PA- 28 IC

62034 IC

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
Post Office Box 2063
Harrisburg, Pennsylvania 17120

Bureau of Waste Management

ORIGINAL (Red)

Preliminary Assessment

FOR

Tonolli Corporation

Nesquehoning Boro
Carbon County
Pennsylvania

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 1 - SITE INFORMATION AND ASSESSMENT

I. IDENTIFICATION — ORIGINAL (Red)
01 STATE | 02 SITE NUMBER

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
Tonolli Corporation	RD #1 Rt. 54

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG DIST
Nesquehoning	PA	18240	Carbon		

09 COORDINATES LATITUDE	LONGITUDE
40 51 03.	075 52 46.

10 DIRECTIONS TO SITE (Starting from nearest public road)
Route 54, Nesquehoning

III. RESPONSIBLE PARTIES

01 OWNER (If known)	02 STREET (Business, mailing, residential)
Trustee: John Thomas	First Eastern Bank RM 1100 Bldg. 11 West Market St.

03 CITY	04 STATE	05 ZIP CODE	06 TELEPHONE NUMBER
Wilkes Barre	PA	18701	(717) 825-5602

07 OPERATOR (If known and different from owner)	08 STREET (Business, mailing, residential)

09 CITY	10 STATE	11 ZIP CODE	12 TELEPHONE NUMBER
			( )

13 TYPE OF OWNERSHIP (Check one)
☐ A. PRIVATE ☐ B. FEDERAL: _____ (Agency name) ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL
☒ F. OTHER: Ch 7 BanKruptcy (Specify) ☐ G. UNKNOWN

14 OWNER/OPERATOR NOTIFICATION ON FILE (Check all that apply)
☒ A. RCRA 3001 DATE RECEIVED: 1 / 81 (MONTH DAY YEAR) ☐ B. UNCONTROLLED WASTE SITE (CERCLA 103 c) DATE RECEIVED: / / (MONTH DAY YEAR) ☐ C. NONE

IV. CHARACTERIZATION OF POTENTIAL HAZARD

01 ON SITE INSPECTION
☒ YES DATE / / (MONTH DAY YEAR)
☐ NO RCRA

BY (Check all that apply)
☒ A. EPA ☐ B. EPA CONTRACTOR ☒ C. STATE ☐ D. OTHER CONTRACTOR
☐ E. LOCAL HEALTH OFFICIAL ☐ F. OTHER: _____ (Specify)
CONTRACTOR NAME(S): _____

02 SITE STATUS (Check one)	03 YEARS OF OPERATION
☐ A. ACTIVE ☒ B. INACTIVE ☐ C. UNKNOWN	8/27/74 (BEGINNING YEAR) / 12/85 (ENDING YEAR) ☐ UNKNOWN

04 DESCRIPTION OF SUBSTANCES POSSIBLY PRESENT, KNOWN, OR ALLEGED
As, Cd, Cr, Pb

05 DESCRIPTION OF POTENTIAL HAZARD TO ENVIRONMENT AND/OR POPULATION
1) Lead 21.5 PPM Runoff into high quality watershed
2) active Ground water contamination as determined by John Mellow, DER Hydrogeologist

V. PRIORITY ASSESSMENT
IMMEDIATE REMOVAL SHOULD BE CONSIDERED WHM 6/30/86

01 PRIORITY FOR INSPECTION (Check one. If high or medium is checked, complete Part 2 - Waste Information and Part 3 - Description of Hazardous Conditions and Incidents)
☒ A. HIGH (Inspection required promptly) ☐ B. MEDIUM (Inspection required) ☐ C. LOW (Inspect on time available basis) ☐ D. NONE (No further action needed, complete current disposition form)

VI. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NUMBER
William McDonnell	DER Bureau of Waste Mgt.	(717) 826-2516

04 PERSON RESPONSIBLE FOR ASSESSMENT	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NUMBER	08 DATE
Rich Mieszkowski	DER	Waste Mgt.	(717) 826-2581	5 5 86 (MONTH DAY YEAR)

EPA FORM 2070-12 (7-81)

AR101330

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION
01 STATE | 02 SITE

ORIGINAL (Red)

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- [X] A. SOLID
- [ ] B. POWDER, FINES
- [X] C. SLUDGE
- [X] E. SLURRY
- [X] F. LIQUID
- [ ] G. GAS
- [ ] D. OTHER _____ (Specify)

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

gal ~~TONS~~ 978,000
+ CUBIC YARDS 200,000
NO. OF DRUMS _____

03 WASTE CHARACTERISTICS (Check all that apply)

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

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE	180,000	yd^3	Landfill K069 Sludge
OLW	OILY WASTE			
SOL	SOLVENTS			
PSD	PESTICIDES			
OCC	OTHER ORGANIC CHEMICALS			
IOC	INORGANIC CHEMICALS	29,000	yd^3	Landfill Crushed Car Batteries 20,000 + 9000 yd^3 plastic
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS Waste Water	978,000	gal	EP Toxic Waste Water

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

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
	N/A				

V. FEEDSTOCKS (See Appendix for CAS Numbers)

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

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

See Attachments, other sources include the Part B Application.

EPA FORM 2070-12 (7-81)

ORIGINAL (Red)

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE | 02 SITE NUMBER

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 [X] A. GROUNDWATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 11,529
02 [X] OBSERVED (DATE: 12-16-85) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Lansford 5168 *
Coaldale 3023
Nesquehoning 3338
11529

(6) Memo J. Mellow, Hydrogeologist
(5) Form 4 Inspection J. Mellow
(8) EAP R. Mieszkowski
(9) Letter O'Day To Tonolli on Groundwater Quality Assessment
(10) Letter Attorney for Water Co. to Tonolli Trustee

01 [X] B. SURFACE WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 3,338
02 [X] OBSERVED (DATE: 12-18-85) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

Nesquehoning 3338

(11) Memo: Rich Mieszkowski; investigation of Illegal Discharge includes sample results
(12) EPA RCRA Inspection including sample results
(13) Sketch discharge Point
(14) letter of Admission by Tonolli Legal Council of Discharge

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

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

01 ☐ E. DIRECT CONTACT
03 POPULATION POTENTIALLY AFFECTED: _____
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 [X] F. CONTAMINATION OF SOIL
03 AREA POTENTIALLY AFFECTED: 20+ (Acres)
02 ☐ OBSERVED (DATE: _____) [X] POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

(15) Closure Plan Review Lagoon Engineer Crowley DER
(16) Landfill Closure Plan Review, Crowley, DER Engineer
(3) site overview

01 [X] G. DRINKING WATER CONTAMINATION
03 POPULATION POTENTIALLY AFFECTED: 11,529
02 ☐ OBSERVED (DATE: _____) [X] POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

(8) (10)

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

01 ☐ I. POPULATION EXPOSURE/INJURY
03 POPULATION POTENTIALLY AFFECTED: _____
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

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* ○ These are reference #'s, Documents as marked.

ORIGINAL
(Red)

EPA

POTENTIAL HAZARDOUS WASTE SITE
PRELIMINARY ASSESSMENT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE	02 SITE NUMBER

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ☐ J. DAMAGE TO FLORA
04 NARRATIVE DESCRIPTION
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED

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

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

01 ☒ M. UNSTABLE CONTAINMENT OF WASTES
(Spills/runoff/standing liquids/leaking drums)
03 POPULATION POTENTIALLY AFFECTED: 3338
(11) (12)
02 ☒ OBSERVED (DATE: 12-18-85) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION

01 ☐ N. DAMAGE TO OFFSITE PROPERTY
04 NARRATIVE DESCRIPTION
02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED

01 ☒ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs
04 NARRATIVE DESCRIPTION
(11) (12)
02 ☒ OBSERVED (DATE: 12-18-85) ☐ POTENTIAL ☐ ALLEGED

01 ☒ P. ILLEGAL/UNAUTHORIZED DUMPING
04 NARRATIVE DESCRIPTION
(11) (12)
02 ☒ OBSERVED (DATE: 12-18-85) ☐ POTENTIAL ☐ ALLEGED

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS
See Closure Plan Comments (15) (16)

III. TOTAL POPULATION POTENTIALLY AFFECTED: 11529

IV. COMMENTS

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

Attachments AS Numbered

EPA FORM 2070-12 (7-81)

FIELD TRIP SUMMARY REPORT

This summary should be prepared in conjunction with the Preliminary Assessment, EPA Form 2070-12.

ORIGINAL (Red)

EPA Case Number _____ Site Name Tonolli Corp.

Site Description
See (1) Reclamer of pb, plastic from batteries. Lead smelter, hazardous waste Tank, lagoon, landfill.

Area of site (acres)	Hazardous portion, if not entire site
20	

Description of processes/operations which took place at the site
Battery crushing; recycling of Pb, paste, plastic, lead smelting See (1)

Waste handling/disposal practices
See (1) (4)

Site topography and runoff drainage pathways
See (2) (3) (5) (13)

Surface or subsurface drainage areas (leachate) noted?	Odors/stains noted?
See (2) (13)	Stressed vegetation noted?

Location and description of streams or receiving waters adjacent to site. Include flow direction and observations. Note location on attached map.
See (2) (13)

Monitoring wells on site or in vicinity. Note location on attached map.
See (5) (6) (7)

AR101334

Population within ¼ mile of site:

- ☐ 0-10
- ☒ 10-100
- ☐ greater than 100

Population within 1 mile of site:

- ☐ 0-10
- ☒ 10-100
- ☐ 100-1000
- ☐ greater than 1000

ORIGINAL (Red)

Surrounding land use (woodlot, agricultural, recreation, industrial, etc.)

NORTH	EAST
Woodlands	Woodlands
SOUTH Residential / Industrial	WEST Woodlands / recreational

Municipal water supply within 3-mile radius (note use of surface water and/or wells)

Lansford - Coaldale water supply reservoir and deep wells. (10)

Reference:

Domestic wells. Approximate number within ¼ mile: _____ unknown
List nearest wells below and show locations on attached map.

Owner/Resident	Address	Phone

Groundwater flow direction, if known

See (5)

Description of odor/taste problems

State inspection activity (including permits held)

RCRA Inspections
RCRA Part B Review

State/Federal/Private remedial activities

RCRA closure plan Review (15) (16)
See (17) Part B withdrawl request

AR101335

Additional comments--Further description of site

References (other)

ORIGINAL (Red)

(18) Chronology by J. Leskosky

(19) Memo McDonnell To Kuchinski current RCRA status

(20) DER ORDER, Unsigned

(21) EPA Draft ORDER

(22) EPA Draft ORDER

(23) Memo McDonnell to Kuchinski

SITE CONTACTS

Name and Title	Affiliation	Phone

INSPECTION INFORMATION

Name and title of inspector(s) Richard Mieszkowski

Agency DER. Phone number 717-826-2581

Date _____ Time on site _____

Weather conditions:

ATTACHMENTS

- Topographic map identifying site location. Include name of quadrangle map.
- Site sketch map showing location of monitoring wells, domestic wells, municipal water supplies, and areas of concern (lagoons, leachate seeps, drums, etc.)
- Any available sampling results or state monitoring data with map showing sample locations.

see All Numbered Attachments As indicated.

STD-501 1-84

COMMONWEALTH OF PENNSYLVANIA
Wilkes-Barre Regional Office
Bureau of Waste Management
May 19, 1986

SUBJECT: CERCLA: Preliminary Assessment
Tonolli Corporation PAD073613663
Nesquehoning Borough, Carbon County
May 5, 1986

ORIGINAL
(Red)

TO: FILE

FROM: Richard M. Mieszkowski
Solid Waste Specialist

DER CERCLA PRELIMINARY ASSESSMENT: REFERENCE NUMBERS & SOURCES

Reference No: 1

Preliminary Assessment Item: Field Trip Summary Report, Site Description

Description: Narrative and facility description from the RCRA Part B application.

Summary and Comments: This is a facility and waste generation description including chemical analysis of wastes as originaly listed in the Part B application.

Document No. 2

Preliminary Assessment Item: Field Trip Summary Report, Location

Description: Topographic map showing facility location.

Document No. 3

Preliminary Assessment Item: Field Trip Summary Report, Topography

Description: Site sketch and overview map.

Summary and Comments: Shows areas of contamination and a facility overview.

Document No. 4

Preliminary Assessment Item: Part 2,II,III and Field Trip Summary Report, Waste Handling

Description: Summary of RCRA Activities and waste generation.

Document No. 5

Preliminary Assessment Item: Part 3,II and Field Trip Summary Report

Description: Topographic map showing direction of groundwater flow.

Summary and Comments: From the Part B application.

Document No. 6

Preliminary Assessment Item: Part 3,II Groundwater, Surface Water and Field Trip Summary Report

Description: DER memo, from John Mellow, Hydrogeologist, to Dale Williams, Facilities Supervisor, closure plan review, December 16, 1985.

Summary and Comments: John Mellow concluded that: downgradient stream samples show significant impact for arsenic, cadmium, chromium and lead. The shallow and deep wells downgradient show trends with heavy metal contamination.

Document No. 7

Preliminary Assessment Item: Part 3,II Groundwater, Surface Water and Field Trip Summary Report.

Description: Form 4, Groundwater Monitoring Inspection by John Mellow, dated January 14, 1986.

Summary and Comments: Assessment and abatement plan requested, shallow and deep well contamination, stream contamination.

Summary and Comments: Admittance that the ditch was dug to release runoff to the creek and that is was dug to prevent overtopping of the lagoon and to eliminate the cost of disposal.

Document No. 15

Preliminary Assessment Item: Field Trip Summary Report, Remedial Activities

Description: Remedial activities: proposed closure plan of the Part B application, review by Kate Crowley, DER Engineer, 11/20/85.

Summary and Comments: Lagoon closure plan review.

Document No. 16

Preliminary Assessment Item: Field Trip Summary Report, Remedial Activities

Description: Proposed remedial activites: closure plan review regarding the landfill by Kate Crowley, DER Engineer.

Summary and Comments: Landfill closure plan review.

Document No. 17

Preliminary Assessment Item: Permit Held (Pending) and Field Trip Summary Report

Description: A letter from DER to Tonolli regarding the Part B permit application withdrawal request, 1/13/86.

Summary and Comments: DER letter to Tonolli: closure plan must be updated in 30 days, submission of the closure plan is required regardless of intended withdrawal of the Part B application. Tonolli did not respond to this letter.

Document No. 18

Preliminary Assessment Item: General Information/Additional Information

Description: Memo from John J. Leskosky, DER, to DER's Bureau of Litigation, 11/11/85.

Summary and Comments: Chronology.

Document No. 19

Preliminary Assesssment Item: Field Trip Summary Report, Additional Information

Description: Memo, William McDonnell to Leon Kuchinski, Chief of Division of Compliance & Monitoring, 4/15/86.

Summary and Comments: Gives the current status and DER Wilkes-Barre Regional Office position, requests for RCRA claim in Federal Bankruptcy Court.

Document No. 20

Preliminary Assessment Item: Additional Information, Legal Actions, History and Field Trip Summary Report

Description: DER's Draft Order 1986

Summary and Comments: Order to cease operation, order to update groundwater montioring, and to provide an abatement plan, order to remove wastes.

Document No. 21

Preliminary Assessment Item: Field Trip Summary Report, Additional Information

Description: Draft EPA Order, Docket No. RCRA III-144, 1986.

Summary and Comments: Groundwater monitoring is not adequate, aquifer interconnections need be evaluated, order to upgrade groundwater monitoring, order to cease operation of the impoundment and the landfill, update the closure plan, cease discharging waste to Nesquehoning Creek via the illegal spillway tank ditch.

Document No. 22

Preliminary Assessment Item: Legal History, Field Trip Summary Report and Additional Information

Description: Draft EPA Order 1986.

Summary and Comments: The battery yard run-off is a hazardous waste, groundwater monitoring is not adequate, there is significant increase in contamination in downgradient wells for arsenic, cadmium, lead and chromium, there is degradation of Nesquehoning Creek, orders for remedial measures including upgrading of the monitoring and a plan for a hydrogeologic evaluation of the site including profiles and an evaluation of the interconnection of the aquifers, order for a sampling plan and corrective actions and remedial plan.

ORIGINAL (Red)

Document No. 23

Preliminary Assessment Item: Field Trip Summary Report, ~~Additional~~ Information

Description: Memo, William McDonnell ~~to~~ Leon Kuchinski, Chief, DER Compliance and Monitoring.

Summary and Comments: Plead for legal assistance, restatement of seriousness of the problems of contamination, request for Bankruptcy Court claim for RCRA remediations.

RMM:amw

cc: R. Mieszkowski

Delete - same as #19

Rich Dulcey
6-24-87

1

ORIGINAL
(Red)

TONOLLI CORPORATION
SOLID WASTE DISPOSAL SITE
OPERATIONAL CONCEPT REPORT

1. FACILITIES DESCRIPTION

The Tonolli Corporation operates a secondary lead smelting plant in the Borough of Nesquehoning, Carbon County, Pennsylvania. The plant receives lead acid batteries and other lad scrap materials for processing. End products include hard and soft lead pigs and ingots.

On the same property the Tonolli Corporation maintains a solid waste disposal site utilized for disposal of hazardous wastes generated at the plant. The location and size of the disposal areas and their relationship to the plant are shown on the attached drawing no. 13 of 15.

Appendix No. 2 shows the existing waste disposal facilities as well as the proposed construction. The existing cells were constructed in 1975 and were the first phase of Areas I and II. Each cell was provided with a 1/16 inch Butyl Rubber liner. Phase two of the disposal site construction involved raising the berm of Areas I and II in 1984. the existing site is proposed for closure in 1986. The construction of the proposed area will consist of a 1/16 inch Butyl Rubber primary liner, a 20 mil EPDM secondary liner and will meet all current regulations for hazardous waste disposal facilities

2. WASTE GENERATION

The existing and proposed solid waste disposal facilities are utilized to dispose of three waste streams that are generated at the adjacent Tonolli Corporation plant. These waste streams are 1) lead slag from lead-acid battery recycling, 2) calcium sulphate sludge from the emission control scrubbers and 3) battery casing bakelite chips.

The slag is produced when scrap lead acid batteries and other lead waste materials are recycled through a smelter to recover the lead. The waste slag is allowed to cool in storage and then deposited by front end loader in the disposal site.

During the refining and smelting operations, the dusts that are generated are vented to an electrostatic precipitator filter and then to the air scrubber. Here a lime slurry is used to clean the pollutants out of the air. the resultant calcium sulphate sludge is pumped to the disposal site through an above ground pipe.

The bakelite chips are produced from the battery casings and are disposed by similar methods in the landfill. All plastic battery casings are recovered for plastic recycling.

Excess process water and battery acid from crushed batteries as well as rainwater that becomes contaminated by passing through the process area is directed to the settling tank and wastewater lagoon which are part of the wastewater treatment system. Here the water is neutralized and then used in the lime slurry air scrubbers. The volume of water is effectively reduced in the scrubber by evaporation. During periods of high precipitation, the wastewater lagoon is incapable of holding all of the runoff. Consequently, the excess water is to be pumped to a proposed storage tank for temporary storage. When the liquid level in the wastewater lagoon is sufficiently reduced, the water is pumped back to the treatment system.

The Tonolli Corporation has determined that when operating at full capacity they generate between 12,000 and 13,000 tons per year of the casings, slag and calcium sulphate sludge wastes. Using a density of 1½ tons per cubic yard, this converts to 8,700 c.y./year. Since the existing disposal site was constructed in 1975, the company has disposed of approximately 84,700 cubic yards.

Appendix No. 1 of this report is an Operation Flow Schematic showing the processes generating the wastes that go into the disposal site.

3. FACILITIES OPERATION

The disposal site is utilized on almost a daily basis for the disposal of the sludge and slag wastes.

The calcium sulphate sludge is pumped from the air scrubbers to the disposal site by using portable pumps with rubber discharge hoses. This is performed every other day. The volume of waste is recorded and determined by computing the change in the sludge level within the storage tank.

The slag and casing is transported to the disposal site by use of a front end loader. This is performed 2 to 3 times a week. The slag is piled in the disposal site and approximately every 3 weeks it is leveled. Records are kept on the amount of waste slag, casing and sludge produced.

The disposal site is inspected on a daily basis by the Safety, Health and Pollution Control Coordinator. The major areas of concern are: 1) Liner Deterioration 2) Spills 3) Groundwater Wells 4) Emissions or Discharges 5) Fires or Explosions and 6) Fence Integrity (Security). During these daily inspections, the level of leachate in the site is determined by examination of the manhole within the disposal site. The leachate is recycled via the wastewater treatment lagoon through the scrubbers for eventual evaporation.

The nature of the solid wastes disposed at the site does not require daily cover. Final cover only will be needed at the site. The final cover material will be obtained off-site and will meet all EPA and DER regulations.

4. WASTE CHARACTERISTICS

The waste generated consists of three streams: 1) a slag by product from secondary lead smelting; 2) calcium sulfate sludge from air Pollution Control Scrubbers, and 3) battery casing bakelite chips. the slag constituents depend upon the raw material charged in the rotary furnaces. A typical carge and resultant slag composition is shown in attached Appendix 3. The sludge consists of calcium sulfate and water, a by product of the lime scrubbers.

The waste streams are designated hazardous by process and/or high lead content with the following EPA Hazardous waste numbers.

Waste	Landfill	Surface Impoundment	EPA No.
Arsenic	X	X	D004
Cadmium	X	X	D006
Chromium	X	X	D007
Lead	X	X	D008
Corrosive		X	D002
Calcium Sulfate Sludge	X		K069

5. LINER COMPATIBILITY

Compatability of the liner material has been proven by the existing landfill liner. The liner has been in contact with waste since 1975 and no problems with leakage through the liner has been experienced to date. The experience with the liner to date suggests that the liner will not incur any significant deterioration due to the character of wastes placed in the landfill.

6. ACCESS AND ALL-WEATHER ROADS

All roads leading to the plant are paved. Roads leading from the plant to the landfill areas are dirt roads. Wastes from plant operations are transported to the landfill areas by front-end loaders. No trucks or tractor trailers travel to the landfill areas.

All paved roads are capable of handling heavy vehicles.

Original (Red)

7. MEASURES TO PREVENT WASTE TRACKING

The wastes produced at the Tonolli Corporation are such that dust and wind disposal at the landfill areas are not a problem. The slag and bakelite chips are transported from the plant to the dispersal areas by front-end loader. Any waste that may be accidently dropped is picked up immediately and placed in the landfill. the sludge from the emission control scrubbers are transported to the landfill by an above ground pipe.

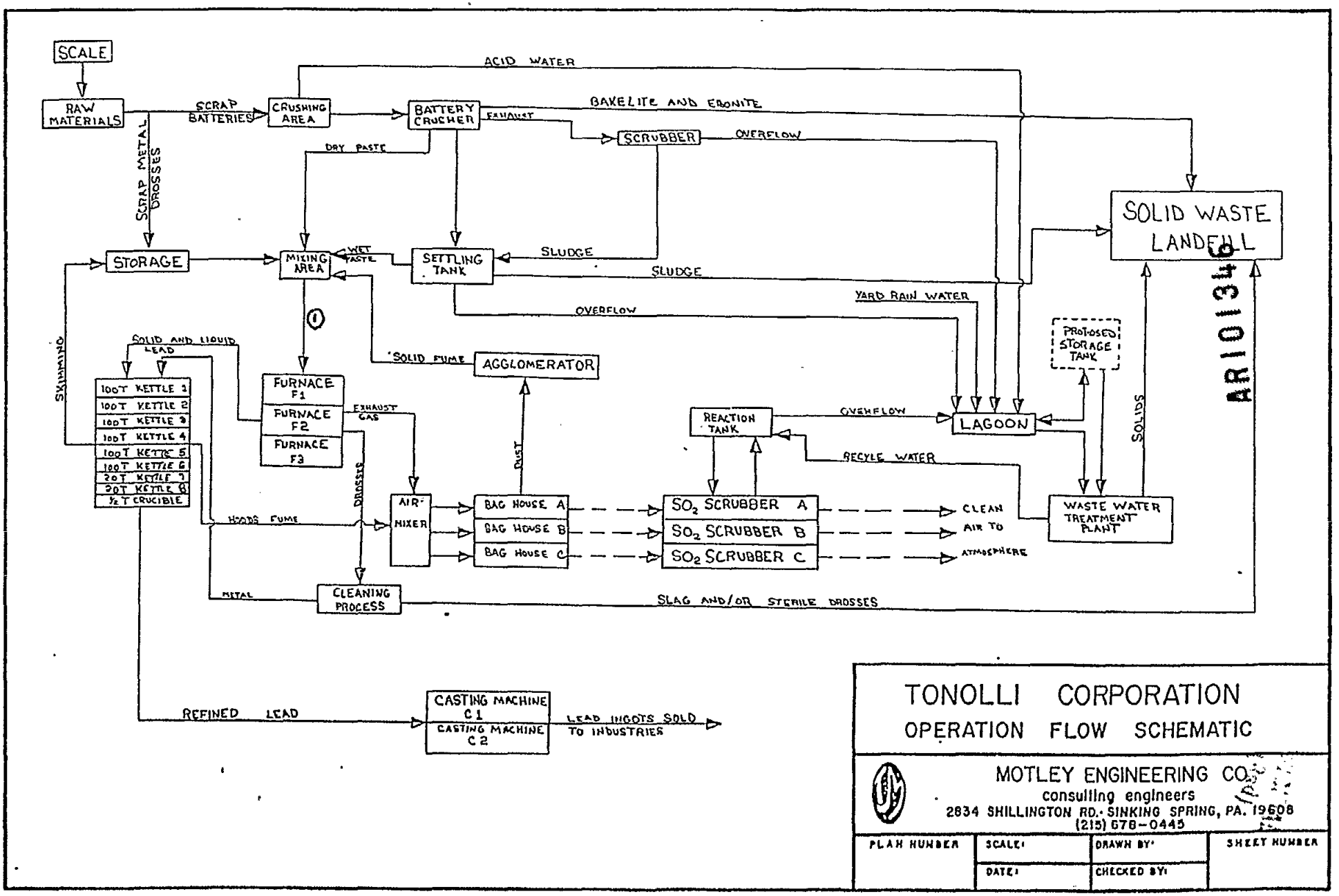
8. PERSONNEL TRAINING PROGRAM

Each employee hired by Tonolli Corporation must go through a very rigorous personnel training program which inlcudes proper work practices, proper use of personal protective equipment with emphasis on the importance of working with hazardous material. We will reorient all employees semi-annually in accordance with Government Regulations.

All Tonolli Corporation personnel dealing with hazardous waste will be required to understand the proper procedures in dealing with emergencies involving the solid waste landfill and the surface impoundment areas, along with proper materials handling procedures in these areas. All employees involved in this area of employment will receive this training prior to the start of their employment, and will review these procedures at least annually. The only Tonolli Corporation personnel whose job descriptions fit this category will be the Pollution control workers.

The program instruction will be the facility's Safety, Health and Pollution Control Supervisor. This person deals with safety, health and pollution control of the facility every day and has thorough knowledge of procedures to ensure safety and the protection of the employees health.

Each employee's training record will be filed with the facility office. This record will be updated each time an employee has a review training session. A copy of an employee training record sheet is included on the next page.



AR101346

TONOLLI CORPORATION

OPERATION FLOW SCHEMATIC

MOTLEY ENGINEERING CO.
consulting engineers
2834 SHILLINGTON RD. SINKING SPRING, PA. 19608
(215) 678-0445

PLAN NUMBER	SCALE:	DRAWN BY:	SHEET NUMBER
	DATE:	CHECKED BY:	

MOTLEY ENGINEERING COMPANY
2834 Shillington Road
SINKING SPRING, PENNSYLVANIA 19608
(215) 678-0445

AR101347

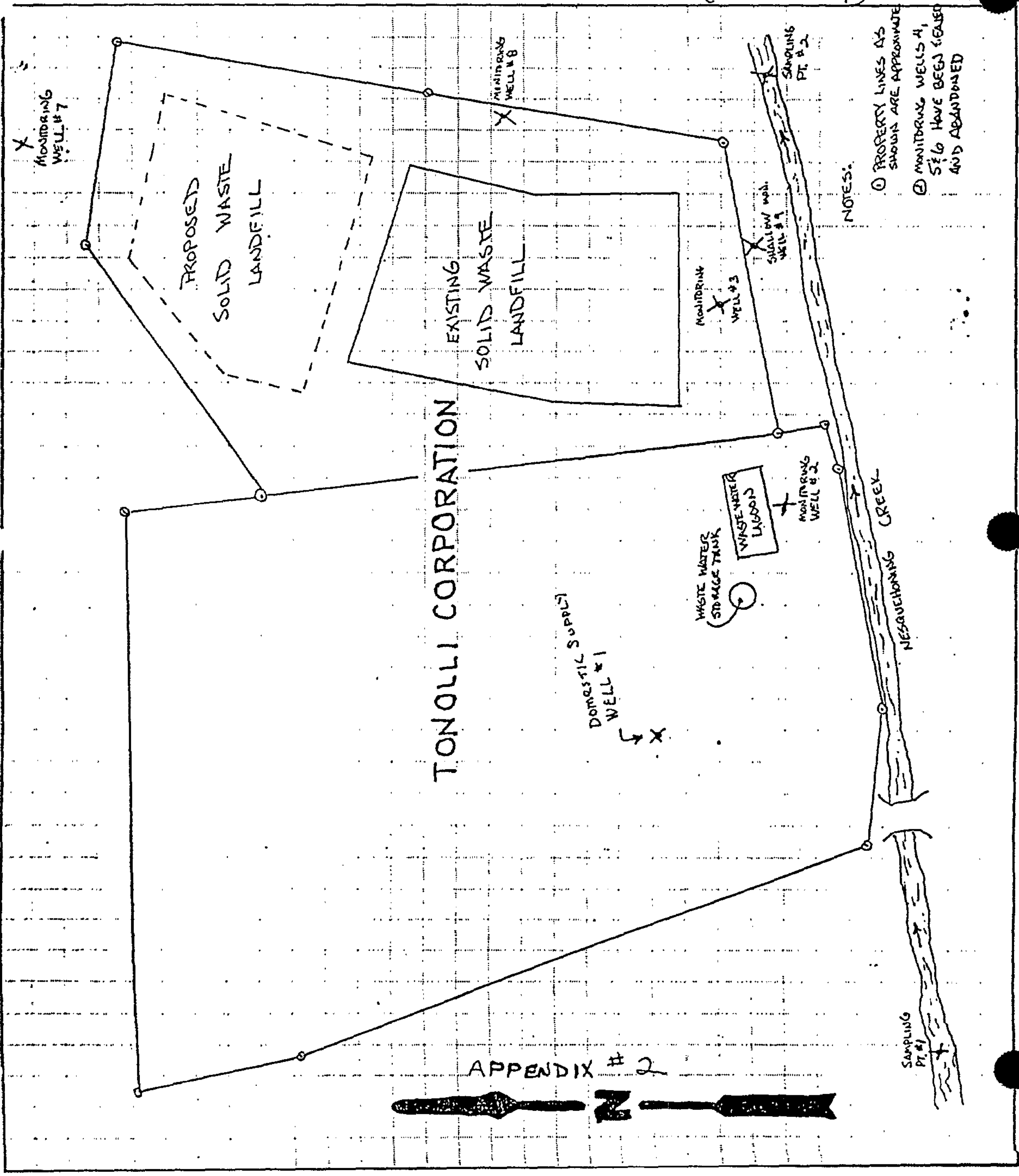
TONOLLI CORPORATION - MONITORING WELL LOCATIONS

SHEET NO. ______ OF ______

CALCULATED BY J. A. W. DATE 3/23/85

CHECKED BY ______ DATE ______

SCALE 1" = 200' (APPROXIMATELY)



NOTES:

1. PROPERTY LINES AS SHOWN ARE APPROXIMATE
2. MONITORING WELLS 4, 5 & 6 HAVE BEEN SEALED AND ABANDONED

PRODUCT 204-1 NEBS Inc., Groton, Mass. 01471

TYPICAL FURNACE CHARGE

Raw Material fed to the furnaces consists of the following:

a. Antimonial lead (4-1/2% Sb) plus combustible materials (.03%)

b. Paste with the following chemical composition:

Pb	69%
Sn	0.25%
Sb	1.90%
Cu	0.15%
S	4.80%
H_2O	5-8%

To which are added the following chemicals:

Fe	10%	(Cast iron turnings)
NaOH	2%	
Coal	4%	
CaO	0.5%	
H_3BO_3	0.2-0.4%	

The Furnace delivers metallic lead with a layer of slag or dross which has the following composition:

S	25%	
Fe	40%	All in combination with sulphur
Pb	2%	
Ca	4%	
Na	10%	
Ba	2-3%	
Si	11%	
Coal	1-2%	
Indeterminate	3-5%	

The dross is reprocessed to reclaim any residual lead that can be separated, and then disposed of in a landfill.

APPENDIX #3

ALLENTOWN TESTING LABORATORIES, INC.

754 EAST FAIRVIEW STREET • BETHLEHEM, PA. PHONE (215)-865-2674

Inspection • Testing • Research • Chemical Analysis • Industrial Radiology • Soils • X-Ray • Water • Steel

Certificate of Test and Analysis

Date 5/23/84

For: Tonolli Corporation
RD #1 PA Route 54
Nesquehoning, PA 18240

Lab. No. A 2008

Attn: Phillip Getty

Report No: CH 84073

On sample of: Lagoon Water

Received: 4/30/84

Marked: Chemical Analysis

Examined with the following results:

	mg/l		mg/l
Silver	<0.01	Sulfate	200.0
Arsenic	5.2	Nitrite	.007
Chromium	.18	Nitrate	1.1
Mercury	.0049	Ammonia	0.23
Lead	107.0	Oil/Grease	.41
Cadmium	7.6	Total Solids	2145.0
Magnesium	38.5	Settleable Solids	1689.5
Selenium	.025	Dissolved Solids	196.2
Barium	1.3	Dissolved oxygen	8.6
Flouride	1.25		
Total Iron	2.7	Acidity - 322 ppm	
Dissolved Iron	.35	PH - 1.0 - 1.1	
Aluminum	30.0	Color - 4.3 units	
		Turbidity - 230 FTU	
		BOD/5 - 1200 mg/l	
		DO - 9.3 mg/l	

Respectfully submitted,

Reported to:

ALLENTOWN TESTING LABORATORY, INC.

AR101349

Form No. A3-102

ORIGINAL (Red)

ALLENTOWN TESTING LABORATORIES, INC.

754 EAST FAIRVIEW STREET • BETHLEHEM, PA. PHONE (215)-865-2674

Inspection • Testing • Research • Chemical Analysis • Industrial Radiology • Soils • X-Ray • Water • Steel

Certificate of Test and Analysis

Date 5/23/84

For: Tonolli Corporation
RD #1 PA Route 54
Nesquehoning, PA 18240

Lab. No. A 2008

Report No: CH 84073

On sample of: Lagoon Water

Received:

Marked: Volitile Scan, organics

Examined with the following results:

Toluene - 0.4 mg/l

Trichloroethene - 1.1 mg/l

1,1,1 - Trichloroethane - 1.4 mg/l

Chloroform - 0.5 mg/l

Methylene Chloride - 9.4 mg/l

Benzene - <0.1 mg/l

Respectfully submitted,

ALLENTOWN TESTING LABORATORY, INC.

Reported to:

Form No. A3-102

AR101350

ORIGINAL (Red)

ALLENTOWN TESTING LABORATORIES, INC.

754 EAST FAIRVIEW STREET • BETHLEHEM, PA. PHONE (215)-865-2674

Inspection • Testing • Research • Chemical Analysis • Industrial Radiology • Soils • X-Ray • Water • Steel

Certificate of Test and Analysis

Date 5/23/84

For: Tonolli Corporation
RD #1 PA. Route 54
Nesquehoning, PA 18240

Lab. No. A 2008

Report No: CH 84073

On sample of: Bakelite Pile

Received: 4/30/84

Marked: Metals Analysis

Examined with the following results:

Metal	PPM
Lead	1229.0
Mercury	0.219
Silver	5.0
Nickel	6.0
Selenium	0.7
Cadmium	6.6
Barium	2.7
Chromium	5.0

Respectfully submitted,

ALLENTOWN TESTING LABORATORY, INC.

Reported to:

AR101351

ORIGINAL (RED)

ALLENTOWN TESTING LABORATORIES, INC.

754 EAST FAIRVIEW STREET • BETHLEHEM, PA. PHONE (215)-865-2674

Inspection • Testing • Research • Chemical Analysis • Industrial Radiology • Soils • X-Ray • Water • Steel

Certificate of Test and Analysis

Date 5/23/84

For: Tonolli Corporation
RD #1 PA. Route 54
Nesquehoning, PA 18240

Lab. No. A 2008

Report No: CH 84073

On sample of: CaCO Sludge and Water

Received:

Marked: Metals Analysis

Examined with the following results:

Sludge		H_2O	
Metal	Mg/Kg	Metal	mg/l
Silver	<0.01	Silver	<0.01
Arsenic	8.5	Arsenic	<0.02
Lead	23.1	Chromium	0.09
Chromium	7.5	Mercury	0.051
Mercury	0.131	Lead	16.2
Nickel	1.3	Nickel	0.25
Barium	0.5	Barium	0.22
Cadmium	3.1	Cadmium	1.35
Selenium	<0.05	Selenium	<0.1

Respectfully submitted,
ALLENTOWN TESTING LABORATORY, INC.

Reported to:

AR101352

Form No. A3-102

ASW ENVIRONMENTAL CONSULTANTS, INC.
1701 UNION BLVD. ALLENTOWN, PA. 18103

WATER AIR NOISE WASTE

(215)434-1670

Client: Tonolli Corporation
R. D. #1, Rt. 54
Nesquehoning, PA 18240

Lab. No.: 1084-118-5

Date Reported: 10/11/84

Material: Sample #5
Waste water from pipe
at scrubber pit.

TREATED WASTE WATER READY TO BE USED IN AIR POLLUTION CONTROL EQUIPMENT.

