

# START

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February 19, 1992

Meeting Minutes Transmittal/Approval  
200-BP-1 Operable Unit Managers Meeting  
450 Hills Street, Richland, WA  
December 17, 1991

From/ Appvl.: Alan Harris Date: 3-2-92  
Alan Harris, 200-BP-1 Unit Manager, DOE-RL (A5-19)

Appvl.: Doug Sherwood Date: 3/31/92  
Doug Sherwood, 200-BP-1 Unit Manager, EPA (B5-01)

Appvl.: Larry Goldstein Date: 2/26/92  
Larry Goldstein, 200-BP-1 Unit Manager, WA Department of Ecology

Meeting Minutes are attached. Minutes are comprised of the following:

- Attachment #1 - Meeting Summary/Summary of Commitments and Agreements
- Attachment #2 - Attendance List
- Attachment #3 - Agenda for the Meeting
- Attachment #4 - Status of Action Items
- Attachment #5 - Task 6, Groundwater Well Installation
- Attachment #6 - Column Leach/Sorption Testing
- Attachment #7 - 200-BP-1, Task 3, Pipeline Leach Detection
- Attachment #8 - Task 11, Hydraulic Pump Testing
- Attachment #9 - 200-BP-1 Well Remediation
- Attachment #10 - 200-BP-1 Groundwater Well Sampling
- Attachment #11 - Source and Vadose Sampling
- Attachment #12 - Task 2, Background Sampling
- Attachment #13 - 200-BP-1 Schedule
- ATTACHMENT #14 - DRAFT CONSTANT DISCHARGE TEST

Prepared by: W.E. McQuinn Date: 3/26/92  
SWEG Support Services

Concurrence by: W.H. [Signature] Date: 3/31/92  
WFC RI Coordinator

9 2 1 2 6 4 6 1 1 9 5



Attachment #1

Meeting Summary and Summary of Commitments and Agreements

200-BP-1 Unit Managers Meeting  
December 17, 1991

Action Item Update

1. There was *one* outstanding action item (see Attachment #4).

Introductions

2. Ken Hoffman (WHC) was introduced as the person who would be assuming much of the work now done by Steve Trent.

Remedial Investigation

3. Mark Buckmaster reported that there were no work plan changes this month.
4. Well remediation is going well with eleven 600 Area and three 200 Area wells complete. Mr. Buckmaster stated that further well remediation of the remaining 200 Area wells had been stopped and the activity had been shifted to the 300 Area due to a shortage of personnel.
5. There was a great deal of discussion concerning Phase I well drilling and the balance of Phase I and Phase II activities. There was a need to re-address these operations as it was felt more could be learned by doing an aquifer test.
6. Doug Sherwood (EPA) stated that it was advisable to do a review of older well data before drilling additional wells. A well on the north side of Gable Butt is needed and money is available.
7. Column leach testing will begin late in January. The trailer to do the testing is on site, and as soon as the equipment is decontaminated the work will begin. The ground water mixture *is being* prepared as required in the test plan.
8. Mark Buckmaster stated that a *new test plan for the sorption testing has been prepared*. At this time it is felt that it may not be necessary to carry out all phases of the project. This subject will need to be reviewed further and commented on. A literature search is currently being conducted to determine sorption coefficients for soils similar to those in the Hanford area. A draft plan (see Attachment #8) has been prepared for testing soils. 14 x
9. Pipeline leak detection work is *being prepared* and it includes pipelines shown in the attachments covering Task #3 (see Attachment #8)? Mr. Buckmaster suggested that several pipe lines be excavated and inspected for corrosion and leakage. This evaluation would provide an indication

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of how serious problems are, and would furnish a guide for leak testing of additional pipelines. An engineering study on pipeline leakage was completed about one year ago, and helium leak tests *will be* done on existing pipelines.

10. *Doug Sherwood stated that the area around the flush tank must be characterized as its status is unknown. Analyses of samples taken eight months ago have not been completed, and it is necessary to have all of the data before any of the activities concerning deeper sampling can be dropped.*

*Action Item #2BP1.50: Provide an update on characterization data for the area around the flush tank. Samples were taken about eight months ago.  
Action: Mark Buckmaster.*

11. Comments on the hydraulic pump test plan 53-55-c have been received and have been included in the test plan for Task #11, "Hydraulic Pump Testing." All vendor bids for pumps and distribution lines have been received and they are being reviewed.
12. Groundwater sampling for the fourth quarter has been completed and the next *semiannual* sampling event will begin in January 1992. There are seven wells *that were not sampled due to well remediation activities*. These wells are to be sampled by the end of December. Data packages for the 2nd and 3rd quarter are being compiled for shipment to Golden where they will be validated. The turnaround time will be one or two months. To date, no radiological data packages on ground water sampling *from the 2nd and 3rd quarters* have been received.

