MEETING MINUTES

Subject: Expedited Response Action Weekly Interface

TO: Distribution BUILDING: 740 Stevens Building

FROM: W. L. Johnson CHAIRMAN: G. C. Henckel

Dept-Operation-Component	Area	Shift	Meeting Dates	Number Attending
Environmental Engineering	3000	Day	January 11, 1993	11

Distribution

State of Washington Department of Ecology
J. Donnelly* fax
L. Goldstein
D. Goswami*
R. L. Hibbard
J. Phillips*
D. D. Teel
N. Uziemblo*
J. Yokel
T. Wooley*

U.S. Army Corps of Engineers
J. T. Stewart A5-20

U.S. Department of Energy, Richland Field Office
H. L. Chapman A5-19
J. K. Erickson A5-19
E. D. Goller A5-19
R. G. McLeod A5-19
P. M. Pak A5-19
R. K. Stewart* A5-19

U.S. Environmental Protection Agency
P. R. Beaver B5-01
D. R. Einan
D. A. Faulk
L. E. Gadbois*
P. S. Innis*
D. R. Sherwood*

Westinghouse Hanford Company
L. D. Arnold B2-35
M. V. Berriochoa B3-30
H. D. Downey H6-27
W. F. Heine B2-35
G. C. Henckel* H6-04
W. L. Johnson H6-04
J. K. Patterson* H6-27
D. L. Sickle H6-27
T. M. Wintczak H6-27
EDMC H6-08
ERAG Route H6-04
GCH File/LB

*Attendees

The weekly interface meetings on the expedited response actions (ERAs) was held to status the ERAs for the U.S. Department of Energy, Richland Field Office and the regulators. The meeting was conducted in accordance with the attached agenda. Actions were formally reviewed and the attached action item list was updated. The weekly report is also attached.

All eight ERAs were discussed and their status summarized. EPA and Ecology requested a separate meeting to discuss issues related to the CCl_4 ERA. Ecology provided a draft copy of comments on the Sodium Dichromate proposal.

Attachments:
1. Agenda
2. Action Item List
3. Decisions, Agreements & Commitments
4. Expedited Response Action Weekly Report, week ending 01/10/93
5. Public comments - Sodium Dichromate
6. Pickling Acid Crib Field Log

WEEKLY ERA INTERFACE AGENDA

SUBJECT: STATUS OF THE EXPEDITED RESPONSE ACTIONS

DATE: January 11, 1993

- GENERAL ISSUES
  - ERA Interface Action Item review
- INDIVIDUAL PROJECT STATUS
  - 200-W Carbon Tetrachloride
    - o 1500 cfm unit delivery date 3/1/93
    - o VES restart 1/18/93
  - N-Springs
    - o EE/CA has been initiated
  - Sodium Dichromate
    - o Public review status began 12/9/92 completed 1/7/93
  - North Slope
    - o Second part sampling with backhoe delayed until Davis Bacon review is performed
    - o ERA proposal under development
  - Pickling Acid Crib
    - o Sampling completed 12/7/92, waiting for data
  - Riverland
    - o Waiting for lab data to complete draft proposal
  - 618-11
    - o Document work continues
    - o Packaging & transportation
  - 618-9 & 316-5
    - o Closure report status?
- OTHER ISSUE
- SUMMARY OF ACTION ITEMS
- SIGN-OFF ON ANY DECISIONS, AGREEMENTS, OR COMMITMENTS

EXPEDITED RESPONSE ACTION INTERFACE MEETING

-ACTION ITEMS-
January 11, 1993

ORGANIZATION	ACTION ITEM
WHC	WHC will provide RL, EPA, and Ecology copies of the GPR reports for the Riverland ERA site when it becomes available. (open) North Slope, Sodium Dichromate, and Pickling Acid reports have been provided. (open)
WHC	Provide a more detailed schedule; listing of wells, status of nuclear safety; incorporation of 618-10 as demonstration site; new home packaging. (open)
EPA	Provide information on passive emissions for CCl_4. (open)
EPA	Develop procedure for inclusion in TPA handbook for transmittal of field information and sample data obtained by regulators during split sampling activities. (open)

EXPEDITED RESPONSE ACTION INTERFACE MEETING

-DECISIONS, AGREEMENTS, & COMMITMENTS-
January 11, 1993

DECISIONS:

AGREEMENTS: No significant action to report

COMMITMENTS:

DOE Representative

EPA Representative

ECOLOGY Representative

WHC Representative 1/14/93

Weekly Report, Week Ending January 10, 1993
EXPEDITED RESPONSE ACTIONS
Technical and Management Contact - Wayne L. Johnson, 376-1721
Environmental Division

North Slope Expedited Response Action - A project change form was approved by the regulatory agencies on January 4, 1993. The change will allow use of a backhoe to obtain samples at the H-07C dry well. Ecology requested that additional samples be taken at two other waste sites. A project change form will completed and approved prior to performing this additional sampling. The change in sampling method will require a delay in order to obtain the necessary Plant Forces Review (estimate 2 to 3 weeks).

A Class 2 change request is being submitted to request the additional funds necessary to complete the characterization sampling activities which were not in the scope of the original cost account plan.

Research indicates that no records of decisions exist for waste sites similar to those on the North Slope. No Nike missile sites have been included on the National Priorities List for CERCLA cleanup prior to the North Slope Nike Sites.

A geophysical survey is scheduled for the week of January 11, 1993, to located drywells associated with a spare parts building. The drywells could not be located using as-built drawings of the area. These drywells will be sampled using the backhoe scheduled for latter this month.

Preparation of the ERA proposal continues. Data continues to arrive from the analytical labs. Initial review of the data indicated no elevated levels of contaminants.

N-Springs Expedited Response Action - Preparation of the ERA proposal continues. Additional references and information recently provided by RL are being reviewed for inclusion in the ERA Proposal.

White Bluffs Pickling Acid Crib Expedited Response Action - Sampling on the White Bluffs Pickling Acid Crib was completed December 7, 1992. Preparation of the EE/CA was initiated.

Riverland Railroad Site Expedited Response Action - The rough draft of the proposal is 90% complete. The analytical lab data has not been received and is the only information needed to complete the draft.

Sodium Dichromate Expedited Response Action - Public review for the Sodium Dichromate proposal was initiated December 9, 1992, and is tentatively scheduled to end on January 7, 1993. Ecology has informally indicated that ten comments have been received and nine prefer that the debris be removed from the site. Formal transmittal of the comments to RL should occur by approximately January 17, 1993.

618-11 Expedited Response Action - Work continues in developing the historical information concerning the contents of the burial ground. Interviewing of workers involved with the construction and operation of the burial ground have provided valuable leads which are expanding the understanding of the waste site. The packaging and transportation personnel are evaluating methods to package and transport of retrieved waste for placement in an interim storage site until the wastes can be characterized adequately for disposal. The status of the previous EIS requires clarification as to application to this activity.

200 West Carbon Tetrachloride Expedited Response Action - Due to lack of craft support during the holidays and cold weather, it is estimated that 24-hour operations will begin the week of January 18, 1993

A. ERA Operations

- Radon/Actinide Shipping Moratorium - Still waiting for VOC/RCRA and radionuclide sample results of the activated carbon with which to complete the letter requesting a temporary lifting of the shipping moratorium.

- Leased 500 cfm Vapor Extraction System (VES) - The lease 500 cfm VES unit was awarded to H2-Oil from Bend, Oregon. Delivery is promised for February 26, 1993. This being the case, it was decided to assemble the spare blower and motor, procure a water separator and a support base for the above blower and assemble, skid-mounted on the ground at the Z-9 Crib. These items would be available by the first week in February thereby assuring a February start of the "lease" unit.

- Fabrication of Support Equipment - Fabrication and assembly of equipment to support the leased 500 cfm VES unit at the Z-9 Crib is progressing very well. The HEPA Trailer is complete, and the Process Control Trailer will be complete by February 15, 1993.

- VES Operations - The VES is still shut down for the installation of upgrade equipment, and to allow personnel to support the planning, engineering, and arrangements for the new VES units. Maintenance support has been limited, and progress has been very slow due to the cold weather and snow.

- Maintenance Support - Arrangements have been made to obtain maintenance support from T-Plant Maintenance. This will provide maintenance personnel on demand for the installation of equipment and repairs enabling us to better schedule the work to meet schedules.

B. Wellfield Design

- Vapor Extraction Wells - Crib Boreholes. Deepening of 299-W18-96 within 216-Z-18 is scheduled to begin in mid-January 1993. Deepening of 299-W18-174 within 216-Z-1A is scheduled to begin March 1, 1993. [Note: This switch in the order of deepening these wells was made to keep on schedule while stabilization activities are being conducted at 216-Z-1A.]

- The initial design for a passive wellhead remediation system has been completed. Specific designs are being considered for individual components of the system.

- Comments on the draft FY 1993 wellfield design workplan are being incorporated. The plan should be available in mid-January 1993.

- All of the necessary instrumentation for the puffer unit has been received. The remaining components are being obtained, and the system should be assembled and ready to use by January 15, 1993.