Date Rec'd: 9/27/84

Date Sampled: 9/27/84

P.O. No.:

Chemical Analysis

EP Toxicity Test

	Result ppm	Limit ppm
Arsenic	<0.05	5.0
Barium	<1.0	100.0
Cadmium	0.05	1.0
Chromium	0.20	5.0
Lead	0.80	5.0
Mercury	<0.002	0.2
Silver	0.01	5.0
Selenium	<0.05	1.0

Respectfully submitted,

John P. Dougherty

Reported to: Above
Attn.: Jack Chodur

AR101353

ORIGINAL (Red)

TONOLLI CORP HAZARDOUS WASTE INSPECTION
SOLID WASTE SITE

DATE: Inspected by:

TIME;

Check List

Yes	No		Remarks
☐	☐	1. Liner Deterioration	
☐	☐	2. Spillage	
☐	☐	3. Ground-Water Monitoring Well	
☐	☐	4. Signs	
☐	☐	5. Emission or Discharge	
☐	☐	6. Fires or Explosions	
☐	☐	7. Security Fence	
☐	☐	8. Repairs Needed	
☐	☐	9. Leachate	

AR101354

APPENDIX NO. 5

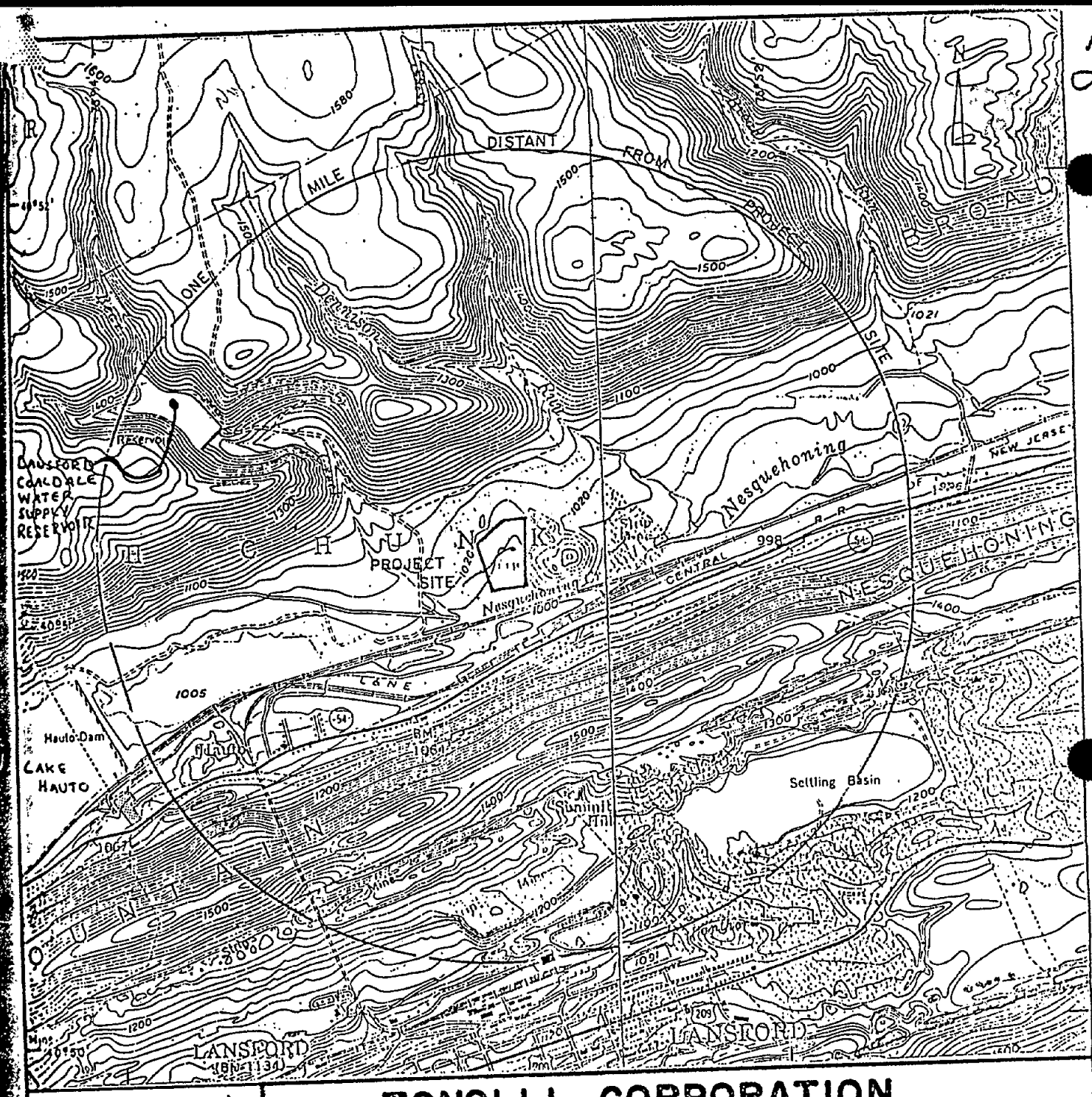
EXISTING DISPOSAL AREAS AND THE GROUNDWATER TABLE

D.E.R. Permit No. 300569 was issued to Tonolli Corporation on August 27, 1974 for the existing landfill areas. All D.E.R. requirements were met at that time (refer to permit application which was submitted to the Reading Office of D.E.R). It is our understanding that a perforated groundwater drain pipe was installed under the lined sites to drain the groundwater and keep the water table to an acceptable level. At some time during the construction of the facility it seems the end of the drain pipe toward the Nesquehoning Creek was buried and cannot be found. Efforts to locate the pipe were made; however, probing was discontinued when excavations into the embankment containing the landfill were approaching limits of stability.

As indicated above, the exact location and condition of the groundwater drain pipe is unknown. No further attempts to locate the drain pipe are possible since the extension of the existing slopes have added more ground cover over the presumed location of the end of the pipe.

ORIGINAL
(Red)

AR101356



SITE LOCATION:

NESQUEHONING BORO.
CARBON COUNTY
PENNSYLVANIA

THE MAP SHOWN HEREON IS TAKEN FROM THE TAMAQUA AND NESQUEHONING U.S.G.S. QUADRANGLE SHEETS (7.5 MINUTE SERIES, PHOTOREVISED 1969).

TONOLLI CORPORATION

SOLID WASTE DISPOSAL SITE

LOCATION MAP

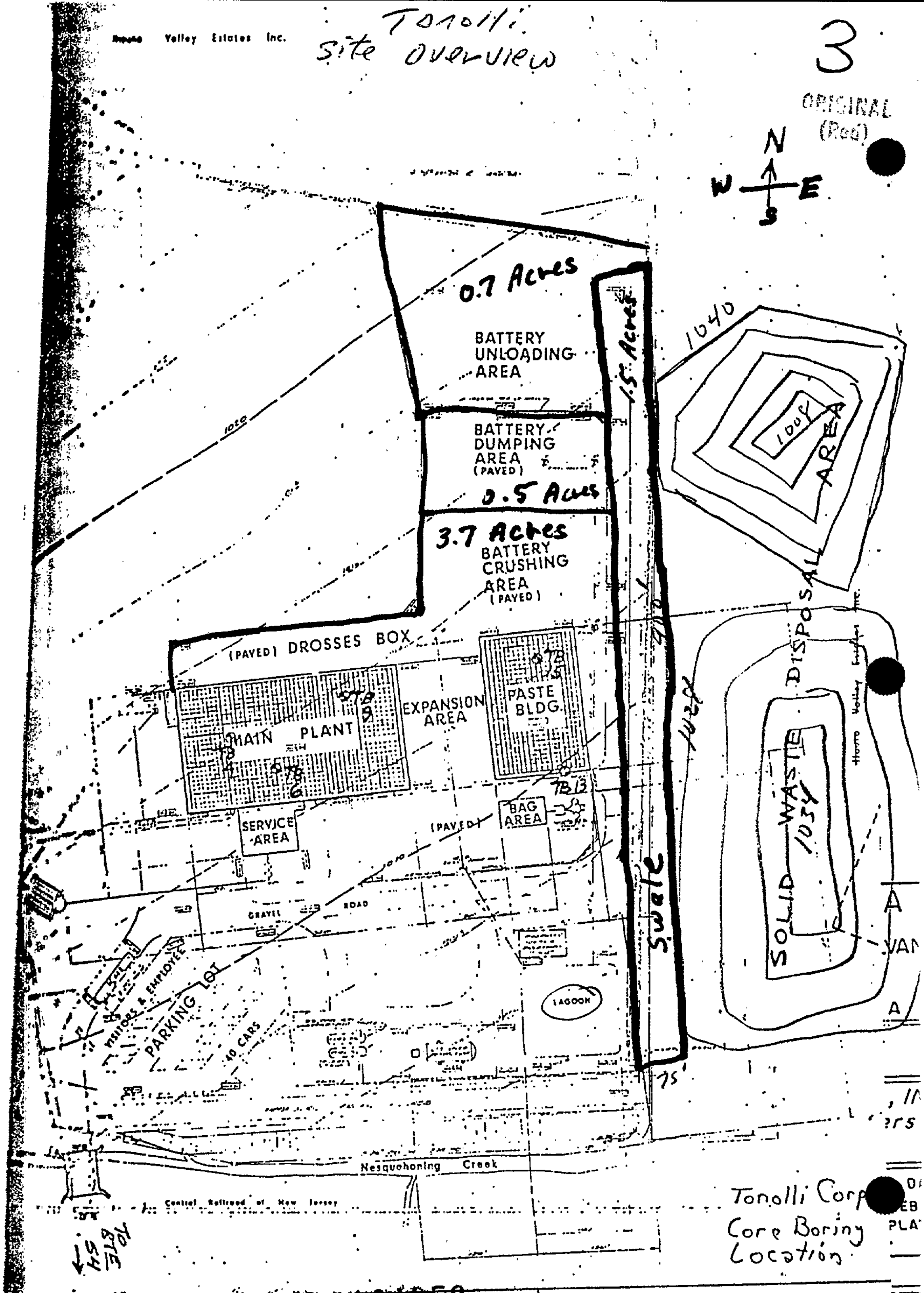
MOTLEY ENGINEERING CO.
consulting engineers
230 N. 6TH. ST. · READING, PA. 19601 · (215) 378-1666

PLAN NUMBER	SCALE: 1"=2000'	DRAWN BY: BILL COLLER	SHEET NUMBER
A-82-78	DATE: MARCH, '83	CHECKED BY:	

PR101357

$\frac{1"}{2000'} \times 528$

$3" \times \frac{2000ft}{1"} = 6000\,ft. = 1.14\,mi$



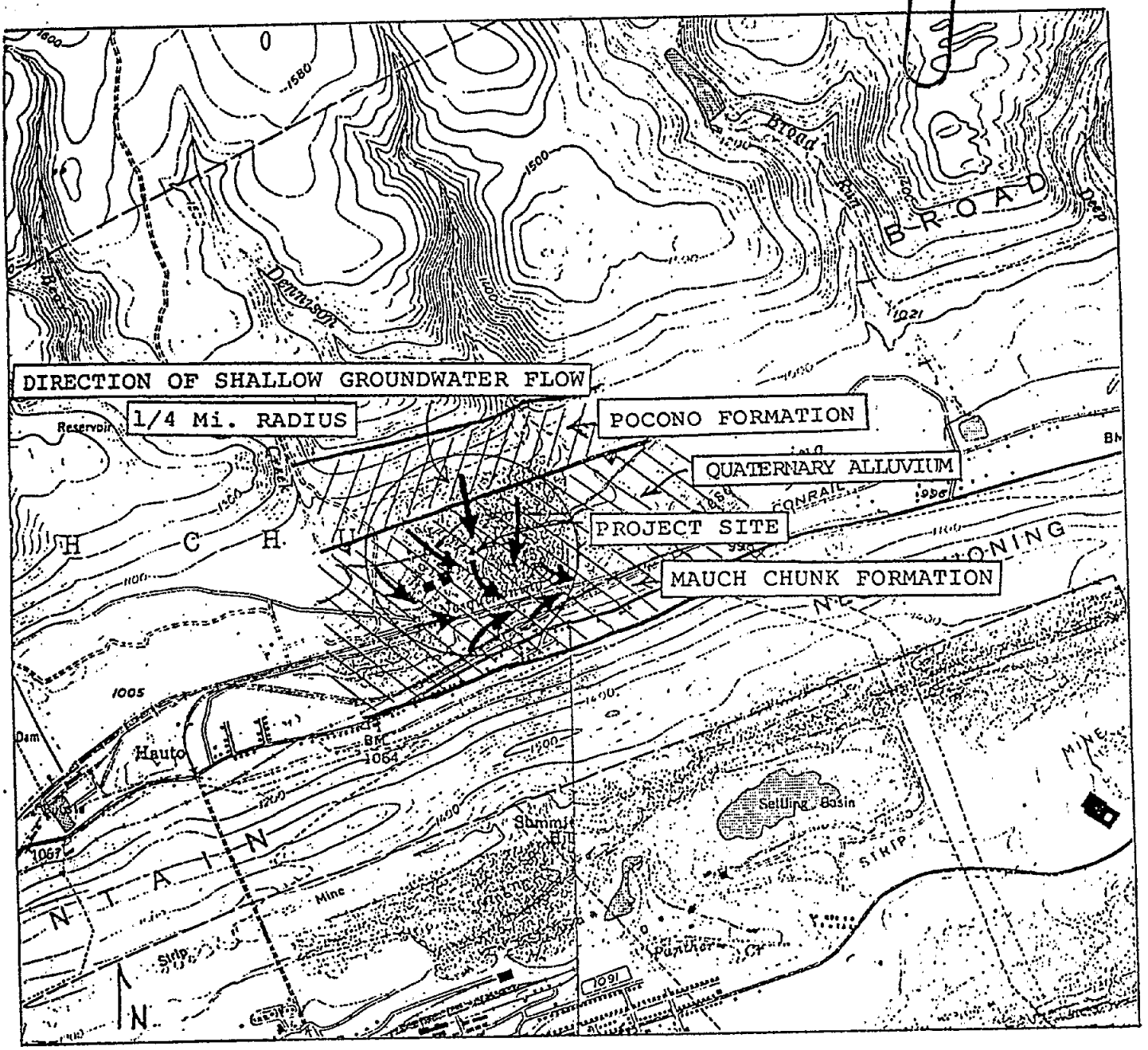
AR101358 33 pt.

— Tonolli Corp. operated: 8/27/74 to Jan 15, 1986

RCRA Activities

Activity	Capacity	Waste Description	RCRA Waste Type	Generation Rates
Landfill Disposal	121 acre-ft or 195,000 yd^3	Scrubber Sludge	K069	8000 tons/yr
		Crushed Battery Cases	D004; D006; D007; D008	1000 tons/yr
Storage in Surface Impoundment	450,000 gal	runoff From Battery Yards	D002 D004 D006 D007	17,000 gal/day
Storage in Tank	500,000 gal	" "	" "	
Treatment Tank	28,800 gal	" "	" "	
Storage in waste pile plastics waste	9000 yd^3	—	—	—

AR101359



Module 2, Phase 1, Section III

GEOLOGY AND GENERAL GROUNDWATER FLOW DIRECTIONS

TONOLLI CORPORATION, NESQUEHONING, PA.

(Reference U.S.G.S. Geologic Map of Tamaqua Quadrangle)

Scale 1" = 2,000'

Bureau of Solid Waste Management
Wilkes-Barre Regional Office
December 16, 1985

JL

Tonolli Corporation - Closure Plan
PAD #073613663
Nesquehoning Borough
Carbon County

Dale G. Williams
Regional Solid Waste
Facilities Supervisor

John S. Mellow
Regional Solid Waste
Hydrogeologist

I have reviewed the above plan concurrent with review of the existing groundwater monitoring system including past analyses of monitoring well samples. Based upon the review of this plan, file correspondence and monitoring reports, I have the following comments:

a) EPA report dated May 10, 1985 indicates contamination of the stream and groundwater by the regulated impoundment and landfill, as well as the possible existence of additional sources (coal refuse, battery dump area, etc.)

Based on the waste description on page 2 of the closure plan and time limitations, this writer's review of monitoring data has mainly emphasized the toxic metals cadmium, chromium, lead and arsenic. The attached graphs for data for 1983, 1984 and 1985 have been used to evaluate the significance of the reported concentrations and formulate the following conclusions:

1) Downgradient stream samples appear to show an apparent significant increase in concentrations of arsenic, cadmium, chromium and lead with respect to the upgradient stream monitoring point. Sulfates also show increase downstream, and pH shows decreasing values for most monitoring periods.

2) The shallow (MW-9) and deep (MW-3) wells located downgradient of the existing solid waste disposal lagoon appear to show similar graphic trends for arsenic, chromium, cadmium and lead. The shallow zone in the coal refuse being monitored has been observed as dry for most monitoring periods and therefore limited data exists.

3) Upgradient wells MW-4 and MW-7 show cadmium, arsenic, chromium and lead values which significantly exceed primary drinking water limits. The divergence for these values in these wells appears to be decreasing during the latter part of 1984 and 1985 monitoring periods.

4) Results of the Students' T analysis on data for 7/8/85 indicates that a significant change has occured in downgradient wells for the required parameters (specific conductance, pH and TDS) as well as arsenic (included in analysis by Intex).

The conclusion reached in this review is that the Tonolli site has caused degredation of groundwater and surface water. The following recommendations are based upon the above conclusions.

1) Samples of the coal refuse should be analyzed for questionable parameters (arsenic, lead, cadmium, chromium, sulfate, etc.) for total and leacheable amounts. This should be performed with enough statistically significant samples to estimate the effect of the coal refuse upon the groundwater and surface water degradation.

INCLUDE IN ORDER

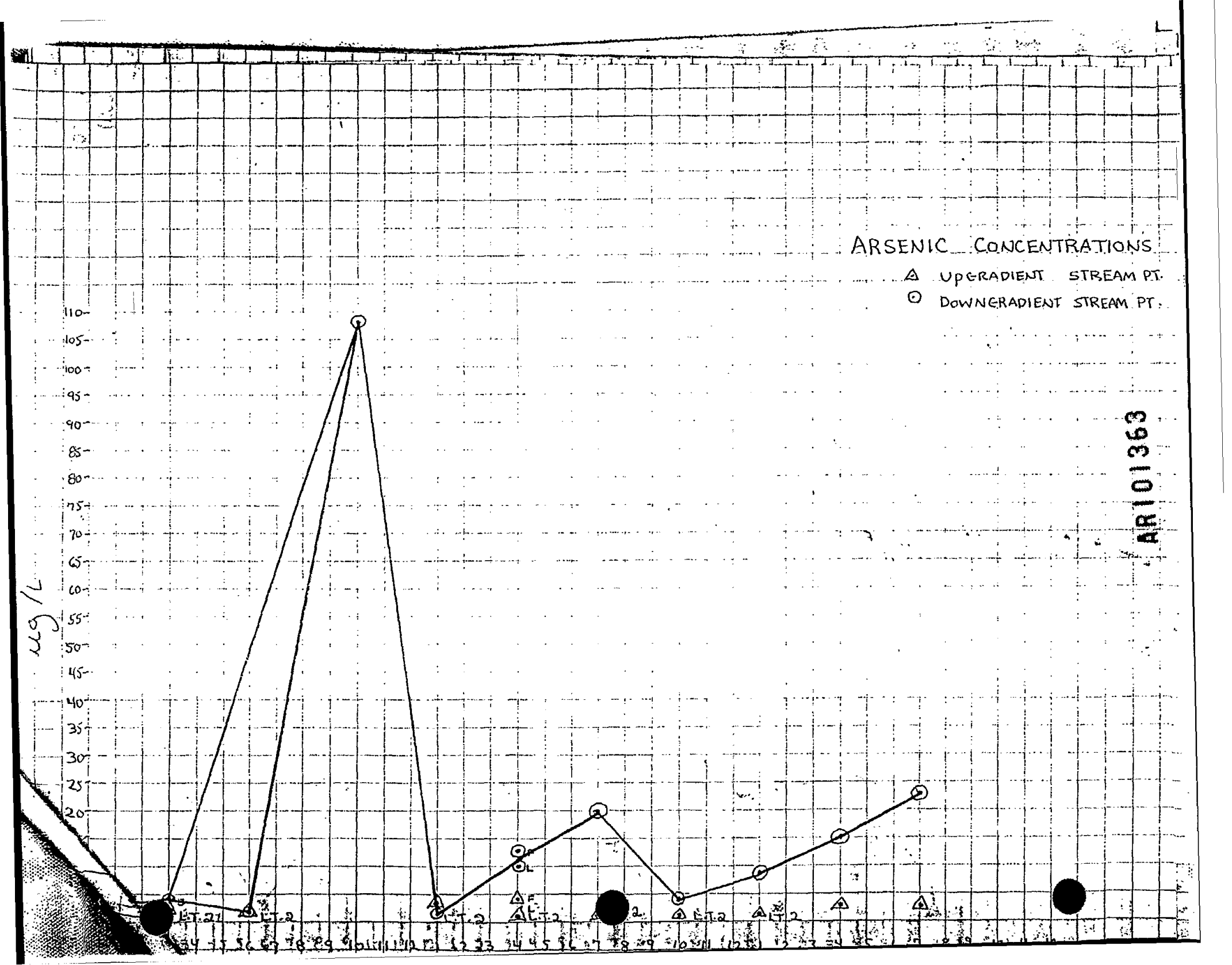
2) The comples factors, including a single liner of unknown integrity, a high water table, and relatively permeable flow zone in the refuse appears to indicate a high potential for contamination. The required assessment and abatement plan as outlined by 265(N)(15)(i),(ii), and (iii) should be considered an important element in the closure of this impoundment, considering the monitoring results of past periods.

SUPPORT CLOSURE

JM:cu

cc: D. Lamereaux
W. McDonnell
W. Tonayko
K. Crowley
T. Geary
File
Chron.

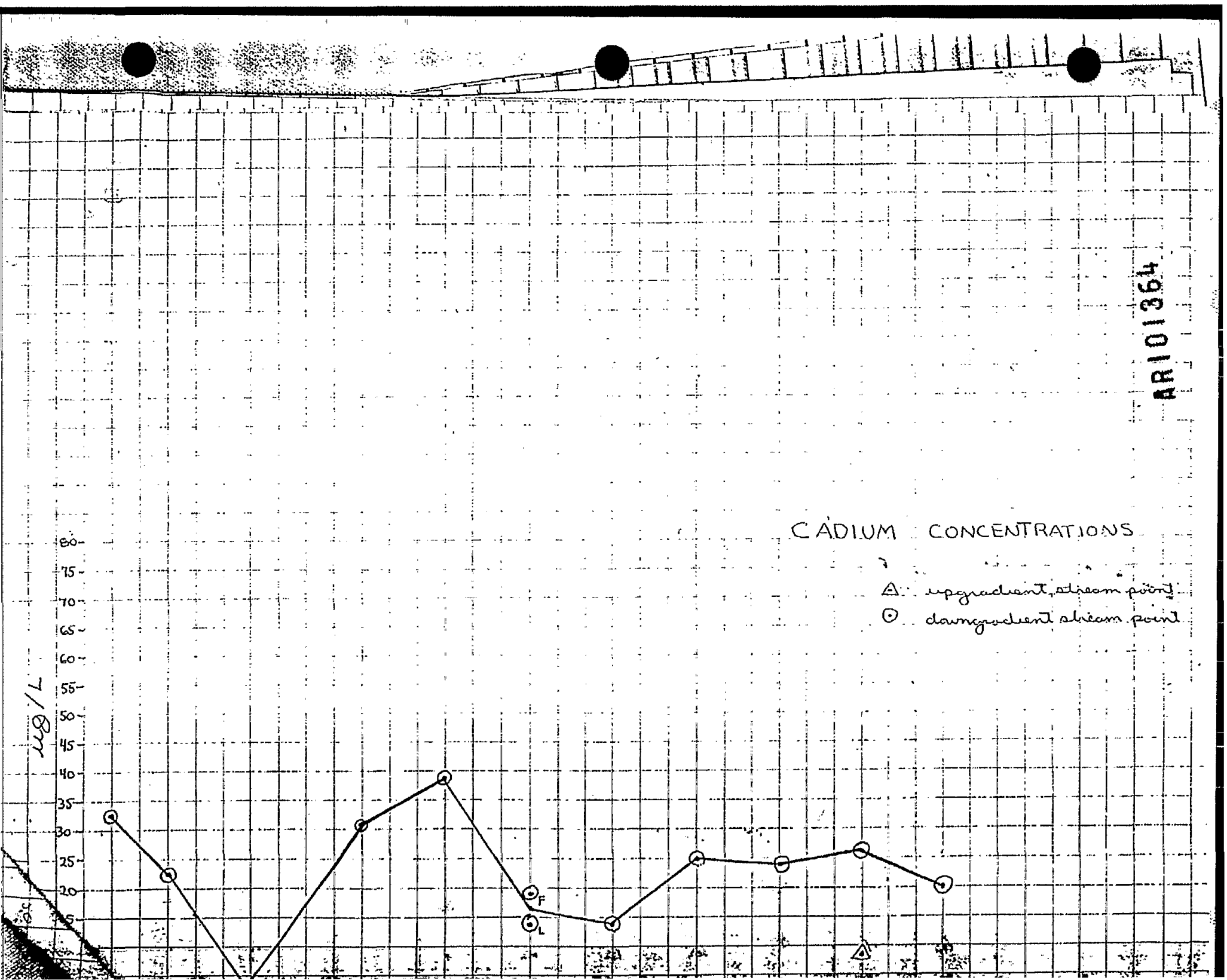
CPT-SW-121
H:12/10
T:12/16
R:12/23

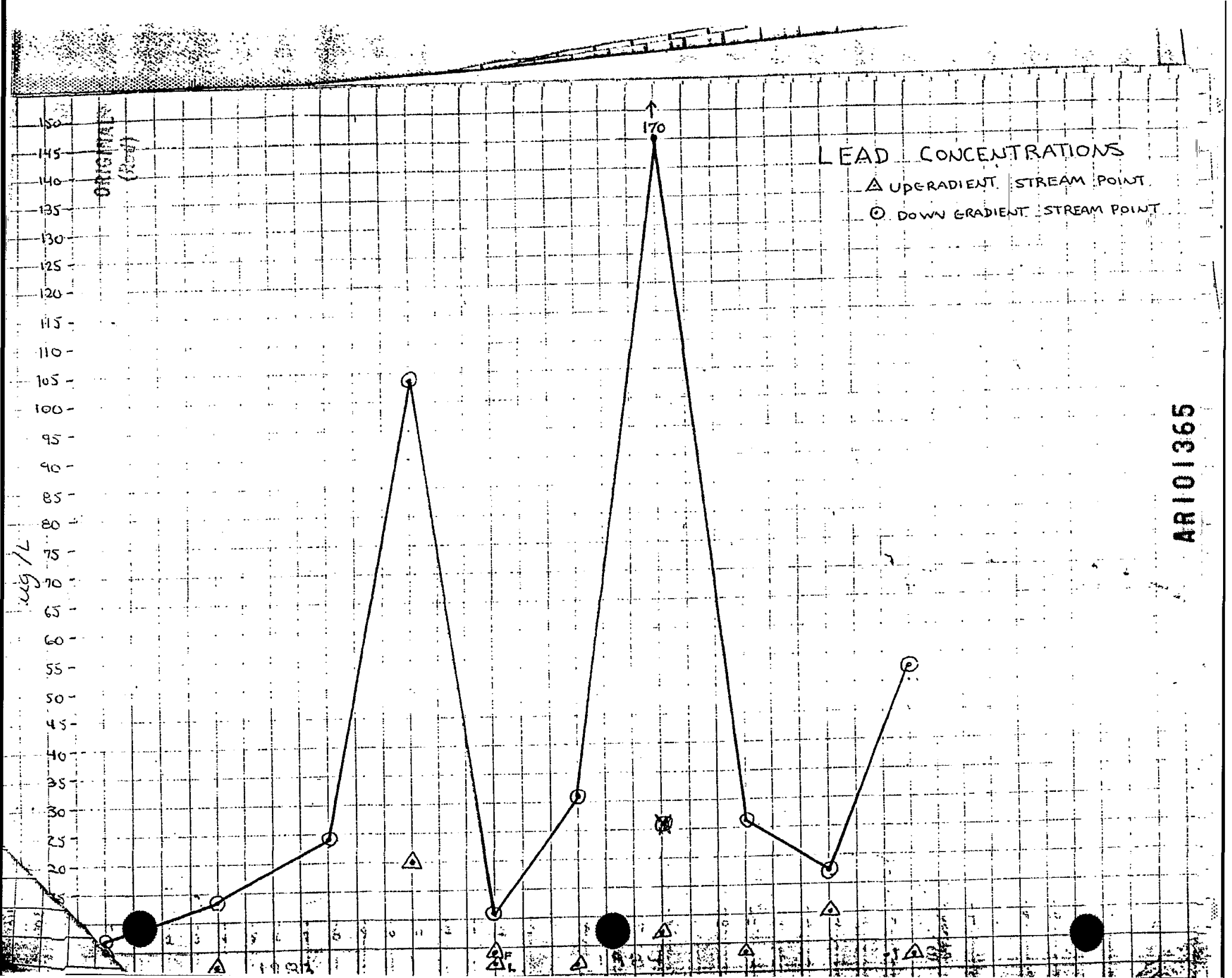

ARSENIC CONCENTRATIONS
UPGRADIENT STREAM PT.
DOWNGRADIENT STREAM PT.
ug/L
110
105
100
95
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
AR101363

