State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Solid Waste Management

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
William L. Meyer, Director

DEHNR

December 28, 1994

MEMORANDUM

TO: Dexter Matthews

FROM: Bill Meyer BM

SUBJECT: Coal Ash Rules

- During a meeting in early July with Duke Power corporate staff and Secretary Howes the Division was directed to work with Duke Power for modification of rules for the beneficial use of coal ash by - products. The major issue was recordation. Duke Power lost a contract for approximately 300,000 yd^3 of ash due to recordation requirement. Secretary Howes expressed concern that recordation would be a barrier to beneficial reuse. Duke Power has a goal of 75% reuse/recycling of ash. The majority of reuse, is to be beneficial use as structural fill and any restrictions would limit opportunities to meet the 75% reduction goal.
- On July 6, 1994 I sent proposed rule changes to Joe Harwood (copy enclosed).
- On September 20, 1994 Joe responded with proposed rule modifications, (enclosed) also, enclosed are sections comments on the rules proposed by Duke Power.
- In early October, Joe called me and requested response/support for the proposed rules. I suggested that the Division needed to have more scientific data before we could respond to the proposed modification. I requested 120 days to implement a study of coal ash in the lab for additional data to determine the extent that we could support changes to existing regulations. Joe agreed and offered support by offering the availability of coal ash and review of data.
- I talked to Paul Wilms, North Carolina Home Builders Association, about recordation. Paul estimated that half of his association members would be for recordation and half against, however he stated that all contractors would tend to support recordation if coal ash would cause a future problem, since the contractors would be the first party to

be sued by the project owners.

- Since that time, I have worked with Bill Hocutt and the lab to generate data that can be used to address changes to the rules. A copy of this data is enclosed.
- The lab data is an attempt to provide information on leaching medium and rate of release in order to establish a decision matrix for potential rule changes to exempt specific ash (based on leachate), end uses (permanent CAP such as building foundations), and environmental setting (site attenuation capacity).
- Currently the lab is attempting to evaluate leaching potential under conditions of 50" of rainfall (Average in N.C.) using a simulated acid rain as leaching medium. Bill Hocutt can brief you on this effort and purpose.
- I would like for you to complete this project or initiate efforts to accomplish a response to Duke Power through some other process.
- I would suggest that you contact Joe Harwood and set up a meeting with Duke Power to let him know the status of the project and provide the opportunity to offer suggestions on the directions we are going and possible alternates.
- My intent has been to establish a reasonable scientific basis for rule changes that provides reasonable environmental protection with minimum prescriptive regulation.
- You may want to consider our role as environmental protectors relative to recordation for protection of property owner, expecially if there is minimal environmental impact from beneficial use.

Policy Implications of Duke Power's Request

Exclusions from definition of waste

1. Are there specific waste that can be excluded from the definition of "waste" under certain end uses. If so what standards are used to define these waste and end uses to allow this exclusion. For example; off specification materials, by products, co-products, etc., that are "used or reused" in beneficial manner without releases to the environment or used (as coal ash) in a manner that may be considered disposal (i.e. applied to the land). What is legitimate and beneficial reuse vs disposal?

Defines as Solid Waste but excluded from certain regulations

2. Rather than exclude "wastes" from the definition of Solid Waste, establish a set of self implementing standards for use, reuse of waste that minimize regulatory impact. Should this be accomplished on a generic basis or waste specific

basis? GS130A - 290 (a) (14) Inert debris definition may be a good place to start.

Recordation

3. Recordation - for what purpose? (a) public health protection (b) future property owner right-to-know what extent is it applicable to reuse of waste materials?

If you want or need any assistance or additional input from the Division please let me know. I will be glad to help to the extent you need. Also, Sharron Rogers is available to assist you, if needed.

cc: Mike Kelly
Sharron Rogers

July 6, 1994

Joe Harwood
Environmental Affairs Manager
Duke Power Company
PO Box 33189
222 S. Church Street
Charlotte, NC 28242

Dear Joe,

I enjoyed the recent meeting with Duke Power and Secretary Howes. It is refreshing to meet with the Secretary on positive issues and Duke Power's environmental leadership strategy is certainly positive both from a corporate management and, implementation perspective.

Duke Power raised the issue of recordation of structural fill facilities as a barrier to beneficial use of coal combustion by products at industrial sites.

The basis for recordation in the rules (T15A NCAC 13B.1707) is to provide notice to future property owners of potential environmental contamination. Worker safety from repairs or reconstruction with respect to inhalation of fine material contained in the ash is also a concern. The rules, at T15A NCAC 13B.1708, exclude structural fill under a structure, footprint of a paved road, parking lot, sidewalk or similar structures from permitting.