*Action Item #2BP1.51 Provide the status of the ground water sampling data package to Doug Sherwood. Action: Mark Buckmaster (12/17/91)*

13. Crib drilling has nearly reached the halfway point. The final deep hole being drilled is 43-A and it was down to 34 feet. Readings as high as 4,500 millirad per hour beta and 1,000 millirad per hour gamma have been observed. No distribution pipes have been disturbed so far.
14. Allan Harris (DOE) stated that RL is presently doing an audit covering the 200-BP-1 analytical data. He will be presenting monthly reports on 200-BP-1 activities.

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Attachment #2

Attendance  
 200-BP-1 Operable Unit Managers Meeting  
 December 17, 1991

<u>Name</u>	<u>Org.</u>	<u>O.U. Role</u>	<u>Phone</u>
	BCC	Ecology Support	503-244-7005
Chuck Cline	Ecology	Hydrogeology	206-438-7556
Steve Cross	Ecology	CERCLA	206-459-6615
Rich Hibbard	Ecology	Engineer	206-493-9367
Darci Teel	Ecology	CERCLA	509-545-2312
Doug Sherwood	EPA	Unit Manager	509-376-9529
Allan C. Harris	DOE	200-BP-1 Unit Manager	509-376-4339
Emmett Moore	PNL	EMSL	509-376-1089
Donna LaCombe	PRC	EPA Contractor	206-624-2692
Joe King	SWEC	GSSC, DOE-RL	509-376-4726
Diane Shigley	SWEC	GSSC, DOE-RL	509-376-9830
Bill McClung	SWEC	GSSC, DOE-RL	509-376-1853
Brian Drost	USGS	EPA Support	206-593-6510
Ward Staubitz	USGS	EPA Support	206-593-6510
Mark Buckmaster	WHC	RI Coordinator	509-376-1792
.A. Carlson	WHC	200/300 Env. Eng.	509-376-9027
H.D. Downey	WHC	ER-Program Office	509-376-5539
Ken Hoffman	WHC	WHC/Geosci.	509-376-3725
Anne Kaczor	WHC	WHC/Env. Eng.	509-376-6074
Jeff Lerch	WHC	OSM	509-373-3419
Steve Trent	WHC	Geosci	509-376-7226

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ATTACHMENT #3

200-BP-1 UNIT MANAGERS MEETING AGENDA  
DECEMBER 17, 1991  
8:00-9:00 PM  
450 HILLS ST., ROOM 47

Introduction:

Status:

Action Items:

Work Plan:

Remedial Investigation:

- o Task 6 Phase IB Wells
- o Column Leach/Sorption Testing
- o Task 3 Leak Detection
- o Task 11 Hydraulic Pump Testing
- o Well Remediation
- o Groundwater Sampling
- o Source and Vadose Sampling

Issues:

Other Topics:

- o Schedule

Agreements and Commitments:

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Attachment #4

ACTION ITEMS  
200-BP-1 Operable Unit Managers Meeting  
December 17, 1991

<u>Item Number</u>	<u>Action</u>	<u>Status</u>
2BP1.49	Written comments are to be submitted on the column leach test procedure satisfying the DQO's of the Work Plan. Action: Sherwood (9/18/91)	Open
2BP1.50	Provide an update on characterization data for the area around the flush tank. Samples were taken about eight months ago. Action: Mark Buckmaster. (12/17/91)	Open
2BP1.51	Provide the status of the ground water sampling data package to Doug Sherwood. Action: Mark Buckmaster (12/17/91)	Open

9 2 1 2 6 4 6 1 2 0 0

TASK 6 GROUNDWATER WELL INSTALLATION

1. Completion activities will be finished this week for well 699-55-55, 699-52-54, and 699-52-57.
2. Phase IB wells.

9 2 | 2 6 | 1 6 | 2 0 |

## COLUMN LEACH/SORPTION TESTING

### Column Leach Testing

- o Testing trailer has been set up on site.
- o Equipment is currently being decontaminated.
- o Groundwater mixture will be completed in January.

