samples 3&4 is where an old land fill was located. When the backhoe operator was digging the pit he pulled up a lot of old rotted refuse such as tires, wood, glass, wire etc. The soil was dark grey in color. The operator hit groundwater @ about 6 ft down. Note: During the time the operator was here it began to rain lightly.

HNu reading taken in the pit- Slight needle deflection up to about 1. A slight oily odor noted here.

Samples taken by Ed Farenkopf @ 11 starting @ 11:20 AM

Samples completed @ 11:30 AM The soil was very gravelly & charcoal grey in color w/ a notable "old oil" smell.

04- Sample taken about 5 ft. down. As in Sample #3, the backhoe operator brought up a bucket load of soil from w/in the pit. As w/ Sample #3 there was a notable oily smell to the soil. HNu reading taken here was just barely above zero. VOA samples taken by TM Koch PCB & EP tox. samples taken by Ed Farenkopf. Time of sampling was about 11:40 - 11:45 AM. Soil was dark grey & gravelly

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Samples N° 5
RH-789-001-[05]

05- Taken after lunch break. Lunch was from 12 noon to about 12:30

next page →

Sample N° 5:

Taken from a pit dug near the railroad tracks & adjacent to a stand of cat tails. Sample taken down approx 5 ft. just above the water table. Soil was gravelly - charcoal gray in color. Slight swampy/oily odor. HNu reading - Zero. Samples taken by TM Koch & Ed Fairbanks from between 1 & 1:10 P.M. - VOA's taken first followed by PCB's & EP Tox. A bucketload of soil from the pit was brought up by the operator for the sampling.

Note: Only 1 sample was taken @ this location.

Sample N°: 6 & 7
RH 789-001-[06-07]

Taken in an area near the exit Ramp for I-81. This area is near where there were old

railroad tracks. Soil here was very gravelly.

06 - Taken about 2½ ft. below the surface. Dug out from the pit dug by the backhoe operator. The soil here was very wet & dark greyish brown in color. A slight swampy/oily odor but no HNu reading. Samples taken by me & Ed @ about 1:35 P.M.

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07 - Taken about 1" below the surface. Adjacent to the pit. Soil was moist gravel, no notable odor & HNu reading of zero.

Sample N° 8 & 9
RH 789-001-[08-09]

08 - Surface sample taken in an area that looked to be undisturbed. There was vegetation growing here. The soil here was

very dry & light tan in color. Sample taken by Ed & me @ 2:20 P.M. - No odors to the soil here.

09- Taken from the pit. The backhoe operator uncovered some very strong smelling waste that was blackish colored. It smelled somewhat like strong solvents mixed w/ municipal waste. HNu reading here was about 3.5 (@ the 0-20 scale)

Sampling was done @ Level C protection. Sampling is done by TM Koch & Ed Frankoff. Sampling completed @ 2:45 P.M

Sample No: 10
RH-789-001-10

This sample was taken from a test pit about half-way from the previous pit to a large

pile of what appeared to be cover material. Only one sample was taken here. Herman had the operator dig the first part of the pit down about 5½ ft, then followed w/ a second pit right next to it that was about 2 ft deep. The sample was taken @ the 2 ft level.

Soil in this pit was dry - gritty looking material that looked like ground up cinders. There was very little odor here & HNu readings did not go above zero.

Sample taken by Ed & me @ about 3:10 P.M.

Sample No 11
RH-789-001-11

Samples taken from a pit about 25 ft. north of ~~pit No 10~~ Sample No 10 location.

10- The backhoe operator uncovered a lot of half rotted old

wood & wire mesh in the digging. The old waste was black. A slight "rotten refuse oder noted in this area. Closer inspection revealed old bottles & other classic refuse.

At close proximity there was a little more oder noted. HNu reading @ 0-20 went up to 2 - but this ~~was probably~~ may have been due to all the vehicles & equipment operating nearby.

Sampling done by Ed & me from 3:30 - 3:40 P.M. Material was black & wet. Looked like old burned wood mixed w/ grit.

[Sample No. 12]

Sample No. 12 was NOT taken because the backhoe operator quit for the day @ 4 P.M.

Added note: All 11 samples were taken w/ deconned trowels supplied by Dunn-Geoscience.

After completion of the sampling we packed up the bottles & discussed the ~~Tuesday~~ sampling details w/ the Dunn Geoscience crew. We left the property @ about 4:45 P.M.

From the Marley property we drove directly to the Federal Express Office on Taft Road in North Syracuse. After arrival there, we completed all of the paperwork; chain of custody, sample submittal forms & Fed X submittals.

All 7 sample boxes including the unused bottles were sent out @ 5:45 P.M. C.S.S. forms were NOT used however.

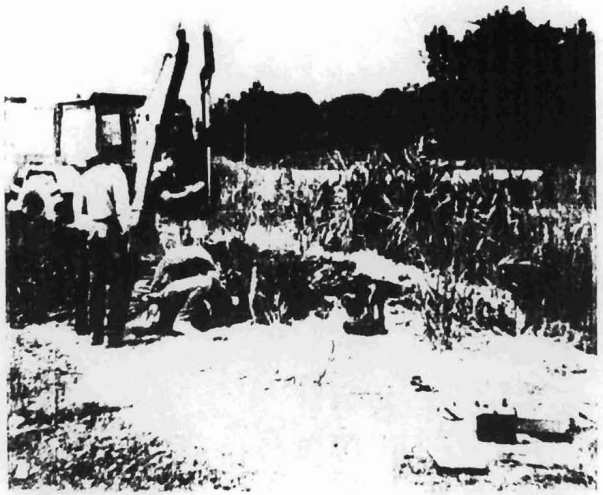
I contacted Mike McFadden @ Compuchem on Friday, July 14th, 1989. He informed me that all of the bottles arrived okay - no breakage & all of the paperwork was correct.

Photos on following pages...

Sample No. 01

Sample taken on an undisturbed portion of land near the Clark property boundary & not far from the Hess Oil Co. Storage tanks.

Sampling Points Nos 3 & 4



Sample Point No. 5

Sampling point was between a swampy area near a stand of cattails & swamp grass & the railroad tracks. Water table was about 5 ft. below the surface @ this location.

Sampling Points No. 6 & 7

This sampling point is in an area where the New York Central-Penn Central tracks were once located. It is near the I-81 ramp.

Sampling Point N° 9

Sampling Point N° 9 was taken from a point about 2 ft. below the surface. Very pungent solvent/refuse odor. HNu reading @ 3.5 + (0-20 scale)

Sampling Point N° 10

End of Photo section...

End of field notes for the Marley property...