In order to encourage the utilization of ash and recognize that recordation is a barrier to utilization on industrial sites the Division recommends amending the Solid Waste rules. Rule T15A NCAC 13B.1707 <u>Recordation of Structural Fill Activities</u> could be amended by adding the following new section (e) "Recordation is not required where coal combustion by-products are used as structural fill for the base, sub-base, under a structure or the footprint of a paved road, a parking lot, side walk, walkway or other similar structures and applications that offer equivalent environmental protection." Rule T15A NCAC 13B.1708 could also be changed to delete the word "permit" in the third sentence and replace with "notification or recordation" so that it reads ". . . do not require a solid waste notification or recordation provided . . . ."

The rule change can initiated by several means. Probably the better process would be for the coal combustion by product generators to petition the Division for the changes with sufficient background to justify the changes based on the intent of the rules to encourage beneficial reuse and protect the environment. The Division could also initiate the rule change. We will consider either approach.

Again the Division appreciates your efforts to beneficially reuse ash and look forward to working with you to enhance these efforts. If we can be of further assistance, please let me know.

Sincerely,

William L. Meyer

WLM:aw

cc: Linda Rimer
Steve Levitas

State of North Carolina
Department of Environment,
Health and Natural Resources
Division of Solid Waste Management

James B. Hunt, Jr., Governor
Jonathan B. Howes, Secretary
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DEHNR

RECEIVED
Solid Waste
SEP 26 1994
MANAGEMENT DIV.

September 26, 1994

MEMORANDUM

TO: Bill Meyer

FROM: Dexter Matthews

SUBJECT: Duke Power Rule Change for Coal Ash

The proposal by Duke Power is for all practical purposes a deregulation of coal ash as a solid waste. In addition to the question of the authority to adopt such a rule (solid waste is defined more broadly in state and federal law), consideration is being given within the section for the need to strengthen existing coal ash rules. The impetus for such an action is the one site with available ground-water data.

The section has been negotiating for some time with ReUse Technology, Inc. to enter into a consent agreement for a coal ash structural fill on Alamac Road in Lumberton, NC. One of the objections to entering into the agreement by Reuse is the authority of the division to require assessment and remediation of ground water at "beneficial reuse projects". Although the NC Groundwater Classification and Standards are incorporated by reference for disposal sites, the broad authority for remedy of a potential public health hazard at solid waste management facilities would obviously provide authority for the division at the Alamac Road project. Given the activity by ReUse toward assessment, an order has not been issued.

Data from the assessment at Alamac Road show sulfate and arsenic in ground water at concentrations exceeding NC 2L standards. Barium, chromium, iron, lead, manganese and selenium were also detected at levels exceeding the NC 2L standards. However, the latter list is argued by ReUse as background for the area.

Given the data at the Alamac Road site and that there are over twenty sites across the state with no ground-water monitoring, the division should be cautious with any direction other than a more

thorough investigation of the impacts of implementation of the current regulatory framework. In addition, it should be noted that EPA is currently under court order to propose rules in the spring of 1995 which is directed at industrial, construction , and demolition waste. The federal definition of industrial solid waste specifically includes waste generated from electric power generation.

I will keep you appraised of activities at the Alamac Road site.

cc: Mike Kelly
Jim Coffey
Phil Prete

Linda Bray Rimer
Assistant Secretary
for Environmental Protection

TO: Bill Meyer DATE: 9/21

RESPOND BY: _____

PLEASE:

_____ Prepare a reply for the Secretary's signature and return to me.
_____ Prepare a reply for the Governor's signature and return to me.
_____ Prepare a reply for my signature and return to me.
_____ Reply, noting the letter was referred to you by Governor Hunt/ Secretary Howes/ me (with a copy to the Governor's/ Secretary's Office).
_____ For your information.
_____ Take appropriate action.
_____ Recommend appropriate action.
_____ Assign to someone for review and response (with a copy to me).
_____ For your approval.
_____ For your signature.

RECEIVED Solid Waste SEP 26 1994 MANAGEMENT DIV.

AND:

_____ Return the attached material to me with one copy of response.
_____ Keep for your files.
_____ Note and see me about this.

REMARKS:

Are these valid suggestion? What will our response be?

