Form ADM-015
11/82

State of New Jersey
Department of Environmental Protection

REFERRAL FORM

Date 10/9/85

TO	FROM
ALIDA KARAS	KEVIN PSARIANOS
USEPA REGION II	NJDEP/HSMA
NJ INVESTIGATION & COMPLIANCE	TELEPHONE EXT.
26 FEDERAL PLAZA	609-984-3074
NEW YORK, NY 10278	

For Your ☐ ACTION ☐ APPROVAL ☒ INFORMATION ☐ REVIEW
☐ COMMENTS ☐ SIGNATURE ☒ FILE ☐ _____

RE: BLUE SPRUCE, NMF -

ADM. ORDER, MEETING NOTES

08 OCT 1985

ALIDA, FOR YOUR [illegible]:

1) ADMINISTRATIVE ORDER AGAINST NATIONAL METAL FINISHING.

2) MEETING NOTES (AUGUST 30, 1985)

700024

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
CN 029
TRENTON, NEW JERSEY 08625

JOHN W. GASTON JR., P.E.
DIRECTOR

DIRK C. HOFMAN, P.E.
DEPUTY DIRECTOR

0 9 OCT 1985

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

AUG 7 1985

Mr. Joseph F. Conrad
100 West Main Street
Box 265
Bound Brook, New Jersey 08805

Mr. Richard Schleck
Brook Industrial Park
100 West Main Street
Bound Brook, New Jersey 08805

Mrs. Mary Frascella
16 Church Street
Bound Brook, New Jersey 08805

Re: Administrative Order and
Notice of Civil Administrative Penalty Assessment
National Metal Finishing Corporation
Brook Industrial Park, Somerset County

Gentlemen:

There is enclosed for service upon you an Administrative Order and Notice of Civil Administrative Penalty Assessment, issued by this Department pursuant to the provisions of N.J.S.A. 58:10A-10(b) and N.J.S.A. 58:10A-10(d).

Please be advised that each of you are jointly and severably responsible for the submission and other requirements of this Administrative Order. However, each of you may cooperate and submit a combined response, at your discretion.

700025

If you have any questions concerning this Order, contact Mr. Joseph M. Mikulka, Chief of the Bureau of Regional Enforcement, 1259 Route 46 - Building 2, Parsippany-Troy Hills, New Jersey 07054 or by telephoning (201) 299-7592.

Very truly yours,

John W. Gaston, Jr., P.E.
Director

cc: Dr. Ronald Cohen, Middlebrook
Regional Health Commission
George Schlosser, Office of Regulatory Services
Ken Siet, Bureau of Ground Water Discharge Permits
Joel Golumbek, USEPA, Region II

700026

State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES
CN 029
TRENTON, NEW JERSEY 08625

JOHN W. GASTON JR., P.E.
DIRECTOR

DIRK C. HOFMAN, P.E.
DEPUTY DIRECTOR

IN THE MATTER OF

NATIONAL METAL

FINISHING CORPORATION

AND BROOK INDUSTRIAL PARK

****
* ADMINISTRATIVE ORDER *
* AND NOTICE OF *
* CIVIL ADMINISTRATIVE *
* PENALTY ASSESSMENT *
****

The following FINDINGS are made and ORDER and NOTICE is issued pursuant to the authority vested in the Commissioner of the New Jersey Department of Environmental Protection (NJDEP) by N.J.S.A. 13:1D-1 et seq., the New Jersey Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq., and the Solid Waste Management Act, N.J.S.A. 13:1E-1 et seq., and duly delegated to the Director of the Division of Water Resources pursuant to N.J.S.A. 13:1B-4.

FINDINGS

1. Brook Industrial Park, a partnership between Mr. Richard C. Schleck and Mr. S. James Frascella, (who died intestate on July 26, 1980), owns the Brook Industrial Park facility, located 100 West Main Street, Bound Brook, (Block 1, Lot 34 of the Borough of Bound Brook Tax Map), Somerset County, State of New Jersey (hereinafter "the facility"). Mrs. Mary Frascella, wife of the deceased, Mr. S. James Frascella, is presently the Administratix of Mr. Frascella's estate.

2. National Metal Finishings Corporation, a New Jersey corporation, is a tenant at the facility identified in paragraph 1.

3. On May 14, 1981, a representative of NJDEP inspected the premises of National Metal Finishings Corporation. The results of the inspection are summarized below:

   a. Inside National Metal Finishings Corporation main operations building a representative of NJDEP observed two pits which were approximately 10 feet long, five feet wide, and ten feet deep. Although the pits appeared to be made of cinder blocks, Mr. Joseph Conrad, President of National Metal Finishings

700027

Corporation, did not know the construction details of the pits.

b. A chrome plating unit described in paragraph 3a above was situated within one of the pits (Pit #1). A metal screen covered the remaining area of the pit. A chrome plating unit rested upon a metal screen which entirely covered the second pit (Pit #2). Pit #1 contained approximately 5 1/2 feet of a viscous brown sludge which floated upon a oily yellow brown liquid.

c. Mr. Conrad indicated that the liquid in Pit #1 consisted of the wastes generated from metal grinding, polishing and cleaning operations. He also indicated that these waste liquids are not hauled off-site with waste manifests, but are simply discharged into the pit and that this method of waste disposal had been used for approximately ten (10) years.

d. National Metal Finishings Corporation did not possess a valid New Jersey Pollutant Discharge Elimination System (NJPDES) permit for this discharge into the pit as required by the Regulations Concerning the New Jersey Pollution Discharge Elimination System, N.J.A.C. 7:14A-1.1 et seq. In addition National Metal Finishings Corporation did not notify the United States Environmental Protection Agency of this discharge, as required by Section 3010 of the Federal Resource Conservation and Recovery Act, (42 U.S.C. 3251 et seq.)

4. On September 4, 1981 and December 15, 1981, a representative of NJDEP determines that Pit #1 contained approximately 5.5 feet of an oily brown liquid. A brown sludge floated upon the oily liquid. Reinspections on January 5, 1982 and April 15, 1982 revealed that the pit contained approximately 7 feet of liquid and 4.7 feet of liquid respectively. Mr. Conrad indicated on January 5, 1982 that none of the liquid in the pit had ever been disposed of at an off-site location and he could not explain the reason for the fluctuations of the liquid's depth in the pit.

5. On September 4, 1981, December 15, 1981, January 5, 1982, April 15, 1982 and May 11, 1982, representatives of NJDEP collected samples from the liquid within Pit #1. The analytical results indicated the presence of toluene, xylene, total chromium, nickel, and lead (see Appendix A). The NJDEP classified the liquid in the pit as a hazardous waste, due to the concentration of chromium, pursuant to N.J.A.C. 7:26-8.12.

6. On July 12, 1982, representatives of NJDEP, the New Jersey Department of Law and Public Safety (hereinafter NJDLPS), and National Metal Finishings Corporation, met and discussed the remedial actions the NJDEP required of National Metal

Finishings Corporation due to the non-permitted discharge into the pit. The NJDEP informed National Metal Finishings Corporation that in addition to the cessation of the discharge, the company must remove all contaminated liquid and materials from the pit and investigate, via a ground water monitoring program, the impact of the discharge into the pit upon the ground water. At the meeting, National Metal Finishings Corporation agreed to cease the discharge into the pit and to remove all contaminated liquid from the pit. However, National Metal Finishings Corporation expressed a reluctance to implement any ground water monitoring program.

7. On November 24, 1982, NJDLPS issued a letter to the legal representative of Brook Industrial Park and to Ms. Nan Famular, Esquire, legal representative of National Metal Finishings Corporation. The letter stated that the results of samples collected from the Industrial Park indicated that the National Metal Finishings Corporation had violated the New Jersey Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq., and the Spill Compensation and Control Act, N.J.S.A. 58:10A-23.11 et seq., and other applicable environmental laws. The letter also stated that National Metal Finishings Corporation is required to cease further discharges and to take appropriate remedial actions. The remedial measures included a study, by a qualified hydrogeologist, of the impact and extent of ground water pollution at the Industrial Park and recommendations for remedial measures designed to decontaminate, eliminate, and/or control ground water pollution.

8. On April 19, 1983, NJDLPS sent Ms. Nan Famular, a letter confirming the topics discussed during a meeting held on April 6, 1983 between representatives of NJDLPS, NJDEP and National Metal Finishings Corporation. The letter stated that NJDEP requested National Metal Finishings Corporation to evaluate the horizontal and vertical extent of ground water contamination and to recommend appropriate remedial action. If the recommended remedial action was appropriate, NJDEP would seek implementation of same. The letter also stated that at the meeting a representative of National Metal Finishings Corporation agreed to send NJDEP an outline of the Company's position on this matter. Included with the outline would be a list of chemicals used during its operation, a remedial action plan and a proposal for setting forth other actions which National Metal Finishings Corporation intended to take.

9. On January 9, 1984, in response to a verbal inquiry by a representative of NJDEP, Mr. Conrad stated that National Metal Finishings Corporation had not ceased the non-permitted discharge into Pit #1.

10. On March 20, 1984, the NJDEP sent Mr. Conrad a letter directing National Metal Finishings Corporation to cease the

illegal disposal of wastewater into the waste disposal pit, remove all wastes dumped into the pit to an off-site location approved by NJDEP, and to submit to NJDEP a completed New Jersey Pollutation Discharge Elimination System (NJPDES) permit application.

11. On May 1, 1984, NJDEP received a letter from National Metal Finishings Corporation's consultant stating that the following problems continue to delay compliance with the NJDEP's directive of March 20, 1984.

    a. Although National Metal Finishings Corporation requested permission to connect its discharge to the Middlesex County Utilities Authority sewer system two years ago, the Authority has not yet granted permission for the connection.

    b. The pit used for the disposal of wastewater is not waterproof and the water in the pit rises as the ground water table rises. Therefore, the letter claimed that to pump the pit dry would be difficult if not impossible.

    c. The letter indicated that National Metal Finishings Corporation would forward a completed NJPDES permit application to NJDEP.