- The Ebasco report, *"Analysis of Carbon Tetrachloride Evaporative Losses and Residual Inventory,"* is being reviewed by WHC. Comments have been requested by January 8, 1993.

- Five vapor extraction wells are being installed this fiscal year to enhance the existing wellfield. The first well, 299-W15-218, will be drilled on the north side of the 216-Z-9 Trench. Drilling is scheduled to begin in mid-January 1993. (VJR)

C. ERA and VOC-Arid ID Site Characterization

Source Term Characterization

- Evaluation of Effluent Pipelines: The glovebag has been installed to allow cutting of pipelines 840 and 840D (from Recuplex to 216-Z-9). The pipes have not yet been cut open because of lack of support personnel (effect of the holiday schedule, other work priorities identified at PFP, and inclement weather). Engineering Surveillance and Testing is actively pursuing this problem and hopes to begin the work this week.

- Investigate Source of Secondary Groundwater Maximum: Craig Barrington will begin researching the waste management/practices records to determine the source for the secondary maximum in the groundwater under the T tank farm area on January 18, 1993. Results will be provided by mid-February 1993.

Soil Gas Surveys

- Estimate VOC Vapor Flux from Soil Surface. Soil gas emission data are being collected in a soil flux chamber by the 216-Z-9 Trench. The soil gas concentrations are monitored continuously using an Odyssey instrument. Data collection began October 23, 1992.

- Map Vertical Distribution of VOC (using existing wells and cone penetrometer). Wellhead sampling continues twice a week through the baseline monitoring program. The cone penetrometer is tentatively scheduled to return to Hanford in late spring.

Existing Well Evaluations

- Borehole Geophysical Logging. A camera survey has been requested for well 299-W15-6.

- Wellhead Vapor Emissions. Conduct of this task is dependent on obtaining diluters for the Odysseys (which are being ordered). Alternatively, use of a charcoal absorbent in the wellhead to give an integrated VOC sample is being considered.

New Well Investigations

- Deep groundwater well. Drilling of this well is scheduled to begin March 1, 1993.

- Technology Demonstration Boreholes (bioremediation and in situ heating). Drilling of the in situ bioremediation well is scheduled to begin March 1, 1993. Drilling of the in situ heating well has not yet been scheduled.

- The angle borehole to be drilled at the 216-Z-9 Trench using the sonic drill rig is tentatively scheduled for May 1, 1993. The conceptual test plan which includes this drilling activity is being reviewed. It is anticipated that a number of technical and regulatory issues will need to be resolved before drilling can proceed.

Groundwater Sampling

- Groundwater sampling for VOAs at 26 wells in the 200 West Area is scheduled for FY 1993. Ten of these are RCRA wells already on the sampling schedule for other constituents; additional sampling for VOAs in November and May was attached to the FY 1993 Sampling and Analysis Statement of Work to PNL. Three are RCRA wells already scheduled for VOA sampling in November, February, May, and September. Four are being sampled by the Operational Monitoring program in December, March, June, and September. Nine of the wells will be sampled by WHC Geosciences groundwater samplers; the first round of samples is being collected this week and the second round is scheduled for May.

Data Evaluation

- The FY 1992 site characterization data package (WHC-SD-EN-TI-063) will be revised to include the additional data received since it was first issued.

Baseline Monitoring

- On December 28, 1992, with low pressure (28.5 in Hg), most wellheads had detectable VOCs, with the high being 300 ppm at 299-W15-85. Most soil-gas probes did not have VOCs present. No baseline monitoring was performed on December 31, 1992, due to the order to end the work day early.

- On January 5, 1993, high pressure (29.4 in Hg) yielded only one wellhead detection of VOCs (2 ppm). Three shallow soil gas probes and one deep soil gas probe did have detectable VOCs.

- For technical reasons (instrument battery charging requirements) the baseline monitoring days will be changed to Tuesdays and Fridays. This change should not impact performance or quality.

- The report of FY 1992 baseline monitoring activities has been completed and sent out for comments. Comments are requested by January 8, 1993.

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Attachment 5

Public Comments - Sodium Dichromate

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1/11/93 From Dirk at ERA mtg

sod-dich

Robert L. Meador
231 Silverwood Dr.
Richland, WA 99352
12-11-92

Dibakar Goswami
Washington State Department of Ecology
7601 West Clearwater Ave. Suite 102
Kennewick, WA 99336

Relative to the Hanford Sodium Dichromate ERA, I prefer the EXCAVATE ALL ANOMALIES alternative.

This seems to be a relatively inexpensive job which can prevent a possible serious problem in the future, and which will be a visible improvement to an area near the river.

Yours
Robert Meador
Robert L. Meador

DEC 2 1 1992

December 14, 1992

George Baggett
820 W. 35th St.
Kansas City, Mo. 64111
(816) 931-9578

Dibakar Goswami
Washington State Department of Ecology
7601 W. Clearwater Ave. Suite 102
Kennewick, Wa. 99336

RE: Sodium Dichromate Landfill

Having some experience with sodium dichromate in soils, I am aware of the excellent ability of this chemical to migrate into groundwater. Though there are some "studies" that suggest that hexavalent chromium would reduce in soils to trivalent, one case of chromic acid disposal in Kansas City, Kansas has suggested that this is not always the case. After a prolonged period of wet weather we experience the formation of yellow crystals as the soils dried. These crystals tested to be almost pure sodium dichromate, and since the area became dusty when dry, they became airborne when the soils were disturbed by traffic or a lawnmower cutting weeds.

Landfilled drums of sodium dichromate would be equivalent to burial of hexavalent chromium, the most soluble form of chrome. Therefore, the potential for migration of hexavalent chrome is high, and since hexavalent chromium is one of the more toxic heavy metals, future problems associated with the NO ACTION alternative may surface. Also, since the EPA Region VII office bungled a testing program on a chrome burial site where they should have detected hexavalent chrome, it is not too unlikely that DOE has charted the same course of mistakenly assuming hexavalent chrome would be reduced by iron in soils.

Disposal of hexavalent chromium in soils will most likely pose a problem at the site sometime in the future. However, if the area at Hanford were considered a sacrifice zone, the NO ACTION option would be better than carting it off to a hazardous waste landfill. And unless DOE were to provide treatment to reduce the hexavalent chromium to a trivalent form, the EXCAVATE ALL ANOMALIES and landfill option would just transfer a highly mobile and soluble heavy metal to a new location.

My recommendation would be to SAMPLE ALL ANOMALIES, not only testing for total chrome, but for hexavalent chrome in drums and soils. If found, I would recommend a treatment option for contaminated soils. Please realize that a water leach test of soils should be performed. A test result that only found a few ppm of total chrome is of little value. However, a finding of hexavalent chrome in soils will demonstrate the extreme ease of mobility of this metal. I find it difficult to believe that samples of the contents of these drums is 50 ppm. I should like to see tests for hexavalent chromium located on a site map of the area in question. It would not surprise me to find yellow crystals around the area in question that would prove to be hexavalent chromium or pure sodium dichromate.

Treatment Option

There are numerous treatment options to remove or reduce the toxicity of hexavalent chromium contaminated soils. Most often cited in engineering manuals is the use of sodium bisulfide; less often cited is the use of ferrous iron in dilute sulfuric acid, an inexpensive treatment and reduction option for hexavalent chromium.

Soils and drums from the area in question could be excavated for treatment onsite. Treatment would consist of a tumbling pug-mill type reactor with the feed of ferrous sulfate (pickle liquor) blended to reduce the hexavalent chromium to trivalent. It is doubtful that any of the drums have structural strength, they have corroded long ago.

After reduction, the soil mix would then be mixed with lime slurry to neutralize the acid and form trivalent chrome hydroxide bound in calcium sulfate salt cake (relatively insoluble) and soil. The end color of the soil-sludge would be green. A bright yellow color would indicate the presence of hexavalent chrome. If yellow soil-sludge were generated, it could be sent through the reactor for another run through the ferrous sulfate. These soils could then be dewatered and landfilled without fear of migration of hexavalent chromium. A "special waste" category could be granted by the State of Washington, and recommend monofill in a private cell.

The optimal PH range of trivalent chrome hydroxide to minimize solubility is available in the literature. A check for other metals in the waste is advised.

Cyanide, if present in the soils would prevent or inhibit use of this treatment option - HCN gas would evolve when ferrous sulfate pickle liquor is added.

Sincerely,

George Baggett

cc: James Werner
NRDC

Glass Melting Processes for the Glass and Waste Industry

Penberthy Electromelt International, Inc.

631 South 96th Street

Seattle, Washington 98108, U.S.A.

Telephone:
(206) 762-4244
Fax:
(206) 763-9331

December 14, 1992

Dibaker Goswami
Dept of Ecology
7601 W Clearwater Avenue/Suite 102
Kennewick, WA 99336

Re: Sodium Dichromate ERA Proposal

Greetings:

After review of your notice, I agree with the agencies' selection of the NO ACTION alternative, except that I would prefer that all drums which appear on the surface be removed and sent to Arlington, and that the concealed ones be ignored. They are no threat to public health.