North Carolina Department of Environment, Health, and Natural Resources
512 N. Salisbury Street Raleigh N.C. 27604 (919) 715-4140

Duke Power Company
422 South Church Street
PB05D
Charlotte, NC 28242-0001

Director, Licensing
and Environmental
Affairs
(704) 382-4194
(704) 382-4558

DUKE POWER

RECEIVED
SEP 22 1994
ASSISTANT SECRETARY
ENVIRONMENTAL PROTECTION

September 20, 1994

William L. Meyer
Department of Environment, Health,
and Natural Resource
Division of Solid and Hazardous Waste
P.O. Box 27687
Raleigh, N.C. 27611-7687

SUBJECT: Requirements for Beneficial Use of Coal Combustion By-Products
(T15A NCAC 13B.1700)
File: GS-707.02 (Fossil)

Dear Mr. Meyer:

This letter is in response to our meeting on September 9, 1994 concerning the issue of recordation of structural fill sites being a barrier to the beneficial use of coal combustion by-products. Thank you for taking the time in the review and consideration of this issue.

Duke Power Company proposes the following modifications, per our discussion, to the North Carolina Solid Waste Management Rules (T15A NCAC 13B):

- **Amend the definition of solid waste in Rule .0101(36) of the Solid Waste Management Rules by adding the following:**

  (f) Coal combustion by-products beneficially used in accordance with Section .1700 of these Rules.

  This amendment to the definition of solid waste will exempt from the solid waste requirements coal combustion by-products that are beneficially used in accordance with the requirements of Section .1700 (Requirements For Beneficial Use of Coal Combustion By-Products) of the Solid Waste Management Rules.

Printed on recycled paper

- **Add the following new rule to Section .1700 of the Solid Waste Management Rules:**
  .1701 PURPOSE

  The purpose of this section is to provide the requirements for the beneficial use of coal combustion by-products and the requirements for the exemption set forth in Rule .0101(36) of Section .0100 of these Rules.

  This addition to the requirements for the beneficial use of coal combustion by-products provides a purpose for the requirements and a reference to the amendment to the definition of solid waste previously addressed.

- **Delete Rule .1707 (Recordation Requirements) from Section .1700 of the of the Solid Waste Management Rules.**

  Per the previously addressed amendments to the Solid Waste Management Rules, coal combustion by-products beneficially used in accordance with Section .1700 are exempted from solid waste requirements. As a result, a "waste" is no longer being placed on the land (property). Therefore, the need to record the application on the deed is eliminated.

- **Delete the word "permit" from Rule .1708 of the Requirements For Beneficial Use Of Coal Combustion By-Products and replace with "notification" so that it reads "... do not require a solid waste notification provided .....".**

  The word "permit" is incorrect terminology in this context, this amendment provides clarification to the rule.

- **Re-number all appropriate rules of Section .1700 of the Solid Waste Management Rules.**

  This change will provide proper numerical sequence for the rules of Section .1700 of the Solid Waste Management Rules.

Duke Power believes that these proposed amendments to the Solid Waste Management Rules offer a reasonable resolution to this issue. Once again, I would like to thank you for your time and professional manner in addressing this and similar regulatory issues. If you have any questions, please contact me a 704-382-8194.

Sincerely,

J. E. Harwood

cc: Mr. Steve Levitas, Deputy Secretary - NCDEHNR
Ms. Linda Rimer, Assistant Secretary - NCDEHNR
Mr. R. B. Priory
Mr. D. E. Hatley
Mr. J. E. Grogan
Mr. G. S. Rice
Mr. J. R. Hendricks
Mr. L. D. Evans