12. On June 27, 1984, NJDEP sent a letter to National Metal Finishings Corporation which responded to the letter described in paragraph 11 above. This letter stated, among other items, that NJDEP was willing to grant a reasonable time extension for connecting to the sewer provided that National Metal Finishings Corporation provided certain documentation and a specific date for the connection.

13. On August 9, 1984, NJDEP sent National Metal Finishings Corporation a letter requiring the following:

    a. Elimination of the discharge into the pit.

    b. Removal of the contamination from the pit.

    c. Implementation of a hydrogeological study; and

    d. Submittal of a NJPDES permit for the proper closure of the pit.

14. On October 5, 1984, a representative of NJDEP verbally requested from Mr. Conrad the status of National Metal Finishings Corporation's compliance with NJDEP's letter of August 9, 1984. Mr. Conrad indicated that the discharge into the pit had been eliminated by diverting the discharge from the pit into drums. However, Mr. Conrad also indicated that the company was uncertain as to the other requirements of

the August 9, 1984 letter (such a removal of contamination from the pit, implementation of a hydrogeologic study, and the submittal of a NJPDES permit for the proper closure of the pit), and requested additional clarification from NJDEP.

15. On October 31, 1984, NJDEP sent National Metal Finishings Corporation a letter clarifying the required remedial actions, as requested. The letter directed National Metal Finishings Corporation, among other items, to (1) submit a NJPDES permit for the proper closure of the pit and to (2) submit a proposal for a hydrogeologic study with implementation dates, to NJDEP for approval.

16. In a letter dated November 13, 1984, Mr. Conrad, responded to NJDEP's letter of October 31, 1984. The response was unsatisfactory to NJDEP because National Metal Finishings Corporation submitted neither the required application to obtain an NJPDES permit nor the required proposal for a hydrogeologic study.

17. The discharging of pollutants into the ground waters of the State, or onto land from which they might flow or drain into the ground waters of the State in a manner not in conformity with a valid NJPDES permit, is a violation of the New Jersey Water Pollution Control Act, N.J.S.A. 58:10A-1 et seq., specifically, N.J.S.A. 58:10A-6, and the Regulations concerning the New Jersey Pollutant Discharge Elimination System, N.J.A.C. 7:14A-1.1 et seq., specifically, N.J.A.C. 7:14A-1.2(c). Furthermore, the operation of an existing hazardous waste facility without notifying, by August 18, 1980, the United States Environmental Protection Agency as required by Section 3010 of the Federal Resource Conservation and Recovery Act (42 U.S.C. 3251 et seq.) and without filing a Part A application for the facility in accordance with 40 CFR 122.22(a) and (c) is a violation of N.J.S.A. 13:1E-1 et seq., specifically, N.J.S.A. 13:1E-5 and N.J.A.C. 7:26-12.3.

ORDER

NOW THEREFORE IT IS HEREBY ORDERED THAT NATIONAL METAL FINISHINGS CORPORATION AND BROOK INDUSTRIAL PARK SHALL:

18. Within ten (10) days of receipt of this Order, provide information to NJDEP concerning the current method of disposal of waste formerly discharged into the pit, as well as documentation that the disposal satisfies all applicable State and Federal regulations.

19. Within thirty (30) days of receipt of this Order submit the following:

(a) A completed New Jersey Pollutant Discharge Elimination System (NJPDES) permit application pursuant to N.J.A.C. 7:14A-1 et seq. This permit application shall include a closure plan for the waste disposal pits prepared in accordance with the requirements of N.J.A.C. 7:14A-1 et seq., specifically, subchapter 4 and N.J.A.C. 7:26-1 et seq., specifically, subchapter 12.3 and 11.3

(b) A Part A application pursuant to N.J.A.C. 7:26-12.

Submit the applications to:

Office of Permits Administration
Water Quality Management Element
Division of Water Resources
CN-029
Trenton, New Jersey 08625

and

John Trela, Chief
Bureau of Ground Water Discharge Permits
Division of Water Resources
CN-029
Trenton, New Jersey 08625

20. Within thirty (30) days of receipt of this Order, submit to NJDEP for its review and approval, a detailed work plan, including an implementation schedule and cost estimate, to conduct a hydrogeologic investigation at and in the vicinity of the facility, and to develop a remedial action plan. The work plan shall be based upon the Scope of Work set forth in Appendix B, which is attached hereto and incorporated herein by reference. The work plan shall be prepared for National Metal Finishings Corporation and Brook Industrial Park and shall be implemented by a qualified consultant acceptable to NJDEP. Within fifteen (15) days of receipt of NJDEP's comments on the work plan, modify the plan as necessary to conform with NJDEP's comments and submit the modified work plan to NJDEP for its approval.

21. Within thirty (30) days from receipt of NJDEP's final approval of the work plan, implement the approved work plan in accordance with the approved implementation schedule. Within thirty (30) days of completion of the investigation, submit a report, pursuant to the approved work plan, detailing the results of the hydrogeologic investigation and proposing a remedial action plan to NJDEP for its review and approval.

22. Within fifteen (15) days of receipt of NJDEP's comments and recommendations of the report, (which includes the proposed remedial plan), modify the report as necessary to conform

with the comments and recommendations, and submit the modified report to NJDEP for its removal.

23. Within thirty (30) days of receipt of NJDEP's approval of the modified report required in paragraph 23, implement the approved remedial plan in accordance with the approved implementation schedule. Within thirty (30) days from completion of all work required by the approved remedial plan, submit to the NJDEP a Final Report. This Final Report shall summarize all remedial work conducted at the site and shall recommend any future remedial actions which may be necessary at the site.

24. Give NJDEP at least two weeks prior notice of any work conducted pursuant to this Order so that an NJDEP representative may be present during an on-site investigation or cleanup.

25. Provide NJDEP with monthly progress reports prepared by the qualified consultant, detailing the status of compliance with this Order, and shall include:

    (a) Identification of site and activity;

    (b) Status of work at the site and progress to date, including all data and field observations;

    (c) Percent of completion (e.g., percent of estimated total work hours expended);

    (d) Difficulties encountered during the reporting period;

    (e) Actions being taken to rectify problems;

    (f) Activities planned for the next month;

    (g) List target and actual completion dates for each element of activity;

    (h) Provide an explanation of any deviation from the approved work plan schedule.

NOTICE OF CIVIL ADMINISTRATIVE PENALTY ASSESSMENT

26. Based upon the above FINDINGS, NJDEP has determined that a Civil Administrative Penalty should be assessed against National Metal Finishings Corporation and Brook Industrial Park, pursuant to N.J.S.A. 58:10A-10(d) and N.J.A.C. 7:14-8.1 et seq.

27. Based upon a review of the criteria contained in N.J.A.C. 7:14-8.1 et seq., NJDEP has determined that the amount of

the penalty should be set at $5,000.00. Payment must be made to NJDEP at the following address:

Joseph M. Mikulka, Chief
Northern Bureau of Regional Enforcement
Division of Water Resources
1259 Route 46 - Building 2
Parsippany-Troy Hills, NJ 07054

28. Any submission of information required by this ORDER and NOTICE (except for paragraphs 19 and 27) shall be made to Joseph M. Mikulka at the same address in paragraph 27 and:

John Trela, Chief
Bureau of Ground Water Discharge Permits
Division of Water Resources
CN-029
Trenton, New Jersey 08625

29. NOTICE IS HEREBY GIVEN that pursuant to N.J.S.A. 52:14B-1 et seq. and N.J.S.A. 58:10A-10(b) and (d), National Metal Finishings Corporation and Brook Industrial Park is entitled to a hearing before NJDEP. Any hearing request must be delivered to the person and address listed in the preceding paragraph within twenty (20) calendar days from receipt of this ORDER and NOTICE. A hearing request does not stay the terms or effect of this ORDER.

30. NOTICE IS FURTHER GIVEN that pursuant to N.J.S.A. 52:14B-9(b) and N.J.A.C. 1:1-6.1(b), the applicant in its application for a hearing shall furnish NJDEP with the following:

(a) A statement of the legal authority and jurisdiction under which the hearing or action to be held is requested pursuant to N.J.A.C. 1:1-6.1(b)(1);

(b) A reference to the particular sections of the statutes and rules involved;

(c) A short and plain statement of the matters of fact and law asserted; and

(d) The Order provisions to which the applicant objects, the reasons for such objections, and any alternative provisions proposed by the applicant.

31. The provisions of this Administrative Order and Penalty Assessment shall be binding on National Metal Finishings Corporation and Brook Industrial Park, its principals, agents, employees, successors, assigns, tenants and any trustee in bankruptcy or receiver appointed pursuant to a proceeding in law or equity.

32. No obligations imposed by this ADMINISTRATIVE ORDER AND PENALTY ASSESSMENT (with the exception of paragraph 27), are intended to constitute a debt, damage claim, penalty or other civil action which should be limited or discharged in a bankruptcy proceeding. All obligations imposed by this ORDER shall constitute continuing regulatory obligations imposed pursuant to the police powers of the State of New Jersey, intended to protect the public health, safety and welfare.

33. NOTICE IS FURTHER GIVEN that if no request for a hearing is received within twenty (20) calendar days, this NOTICE shall become a final ORDER and the penalty would become due and payable.

34. NOTICE IS FURTHER GIVEN that pursuant to N.J.S.A. 58:10A-10(d), NJDEP is authorized to assess a Civil Administrative Penalty of $5,000 for each violation, and additional penalties of up to $500 for each day during which such violation continues after receipt of an Administrative Order from NJDEP.