Yours truly,

Larry Penberthy
LP/nc

December 11, 1992
91413 Biggs-Rufus Hwy, #8
Wasco, Oregon 97065-9704
Phone: (503) 739-2007

Mr. Dibakar Goswami
Washington State Department
of Ecology
7601 W. Clearwater Avenue,
Suite 102
Kennewick, Washington 99336

Subject: Comment Concerning The Sodium Dichromate Expedited Response Action Proposal For The Hanford Site.

Mr. Goswami:

The intent of any expedited response action (ERA) under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) is to speedily eliminate an immediate and acute threat to the environment and/or public health and safety.

Because the proposed action(s) fail to clearly substantiate those criteria and only the option entitled, "Excavate All Anomalies" entails "expediated response", normal CERCLA remediative procedures should be directed toward the "landfill" site within the operable unit (OU).

I am,
Sincerely,

Larry Caldwell

LLC/lb

cc: file (1)
letterbook (1)

Dec. 15, 1992

TO: DIBAKAR GOSWAMI
WASH. STATE. DEPT. of ECOLOGY

FROM: MR. J. W. FEIGEL
VANCOUVER, WASH

SUBJECT: WRITTEN COMMENT
ON: USDOE - ERA SODIUM
DICHROMATE LAND FILL

COMMENT: I SUPPORT THE
"EXCAVATE ALL ANOMALIES"
ALTERNATIVE. I ADD WILL
NEED TO DO ALL WE CAN
AS FAST AS WE CAN CONCERN-
ING WASTE AND THE ENVIRONMENT.

THANK YOU
Sincerely
J W Feigel PCO
MR. J. W. FEIGEL

DEC 14 1992

ESKIL ANDERSON
MINING GEOLOGIST
POST OFFICE BOX 846
SPOKANE, WASHINGTON 99210

924 WEST 22ND AVENUE
SPOKANE, WA 99203
(509) 747-5328

December 9, 1992

Dib Goswami
Ecology
7601 West Clearwater, Suite 103
KENNEWICK WA 99336

Dear Dib Goswami:

Most "hazardous waste" sites have been found to be more costly to move, and often more hazardous, than if left alone or treated on the spot.

The cost of "cleaning up Hanford" proposals are so ridiculously high that they should never have come into serious consideration, except by self-serving organizations looking for non-producing jobs at public expense.

The Hanford site itself was first chosen as the safest place in the United States for such a project.

Computer generated maximum allowable specifications by the EPA and all similar organizations should be examined critically by experienced and practical people who have to pay for clean-ups and taxes, rather than by those creating non-productive jobs for themselves at taxpayers and corporate expense by predicting a "ficitional" possible danger which will never occur. This has cost the American public more than one trillion dollars until now and is predicted by the organizations themselves to cost more than another trillion dollars by the year 2000.

The reason for much of the tremendous American deficit is not hard to find.

Eskil Anderson

Eskil ANderson

cc: Gonzaga University

9312736

WASHINGTON STATE DEPARTMENT OF ECOLOGY

TELEPHONE REPORT

Call From: Raj Jeya Pandian Date: 12/22/92

P.O. Box 3681 Time: 4:30 am-pm (circle)

SALEM, OR-97302-0681

Phone No.: (503) 581-7845

Call To: DIB GOSWAMI

Subject: Na-Dichromate EPA

Summary: Remove all the drums from the site and ~~place~~ transfer to a landfill site or recycle. Prefers recycling of these drums. He emphasized not to keep any drums at the site.

Signature

Date 12/22/92

ECY 010-46(a)

9312736315777

CHEM MET, LTD., P.C.
PO Box 4068
West Richland WA 99352-0017
Telephone (509) 967-2309 FAX (509) 967-2459

Your Single Source for Chemical, Materials, and Environmental Technology

December 20, 1992

Mr Robert Stewart
USDOE
A5-19
POB 550
RICHLAND WA 99352

Dear Sir:

Subject: SODIUM DICHROMATE RESPONSE

My recommendation is to randomly select a sample of 5 to 10 drums and check them for content. If they do not contain more than the residual amounts, then take the NO ACTION option. If any one drum contains significant quantities (you define but probably in the pound range), then consider executing option EXCAVATE ALL ANOMALIES.

Though it would be nice to use the third option on the site to return it to "pristine" conditions, the presence of trace quantities of dichromate does not make it a priority item. The quantity of dichromate in the site is probably minuscule compared to the total that was passed through the reactors into the river while the reactors operated. Furthermore, if, as you say, the site contains construction debris, the odds are good that it contains asbestos. I do not believe that we need to open another can of worms at this date. Mark it and put it last on your priority list.

Sincerely,

James R. Divine, PhD, PE
Chief Engineer

cc: P Beaver, EPA
D. Goswami, Ecology

Janet Hurt
1409A E. Denny Way
Seattle, WA 98122

December 17, 1992

Dear WA State DoE:

I recently received information about the proposed expedited response action for the Hanford site. Certainly it sounds like a good idea, but I am concerned that you might be avoiding more pressing issues at the site by quickly responding to a more manageable problem. If this is not the case, I am glad. However, in the last four years that I have been following the Tri-Party's progress on cleanup, I have seen stalling, foot-dragging, denial and cover-up of a very serious problem. It is not at all clear to me, and many others, that the health and safety of the people of Washington, much less the environment, are a priority at the DoE. Energy that kills people and destroys the environment is not good energy.

I am also deeply concerned about the proposal to build an incinerator on the Hanford site to burn toxic and radioactive waste. I am aware of the mind-boggling extent of the waste and mismanagement at Hanford; however, an incinerator would only add to the problem. Incinerators spew waste into the air and are clearly not a viable solution to the problem. It is also common knowledge that many, many people have suffered from thyroid cancer and other deformities due to downwind exposure to radioactive and toxic wastes in the air, from Hanford and from many other toxic sites, incinerators, and nuclear sites around our nation. Hanford is a serious problem, and we desperately need your commitment to help solve it. Please put the health of your fellow citizens and the environment upon which we depend for survival FIRST. It is obvious that many of the organizations involved are putting their own profits and political interests first. The denial, deception and worsening of the dangerous waste problem at Hanford are a very serious threat to the health and safety of our future generations.

Sincerely,

Janet Hurt

Attachment 6

Pickling Acid Crib Field Log

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EFL-1060

NALGENE®

Dec 1 1992

Work Commenced at the Pickely Acid Cribs (PACs) at 0755 this Morning with the arrival of a number of individuals involved in the Sampling and characterization

Weather = High overcast
Temp = 39° F
Wind = 0-2 MPH

The following individuals were on Site —

NAME Print Sign	PAYROLL / SOCSEC #	ORGANIZATION	RESPONSIBILITY
RM Mitchell	[redacted]	WHC	Field Tech Leader
R M. Arnold		SML	Sampler 3-9
RZ Steffler		SML	Sampler 3-91
M Fearn		WHC-CCAG	Coordinator
D.L. Porter		WHC HPT	HPT
C.L. Bailey		PRC (EPA)	Split Sampling
J.J. Mollusky		PRC	Split Sampling
L.C. Powers		R&R	Driver
M.L. Fobs		R&R	crane op.
B.G. Tuttle		CES	SSO
P.S. Innis		EPA	Regulatory Onsite