11/7/97 Sam B. Weiner

Dried Cogentrix Fly Ash Extractions – Metal Concentrations

16975 – TCLP liquid #1 – pH 4.9

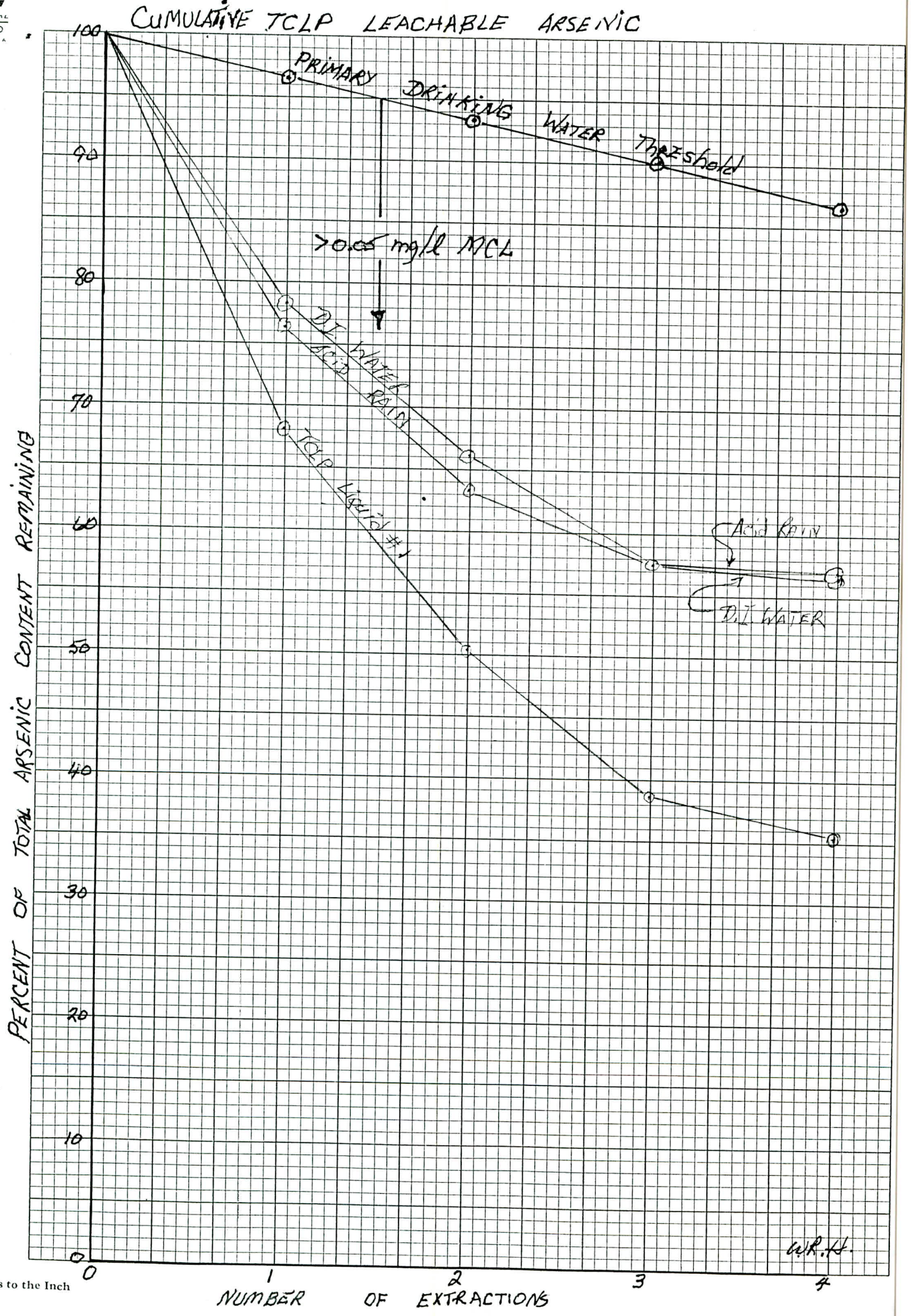
16976 – deionized H_2O pH 7

16977 – synthetic rain H_2O – pH 4.6

	A			B			C		
	'75	'76	'77	'75	'76	'77	'75	'76	'77
As	0.479	0.327	0.355	0.268	0.181	0.197			
Ba	0.23	0.14	0.15	0.27	0.12	0.13			
Cd	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05			
Cr	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05			
Pb	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10			
Hg									
Se	0.335	0.298	0.345	0.325	0.228	0.204			
Ag	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05			

Filter: Using 0.7 microns

Old EP Tox 0.45 "