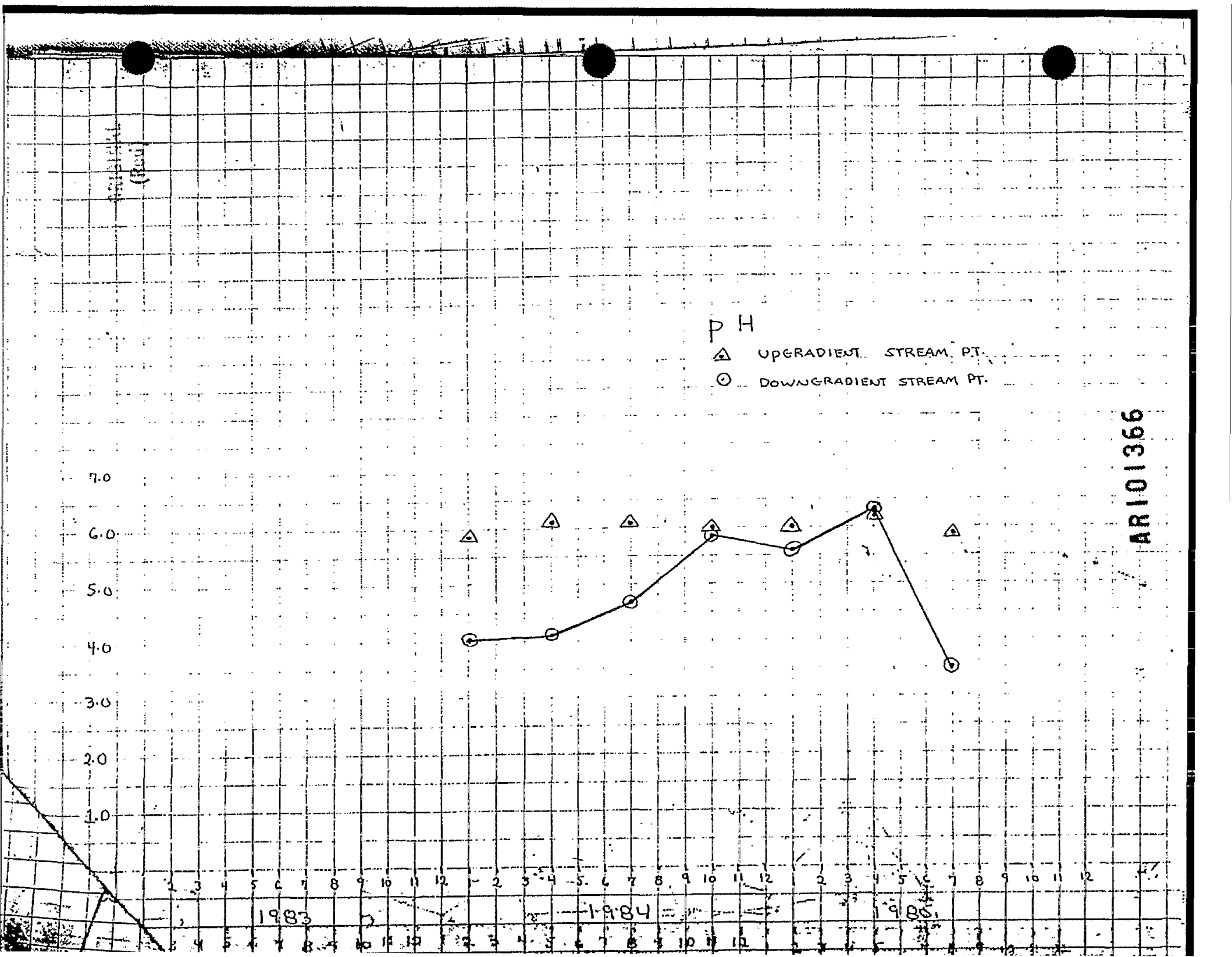
CADIUM CONCENTRATIONS

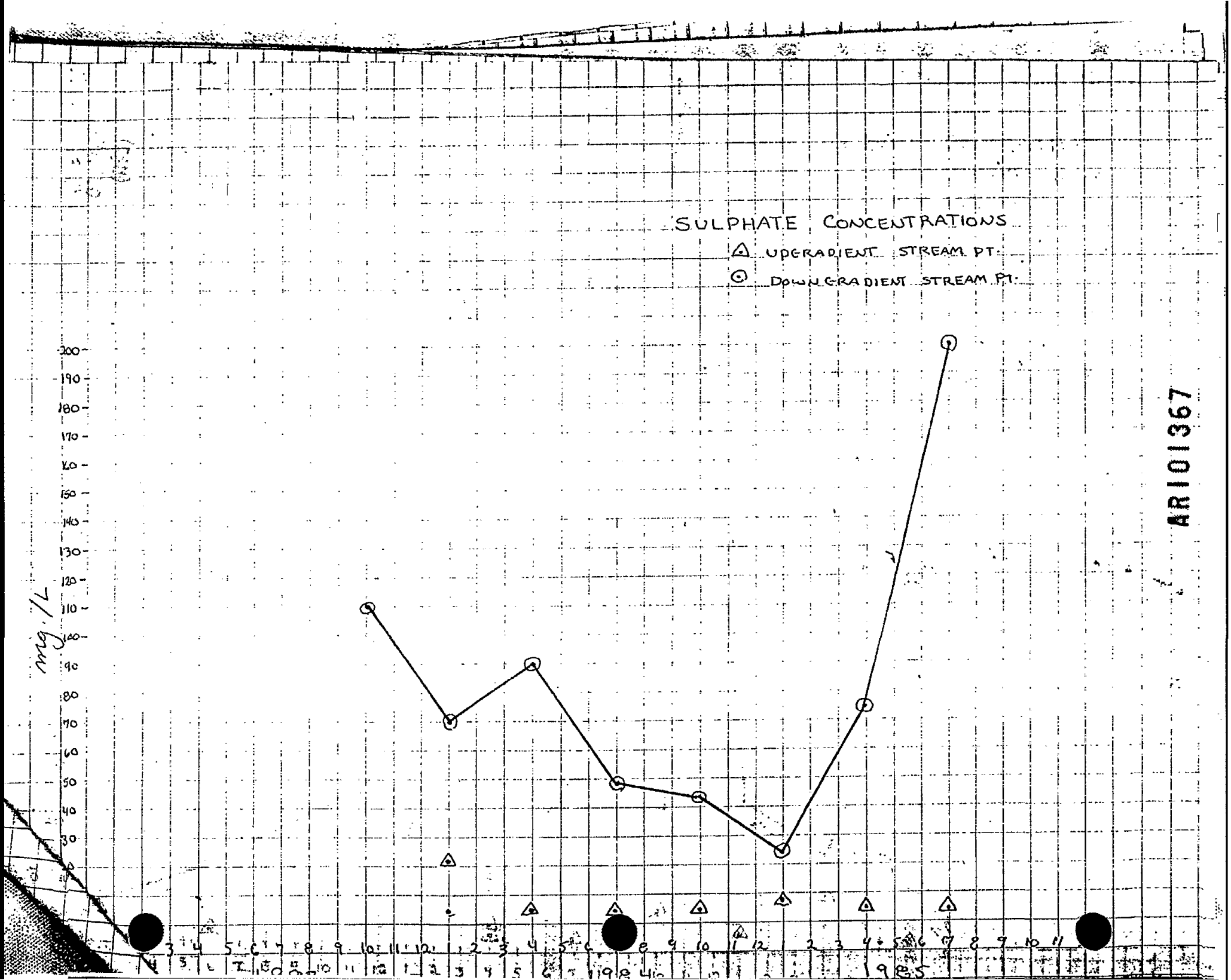
△ upgradient stream point

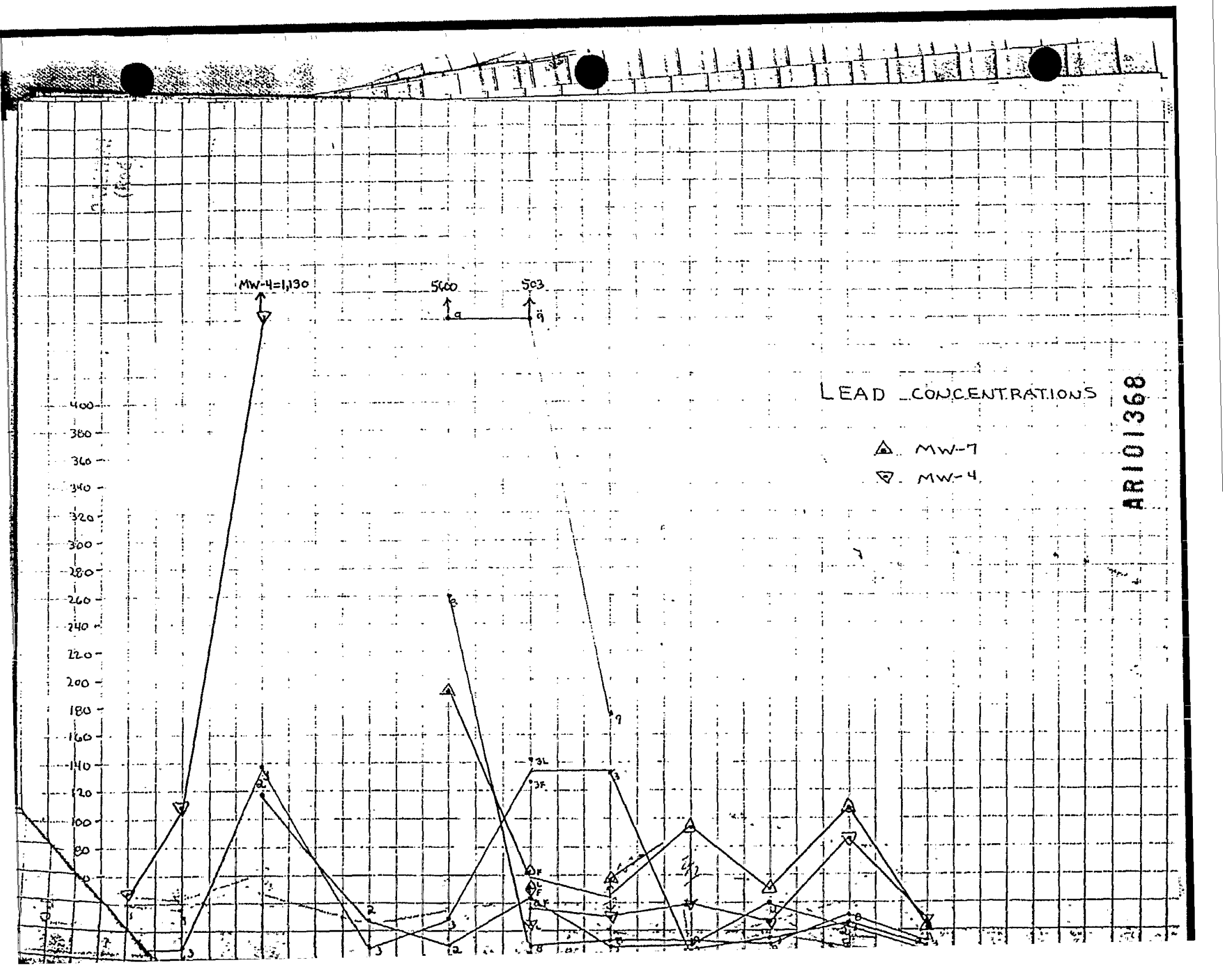
⊙ downgradient stream point

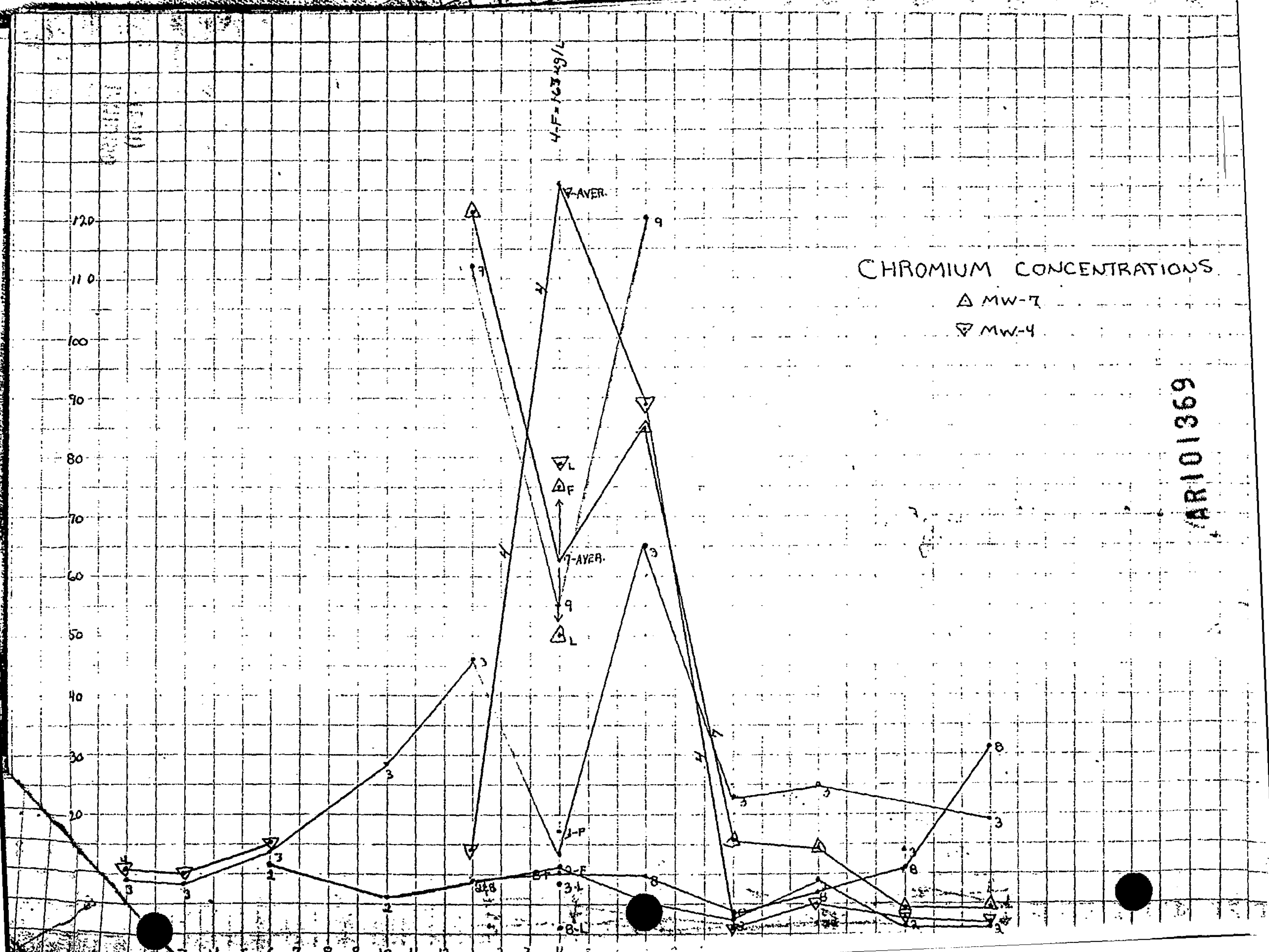


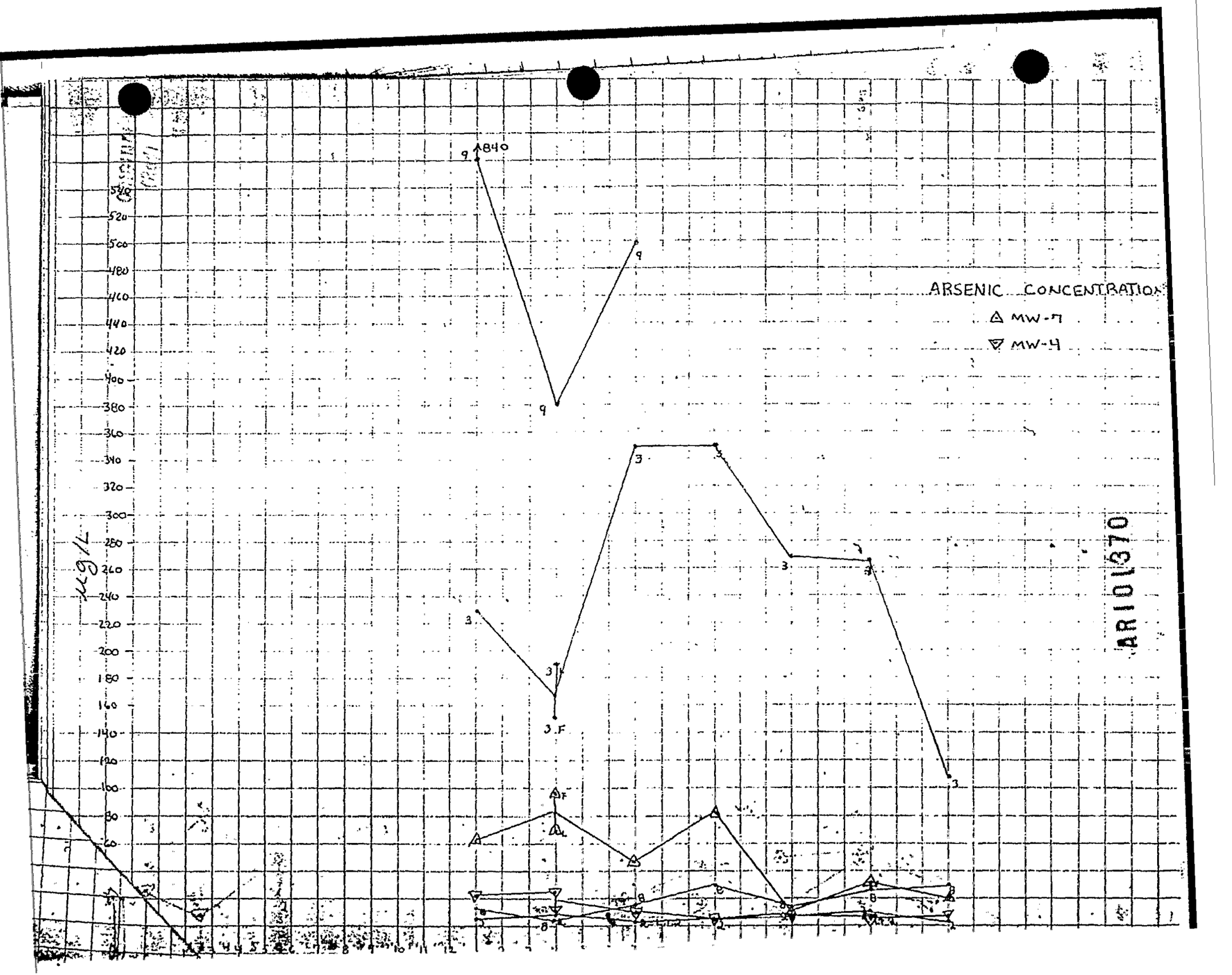

LEAD CONCENTRATIONS
UPGRADIENT STREAM POINT
DOWN GRADIENT STREAM POINT
170
ug/L
ORIGINAL (Red)
AR101365

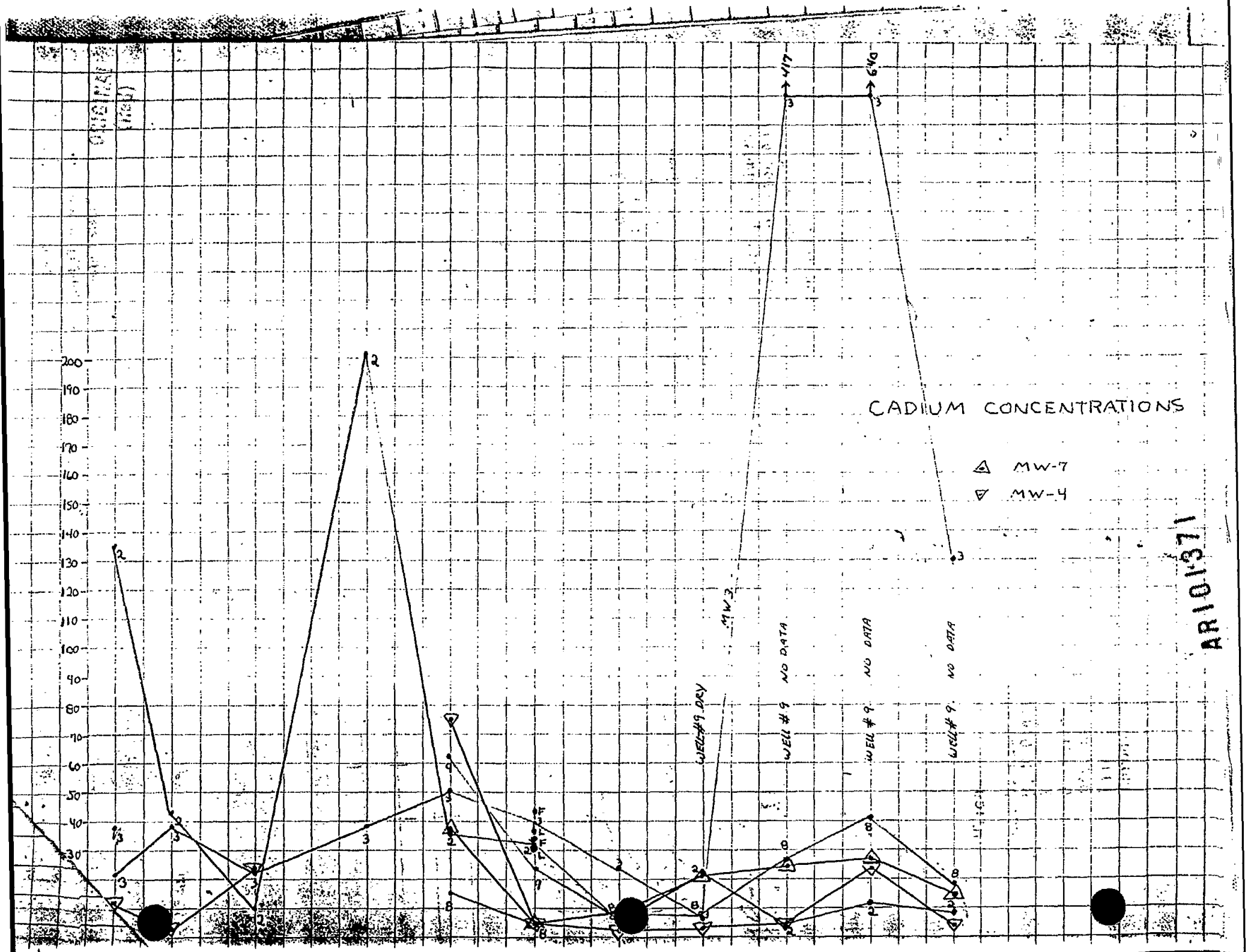

pH
UPGRADIENT STREAM PT.
DOWNGRADIENT STREAM PT.
7.0
6.0
5.0
4.0
3.0
2.0
1.0
1983
1984
1985
AR101366


SULPHATE CONCENTRATIONS
△ UPGRADIENT STREAM PT.
⊙ DOWNGRADIENT STREAM PT.
mg./L
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
1985


MW-4=1,130
5000
503
LEAD CONCENTRATIONS
MW-7
MW-4
400
380
360
340
320
300
280
260
240
220
200
180
160
140
120
100
80
0




ARSENIC CONCENTRATION
MW-7
MW-4
ug/L
AR101370


CADIUM CONCENTRATIONS
MW-7
MW-4
MW3
WELL# 9 DRY
WELL # 9 NO DATA
WELL # 9 NO DATA
WELL # 9 NO DATA
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30

		Yes	No	Unknown
10.	Has an outline of a ground-water quality assessment and abatement program been prepared? 75.265(n)(13)			COMMENT B ✓
	a) Does it describe a program capable of the following:			
	1) Determining which hazardous waste or hazardous waste constituents have entered the ground water? 75.265(n)(13)(i)			✓
	2) Determining the rate and extent of migration of hazardous waste or hazardous waste constituents in ground water? 75.265(n)(13)(ii)			✓
	3) Determining concentrations of hazardous waste or hazardous waste constituents in ground water? 75.265(n)(13)(iii)			✓
	4) Abating any ground-water contamination attributable to the hazardous waste management facility? 75.265(n)(13)(iv)			✓
	b) After the first year of monitoring, have at least four replicate measurements of each indicator parameter been obtained for samples taken from each well monitored? 75.265(n)(14)	✓		
	1) Were the results compared with the initial background means from the upgradient well(s) determined during the first year?	✓		
	(i) Was each well considered individually?	✓		
	(ii) Was the Student's t-test used at the appropriate level of significance (see Chapter 75, Subchapter D, Appendix III)?	✓		
	2) Was a significant increase (or pH decrease as well) found in the:			
	(i) Upgradient wells			✓
	(ii) Downgradient wells	✓		
	If "Yes", Hazardous Waste Management Form 5 must also be completed.			
11.	Have records been kept of the analyses required in paragraphs 75.265(n)(9) through 75.265(n)(11)? 75.265(n)(18)(i)	✓		
12.	Have records been kept of ground-water surface elevations taken at the time of sampling for each well (75.265(n)(12))? 75.265(n)(18)(i)	✓		
13.	Have records been kept of required elevations in indicator parameters (75.265(n)(14))? 75.265(n)(18)(i)	✓		

		Yes	No	Unknown
14.	Has the following ground-water information been reported to the Department: 75.265(n)(18)(ii)			
(a)(i)	During the first year, initial background concentrations of parameters listed in 75.265(n)(8)(i) within 15 days after completing each quarterly analysis required during the first year?	✓		
(ii)	For each well, have any parameters whose concentrations or values have exceeded the maximum contaminant levels allowed in drinking water supplies been separately identified?			✓
(b)(i)	Semi-annual measurements of the parameters establishing ground-water quality (75.265(n)(8)(ii)) for each ground-water monitoring well taken at the end of the first (April 1) and third (October 1) quarters?	✓		
(ii)	Have any significant differences from the initial background found in the wells been separately identified?			✓
(iii)	Has this information been submitted as part of the quarterly report (75.265(m)) for those facilities receiving hazardous waste from off-site sources?			✓
(c)(i)	Quarterly measurement of the parameters used as indicators of ground-water contamination (75.265(n)(8)(iii)) and the required evaluations of these parameters under 75.265(n)(14)?			✓
(ii)	Have any significant differences from initial background found in the upgradient wells been separately identified and included in the quarterly submission?			✓
(d)(i)	Quarterly results of the evaluation of ground-water surface elevations under 75.265(n)(17)?		✓	
(ii)	If applicable, has a description of the response to that evaluation been included?	NA		

Comments attachment to Landfill Form 4 Inspection

A. Upgradient wells (MW-4 and MW-7) show graphic trends which indicate that appendix II parameters lead, chromium, arsenic and cadium are are significant concentrations, and for some monitoring periods well above the MCL's. This was observed during the review of the closure plan for the landfill and quarterly analyses was looked at for 1983, 1984, and 1985. As these wells appear to show significant trends above the values which might be considered ~~background~~ normal area water on the upgradient stream point, it appears that degradation has occured at these upgradient locations.

B. The required assessment and abatement outline has been requested of the applicant as part of the technical review of the landfill closure plan.

ER-SWM-88:2/83

Commonwealth of Pennsylvania
Department of Environmental Resources
Bureau of Solid Waste Management

1/14/86
Date Prepared

07361366 3
I.D. Number

Hazardous Waste Management

Inspection Compliance Checklist for a Facility Which May Be Affecting Ground-Water Quality
(Form 5)

Facility Name	TONOLLI CORP	Facility Permit Number	300569
County	CARBON	Municipality	NESQUEHONING
Company Address	RD#1, RT. 54 NESQUEHONING, PA	Inspector's Name	JOHN S MELLON
Company Contact/Official	JOHN CHODER	Branch/Organization	BWM/DER
Title		Date of Inspection	

Type of facility: (check appropriately)	Yes	No	Unknown
a) surface impoundment	✓		
b) landfill	✓		
c) land treatment facility		✓	
d) disposal waste pile		✓	

1.	Have comparisons of ground-water contamination indicator parameters (75.265(n)(8)(iii)) for the upgradient well(s) shown a significant increase (or pH decrease as well) over initial background? 75.265(n)(14)(i)			
a)	If "Yes", has this information been submitted to the Department according to 75.265(n)(18)(ii)(B)?			
2.	Have comparisons of indicator parameters for the downgradient wells (75.265(n)(8)(iii)) shown a significant increase (or pH decrease as well) over initial background? 75.265(n)(14)(ii)			
a)	If "Yes", were additional ground-water samples taken for those downgradient wells where the significant difference was determined? 75.265(n)(14)(ii)			
1)	Were samples split in two?		✓	
2)	Was the significant difference due to human (e.g., laboratory) error? If "Yes", do not continue.		✓	

		Yes	No	Unknown
3.	If significant differences were not due to error, was a written notice sent to the Department within 7 days of confirmation? 75.265(n)(15)		✓	
4.	Within 30 days of notification of the Department, was a certified ground-water quality assessment plan, based on the outline required by 75.265(n)(13), developed and submitted for approval? 75.265(n)(15)(i)		✓	
a)	Does the plan specify 75.265(n)(15)(ii):			
1)	well information (specifics)		✓	
(a)	number?		✓	
(b)	locations?		✓	
(c)	size?		✓	
(d)	depths?		✓	
2)	sampling methods?		✓	
3)	analytical methods?		✓	
4)	evaluation procedures?		✓	
5)	abatement procedures?		✓	
6)	schedule of implementation?		✓	
b)	Does the plan allow for determination of 75.265(n)(15)(iii):			
1)	Rate and extent of migration of hazardous waste or hazardous waste constituents in the ground water?	N/A		
2)	Concentrations of the hazardous waste or hazardous waste constituents in the ground water?	N/A		
c)	Is it indicated that the first determination was made as soon as technically feasible? 75.265(n)(15)(iv)			✓
1)	Within 15 days after the first determination, was a written report containing the assessment of ground-water quality submitted to the Department?			✓

	Yes	No	Unknown
d) Was it determined that hazardous waste or hazardous waste constituents from the facility have entered the ground water?			✓
1) If "No", was the original indicator evaluation program, required by 75.265(n)(7) - 75.265(n)(12) and 75.265(n)(14), reinstated?	NA		
a) Was the Department notified of the reinstatement of program within 15 days of the determination? 75.265(n)(15)(v)	NA		
e) If it was determined that hazardous waste or hazardous waste constituents have entered the ground water (75.265(n)(15)(vi)):			
1) For facilities where the program was implemented prior to final closure, are determinations of hazardous waste or hazardous waste constituents continued on a quarterly basis? (If the program was implemented during the post-closure care period, determinations made in accordance with the ground-water quality assessment plan may cease after the first determination.)			✓
(a) Were subsequent ground-water quality reports submitted to the Department within 15 days of determination?		✓	
(b) Has an approvable abatement plan, to be used to abate the ground-water contamination, been developed and submitted to the Department?		✓	
2) Were records kept of the analyses and evaluations, specified in the ground-water quality assessment (throughout the active life of the facility)? 75.265(n)(19)(i)			✓
(a) If a disposal facility, were(are) records kept throughout the post-closure period as well?			
f) Are annual reports being submitted to the Department by January 31, which contain the results of the ground-water quality assessment program? 75.265(n)(19)(ii)	✓		
1) Do the reports include the calculated or measured rate of migration of hazardous waste or hazardous waste constituents in the ground water during the reporting period?		✓	
2) Do the reports include the measured volumes of hazardous waste or hazardous waste constituents removed from ground water using the abatement procedures specified in 75.265(n)(15)(vi)(C)?		✓	

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
Bureau of Solid Waste Management
Wilkes Barre Regional Office
90 East Union Street - 2nd Floor
Wilkes Barre, PA 18701 (717) 826-2516

December 27, 1985

CERTIFIED MAIL # P 152 951 799

Tonolli Corporation
R. D. #1, Route 54
Nesquehoning, PA 18240

ATTENTION: Bert Schaeffer, Production Supervisor

Dear Mr. Schaeffer:

RE: Notice of Deficiencies
Closure Plan Review
Tonolli Corporation
PAD #073613663
Nesquehoning Borough, Carbon County

A review of the above referenced plan has been completed. The plan consisted of the following:

1) An eight page narrative titled "Tonolli Corporation Solid Waste Disposal Sites Closure Plan".

2) Four page narrative titled "Closure Plans for Wastewater Storage Lagoon".

The submission, as received, is simply the closure plan extracted from the facility's most recent Part B application (Volume 1 - Exhibit XV) and as such, is neither complete or reflective of the units' current status.

A. Specific comments pertaining to the wastewater storage lagoon closure plan are as follows:

1. The design drawings referenced in the plan must also be submitted for approval in conjunction with the plan. For purposes of review, the drawings submitted with the Part B application were used to a certain extent. It is to be noted that the reference in the plan to sheet 15 of 13 is incorrect, and should be changed to sheet 15 of 15.

2. The statement that the surface impoundment would be closed if the capacity were no longer needed or if the plant were to close is outranked by the fact that the surface impoundment is only single lined

and thus not permittable under 75.264(s). This unit must close or be retrofitted with a double liner system.

3. The disposition (off-site TSD or on-site treatment) of the hazardous wastewater contained in the surface impoundment must be specified.

4. The plan states that after liquid removal, the sediment, liner, and contaminated subsoil will be deposited in the on-site hazardous waste landfill. Alternate provisions are to be specified in the likely event that the landfill is at capacity and/or closed prior to closure of the surface impoundment.

5. A detailed sampling and analysis plan must be proposed for the subsoil beneath the liner and adjacent to the impoundment.

6. A final grading plan for the surface impoundment is needed.

7. Detailed calculations and cross-sections should be provided to justify the volumes used in the closure cost estimate as well as the capacity of 500,000 gallons.

8. A cost for the excavation of sediment, liner, and subsoil must be included in the estimate.

9. The closure cost estimate must address implementation of the sampling and analysis plan.

10. The source and specifications for the earth backfill must be provided.

11. Surface water controls have not been proposed to manage both run-on and run-off and to prevent erosion of the final cover. These structures should be shown on the final grading plan and supported with design calculations relating to sizing and discharge point(s).

12. The plan must address the submission to the Department of certification by both the owner/operator and an independent registered professional engineer that the facility was closed in accordance with the approved closure plan.

13. Tonolli Corporation, it appears, will attempt to close this unit as a storage surface impoundment in conformance with 75.265(s)(8), thus precluding the unit from any post closure case. However, there may be a possibility of groundwater contamination from this unit which would then require closure and post-closure care (and a post closure permit) under 75.264(o) and (v) as a disposal surface impoundment. Further review of the post-closure section of the plan will be delayed until such a determination has been made. Attention is called to the hydrogeology section of this review.

14. The current proposal for closure does not specify a cap design similar to that proposed for the landfill. While such a cover system is not required for a storage impoundment closure, it will be required if the determination is made that this is a disposal impoundment and must be incorporated into that redesign.

15. It should be noted that the surface impoundment cap, intended to serve as a secondary containment system for the above-ground storage tank, will not meet the minimum permit requirements in EPA's proposed regulations of June 26, 1985.

B. Specific comments relating to the landfill closure are as follows:

1. The design drawings referenced in the plan must also be submitted for approval in conjunction with the plan. For purposes of review, the drawings submitted with the Part B application were used to a certain extent. It is to be noted that the reference in the plan to Drawing #10 is incorrect and should be changed to Drawing #12.

2. The appendix referenced in the plan must also be permitted.

3. The plan (and drawings) should only address the existing disposal site without the confusing and no longer applicable references to the proposed site.

4. The cross-sections through the existing site do not reflect the current waste operations and thus, the calculations used to determine the remaining capacity cannot be verified. A topographic plan and the most recent sections available is to be provided.

To this end, a discussion of how the remaining capacity will be utilized (waste disposal and/or backfilling) to insure closure in 1986 is required.

5. The plan must provide for a 1 foot thick layer of intermediate cover placed over the final volume of waste to protect the clay layer. Material specifications, sources, volumes, and placement details should be provided.

6. The design of the clay layer within the final cover should address the following, at a minimum:

   a) Source and volume needed of material,

   b) Compatability of material with wastes contained in disposal area,

   c) Effect of wastes on permeability of material,

   d) How required minimum permeability will be achieved and measured after construction,

   e) Amendments, if needed, to achieve required permeability,

   f) Scarificaiton between lifts,

   g) Method of compaction,

   h) Moisture content and in-place density of clay to achieve required permeability,

   i) Method of moisture addition and integration, and

   j) Maximum clod size.

7. The design of the geosynthetic layer within the final cover should address the following, at a minimum:

   a) Manufacturer, fabricator, and anticipated installer of material,

b) Compatability of material with wastes contained in the disposal area,

c) Effect of wastes on permeability of material,

d) Effect of subsidence/settlement on material properties,

e) Method of seaming and seam testing,

f) Assurances that liner will be sufficiently protected from freeze/thaw effects,

g) Specifications for intended geosynthetic (not typical),

h) Details and discussion relating to tie-in to existing primary butyl rubber liner,

i) Sealing of liner to gas vent PVC risers and the 2 concrete manholes, and

j) Note: The geosynthetic must be placed in direct contact with the clay layer and not within a 6-inch sand layer. Sand (or a geotextile) used to cushion the geosynthetic from the drainage layer may then be placed over the liner.

8. The design of the drainage layer within the final cover should address the following, at a minimum:

a) Source and volume needed of material,

b) Material specifications for stone screenings, and

c) Material specifications for filter fabric.

9. The design of the subsoil/topsoil layer within the final cover should address the following, at a minimum:

a) Sources and volume needed of material, and

b) USDA textural classification.

10. A written Construction Quality Assurance (CQA) Plan is to be submitted to be used in all aspects of closure construction from placement of the intermediate cover up to and including the top-soil layer. The plan must include, at a minimum, the following:

    a) Areas of responsibility for implementing the CQA plan,

    b) Qualifications of CQA personnel,

    c) Specific observations and test of raw materials, construction procedures, and finished components to verify that cap and cover system will perform to design specifications,

    d) Description of sampling program and procedures, and

    e) Documentation of all CQA observations, test results, problems, corrective measures, deviations from design, an as-built drawings.

11. Surface water controls (temporary and permanent) have not been proposed to manage both run-on and run-off and to prevent erosion of the final cover. These structures should be shown on the final grading plan and supported with design calculations relating to sizing and discharge points.

12. The plan must include an up-to-date closure cost estimate.

13. The plan must address the submission to the Department of Certification by both the owner/operator and an independent registered professional engineer that the facility was closed in accordance with the approved closure plan.

14. A "post-closure plan" that provides for a minimum of 30 years of post-closure care must be submitted for approval in conjunction with the closure plan.

15. The post-closure plan must contain at least:

a) Description and frequency of groundwater monitoring activities.

b) Description and frequency of maintenance and inspection activities to address: settlement, subsidence, erosion, and revegetation of final cover and cap, repair of surface water control devices, removal and treatment of collected leachate, gas monitoring, and protection of permanent benchmarks,

c) Contact person or office during the post-closure care period, and

d) Up-to-date post-closure cost estimate.

16. The post-closure plan must address the submission to the Department and municipality of a survey plat indicating the location and dimensions of the disposal area and a description of the waste types disposed of therein.

17. The post-closure plan must address the notation to be filed on the facility deed of the land use and its restrictions and of the survey plat and description submitted to the Department and municipality.

18. Note: All regulatory citations in the above comments necessarily reference 75.264 since the hazardous waste disposal unit to undergo closure accepted waste after July 29, 1982, does not have a hazardous waste permit, and is required to have post-closure groundwater monitoring. As per 75.264(a)(ii), a post closure permit will soon be required that insures compliance with 75.264(o) and (v) and thus the closure and post-closure plans must also satisfy these sections.

C. The following comments pertain to hydrogeological concerns:

1. This section of the review involved the existing groundwater monitoring system, past analysis of monitoring well samples, file correspondence and monitoring reports.

2. EPA has indicated that the stream and groundwater has been contaminated by the impoundment and landfill, as well as the possible existence of additional sources (coal refuse, battery dump area, etc.).

3. Based on the waste description on page 2 of the closure plan, the review focused on the metals cadmium, chromium, lead and arsenics. Graphs were prepared from data obtained in 1983, 1984 and 1985 (included as attachments to this review) to assist in evaluating the significance of the reported concentrations and formulate the following conclusions:

   a) Downgradient stream samples show a significant increase in concentrations of arsenic, cadmium, chromium and lead with respect to the upgradient stream monitoring point. Sulfates also show an increase downstream and pH shows decreasing values for most monitoring periods.

   b) The shallow (MW-9) and deep (MW-3) wells located downgradient of the existing waste disposal lagoon appear to show similar graphic trends for arsenic, chromium, cadmium and lead. The shallow zone in the coal refuse area has been dry during certain periods and therefore limited data exists.

   c) Upgradient wells (MW-4 and MW-7) show cadmium, arsenic, chromium and lead values which exceed primary drinking water limits. The divergence for these values in MW-4 and MW-7 appears to be decreasing beginning in the latter part of 1984 and continuing to the present.

   d) Results of the Students' T analysis on data for 7/8/85 indicate that a significant change has occurred in downgradient wells for the required parameters (specific conductance, pH and total dissolved solids) as well as arsenic (included in the analyses by Intex).

Based on the above information, the Bureau of Solid Waste Management, PA DER concludes that the Tonolli site has caused degradation of groundwater and surface water. Accordingly, the following comments are pertinent:

1. Samples of the coal refuse are to be analyzed for questionable parameters (arsenic, lead, cadmium, chromium, sulfate, etc.) for total and leachable amounts. This is to be performed with enough statistically significant samples to estimate the effect of the coal upon the ground and surface water degradation.

2. The integrity of the single liner, the high groundwater table and the relatively permeable flow zone in the coal refuse are factors that mandate preparation of an assessment and abatement plan as outlined by 265(n)(15)(i)(ii) and (iii).

SUMMARY:

Many deficiencies in the submittal plan exist. Review comments should enable the preparer of the revised closure-post closure plans to satisfy regulatory requirements on the resubmission. Extreme care should be paid to doing so. Any questions which may arise can usually be resolved by telephone and the preparer is advised to contact this writer should there be need.

Tonolli Corporation is to resubmit plans which properly address the concerns listed in this Notice of Deficiencies within thirty (30) days of receipt of this notice. Tonolli Corporation is urged to adhere strictly to this time requirement.

If there are questions, please contact this writer at (717) 826-2516 between 8:00 a.m. - 4:00 p.m., Monday through Friday.

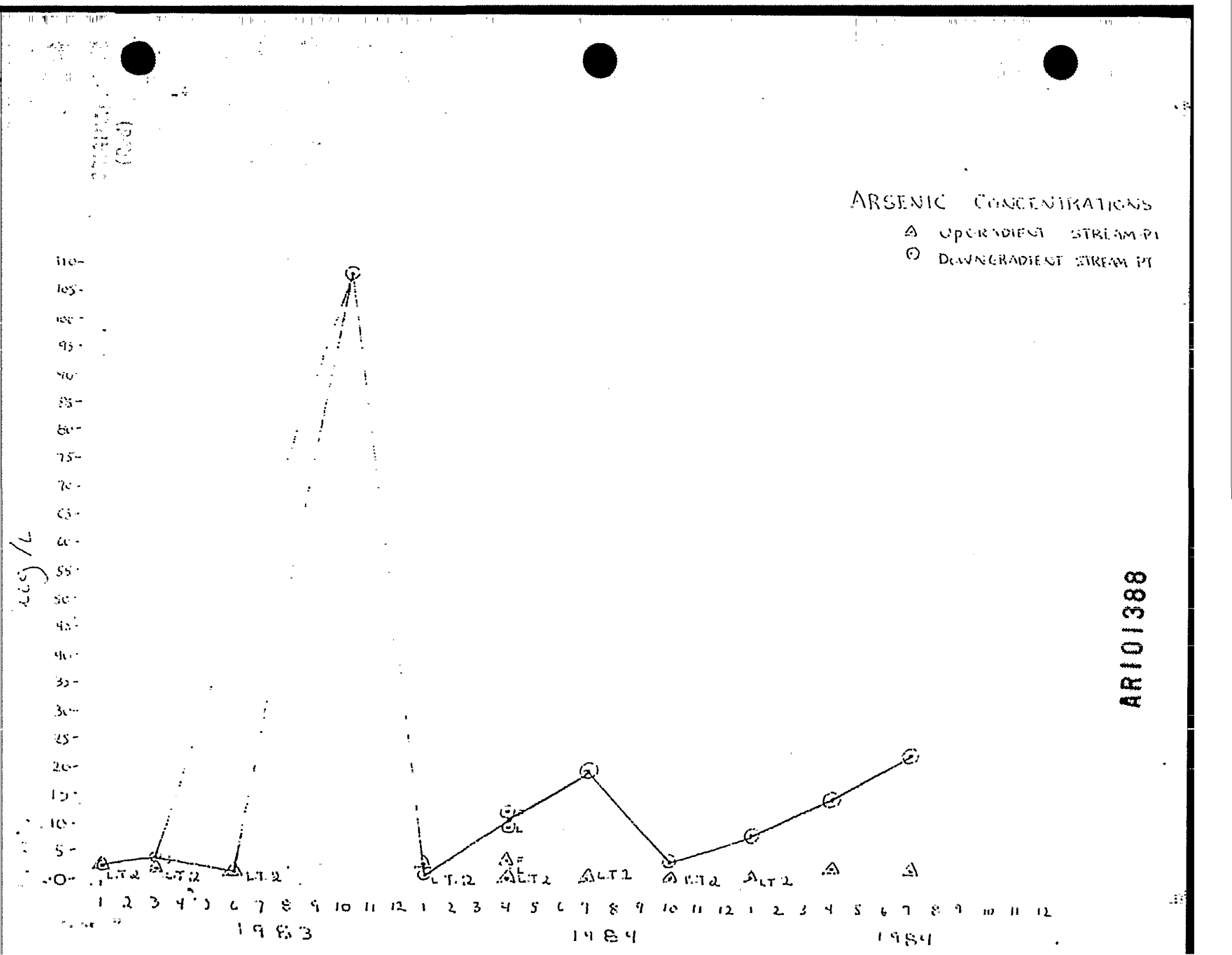
Sincerely,

Dale G. Williams
Regional Solid Waste
Facilities Supervisor

DGW:JSM:amw

cc: D. Lamereaux
W. McDonnell
D. Williams
J. Mellow
K. Crowley
Division of Facilities Management
Division of Compliance and Monitoring
EPA/Ms. Kay Cleghorn
File
Chron.