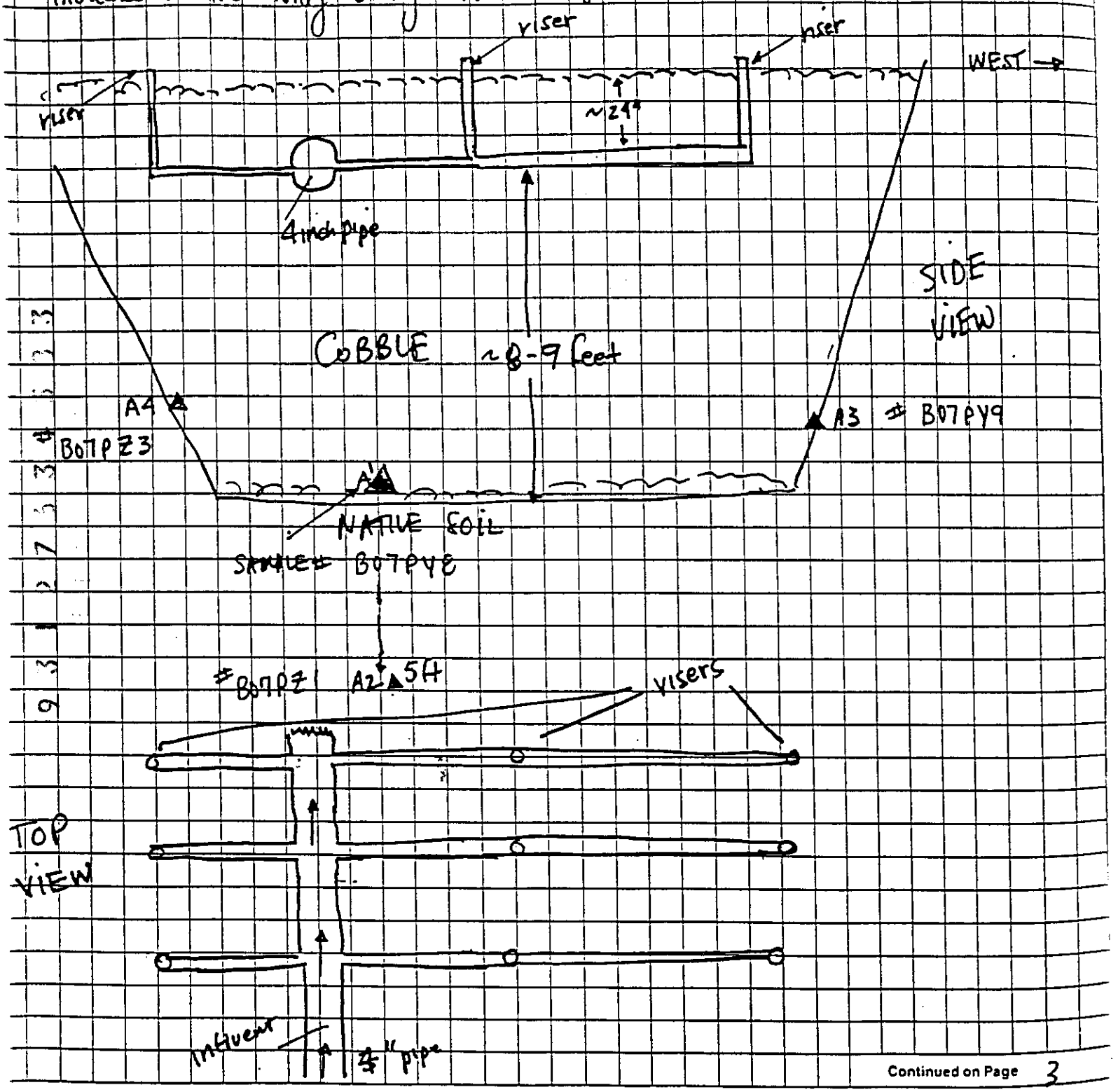
It took until ~ 1300 hours before the site was set up & excavation began. The area excavated comprised the first set of risers at the northwest end of the west crib. The excavation revealed that the risers were ~ 2ft

Continued on Page 2

Read and Understood By

Signed _____ Date _____ Signed _____ Date _____

long and joined in ladderstep fashion with a 4 inch primary feeder pipe as indicated in the following drawing: View looking south.



Continued on Page 3

Read and Understood By

Signed Date Signed Date

The depth of cobble below the piping system was unexpected, when it reached a total of approximately 8-9 feet. Native soil was encountered at a depth of ~10-11 feet below existing grade.

There were no readings above background encountered during majority of the initial excavation for VOAs or radionuclides. Due to the depth of the excavation it was determined that sampling should be conducted out of the backhoe. Materials brought to the surface indicated yellowish streaks thru the soil.

A Summary of analytes, holding times and containers is presented below —

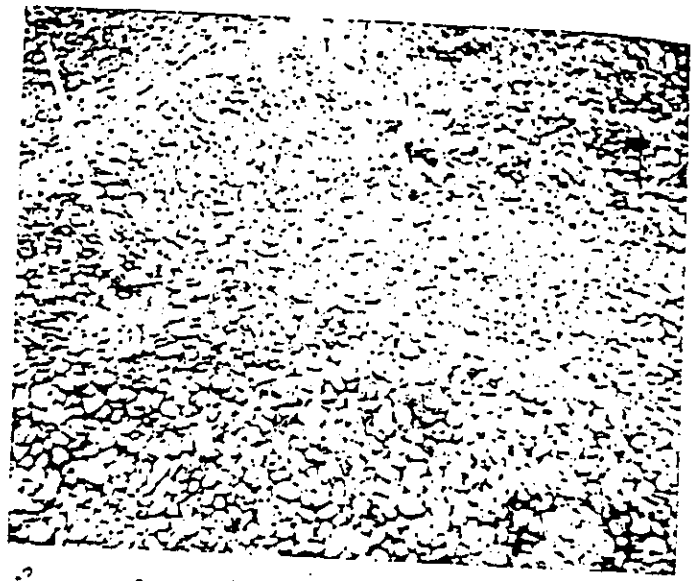
PARAMETER/ ANALYSIS	ANALYTICAL METHODS	CONTAINER[1]/ VOLUME	PRESERVATION	HOLDING TIME
1. TAL Metals	CLP	P 250mL	None	6 Months
2. Anions ▸ F, Cl, SO_4, PO_4 ▸ NO_2 - NO_3 Ammonia pH	 EPA 300.0 EPA 353.2 EPA 350.2 9040	P 250mL	None	 28 Days 28 Days 28 Days ASAP
3. VOA	CLP	Gs 125mL	None	14 Days
4. Semi-VOA	CLP	aG 250mL	None	7 Days[2]
5. TPH (Diesal Range)	8015M	G 250g	None	14 Days
6. TPH (Heavier Than Diesal Range)	8015M	G 250g	None	14 Days
7. Calcium Carbonate	EPA 130.2	P 250mL	None	6 Months
8. Gamma Spec	RC-30	G 1000mL	None	6 Months
9. Total Activity	LA-548-111 LA-508-121	G or P small vial (at least 1g)	Hold at 4°C Until Extraction	ASAP

[1] Container Types:
P = Plastic (Polyethylene)
G = Glass
Gs = Glass w/septum cap
G_{w_0} = Glass/wide mouth jar
Gs = Glass w/septum cap -- No head space in container
T = Fluorocarbon Resins
PP = Polypropylene
aG = Amber Glass
T = Fluorocarbon Resins

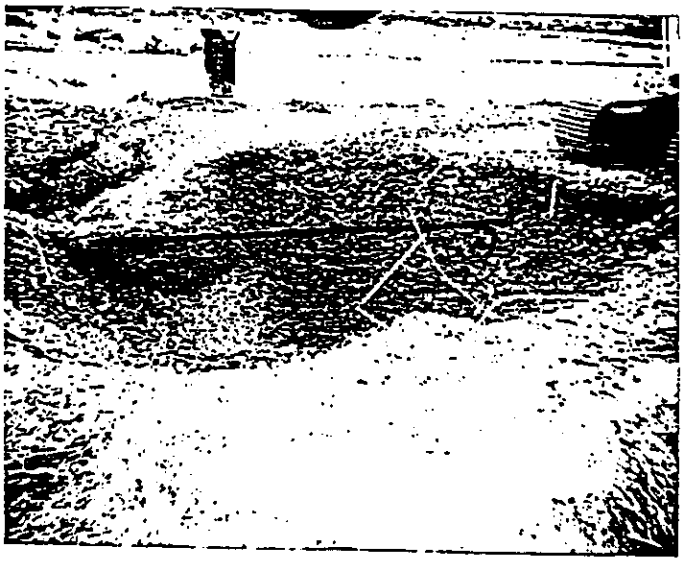
Read and Understood By

Signed Date Signed Date

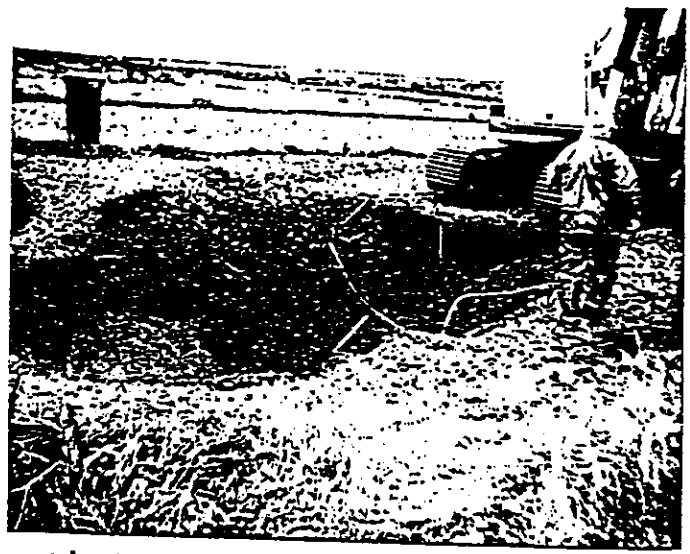
Excavation Site A 12/1/92
Pickling Acid Cribs



Pickling Acid Crib
12/1/92



Site A
Pickling Acid Crib
12/1/92



Site A
Pickling Acid Crib
12/1/92

Read and Understood By

Site Signed Date

A sample was collected at the point where native soil was first encountered directly beneath the Air. pipe. The site location is designated as A1 and the location is indicated on the drawing on page 2.

The sample will include all analytes and a split-was provided by EPA for their laboratory analysis.