35. NOTICE IS FURTHER GIVEN that pursuant to N.J.S.A. 58:10A-10(e), any person who violates this Administrative Order, (or who fails to pay an Administrative Penalty in full) shall be subject to civil penalties of up to $10,000 per day for each day of violation.

36. NOTICE IS FURTHER GIVEN that pursuant to N.J.S.A. 58:10A-10(f), any person who willfully or negligently violates N.J.S.A. 58:10A-1 et seq., shall, upon conviction, be guilty of a misdemeanor and shall be punished by fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than one (1) year or by both.

DATE _____

John W. Gaston Jr.

JOHN W. GASTON, JR., P.E.
DIRECTOR
DIVISION OF WATER RESOURCES

700035

A P P E N D I X A

700037

Furm VST-010

STATE OF NEW JERSEY
Department of Environmental Protection
Division of Water Resources

9 COC

PLEASE TYPE OR PRINT WITH BALLPOINT PEN

WATER ANALYSIS

BACT. LAB NO. _____
DATE REC'D. _____
BOTTLE NO. C29409
DATE REC'D. _____
STORET ENT. _____ READ _____

MUNICIPALITY: BOUND BROOK	COUNTY: SOMERSET	STREAM:
FACILITY: NATIONAL METAL FINISHES	LOCATION: WEST MAIN STREET	
REPRESE...ATIVE	TITLE	COLL NAME: K-GREGORY / CUNNINGHAM
REMARKS		

STATION IDENTIFICATION NUMBER — USGS: SC.

YR. MO. DAY: 810904 HOUR: 1930.

FIELD ANALYSIS

☐ Water Temp °C	P10.	
☐ D.O.-Winkler	P300.	
☐ D.O.-Probe	P299.	
☐ pH (Field)	P400.	
☐ Sample Depth-ft.	P3.	
☐ Gage Height-ft.	P65.	
☐ Spec. Cond. @ 25°C	P95.	
☐ ...linity °/00	P480.	
☐ ...de Stage	P70211.	

BACTERIOLOGICAL - DILUTIONS (REQUESTED)

Fecal Coliform / Total Coliform	10	1	-1 10	-2 10	-3 10	-4 10	-5 10	-6 10
Fecal Streptococci	10	1	-1 10	-2 10	-3 10	-4 10	-5 10	-6 10

Fecal coli /100 ml	☐ MPN P31615. ☐ MF P31613.	
☐ Fecal Strept MPN /100 ml	P31677.	
☐ Tot coli MPN /100 ml	P31505.	

BIOCHEMICAL OXYGEN DEMAND

INITIAL D.O. (lab.) _____ SAMPLE

SEED YES ☐ NO ☐

CONC.%			
BOD _			

☐ BOD ☐ 5-DAY P310. ☐ 6-DAY P312.

ANALYSIS	UNITS	PARAMETER	VALUE	RMKS.
☒ V.O. SCAN	ppb	P		
☐		P		
☐		P		
☐ Toluene		P	16600	
☐ p-xylene		P	7700	
☐ o-xylene		P	3800	
☐ m-xylene		P	10400	
☐ p-bromofluoro benzene		P	2400	
☐		P		
☐		P		
☐		P		
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☐		P		
☐		P		
☐		P		
☐		P		

DATE	TIME	CHAIN OF CUSTODY FROM (NAME)	TO (NAME)
			REPORT SUBMITTED
			NOV 6 1981
			NJDOH Environmental

700038

STATE OF NEW JERSEY
Department of Environmental Protection
Water Analysis

9 COC

PLEASE TYPE OR PRINT WITH BALLPOINT PEN

MUNICIPALITY BOUND BROOK	COUNTY SOMERSET	STREAM
FACILITY NATIONAL METAL FINISHES	LOCATION WEST MAIN STREET	
REPRESENTATIVE E	TITLE	COLL NAME GREGORY CUNNINGHAM
REMARKS		

BACT. LAB NO. _____
DATE REC'D. _____
SAMPLE NO. C29410
DATE REC'D. _____
STORET ENT. _____ READ _____

Station Identification Number: S C , _____ .
YR. MO. DAY: 810904
HOUR: 1430
Sample No.: P B , _____ .

FIELD ANALYSIS

- ☐ Water Temp °C P00010,
- ☐ D.O. - Winkler P00300,
- ☑ D.O. - Probe P00299,
- ☐ pH P00400,
- ☐ Sample Depth-ft. P00003,
- ☐ Stream Flow-CFS P00061,
- ☐ Gage Height-ft. P00065,
- ☐ Spec. Cond. Umhos/CM P00095,
- ☐ linity °/00 P00480,
- ☐ ide Stage P00067,
- ☐ Weather Conditions P00041,

BACTERIOLOGICAL – DILUTIONS (REQUESTED)

	10	1	-1 10	-2 10	-3 10	-4 10	-5 10	-6 10
Fecal Coliform / Total Coliform								
Fecal Streptococci								

- Fecal coli #100 ml ☐ MPN P31615, ☐ MF P31613,
- ☐ Fecal Strept MPN/100ml P31677,
- ☐ Tot coli MPN/100 ml P31505,

BIOCHEMICAL OXYGEN DEMAND

INITIAL D.O. (lab.) _____ SAMPLE
SEED YES ☐ NO ☐
CONC. %
BOD5
☐ BOD_5 P00310,

- ☐ COD ☐ Low Level P335, ☐ High Level P340,
- ☐ TOC P00680,

CONDITION CODES

- ☐ Flow Severity P01351,
- ☐ _____ Severity P013_ _,
- ☐ _____ Severity P013_ _,
- ☐ _____ Severity P013_ _,

- ☐ NO_2 - N P00615,
- ☐ $NO_2 + NO_3$ - N P00630,
- ☐ NH_3 - N P00610,
- ☐ Tot Kjeldhal N P00625,
- Ortho - PO_4 as P PO_4 ☐ P671, ☐ P660,
- Phosphorus-tot as P PO_4 ☐ P665, ☐ P650,

- ☐ Color Pt - Cou P00080,
- ☐ Turbidity P00070,
- ☐ Suspended Solids P00530,
- ☐ Suspended Solids fixed P00540,
- ☐ Tot. Solids P00500,
- ☐ Tot. Solids - fixed P00510,
- ☐ Tot. Dissolved Solids (TDS) P70300,

- ☐ Cyanide P00720,
- ☐ MBAS P38260,
- ☐ Phenols P32730,
- ☐ Petroleum Hydrocarbons P45501,
- ☐ Min. Acidity as $CaCO_3$ P00436,
- ☐ Alkalinity as $CaCO_3$ P00410,
- ☐ Hardness - tot as $CaCO_3$ P00900,
- ☐ Sulfate P00945,
- ☐ Chloride P00940,

- ☒ As - tot ug/l P01002,
- ☐ Cr - hex. ug/l P01032,
- ☒ Cr - tot ug/l P01034,
- ☒ Hg - tot ug/l P71900,
- ☒ Pb - tot ug/l P01051,
- ☒ Fe - tot ug/l P01045,
- ☐ Mn - tot ug/l P01055,
- ☒ Zn - tot ug/l P01092,
- ☒ Cu - tot ug/l P01042,
- ☒ Cd - tot ug/l P01027,
- ☒ Ni - tot ug/l P01067,

ADDITIONAL ANALYSIS

- ☒ Silver P pb
- ☒ TIN P pb
- ☒ Aluminum P pb
- ☐ _____ P _____

RESULTS mg/L unless otherwise noted

Date	Time	CHAIN OF CUSTODY From (Name)	To (Name)

REPORT SUBMITTED
NOV 6 1981
NJDOH Environmental Chemistry Laboratory

700039

16 COC

Form VST-001
8/79

STATE OF NEW JERSEY
Department of Environmental Protection
Water Analysis

PLEASE TYPE OR PRINT WITH BALLPOINT PEN

MUNICIPALITY Bound Brook	COUNTY SOMERSET	STREAM
FACILITY NATIONAL METAL FINISHES	LOCATION WEST MAIN STREET	
REPRESENTATIVE FE	TITLE	COLL NAME GREGORY
REMARKS SAme collected from pit		CUNNINGHAM 204

BACT. LAB NO	
DATE REC'D.	
BOTTLE NO.	C1151 3
DATE REC'D	
STORET ENT.	
STORET READ	

Station Identification Number	YR. MO. DAY	HOUR	Sample No.
SC.	811215	1145.	PB.