AR101387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○ DOWNGRADIENT STREAM PT
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100
95
90
85
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70
65
60
55
50
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40
35
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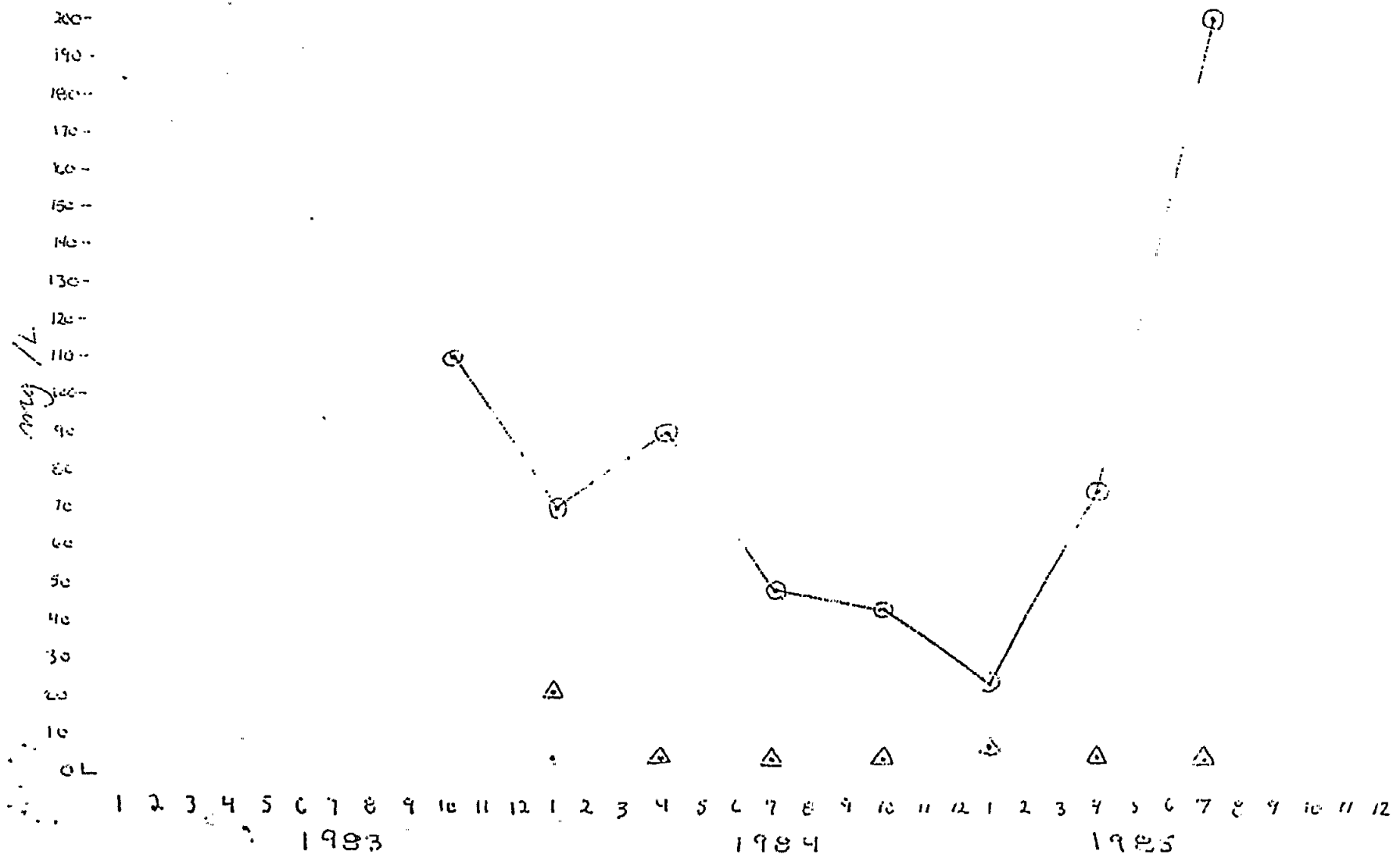
LT 2
1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6 7 8 9 10 11 12
1983
1984
1985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△ UPGRADIENT STREAM PT
⊙ DOWNGRADIENT STREAM PT
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180
170
160
150
140
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120
110
100
90
80
70
60
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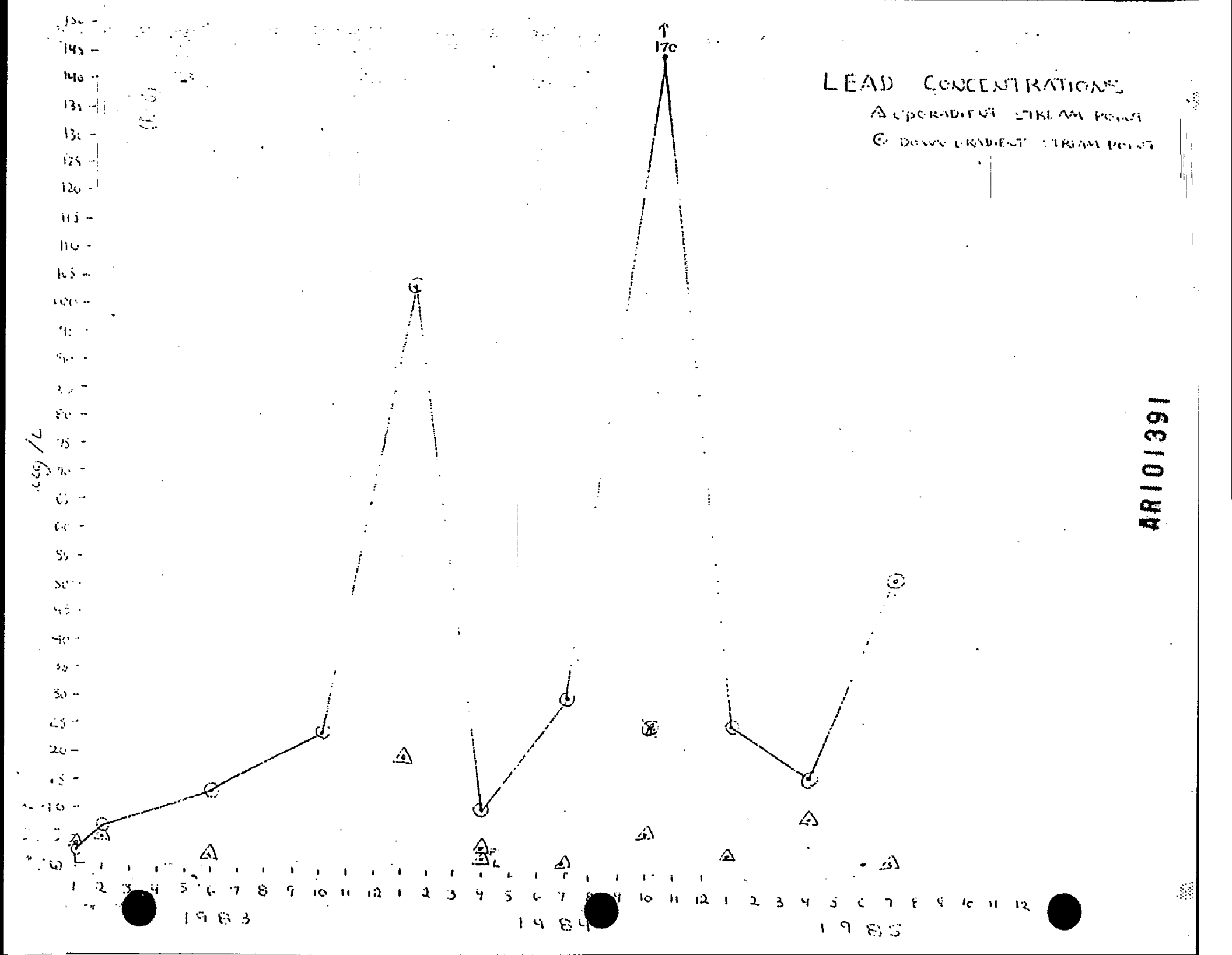
1983
1984
1985


LEAD CONCENTRATIONS
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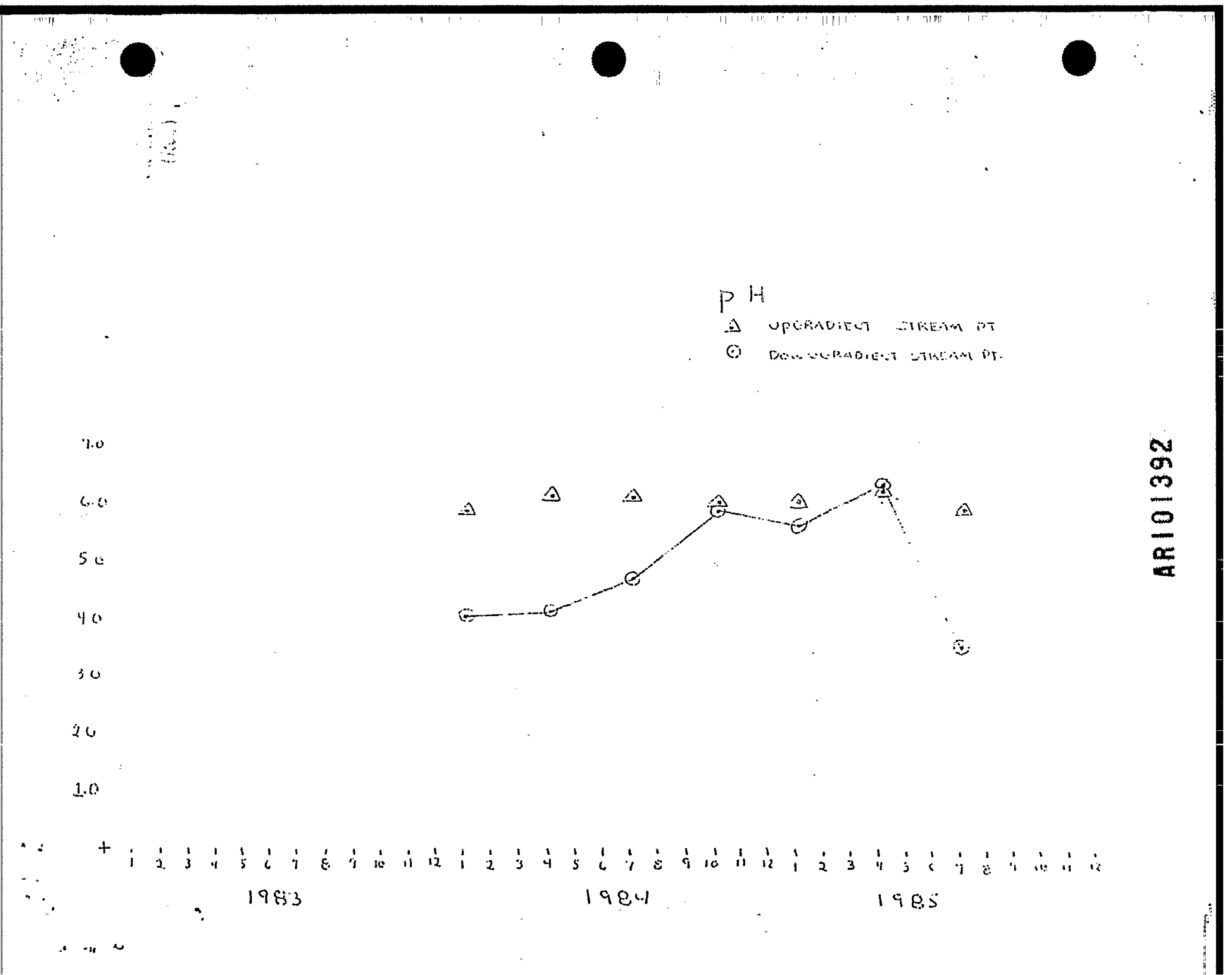
D DOWN GRADIENT STREAM POINT
170
1983
1984
1985


pH
UPGRADIENT STREAM PT
DOWNGRADIENT STREAM PT.
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6.0
5.0
4.0
3.0
2.0
1.0
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1983
1984
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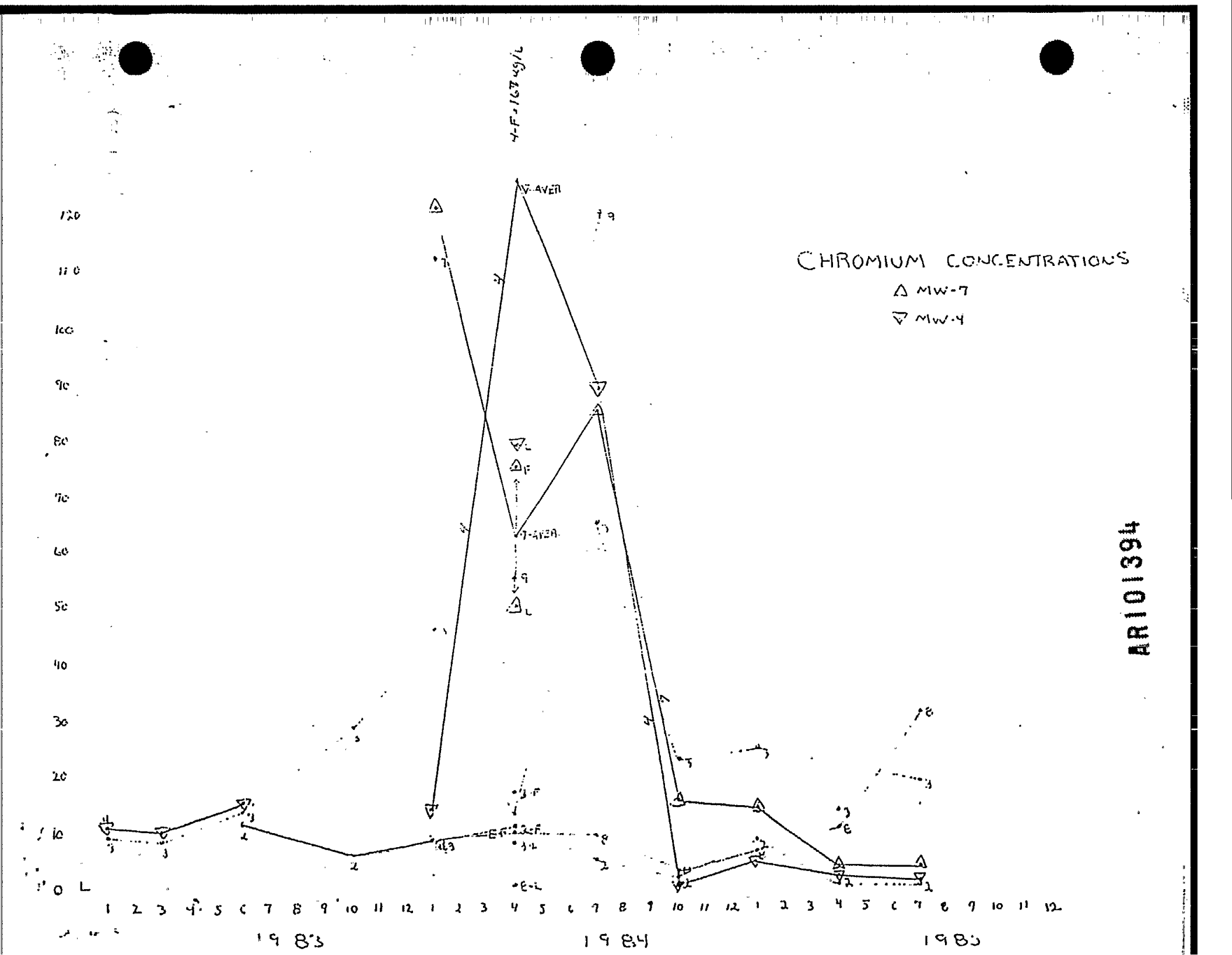
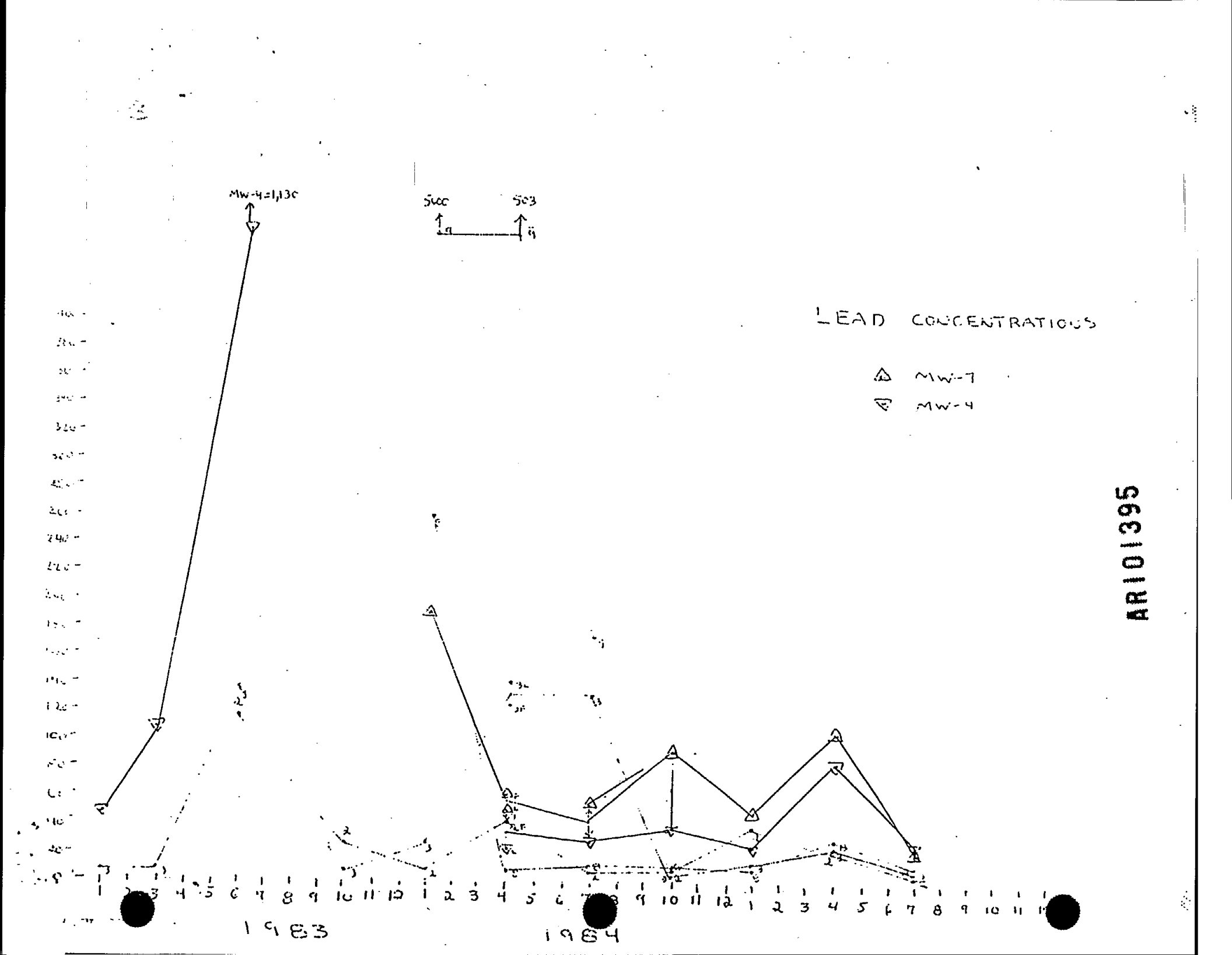
AR101393


CHROMIUM CONCENTRATIONS
MW-7
MW-4
7-AVER
4-AVER
1983
1984
1985

AR101394



ATTENDANCE

Meeting
Lansford Coaldale Water Supply Co.
10:00 AM – 11:30 AM
6-8-83

Name	Title	Organization	phone #
Richard Mieszkowski	Solid Waste Specialist	DER	826-2516
Jim LaBuz	Engineer - Water Supply	DER	826-2525
HARRY VADYAK	CHAIRMAN	L.C.W. AUTH	645-3040
EDWARD J GAYDOS	CONSULTING ENGINEER	C.C. W. AUTH	366-2973
Edward C. Jones	DER - CEC	Pottsville	622-8181 Ext
Jeffrey Olsen	DER - CEC	POTTS.	622-8181
Michael Kerestes	Water auth.	Lansford	645.3 [illegible]
Lori O'Day	DER/BSWM	Hydrogeologist	826-2516

Document No. 8

Preliminary Assessment Item: Part 3,II Surface Water, Groundwater, Public Water Impact.

Description: Memo, June 20, 1983, DER Environmental Assessment and review of Module No. 9 of the Part B Permit Application by Richard Mieszkowski, Facilities Specialist.

Summary and Comments: Reviewer concluded that: 1) input from the Bureau of Water Quality Management is required due to the potential impact on a high quality watershed, 2) a proper evaluation of the inter-connection, properties, and extent of the aquifers is required by a hydraulic or geotechnical engineer. Pumping tests to detine the boundaries of the aquifers were recommended. Increase sampling at equal time intervals was recommended (see Module No. 9 review relating to Items 13, 14 and 16).

Document No. 9

Preliminary Assessment Item: Part 3,II Groundwater

Description: Letter, April 30, 1984, from Lori O'Day, Hydrogeologist, to John Chodur, Tonolli Corporation.

Summary and Comments: Problems exist regarding the delineation of the aquifer and aquitard, location of wells, and choice of analytical parameters.

Document No. 10

Preliminary Assessment Item: Part 3,II Public Water Supply

Description: Letter from Lansford Coaldale Water Company legal staff.

Summary and Comments: The Water Company has concern about groundwater impact and recent illegal activity and about RCRA monitoring data revealing contamination of the deep and shallow aquifer, there is concern about Chapter 7 bankruptcy being used to evade RCRA and CERCLA.

Document No. 11

Preliminary Assessment Item: Part 3,II Surface Water, Containment, Storm Drains, Illegal Dumping

Description: Memo regarding the investigation of illegal activity and willful release of hazardous wastes to Nesquehoning Creek.

Summary and Comments:

1. Hazardous surface water runoff generation problem was never resolved.

2. The lagoon is full, tanks full, ditch purposely dug to release hazardous waste to Nesquehoning Creek.

3. Tonolli's samples of wastewater show 21.5 ppm lead, EP toxic waste released, willfully, to a high quality watershed, release continues.

Document No. 12

Preliminary Assessment Item: Part 3,II Surface Water, Containment, Storm Drains, Illegal Dumping

Description: EPA RCRA compliance sampling and inspection, March 11, 1986.

Summary and Comments: Releases investigated and sampled by EPA, 6 sampling points, the highest levels are now 3.5 ppm in the drainage ditch, reduced from 21.5 ppm. No longer EP toxic due to rainfall dilution and purging of the waste tank. Toxic releases violate Pa. Clean Streams Law.

Document No. 13

Preliminary Assessment Item: Field Trip Summary Report, Drainage Areas

Description: Sketch on site map of hazardous waste discharge point, 12/85.

Summary and Comments: Release to Nesquehoning Creek.

Document No. 14

Preliminary Assessment Item: Part 3,II Surface Water, Storm Drains, Containment, Illegal Dumping

Description: A letter of response from Tonolli Corporation's legal counsel to William McDonnell regarding construction of the drainage ditch.

B-11

ER-SWM-5: 9/83

7/14/86
Date Prepared

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
BUREAU OF SOLID WASTE MANAGEMENT

0 7 3 6 1 3 6 6 3
I.D. Number

ORIGINAL (Red)

Hazardous Waste Management

Facility Inspection Checklist for Compliance with Interim Status Standards Covering Ground-Water Monitoring

FORM 4

Facility Name	TOSCOLI CORP	Facility Permit Number	300569
County	CARBON	Municipality	NESQUEHONING
Company Address	RD#1, RTE 54 NESQUEHONING, PA 18240	Inspector's Name	JOHN S. MELLO
Company Contact/Official	JOHN C. HODUR	Branch/Organization	BWM/DER
Title		Date of Inspection	7/8/85

Type of facility: (check appropriately)	Yes	No	Unknown
a) surface impoundment	✓		
b) landfill	✓		
c) land treatment facility		✓	
d) disposal waste pile*		✓	

Ground-Water Monitoring Program

1. Was the ground-water monitoring program reviewed prior to site visit? If "No",	✓		
a) Was the ground-water program reviewed at the facility prior to site inspection?	N/A		
2. Has a ground-water monitoring program (capable of determining the facility's impact on the quality of any ground-water system which the facility has the potential to affect, or as otherwise deemed necessary by the Department) been implemented? 75.265(n)(1)	✓ COMMENT A		
3. Has at least one monitoring well been installed hydraulically upgradient from the limit of the waste management area? 75.265(n)(3)(i)	✓ COMMENT A		
a) Are ground-water samples from the upgradient well representative of background ground-water quality and not affected by the facility (as ensured by proper well number, locations, and depths)?			✓

* Listed separate from landfill for convenience of identification.

		Yes	No	Unknown
4.	Have at least three monitoring wells been installed hydraulically downgradient at the perimeter of the waste management area? 75.265(n)(3)(ii)	✓		
	a) Do well number, locations, and depths ensure prompt detection of any statistically significant amounts of hazardous waste or hazardous waste constituents that migrate from the waste management area to the groundwater?	✓		ORIGINAL (RED)
	b) Have the locations of the monitoring wells been approved by the Department? 75.265(n)(3)(iii)	✓		
5.	Have the locations of the waste management areas been verified to conform with information in the ground-water program?	✓ SEE COMMENT A		
	a) If the facility contains multiple waste management components, is each component adequately monitored?			✓
6.	Do the numbers, locations, and depths of the ground-water monitoring wells agree with the data in the ground-water monitoring system program? (If "No", explain discrepancies on an attachment.)			✓
7.	Well completion details: 75.265(n)(5) and 75.265(n)(6)			
	a) Are wells properly cased?			✓
	b) Are wells screened (perforated) and packed where necessary to enable sampling at appropriate depths?			✓
	c) Are annular spaces properly sealed to prevent contamination of samples and the ground water?			✓
8.	Has a ground-water sampling and analysis plan been developed? 75.265(n)(7)	✓		
	a) Has it been followed?			✓
	b) Is the plan kept at the facility?			✓
	c) Does the plan include procedures and techniques for:			
	1) Sample collection?	✓		
	2) Sample preservation?	✓		
	3) Sample shipment?	✓		
	4) Analytical procedures?	✓		
	5) Chain of custody control?	✓		

		Yes	No	Unknown
9.	Are the required parameters in ground-water samples being tested quarterly for the first year? 75.265(n)(8) and 75.265(n)(9)	✓		
a)	Are the ground-water samples analyzed for the following:			ORIGIN (Red)
	1) Parameters characterizing the suitability of the ground-water as a drinking water supply? 75.265(n)(8)(i)	✓		
	2) Parameters establishing ground-water quality? 75.265(n)(8)(ii)	✓		
	3) Parameters used as indicators of ground-water contamination? 75.265(n)(8)(iii)	✓		
	(i) Has provision been made for the establishment of initial background concentrations of all parameters in all monitoring wells quarterly during the first year? 75.265(n)(9)	✓		
	(ii) For each indicator parameter, are at least four replicate measurements obtained at each upgradient well for each sample obtained during the first year of monitoring? 75.265(n)(10)	✓		
	(iii) Are provisions made to calculate the initial background arithmetic mean and variance of the respective parameter concentrations or values obtained from the upgradient well(s) during the first year? 75.265(n)(10)	✓		
b)	For facilities which have completed first year ground-water sampling and analysis requirements:			
	1) Have samples been obtained and analyzed for the ground-water quality parameters at least semi-annually? 75.265(n)(11)(i)	✓		
	2) Have samples been obtained and analyzed for the indicators of ground-water contamination at least quarterly? 75.265(n)(11)(ii)	✓		
c)	Were ground-water surface elevations determined at each monitoring well each time a sample was taken? 75.265(n)(12)	✓		
d)	Were the ground-water surface elevations evaluated at least annually (by January 31) to determine whether the monitoring wells are properly constructed? 75.265(n)(17)	✓		
e)	If it was determined that modification of the number, location, or depth of monitoring wells was necessary, was the system brought into compliance with 75.265(n)(3)? 75.265(n)(17)	✓		
f)	Prior to any construction modification, were any proposed changes approved in writing by the Department? 75.265(n)(17)			✓

Wilkes-Barre Regional Office
Bureau of Solid Waste Management
June 20, 1983

ORIGINAL (Red)

Review: Part B Hazardous Waste Management Facility Application
Module #9, Tonolli Corporation, PAD 073613663
Carbon County

David J. Lamereaux
Solid Waste Facilities Supervisor

Richard Mieszkowski
Solid Waste Facilities Specialist

Questions 1 - 6:

I have no comment. The responses appear correct and adequate.

Questions 7 & 8:

The Pennsylvania Historic and Museum Commission is the agency responsible for the protection and/or regulation of the resource or aesthetic value in question. They have indicated no specific concern or impact. A letter documenting this was solicited by the applicant and is contained in the application.

Question 9:

No comment.

Question 10:

The Pennsylvania Game and Fish Commissions are the agencies responsible for the protection and/or regulation of the resource in question. Letters from both the Fish Commission and Game Commission have been solicited by the applicant. Both letters indicate no impact or concern.

Question 11:

No Comment

Question 12:

No Comment

Question 13:

The applicant has solicited comments from the Bureau of Water Quality Management, Mr. Paul Fosko, and has directed that they contact or submit comments to the Bureau of Solid Waste Management. We have not received any

comments from the Bureau of Water Quality as of this date. However, the general information sources used in the review of the Module #9 reveal that the site is within a high quality watershed. According to policy, the Bureau of Solid Waste Management must notify the Bureau of Water Quality Management and provide an opportunity for review of the application. A memorandum dated June 10, 1983 was sent to Lawrence Pawlush, Regional Water Quality Manager, on June 13, 1983. The memorandum requested a review by the Bureau of Water Quality Management.

Question 14:

You, David Lamereaux, informed me that a recent newspaper article raised the issue of public water supplies near the facility. I contacted Jim LaBuz of the Bureau of Community Environmental Control. He received a map from Edward Jones, CEC Office in Pottsville, showing groundwater supply wells within one mile of the facility. A copy of this map was received by Lori O'Day.

The applicant did not indicate the presence of groundwater supply wells within one mile of the facility. Their response to Question #14 is therefore inaccurate. A letter dated June 9, 1983 was sent to Mr. Cosimo DeAngelis, Division Manager, Tonolli Corporation. The letter indicated that the response to Question #14 was inaccurate, and the applicant was given an opportunity to correct the discrepancy and provide a corrected response within ninety days upon receipt of the letter. The letter also referred questions to Lori O'Day, Hydrogeologist, for advice on further investigation and testing.

A meeting was held by Edward Jones of the Pottsville Office of the Bureau of Community Environmental Control in Pottsville. The meeting was with the Lansford/Coaldale Water Supply Company. Lori O'Day, Hydrogeologist, and I attended.

General Comments on Question 14:

Before allegations of potential contamination of groundwater resources by Tonolli Corporation are made by the water company or anyone, the following types of information should be obtained. The hydrologic engineer of the water company or Tonolli's consultant should be able to supply the following:

1. The map of the piezometeric surface should be supplied. This will indicate the presence of a confined aquifer, a free aquifer, and the presence of groundwater mounds and possibly even reverse gradients caused by the reservoirs.

2. The existence and extent of any confining clay layer should be investigated. An investigation should be made to determine the extent of cross flow or leakage between a shallow free aquifer and the confined deep groundwater supply aquifer. Pump test data, such as time-drawdown curves, can be interpreted to determine local aquifer boundary conditions.

3. Hydrologic profiles or cross sections showing both lithology and water levels should be provided.

4. The flow directions, velocities, storativity, transmissivity and other properties of the aquifers should be defined to determine potential for an impact of a hazardous waste release.

5. Both Tonolli Corporation and the water company must jointly investigate the problem and cooperate by combining existing information and knowledge.

Possible Mitigation Measures or Additional Requirements:

1. The requirement of quarterly samples for any hazardous waste site is insufficient, for at that frequency, a problem has already occurred by the time an interpretable record length has been established. A frequency of at least bi-weekly samples should be required.

2. The analyses should be complete enough to reconstruct combinations of inorganic pollutant sources known to exist either from background contamination or from the hazardous waste.

3. All monitoring points should be analyzed for exactly the same parameters and at the same equally spaced frequency. Otherwise an incomplete record is useless and uninterpretable.

4. The deep aquifer water supply well of Tonolli Corporation should be included in the sampling program.

Results of Meeting:

Lori O'Day and I attended a recent meeting (6/8/83) between the Bureau of Community Environmental Control, Solid Waste Management, and the Lansford/ Coaldale Water Supply Company. The attendance sheet is attached. The meeting left me with the following observations:

1. The water supply company has an outstanding gripe and resentment, for Tonolli Corporation is a great competitor for groundwater resources in that area. Tonolli Corporation has the groundwater supply well of highest yield. Also, extensive future use planning is required by the water company due to the competition of Tonolli, and as a non-customer, Tonolli represents further monetary loss to the water company.

2. The water company consulting engineer, Mr. Edward Gaydos, stated that the water company does no hydrogeologic investigations and may even hire a water dowser in developing new groundwater

resources. When questioned on how existing water company data and information might help evaluate the potential impact, he responded it is the Department and Tonolli that must prove and guarantee that no contamination of the deep aquifer will result. He implied that no information would be shared or no assistance would be given in evaluating a potential impact, no matter how extensive or expensive any investigation. It is the Department's and Tonolli's responsibility.

Question 15:

No comment. The response seems adequate.

Question 16:

Analyses should be provided on all recycled surface water. Estimates of surface water runoff quantities for three storm events should be provided. A mass balance for recycling of this surface water should be provided with a flow chart of its use and disposition.

Questions 17 - 19:

No comment.

RMM:amw

cc: L. Kuchinski
R. Mieszkowski
File
Chron.

CPT 83-2161 & 83-2161.1
D: 6/16
T: 6/20
R: 6/21

JL 9

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES
Wilkes-Barre Regional Office
Bureau of Solid Waste Management
90 East Union Street - 2nd Floor
Wilkes-Barre, PA 18701
Phone: (717) 826-2516

April 30, 1984

ORIGINAL (Red)

Mr. John Chodur
Tonolli Corporation
R. D. #1, Route 54
Nesquehoning, PA 18240

Dear Mr. Chodur:

RE: Groundwater Quality Assessment
Tonolli Hazardous Waste Disposal Facility
PAD 073613663
I.D. #300569

This letter will recap very briefly the points we discussed at our meeting of April 18, 1984. In addition to ourselves, that meeting was attended by Sergio Legati, Tonolli Corporation; Philip Getty, Project Geologist, International Exploration Inc. (Intex); Thomas Motley, P.E., Motley Engineering Co.; and William Tomayko, Soil Scientist, DER. The purpose of the meeting was to discuss the status of the groundwater monitoring program for Tonolli's hazardous waste disposal facility.

The main points of discussion were as follows:

1) The groundwater analyses results for the background year of monitoring (1983) have characterized the water as low in pH and high in sulfates and various metals. However, the results are inconclusive regarding the source and extent of this poor quality water. An attempt will therefore be made to differentiate between the affects of Tonolli's facility and those of the surrounding flyash piles on groundwater quality. Mr. Getty has made preliminary recommendations for a conductivity profile within Nesquehoning Creek, a resistivity profile of the silty clay aquitard downgradient of the landfill, and detailed waste analyses to identify a waste constituent which can help distinquish between waste disposal and flyash associated problems. A detailed proposal will be submitted by Intex for Tonolli no later than June 30, 1984.

2) There is not yet a clear distinction between the properties of the perched water table and the alluvial aquifer. An upgradient monitoring point will be established in the perched system to compare with shallow downgradient well #9.

3) The discrepancies in Module 8 and the Part B Application regarding the depth and construction of well #3 will be investigated and corrected. A more complete discussion of Part B deficiencies should be scheduled after Tonolli receives a formal completeness review from DER.

4) Plans must be submitted detailing the proper abandonment of wells 4 and 6.

5) The revised groundwater contour map submitted in March 1984 does not at first glance agree with the water elevation in well #7. However, Mr. Getty pointed out a notation on the map indicating that wells 5 and 7 are actually located off of the map. I am requesting now that all future groundwater related maps and sections for Tonolli be expanded to cover the location of upgradient well #7.

6) When the results of April's groundwater sampling are complete, the Student-T test will be applied as required. Following an evaluation of April's results by Intex, Tonolli will officially notify the Department whether or not they are entering the assessment phase of groundwater monitoring. I think we are all in agreement that implementation of a groundwater assessment plan will be required.

If you disagree with any of my conclusions regarding our meeting or feel I have left out anything significant, please let me know. In any event, I will expect to to hear from you as soon as the April groundwater analyses are complete and the Intex plans for assessment are ready for our formal review.

Sincerely,

Lori O'Day

Lori O'Day
Hydrogeologist

LO:amw

cc: Philip Getty
Thomas Motley
David Lamereaux
William Tomayko
Lori O'Day
File
Chron.
✓ Wm. McDonnell

DSL
WFM DGW
DF KC

1E

SOLID WASTE MGMT.

MAR 10 1 16 PM '86

DEPT. OF ENV. RESOURCES
OFFICE OF
ENV. PROTECTION
WILKES-BARRE REGION

THOMAS S. McCREADY
ATTORNEY AT LAW
42 EAST PATTERSON STREET
LANSFORD, PENNSYLVANIA 18232

645-3156 AREA CODE 717

March 4, 1986

John J. Thomas, Esquire
1100 First Eastern Bank Building
Wilkes-Barre, Pennsylvania 18701

In Re: Tonolli Corporation
Case No. 1-85-00859

Dear Mr. Thomas:

I represent the Lansford-Coaldale Joint Water Authority of One East Ridge Street, Lansford, Pennsylvania 18232, whose water supply, reservoir, and deep wells are adjacent to the Tonolli Corporation plant in Nesquehoning, Pennsylvania.

The Authority has grave concern over the effect which the Tonolli operation is having, and will have, on the pollution of the Authority's water supply. That grave concern has arisen with good cause.

Since you may not be aware of the type of operation being run by the debtor, let me briefly explain to you what occurs on their property. Batteries of all sizes are brought to the plant on trucks and are dumped to the rear of the building. It has been noticed that beginning with that point, acid from the batteries flows into the ground. From there, the batteries, once the wood is picked out, go into a large hopper and up a conveyer into the hammermill which crushes them. The crushed batteries are then conveyed into the interior of the plant and placed in a large kiln and are heated to a point where the lead paste is separated from the nonusable materials. The lead paste goes into the mixerhouse and the waste materials are placed into lagoons. The waste material is like bakelite and it is placed in the

upper lagoon. In addition, slush, lime and acid is placed in the upper lagoon which is approximately 75 to 100 yards in diameter and approximately 50 yards deep. It is the upper lagoon into which there is placed the toxic sludge.

The lower lagoon, on the other hand, catches all of the acid and rain water from the drains, drain pipes and sewers which are all interconnected. The lower lagoon is approximately 30 yards by 50 yards and at least 30 yards deep.

Originally, when the batteries are brought by truck to the plant, they cover the entire back area and look like mountains of trash.

The lagoons are lined with rubber and when the slag and solid waste material from the batteries are placed in the upper lagoon, the lining is torn which causes the toxic material to infiltrate the ground. Also, on occasions, the lower lagoon has overflowed and it has been necessary to pump the acid from the lower lagoon into the upper lagoon.

Attempts have been made to seal those parts of the liner which have been cut, split and damaged but the fashion in which this was attempted was unsatisfactory in that the patching material was not sealed to the original liner.

What all of this is resulting in is that the toxic material and acid is percolating down through the ground and is causing serious contamination of that ground which ultimately will effect the water coming from the Authority's deep wells and perhaps the Authority's entire watershed area.

The Tonolli Corporation has been targeted as a cite where hazardous waste is being stored and they were ordered to have the material, sludge, acid and any other toxic material removed by December 15, 1985. In fact, the Authority had authorized me to commence action against Tonolli, but the filing of bankruptcy under Chapter 11, and I now understand they have changed to a Chapter 7 proceeding, prevented me from doing that.

Incidently, we have taken, under oath, the facts upon which the above statements are being made. We definitely now have ground water pollution . That may effect the Authority's

water supply. The toxic materials are also draining into a creek to the south of the Tonolli operation, a creek that is accessed by fishermen and also is affecting an area where hunters take game that drink from this water which could have a devastating affect upon people who ultimately eat the game meat.

All of the above has been further documented in a report from the United States Environmental Protection Agency dated May 10, 1985 wherein, and I quote, the report indicates:

> "The recent water quality data and the index 8/10/84 report, Assessment of Water Quality, indicate that the existing solid waste landfill has contaminated ground water as evidenced by the elevated lead and arsenic levels in downgradient wells 3 and 9.".

This is in reference to the Tonolli Corporation, EPA IVNO. PAD073613663.

It also sets forth that, "The ground water monitoring system at the Tonolli cite is not adequate for the following reasons and should be modified accordingly:". It then lists 5 steps which should be taken to make the ground water monitoring system adequate, none of which were undertaken by Tonolli.

Additionally, in the commentary, when the Tonolli Corporation applied for a renewal of its permit, it was stated after tests were undertaken, that not only was the ground water monitoring system inadequate, but that, "the ground water monitoring system (then in existence) is functioning improperly.