### Sorption Testing

- o Draft test plan
- o Literature search is currently being conducted to determine sorption coefficients for similar soils. Expected to be completed by the end of January.

9 2 1 2 6 1 6 1 2 0 2

# 200-BP-1, TASK 3, PIPELINE LEAK DETECTION

## ● 7 LINES TO BE TESTED

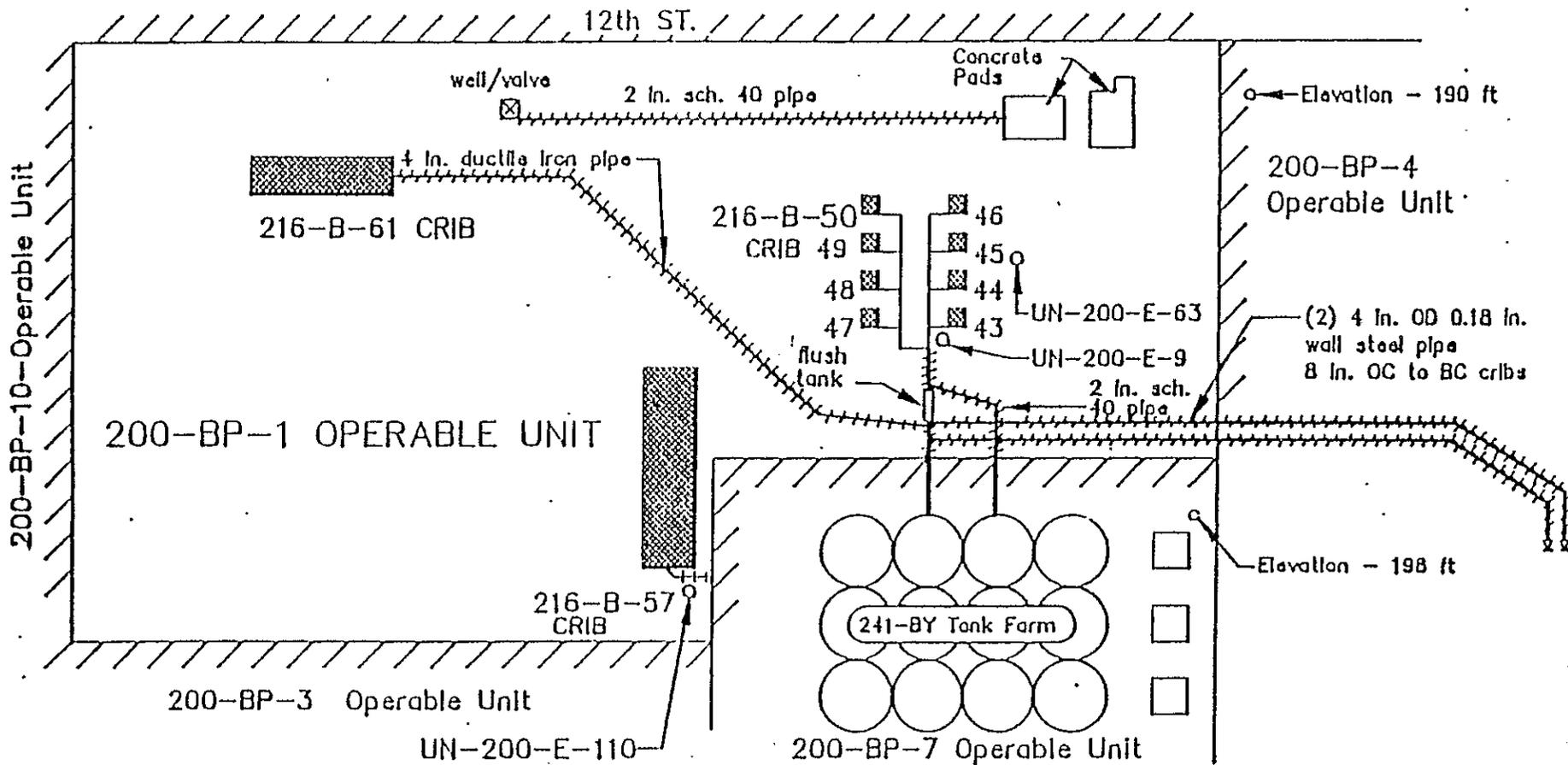
- 241-BY TANK FARM TO 216-B-57 CRIB
- 241-BY TANK FARM TO FLUSH TANK
- FLUSH TANK TO CRIB 216-B-43 THROUGH -50 DISTRIBUTION SYSTEM
- FLUSH TANK TO CRIB 216-B-61
- 2 PIPELINES RUNNING FROM 241-BY TANK FARM TO THE BC CRIBS
- PIPELINE RUNNING EAST-WEST FROM A VALVE TO A CONCRETE PAD IN THE NORTHERN PORTION OF 200-BP-1