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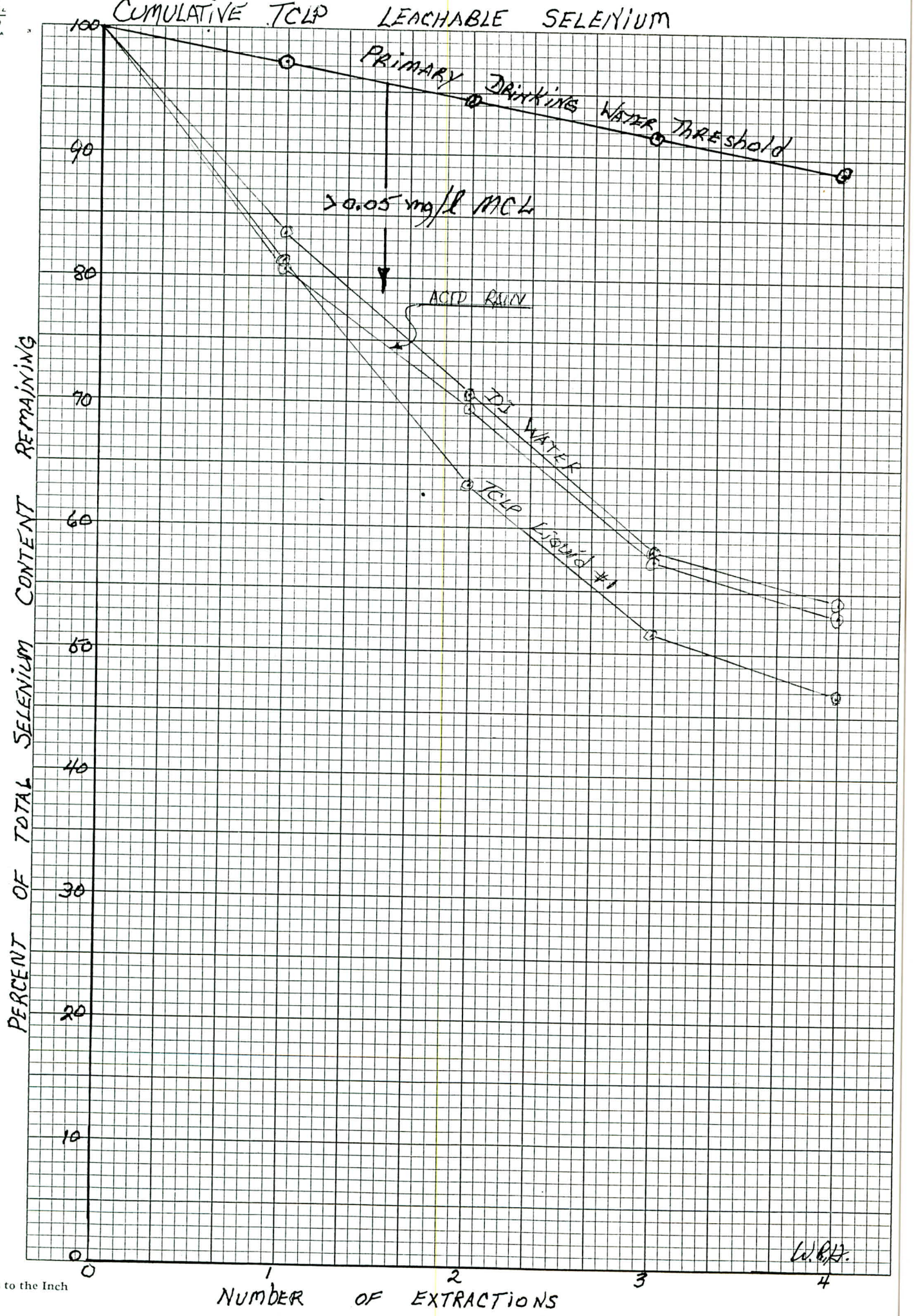
Squares to the Inch



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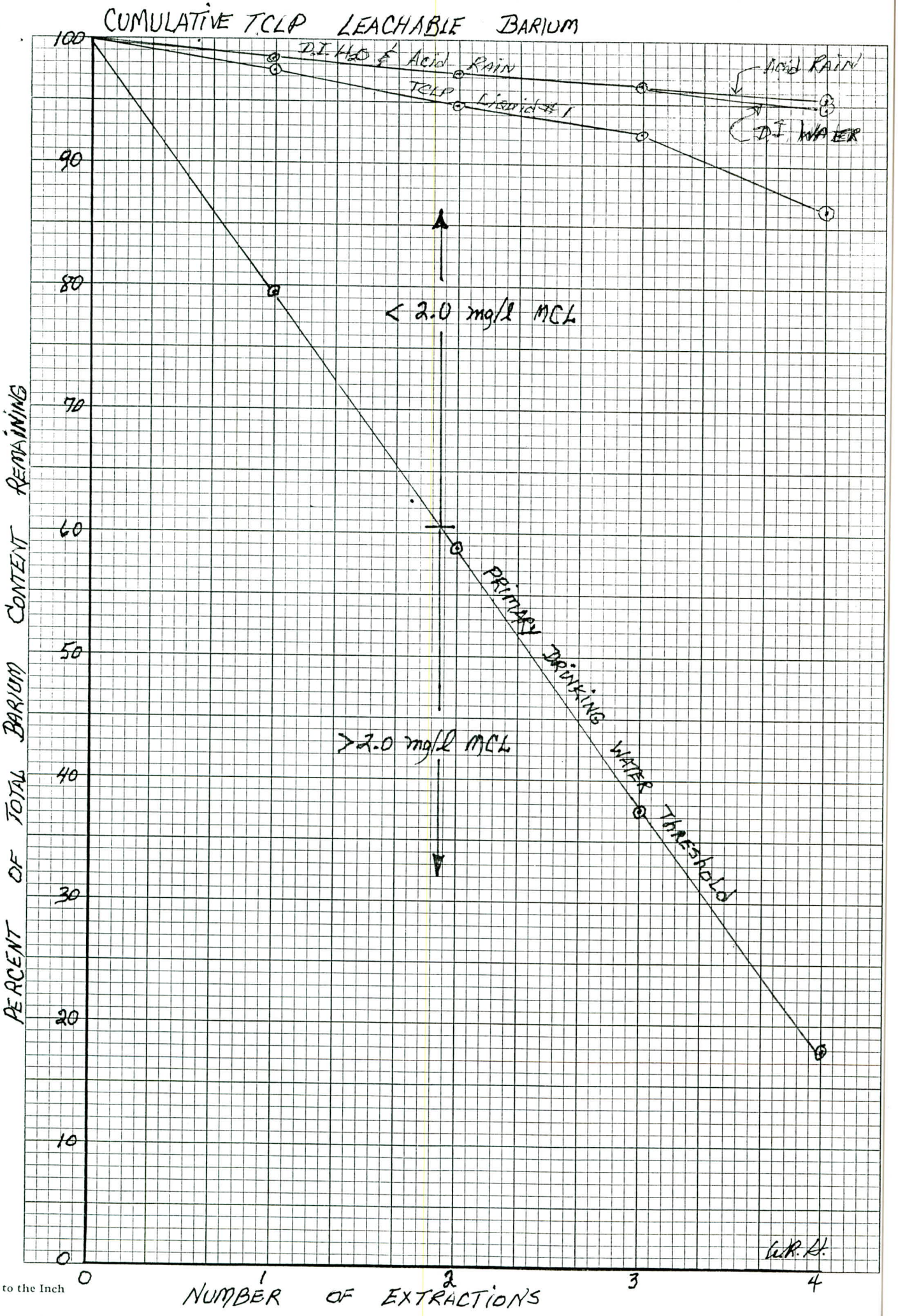
10 Squares to the Inch