I hope all of the above will make you realize that the Authority and primarily the public being served by it have a very serious problem which can be at least temporarily improved, since what has occurred previously cannot be overcome and that the only way the situation can be improved is to immediately have removed all of the toxic waste, sludge and acid which is presently in the lagoons as well as have removed the batteries remaining to the rear of the plant.

March 4, 1986 John J. Thomas, Esquire

I point out to you with interest the recent cases of Midlantic National Bank vs. New Jersey Department of Environmental Protection and O'Neill vs. City of New York involving a bankrupt estate where the U.S. Supreme Court ruled on January 27, 1986 that bankrupt businesses may not abandon their legal responsibilities for toxic dump cites or other property that endangers public health or safety. The ruling indicates that states can force a bankrupt to clean up polluted areas rather than let them get away under the protection of the Federal Bankruptcy Code. I hope that we will not have to resort to any such as this and that you, as Trustee, will insure that the bankrupt will remove all of the batteries presently located at its cite as well as remove all of the toxic sludge, acid and other material which is polluting the ground and endangering the water supply of the Authority.

I will await to hear from you with your intentions.

Very truly yours,

Thomas S. McCready

TSM:jmh

cc: Department of Environmental Resources ----- Richard Miesckowski
Lansford-Coaldale Joint Water Authority John Leskosky

12

RCRA Compliance Sampling Inspection

Tonolli Corporation
Nesquehoning, Pennsylvania

EPA I.D. Number: PAD 073616336

March 11, 1986

EPA Representatives:

George H. Houghton
Engineering Technician

Theresa A. Simpson
Environmental Engineer

R. Drew Lausch II
Hydrogeologist

Pat McManus
Environmental Engineer
Region III

Vernon Butler
Region III

Facility Representatives: None

Background

Tonolli Corporation was selected for a RCRA CSI by the RCRA Enforcement Section, EPA Region III in order to collect and analyze samples for selected EP Toxic metals.

Inspection Observations

At the time of this inspection, Tonolli Corporation has filed for bankruptcy under Chapter 7 Title II, U.S. Code. All operations at the site have recently ceased leaving one security guard present to accomodate the inspectors.

Samples were taken from six locations (five water, one sediment) as listed in Table A. George Houghton performed the actual sampling, while Drew Lausch and Theresa Simpson assisted and observed. The solid sample was taken with a clean, plastic scoop and placed in a cleaned, wide-mouthed, glass jar with a teflon liner. The water samples were taken using one-quart, plastic containers. During sampling care was taken not to disturb the bottom sediment, a possible source of contamination. No preservatives were added to the samples as per EP Toxic protocol. All samples were analyzed for the selected EP Toxic metals of arsenic, cadmium, chromium, and lead. The results of sample analyses are attached to this report. A review of this data indicates that all samples for EP Toxic metals were found to contain less than maximum concentration levels for arsenic, cadmium, chromium, and lead, as stated in 40 CFR 261.24, and as illustrated in Table B of this report. The photographs of sampling sites and laboratory result forms are also attached to this report.

Attachments
a/s

Table A

Sample Numbers and Locations
Tonolli Corporation

March 11, 1986

(PAD 073616336)

Sample Number	Sample Location
1	Upgradient running water in drainage ditch (just before confluence with spillway ditch)
2	Water from spillway ditch
3	Sludge in spillway tank
4	Run-off to battery storage pit
5	Water in spillway tank
6	Effluent water from drainage ditch to Nesquehoning Creek

ORIGINAL (Red)

Table B

Samples Results as Compared to Maximum Concentration Limits
Tonolli Corporation

March 11, 1986

(PAD 073616336)

Metal	Maximum Concentration (ug/L)	Sample 1 (ug/L)	Sample 2 (ug/L)	Sample 3 (ug/L)	Sample 4 (ug/L)	Sample 5 (ug/L)	Sample 6 (ug/L)
Arsenic	5,000	<200	<200	277	<200	<200	<200
Cadmium	1,000	<5.0	95	380	71	75 ± 1	<5.0
Chromium	5,000	<200	<200	355	<200	<200	<200
Lead	5,000	1,000 ± 90	3,425	3,262	<200	3,500 ± 200	853 ± 12

Region III U.S. ENVIRONMENTAL PROTECTION AG.
Annapolis Field Office
Analysis Request and Result Form

EP TOX

Permit No. _____ Sample No. 1 Lab No. 86031223 Outfall No. _____

Source TONOLLI Nesquehoning, PA Basin _____

Location DRAINAGE ditch No. of Containers 1

Sample Water ✓ Sedmt. _____ Inflnt. _____ Eff. _____ Other _____

Automatic Sampler No. _____ Sampler G Houston Witness RD LAUSCH

Field Meter No.: ph _____ Cond. _____ D. O. _____ Flow _____

CHAIN OF CUSTODY

Date	Time	From (Name)	To (Name)
3-12-86	1434	[illegible]	Janet Rotunno

STORET Station No: SC, _____ ☐ Depth: D _____ (Date-Time as YYMMDDTTTT)

☒ Grab: Date-Time 860311 1405 ☐ Comp. (2) _____

ANALYSIS	RESULT	✓	ANALYSIS	RESULT	✓	ANALYSIS	RESULT
00010, Temp. (Water) °C			P31673, FEC. Strep./100			P0929, Tot. Na, mg/1	
00400, pH			P00500, Total, mg/1 S			P1105, Tot. Al, ug/1	
00095, Cond., umhos/cm			P70300, Dissol. mg/1 O L			P1097, Tot. Sb, ug/1	
00300, D.O., mg/1			P00530, Suspend. mg/1 I D		X	P1002, Tot. As, ug/1 SEB	<200* (106.2)
00301, % D.O. SAT.			P00505, Vol., mg/1 S			P1007, Tot. Ba, ug/1	
00061, Flow, cfs			P38260, MBAS, mg/1		X	P1027, Tot. Cd, ug/1 SEB	<5.0* (103.2)
00058, Flow, gpm			P32730, Phenols, ug/1		X	P1034, Tot. Cr, ug/1 SEB	<200* (106.2)
70508, Acidity, mg/1 (H)			P00720, Cyanide, mg/1			P1042, Tot. Cu. ug/1	
00435, Acidity, mg/1			P1032, Hex. Cr, ug/1			P1045, Tot. Fe, ug/1	5.0
00436, (mineral) Acidity, mg/1			P00550, Oil-Grease, mg/1		X	P1051, Tot. Pb, ug/1 SEB	1,000±90 (106.8)
00410, Alkalinity, mg/1			P00950, Fluoride, mg/1			P1055, Tot. Mn, ug/1	
00900, Hardness, mg/1			P00665, Total, mg/1 P			P71900, Tot. Hg, ug/1	
00945, Sulfate, mg/1			P00666, Dis., mg/1 H O			P1067, Tot. Ni, ug/1	
00080, Color PT-CO U.			P00660, Ortho, PO_4, mg/1 S			P1147, Tot. Se, ug/1	
00070, Turbidity, JCU			P00625, TKN, mg/1			P1077, Tot. Ag, ug/1	
00940, Chloride, mg/1			P00610, NH_3-N, mg/1			P1087, Tot. V, ug/1	
00310, BOD_5, mg/1			P00605, ORG. -N, mg/1			P1092, Tot. Zn, ug/1	
00324, BOD_{20}, mg/1			P00620, NO_3-N, mg/1				
00335, COD, mg/1			P00615, NO_2-N, mg/1				
00680, TOC, mg/1			P00916, Tot. Ca., mg/1				
31501, Tot. Coli/100			P00927, Tot. Mg, mg/1				
31616, FEC. Coli/100			P00937, Tot. K, mg/1				

Chemist Review B. Simmons Laboratory ~~Chief~~ Signature Janet Rotunno

Comments:

- Samples analyzed in duplicate, both values below specified detection limits

The sampler should note the analysis requested by placing the appropriate code for preservative used in the checked column:

None - determine on site
None
None iced
2 ml H_2SO_4/liter
5. 5 ml HNO_3/liter, iced
6. NaOH to ph>12, iced
7. 1.0 gm $CuSO_4$ plus 2 ml H_3PO_4 per liter, iced
8. Other (specify) _____

AR101416

Region III U.S. ENVIRONMENTAL PROTECTION AG.
Annapolis Field Office
Analysis Request and Result Form

EPTOX

rmit No. _____ Sample No. 2 Lab No. 86031224 Outfall No. _____
urce TONOLLI Nesquehoning, PA Basin _____
ıcation Spillway ditch No. of Containers 1
mple : Water ✓ Sedmt. _____ Inflnt. _____ Eff. _____ Other _____
ıtomatic Sampler No. _____ Sampler G Houston Witness RD Lausch
ald Meter No.: ph _____ Cond. _____ D.O. _____ Flow _____

CHAIN OF CUSTODY

Date	Time	From (Name)	To (Name)
3-12 83	1434	DH Hoffman	Janet Robson

QRET Station No: SC, _____ ☐ Depth: D _____ (Date-Time as YYMMDDTTTT)
☒ Grab: Date-Time 860311 1415 ☐ Comp. (2) _____

ANALYSIS	RESULT	✓	ANALYSIS	RESULT	✓	ANALYSIS	RESULT
0, mp. (Water) °C			P31673, FEC. Strep./100			P929, Tot. Na, mg/1	
00,			P500, Total, mg/1 S			P1105, Tot. Al, ug/1	
5, nd., umhos/cm			P70300, Dissol. mg/1 O L			P1097, Tot. Sb, ug/1	
00, O., mg/1			P530, Suspend. mg/1 I D		X	P1002, SEB Tot. As, ug/1	L 200
01, O.O. SAT.			P505, Vol., mg/1 S			P1007, Tot. Ba, ug/1	
1, w, cfs			P38260, MBAS, mg/1		X	P1027, SEB Tot. Cd, ug/1	95±0
3, w, gpm			P32730, Phenols, ug/1		X	P1034, SEB Tot. Cr, ug/1	L 200
0508, dity, mg/1 (H)			P720, Cyanide, mg/1			P1042, Tot. Cu. ug/1	
35, dity, mg/1			P1032, Hex. Cr, ug/1			P1045, Tot. Fe, ug/1	
36, (Mineral) dity, mg/1			P550, Oil-Grease, mg/1		X	P1051, SEB Tot. Pb, ug/1	3,425
10, alinity, mg/1			P950, Fluoride, mg/1			P1055, Tot. Mn, ug/1	
00, rdness, mg/1			P665, Total, mg/1 P			P71900, Tot. Hg, ug/1	
45, fate, mg/1			P666, Dis., mg/1 H O			P1067, Tot. Ni, ug/1	
0, or PT-CO U.			P660, Ortho, PO_4, mg/1 S			P1147, Tot. Se, ug/1	
0, rbidity, JCU			P625, TKN, mg/1			P1077, Tot. Ag, ug/1	
40, loride, mg/1			P610, NH_3-N, mg/1			P1087, Tot. V, ug/1	
10, D_5, mg/1			P605, ORG. -N, mg/1			P1092, Tot. Zn, ug/1	
24, D_{20}, mg/1			P620, NO_3-N, mg/1				
35, D, mg/1			P615, NO_2-N, mg/1				
30, C, mg/1			P916, Tot. Ca., mg/1				
1501, :. Coli/100			P927, Tot. Mg, mg/1				
1616, C. Coli/100			P937, Tot. K, mg/1				

emist Review C Semmens Laboratory ~~Chief~~ Signature Janet Robson
mments:

e sampler should note the analysis requested by placing the appropriate code for preservative used in the checked column:

None - determine on site
None
None iced
2 ml H_2SO_4/liter
5. 5 ml HNO_3/liter, iced
6. NaOH to ph>12, iced
7. 1.0 gm $CuSO_4$ plus 2 ml H_3PO_4 per liter, iced
8. Other (specify) _____

AR101417

Region III U.S. ENVIRONMENTAL PROTECTION AG.
Annapolis Field Office
Analysis Request and Result Form

EP TOX

Permit No. ______ Sample No. 3 Lab No. 86031225 Outfall No. ______
Source Tonolli - Nesquehoning, PA Basin ______
Location Spillway tank No. of Containers 1
Sam Water ______ Sedmt. ✓ Infint. ______ Eff. ______ Other ______
Automatic Sampler No. ______ Sampler G Houghton Witness R D Lausch
Field Meter No.: ph ______ Cond. ______ D.O. ______ Flow ______

CHAIN OF CUSTODY

Date	Time	From (Name)	To (Name)
3-12-86	1434	[signature]	Janet Robertson

STORET Station No: SC, ______ ☐ Depth: D ______ (Date-Time as YYMMDDTTTT)
☒ Grab: Date-Time 860311 14:35 ☐ Comp. (2) ______

ANALYSIS	RESULT	✓	ANALYSIS	RESULT	✓	ANALYSIS	RESULT
10, Temp. (Water) °C			P31673, FEC. Strep./100			P929, Tot. Na, mg/1	
400, pH			P500, Total, mg/1 S			P1105, Tot. Al, ug/1	
95, Cond., umhos/cm			P70300, Dissol. mg/1 O L			P1097, Tot. Sb, ug/1	
300, D.O., mg/1			P530, Suspend. mg/1 I D		X	P1002, Tot. As, ug/1 SEB	277
301, D.O. SAT.			P505, Vol., mg/1 S			P1007, Tot. Ba, ug/1	
61, Flow, cfs			P38260, MBAS, mg/1		X	P1027, Tot. Cd, ug/1 SEB	380
58, Flow, gpm			P32730, Phenols, ug/1		X	P1034, Tot. Cr, ug/1 SEB	355
70508, Acidity, mg/1 (H)			P720, Cyanide, mg/1			P1042, Tot. Cu, ug/1	
435, Acidity, mg/1			P1032, Hex. Cr, ug/1			P1045, Tot. Fe, ug/1	
436, (Mineral) Acidity, mg/1			P550, Oil-Grease, mg/1		X	P1051, Tot. Pb, ug/1 SEB	3,262
410, Alkalinity, mg/1			P950, Fluoride, mg/1			P1055, Tot. Mn, ug/1	
900, Hardness, mg/1			P665, Total, mg/1 P			P71900, Tot. Hg, ug/1	
945, Sulfate, mg/1			P666, Dis., mg/1 H O			P1067, Tot. Ni, ug/1	
80, Color PT-CO U.			P660, Ortho, PO4, mg/1 S			P1147, Tot. Se, ug/1	
70, Turbidity, JCU			P625, TKN, mg/1			P1077, Tot. Ag, ug/1	
940, Chloride, mg/1			P610, NH_3-N, mg/1			P1087, Tot. V, ug/1	
310, BOD5, mg/1			P605, ORG. -N, mg/1			P1092, Tot. Zn, ug/1	
324, BOD20, mg/1			P620, NO_3-N, mg/1				
335, COD, mg/1			P615, NO_2-N, mg/1				
680, TOC, mg/1			P916, Tot. Ca., mg/1				
31501, Tot. Coli/100			P927, Tot. Mg, mg/1				
31616, FC. Coli/100			P937, Tot. K, mg/1				

Chemist Review E Simmons Laboratory [redacted] Signature Janet Robertson
Comments:

ORIGINAL (Red)

The sampler should note the analysis requested by placing the appropriate code for preservative used in the checked column:

1. None - determine on site
2. None
3. None iced
4. 2 ml H_2SO_4/liter
5. 5 ml HNO_3/liter, iced
6. NaOH to ph>12, iced
7. 1.0 gm $CuSO_4$ plus 2 ml H_3PO_4 per liter, iced
8. Other (specify) ______

AR101418

Region III U.S. ENVIRONMENTAL PROTECTION AG.
Annapolis Field Office
Analysis Request and Result Form

EP TOX

ermit No. _____ Sample No. 4 Lab No. 86031226 Outfall No. _____
ource TOWANDA - NESQUEHONING, PA Basin _____
ocation Battery storage Pit No. of Containers 1
ample : Water ✓ Sedmt. _____ Inflnt. _____ Eff. _____ Other _____
utomatic Sampler No. _____ Sampler G. HAUGHTON Witness T. SIMPSON
ield Meter No.: ph _____ Cond. _____ D. O. _____ Flow _____

CHAIN OF CUSTODY

Date	Time	From (Name)	To (Name)
3/12/86	1434	G. Haughton	Janet Rothrock

TORET Station No: SC, _____ ☐ Depth: D _____ (Date-Time as YYMMDDTTTT)
☒ Grab: Date-Time 860311 1510 ☐ Comp. (2) _____

ANALYSIS	RESULT	✓	ANALYSIS	RESULT	✓	ANALYSIS	RESULT
10, emp. (Water) °C			P31673, FEC. Strep./100			P929, Tot. Na, mg/1	
400, H			P500, Total, mg/1 S			P1105, Tot. Al, ug/1	
95, ond., umhos/cm			P70300, Dissol. mg/1 O L			P1097, Tot. Sb, ug/1	
300, .O., mg/1			P530, Suspend. mg/1 I D		X	P1002, Tot. As, ug/1 SEB	< 200
301, D.O. SAT.			P505, Vol., mg/1 S			P1007, Tot. Ba, ug/1	
61, ow, cfs			P38260, MBAS, mg/1		X	P1027, Tot. Cd, ug/1 SEB	71±0
68, ow, gpm			P32730, Phenols, ug/1		X	P1034, Tot. Cr, ug/1 SEB	< 200*
70508, cidity, mg/1 (H)			P720, Cyanide, mg/1			P1042, Tot. Cu. ug/1	
435, cidity, mg/1			P1032, Hex. Cr, ug/1			P1045, Tot. Fe, ug/1	
436, (Mineral) cidity, mg/1			P550, Oil-Grease, mg/1		X	P1051, Tot. Pb, ug/1 SEB	< 200
410, lkalinity, mg/1			P950, Fluoride, mg/1			P1055, Tot. Mn, ug/1	
900, ardness, mg/1			P665, Total, mg/1 P			P71900, Tot. Hg, ug/1	
945, ulfate, mg/1			P666, Dis., mg/1 H O			P1067, Tot. Ni, ug/1	
80, olor PT-CO U.			P660, Ortho, PO_4, mg/1 S			P1147, Tot. Se, ug/1	
70, urbidity, JCU			P625, TKN, mg/1			P1077, Tot. Ag, ug/1	
940, hloride, mg/1			P610, NH_3-N, mg/1			P1087, Tot. V, ug/1	
310, OD_5, mg/1			P605, ORG. -N, mg/1			P1092, Tot. Zn, ug/1	
324, OD_{20}, mg/1			P620, NO_3-N, mg/1				
335, OD, mg/1			P615, NO_2-N, mg/1				
680, OC, mg/1			P916, Tot. Ca., mg/1				
31501, ot. Coli/100			P927, Tot. Mg, mg/1				
31616, EC. Coli/100			P937, Tot. K, mg/1				

hemist Review B. Simmons Laboratory Signature Janet Rothrock

omments:
-Samples analyzed in duplicate, both values below specified detection limits

ORIGINAL

he sampler should note the analysis requested by placing the appropriate code for preservative used in the checked column: (Ice)

None - determine on site
None
None iced
2 ml H_2SO_4/liter
5. 5 ml HNO_3/liter, iced
6. NaOH to ph>12, iced
7. 1.0 gm $CuSO_4$ plus 2 ml H_3PO_4 per liter, iced
8. Other (specify) _____

AR101419

Region III U.S. ENVIRONMENTAL PROTECTION AG. EP TOX
Annapolis Field Office
Analysis Request and Result Form

Permit No. _____ Sample No. 5 Lab No. 86031227 Outfall No. _____
Source TONOLIT - NESQUEHONING, PA Basin _____
Location SPILLWAY TANK No. of Containers 1
Sample Water ✓ Sedmt. _____ Infint. _____ Eff. _____ Other _____
Automatic Sampler No. _____ Sampler G. HOUGHTON Witness T. SIMPSON
Field Meter No.: ph _____ Cond. _____ D. O. _____ Flow _____

CHAIN OF CUSTODY

Date	Time	From (Name)	To (Name)
3/12/86	1434	[illegible]	Janet Robinson

STORET Station No: SC, _____ ☐ Depth: D _____ (Date-Time as YYMMDDTTTT)
☒ Grab: Date-Time 86 03 11 1520 ☐ Comp. (2) _____

ANALYSIS	RESULT	✓	ANALYSIS	RESULT	✓	ANALYSIS	RESULT
P10, Temp. (Water) °C			P31673, FEC. Strep./100			P929, Tot. Na, mg/1	
P400, pH			P500, Total, mg/1 S			P1105, Tot. Al, ug/1	
P95, Cond., umhos/cm			P70300, Dissol. mg/1 O L			P1097, Tot. Sb, ug/1	
P300, D.O., mg/1			P530, Suspend. mg/1 I D		X	P1002, Tot. As, ug/1 SEB	< 200
P301, % D.O. SAT.			P505, Vol., mg/1 S			P1007, Tot. Ba, ug/1	
P61, Flow, cfs			P38260, MBAS, mg/1		X	P1027, Tot. Cd, ug/1 SEB	75 ± 1
P58, Flow, gpm			P32730, Phenols, ug/1		X	P1034, Tot. Cr, ug/1 SEB	~~3350 ± 200~~ SB, < 200
P70508, Acidity, mg/1 (H)			P720, Cyanide, mg/1			P1042, Tot. Cu, ug/1	
P435, Acidity, mg/1			P1032, Hex. Cr, ug/1			P1045, Tot. Fe, ug/1	
P436, (mineral) Acidity, mg/1			P550, Oil-Grease, mg/1		X	P1051, Tot. Pb, ug/1 SEB	3,350 ± 200
P410, Alkalinity, mg/1			P950, Fluoride, mg/1			P1055, Tot. Mn, ug/1	
P900, Hardness, mg/1			P665, Total, mg/1 P			P71900, Tot. Hg, ug/1	
P945, Sulfate, mg/1			P666, Dis., mg/1 H O			P1067, Tot. Ni, ug/1	
P80, Color PT-CO U.			P660, Ortho, PO_4, mg/1 S			P1147, Tot. Se, ug/1	
P70, Turbidity, JCU			P625, TKN, mg/1			P1077, Tot. Ag, ug/1	
P940, Chloride, mg/1			P610, NH_3-N, mg/1			P1087, Tot. V, ug/1	
P310, BOD_5, mg/1			P605, ORG. -N, mg/1			P1092, Tot. Zn, ug/1	
P324, BOD_{20}, mg/1			P620, NO_3-N, mg/1				
P335, COD, mg/1			P615, NO_2-N, mg/1				
P680, TOC, mg/1			P916, Tot. Ca., mg/1				
P31501, Tot. Coli/100			P927, Tot. Mg, mg/1				
P31616, FEC. Coli/100			P937, Tot. K, mg/1				

Chemist Review [signature] Laboratory Chief Signature Janet Robinson

Comments:
- Samples analyzed in duplicate, both values below specified detection limits

The sampler should note the analysis requested by placing the appropriate code for preservative used in the checked column:
1. None - determine on site
2. None
3. None iced
4. 2 ml H_2SO_4/liter
5. 5 ml HNO_3/liter, iced
6. NaOH to ph>12, iced
7. 1.0 gm $CuSO_4$ plus 2 ml H_3PO_4 per liter, iced
8. Other (specify) _____

AR101420

Region III U.S. ENVIRONMENTAL PROTECTION AG.
Annapolis Field Office
Analysis Request and Result Form

EP TOX

rmit No. _____ Sample No. 6 Lab No. 86031228 Outfall No. _____
urce TONOLLI - NESQUEHONING, PA Basin _____
cation discharge to creek No. of Containers 1
mple : Water ✓ Sedmt. _____ Inflnt. _____ Eff. _____ Other _____
tomatic Sampler No. _____ Sampler G. HOUGHTON Witness T. SIMPSON
ld Meter No.: ph _____ Cond. _____ D. O. _____ Flow _____

CHAIN OF CUSTODY

Date	Time	From (Name)	To (Name)
3/12/86	1434	[illegible]	[illegible]

ORET Station No: SC, ☐ Depth: D _____, (Date-Time as YYMMDDTTTT)
☒ Grab: Date-Time 860311 1545, ☐ Comp. (2) _____, _____

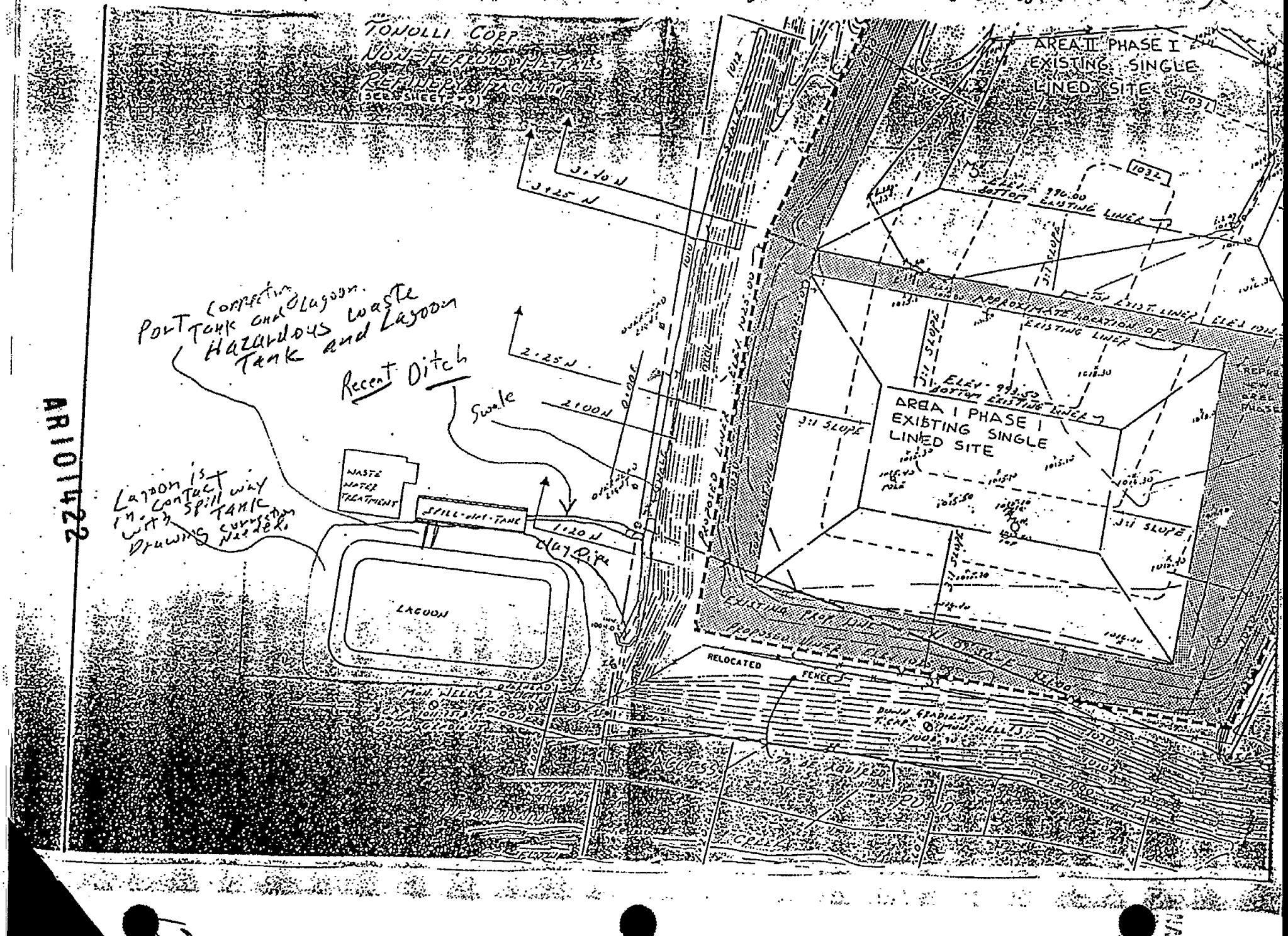
ANALYSIS	RESULT	✓	ANALYSIS	RESULT	✓	ANALYSIS	RESULT
mp. (Water) °C			P31673, FEC. Strep./100			P929, Tot. Na, mg/1	
0,			P500, Total, mg/1 S			P1105, Tot. Al, ug/1	
d., umhos/cm			P70300, Dissol. mg/1 D L			P1097, Tot. Sb, ug/1	
0, ., mg/1			P530, Suspend. mg/1 I D		X	P1002, Tot. As, ug/1 SEB	< 200
1, .O. SAT.			P505, Vol., mg/1 S			P1007, Tot. Ba, ug/1	
., cfs			P38260, MBAS, mg/1		X	P1027, Tot. Cd, ug/1 SEB	< 5.0*
., gpm			P32730, Phenols, ug/1		X	P1034, Tot. Cr, ug/1 SEB	< 200*
508, dity, mg/1 (H)			P720, Cyanide, mg/1			P1042, Tot. Cu. ug/1	
5, dity, mg/1			P1032, Hex. Cr, ug/1			P1045, Tot. Fe, ug/1	
6, (Mineral) dity, mg/1			P550, Oil-Grease, mg/1		X	P1051, Tot. Pb, ug/1 SEA	853 ± 12
0, alinity, mg/1			P950, Flucride, mg/1			P1055, Tot. Mn, ug/1	
0, dness, mg/1			P665, Total, mg/1 P			P71900, Tot. Hg, ug/1	
5, ate, mg/1			P666, Dis., mg/1 H O			P1067, Tot. Ni, ug/1	
r PT-CO U.			P660, Ortho, PO4, mg/1 S			P1147, Tot. Se, ug/1	
idity, JCU			P625, TKN, mg/1			P1077, Tot. Ag, ug/1	
0, ride, mg/1			P610, NH_3-N, mg/1			P1087, Tot. V, ug/1	
0, 5, mg/1			P605, ORG. -N, mg/1			P1092, Tot. Zn, ug/1	
4, 20, mg/1			P620, NO_3-N, mg/1				
5, , mg/1			P615, NO_2-N, mg/1				
0, , mg/1			P916, Tot. Ca., mg/1				
501, Coli/100			P927, Tot. Mg, mg/1				
516, Coli/100			P937, Tot. K, mg/1				

mist Review [signature] Laboratory Signature [signature]
ments:
Samples analyzed in duplicate, both values below specified detection limits

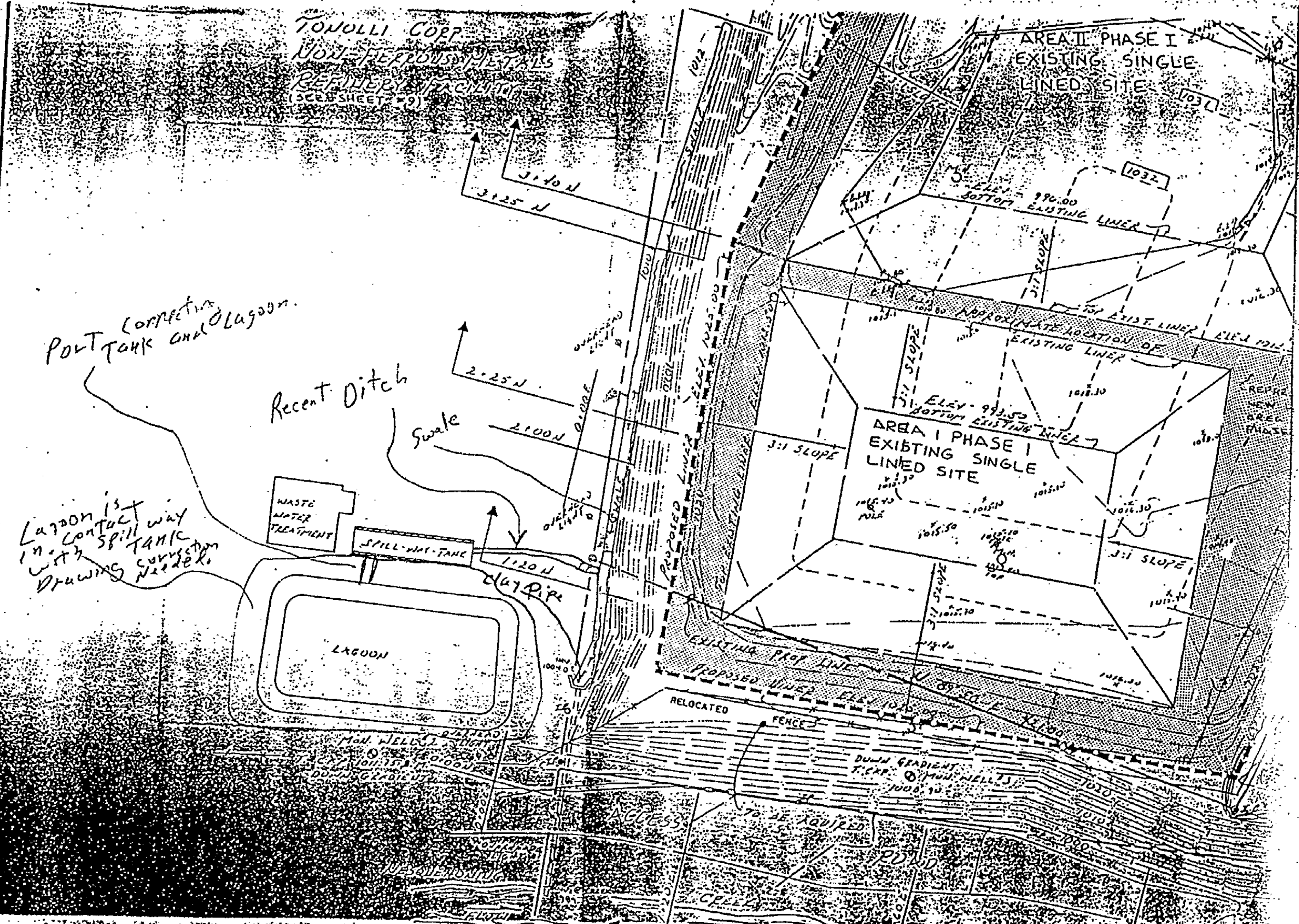
sampler should note the analysis requested by placing the appropriate code for preservative used in the checked column:
lone - determine on site
lone
lone iced
ml H_2SO_4/liter
5. 5 ml HNO_3/liter, iced
6. NaOH to ph>12, iced
7. 1.0 gm $CuSO_4$ plus 2 ml H_3PO_4 per liter, iced
8. Other (specify) _____

AR101421

Tonolli Sketch Recent Illegal Hazardous Waste Discharge 13



R. Mieszkowski; Fig 1. Tonolli 12/18/85


TONOLLI CORP.
NON-FERROUS METALS
REFINERY FACILITY
(SEE SHEET #9)
AREA II PHASE I
EXISTING SINGLE
LINED SITE
AREA I PHASE I
EXISTING SINGLE
LINED SITE
ELEV. 990.00 BOTTOM EXISTING LINER
ELEV. 993.50 BOTTOM EXISTING LINER
APPROXIMATE LOCATION OF EXISTING LINER
TOP EXIST. LINER
3:1 SLOPE
EXISTING PROP LINE
PROPOSED LINER ELEV 1025.00
RELOCATED
FENCE
DOWN GRADIENT T.EXP. MON. WELL #3
MON. WELL #2
WASTE WATER TREATMENT
SPILL-WAY-TANK
LAGOON
3+40 N
3+25 N
2+25 N
2+00 N
1+20 N
TO BE ACQUIRED
ACCESS
ROAD
CREEK
Post correction Tank and Lagoon.
Recent Ditch
Swale
clay Pipe
Lagoon is in contact with spill way Tank
Drawing correction Needed.

AR101423

W. M. — Full Telecopy to ATTY Assigned To Case. WFM
T. W. —

D. F. —

McNEES, WALLACE & NURICK
ATTORNEYS AT LAW
100 PINE STREET
P. O. BOX 1166
HARRISBURG, PA. 17108-1166
TELEPHONE (717) 232-8000

(14)

ORIGINAL (Red)

January 30, 1986

CERTIFIED MAIL

William F. McDonnell, Regional Solid
Waste Operations Supervisor
Department of Environmental Resources
Wilkes Barre Regional Office
90 East Union Street - 2nd Floor
Wilkes Barre, PA 18701

In re: Tonolli Corporation

Dear Mr. McDonnell:

This letter is in response to your letter of January 16, 1986, and to follow up the recent telephone conversations between Edward Rothman, Esquire, of this office and Mr. Leskosky of your office.

As Mr. Rothman previously advised, Tonolli Corporation has ceased all operations at its facility in Nesquehoning Borough. Operations ceased on or about January 15, 1986, and all employees have been dismissed. Since October 29, 1985, Tonolli has been in bankruptcy under Chapter 11 proceedings. As of January 24, 1986, the Chapter 11 proceedings have been converted to a Chapter 7 (liquidation) proceeding. This means that there will be a liquidation of all corporate assets. It also means that there are no longer any funds under the control of Tonolli Corporation which could be used to address the matters raised in your letter. In fact, since October all expenditure of funds has been under the control of the American Bank and Trust Company of Pa., as a secured lender, and Tonolli has not been free to expend funds without the bank's permission.

With specific regard to the ditch referenced in your letter of January 16, we understand that it was opened as an emergency measure during Hurricane Gloria with the knowledge of the Department. It was necessary to open the ditch during the hurricane in order to prevent excessive surface runoff from entering the acid lagoon and causing the lagoon to overflow. The necessity

ORIGINAL
(Red)

for the ditch continued after Tonolli stopped the processing of batteries at the site. The water from the acid lagoon was previously reused in the manufacturing process and, thus, the volume was kept under control. Once processing stopped, water was no longer used and the lagoon continued to fill up. Diversion of the surface water runoff from the lagoon was necessary to prevent an overflow of the acid lagoon into the creek.

At this point, it appears to us that the ditch remains the preferable alternative to an overflow of the lagoon. We are advised that the storage tank on-site is also full and that there is no other storage capacity for the collection of surface water runoff. We are also advised that prior to bankruptcy Tonolli did investigate the costs of pumping out the lagoon and storage tank and having the acid waste disposed of at an off-site facility. Unfortunately, the costs of such far exceeded the money available to Tonolli. A trustee will be appointed in the bankruptcy and you may wish to raise this issue with him.

We understand that the only personnel remaining at the plant are security personnel from an independent company and one caretaker employee. Accordingly, any communications to Tonolli Corporation should be directed to Edward Rothman, Esquire, at this office.

If you have any questions concerning this letter, please feel free to contact me or Mr. Rothman.