FIELD ANALYSIS

☐ Water Temp °C	P00010,	
☐ D.O. - Winkler	P00300,	
☐ D.O. - Probe	P00299,	
☐ pH (Field)	P00400,	
☐ Sample Depth-ft.	P00003,	
☐ Stream Flow-CFS	P00061,	
☐ Gage Height-ft.	P00065	
☐ Spec. Cond. @ 25°C.	P00095,	
☐ Salinity ‰	P00480,	
☐ Tide Stage	P70211,	

CONDITION CODES

☐ Weather Conditions	P00041,	
☐ Flow Severity	P01351,	
☐ ______ Severity	P013_ _,	
☐ ______ Severity	P013_ _,	

NUTRIENTS

LEVEL ☐ HIGH ☐ LOW

☐ NO_2 - N	P00615,	
☐ NO_2 + NO_3 - N	P00630,	
☐ NH_3 - N	P00610,	
☐ Tot Kjeldhal N	P00625,	
Ortho - PO_4 as P / PO_4	☐ P671, ☐ P660,	
Phosphorus-tot as P / PO_4	☐ P665, ☐ P650,	

BACTERIOLOGICAL — DILUTIONS (REQUESTED)

Fecal Coliform / Total Coliform	10	1	10^{-1}	10^{-2}	10^{-3}	10^{-4}	10^{-5} 10^{-6}
Fecal Streptococci	10	1	10^{-1}	10^{-2}	10^{-3}	10^{-4}	10^{-5} 10^{-6}

Fecal coli #100 ml ☐ MPN	P31615,	
☐ MF	P31613,	
☐ Fecal Strept MPN/100ml	P31677,	
☐ Tot coli MPN/100 ml	P31505,	

BIOCHEMICAL OXYGEN DEMAND

INITIAL D.O. (lab.) ________ SAMPLE

SEED YES [ ] NO [ ]

CONC. %

BOD ___

☐ BOD ☐ 5-DAY P310, ☐ 6-DAY P312,

COD ☐ Low Level P335, ☐ High Level P340,

☒ TOC P00680, 55.0

☐ Color Pt - Cou	P00080,	
☐ Turbidity	P00070,	
☐ Suspended Solids	P00530,	
☐ Suspended Solids fixed	P00540,	
☐ Tot. Solids	P00500,	
☐ Tot. Solids - fixed	P00510,	
☐ Tot. Dissolved Solids (TDS)	P70300,	

☒ pH (LAB)	P00400,	6.1
☐ Alkalinity as $CaCO_3$	P00410,	
☐ Min. Acidity as $CaCO_3$	P00436,	
☐ Chloride	P00940,	
☐ MBAS	P38260,	
☐ Phenols	P32730,	
☐ Hardness - tot as $CaCO_3$	P00900,	
☐ Sulfate	P00945,	
☐ Oil & Grease	P00556,	
☐ Petroleum Hydrocarbons	P45501,	
☐ Cyanide	P00720,	
☐ As - tot ug/l	P01002,	
☐ Cd - tot ug/l	P01027,	
☐ Cr - tot ug/l	P01034,	
☐ Cu - tot ug/l	P01042,	
☐ Fe - tot ug/l	P01045,	
☐ Hg - tot ug/l	P71900,	
☐ Mn - tot ug/l	P01055,	
☐ Ni - tot ug/l	P01067,	
☐ Pb - tot ug/l	P01051,	
☐ Zn - tot ug/l	P01092,	

ADDITIONAL ANALYSIS

☐ ______ P______,

☐ ______ P______,

☐ ______ P______,

RESULTS mg/L unless otherwise noted

CHAIN OF CUSTODY

Date	Time	From (Name)	To (Name)
			REPORT SUBMITTED
			JAN 4 1982

18-27

Stablex-Reutter Inc.

Ninth and Cooper Streets • P. O. Box 499
Camden, New Jersey 08101
Telephone: (609) 541-6700 TWX: 8?4477

January 22, 1982

NJDEP
Solid Waste Division
32 Hanover Street
Trenton, NJ 08625

Attention: Mr. Wayne Howitz, Hazardous Waste Bureau

Reference: Test Report No. SR6392

This report covers the analysis of two (2) liquid samples submitted to Stablex-Reutter, Inc. (S-R) on December 18, 1981. The samples were submitted for the following analyses:

- Organics
  - Volatile Aromatic Hydrocarbons
  - Volatile Halogenated Hydrocarbons
- Inorganics
  - Metals (EP Procedure)

This test report is organized in the following manner:

- Sample Preparation
- Analysis
- Analytical Results

I. Sample Preparation

Organic Preparatory Work

A known weight (1.00 grams + 0.05 grams) of homogenized sample is quantitatively transferred to a centrifuge tube and shaken vigorously with 10 ml of pesticide grade methanol for five minutes. The mixture is allowed to separate, and is then centrifuged to facilitate separation of the two phases. An aliquot of the methanol layer is then analyzed by Gas Chromatography for volatile halogenated organics and volatile aromatic compounds. Any required dilutions are done with pesticide grade methanol.

The samples were also analyzed by static headspace techniques, in which 1.00 + 0.05 grams of sample is transferred to a 60 ml vial, and the vial is crimped air tight with a rubber septum. The vials are heated to 60°C for 30 minutes before injecting 5cc of the headspace into the GC for analysis.

700040

Inorganic Analysis

The EP extraction procedure was not performed for reasons described in the analytical results section.

II. Analysis

Following preparation, the samples were analyzed as described in the following publication.

- Methods 601, 602 Federal Register, Vol. 44, No. 233, December 3, 1979. (Columns and GC conditions for aromatics and volatile halogenated organics).

- EPA Test Methods for Evaluating Solid Waste - Physical/ Chemical Methods - SW846-1980 (AAS conditions).

The volatile Halogenated Organics were analyzed on the Hall Electrolytic Conductivity Detector. The aromatics were analyzed using a Photoionization Detector.

III. Analytical Results

The parameters analyzed and results are delineated in the following tables. The interlaboratory variability of the parameters analyzed in the type of sample matrix submitted has not been established by EPA, and could be at least + 20%. S-R is currently evaluating the variability of all tests performed for NJDEP in different types of matrices.

Volatile Aromatic Hydrocarbon Screen

	Sample and Designation		
Constituent	SR6392-1 CE069	SR6392-2 CE070	SR6392-1 Dup. CE069 Dup.
Benzene	< 1	<1	< 1
Toluene	< 1	<1	< 1
Xylenes, total	< 1	<1	< 1
Ethylbenzene	< 1	<1	< 1

All results are in micrograms of constituent per gram of sample.

Dup. - Duplicate

700041

Volatile Halogenated Hydrocarbon Screen

Sample and Designation

Constituent	SR6392-1 CE069	SR6392-2 CE070	SR6392-1 Dup. CE069 Dup.	% Recovery of spike to sample run with these samples
Vinyl Chloride	<1	<1	<1	---
Methylene Chloride	<1	<1	<1	91
Chloroform	<1	<1	<1	111
Carbon Tetrachloride	<1	<1	<1	---
Dibromochloromethane	<1	<1	<1	116
Bromodichloromethane	<1	<1	<1	106
1,1,1 Trichloroethane	<1	<1	<1	113
1,1,2 Trichloroethane	<1	<1	<1	---
Trichloroethylene	<1	<1	<1	114
Tetrachloroethylene	<1	<1	<1	127
1,2 Dichloroethane	<1	<1	<1	95
1,1 Dichloroethylene	<1	<1	<1	---
1,1 Dichloroethane	<1	<1	<1	102
1,2-Dichloropropane	<1	<1	<1	97
2-Chloroethylvinyl Ether	<1	<1	<1	---
Bromoform	<1	<1	<1	120
1,1,2,2-Tetrachloroethane	<1	<1	<1	---
Chlorobenzene	<1	<1	<1	65

All results are in micrograms of constituent per gram of sample.

Dup. - Duplicate Analysis

EPA-EP Extraction

Metal Analysis

Constituent	Sample and Designation SR6392-1 CE069	SR6392-2 CE070	SR6392-1 Dup. CE069 Dup.	EP Toxicity Limit
Arsenic	< 0.002	0.029	< 0.002	5.0
Barium	< 0.1	< 0.1	< 0.1	100.0
Cadmium	< 0.1	< 0.1	< 0.1	1.0
Chromium, total	20	32	19	5.0
Lead	< 0.5	0.50	< 0.5	5.0
Mercury	0.029	< 0.02	0.033	0.2
Selenium	< 0.04	< 0.04	< 0.04	1.0
Silver	0.50	< 0.05	0.30	5.0
Nickel	< 0.5	< 0.5	< 0.5	---
Chromium, hexavalent	---	10	---	---

All results are in micrograms of constituent per gram of sample.

The EPA Extraction Procedure (EP) as it appears in the May 19, 1980 edition of the "Federal Register" does not clearly define the extraction of liquid samples that are not filterable under the conditions of this test, such as oil or liquid hydrocarbon matrices. The Hazardous Waste Management Division of the EPA in Washington, D.C. was consulted to determine how the EPA Extraction Procedure should be applied to this type of waste. Upon recommendation of the EPA, the sample, as received, was treated as the EP extract.

If you have any questions concerning the above analysis, please don't hesitate to contact me.

Respectfully submitted,

STABLEX-REUTTER, INC.

William J. Ziegler

William J. Ziegler
Laboratory Manager

WJZ/sl

700043

6

700044

Form VST-001
7/81

STATE OF NEW JERSEY
Department of Environmental Protection
Water Analysis

PLEASE TYPE OR PRINT WITH BALLPOINT PEN

MUNICIPALITY Bound Brook	COUNTY Somerset	STREAM
FACILITY National Metal Finishings	LOCATION Main Street	
REPRESENTATIVE	TITLE	COLL NAME Gregor
REMARKS Waste Disposal Pit		Cunningham DIV WA

BACT. LAB NO.	
DATE REC'D	
BOTTLE NO.	11514
DATE REC'D	
STOREST ENT	
READ	

Station Identification Number	YR. MO. DAY	HOUR	Sample No.
SC.	820105	1000.	(1) P8.