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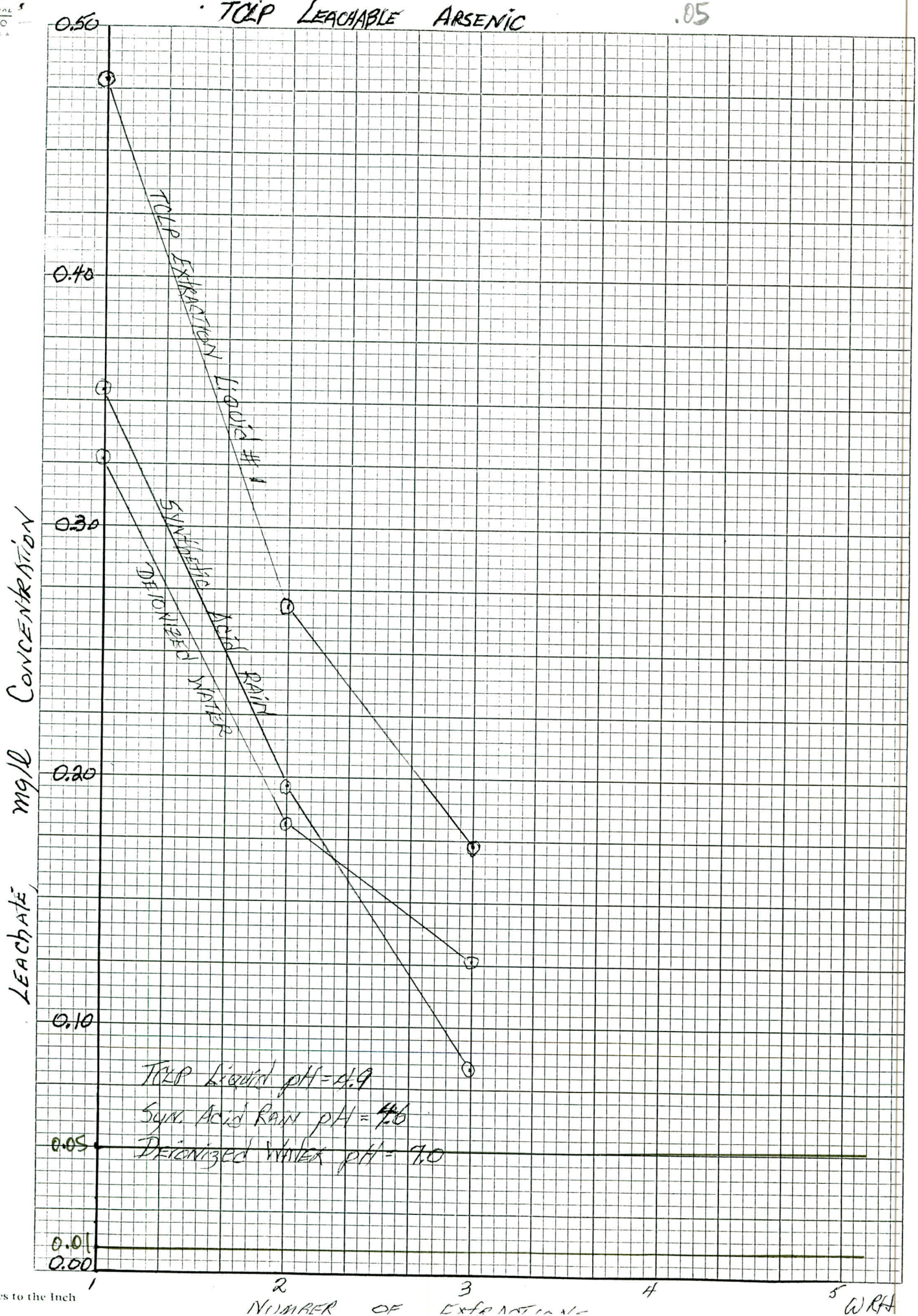