SAMPLING SUMMARY

SAMPLE LOCATION	HEIC #	TIME COLLECTED	SAMPLER	NOTES
A1 (10ft) (FS)	B07PY8	1430 FS*	Steffler	dampsand yellowsheets pH = 5.6
EQUIPMENT BLANK	B07PZ0	1145	Steffler	—

* FS = Full suite of analytes

Sample locations are indicated on the map on pages 2 and 7

Continued on Page 6

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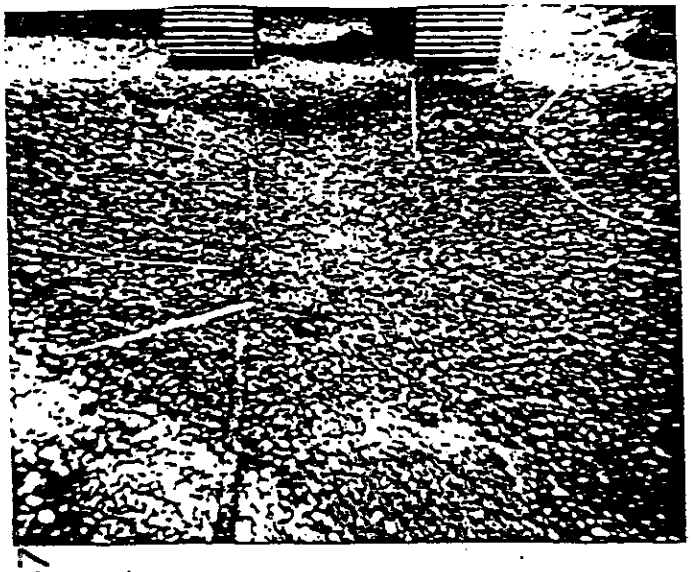
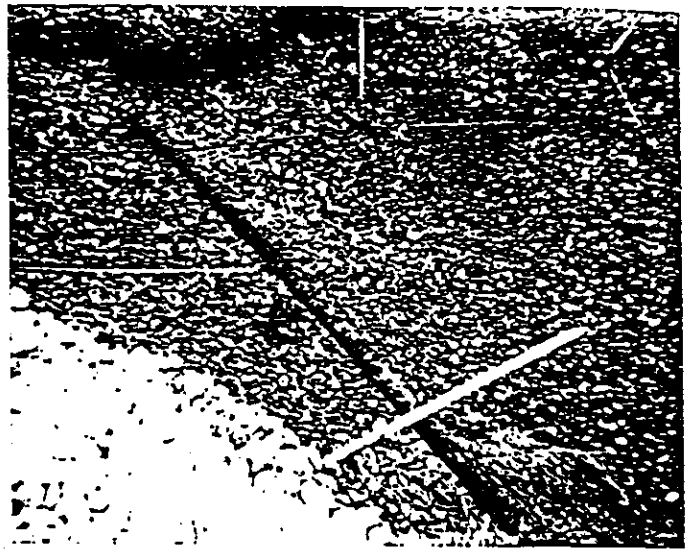
Signed Date Signed Date

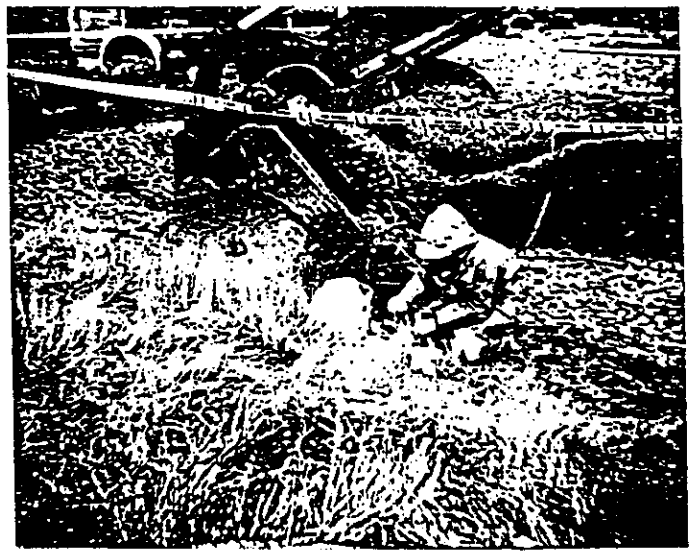


Site A
Pickling Acid Crib 12/1/92



Site A
Pickling Acid Crib 12/1/92

Site A
Pickling Acid Crib 12/1/92



Sample 1 Site A
Pickling Acid Cribs 12/1/92

Read and [illegible]

[signature] 12/1/92

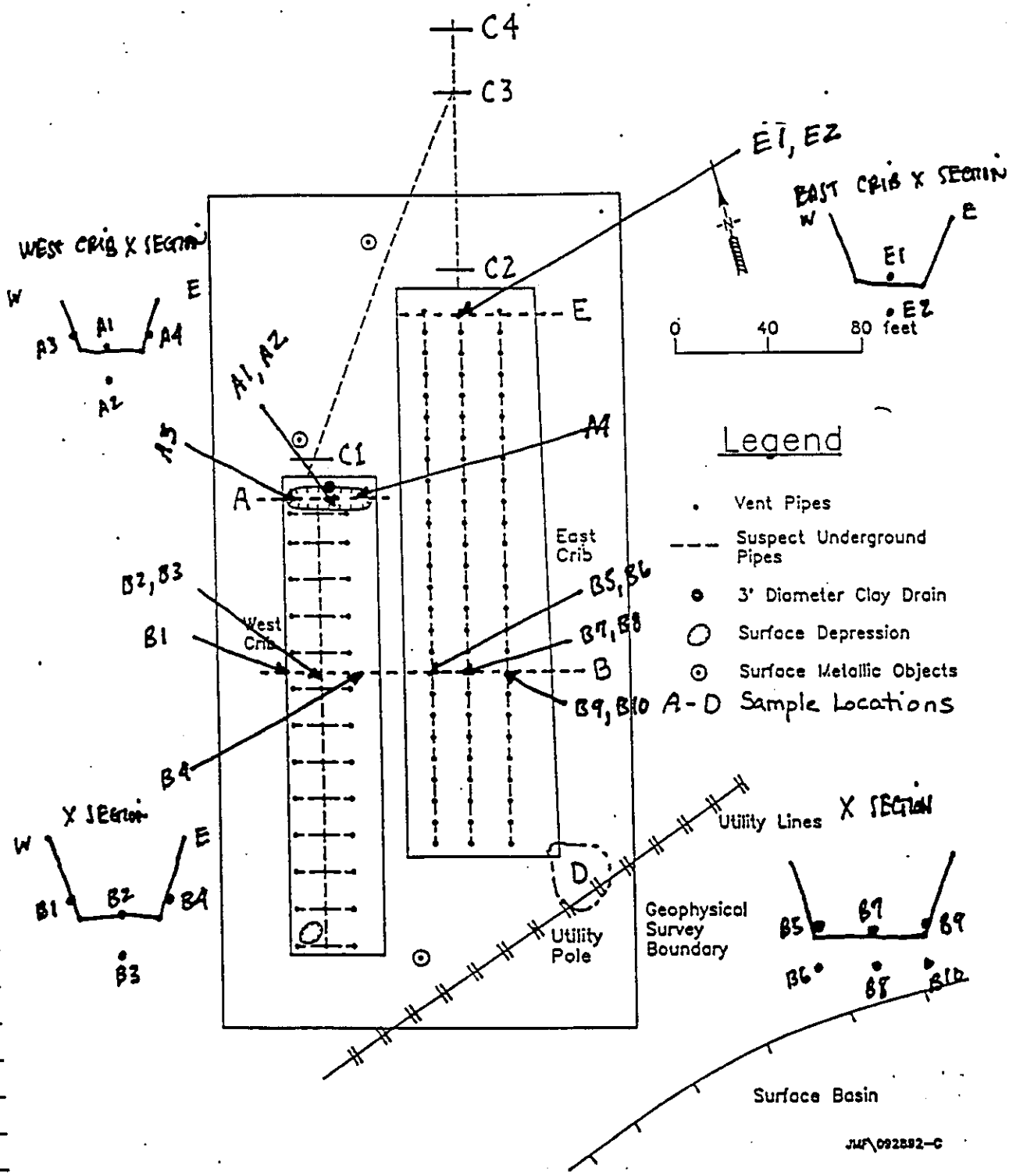


Figure 1-1. Map Showing Location of the Sampling Sites

PROJECT Pickling Acid Cribs

Notebook No. 1

Continued From Page 7

December 2, 1992

Work Commenced at 0845 with a safety meeting Conducted by Bruce Tuttle. PPE will remain the same and the observation area will be moved in closer to allow better visual access upwind for directly the work

The spoils pile for the excavation at Site A now that it has dried exhibits a slightly yellowish tinge. Sampling today will Commence to collect the second sample to depth at Site A.