Very truly yours,

McNEES, WALLACE & NURICK

By
Terry R. Bossert

TRB:nmk

ioc: Edward W. Rothman

15

Department of Environmental Resources
Bureau of Solid Waste Management
Wilkes-Barre Regional Office
November 20, 1985

Closure Plan Review - Surface Impoundment
Tonolli Corporation
PAD #073613663
Nesquehoning Borough, Carbon County

Dale G. Williams
Regional Solid Waste
Facilities Supervisor

Kate Crowley
Regional Solid Waste Engineer

As requested, I have reviewed the following in reference to the above-listed plan:

1. Wastewater Storage Lagoon Closure Plan - submitted June 24, 1985.

This submission, as received, is simply the Closure Plan extracted from the facility's most recent Part B application (Volume I - Exhibit XV) and as such, is neither complete or reflective of the unit's current status. In consideration of this, I have the following comments:

CLOSURE

1) The design drawings referenced in the plan must also be submitted for approval in conjunction with the plan. For purposes of review, the drawings submitted with the Part B application were used to a certain extent. It should be noted that the reference in the plan to Sheet 15 of 13 is incorrect, and should be changed to Sheet 15 of 15.

2) The statement that the surface impoundment would be closed if the capacity were no longer needed or if the plant were to close is outranked by the fact that the surface impoundment is only single lined and thus not permittable under 75.264(s). This unit must close or be retrofitted with a double liner system.

3) The disposition (off-site TSD or on-site treatment) of the hazardous wastewater contained in the surface impoundment must be specified.

4) The plan states that after liquid removal, the sediment, liner, and contaminated subsoil will be deposited in the on-site hazardous waste landfill. Alternate provisions should be specified in the likely event that the landfill is at capacity and/or closed prior to closure of the surface impoundment.

(Red)
ORIGINAL

5) A detailed sampling and analysis plan must be proposed for the subsoil beneath the liner and adjacent to the impoundment. Further specifics are provided in the Regional Chemist's review of this closure plan.

6) A final grading plan for the surface impoundment is needed.

7) Detailed calculations and cross-sections should be provided to justify the volumes used in the closure cost estimate as well as the capacity estimate of 500,000 gallons.

8) A cost for the excavation of sediment, liner, and subsoil must be included in the estimate.

9) The closure cost estimate must address implementation of the sampling and analysis plan.

10) The source and specifications for the earth backfill must be provided.

11) Surface water controls have not been proposed to manage both run-on and run-off and to prevent erosion of the final cover. These structures should be shown on the final grading plan and supported with design calculations relating to sizing and discharge point(s).

12) The plan must address the submission to the Department of certification by both the owner/operator and an independent registered professional engineer that the facility was closed in accordance with the approved closure plan.

POST-CLOSURE

1) From the procedures outlined in the Closure Plan, it would appear that Tonolli Corporation will attempt to close this unit as a storage surface impoundment in conformance with 75.265(s)(8), thus precluding the unit from any post-closure care. However, the Regional Hydrogeologist should provide input on the possibly of groundwater contamination from this unit which would then require closure and post-closure care (and a post-closure permit) under 75.264(o) and (v) as a disposal surface impoundment. Further review of the post-closure section of the plan will be delayed until such a determination has been made.

NOTE:

The current proposal for closure does not specify a cap design similar to that proposed for the landfill. While such a cover system is not required for a storage impoundment closure, it will be required if the determination is made that this is a disposal impoundment and must be incorporated into that redesign. Additionally, the applicant should be advised that the surface impoundment cap, intended to serve as a secondary containment system for the above-ground storage tank, will not meet the minimum permit requirements in EPA's proposed regulations of June 26, 1985.

KC:amw

cc: D. Lamereaux
W. McDonnell
K. Crowley
W. Tomayko
T. Geary
J. Mellow
R. Mieszkowski
Division of Facilitie Management
File
Chron.

CPT 3104
H: 11/18 T: 11/19 (P)
R: 11/20 (P)

16

ORIGINAL
(Red)

Department of Environmental Resources
Bureau of Solid Waste Management
Wilkes-Barre Regional Office
November 20, 1985

Closure Plan Review - Landfill
Tonolli Corporation
PAD #073613663
Nesquehoning Borough, Carbon County

Dale G. Williams
Regional Solid Waste
Facilities Supervisor

Kate Crowley
Regional Solid Waste Engineer

As requested, I have reviewed the following in reference to the above-listed plan:

1. Solid Waste Disposal Sites Closure Plan - submitted June 24, 1985.

This submission, as received, is simply the closure plan extracted from the facility's most recent Part B application (Volume I - Exhibit VIII) and as such, is neither complete or reflective of the unit's current status. In consideration of this, I have the following comments:

CLOSURE

1) The design drawings referenced in the plan must also be submitted for approval in conjunction with the plan. For purposes of review, the drawings submitted with the Part B application were used to a certain extent. It should be noted that the reference in the plan to Drawing #10 is incorrect and I believe should be changed to Drawing #12.

2. The Appendix referenced in the plan must also be submitted.

3. The plan (and drawings) should only address the existing disposal site without the confusing and possibly no longer applicable references to the proposed site.

4) The cross-sections through the existing site do not reflect the current waste elevations and thus, the calculations used to determine the remaining capacity could not be verified. A topographic plan and the most recent sections available should be provided. To this end, a discussion of how the remaining capacity will be utilized (waste disposal and/or backfilling) to insure closure in 1986 is required.

5) The plan must provide for a 1 foot thick layer of intermediate cover placed over the final volume of waste to protect the clay layer. Material specifications, sources, volumes, and placement details should be provided.

6) The design of the clay layer within the final cover should address the following, at a minimum:

   a) Source and volume needed of material,

   b) Compatability of material with wastes contained in disposal cell,

   c) Effect of wastes on permeability of material,

   d) How required minimum permeability will be achieved and measured after construction,

   e) Amendments, if needed, to achieve required permeability,

   f) Scarificaiton between lifts,

   g) Method of compaction,

   h) Moisture content and in-place density of clay to achieve required permeability,

   i) Method of moisture addition and integration, and

   j) Maximum clod size.

7) The design of the geosynthetic layer within the final cover should address the following, at a minimum:

   a) Manufacturer, fabricator, and anticipated installer of material,

   b) Compatability of material with wastes contained in disposal cell,

   c) Effect of wastes on permeability of material,

   d) Effect of subsidence/settlement on material properties,

   e) Method of seaming and seam testing,

   f) Assurances that liner will be sufficiently protected from freeze/thaw effects,

   g) Specifications for intended geosynthetic (not typical),

   h) Details and discussion relating to tie-in to existing primary butyl rubber liner, and

   i) Sealing of liner to gas vent PVC risers and the 2 concrete manholes.

NOTE: The geosynthetic must be placed in direct contact with the clay layer and not within a 6-inch sand layer. Sand (or a geotextile) used to cushion the geosynthetic from the drainage layer may then be placed over the liner.

8) The design of the drainage layer within the final cover should address the following, at a minimum:

   a) Source and volume needed of material,

   b) Material specifications for stone screenings, and

   c) Material specifications for filter fabric.

9) The design of the subsoil/topsoil layer within the final cover should address the following, at a minimum:

   a) Sources and volume needed of material, and

   b) USDA textural classification.

10) A written construction quality assurance (CQA) plan should be submitted to be used in all aspects of closure construction from placement of the intermediate cover up to and including the topsoil layer. The plan must include, at a minimum, the following:

   a) Areas of responsibility for implementing the CQA plan,

   b) Qualifications of CQA personnel,

   c) Specific observations and test of raw materials, construction procedures, and finished components to verify that cap and cover system will perform to design specifications,

   d) Description of sampling program and procedures, and

   e) Documentation of all CQA observations, test results, problems, corrective measures, deviations from design, and as-built drawings.

11) Surface water controls (temporary and permanent) have not been proposed to manage both run-on and run-off and to prevent erosion of the final cover. These structures should be shown on the final grading plan and supported with design calculations relating to sizing and discharge points.

12) The plan must include an up-to-date closure cost estimate.

13) The plan must address the submission to the Department of certification by both the owner/operator and an independent registered professional engineer that the facility was closed in accordance with the approved

* POST-CLOSURE

1) A "post-closure plan" that provides for a minimum of 30 years of post-closure care must be submitted for approval in conjunction with the closure plan.

2) The plan must include at least:

   a) Description and frequency of groundwater monitoring activites,

   b) Description and frequency of maintenance and inspection activites to address: settlement, subsidence, erosion, and revegetation of final cover and cap, repair of surface water control devices, removal and treatment of collected leachate, gas monitoring, and protection of permanent benchmarks,

   c) Contact person or office during the post-closure care period, and

   d) Up-to-date post-closure cost estimate.

3) The plan must address the submission to the Department and municipality of a survey plat indicating the location and dimensions of the disposal area and a description of the waste types disposed of therein.

4) The plan must address the notation to be filed on the facility deed of the land use and its restrictions and of the survey plat and description submitted to the Department and municipality.

NOTE: All regulatory citations in the above comments necessarily reference 75.264 since the hazardous waste disposal unit to undergo closure accepted waste after July 29, 1982, does not have a hazardous waste permit, and is required to have post-closure groundwater monitoring. As per 75.264(a)(ii), a post-closure permit will soon be required that insures compliance with 75.264(o) and (v) and thus the closure and post-closure plans must also satisfy those sections.

KC:amw

cc: D. Lamereaux
W. McDonnell
K. Crowley
W. Tomayko
T. Geary
J. Mellow
R. Mieszkowski
Division of Facilities Management
File
Chron.

CPT 3101 & 3101.1
H. & T. 11/18 (P), R: 11/20 (P)

ALAN 5.

ORIGINAL (Red)

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL RESOURCES

Bureau of Solid Waste Management
Wilkes Barre Regional Office
90 East Union Street - 2nd Floor
Wilkes Barre, PA 18701 (717) 826-2516

January 13, 1986

Tonolli Corporation
R. D. #1, Route 54
Nesquehoning, PA 18240

ATTENTION: Mr. Vincent Bailini, Treasurer

Dear Mr. Bailini:

RE: Part B Withdrawal
Tonolli Corporation
PAD #073613663

In a letter dated December 12, 1985, your company made a request to withdraw its hazardous waste permit application for the above-referenced facility. In order for the Department to officially consider your request, we must receive current and adequate closure plans for both the above-ground storage tank and the wastewater treatment facility. As you are aware, closure (and post-closure) plans for the landfill and surface impoundment were previously submitted and review comments pertaining to such have been detailed in a Notice of Deficiency dated December 27, 1985. Closure plans for all interim status units must be submitted in conjunction with a request for Part B withdrawal irregardless of the applicant's intention to continue usage of the units either under the generator accumulation clause or under possible permit-by-rule status.

Within thirty (30) days of the date of this letter, you must submit to this office the additional specified closure plans meeting the requirements of §75.265(o) of the Department's Rules and Regulations. Adequate closure plans submitted within this time frame will be processed in accordance with the applicable procedures of §75.265(o).

Failure to submit the required plans will result in further processing of the outstanding NOD dated August 28, 1985 and subsequent denial of the hazardous waste permit application in accordance with §75.280(d). Denial of the permit will also immediately terminate interim status for this facility as per §75.272(d).

We anticipate receipt of these closure plans by the date noted above. You are also advised to notify the Environmental Protection Agency of your request for withdrawal.

If you have any questions concerning this matter, please contact this office at the above number.

Sincerely,

Dale G. Williams
Regional Solid Waste
Facilities Supervisor

DGW:KC:amw

cc: D. Lamereaux
W. McDonnell
D. Fritz
K. Crowley
Division of Facilities Management
Division of Compliance & Monitoring
Sam Israel/EPA
Public File
File
Chron.

WESTON•SPER 53 Haddonfield Road, Cherry Hill, NJ 08002 • (609) 482-0222

TECHNICAL ASSISTANCE TEAM FOR EMERGENCY RESPONSE REMOVAL AND PREVENTION
EPA CONTRACT 68-01-7367

MEMORANDUM

TO: Jerry Saseen, OSC Region III PCS #1097

THRU: Richard Habrukowich, TATL, Region III

FROM: Marc Lucca, TATM, Region III

SUBJECT: Tonolli Corporation Recycling Facility Site Assessment, Nesquehoning, Carbon County, PA.

DATE: June 10, 1987

INTRODUCTION

On Wednesday, June 3 1987, a second assessment was performed by the Technical Assistance Team (TAT), as requested by OSC Jerry Saseen. TATMs Marc Lucca and Michael Wilson performed the assessment. Accompanying TAT were Pennsylvania Department of Environmental Resources (PADER) Representatives Gary Schaeffer and Jeff Olsen, Lansford Coaldale Junction Water Authority Representative Harry Vakyak, and State Trustee Representative Richard Rogers. Mr. Rogers provided access which had been arranged through EPA legal counselor, Diane Ajl.

The initial site assessment performed, at the request of PADER, by TAT on Thursday, February 26, 1987 provided information about the site layout. However, due to a heavy snow and ice cover, no samples were collected.

BACKGROUND

The Tonolli Corporation is located on Route 54 approximately two miles west of Nesquehoning, PA. The plant was in operation from August 1974 to December 1985 as a battery recycling and smelting plant facility and has since been bankrupt. The twenty acre site consists of plant operation buildings, a butyl rubber rubber-lined lagoon (approximate dimensions are 200'x100'), and a butyl rubber-lined landfill.

At the original assessment (February 26, 1987), TAT observed a trench extending approximately 15 feet between the spillway and the berm/swale running adjacent to the landfill (see site sketch). This berm/swale is connected to a culvert that discharges into the Nesquehoning Creek. The approximate distance the overflow would travel before it reached the creek is 115 feet. PADER reported that the trench was brought to their attention just prior to the closing of the facility in December 1985. The trench was excavated in an effort to alleviate the possibility of overflow of the lagoon which is continually receiving snow and stormwater. A site investigation report submitted by PADER on January 3,

1986 documents that the trench was reported to the Bureau of Water Quality Management and subsequently investigated. Analysis revealed that the runoff water consisted of 21.5 ppm Pb which is four times the EP toxic value of 5 ppm. Arsenic, cadmium and chromium also exist in EP toxic concentrations in the lagoon.

On site the hazardous waste surface impoundment/lagoon was used for storage. According to RCRA files, "contaminated surface water from the battery storage area, the bakelite (battery casing material which is not reclaimed) storage area, and the raw material storage area; and process water from the battery crushing and separation operations are stored in the surface impoundment prior to being treated. The capacity is 450,000 gallons. All waste waters directed to the surface impoundment/lagoon are collected in a settling tank (spillway tank) prior to being placed into the surface impoundment." According to the Tonolli Corporation Operational Concept Report, "during periods of high precipitation, the wastewater lagoon is incapable of holding all of the runoff. Consequently, the excess water is to be pumped to a proposed storage tank for temporary storage." Due to bankruptcy proceedings, the plant has been abandoned.

John Mellow, State Hydrogeologist reported that there is evidence of groundwater contamination. It is documented that from 1982 to 1985 that Tonolli has consistently flunked the Student-T tests performed by INTEX, a consultant to the corporation. There are statistically proven changes in the monitoring wells on the site and it is with this documentation that Mr. Mellow bases his conclusions.

According to the draft RCRA order, "downgradient stream samples appear to show significant increase in arsenic, cadmium, chromium and lead with respect to the upgradient stream monitoring point. Sulfates also show an increase downstream, and pH shows decreasing values for most monitoring periods."

The nearby Lansford Coaldale Junction Water Authority has reported that all of the potable wells in the area have been contaminated with lead. While all of the homes in this area, including Lake Hauto, Hauto Village and Hauto Valley Estates, are on municipal drinking water which is provided by the Lansford Coaldale Junction Water Authority, the wells have been used as a drinking water supply during times of drought.

ORIGINAL
(Red)

ASSESSMENT ACTIVITIES

TAT was given access to the Tonolli Corporation Site by Richard Rogers, a Representative of the State Trustee at 1010 hours on Wednesday, June 3, 1987.

The site inspection showed all buildings to be structurally intact except the warehouse, which has been demolished since the original assessment. The site is enclosed by a cyclone fence eight (8) feet high with three stringed barbed wire at the top. There were no signs of unauthorized entry along the perimeter of the fence and a 30 foot section which on the initial assessment was noted to be falling has now been reinforced with cables.

Due to the heavy snow and ice cover on the initial assessment, a collection pit (approximate dimensions: 5'x5'x unknown depth) which lies approximately 10 feet northwest of the west corner of the lagoon had gone unnoticed. The pit containes a semi-clear homogenous liquid with shredded battery casings and other suspended materials throughout. The pH of the liquid was approximately 1 as determined by 3-stage pH paper.

A Hi-Volume Air Sampler was observed to be in the east corner of the landfill. The sample was not in operation during the assessment. TAT also observed two large concrete structures extending approximately 20 feet from the center of the landfill. PADER was unable to provide any information about the structures. Also, crushed battery casings have been placed over the liner of the landfill providing access into the landfill. Tire tracks were evident leading into the landfill which contained battery casings, lead plates, and battery acid.

All other conditions remain consistent with the initial assessment and are detailed in the BACKGROUND section of this report.

SAMPLING

Six (6) aqueous samples were collected in all; two of which were provided as blanks. The blanks were collected from a distilled water supply at the TAT office. Two samples (TSLØ1F and TSLØ2) were collected from the lagoon via a drum thief and put in one liter polyethylene containers. Two samples were collected from the creek near the trench discharge (TSCØ1 and TSCØ1F) using the same collection techniques. One of the duplicate samples from each location (including blank TSLØØF) was filtered through a Nalgene filter unit (.45u pore size) via a vacuum pump. All samples were then "fixed" according to EPA Method 239.2 to a pH of 2. These steps were taken on the site.*

Seven soil and sediment samples were collected. Four samples were collected on the site and three offsite to determine if offsite migration has occurred. A background (TSSØ1) was collected outside the property approximately 30 yards south of the main entrance to the property. The samples were collected via a dedicated disposable plastic scoop. The samples were then put into an 8 oz. glass jar with a teflon lined lid. Two samples were taken from each location.

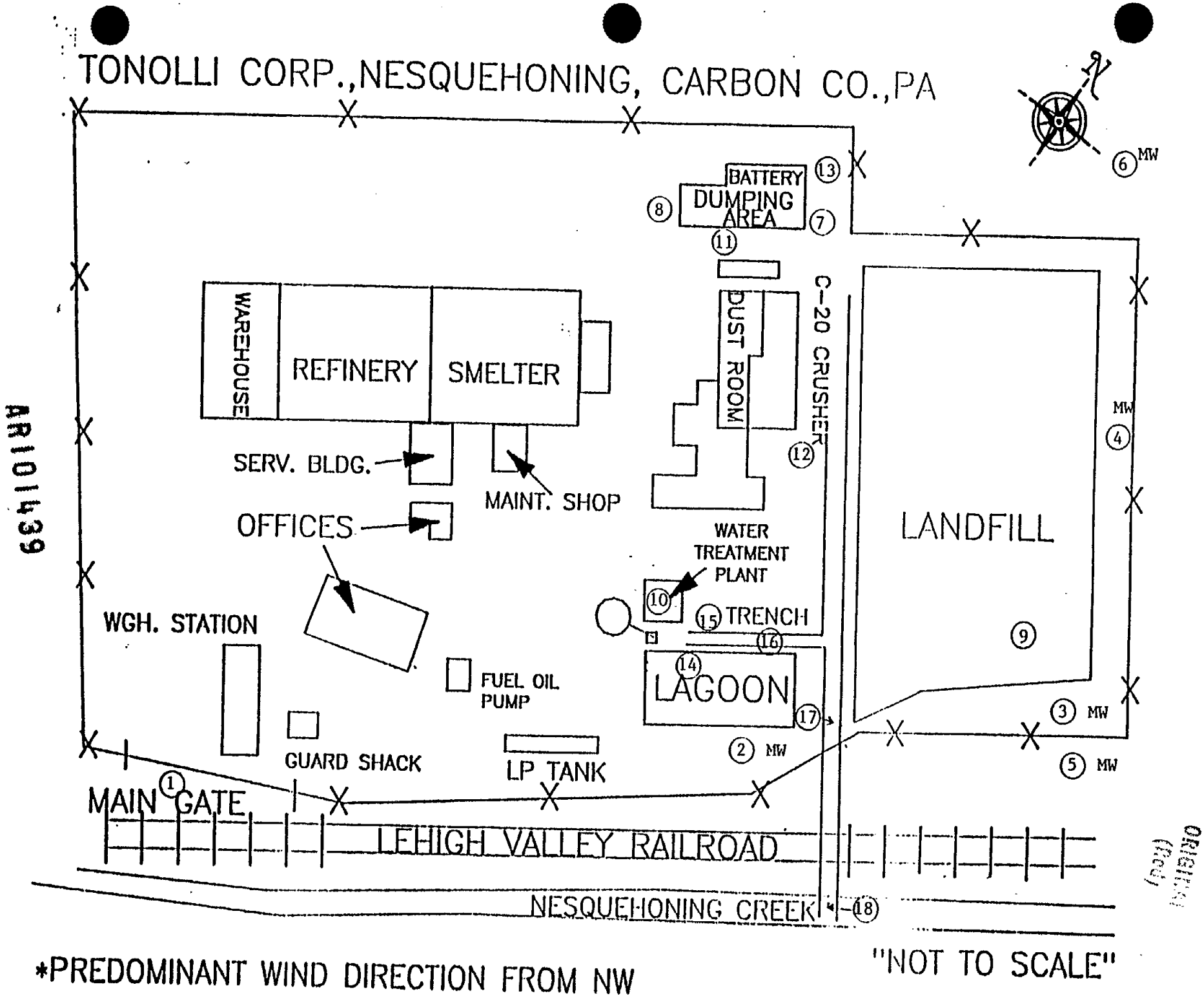
*Note: The lagoon samples were collected at a pH of 2.

ANALYTICAL RESULTS

Sample#	Location	Arsenic ug/l	Cadmium ug/l	Chromium ug/l	Copper ug/l	Lead ug/l
TSL00	blank water					
TSC01	Creek		7.3			102
TSL01	Lagoon Liquid	622	603	137	1060	2890
TSL02	Lagoon Liquid	704	605	138	1050	2910
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
TSS01	Background (near gate)		8.6	32.8	115	3,990
TST01	Trench, soil	25.3	12.4	36.8	174	65,500
TST02	Trench, soil	54	3.5	11.7	35	6,860
TST03	Trench, soil (near creek)	71	5	7.1	22.4	2,030
TSOS01	Offsite, NW	15	2.5	9.7	11.5	425
TSOS02	Soil/landfill	14	3.6	11.2	18.5	261
TSOS03	Offsite, SE	14.4	1.6	11.3	30.5	62.8

RECOMMENDATIONS

Due to the increasing volume of wastewater collected in the lagoon and due to the direct connection of the spillway and the Nesquehoning Creek, immediate attention is warranted. The trench should be backfilled and compacted alleviating the direct flow of contaminants to the creek. This, however, would cause the lagoon to eventually fill to overflow. It is recommended that in conjunction with the backfilling of the trench, the wastewater should be pumped out of the lagoon, transported to a treatment facility and ultimately disposed.


TONOLLI CORP.,NESQUEHONING, CARBON CO.,PA
ARIO1439
BATTERY DUMPING AREA
WAREHOUSE
REFINERY
SMELTER
SERV. BLDG.
MAINT. SHOP
OFFICES
DUST ROOM
C-20 CRUSHER
WATER TREATMENT PLANT
LANDFILL
WGH. STATION
FUEL OIL PUMP
TRENCH
LAGOON
GUARD SHACK
LP TANK
MAIN GATE
LEHIGH VALLEY RAILROAD
NESQUEHONING CREEK
MW
*PREDOMINANT WIND DIRECTION FROM NW
"NOT TO SCALE"

Tonolli Corporation Site
Analytical Results

SITE SAMPLE NUMBERS REFER TO SAMPLE LOCATION SKETCH								
WATER SAMPLES* (ALL CONCENTRATIONS IN PPB)								
		DRINKING WATER	SAMPLE NUMBER					
TEST DATE	COMPOUND	STANDARDS	1	2	3	4	5	6
06/09/83	Arsenic	50	--	--	65	--	--	--
	Cadmium	10	--	--	22	--	--	--
	Lead	50	--	119	139	--	--	--
10/08/83	Arsenic	50	108.3	--	112.9	--	--	--
	Cadmium	10	30.5	202.2	36.75	--	--	--
01/12/84	Arsenic	50	--	--	250	--	840	62
	Cadmium	10	38	38	50	16	62	33
	Chromium	50	--	--	--	--	112	122
	Lead	50	103	--	--	260	5600	190
04/02/84	Arsenic	50	--	--	190	--	380	71
	Cadmium	10	13	30	34	--	22	--
	Chromium	50	--	--	--	--	55	--
	Lead	50	--	--	141	--	503	51
07/17/84	Arsenic	50	--	--	350	--	496	--
	Cadmium	10	14	--	23	--	--	--
	Chromium	50	--	--	65	--	120	85
	Lead	50	--	--	135	--	176	57
07/08/85	Arsenic	50	--	--	107	--	--	--
	Cadmium	10	20	--	130	18	--	14
	Lead	50	53.1	--	--	--	--	--

*Sample No. 1 was taken from Nesquehoning Creek while the other water samples were taken from different monitoring wells.

SITE SAMPLE NUMBERS REFER TO SAMPLE LOCATION SKETCH				
SOIL SAMPLES (ALL CONCENTRATIONS IN PPM)				
		AVERAGE CONCENTRATION	SAMPLE NUMBER	
TEST DATE	COMPOUND	ON EAST COAST	7	8
06/27/84	Arsenic	1		6.7
	Cadmium	14	79.6	246

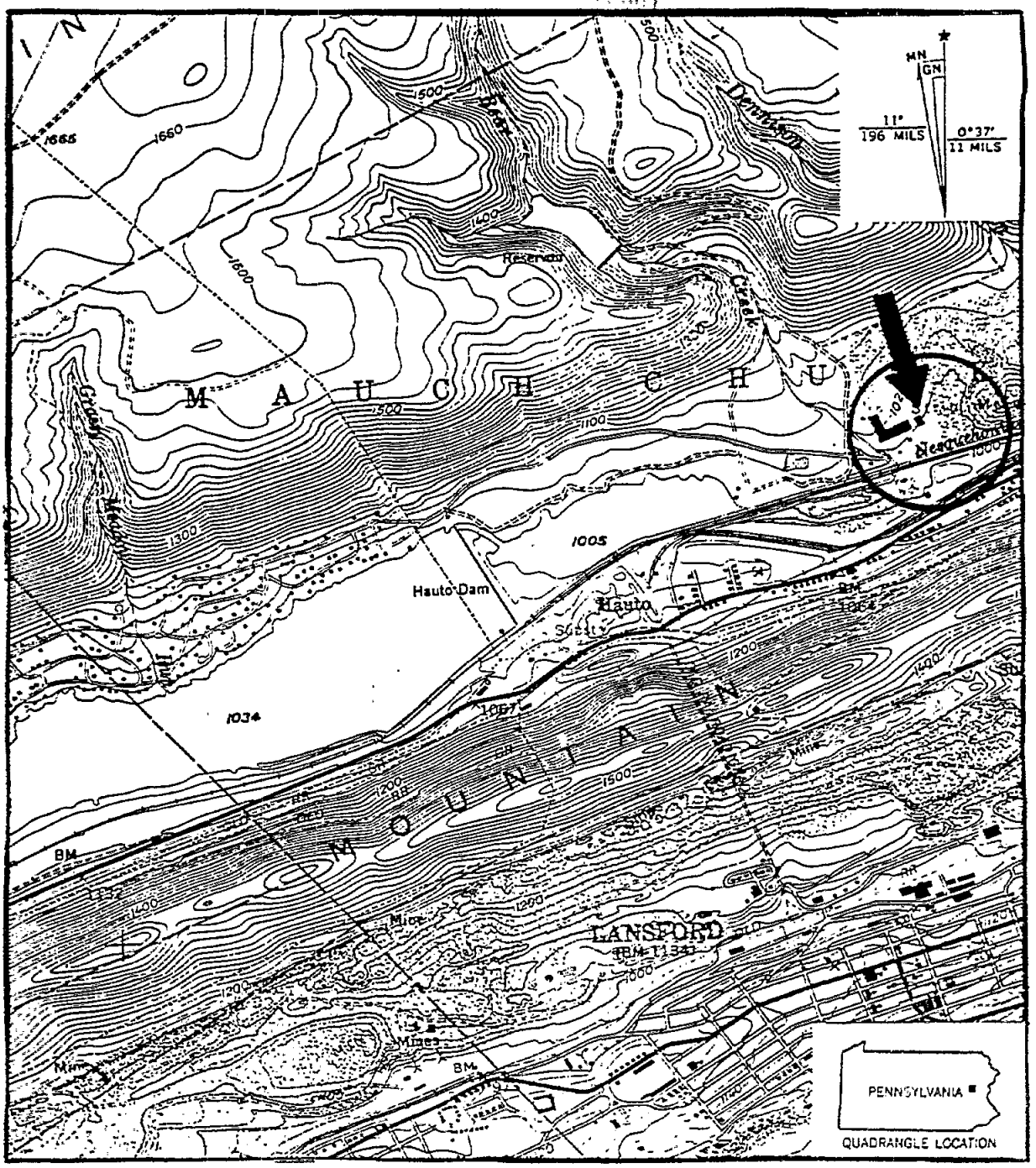
Tonolli Corporation Site
Analytical Results (continued)

ORIGINAL
(Red)

SITE SAMPLE NUMBERS REFER TO SAMPLE LOCATION SKETCH									
EP TOXIC TEST (ALL CONCENTRATIONS IN PPB)									
		EP TOXIC	SAMPLE NUMBER						
TEST DATE	COMPOUND	ALLOWABLE	9	10	11	12	13	14	15
05/23/84	Arsenic	5	--	--	--	--	--	5.2	--
	Cadmium	5	--	--	--	--	--	107	--
	Lead	1	--	--	--	--	--	7.6	--
09/27/84	Arsenic	5	12.2	--	--	--	--	--	--
	Cadmium	5	--	--	246	14.4	79.2	--	--
	Lead	1	15.3	2.93	6.7	5.35	--	--	--
01/12/84	Lead	5	--	--	--	--	--	--	21.5

		SAMPLE NUMBER		
DATE	TOTAL	16	17	18
5/87	Arsenic	25.3	54	71
	Cadmium	12.4	3.5	5
	Lead	65,500	6,860	2030

ORIGINAL
(Red)



1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 5 0 1 KILOMETER

TONOLLI CORP. SITE LOCATION

ARFO1402

ORIGINAL
F3-8609-02

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

EPA

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
PA	2020

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER				
Tonolli Corporation	RD 1, Route 54				
03 CITY	**04 STATE**	**05 ZIP CODE**	**06 COUNTY**	**07 COUNTY CODE**	**08 CONG DIST**
Nesquehoning	PA	18240	Carbon	025	PA11

09 COORDINATES LATITUDE 40 50 05.__ LONGITUDE 75 52 45.__

10 TYPE OF OWNERSHIP (Check one)
☒ A. PRIVATE ☐ B. FEDERAL ____ ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL ☐ F. OTHER ____ ☐ G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION	02 SITE STATUS	03 YEARS OF OPERATION
N/A (MONTH DAY YEAR)	☐ ACTIVE ☒ INACTIVE	unknown 1986 (BEGINNING YEAR ENDING YEAR) ____ UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply)
☐ A. EPA ☐ B. EPA CONTRACTOR N/A (Name of firm) ☐ C MUNICIPAL ☐ D. MUNICIPAL CONTRACTOR ____ (Name of firm)
☐ E. STATE ☐ F STATE CONTRACTOR ____ (Name of firm) ☐ G. OTHER ____ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO
This form has been completed using available information.			( )
09 OTHER INSPECTORS	**10 TITLE**	**11 ORGANIZATION**	**12 TELEPHONE NO**
			( )
			( )
			( )
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
			( )
			( )
			( )
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
☐ PERMISSION ☐ WARRANT	N/A	N/A

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO
Patrick McManus	PA RCRA Enforcement Section	(215) 597-3923

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
I. Scott Renneisen	NUS	FIT III	(215) 687-9510	10 22 86 (MONTH DAY YEAR)

EPA FORM 2070-13 (7-81)

AR101443

ORIGINAL
(1.00)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 1 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION
01 STATE: PA | 02 SITE NUMBER: 2020

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ☒ A. GROUNDWATER CONTAMINATION | 02 ☒ OBSERVED (DATE: 7/8/85) | ☐ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 13,452 | 04 NARRATIVE DESCRIPTION

Groundwater contamination has been documented with numerous rounds of sampling. Contaminants detected in the groundwater include arsenic, cadmium, lead, and sulfate.

01 ☒ B. SURFACE WATER CONTAMINATION | 02 ☒ OBSERVED (DATE: 7/8/85) | ☐ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 0 | 04 NARRATIVE DESCRIPTION

Surface water contamination has been documented with numerous rounds of sampling. Contaminants detected in Nesquehoning Creek, which have been attributed to the site include arsenic, cadmium, lead, and sulfate.

01 ☒ C. CONTAMINATION OF AIR | 02 ☐ OBSERVED (DATE:) | ☒ POTENTIAL | ☒ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: unknown | 04 NARRATIVE DESCRIPTION

A lead smelter was operated on site.

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

None reported or observed

01 ☐ E. DIRECT CONTACT | 02 ☐ OBSERVED (DATE) | ☐ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED | 04 NARRATIVE DESCRIPTION

None reported or expected; direct contact to wastes is precluded by site security measures.

01 ☒ F. CONTAMINATION OF SOIL | 02 ☒ OBSERVED (DATE 9/27/84) | ☐ POTENTIAL | ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: unknown (Acres) | 04 NARRATIVE DESCRIPTION

Soil samples collected near the Bakelite storage area were found to contain elevated levels of lead.

01 ☒ G. DRINKING WATER CONTAMINATION | 02 ☐ OBSERVED (DATE:) | ☒ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 13,452 | 04 NARRATIVE DESCRIPTION

The Lansford/Coaldale Water Authority maintains wells, used for backup supply, which tap the aquifer of concern.

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

None reported or expected

01 ☒ I. POPULATION EXPOSURE/INJURY | 02 ☐ OBSERVED (DATE:) | ☒ POTENTIAL | ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 13,452 | 04 NARRATIVE DESCRIPTION

Represents the population potentially affected via drinking water contamination.

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION
01 STATE: PA | 02 SITE NUMBER: 2020

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
☐ A. NPDES				
☐ B. UIC				
☐ C. AIR				
☐ D. RCRA				
☒ E. RCRA INTERIM STATUS	PAD073613663	11/18/80	11/8/85	--
☐ F. SPCC PLAN				
☐ G. STATE (Specify)				
☐ H. LOCAL (Specify)				
☐ I. OTHER (Specify)				
☐ J. NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE
☒ A. SURFACE IMPOUNDMENT	450,000	gals.
☒ B. PILES	unknown	
☐ C. DRUMS, ABOVE GROUND		
☒ D. TANK, ABOVE GROUND	500,000	gals
☐ E. TANK, BELOW GROUND		
☒ F. LANDFILL	133,200	cu. yds.
☐ G. LANDFARM		
☐ H. OPEN DUMP		
☐ I. OTHER (Specify)		

04 TREATMENT (Check all that apply)
- ☐ A. INCINERATION
- ☐ B. UNDERGROUND INJECTION
- ☒ C. CHEMICAL/PHYSICAL
- ☐ D. BIOLOGICAL
- ☐ E. WASTE OIL PROCESSING
- ☐ F. SOLVENT RECOVERY
- ☐ G. OTHER RECYCLING/RECOVERY
- ☐ H. OTHER (Specify)

05 OTHER
- ☒ A. BUILDINGS ON SITE

06 AREA OF SITE
unknown (Acres)

07 COMMENTS

The quantities listed above represent total capacity. Details of the treatment process are unknown.

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

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

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

The landfill has been constructed with a 1/16-inch thick butyl rubber liner and has two perforated manholes for leachate collection; no cover material exists at present. A pile of waste bakelite was maintained on site; runoff was collected in a sump from this area and eventually made its way to the surface impoundment. Containment was suspect at the surface impoundment due to inadequate freeboard maintenance.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ☐ YES ☒ NO

02 COMMENTS: Access is limited due to inadequate security which includes fencing and natural barriers.

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

EPA FORM 2070-13 (7-81)

AR101445

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
PA	2020

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

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

02 PERMEABILITY OF BEDROCK (Check one)

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

03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL pH	
approx. 120 (ft)	unknown (ft)	unknown	

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE		
		SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
approx. 12 (in)	unknown (in)	unknown %	southerly	unknown %

09 FLOOD POTENTIAL
SITE IS IN N/A YEAR FLOODPLAIN

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

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE	OTHER
A. >3 (mi)	B. >3 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)
none within 1 (mi)
ENDANGERED SPECIES:

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREAS, NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS	
		PRIME AG LAND	AG LAND
A. 1 (mi)	B. .095 (mi)	C. >3 (mi)	D. >3 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

The site lies in a valley bounded to the north by Broad Mountain and to the south by Nesquehoning Mountain.