## ● SUGGESTED STRATEGY

- EXCAVATE AN EXISTING 200-BP-1 UNDERGROUND PIPELINE AND VERIFY ITS INTEGRITY BEFORE PURSUING LEAK DETECTION.
- ELIMINATE TESTING THE PIPELINE RUNNING FROM THE FLUSH TANK TO CRIB 216-B-61 SINCE HISTORICAL RECORDS DOCUMENT THAT THE CRIB WAS NOT USED AND FIELD SAMPLING HAS CONFIRMED THIS.
- IDENTIFY THE USE OF PIPELINE RUNNING EAST-WEST FROM A VALVE TO A CONCRETE PAD IN THE NORTHERN PORTION OF 200-BP-1.
- PURSUE LEAK DETECTION ON THE OTHER 6 PIPELINES AFTER THE INTEGRITY HAS BEEN VERIFIED AND HISTORICAL RECORDS CONFIRM HAZARDOUS AND/OR RADIOACTIVE MATERIALS IN THE PIPELINES.

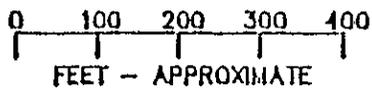
9 2 1 2 6 4 6 1 2 0 3

9 2 1 2 6 4 6 1 2 0 4



**KEY**

- = liquid waste site
- = 200-BP-1 OU boundary
- = single-shell tank
- ++++ = underground pipe lines



TASK 11 HYDRAULIC PUMP TESTING

1. Comments have been incorporated into the draft test plan.
2. Delays in procuring a vendor to provide pump and distribution lines.
3. Testing is scheduled to begin the end of January.

9 2 1 2 6 4 6 1 2 0 5

200-BP-1 WELL REMEDIATION

1. All eleven 600 Area and three 200 Area wells have been remediated. Sampling pumps should be installed by the end of the month.
2. 200 Area wells have been delayed due to a shortage of personnel. Remediation activities will be shifted to the 300 Area.

9 2 1 2 6 1 6 1 2 3 6

200-BP-1 GROUNDWATER WELL SAMPLING

1. The fourth quarter of groundwater sampling has been completed.
  - o 7 wells were not sampled due to well remediation and completion activities.