FIELD ANALYSIS

☐ Water Temp. °C.	(2) P00010	
☐ D.O. - Winkler	(3) P00300	
☐ D.O. - Probe	(4) P00299	
☐ pH (Field)	(5) P00400	
☐ Sample Depth-ft.	(6) P00003	
☐ Stream Flow-CFS	(7) P00061	
☐ Gage Height-ft.	(8) P00065	
☐ Spec. Cond. @25°C	(9) P00095	
☐ Salinity °/oo	(10) P00480	
☐ Tide Stage	(11) P70211	

CONDITION CODES

☐ Weather Conditions	(12) P00041	
☐ Flow Severity	(13) P01351	
☐ ______ Severity	(14) P013__	
☐ ______ Severity	(15) P013__	

NUTRIENTS

LEVEL ☐ HIGH ☐ LOW

☐ NO_2 - N	(16) P00615	
☐ $NO_2 + NO_3$ - N	(17) P00630	
☐ NH_3 - N	(18) P00610	
☐ Tot. Kjeldahl N	(19) P00625	
Ortho - PO_4 as P	☐ (20) P70507	
Ortho - PO_4 as PO_4	☐ (21) P00660	
Phosphorus - tot as P	☐ (22) P00665	
Phosphorus - tot as PO_4	☐ (23) P00650	

BACTERIOLOGICAL — DILUTIONS (REQUESTED)

Fecal Coliform / Total Coliform	10, 1, 10^{-1}, 10^{-2}, 10^{-3}, 10^{-4}, 10^{-5}, 10^{-6}
Fecal Streptococci	10, 1, 10^{-1}, 10^{-2}, 10^{-3}, 10^{-4}, 10^{-5}, 10^{-6}
Fecal coli #100 ml ☐ MPN (24) P31615 / ☐ MF (25) P31613	
☐ Fecal Strept MPN/100ml (26) P31677	
☐ Tot coli MPN/100 ml (27) P31505	

BIOCHEMICAL OXYGEN DEMAND

INITIAL D.O. (lab.) ______ SAMPLE

SEED YES ☐ NO ☐

CONC. %

BOD

☐ BOD 5-DAY (28) P310, 6-DAY (29) P312

☐ COD	(30) P340	
☐ TOC	(31) P00680	
☐ Color Pt - Cou	(32) P00080	
☐ Turbidity	(33) P00076	
☐ Suspended Solids	(34) P00530	
☐ Suspended Solids Ash	(35) P00540	
☐ Tot. Solids	(36) P00500	
☐ Tot. Solids - Ash	(37) P00510	
☐ Tot. Dissolved Solids (TDS)	(38) P70300	

☐ pH (LAB)	(39) P00403	
☐ Alkalinity as $CaCO_3$	(40) P00410	
☐ Min. Acidity as $CaCO_3$	(41) P00436	
☒ Chloride	(42) P00940	21
☐ MBAS	(43) P38260	
☐ Phenols	(44) P32730	
☐ Hardness - tot as $CaCO_3$	(45) P00900	
☒ Sulfate	(46) P00945	27
☐ Oil & Grease	(47) P00556	
☐ Petroleum Hydrocarbons	(48) P45501	
☐ Cyanide	(49) P00720	
☒ As - tot ug/l	(50) P01002	2K
☒ Cd - tot ug/l	(51) P01027	1
☒ Cr - tot ug/l	(52) P01034	4821
☐ Cu - tot ug/l	(53) P01042	
☐ Fe - tot ug/l	(54) P01045	
☒ Hg - tot ug/l	(55) P71900	.5K
☐ Mn - tot ug/l	(56) P01055	
☒ Ni - tot ug/l	(57) P01067	1605
☒ Pb - tot ug/l	(58) P01051	51
☐ Zn - tot ug/l	(59) P01092	

ADDITIONAL ANALYSIS

☒ Specific Conductance mhos/cm	P	203.25
☐	P	
☐	P	
☐	P	
☐	P	

Δ - Sample will exceed holding time for this parameter before test can be run

RESULTS mg/l unless otherwise noted

REPORT SUBMITTED

Chemist Review FEB 26 1982

Part 1 (White) - Water Quality Inventory Copy

Part 3 (Pink) - Laboratory Copy

NJDOH Environmental

700045

Form VST-010
8/79

PLEASE TYPE OR PRINT
WITH BALLPOINT PEN

STATE OF NEW JERSEY
Department of Environmental Protection
Division of Water Resources
WATER ANALYSIS

6

COC

BACT. LAB NO.	
DATE REC'D.	
BOTTLE NO.	11515
DATE REC'D.	
STORET ENT. / READ	

MUNICIPALITY BOUND BROOK	COUNTY SOMERSET	STREAM
FACILITY NATIONAL METAL FINISHINGS	LOCATION	
REPRESENTATIVE EE	TITLE	COLL NAME GREGORY CUNNINGHAM
REMARKS WASTE PIT		

STATION IDENTIFICATION NUMBER: S C .

YR. MO. DAY: 820105

HOUR: 1000

FIELD ANALYSIS

☐ Water Temp °C	P10	
☐ D.O.-Winkler	P300	
☐ D.O.-Probe	P299	
☐ pH (Field)	P400	
☐ Sample Depth-ft.	P3	
☐ Gage Height-ft.	P65	
☐ Spec. Cond. @ 25°C	P95	
☐ Salinity ‰	P480	
☐ Tide Stage	P70211	

BACTERIOLOGICAL - DILUTIONS (REQUESTED)

Fecal Coliform / Total Coliform	10	1	10^{-1}	10^{-2}	10^{-3}	10^{-4}	10^{-5}	10^{-6}
Fecal Streptococci	10	1	10^{-1}	10^{-2}	10^{-3}	10^{-4}	10^{-5}	10^{-6}

Fecal coli /100 ml ☐ MPN P31615, ☐ MF P31613,

☐ Fecal Strept MPN /100 ml P31677,

☐ Tot coli MPN /100 ml P31505,

BIOCHEMICAL OXYGEN DEMAND

INITIAL D.O. (lab.) ________ SAMPLE

SEED YES ☐ NO ☐

CONC. %

BOD

☐ BOD ☐ 5-DAY P310, ☐ 6-DAY P312,

ANALYSIS	UNITS	PARAMETER	VALUE	RMKS.
☒ PESTICIDES		P	None Detected	

CHAIN OF CUSTODY

DATE	TIME	FROM (NAME)

REPORT SUBMITTED
FEB 26 1982
NJDOH Environmental Laboratory

700046

CHAIN OF CUSTODY

Form VSF-001
7/81

STATE OF NEW JERSEY
Department of Environmental Protection
Water Analysis

PLEASE TYPE OR PRINT WITH BALLPOINT PEN

MUNICIPALITY: BOUND BROOK	COUNTY: SOMERSET	STREAM
FACILITY: NATIONAL METAL FINISHINGS	LOCATION: MAIN STREET	
REPRESENTATIVE	TITLE	COLL NAME: GREGORY 809
REMARKS: LIQUID FROM PIT INSIDE BUILDING		CUNNINGHAM

BACT. LAB NO.	
DATE REC'D.	
BOTTLE NO.	11543
DATE REC'D	
STORET ENT.	
STORET READ	

Station Identification Number	YR. MO. DAY	HOUR	Sample No.
S C .	820511	1015	(1) P B .

FIELD ANALYSIS

☐ Water Temp. °C.	(2) P00010	
☐ D.O. - Winkler	(3) P00300	
☐ D.O. - Probe	(4) P00299	
☐ pH (Field)	(5) P00400	
☐ Sample Depth-ft.	(6) P00003	
☐ Stream Flow-CFS	(7) P00061	
☐ Gage Height-ft.	(8) P00065	
☐ Spec. Cond. @ 25°C	(9) P00095	
☐ Salinity °/00	(10) P00480	
☐ Tide Stage	(11) P70211	

CONDITION CODES

☐ Weather Conditions	(12) P00041	
☐ Flow Severity	(13) P01351	
☐ ______ Severity	(14) P013__	
☐ ______ Severity	(15) P013__	

NUTRIENTS

LEVEL ☐ HIGH ☐ LOW

☐ NO_2 - N	(16) P00615	
☐ $NO_2 + NO_3$ - N	(17) P00630	
☐ NH_3 - N	(18) P00610	
☐ Tot. Kjeldahl N	(19) P00625	
Ortho-PO_4 as P ☐	(20) P70507	
Ortho-PO_4 as PO_4 ☐	(21) P00660	
Phosphorus-tot as P ☐	(22) P00665	
Phosphorus-tot as PO_4 ☐	(23) P00650	

BACTERIOLOGICAL — DILUTIONS (REQUESTED)

Fecal Coliform / Total Coliform: 10, 1, 10^{-1}, 10^{-2}, 10^{-3}, 10^{-4}, 10^{-5}, 10^{-6}

Fecal Streptococci: 10, 1, 10^{-1}, 10^{-2}, 10^{-3}, 10^{-4}, 10^{-5}, 10^{-6}

Fecal coli #100 ml ☐ MPN	(24) P31615	
Fecal coli #100 ml ☐ MF	(25) P31613	
☐ Fecal Strept MPN/100ml	(26) P31677	
☐ Tot coli MPN/100 ml	(27) P31505	

BIOCHEMICAL OXYGEN DEMAND

INITIAL D.O. (lab.) ________ SAMPLE

SEED YES [ ] NO [ ]

CONC. %

BOD __

☐ BOD 5-DAY (28) P310, 6-DAY (29) P312

☐ COD	(30) P340	
☐ TOC	(31) P00680	
☐ Color Pt - Co u	(32) P00080	
☐ Turbidity	(33) P00076	
☐ Suspended Solids	(34) P00530	
☐ Suspended Solids Ash	(35) P00540	
☐ Tot. Solids	(36) P00500	
☐ Tot. Solids - Ash	(37) P00510	
☒ Tot. Dissolved Solids (TDS)	(38) P70300	318