Weather condition at the site were —

Temp = 45°F

Wind = 6-8 MPH at NNW

General = Clear w/ scattered high clouds

Site personnel included the same individuals as participated yesterday and the following additional individuals —

NAME	PAYROLL/SOC. SEC. #	ORGANIZATION	RESPONSIBILITY
Mark Mease		WEHF	Air Monitoring

Continued on Page 9

Read and Understood By

Signed _____ Date _____ Signed _____ Date _____

Characterization today consisted of collecting the additional samples at Site A. Sample A2 was collected 5 feet below the point of sample for Site A1 as indicated in the Sampling Plan. However due to the depth of cobble and slope of side wall only 2 samples at the interface with native soils were taken comprising site A3 (west side) and A4 (east side). During the excavation to A2 a layer of rust colored soil was pulled up & laid aside for metals field monitoring. Highly detectable was found in this sample by XMET detection.

Since only 4 sample points will be collected at Site A, rather than the 6 previously indicated a change notice will provide documentation of that change for site A as well as the west crib portion at site B.

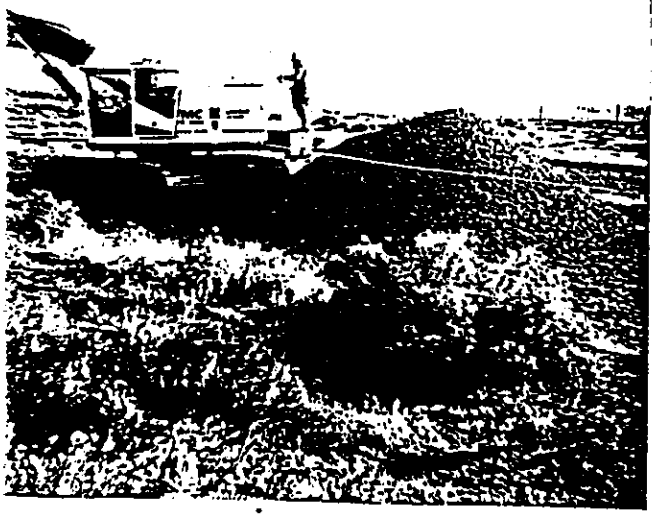
SAMPLING SUMMARY AS FOLLOWS ——

SAMPLE	SITE	~ DEPTH	HEIS #		TIME COLLECTED	SAMPLER	NOTES
A2		14'	B07PZ1	(FS)	1000	Steffler	pH = 7.0
A3		~ 9'	B07PZ9	(FS)	1050	"	dry, sandy pH=
A4		~ 8'	B07PZ3	(FS)	1330	"	dry, sandy fill pH
E1		~ 7'	B07PZ2	(FS)	1435	"	pH = 7.2
E2		~ 12'	B07PZ4	(FS)	1500	"	pH = 9.

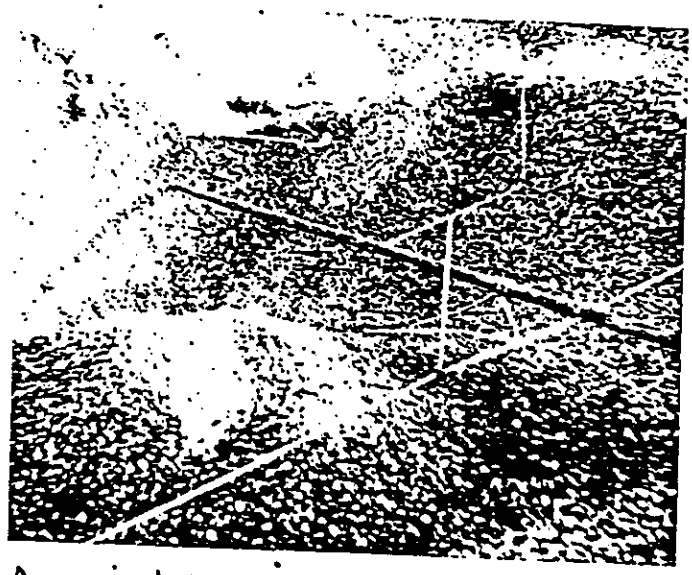
Continued on Page 10

Read and Understood By

Signed _____ Date _____ Signed _____ Date _____



Pickling Acid Cribs
Site A
12/2/92



Pickling Acid Cribs
Site A
12/2/92

Pickling Acid Cribs
Site A
12/2/92

Pickly Acid Cribs
Site E
12/2/92

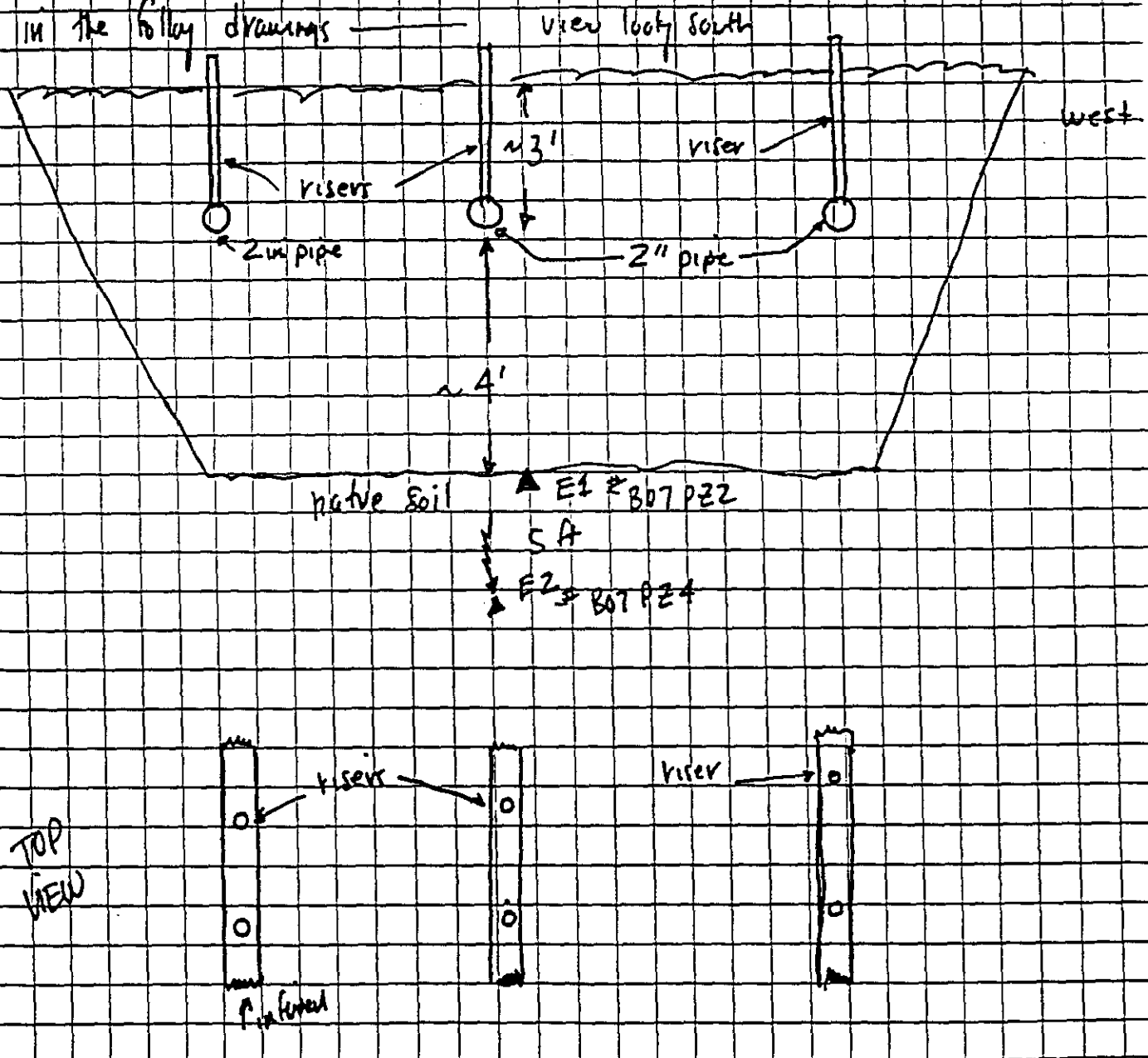
Continued on Page 11

Read and Understood By

Date

Date

At the request of EPA we conducted work at Site E regardless of the contingency clause in the Sampling plan. Only 2 sample were required, one near the crib midline at the soil, cobble interface and a second sample located 5 feet deeper. Based on excavation for the crib structure appears as in the following drawings



Continued on Page 12

Read and Understood By

Signed Date Signed Date

There was only minor discoloration of the soil appearing to be stained areas associated with the piping and iron weathering of materials. Samples E1 and E2 were collected. See Sample summary and maps on pages 7 and 11 for locations and depths.

The east crib therefore is constructed differently than the west crib and is shallower, allowing easier access to E sample sites. The soils collected at depth were dryer, finer sands.

The field monitoring with the XMET has indicated no values for metals above background for all samples collected thru Site E1.

No readings above background were detected for radionuclides and for volatile organics.