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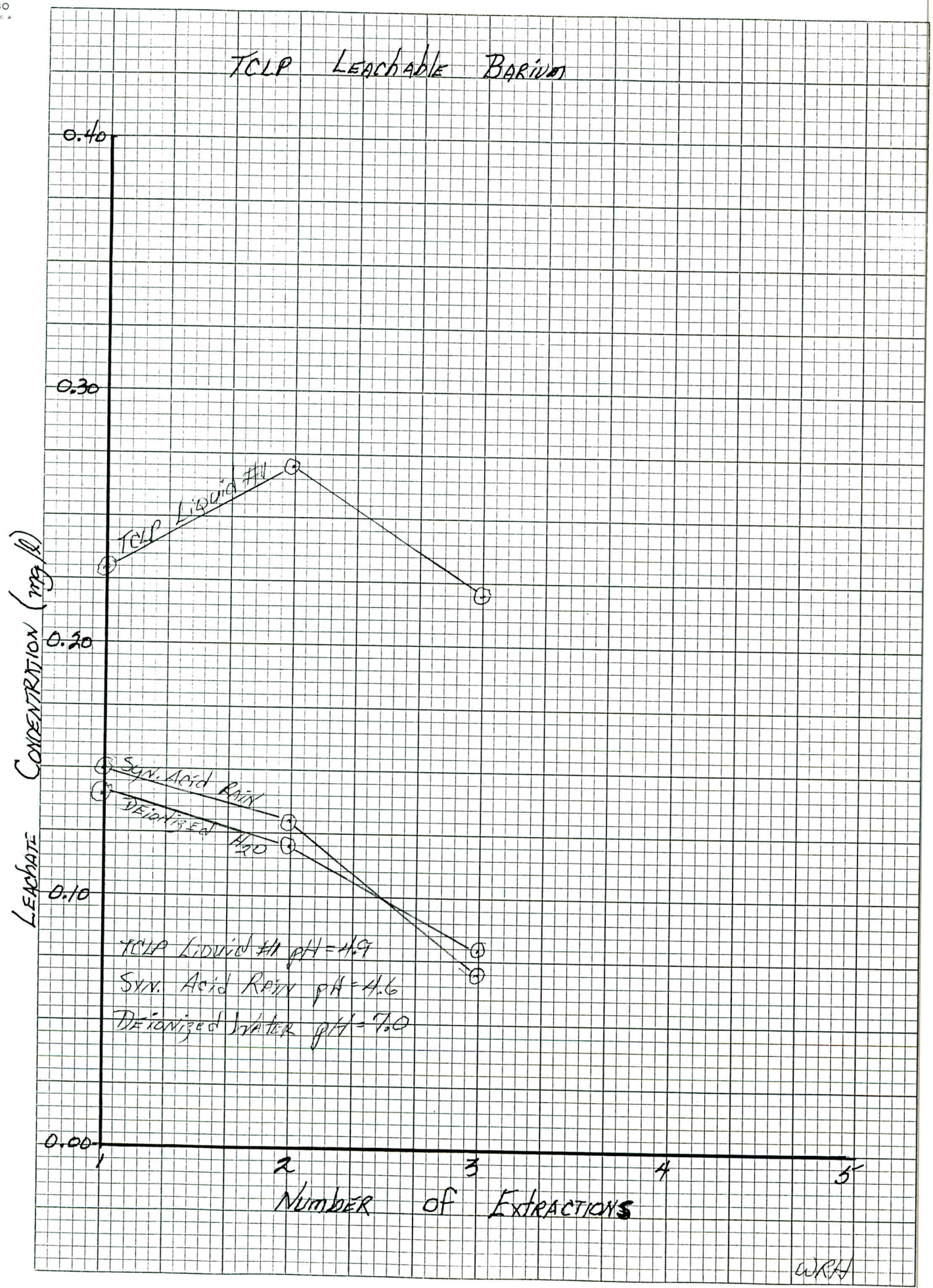