699-52-57	699-52-54
699-49-57A	699-53-55C
299-E33-01	299-E33-03
299-E33-07	

2. Analytical Data:
  - o OSM Status

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SOURCE AND VADOSE SAMPLING  
STATUS DECEMBER 16, 1991

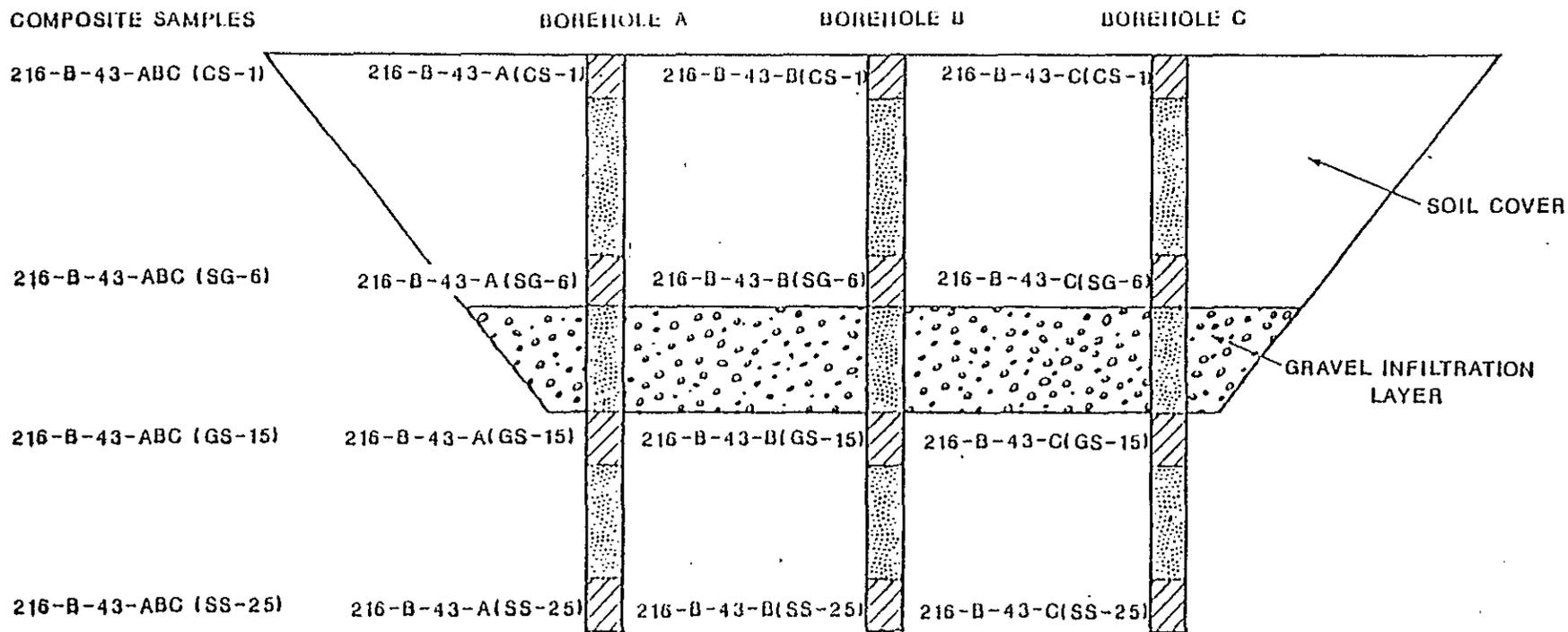
- 216-B-43A Total depth drilled to date is 34 ft. Currently down sizing casing. Contamination levels have dropped off to CPM. Highest level of contamination was 4500 mRad/hr beta and 1000 mRem/hr Gamma.
- 216-B-46A Drilling and abandonment has been completed. Contamination levels were between 15-200 mRad/hr.
- 216-B-46B Drilling should be completed this week. Contamination levels have been as high as 1000 mRad/hr.
- 216-B-49A Abandonment activities have begun. Temporarily leave 12 inch casing in the ground for subsequent logging.
- 216-B-498 Drilling and abandonment has been completed. Contamination levels were as high as 400 mRad/hr.

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### TASK 2 BACKGROUND SAMPLING

1. Background
2. Eliminate the 3 background boreholes
  - o Background samples collected during Task 6
    - 600 Area wells
    - 200 Area wells
  - o Near surface samples collected
  - o Work Plan indicates that "if soils from the 216-8-61 crib do not indicate the presence of contamination, the resulting analysis will be evaluated as possible background concentrations..."
  - o Background borehole data may not be representative to the fill material within the cribs.

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WP-137

DOE/RL 88-32  
REV 1

Notes:

- (CS-1) Cover Soil - 1 Foot Deep
- (SG-6) Soil-Gravel Interface - 6 Feet Deep
- (GS-15) Gravel-Soil Interface - 15 Feet Deep
- (SS-25) Subsurface Soil - 25 Feet Deep

-  Samples for Chemical Analysis
-  Samples for Archiving

Figure 30. Schematic Diagram for Task 2--Source Sampling and Analysis.