☐ pH (LAB)	(39) P00403	
☐ Alkalinity as $CaCO_3$	(40) P00410	
☐ Min. Acidity as $CaCO_3$	(41) P00436	
☐ Chloride	(42) P00940	
☐ MBAS	(43) P38260	
☐ Phenols	(44) P32730	
☐ Hardness - tot as $CaCO_3$	(45) P00900	
☐ Sulfate	(46) P00945	
☐ Oil & Grease	(47) P00556	
☐ Petroleum Hydrocarbons	(48) P45501	
☐ Cyanide	(49) P00720	
☒ As - tot ug/l	(50) P01002	5K
☒ Cd - tot ug/l	(51) P01027	1K
☒ Cr - tot ug/l	(52) P01034	20600
☐ Cu - tot ug/l	(53) P01042	
☐ Fe - tot ug/l	(54) P01045	
☐ Hg - tot ug/l	(55) P71900	
☐ Mn - tot ug/l	(56) P01055	
☒ Ni - tot ug/l	(57) P01067	22
☒ Pb - tot ug/l	(58) P01051	73
☐ Zn - tot ug/l	(59) P01092	

ADDITIONAL ANALYSIS

☒ Chromium hex	ppb	8026
☐	P	
☐	P	
☐	P	
☐	P	

RESULTS mg/l unless otherwise noted

REPORT SUBMITTED

Chemist Review ~~JUN 28 1982~~

Part 1 (White) - Water Quality Inventory Copy

Part 3 (Pink) - Laboratory Copy

NJDOH Environmental

700047

CHAIN OF CUSTODY

Form VCT-010
3/79

STATE OF NEW JERSEY
Department of Environmental Protection
Division of Water Resources
WATER ANALYSIS

PLEASE TYPE OR PRINT
WITH BALLPOINT PEN

MUNICIPALITY BOUND BROOK	COUNTY SOMERSET	STREAM
FACILITY NATIONAL METAL FINISHINGS	LOCATION MAIN STREET	
REPRESENTATIVE	TITLE	COLL NAME GREGORY 204
REMARKS LIQUID FROM PIT INSIDE CUNNINGHAM BUILDING		

BACT. LAB NO.
DATE REC'D.
BOTTLE NO. 11543
DATE REC'D. 6/28/82
STORET ENT.
READ

STATION IDENTIFICATION NUMBER: SC.
YR. MO. DAY: 820511
HOUR: 1015.

FIELD ANALYSIS

☐ Water Temp °C	P10,	
☐ D.O.-Winkler	P300,	
☐ D.O.-Probe	P299,	
☐ pH (Field)	P400,	
☐ Sample Depth-ft.	P3,	
☐ Gage Height-ft.	P65,	
☐ Spec. Cond. @ 25°C	P95,	
☐ Salinity °/00	P480,	
☐ Tide Stage	P70211,	

BACTERIOLOGICAL - DILUTIONS (REQCESTED)

Fecal Coliform / Total Coliform	10	1	-1 10	-2 10	-3 10	-4 10	-5 10	-6 10
Fecal Streptococci	10	1	-1 10	-2 10	-3 10	-4 10	-5 10	-6 10

Fecal coli /100 ml	☐ MPN	P31615,
	☐ MF	P31613,
☐ Fecal Strept MPN /100 ml		P31677,
☐ Tot coli MPN /100 ml		P31505,

BIOCHEMICAL OXYGEN DEMAND

INITIAL D.O. (lab.) _____ SAMPLE
SEED YES ☐ NO ☐
CONC. %
BOD _____

☐ BOD	☐ 5-DAY	P310,
	☐ 6-DAY	P312,

ANALYSIS	UNITS	PARAMETER	VALUE	RMKS.
☒ V.O. SCAN	ppb	P		
☐		P		
☐ chloroform		P	.8	
☐ toluene		P	.2	
☐		P		
☐		P		
☐		P		
☐		P		
☐		P		
☐		P		
☐		P		
☐		P		
☐		P		
☐		P		
☐		P		
☐		P		
☐		P		
☐		P		
☐		P		
☐		P		
☐		P		
☐		P		
☐		P		
☐		P		
☐		P		
☐		P		
☐		P		
☐		P		

DATE	TIME	CHAIN OF CUSTODY FROM (NAME)	TO (NAME)

REPORT SUBMITTED
JUN 28 1982
NJDOH Environmental

APPENDIX B

SCOPE OF WORK

I. HYDROGEOLOGIC INVESTIGATION

A. A health and safety plan (HASP) shall be prepared for on-site personnel to minimize their personal injury, illness and potential environmental impairment associated with the investigation and/or cleanup. This plan shall include the following:

1. Listing of personnel protective equipment (including respiratory and clothing protection) to be used, including manufacturer, model, duration safety period and any required certification documentation.

2. Listing of safety equipment to be used, such as: fire extinguishers, potable eye wash stations, air monitoring equipment, gamma survey instruments, etc. (Equipment must meet OSHA standards or other acceptable industrial standards).

3. Medical surveillance program for contractor and subcontractor employees.

4. Personal hygiene requirements for contractor and subcontractor employees.

5. Training program including training protocol.

6. Special medical procedures to be available at job site.

7. Contingency plans for emergency procedures, spill prevention/response and evacuation plans.

8. On-site monitoring for personnel safety.

9. Decontamination procedures.

B. A special Quality Assurance Project Plan shall be prepared with respect to sampling, analysis and data handling. All analyses must be conducted by a New Jersey State certified wastewater laboratory which is acceptable to the NJDEP. The contractor's laboratory shall be certified to conduct the required analyses. If no certification is offered for a particular analysis, the laboratory at a minimum shall hold certification in the appropriate category covering that type of analysis and maintain that certification. Contractor's laboratory shall continuously be in compliance with the minimum standards for laboratory instrumentation, laboratory practices, analytical and instrumental quality control, and data handling as set forth in the Regulations Governing

Laboratory Certification and Standards of Performance, N.J.A.C. 7:18-1.1 et seq.

C. A plan shall be prepared for an on-site and off-site investigation of the soil, ground water, surface waters, sediment and local potable wells to determine the types and physical states of all waste materials, contaminants, and pollutants disposed at the site and to identify any migration of such substances through the above media and to delineate the extent of contamination. N.J.A.C. 7:14A-1.9 (The regulations concerning the New Jersey Pollutant Discharge Elimination System states that "contaminant" means any physical, chemical, biological or radiological substance or matter in water and that "pollutant" means any dredged soil, solid waste, incinerator residue, filter backwash, sewage, garbage, refuse, oil, grease, sewage sludge, munitions, chemical wastes, biological materials, radioactive substance, thermal waste, wrecked or discarded equipment, rock, sand, cellar dirt and industrial, municipal, agricultural, and construction wastes, or run-off or other residual discharged to the land, ground water or surface waters of the State).

The required work under this paragraph must include at a minimum the following:

1. SOIL INVESTIGATION

A field sampling plan addressing the specific types, location and number of soil samples required to identify the extent of contamination at the site which shall include at a minimum:

a. The obtaining of relatively undisturbed soil samples using appropriate sampling equipment such as backhoe pits, soil borings, soil augers and split spoons. (The equipment shall be decontaminated after each sample).

b. The recording of a complete description of each soil boring sample taken including physical characteristics, color changes, depth to ground water if encountered, soil classification and profile thickness. Particle size analysis should be performed on representative samples to confirm field investigation. All soil classification shall be reported using the United States Department of Agriculture Classification. Pertinent soil sample information shall be provided on well logging charts.

c. Collect representative samples according to procedures approved by the NJDEP and conduct laboratory analyses for the chemicals and other

parameters listed in Appendix C and according to the methods listed in Appendix C.

2. GROUND WATER INVESTIGATION

a. An initial set of four (4) monitoring wells shall be installed at locations to provide information on:

i. The upgradient, downgradient and lateral hydrogeologic conditions of the aquifer.

ii. The rate(s) and direction(s) of ground water flow both vertically and horizontally.

iii. The magnitude and extent of both horizontal and vertical extent of the contaminants in the ground water.

iv. The geologic profile and cross section of the underlying information.

v. Projected rate of contaminant movement.

vi. Contaminant behavior (stability, biological and chemical degradation, mobility).

vii. Identification of contaminant sources and zones.

b. All wells shall be constructed with prior approval and agreement by NJDEP on design specification. Well permits are required. The well driller must be licensed by the State of New Jersey. The NJDEP Division of Water Resources specifications for monitoring wells in unconsolidated and consolidated formations are included in Appendix D.

c. During the installation of the wells, split spoon samples shall be collected. Continuous split spoon samples shall be obtained at the first well and split spoon samples shall be collected at 5 foot intervals (or changes in stratigraphy) at all other wells. Standard penetration tests shall be conducted during split spoon sampling.

d. Following installation, the top of the casing (without caps) of all monitoring wells shall be surveyed for vertical elevation to the nearest hundredth (.01) foot following installation by a New Jersey licensed surveyor. The location of these wells shall be shown on a site map.

e. Beginning one week following the installation of the wells, the elevation of the ground water within the wells shall be obtained. Based on these ground water elevations contour map shall be provided (ground water elevations shall be obtained prior to the collection of ground water samples).

f. Beginning one week following the installation of the wells, the ground water within all installed wells shall be sampled. A round of samples shall be collected monthly from all wells over a three month period. Three to five volumes of water will be purged before sampling for each well. Water samples shall be collected according to the procedures according to the Field Procedures Manual for Water Data Acquisition and by qualified personnel. The water samples shall also be analyzed for the chemicals and other parameters listed in Appendix E and according to the methods specified in Appendix E.

g. Based upon the information obtained from results of analyses of the water samples and from other sources, the NJDEP may add or eliminate certain chemicals and parameters from future ground water monitoring programs at or in the vicinity of the site.