Continued on Page 13

Read and Understood By

Signed _____ Date _____

Signed Ron Wiebe Date 12/21/92

December 3, 1992

Work at the site commenced at 0805. The field crew was comprised of the same individuals who had previously attended safety meetings with the exception of the following individuals —

NAME	PAYROLL #/SOC. SEC #	ORGANIZATION	RESPONSIBILITY
— NOT APPLICABLE —			

Weather conditions were as follows —

Temp = 25°F
Wind = 0-2 MPH
General = clear, cold

Lunch 11³⁰ – 12³⁰

Weather after lunch

Temp = 38°F
Wind = 0-2 MPH
General = clear, cold

Sampled 1 location in west trench (crib), 4 in east crib. Shut down operations at 14⁴⁵.

J.H. Frain / Georgia 12-3-92

Continued on Page 14

Read and Understood By

Signed _____ Date _____ Signed _____ Date _____

The sampling summary is as follows

SAMPLE SITE		~DEPTH	HELS #	TIME COLLECTED	SAMPLER	NOTES	pH
B1	(SS)*	6-7 ft.	B07PZ5	1010	Stettler	damp soil, no sand	8.
B2	(FS)	11-12 ft.	B07PZ6	1055		" "	8.0
B3	(FS)	15-16 ft.	B07PZ7	1130		" "	7.8
B4	(SS)	6-7 ft	B07PZ8	1300		" "	8.5
B5	(SS)	5-6 ft.	B07PZ9	1330		damp soil, q.t sand	
B6	(SS)	10-11 ft.	B07Q00	1340		" "	8.2
B7	(FS)	5-6 ft.	B07Q01	1350		" "	8.
B8	(FS)	10-11 ft.	B07Q03	1415		damp rocky sandy soil	
B7 (DUPLICATE)	(FS)	5-6 ft.	B07Q02	1356		see above	8.6

* FS = Full suite of analysis
SS = Short set " "

For location of sample sites see map on page 7.

Continued on Page 15

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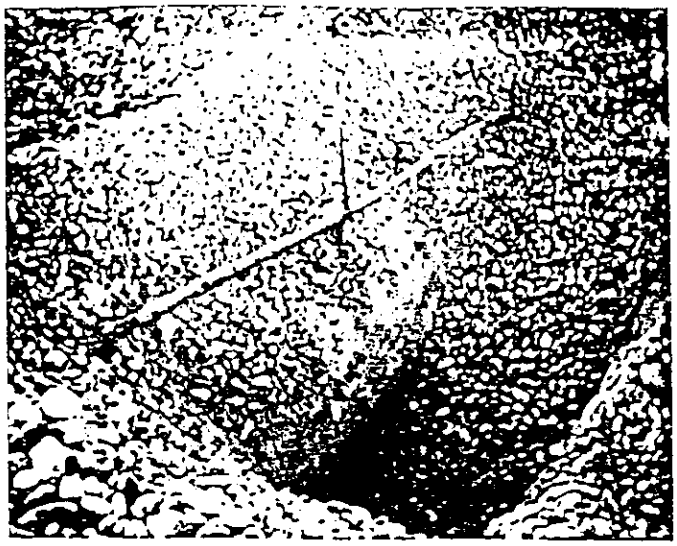
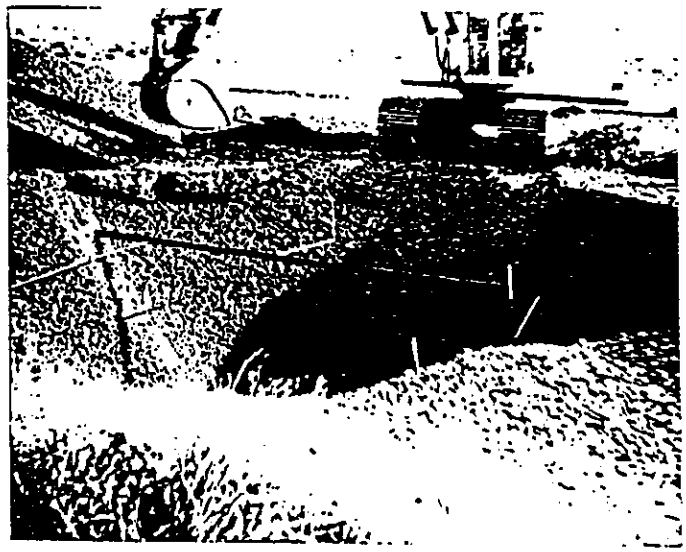
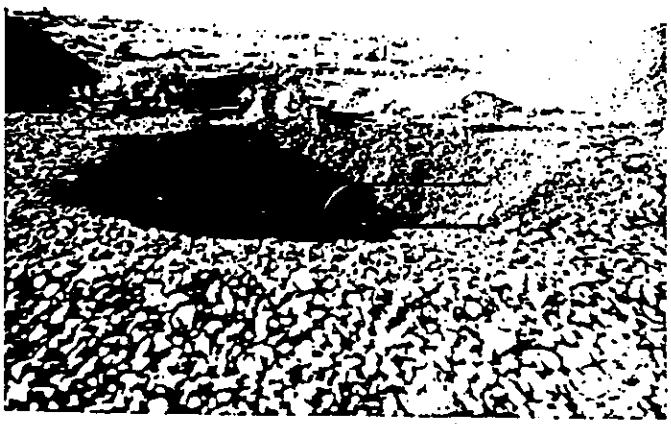
Signed Date Signed Date



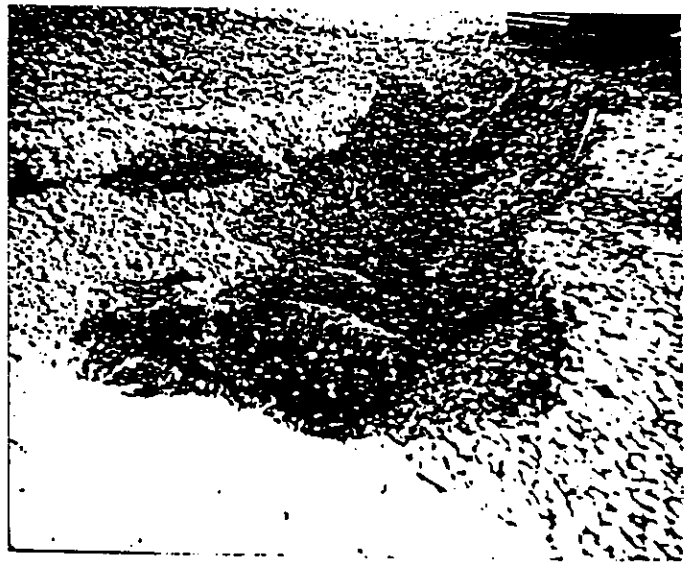
Pickling Acid Cribs Site E
12/3/92 East Crib Center Pipe



Pickling Acid Cribs Site B
12/3/92 West Crib



12/3/92 Site B
Pickling Acid Cribs East Crib



Pickling Acid Cribs Site B
12/3/92 West Crib

Signed Date Signed Date

PROJECT PAC

Notebook No. 1

Continued From Page 15

December 4, 1992

Work commenced at the site at 0800 with the Completion of the trench at Site B - east Crib

Weather Conditions were as follows —

General = overcast, cold

Temp = 34°F

Wind - 4-6 MPH

Project personnel included the same individuals who had previously attended the field Safety Meeting with the exception of the following individuals —

NAME	PAYroll / SOC SEC. #	ORGANIZATION	RESPONSIBILITY
Jeff Phillips		Ecology —	Unit Manager.
Ed Wooley		Ecology	Unit Mgr.

Ecology today included the finish out on the lower end trench of the East Crib of the B Simple section. Today that the backhoe was used to excavate the pipelines proceeding North out of the two cribs heading toward the old fabrication building.

Continued on Page 17

Read and Understood By

Signed Date Signed Date

Approximate location of two lines had been located and staked along the GPR unit and observation pits were dug to attempt to locate the pipes. Samples at locations C1-C4 (see map) were collected from soil directly adjacent to or under the pipeline. Most of the pipeline demonstrated rust and weathering but there was no evidence of leaks or spills.

There was evidence at Sample Point C3 where the two pipelines came into proximity of each other that modifications to the lines had been made in the past by cutting & welding. See the picture of site C3 on page 18.