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

EPA FORM 2070-13(7-81)

AR101446

EPA

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

I. IDENTIFICATION
01 STATE: PA | 02 SITE NUMBER: 2020

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE
Tonolli Corporation		RD 1, Route 54	5093	Nesquehoning	PA	18420
N/A						
N/A						
N/A						

PARENT COMPANY (if applicable)

08 NAME	09 D+B NUMBER	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE	12 CITY	13 STATE	14 ZIP CODE
N/A				-		
N/A						
N/A						
N/A						

III. PREVIOUS OWNER(S) (List most recent first)

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE
N/A						
N/A						
N/A						
N/A						

IV. REALTY OWNER(S) (If applicable, list most recent first)

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE
N/A						
N/A						
N/A						
N/A						

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

EPA FORM 2070-13 (7-81)

AR101447

EPA

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

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
PA	2020

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER
Tonolli Corporation	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
RD 1, Rt. 54	5093

05 CITY	06 STATE	07 ZIP CODE
Nesquehoning	PA	18420

III. OFF-SITE GENERATOR(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
N/A		N/A	

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

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

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
N/A		N/A	

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

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

IV. TRANSPORTER(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
N/A		N/A	

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

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

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
N/A		N/A	

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

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

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sampling results)

EPA FORM 2070-13 (7-81)

AR101448

EPA

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

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
PA	2020

II PAST RESPONSE ACTIVITIES (Continued)

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

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

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

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

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

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

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

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

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

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

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

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

No past response activities are known

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

EPA FORM 2070-13 (7-81)

EPA

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

I. IDENTIFICATION
01 STATE: PA | 02 SITE NUMBER: 2020

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE
Tonolli Corporation		RD 1, Route 54	5093	Nesquehoning	PA	18420
N/A						
N/A						
N/A						

PARENT COMPANY (if applicable)

08 NAME	09 D+B NUMBER	10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE	12 CITY	13 STATE	14 ZIP CODE
N/A						
N/A						
N/A						
N/A						

III. PREVIOUS OWNER(S) (List most recent first)

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE
N/A						
N/A						
N/A						
N/A						

IV. REALTY OWNER(S) (if applicable, list most recent first)

01 NAME	02 D+B NUMBER	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	05 CITY	06 STATE	07 ZIP CODE
N/A						
N/A						
N/A						
N/A						

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

EPA FORM 2070-13 (7-81)

AR101450

ORIGINAL
(Red)

EPA

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

I. IDENTIFICATION
01 STATE: PA | 02 SITE NUMBER: 2020

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER	
Tonolli Corporation		
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	
RD 1, Rt. 54	5093	
05 CITY	06 STATE / 07 ZIP CODE	
Nesquehoning	PA / 18420	

III. OFF-SITE GENERATOR(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
N/A		N/A	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
N/A		N/A	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	06 CITY	06 STATE / 07 ZIP CODE

IV. TRANSPORTER(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
N/A		N/A	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE
01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
N/A		N/A	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE	03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
05 CITY	06 STATE / 07 ZIP CODE	05 CITY	06 STATE / 07 ZIP CODE

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

EPA FORM 2070-13 (7-81)

ORIGINAL
(Red)

EPA

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

I. IDENTIFICATION
01 STATE: PA | 02 SITE NUMBER: 2020

II PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R. BARRIER WALLS CONSTRUCTED | 02 DATE _____ | 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ S. CAPPING/COVERING | 02 DATE _____ | 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ T. BULK TANKAGE REPAIRED | 02 DATE _____ | 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ U. GROUT CURTAIN CONSTRUCTED | 02 DATE _____ | 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ V. BOTTOM SEALED | 02 DATE _____ | 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ W. GAS CONTROL | 02 DATE _____ | 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ X. FIRE CONTROL | 02 DATE _____ | 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ Y. LEACHATE TREATMENT | 02 DATE _____ | 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ Z. AREA EVACUATED | 02 DATE _____ | 03 AGENCY _____
04 DESCRIPTION
N/A

01 ☐ 1. ACCESS TO SITE RESTRICTED | 02 DATE _____ | 03 AGENCY _____
04 DESCRIPTION
N/A

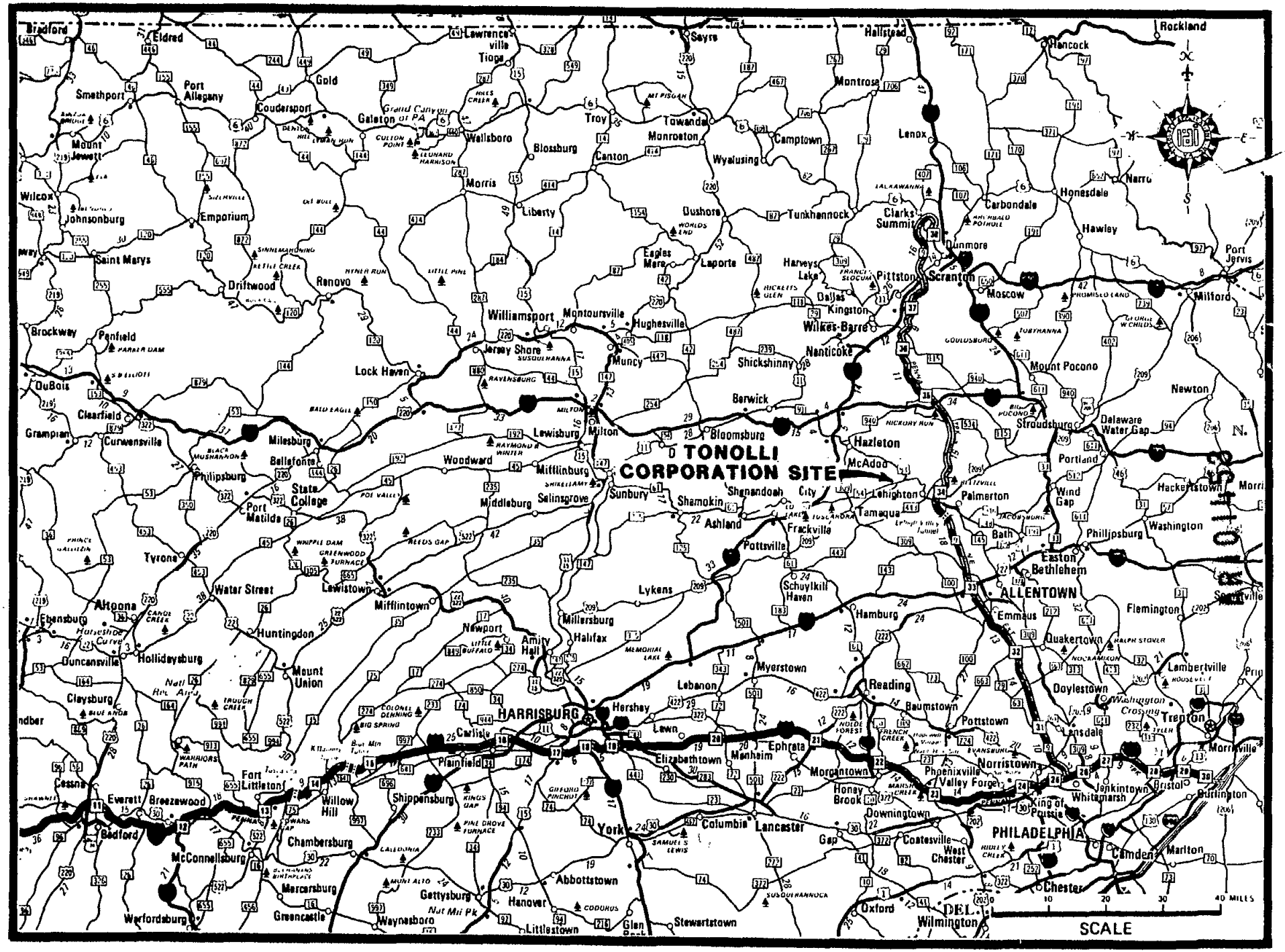
01 ☐ 2. POPULATION RELOCATED | 02 DATE _____ | 03 AGENCY _____
04 DESCRIPTION
N/A

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

No past response activities are known

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

EPA FORM 2070-13 (7-81)



SITE LOCATION MAP

FIGURE 1

NUS CORPORATION
A Halliburton Company

[redacted]

PROJECT FOR PERFORMANCE OF REMEDIAL RESPONSE ACTIVITIES AT UNCONTROLLED HAZARDOUS SUBSTANCE FACILITIES—ZONE 1

NUS CORPORATION
SUPERFUND DIVISION

ORIGINAL
(Red)

R-585-2-6-20

ENFORCEMENT SUPPORT
TARGET POPULATION STUDY REPORT
TONNOLLI CORPORATION
PREPARED UNDER

TDD NO. F3-8512-47
EPA NO. 2020
CONTRACT NO. 68-01-6699

FOR THE

HAZARDOUS SITE CONTROL DIVISION
U.S. ENVIRONMENTAL PROTECTION AGENCY

MARCH 10, 1986

NUS CORPORATION
SUPERFUND DIVISION

SUBMITTED BY	REVIEWED BY	APPROVED BY
Richard J. Gorrell	Richard M. Cromer	
RICHARD J. GORRELL	RICHARD CROMER	GARTH GLENN
ENVIRON. ENGINEER	ASSISTANT MANAGER	MANAGER, FIT III

TABLE OF CONTENTS

ORIGINAL
(Red)

ORIGINAL
(Red)

ATTACHMENTS

SECTION 1

1.0 INTRODUCTION

1.1 Authorization

NUS Corporation performed this work under Environmental Protection Agency Contract No. 68-01-6699. This report was prepared in accordance with Technical Directive Document No. F3-8512-47 for the Tonnolli Corporation site located in Carbon County, Pennsylvania.

1.2 Scope of Work

NUS FIT III was tasked to provide enforcement support, in the form of a target population study of the 3-mile radius area around the Tonnolli Corporation site in Carbon County, Pennsylvania. Specific elements of the Technical Directive Document are detailed in attachment 1 of this report.

1.3 Summary

The Tonnolli Corporation, located approximately 1 mile north of Lansford, Pennsylvania along Pennsylvania State Route 54, is a lead smelting and recycling facility. In addition to the lead smelting plant, the site also consists of a hazardous waste storage area and a solid waste disposal landfill.

Water supplies for the communities within a 3-mile radius of the Tonnolli site are developed from both groundwater and surface water sources. The majority of the population within the study area is served by municipal supply systems. A small population, located within the southeastern portion of the study area, depends on private wells for domestic water supplies.

The site receiving stream, Nesquehoning Creek, flows west to east through the central area of the study area. No sensitive environmental/recreational areas or endangered species are known to exist within the area 3 miles downstream from the Tonnolli site. However, Lake Hauto, located approximately 1 mile west and upstream from the site, is used for fishing and boating.

SECTION 2

2.0 DESCRIPTION OF EXISTING WATER SUPPLIES

ORIGINAL
(Red)

Major communities within the 3-mile radius study area include Summit Hill Borough, Lansford Borough, and Coaldale. Smaller communities include Bloomingdale, Hauto, and the Lake Hauto Development. Two municipal supply water authorities serve these communities. They are summarized as follows:

Lansford - Coaldale Joint Water Authority

The system extends to the built-up areas within and around the boroughs of Lansford and Coaldale. According to Mr. Harry Vadyak, chairman, the system also serves the satellite communities of Hauto, Hauto Estates, the Lake Hauto Development, and Hauto Village (see attachment 2, figure 1, for location of these communities and the approximate location of the Lansford - Coaldale Public Service District).

Sources for this system include the Bear Creek Reservoir, a surface water impoundment which receives flow from Bear Creek and from a 600 feet deep source well. The reservoir is located 4,000 feet northwest of the Tonnolli site. The source well is located adjacent to the northern portion of the reservoir, approximately 5,500 feet northwest of the Tonnolli site (see attachment 3 for the log applicable to the source well). The capacity of the Bear Creek Reservoir is reported at 89 million gallons. Topographically, the Bear Creek drainage basin is isolated from the Tonnolli site. Sources for the system are also developed from 2 wells located adjacent to and south of Tippet's Pond. These wells, 150 feet and 75 feet deep, respectively, are situated approximately 4,500 feet southeast of the Tonnolli site. These 2 wells were developed during the early 1900s and details pertaining to construction and geologic characteristics are reportedly not available.

Mr. Vadyak has also reported that, though the systems are intermixed, the Bear Creek Reservoir supplies water during the months November, December, January, February, March, April, May, and June. The Hauto wells are used as back-up sources during the months of July, August, September, and October (see section 4.0 of this report for applicable well log data).

The total number of homes served by the system, as reported by Mr. Vadyak, is approximately 3,540. Using Mitre Model Hazard Ranking System (HRS) procedures, the total population served by the system is 3.8 persons per home times 3,540 homes equals 13,452 persons.

Summit Hill Water Authority

The community of Summit Hill Borough, located adjacent to and south of Lansford, also utilizes a municipal supply water distribution system. Water lines extend to all residences within the built-up area of the borough (see attachment 2, figure 1, for location of the Summit Hill Water Authority Public Service District).

Sources for this system include 4 wells and a back-up spring. The wells range from 240 to 400 feet deep. Mr. Ronald Turpak, Summit Hill Borough engineer, has reported that 3 of these wells were developed during the early 1900s and that little descriptive information is available pertaining to them. The wells and the spring are located within the White Bear Creek drainage basin, approximately 2.75 miles southeast of the Tonnolli site (see section 4.2 for applicable well log data).

The Summit Hill water system extends into Lansford. Flows from the Summit Hill system can be intermixed with the Lansford - Coaldale system during emergency water need periods. Normally, however, flows from the 2 systems are not intermixed.

Mr. Turpak has reported that the total population served by the system is 3,200 people.

ORIGINAL
(Red)

Extent of Private Domestic Supply Wells

The major portion of the population within the 3-mile radius of the Tonnolli site is serviced by municipal water supply systems. Homes within the area of Bloomingdale, located along L.R. 13020, however, are outside the public service district of both previously described water supply systems. A review of available United States Geological Survey (U.S.G.S.) topographic maps indicates that there are approximately 95 homes within this area; 95 homes times 3.8 persons per home equals 361 persons. The Pennsylvania Department of Environmental Resources (PA DER) Well Inventory contains data on 8 private wells within this area. Refer to section 4.2 for a summary of information applicable to these wells.

SECTION 3

3.0 POPULATION ANALYSIS

ORIGINAL (Red)

- Population served by the Lansford - Coaldale Joint Water Authority 13,452
- Population served by the Summit Hill Water Authority 3,200
- Estimated population outside the public service district for both water authorities 361
- Total population (see below) 17,013

Note: Total population represents the estimated population of the 3-mile radius study area and the additional people, located outside the study area, which are serviced by the respective water supply systems. (Coaldale and the Lake Hauto Development extend beyond the 3-mile radius, but these communities are served by water supplies developed from within the study area.)

ORIGINAL
(Red)

SECTION 4

4.0 ENVIRONMENTAL SETTING

ORIGINAL
(Red)

4.1 Surface Water and Sensitive Environments

Uncontrolled runoff from the Tonnolli site drains into Nesquehoning Creek. Tippet's Pond and the Hauto Dam, both of which receive flow from Nesquehoning Creek, are situated upstream from the Tonnolli-site-related runoff.

According to Mr. Eugene Butler, of the Carbon County Planning Commission, there are no surface water intakes on Nesquehoning Creek between Hauto Dam and Nesquehoning Borough.

According to Mr. Frederick Ohlsen, former Carbon County Waterways Patrolman for the Pennsylvania Fish Commission, Hauto Dam is a popular recreational area. However, Nesquehoning Creek, downstream from the Hauto Dam and Tippet's Pond has been found to have significant degraded water quality. This section of Nesquehoning Creek, between Hauto Dam and the borough of Nesquehoning, has reportedly never been stocked by the Fish Commission and apparently has such poor water quality that it is of little or no recreational value.

According to information provided by the PA DER State Water Plan Division, there are no public water supply sources intakes on Nesquehoning Creek or the Lehigh River within 10 miles downstream of the Tonnolli site.

Based on this information, it is generally concluded that there are no sensitive aquatic environments or endangered species within 3 miles of the Tonnolli site, which could be negatively affected by surface drainage originating at the site.

A review of the Federal List of Endangered Species indicates that several animal species may range within this area of Pennsylvania. However, population survey data confirming the current presence of these species are not available.

4.2 Summary of Well Information

ORIGINAL (Red)

The following tables have been developed through a review of existing available information. Included in these tables is a summary of data which are applicable to specific wells within the study area. All wells included in this section are drinking water supply sources.

The well number identification corresponds with well locations, as illustrated on figure 1 of attachment 2. It should be noted that well locations are approximate, based on information provide by respective data sources. It should also be noted that there are 9 monitoring wells at the Tonnolli site. Information pertaining to these wells has not been included in this report since a detailed hydrogeologic report applicable to the wells, prepared by Intex, Incorporated of Warminster, Pennsylvania, is currently available for review in EPA files.

4.3 Consideration of Potential Contamination of Water Supply Wells from the Tonnolli Site

The following discussion will identify the potential threat to the above described water supply wells. The discussion is not intended to be an in-depth hydrogeologic evaluation of the 3-mile radius which surrounds the Tonnolli Site; rather, it is a basic statement of probable conditions based on existing physical characteristics.

The geologic formation which supplies water for the wells within the area is the Mauch Chunk shale. The regional dip of the Mauch Chunk Formation is to the south. The Tonnolli site is situated over alluvial deposits which in turn are situated over the Mauch Chunk shale. The vertical hydraulic continuity between the known contaminants at the Tonnolli site and the Mauch Chunk shale has not been conclusively documented. Likewise, the horizontal hydraulic continuity between the Tonnolli site and the wells has not been conclusively documented.

When identifying potential threats to water supply wells within the 3-mile radius of the Tonnolli site, additional factors also become critical. Topography, linear distances, and physical gradients must be considered.

The Summit Hill Water Authority wells, and the private wells located within the vicinity of these wells, are topographically isolated from, and draw water from, recharge areas which are of significant linear distances (2.75 miles) from the Tonnolli site. These wells can be considered as not endangered by contaminants from the Tonnolli site.

The Landsford - Coaldale supply wells, both the Bear Creek well and the Hauto well, are located within 1 mile of the Tonnolli site. Though both wells are upgradient from the Tonnolli site, they are of sufficient depth to be drawing water from zones which are at elevations below the Tonnolli site. Based on EPA National Contingency Plan Criteria for identifying potentially threatened groundwater supplies, insufficient data exist to conclusively state that these wells are not endangered. Within this context, these wells can be considered as potentially threatened by the Tonnolli site.

In order to accurately determine the potential impact that the Tonnolli site may have on these wells, field tests and studies directed toward identifying the actual vertical and horizontal hydrologic continuity, and therefore migration potential, would be necessary.

SUMMARY OF WELL INFORMATION

SITE NAME Tonnelli Corp.

TDD NO. F3-85-1247

EPA NO. _____

WELL NO. IDENTIFICATION	241	243	1035	1036	1037	1038	
OWNER--USE	JOSEPH LANZOS - PRIVATE DOMESTIC	JOHN PETRO JR. PRIVATE DOMESTIC	J. ALLESH PRIVATE DOMESTIC	B. BOYLE PRIVATE DOMESTIC	I. MILLER PRIVATE DOMESTIC	M. FOULK PRIVATE DOMESTIC	
LATITUDE LONGITUDE	40° 49' 19" 75° 51' 28"	40° 49' 12" 75° 51' 40"	40° 49' 26 75° 51' 8"	40° 49' 33" 75° 51' 10"	40° 49' 21" 75° 51' 16"	40° 49' 15" 75° 51' 35"	
ALTIDUDE	1100 FT MSL	1111 FT MSL	1085	1070	1085	1130	
WELL DEPTH	90 FT	110 FT	125 FT	95 FT	105 FT	106 FT	
DIAMETER	6 IN	6 IN	6 IN	6 IN	6 IN	6 IN	
DEPTH CASED	55 FT	77 FT	42 FT	49 FT	51 FT	63 FT	
DEPTH SCREENED	INFORMATION NOT AVAILABLE	INFO NOT AVAILABLE	INFO NOT AVAILABLE	INFO. NOT AVAILABLE	INFO. NOT AVAILABLE	INFO NOT AVAILABLE	
DEPTH TO CON. ROCK	37 FT	"	36 FT	40 FT	41 FT	55 FT	
LITHOLOGY/AQUIFER	MAUCH CHUNK SHALE	MAUCH CHUNK SHALE	MAUCH CHUNK	MAUCH CHUNK	MAUCH CHUNK	MAUCH CHUNK	
WATER LEVEL	60 FT From Bottom	50 FT From Bottom	38 FT From Bottom	30 FT From Bottom	35 FT From Bottom	30 FT From Bottom	
YIELD	12 GPM	30 GPM	15 GPM	20 GPM	20 GPM	20 GPM	
WATER BEARING ZONES	40, 70	50, 80	87, 121	30, 79	60, 85	40, 85	
DISTANCE TO SITE	2.5 MILES	2.5 MILES	2.5 MILES	2.5 MILES	2.5 MILES	2.5 MILES	
DATA SOURCE	PA WELL INVENTORY	PA WELL INVENTORY	PA WELL INVENTORY	PA WELL INVENTORY	PA WELL INVENTORY	PA WELL INVENTORY	

SUMMARY OF WELL INFORMATION

SITE NAME Tonnolli Corp

TDD NO. F3 8512-47

EPA NO. _____

WELL NO. IDENTIFICATION	1039	1040	1	2	3	4	
OWNER--USE	J. HORRAT PRIVATE DOMESTIC	P. KRUSLICKY PRIVATE DOMESTIC	SUMMIT HILL WATER CO. PUBLIC SUPPLY	SUMMIT HILL WATER CO. PUBLIC SUPPLY	SUMMIT HILL WATER CO. PUBLIC SUPPLY	SUMMIT HILL WATER CO. PUBLIC SUPPLY	
LATITUDE LONGITUDE	40° 49' 11" 75° 51' 40"	40° 48' 55" 75° 52' 24"	40° 48' 50" 75° 51' 45"	40° 48' 50" 75° 51' 39"	40° 48' 55" 75° 51' 45"	40° 48' 51" 75° 51' 33"	
ALTIDUDE	1110	1160	1085	1086	1080	1070	
WELL DEPTH	100 FT	97 FT	250 FT	242 FT	335 FT	400 FT	
DIAMETER	6 IN	6 IN	10 IN	8 IN	8 IN	8 IN	
DEPTH CASED	51 FT	62 FT	60 FT	60 FT	INFO NOT AVAILABLE	55 FT	
DEPTH SCREENED	INFORMATION NOT AVAILABLE	INFORMATION NOT AVAILABLE	INFORMATION NOT AVAILABLE	175 FT	175 FT	95 FT	
DEPTH TO CON. ROCK	45 FT	40 FT	"	INFORMATION NOT AVAILABLE	INFORMATION NOT AVAILABLE	35 FT	
LITHOLOGY/AQUIFER	MANCH CHUNK	MAUCH CHUNK	"	"	"	INFORMATION NOT AVAILABLE	
WATER LEVEL	FROM 20 FT. BOTTOM	FROM 20 FT BOTTOM	"	4 FT BELOW SURFACE	BELOW 4 FT SURFACE	2.4 BELOW SURFACE	
YIELD	20 GPM	20 GPM	200 GPM	100 GPM	75 GPM	450 GPM	
WATER BEARING ZONES	40, 80	80	INFO. NOT AVAILABLE	INFO. NOT AVAILABLE	INFORMATION NOT AVAILABLE	60, 90, 230	
DISTANCE TO SITE	2.5 MILES	2.5 MILES	2.75 MILES	2.75 MILES	2.75 MILES	2.75 MILES	
DATA SOURCE	PA WELL INVENTORY	PA WELL INVENTORY	SUMMIT HILL WATER COMPANY.	SUMMIT HILL WATER CO.	SUMMIT HILL WATER CO.	SUMMIT HILL WATER CO.	

SUMMARY OF WELL INFORMATION

SITE NAME Tonnolli Corp.

TDD NO. F3-8512-47

EPA NO. _____

WELL NO. IDENTIFICATION	5	6					
OWNER--USE	LANSFORD-COAL-DALE WATER CO. PUBLIC SUPPLY	LANSFORD-COAL DALE WATER CO. PUBLIC SUPPLY					
LATITUDE LONGITUDE	40° 50' 47" 75° 53' 35"	40° 51' 37" 75° 53' 48"					
ALTIDUDE	1040	1340					
WELL DEPTH	INFORMATION NOT AVAILABLE	650 FT					
DIAMETER	"	12 IN					
DEPTH CASED	"	34 FT					
DEPTH SCREENED	"	INFORMATION NOT AVAILABLE					
DEPTH TO CON. ROCK	"	12 FT					
LITHOLOGY/AQUIFER	"	GRAY SAND-STONE					
WATER LEVEL	"	INFORMATION NOT AVAILABLE					
YIELD	"	200 GPM					
WATER BEARING ZONES	"	75, 115, 200 218, 309, 365					
DISTANCE TO SITE	4500 FT	1 MILE					
DATA SOURCE	LANSFORD-COALDALE WATER AUTHORITY	LANSFORD-COAL DALE WATER AUTHORITY					

ARI01472

4-5

ORIGINAL (Red)

ORIGINAL
(Red)

ATTACHMENT 1

ORIGINAL
(Red)

1. COST CENTER:	REM/FIT ZONE CONTRACT TECHNICAL DIRECTIVE DOCUMENT (TDD)			2. NO.:
ACCOUNT NO.:				F3-8512-47
3. PRIORITY: ☒ HIGH ☐ MEDIUM ☐ LOW	4. ESTIMATE OF TECHNICAL HOURS: 80 4A. ESTIMATE OF SUBCONTRACT COST:	5. EPA SITE ID: 5A. EPA SITE NAME: Tonnolli Corp. Nequehoning, PA	6. COMPLETION DATE: 2/15/86	7. REFERENCE INFO.: ☒ YES ☐ NO ☒ ATTACHED ☐ PICK UP

GENERAL TASK DESCRIPTION: Provide enforcement support for the subject site.

9. SPECIFIC ELEMENTS:

1.) Review background information.

2.) Identify all groundwater supply wells within 3 mile radius of the site including well locations, number of people served, depth of wells, yield, water bearing zones and aquifer lithology

3.) Identify downstream water intakes, sensitive environments, wetlands, recreational use, etc.

4.) Prepare and submit report including all information obtained.

10. INTERIM DEADLINES:

11. DESIRED REPORT FORM: FORMAL REPORT ☒ LETTER REPORT ☐ FORMAL BRIEFING ☐

OTHER (SPECIFY): ~~Coordinate with Ken McGil~~

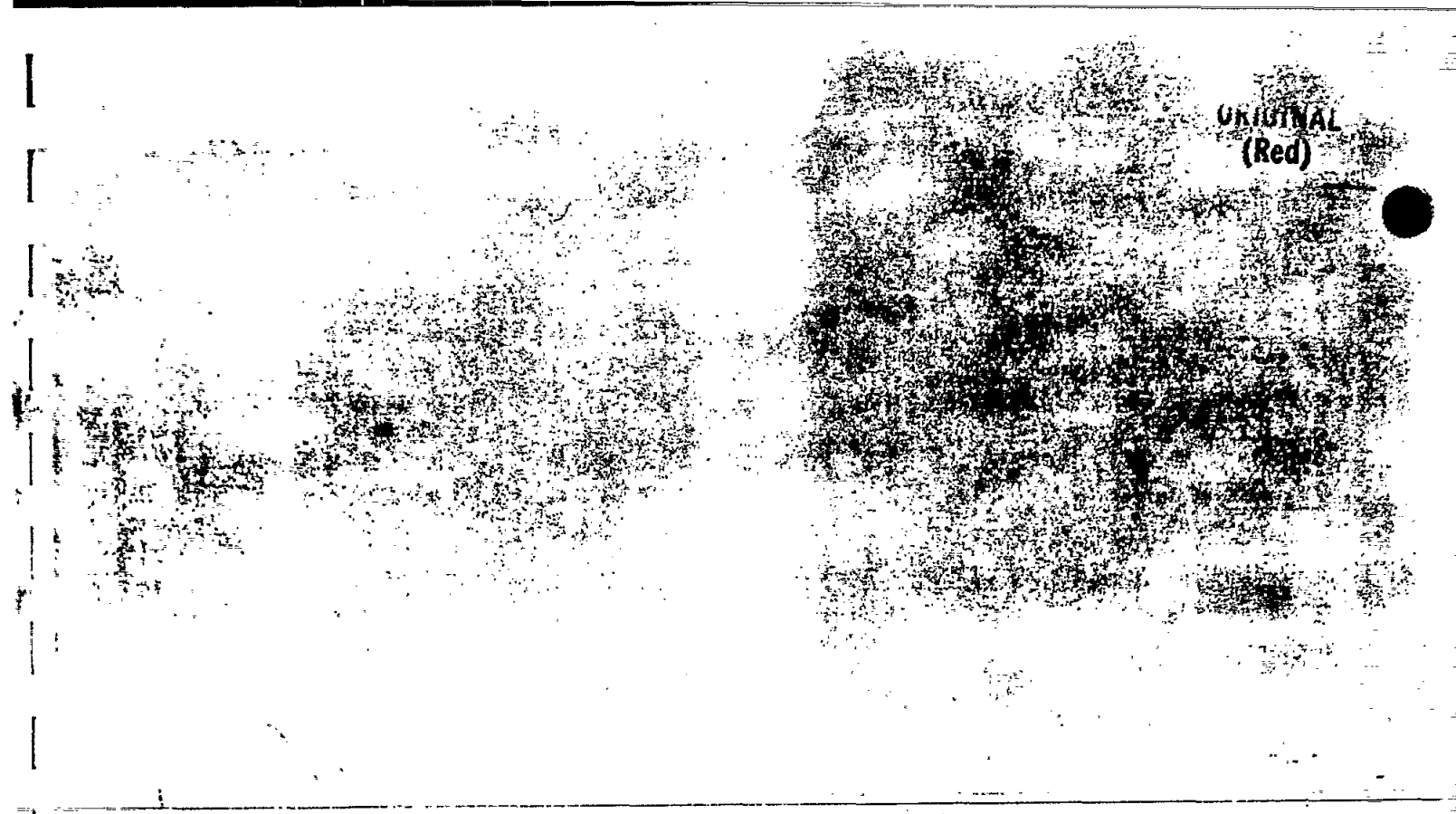
12. COMMENTS: State code 042 County Code 025

13. AUTHORIZING RPO: _____ (SIGNATURE) 14. DATE: _____

15. RECEIVED BY: ☐ ACCEPTED ☐ ACCEPTED WITH EXCEPTIONS ☐ REJECTED _____ (CONTRACTOR RPM SIGNATURE) 16. DATE: _____

AR10147

Sheet 1 White – RITL Copy
Sheet 2 Canary – DPO Copy
Sheet 3 Pink – Contracting Officer's Copy (Washington, D. C.)
Sheet 4 Goldenrod – Project Officer's Copy (Washington, D. C.)



ATTACHMENT 2

ORIGINAL
(Red)

TELEPHONE (717) 263-4109

NASSAUX-HEMSLEY, INCORPORATED-CONSULTANTS

NHI BUILDING - 66 NORTH SECOND STREET CHAMBERSBURG, PENNSYLVANIA 17201

Corporate Officers
WILLIAM T. HEMSLEY, P.E.
GORDON LAMB, P.E.
MAURICE L. GOSSERT
LAWRENCE J. LAMB, A.I.C.P.

Principals
DAVID J. BLACK, P.E.
NELSON H. GREENE, P.E.
ROBERT M. HUTCHISON, P.E.
WALLACE C. KOSTER
RALPH P. MATTER

December 22, 1980

* Well as situated North of Reservoir *

Mr. Harry Vadyak, Manager
Lansford-Coaldale Joint Water Authority
1 East Ridge Road
Lansford, Pennsylvania 18232

Re: Production Well
Contract #100

Dear Harry,

We are transmitting to you a copy of the log of the captioned water well composed from field notes recorded by our inspector, Mr. James Baker, from November 19, 20, 21, 22, 1980 and driller's log.

We are very pleased to have assisted you during this emergency period. Please do not hesitate to call on us at any time.

Best wishes for the Holiday Season and New Year.

Very truly yours,

NASSAUX-HEMSLEY, INCORPORATED

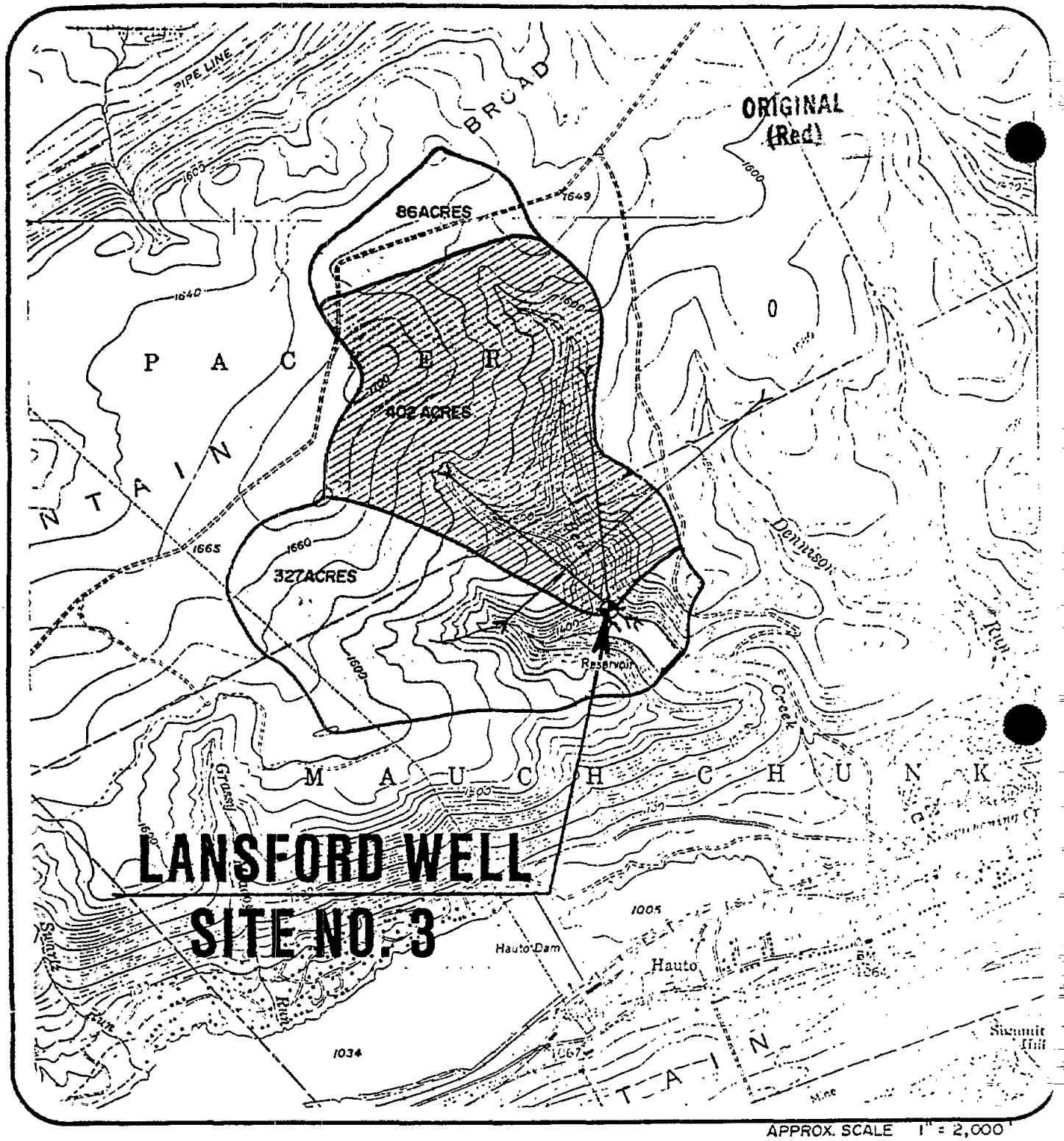
Wallace C. Koster

Wallace C. Koster

WCK/dlb

Enclosure

AR014916



APPROX. SCALE 1" = 2,000'

N

LANSFORD-COALDALE JOINT WATER AUTHORITY

Base map for this plan was prepared from a composite copy of the 7.5Min Series Quadrangle Maps of Hazleton and Tamaqua, Pennsylvania.

INDICATES FRACTURE TRACE

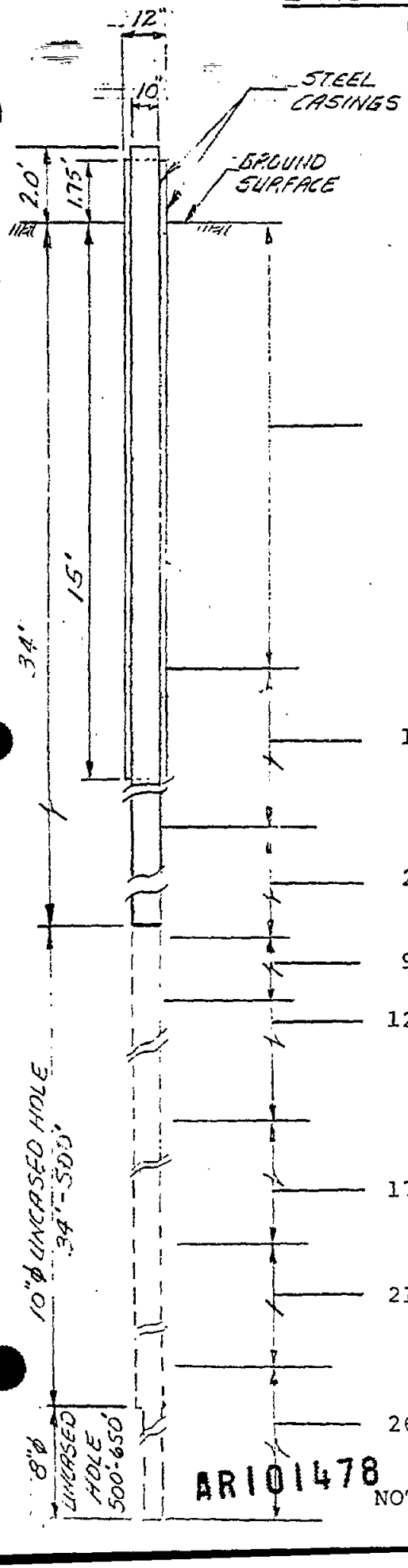
INDICATES LIMIT OF ENTIRE SURFACE WATER DRAINAGE BASIN CONTRIBUTING TO RESERVOIR
TOTAL AREA = 815 ACRES

INDICATES AREA THAT CONTRIBUTES GROUND-WATER FLOW TO PROPOSED WELL SITE
TOTAL AREA = 402 ACRES

12/22/80

LANSFORD-COALDALE JOINT WATER AUTHORITY
CONTRACT WELL NO. 100

ORIGINAL
(Red)

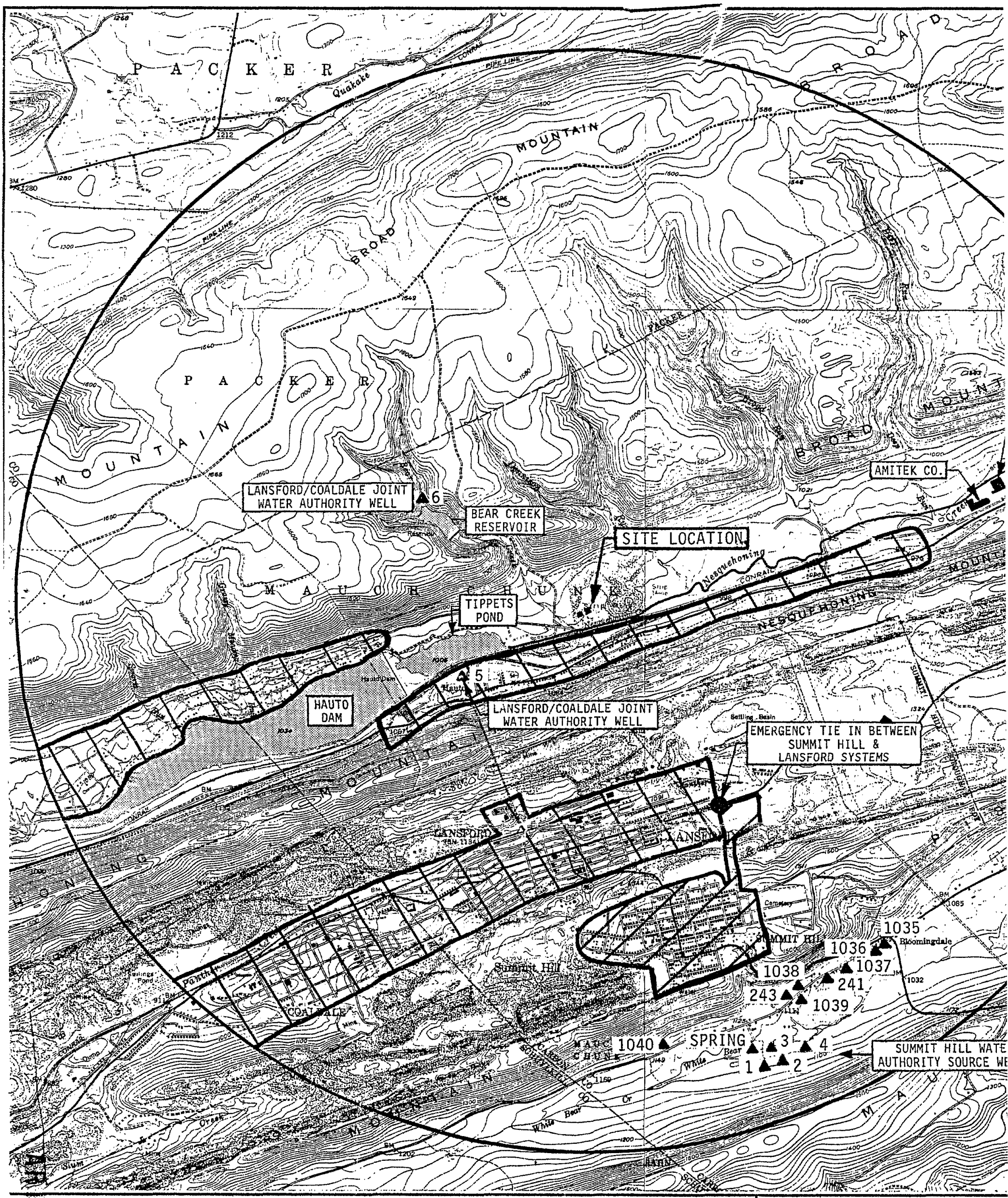


NOTE: ANNULUS TO BE GROUTED WITH MORTAR

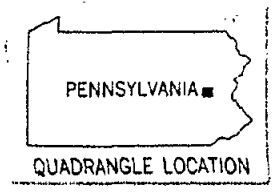
0'-12'	LOOSE BOULDERS, GRAVEL, WET
12'-25'	RED SHALE
25'-95'	GRAY SANDSTONE, WATER-BEARING FRACTURES OCCUR AT 75'-85' YIELDING 30-35 GPM
95'-125'	RED SANDSTONE
125'-177'	GRAY SANDSTONE, WATER-BEARING FRACTURES OCCUR AT 115'-125'
177'-215'	GRAY GREEN SANDSTONE, ESTIMATED YIELD OF WELL AT 200', 100 GPM
215'-264'	ALTERNATING BEDS OF RED AND GREEN SANDSTONE, WATER-BEARING FRACTURES OCCUR AT 228'-265', 309' AND 365'. ESTIMATED TOTAL YIELD AT 225', 150 GPM AND AT 375', 200 GPM.
264'-650'	GRAY ROCK

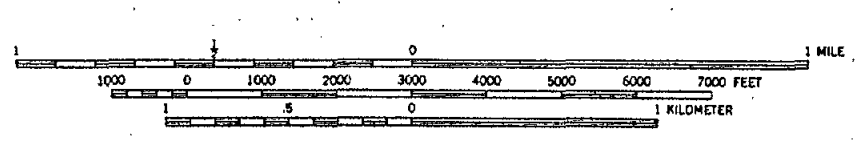
NOTE: WELL CONSTRUCTED BY DUANE MOYER DRILLING CO. DRILLING METHOD WAS BY AIR-ROTARY.