3. SURFACE WATER AND SEDIMENT INVESTIGATION

a. A round of surface water will be taken monthly at selected locations from the drainage ways in and within the vicinity of the site within a period of three months. Sediment samples from selected locations within the drainage ways shall be collected once during the three month period. The following samples, at a minimum, shall be collected.

i. Leachate seeps into any surface waters within the study areas,

ii. Water and sediment samples from the streams and drainages within the study area. These samples shall be collected upstream, downstream and adjacent to the site.

iii. The surface water samples shall be analyzed for the list of parameters listed in Appendix E and according to the methods specified in Appendix E.

iv. The sediment samples shall be analyzed for the list of paramenters listed in Appendix C and according to the methods specified in Appendix C.

b. The surface water sampling shall be conducted to determine:

i. Levels of contamination in surface water.

ii. The degree of contaminant mitigation by surface run-off leachate and ground water seepage.

iii. Rate of contaminant mitigation due to ground water discharge, and

iv. The ground water/surface water interaction at site.

4. WELL INVESTIGATION (nearly monitoring, water supply and abandoned wells)

a. Design details, such as, date drilled, total depth, diameter, casing and screen lengths, completion zone/formation, type of pump, etc.

b. Quality of ground water withdrawn from potable wells, water levels/dates, production rates and other relevant information.

5. CONTAMINATED SUBSTANCES INVESTIGATION

During the course of the previously mentioned investigations, the consultant shall inventory any uncovered contaminated substances by investigations, recording and photographing, if appropriate, quantities of any and all pollutant substances (such as wastes in drums, leachate seeps, etc.). Any photograph of the pollutant materials shall be included as part of this inventory. (All photographs will be conducted using a 35 mm camera and color slide film). This inventory must account for any surface and/or subsurface containerized contaminated substances, eg. drums, cylinders, bottles, vials, lab packs, etc., any impoundments, e.g. lagoons, trenches, pools, or pits, etc., any stockpiled, heaped and/or dumped contaminated substance, and leaking, spilled, tracked, or leaching pollutant or contaminated substances. All photograph will be submitted with the Final Report and become property of NJDEP.

6. SITE MAPS

a. A general location map shall be provided. This map shall be an 8 1/2 x 11 copy of USGS topographic quadrangle 1 inch = 2,000 feet scale with the site highlighted in the center showing at least 5,000 feet radius from the center of the site.

b. A detailed site map shall be provided. This map shall conform to "National Map Accuracy Standards", N.J.S.A. 13:40-2 and N.J.S.A. 13:40-2. All horizontal locations shall be based on New Jersey State Phase Coordinates, 1927 Datum. All vertical locations shall be based on National Geodetic Vertical Datum (N.G.V.D.) 1929, also known as Mean Sea Level Datum, 1929.

c. The standard procedure in locating all vertical and horizontal points used shall be Third Order Class I for property survey, and Third Order Class II for remaining points as described in U.S. Department of Commence Publication "Classification Standards of Accuracy, and General Specifications of Geodetic Controls Surveys", reprinted 1980.

d. The detailed site map shall include, at a minimum the locations of:

i. All monitoring wells and potable water supply wells.

ii. All sampling point locations, including leachate seeps, and air quality sample locations, soil borings, etc.

iii. Disposal areas.

iv. Contaminated areas.

v. Any other information determined by the NJDEP to be identified on the detailed site map.

II. HYDROGEOLOGICAL INVESTIGATION REPORT AND PROPOSED REMEDIAL PLAN

A. The hydrogeological investigation report shall include the following:

(1) The upgradient, downgradient and lateral hydrogeologic conditions of the aquifer.

(2) The rate(s) and direction(s) of ground water flow both vertically and horizontally.

(3) The magnitude and extent of both horizontal and vertical extent of contaminants in the ground water.

(4) The geological profile and cross section of the underlying formation.

(5) Projected rate of contaminant movement.

(6) Contaminant behavior (stability, biological and chemical degradation, mobility).

(7) Identification of contaminant sources and zones.

(8) Levels of contamination in surface water.

(9) Degree of contaminant mitigation by surface run-off leachate and ground water seepage.

(10) Rate of contaminant mitigation due to ground water discharge.

(11) Ground water/surface water interaction at the site.

(12) All analytical data developed during the study (such as ground water and soil analyses), well construction logs and the results of the soil investigation.

B. The proposed remedial plan shall:

a. Be designed to eliminate, decontamination, control or otherwise mitigate any ground water, surface water soil pollution at and in the vicinity of the facility;

b. Proposed any further necessary hydrogeologic investigation required by NJDEP.

A P P E N D I X C

Full USEPA priority pollutant scan analyses with conformation of all detectable organic compounds by gas chromatograph/mass spectrometer (GC/MS) methodologies shall be conducted on soil and waste samples in the manner listed below:

1. Organic compounds in Soil, Sediment and Waste (GC/MS) Methodologies: "GC screen, GC/MS Analysis of Organic Compounds - Invitation for bid WA-83-A064-January 1983." USEPA Superfund Program, Washington, D.C.

2. Priority Pollutant Metals in Soil, Sediment and Wastes using EP Toxicity Methodologies: Test Methods for Evaluating Solid Waste, USEPA SW-846, July 1982.

3. "Organochlorine Pesticides and PCB's in Soil, Sediment and Waste Methodologies: "Test Methods for Evaluating Solid Waste" USEPA SW-846, July 1982.

4. Oil and grease according to the procedure listed Method 5.02D of the fourteenth edition (1975) of Standard Methods for the Examination of Water and Wastes, APHA, with the following modification: Anhydrous N_a2 SO4 shall be used instead of Mg SO4 and H_20.

5. Any additional testing of the soils, sediments, or wastes as required by the NJDEP in order to identify the materials and to determine an approved off-site disposal location.

NOTE: Substances with response less than 25 percent of the internal standard are not required to be searched.

a. For reach sample, the contractor shall perform a forward library search of the Environmental Protection Agency/National Institute of Health/-National Bureau of Standards (EPA/NIH/NBS) mass spectral library to tentatively identify 15 non-priority pollutant compounds of the greatest apparent concentration in the purgeable organic fraction of the USEPA Priority Pollutant Scan.

b. For each sample, the contractor shall perform a forward library search of the EPA/NIH/NBS mass spectral library to tentatively identify 10 non-priority pollutant compounds of the greatest apparent concentration in the acid extractable organic fraction of the USEPA Priority Pollutant Scan.

c. For each sample, the contractor shall perform a foward library search of the EPA/NIM/NBS library to tentatively identify 15 non-priority pollutant compounds of the greatest apparent concentration in tne base/neutral organic fraction of the USEPA Priority Pollutant Scan.

APPENDIX D

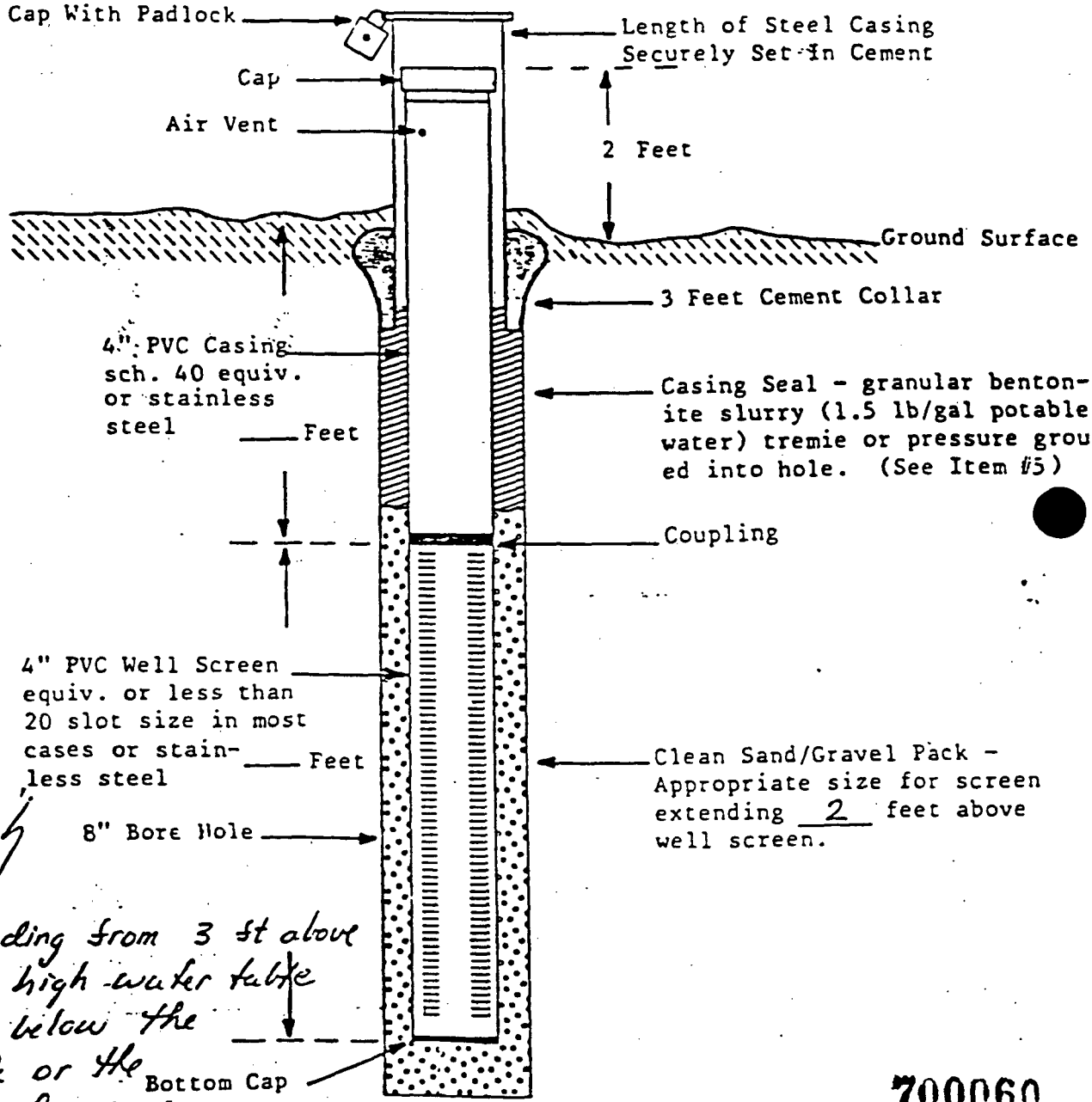
...partment of Environmental Protection

Unconsolidated Monitor Well Specifications*

.e Name: NATIONAL METAL FINISHING

Location: BOUND BROOK, NJ

Date: 10/29/84



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NOT TO SC...