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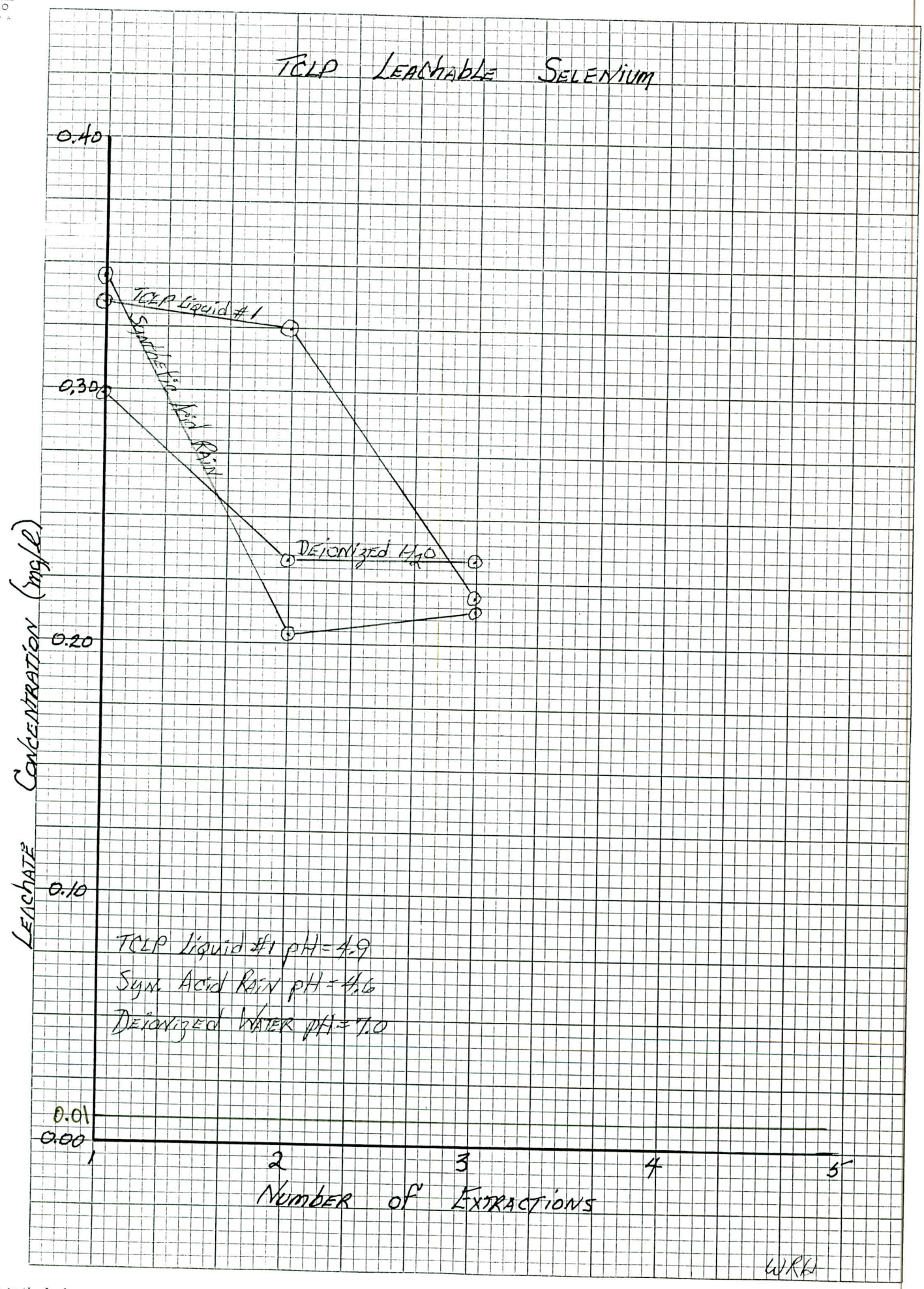

10 Squares to the Inch

Bill - FYI.

B. Hoeute

Paul Hudspeth
U.S. Dept. of Commerce
National Climate Data Center
Federal Bldg.
Ashville, NC 28801-2696

704-271-4311

1. Overall avg. precipitation for NC in period of 1931-1991 (60 years) = 49.36" ≈ 50"

2. Avg. precipitation for NC, by climate division during period of 1961-1990 (30 years):

Southern Mountains	54.25"
Northern "	52.15"
Northern Piedmont	44.80"
Central "	45.81"
Southern "	46.89"
Southern Coastal Plain	50.88"
Central " "	51.05"
Northern " "	48.85"