ATTACHMENT 3



SOURCES: BASE MAP DEVELOPED FROM HAZLETON, WEATHERLY, TAMAQUA & NESQUEHONING, PA. 7.5 MINUTE SERIES U.S.G.S. TOPOGRAPHIC QUADRANGLE MAPS.
WATER SUPPLY INFORMATION DEVELOPED FROM INFORMATION PROVIDED BY SUMMIT HILL WATER AUTHORITY & LANSFORD/COALDALE JOINT WATER AUTHORITY.





LEGEND

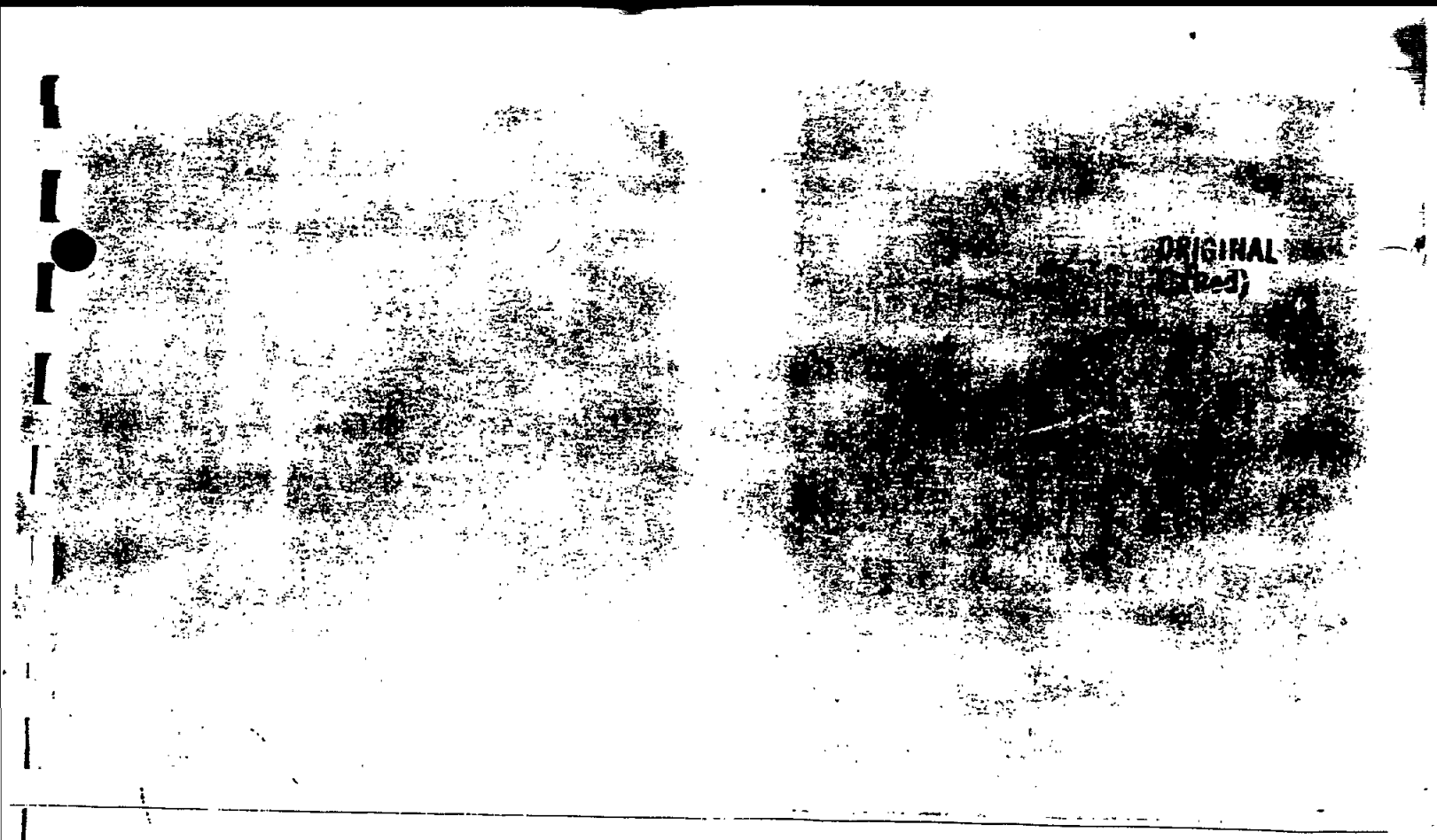
LANSFORD/COALDALE JOINT WA

SUMMIT HILL WATER AUTHORIT

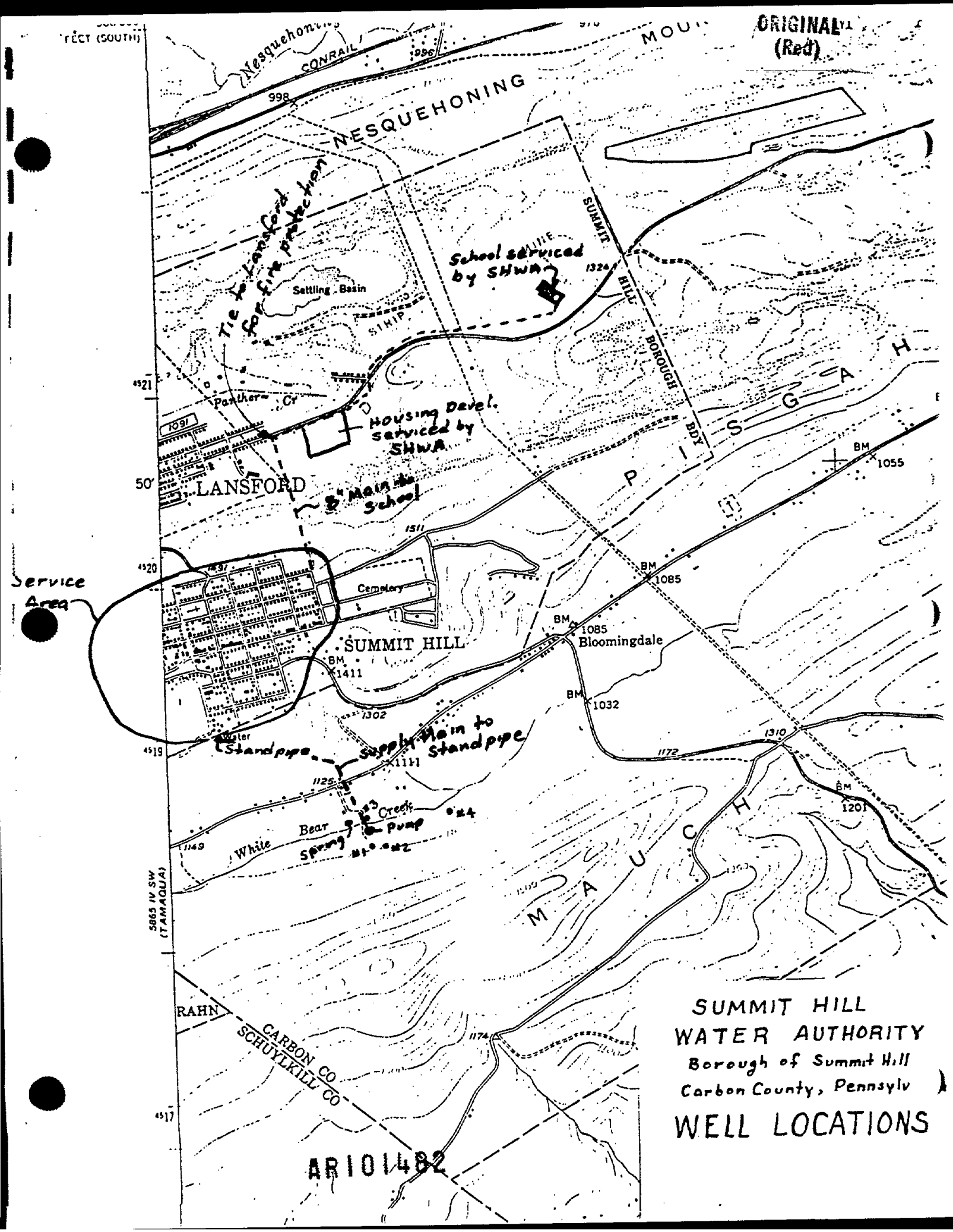
▲ WATER SUPPLY SOURCE. (APPRO

NOTE: NUMBERS ON WELL LOCATIONS IDENTIFICATION ON SUMMARY IN SECTION. 4.0

3 MILE RADIUS/WATER SUPPLY SUMMARY MAP



ATTACHMENT 4



SUMMIT HILL
WATER AUTHORITY
Borough of Summit Hill
Carbon County, Pennsylv

WELL LOCATIONS

ORIGINAL
(Red)

WELL REGISTRATION FORM

(See instructions on reverse side)

1. Owner Identification Summit Hill
   a. Well owner Water Authority
   b. Mailing address
   114 W. Ludlow St.
   Summit Hill, Pa. 18250

2. Well Identification
   a. Owners Well No. 1
   b. County Carbon
   c. ~~Municipality~~ Borough Summit Hill
   d. U.S.G.S. Quadrangle Name Nesquehoning

3. Water Use (check one)
   - ☐ Agriculture, non irrigation
   - ☐ Commercial (inc. institutional)
   - ☐ Domestic
   - ☐ Industrial
   - ☐ Irrigation
   - ☐ Air conditioning
   - ☒ Public water supply
   - ☐ Mining
   - ☐ Dewatering
   - ☐ Nuclear power
   - ☐ Fossil-fueled power
   - ☐ Geothermal heat pump
   - ☐ Sewage treatment
   - ☐ Other

4. Estimated Water Use
   Average daily water use during peak 30-day period 77,050 gpd
   Metered? ☐ yes ☒ no

5. Pump Information
   a. Installation date unknown (month/day/year)
   b. Pump capacity 400 (gpm)
   c. Motor capacity 15 (hp)
   d. Power source Electric - P.P.&L. Co. (electric, gasoline, diesel, etc.)
   e. Pump manufacturer and type Peerless Vertical Turbine
   f. Pump intake setting 113 (ft. below land surface)
   g. Current pumping water level 85 (ft. below land surface)

6. Manner and Location of Wastewater Disposal (check all that apply) Not applicable
   - ☐ Sewage treatment plant
     Name of plant
   - ☐ Private, on-site wastewater treatment
     - ☐ Plant
     - ☐ Lagoon
     NPDES Permit No.
   - ☐ Direct (untreated) discharge to a stream
     Name of stream
   - ☐ Septic system (locate on U.S.G.S. Quad)
   - ☐ Spray irrigation (locate on U.S.G.S. Quad)
   - ☐ Injection well (locate on U.S.G.S. Quad)
   - ☐ Other

7. Well Construction Information
   a. Date of well completion 1918 (month/day/year)
   b. Driller's name unknown
   c. State license No.
   d. Depth drilled 250 (ft. below land surface)
   e. Depth of completed well 250 (ft. below land surface)

   f. Driller's Log (can be attached)

Description	Top	Bottom
Not available		

   g. Drilling method (check one)
   - ☐ Augered
   - ☐ Bored
   - ☐ Cable tool
   - ☐ Driven
   - ☐ Jetted
   - ☐ Air rotary
   - ☐ Mud rotary
   - ☐ Reverse
   - ☐ Washed
   - ☐ Other (specify) unknown

   h. Casings

	Depth to top (ft. below land surface)	Depth to bottom (ft. below land surface)	Diameter (inches)	Material (iron, steel, or PVC)
Casing 1	0	60 Est.	10	steel
Casing 2				
Casing 3				
Open hole				

   i. Screen ☐ yes ☐ no unknown
   Depth to top (ft. below land surface)
   Depth to bottom (ft. below land surface)
   Diameter (inches)
   Material and type

   j. Grout Information unknown
   Grout top (ft. below land surface)
   Grout bottom (ft. below land surface)
   Material

   k. Water-yielding zones unknown

	Depth to top (ft. below land surface)	Depth to bottom (ft. below land surface)
1.		
2.		
3.		

   l. Gravel pack ☐ yes ☒ no
   Depth to top (ft. below land surface)
   Depth to bottom (ft. below land surface)
   Diameter (inches)

8. Pump Test Well Yield Information Not available
   a. Date unknown
   b. Static water level (ft. above (+) or below land surface)
   c. Pumping water level (ft. below land surface)
   d. Length of test (hours and minutes)
   e. Pumping rate (gpm)
   f. Pumping measurement method
   g. Maximum sustainable well yield 200 (gpm)

9. Verification
   a. Name of person supplying data Ronald M. Tirpak
   b. Telephone No. 717-645-9545
   c. Address 350 N. Pine St.
   Summit Hill, Pa. 18250
   d. Date Jan. 17, 1986
   e. Signature Ronald M. Tirpak

For Official use only
AR101483
The ground-water withdrawal as described above has been registered in accordance with the Delaware River Basin Commission's Resolution No. 85-19.

White = State Pink = Owner

WELL REGISTRATION FORM

(See instructions on reverse side)

1. Owner Identification Summit Hill

a. Well owner Water Authority

b. Mailing address 114 W. Ludlow St.
Summit Hill, Pa. 18250

2. Well Identification

a. Owners Well No. 2

b. County Carbon

c. Township or Borough Summit Hill

d. U.S.G.S. Quadrangle Name Nesquehoning

3. Water Use (check one)

- ☐ Agriculture, non irrigation
- ☐ Commercial (inc. institutional)
- ☐ Domestic
- ☐ Industrial
- ☐ Irrigation
- ☐ Air conditioning
- ☒ Public water supply
- ☐ Mining
- ☐ Dewatering
- ☐ Nuclear power
- ☐ Fossil-fueled power
- ☐ Geothermal heat pump
- ☐ Sewage treatment
- ☐ Other

4. Estimated Water Use

Average daily water use during peak 30-day period 25,6

Metered? ☐ yes ☒ no

ORIGINAL
(Red)

5. Pump Information

a. Installation date 3-1964 (month/day/year)

b. Pump capacity 150 (gpm)

c. Motor capacity 10 (hp)

d. Power source Electric - P.P.&L. Co. (electric, gasoline, diesel, etc.)

e. Pump manufacturer and type Peerless Vertical Turbine

f. Pump intake setting 160 (ft. below land surface)

g. Current pumping water level 25 (ft. below land surface)

6. Manner and Location of Wastewater Disposal (check all that apply) Not applicable

- ☐ Sewage treatment plant
  - Name of plant
- ☐ Private, on-site wastewater treatment
  - ☐ Plant
  - ☐ Lagoon
  - NPDES Permit No.
- ☐ Direct (untreated) discharge to a stream
  - Name of stream
- ☐ Septic system (locate on U.S.G.S. Quad)
- ☐ Spray irrigation (locate on U.S.G.S. Quad)
- ☐ Injection well (locate on U.S.G.S. Quad)
- ☐ Other

7. Well Construction Information

a. Date of well completion 1919 (month/day/year)

b. Driller's name unknown

c. State license No.

d. Depth drilled 242 (ft. below land surface)

e. Depth of completed well 242 (ft. below land surface)

f. Driller's Log (can be attached)

Description	Top	Bottom
Not available		

g. Drilling method (check one)

- ☐ Augered
- ☐ Bored
- ☐ Cable tool
- ☐ Driven
- ☐ Jetted
- ☐ Air rotary
- ☐ Mud rotary
- ☐ Reverse
- ☐ Washed
- ☐ Other (specify)

unknown

h. Casings

	Depth to top (ft. below land surface)	Depth to bottom (ft. below land surface)	Diameter (inches)	Material (iron, steel, or PVC)
Casing 1	0	60 Est.	8	steel
Casing 2				
Casing 3				
Open hole				

i. Screen ☒ yes ☐ no

Depth to top 175 (ft. below land surface)

Depth to bottom 175 (ft. below land surface)

Diameter 5 (inches)

Material and type Galv. steel

l. Gravel pack ☐ yes ☒ no

Depth to top (ft. below land surface)

Depth to bottom (ft. below land surface)

Diameter (inches)

j. Grout Information unknown

Grout top (ft. below land surface)

Grout bottom (ft. below land surface)

Material

K. Water-yielding zones unknown

	Depth to top (ft. below land surface)	Depth to bottom (ft. below land surface)
1.		
2.		
3.		

8. Pump Test Well Yield Information

a. Date unknown

b. Static water level 4 (ft. above (+) or below land surface)

c. Pumping water level 131 (ft. below land surface)

d. Length of test (hours and minutes)

e. Pumping rate unknown (gpm)

f. Pumping measurement method unknown

g. Maximum sustainable well yield 100 (gp

9. Verification

a. Name of person supplying data Ronald M. Tirpak

b. Telephone No. 717-645-9545

c. Address 350 N. Pine St.
Summit Hill, Pa. 18250

d. Date Jan. 17, 1986

e. Signature Ronald M. Tirpak

For Official use only

The ground-water withdrawal as described above has been registered in accordance with the Delaware River Basin Commission's Resolution No. 85-19.

Registration No.: AR10148 Validated:

White = State Pink = Owner
Canary = Delaware River Basin Commission

WELL REGISTRATION FORM

(See instructions on reverse side)

1. Owner Identification Summit Hill

a. Well owner Water Authority

b. Mailing address 114 W. Ludlow St.
Summit Hill, Pa. 18250

2. Well Identification

a. Owners Well No. 3

b. County Carbon

c. ~~Township~~ Borough Summit Hill

d. U.S.G.S. Quadrangle Name Nesquehoning

3. Water Use (check one)

- ☐ Agriculture, non irrigation
- ☐ Commercial (inc. institutional)
- ☐ Domestic
- ☐ Industrial
- ☐ Irrigation
- ☐ Air conditioning
- ☒ Public water supply
- ☐ Mining
- ☐ Dewatering
- ☐ Nuclear power
- ☐ Fossil-fueled power
- ☐ Geothermal heat pump
- ☐ Sewage treatment
- ☐ Other

4. Estimated Water Use

Average daily water use during peak 30-day period 150

Metered? ☐ yes ☒ no

ORIGINAL
(Red)

5. Pump Information

a. Installation date 3-1955 (month/day/year)

b. Pump capacity 150 (gpm)

c. Motor capacity 7.5 (hp)

d. Power source Electric - P.P.&L. Co. (electric, gasoline, diesel, etc.)

e. Pump manufacturer and type Peerless Vertical Turbine

f. Pump intake setting 160 (ft. below land surface)

g. Current pumping water level 72 (ft. bel land surface)

6. Manner and Location of Wastewater Disposal (check all that apply) Not applicable

- ☐ Sewage treatment plant
  - Name of plant
- ☐ Private, on-site wastewater treatment
  - ☐ Plant
  - ☐ Lagoon
  - NPDES Permit No.
- ☐ Direct (untreated) discharge to a stream
  - Name of stream
- ☐ Septic system (locate on U.S.G.S. Quad)
- ☐ Spray irrigation (locate on U.S.G.S. Quad)
- ☐ Injection well (locate on U.S.G.S. Quad)
- ☐ Other

7. Well Construction Information

a. Date of well completion 10-1954 (month/day/year)

b. Driller's name Kohl Bros. Inc.

c. State license No.

d. Depth drilled 335 (ft. below land surface)

e. Depth of completed well 335 (ft. below land surface)

f. Driller's Log (can be attached)

Description	Top	Bottom
Not available		

g. Drilling method (check one)

- ☐ Augered
- ☐ Bored
- ☐ Cable tool
- ☐ Driven
- ☐ Jetted
- ☐ Air rotary
- ☐ Mud rotary
- ☐ Rever
- ☐ Wa
- ☐ Other (specify) unknown

h. Casings

	Depth to top (ft. below land surface)	Depth to bottom (ft. below land surface)	Diameter (inches)	Material (iron, steel, or PVC)
Casing 1	0	unknown	8	steel
Casing 2				
Casing 3				
Open hole				

i. Screen ☒ yes ☐ no

Depth to top 175 (ft. below land surface)

Depth to bottom 175 (ft. below land surface)

Diameter 5 (inches)

Material and type Galv. steel

j. Grout Information unknown

Grout top (ft. below land surface)

Grout bottom (ft. below land surface)

Material

k. Water-yielding zones unknown

	Depth to top (ft. below land surface)	Depth to botter (ft. below land surfc
1.		
2.		
3.		

l. Gravel pack ☐ yes ☒ no

Depth to top (ft. below land surface)

Depth to bottom (ft. below land surface)

Diameter (inches)

8. Pump Test Well Yield Information

a. Date Oct. 31, 1954

b. Static water level 4 (ft. above (+) or below land surface)

c. Pumping water level 135 (ft. below land surface)

d. Length of test 48 (hours and minutes)

e. Pumping rate 190 (gpm)

f. Pumping measurement method unknown

g. Maximum sustainable well yield 75 (gr

9. Verification

a. Name of person supplying data Ronald M. Tirpak

b. Telephone No. 717-645-9545

c. Address 350 N. Pine St.
Summit Hill, Pa. 18250

d. Date Jan. 17, 1986

e. Signature Ronald M. Tirpak

For Official use only

The ground-water withdrawal as described above has been registered in accordance with the Delaware River Basin Commission's Resolution No. 85-19.

Registration No. AR101485 Validated:

White = State Pink = Ow
Canary = Delaware River Basin Commiss

WELL REGISTRATION FORM

(See instructions on reverse side)

1. Owner Identification Summit Hill

a. Well owner Water Authority

b. Mailing address 114 W. Ludlow St.
Summit Hill, Pa. 18250

2. Well Identification

a. Owners Well No. 4

b. County Carbon

c. ~~Township~~ Borough Summit Hill

d. U.S.G.S. Quadrangle Name Nesquehoning

3. Water Use (check one)

- ☐ Agriculture, non irrigation
- ☐ Commercial (inc. institutional)
- ☐ Domestic
- ☐ Industrial
- ☐ Irrigation
- ☐ Air conditioning
- ☒ Public water supply
- ☐ Mining
- ☐ Dewatering
- ☐ Nuclear power
- ☐ Fossil-fueled power
- ☐ Geothermal heat pump
- ☐ Sewage treatment
- ☐ Other

4. Estimated Water Use

Average daily water use during peak 30-day period 19

Metered? ☒ yes ☐ no

ORIGINAL
(Red)

5. Pump Information

a. Installation date 11-9-84 (month/day/year)

b. Pump capacity 350 (gpm)

c. Motor capacity 10 (hp)

d. Power source Electric - P.P.&L. Co. (electric, gasoline, diesel, etc.)

e. Pump manufacturer and type Peerless Vertical Turbine

f. Pump intake setting 80 (ft. below land surface)

g. Current pumping water level +6 (ft. below land surface)

6. Manner and Location of Wastewater Disposal (check all that apply) Not applicable

- ☐ Sewage treatment plant
  - Name of plant
- ☐ Private, on-site wastewater treatment
  - ☐ Plant
  - ☐ Lagoon
  - NPDES Permit No.
- ☐ Direct (untreated) discharge to a stream
  - Name of stream
- ☐ Septic system (locate on U.S.G.S. Quad)
- ☐ Spray irrigation (locate on U.S.G.S. Quad)
- ☐ Injection well (locate on U.S.G.S. Quad)
- ☐ Other

7. Well Construction Information

a. Date of well completion 5-19-84 (month/day/year)

b. Driller's name Mayer's Well Drilling

c. State license No. 0982

d. Depth drilled 400 (ft. below land surface)

e. Depth of completed well 400 (ft. below land surface)

f. Driller's Log (can be attached)

Description	Top	Bottom
Overburden	0	15
Sand/gravel	15	35
Blue rock	35	95
Red rock	95	400

g. Drilling method (check one)

- ☐ Augered
- ☐ Bored
- ☐ Cable tool
- ☐ Driven
- ☐ Jetted
- ☒ Air rotary
- ☐ Mud rotary
- ☐ Reve
- ☐ Wash
- ☐ Other (spec

h. Casings

	Depth to top (ft. below land surface)	Depth to bottom (ft. below land surface)	Diameter (inches)	Material (iron, steel, or PVC)
Casing 1	0	55	8	steel
Casing 2				
Casing 3				
Open hole				

i. Screen ☒ yes ☐ no

Depth to top 94 (ft. below land surface)

Depth to bottom 95 (ft. below land surface)

Diameter 5 (inches)

Material and type Galv. steel

j. Grout Information

Grout top 0 (ft. below land surface)

Grout bottom 55 (ft. below land surface)

Material cement

k. Gravel pack ☐ yes ☒ no

Depth to top (ft. below land surface)

Depth to bottom (ft. below land surface)

Diameter (inches)

K. Water-yielding zones

	Depth to top (ft. below land surface)	Depth to bottom (ft. below land surface)
1.	60	
2.	90	
3.	230	

8. Pump Test Well Yield Information

a. Date 6-20-83

b. Static water level +2.4 (ft. above (+) or below land surface)

c. Pumping water level 15.2 (ft. below land surface)

d. Length of test 48.5 (hours and minutes)

e. Pumping rate 350 (gpm)

f. Pumping measurement method Propeller meter @ pump discharge

g. Maximum sustainable well yield 450 (g

9. Verification

a. Name of person supplying data Ronald M. Tirpak

b. Telephone No. 717-645-9545

c. Address 350 N. Pine St.
Summit Hill, Pa. 18250

d. Date Jan. 17, 1986

e. Signature Ronald M. Tirpak

For Official use only
The ground-water withdrawal as described above has been registered in accordance with the Delaware River Basin Commission's Resolution No. 85-19.

Registration No.: AR101486 Validated:

White = State Pink = Ow
Canary = Delaware River Basin Commis

ORIGINAL
(Red)

ATTACHMENT 5

NUS CORPORATION — **TELECON NOTE**

CONTROL NO:	DATE:	TIME:
	1/29/86	0945 ~~ORIGINAL~~ (Red)

DISTRIBUTION:

To File 851249

BETWEEN:	OF:	PHONE:
Mr. Harry Vadyak, Chairman of the Board	Lansford-Coaldale Joint Water Authority	(717) 645-3040

AND: R. Gorrell NUS FIT III (NUS)

DISCUSSION:

- Call was made to obtain information on water supply distribution system currently utilized by Lansford-Coaldale Joint Water Authority.
- Mr Vadyak provided the following information:
  - Sources for the supply system include:
    1) Bear Creek Reservoir: which recieves surface water from Bear Creek and groundwater from a 600 feet deep well located just north of the reservoir. Reservoir capacity is 89 million gallons
    2) Three source supply wells located in Hauto, just south of Tippets Pond. Two wells are used while 3rd well ~~has not been~~ was drilled but not put into ~~production~~ use
       Well No. 1 is approximately 150 feet deep
       Well No. 2 is approximately 75 feet deep.
       Both wells were installed during the early 1900's and Mr. Vadyak explained that he is unsure if record/logs are available for each. He will check files for records and forward any information he can find.
  - Areas served by system include:
    1) Hauto Estates (located along Rte 54 east of Hauto Dam): 75 homes
    2) Lake Hauto Development (located north of Lake Hauto, extending into Schuylkill Co.) 415 homes
    3) Hauto Village 50 homes south of Hauto Dam
    4) Lansford/Coaldale Boroughs 3000 Homes

ACTION ITEMS:

NUS CORPORATION — **TELECON NOTE**

CONTROL NO:	DATE:	TIME:
	1/29/86	0945

DISTRIBUTION:

TO FILE 8512-49

BETWEEN:	OF:	PHONE:
H. VADYAK CHAKRABY.	LANSFORD/COALDALE JOINT WATER AUTHORITY	(717) 645-3040

AND:

R. GORRELL (NUS)

DISCUSSION:

TOTAL NUMBER OF HOMES SERVED BY THE SYSTEM : 3540 HOMES

- MR VADYAK ALSO STATED THAT TONNOLLI CORP HAS IT'S OWN SOURCE WELL, ALONG WITH AMITEK CORPORATION. ~~AMITEK, LOCATED ALONG RTE 54 APPROXIMATELY 2 MILES EAST OF TOWNOLLI CORP~~, RJG 1/29/86 USES WELLS FOR PROCESS INDUSTRIAL SUPPLY.
- MR VADYAK FURTHER EXPLAINED THAT BEAR CREEK RESERVOIR WATER AND HAUTO SUPPLY WELL WATER ARE MIXED AND DISTRIBUTED TO THE ENTIRE SYSTEM. HOWEVER, HE CLARIFIED THAT DURING MONTHS OF NOV, DEC, JAN, FEB, MARCH, APRIL, MAY AND JUNE, HAUTO WELLS ARE NOT NORMALLY UTILIZED. THESE WELLS ARE USED AS BACK UP SOURCES DURING THE DRY MONTHS OF JULY AUG, SEPT AND OCTOBER.

Richard J. Gorrell 1/29/86

ACTION ITEMS:

AR101489

NUS CORPORATION — **TELECON NOTE**

CONTROL NO:	DATE:	TIME:
	1/28/86	1520

DISTRIBUTION:

PAGE 1 OF 2

ORIGINAL (Red)

BETWEEN:	OF:	PHONE:
RON TURPAK BOROUGH ENGINEER	SUMMIT HILL BOROUGH	(717) 645-9545

AND:

R. GORRELL NUS FIT III (NUS)

DISCUSSION:

CALL WAS MADE TO OBTAIN INFORMATION ON WATER SUPPLY DISTRIBUTION SYSTEM CURRENTLY UTILIZED BY SUMMIT HILL BOROUGH.

- MR TURPAK STATED THAT BOROUGH WATER SYSTEM SERVICES ENTIRE AREA WITHIN THE "BUILT UP" PORTION OF SUMMIT HILL BOROUGH. SOURCES FOR THE SYSTEM INCLUDE 4 WELLS AND ONE SPRING, ALL LOCATED JUST SOUTH OF SUMMIT HILL, APPROXIMATELY 2.5 MILES DIRECTLY SOUTH/SOUTH EAST OF THE TONNOLLI SITE. HE PROVIDED THE FOLLOWING INFORMATION PERTAINING TO THE WELLS:

	WELL NO.	DATE CONSTRUCTED	DEPTH	WATER BEARING ZONES
TOTAL POPULATION SERVED IS 3200 PEOPLE	1	1918	250	UNKNOWN
	2	1919	242	"
	3	1954	335	"
	4	1984	400	60, 90, 230

- HE HAS JUST RECENTLY SUBMITTED WELL REGISTRATION REPORTS TO THE PA DER WHICH PROVIDE ADDITIONAL INFO ON THE WELLS. HE STATED HE WOULD SEND US COPIES OF THESE REPORTS

ACTION ITEMS:

- MR TURPAK ALSO STATED THAT ALL WELLS CONTRIBUTE TO SYSTEM DURING NORMAL WATER USE PERIODS. (WATER IS MIXED THEN DISTRIBUTED.)
- A SPRING, PRODUCING APPROXIMATELY 20,000 G.P.D. IS USED AS A BACK UP SOURCE. IN CASE OF EMERGENCY, BUT NOT NORMALLY HOOKED INTO THE SYSTEM.
- THE SUMMIT HILL SYSTEM EXTENDS INTO LANSFORD AND IS CONNECTED TO THE LANSFORD-COALDALE SYSTEM. HOWEVER, THE TWO SYSTEMS ARE NOT

NUS CORPORATION — **TELECON NOTE**

CONTROL NO:	DATE:	TIME:
	1/28/86	1520

ORIGINAL (Red)

DISTRIBUTION:

BETWEEN:	OF:	PHONE:
R. TURPAK	SUMMIT HILL BOROUGH	(717) 645-9545

AND:

R. GORRELL NUS FIT III (NUS)

DISCUSSION:

NORMALLY INTERMIXED. A PRESSURE VALVE, LOCATED IN LANSFORD, SEPARATES FLOWS. THE TWO ~~SUBSURFACE~~ SYSTEMS ARE ONLY INTERCONNECTED IN CASE OF AN EMERGENCY.

- THE SUMMIT HILL DISTRIBUTION SYSTEM DOES NOT EXTEND ALONG BLOOMINGDALE RD AREA. RESIDENTS ALONG THIS AREA (RTE. No. OF THIS ROAD IS NOT INDICATED ON USGS TOPO MAP) UTILIZE PRIVATE WELLS FOR DOMESTIC SUPPLY NEEDS.
- I REQUESTED THAT MR TURPAK OUTLINE THE LOCATION OF THE PUBLIC SERVICE DISTRICT, ON A USGS TOPO MAP AND ALSO LOCATE WELLS AND SPRING ON MAP, AND FORWARD TO FIT III.
- MR TURPAK STATED THAT HE WOULD FORWARD THE REQUESTED INFORMATION ASAP.

Richard J. Gorrell

ACTION ITEMS:

AR101491

NUS 067 REVISED 0681

NUS CORPORATION **TELECON NOTE**

CONTROL NO:	DATE: 1/28/86	TIME: 1420	~~ORIGINAL~~ (Red)

DISTRIBUTION:

TO FILE 8

BETWEEN:	OF:	PHONE:
FREDERICK W. OHLSEN WATERWAYS CONSERVATION OFFICER (RETIRED)	PA FISH COMMISSION CARBON COUNTY	(717) 325-3177

AND:

R. GORRELL NUS FIT III (NUS)

DISCUSSION:

CALL WAS MADE TO OBTAIN STATEMENT ON RECREATIONAL USE OF NESQUEHONING CREEK WITHIN THE AREA OF COALDALE, LANSFORD AND NESQUEHONING, PA.

- MR OHLSEN, WHO JUST RECENTLY RETIRED, SERVED AS WATERWAYS PATROLMAN FOR CARBON COUNTY FOR THE PAST 20 YEARS. HE STATED THAT DURING HIS EMPLOYMENT WITH THE FISH COMMISSION, THE NESQUEHONING CREEK HAS NEVER BEEN STOCKED WITH TROUT AND, THE STREAM FROM HAUTO DAM DOWNSTREAM IS SIGNIFICANTLY DEGRADED BY ACID MINE DRAINAGE. HE STATED THAT HE IS UNAWARE OF ANY RECREATIONAL VALUE OF THE CREEK, DUE TO THE EXTENSIVE INFLUENCE OF ANTHRACITE COAL MINING RELATED ACID MINE DRAINAGE.
- HAUTO DAM, LOCATED UPSTREAM OF THE TONOLLI SITE, IS USED REGULARLY BY LOCAL FISHERMEN.

ACTION ITEMS:

Richard J. Gorrell

AR101492

NUS 06...

NUS CORPORATION — **TELECON NOTE**

CONTROL NO:	DATE:	TIME:
	2/3/86	0910 ORIGINAL (Red)

DISTRIBUTION:

To File 8512-47

BETWEEN:	OF:	PHONE:
Eugene Butler	Carbon County Planning Co.	(717) 325-3671

AND:

R. Gorrell NUS FIT III (NUS)

DISCUSSION:

Call was made to inquire about the following:

- Location of Nesquehoning Boro water supply sources
- Location or occurence of surface water intakes on Nesquehoning Creek between Hauto Dam and Nesquehoning Boro.
- Status of Carbon County Planning Commission's Comprehensive Water and Sewer Plan.

Mr. Butler stated the following:

- Nesquehoning Boro develops 100% of its water from reservoirs located on Broad Mountain. To his knowledge, the Boro does not utilize wells for the water supply system.
- He is unaware of any surface water intakes on the Nesquehoning Creek.
- Comp. Water + Sewage Plan is outdated, prepared during mid 1970's. He will send a copy if he can get a spare.

ACTION ITEMS:

Richard J. Gorrell 2/3/86

AR101493

NUS 067 REVISED 0581