REQUIREMENTS:

1. Notification to the NJDEP is required two (2) weeks prior to drilling.
2. State well permits are required for each monitor well constructed by the driller. Report "use of well" on well permit application. Permit number must be permanently affixed to each monitor well.

[illegible] than the casing diameter.

4. Wells must be gravel packed unless noted otherwise in Additional Requirement #6.
5. Approved high grade sodium base, well sealant type, granular bentonite must be used to seal casing. Casing sealant and drilling fluids must be mixed with potable water.
6. All wells must be developed upon completion for a minimum of one (1) hour or to yield a turbid-free discharge.
7. The driller must maintain an accurate written log of all materials encountered in each hole, record all construction details for each well, the static water levels, and any tidal fluctuations (when applicable). This information must be submitted to the Office of Water Allocation as required by N.J.S.A. 58:4A.
8. If low level organic compounds are to be sampled for, only threaded or press joints (no glue joints) are acceptable for PVC.
9. A length of steel casing with a locking cap must be securely set in cement a minimum of three (3) feet below ground surface.
10. Top of casing (excluding cap) must be surveyed to the nearest hundreth foot (0.01) by a licensed surveyor. The casing must be permanently marked at the point surveyed. The well(s) should be numbered clearly on the casing. A detailed site map with the well locations and casing elevations must be submitted to _____ _____.

11. NOTICE IS HEREBY GIVEN OF THE FOLLOWING:

    a. Review by the Department of well locations and depths is limited solely to review for compliance with the law and Department rules;
    b. The Department does not review well locations or depths to ascertain the presence of, nor the potential for, damage to any pipeline, cable or other structure;
    c. The permittee (applicant) is solely responsible for safety and adequacy of the design and construction of wells required to be constructed by the Department;
    d. The permittee (applicant) is solely responsible for any harm or damage to person or property which results from the construction or maintenance of any well; this provision is not intended to relieve third parties of any liabilities or responsibilities which are legally theirs.

200061

ADDITIONAL REQUIREMENTS (IF CHECKED):

- [X] 1. Top of screen set 3 feet (above)/below water table.
- [X] 2. Split Spoon Samples Continuous on 1st hole, every 5 ft on others
- [ ] 3. Dedicated Bailer (Sampler) In Well(s) _____
- [X] 4. Threaded or Press Joints _____
- [ ] 5. Five (5) Foot Casing Tailpiece Below Screen _____
- [ ] 6. Centralizers On Screen _____
- [ ] 7. Borehole Geophysical Log(s) _____
- [ ] 8. Other _____

* OTHER MATERIALS, DESIGNS AND CASING DIAMETERS MAY BE USED WITH PRIOR APPROVAL BY THE NJDEP.

(C[illegible] must be completed for eac[illegible]ell)

Name of Permittee: _____
Name of Facility: _____
Location: _____

NJPDES Permit No: NJ _____

CERTIFICATION

Well Permit Number (As assigned by NJDEP's Well Drilling Perits Section (609 - 984-6831)): __ __-__ __ __ __ __-__

Owner's Well Number (As shown on the application or plans): _____

Well Completion Date: _____

Distance from Top of Casing (cap off) to ground surface (one-hundredth of a foot): _____

Total Depth of Well (one-hundredth of a foot): _____

Depth to Top of Screen From Top of Casing (one-hundredth of a foot): _____

Screen Length (feet): _____

Screen or Slot Size: _____

Screen or Slot Material: _____

Casing Material: (PVC, Steel or Other-Specify): _____

Casing Diameter (Inches): _____

Static Water Level From Top of Casing at The Time of Installation (one-hundredth of a foot): _____

Yield (Gallons per Minute): _____

Length of time Well Pumped or Bailed _____ Hours _____ Minutes

Lithologic Log: ATTACH

AUTHENTICATION

I certify under penalty of law that, where applicable, I meet the requirements as specified on the reverse of this page, that I have personally examined and am familiar with the information submitted in this document and all attachments, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

NAME (TYPE OR PRINT) _____ SIGNATURE _____

CERTIFICATION OR LICENSE NUMBER _____ SEAL

CERTIFICATION BY EXECUTIVE OFFICER OR DULY AUTHORIZED REPRESENTATIVE

NAME (TYPE OR PRINT) _____ SIGNATURE _____

TITLE _____ DATE _____

700062

THIS FORM MUST BE COMPLETED BY THE PERMITTEE OR HIS/HER AGENT

GROUND WATER MONITORING WELL CERTIFICATION - FORM B - LOCATION CERTIFICATION

Name of Permittee: _____
Name of Facility: _____
Location: _____

NJPDES Number: NJ _____

LAND SURVEYOR'S CERTIFICATION

Well Permit Number (As assigned by NJDEP's Water Allocation Section, 609-984-6831): __ __-__ __ __ __ __-__
This number must be permanently affixed to the well casing.

Longitude (one-tenth of a second): West _____
Latitude (one-tenth of a second): North _____
Elevation of Top of Casing (cap off) (one-hundredth of a foot): _____
Owners Well Number (As shown on the application or plans): _____

AUTHENTICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment.

_____
PROFESSIONAL LAND SURVEYOR'S SIGNATURE

_____ SEAL
PROFESSIONAL LAND SURVEYOR'S NAME
(Please print or type)

_____
PROFESSIONAL LAND SURVEYOR'S LICENSE #

700063

The Department reserves the right in cases of violation of permit specified ground water limits or Ground Water Quality Standards (N.J.A.C. 7:9-6.1 et seq.) to require that wells be resurveyed to an accuracy of one-hundredth of a second latitude and longitude. This shall

APPENDIX E

Full USEPA priority pollutant scan analyses with conformation of all detectable organic compounds by gas chromatograph mass spectrometer (GC/MS) methodologies in the manner listed below.

1. Water and Wastewater GC/MS Methodologies: EPA Method 624 and 625, F.R.: V. 49, No. 209, dated October 26, 1984/40 CFR Part 136 and any subsequent USEPA modification or the latest version of Method 624 and 625 published by the USEPA.

2. Priority Pollutant Metals, Cyanides and Total Phenols in Water and Wastewater Methodologies:

    1. "Methods for Chemical Analysis of Water and Waste", F.R. V49, No 209, dated October 26, 1984/40 CFR Part 136 and any subsequent USEPA modification or the latest version published by the USEPA.

    2. "Standard Methods for the Examination of Water and Wastewater" - 15th Edition - APHA.

3. Tenative identification of organic non-priority pollutant compounds.

NOTE: Substances with response less than 25 percent of the internal standard are not required to be searched.

a. For each sample, the contractor shall perform a forward library search of the EPA/NIH/NBS mass spectral library to tentatively identify 15 non-priority pollutant compounds of the greatest apparent concentration in the purgeable organic fraction of the USEPA Priority Pollutant Scan.

b. For each sample, the contractor shall perform a forward library search of the EPA/NIH/NBS mass spectral library to tentatively identify 10 non-priority pollutant compounds of the greatest apparent concentration in the acid extractable organic fraction of the acid extractable organic fraction of the USEPA Priority Pollutant Scan.

c. For each sample, the contractor shall perform a foward libary search of the EPA/NIM/NBS library to tentatively identify 15 non-priority pollutant compounds of the greatest apparent concentration in the base/neutral

organic fraction of the USEPA Priority Pollutant Scan.

5. Oil and Grease: Method 413.1 USEPA Methods for Chemical Analysis of Water and Wastes, March 1979.

6. Petroleum Hydrocarbons: Method 418.1, USEPA Method for Chemical Analysis of Water and Wastes, March 1979.

7. Total Organic Carbon: Method 415.1, USEPA Method for Chemical Analysis of Water and Wastes, March 1979.

8. Total Dissolved Solids: Method 160.1, USEPA Method for Chemical Analysis of Water and Waste, March 1979.

RATIONALE FOR PENALTY ASSESSMENT

National Metal Finishings Corporation
100 West Main Street
Bound Brook Borough, Somerset County

SERIOUSNESS

Results of samples of the wastewater collected on December 15, 1981, January 5, 1982 and May 11, 1982 indicated that the wastewater was contaminated with total chromium, hexavalent chromium and lead. The Division of Waste Management has classified the liquid in the pit as hazardous waste due to the concentration of chromium, pursuant to N.J.A.C. 7:26-8.12. Therefore, the discharge was likely to have caused serious damage to the environment.

Type Factor - Serious Damage - 1.50

TYPE

National Metal Finishings was notified by the Department of Law and Public Safety and the NJDEP to cease the discharge into the pit as early as July 12, 1981. However, on July 13, 1984, National Metal Finishings informed the NJDEP that the discharge had not yet ceased. Since the discharge continued as a purposeful inaction by National Metal Finishings, the discharge is considered to be willful. Total chromium and hexavalent chromium are hazardous pollutants so 1.25 shall be added to the type factor.

Type Factor - Willful - 1.00 + 0.25 = 1.25

SERIOUSNESS x TYPE x $5,000 = BASIC PENALTY

1.50 x 1.25 x $5,000 = $9,375

If the penalty computed is greater than $5,000, the $5,000 maximum basic penalty shall be assessed.

BASIC PENALTY = $5,000

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