SAMPLING SUMMARY IS AS FOLLOWS ——

SAMPLE SITE		DEPTH	HEIS #	TIME COLLECTED	SAMPLER	NOTES	pH
B9	(55)*	5-6 ft.	B07Q04	0935	Steffler	—	8.2
B10	(56)	10-11 ft	B07Q05	0945		—	8.7
C1	(53)	3-4 ft.	B07Q06	1115		rusty pipe ~9 in	8.7
C3	(54)	3-4 ft.	B07Q07	1215		pipes conjoin rusty fluided	8 9
C2	(55)	4-5 ft.	B07Q09	1325		cast crib pipe	8.(
C4	(57)	3-4 Ct.	B07Q08	1225		joint for waste crib pipe	9

* See note on page 14

Continued on Page 18

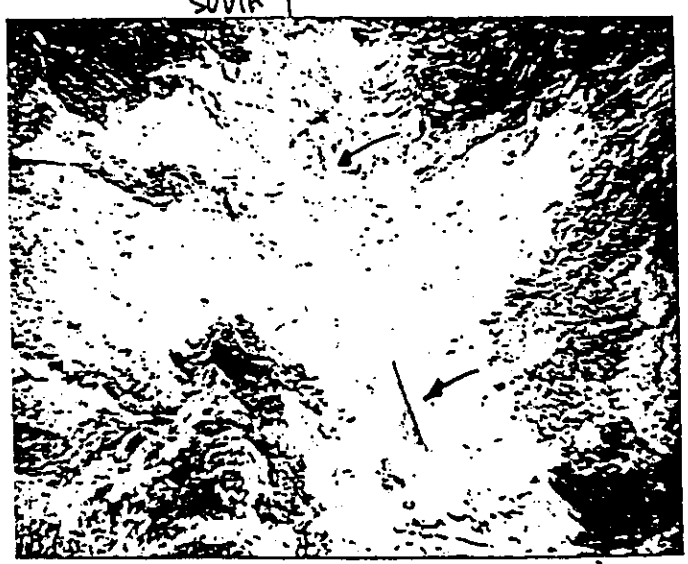
Read and Understood By

Signed Date Signed Date

C1 12/4/92
Pickling Acid Cribs

C2 Pickling Acid Cribs
12/4/92

C3 12/4/92
Pickling Acid Cribs

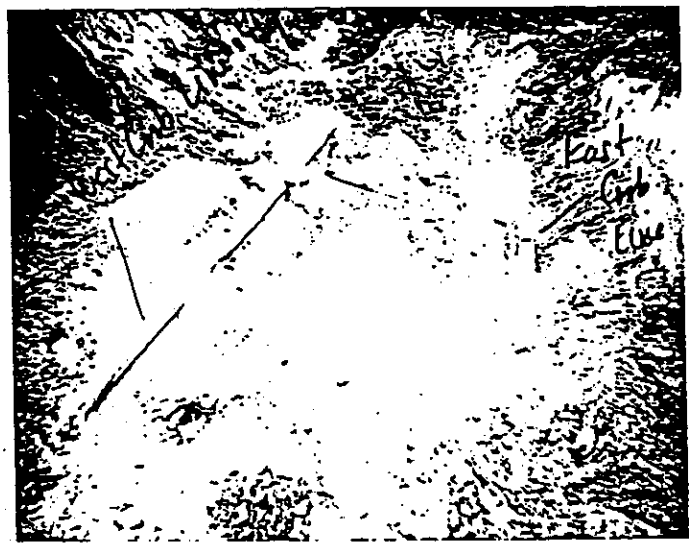


EAST CRIB PIPELINE
C2 Pickling Acid Cribs
12/4/92

Read and Understood By

Signed Date Signed Date

NORTH ↑



12/4/92
Pickling Acid Cribs

C 4

12/4/92
Pickly Acid Cribs

Continued on Page 20

Read and Understood By

Signed Date Date

December 7, 1992

Approximately 3 inches of snow had fallen the previous night and accounted for inclement road conditions and frozen soils. Work commenced at ~ 0840. The sample sites in the surface depression, Site D, and background samples will be collected today.

Weather conditions are follows —

Temp = 34°F

Wind = 0-2 MPH

Ground = 2-3 inches of snow fell previous evening, overcast.

The map included on page 22 indicates the approximate locations of the surface depression area sample within Site D and the background sample sites located upwind of the project site. Approximate distances for location of sample sites are also included.

Continued on Page 21

Read and Understood By

Signed Date Signed Date

SAMPLING SUMMARY IS AS FOLLOWS

SAMPLE SITE	~ DEPTH	HEIS #	TIME COLLECTED	SAMPLER	NOTES	pH
D1 (S)*	6-12 inches	B07Q10	0900	Steffler	surface soil	7.0
D2 (S)	"	B07Q11	0920		"	6.4
D3 (S)	"	B07Q12	1005		"	6.7
D3 (FS) >SPLIT	"	B07Q13	1005		SPLIT TO WESTON	6.7
BACKGROUND						
1 (S)	"	B07Q14	1120		Angensoil	7.5
2 (S)	"	B07Q15	1135		"	7.1
3 (S)	"	B07Q16	1145		"	7.6

*see note on Pg 14

12/7/92 Site D3
Pickling Acid Crabs Split collected here.

Continued on Page 22

Signed Date Signed Date

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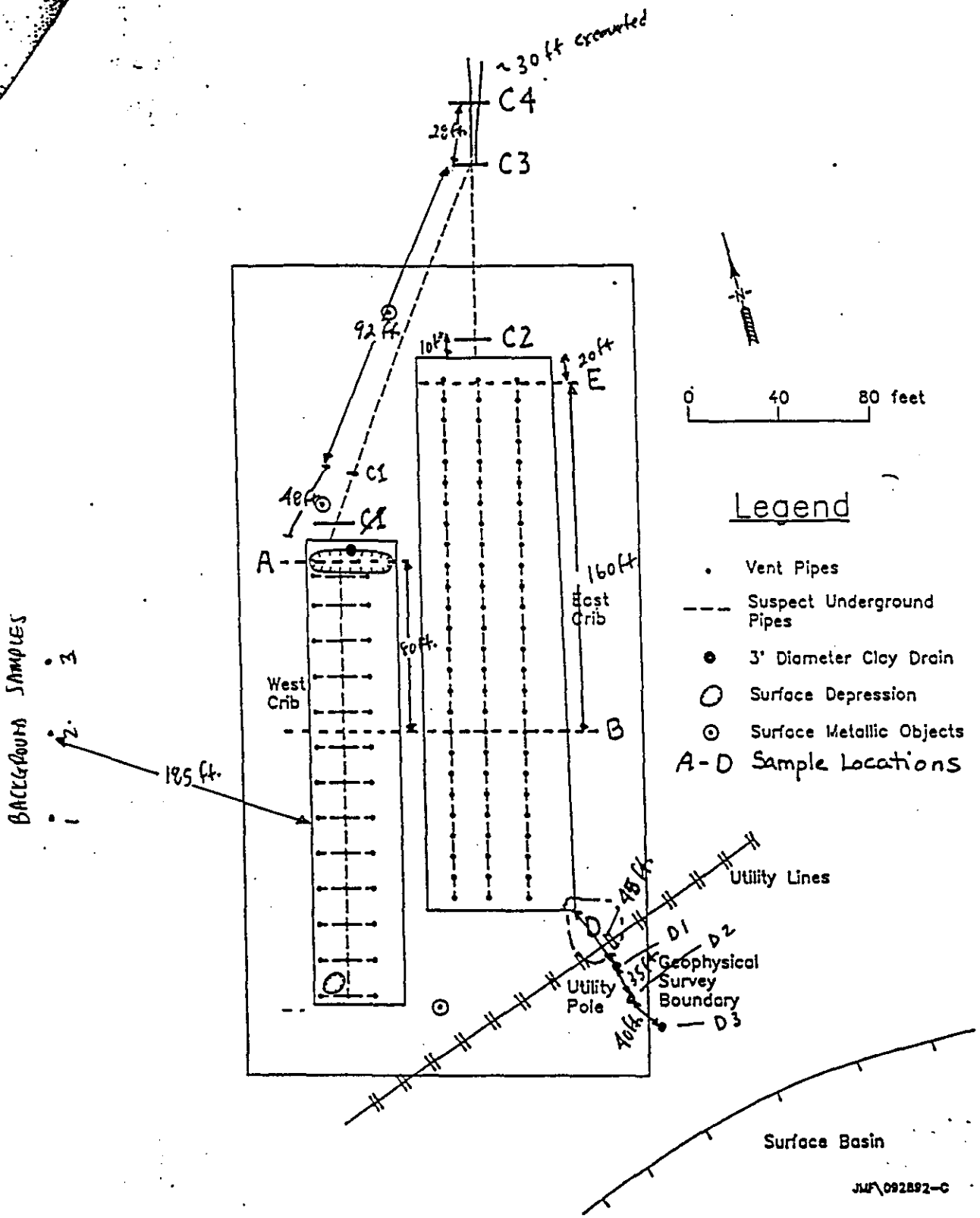

Read and Understood By

Signed | Date | Signed | Date

PROJECT PAC

Notebook No. 1

Continued From Page 22

The project was closed out following the completion of sampling at 1200. Future work at the site will be dependent of analysis results of soil samples

Continued on Page

Read and Understood By RM Mitchell

Signed | Date | Signed Rm Mitchell | Date 12/7/92

9 3 1 2 7 5 3 1 5 0 4

JECT PAC

12/9/92

Additional project note: Potentially contaminated "waste": gloves a sample residual, was packaged in an 8-gallon open head drum per guidance of the site waste control plan. An IC-Form was filled out + a copy sent to D.E. Koch, Waste Generator. Drum filled 12/7/92. Unique drum # EFSG-92-001165. Copy of IC Form is project file. (also w/ Generator)

JM FRAIN / JMF 12/9/92

Continued on Page

Read and Understood By JM FRAIN

Signed — Date — Signed — Date 12/6/92

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