### 200-BP-1 OPERABLE UNIT

**PHASE 1 REMEDIAL INVESTIGATION**

TASK-1 MANAGEMENT & STATUS REPORTS

TASK-2 SOURCE SAMPLING AND ANALYSIS

TASK-2a PREPARATION

TASK-2b DRILLING AND SOIL SAMPLING

TASK-2c SAMPLE HANDLING AND TRANSFER

TASK-2d LABORATORY AVAIL. & CHEMICAL ANALYSIS

TASK-2e BOREHOLE GEOPHYSICS

TASK-2f GEODETIC SURVEY

TASK-2g BOREHOLE ABANDONMENT

TASK-3 SURFACE/NEAR SURFACE SOIL SAMPLE/ANALYSIS

TASK-3a PREPARATION

TASK-3b EVALUATE & TEST LEAK DETECTION TECHNIQUE

TASK-3c SCINTILLATION SURVEY OF LAND SURFACE

TASK-3d STAGE 1 SOIL PROBE SURVEY

TASK-3e STAGE 2 SOIL PROBE SURVEY

TASK-3f SOIL SAMPLING

TASK-3g GEODETIC CONTROL & SURVEY

TASK-3h LABORATORY AVAIL. & CHEMICAL ANALYSIS

TASK-4 VADOSE ZONE SOIL SAMPLING & ANALYSIS

TASK-4a REVIEW & PREPARATION

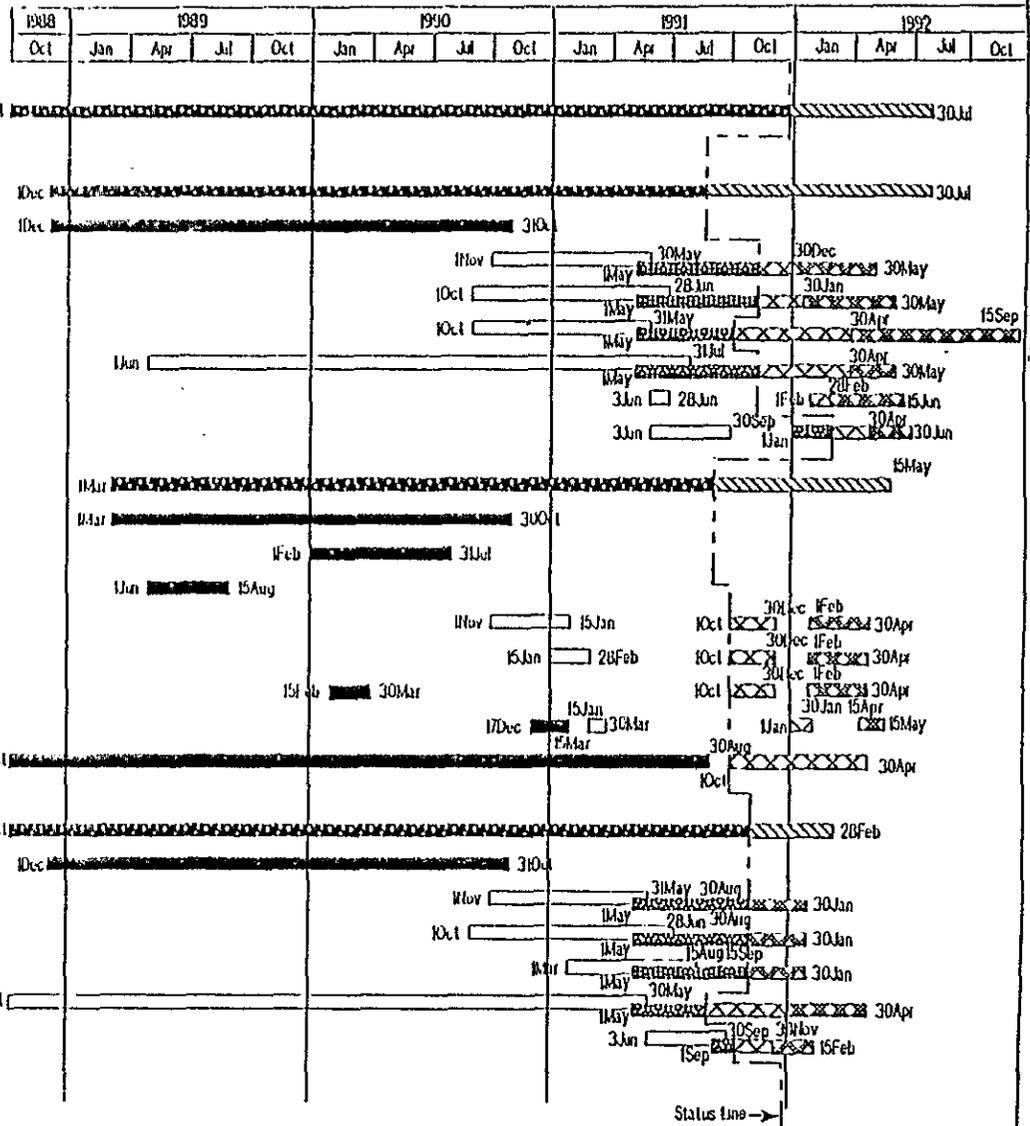
TASK-4b DRILLING & SAMPLING

TASK-4c SAMPLING, HANDLING & TRANSFER

TASK-4d BOREHOLE GEOPHYSICS

TASK-4e LABORATORY AVAIL. & CHEMICAL ANALYSIS

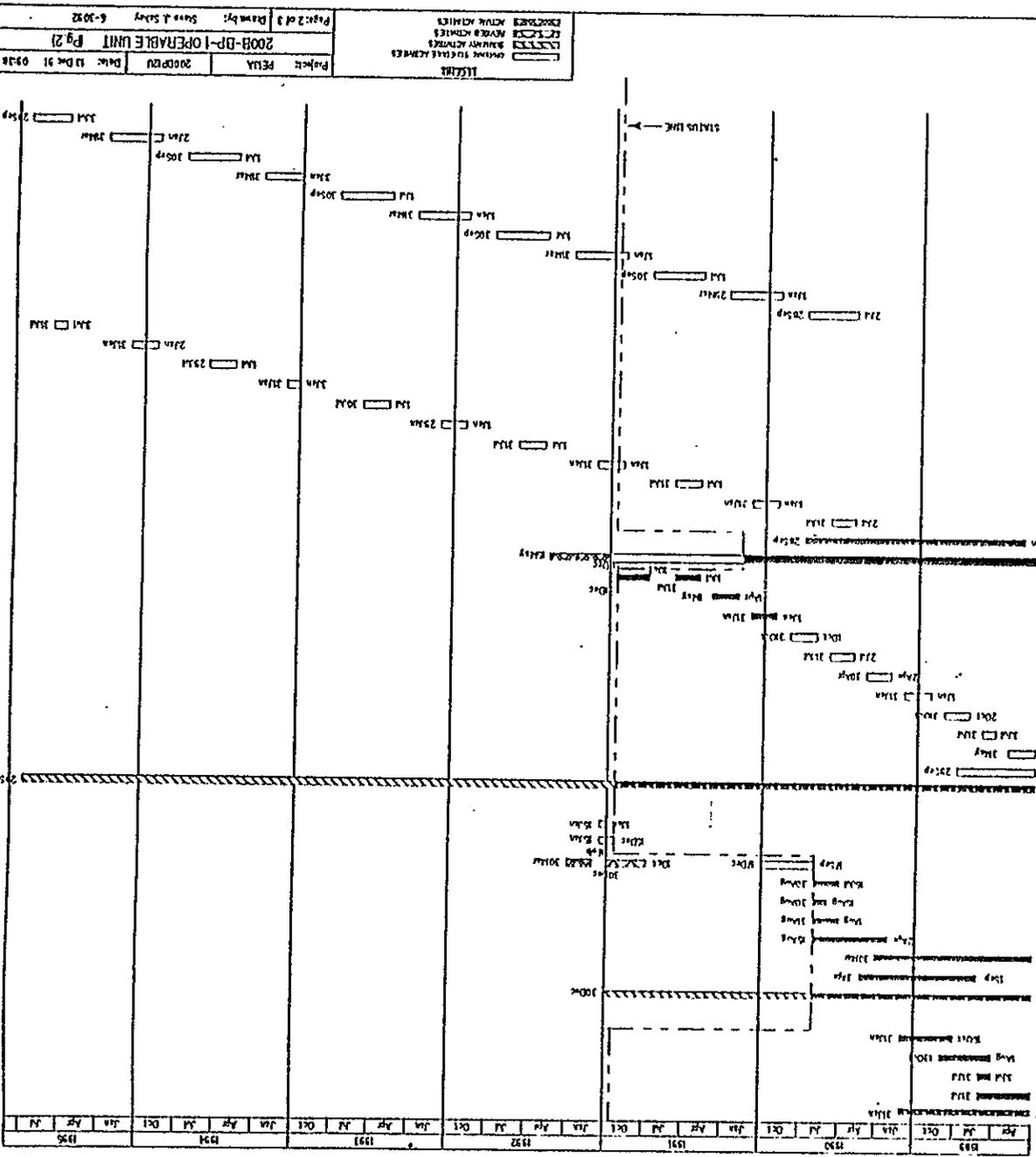
TASK-4f BOREHOLE ABANDONMENT



<b>LEGEND:</b> ORIGINAL SCHEDULE ACTIVITIES SUMMARY ACTIVITIES REVISED ACTIVITIES ACTUAL ACTIVITIES		Project: PL13A	200BP1U	Date: 13 Dec 91 09:23
200-BP-1 REMEDIAL INVESTIGATION (Pg. 1)				
Page: 1 of 3	Drawn by: Steve J. Sakey	6-3092		

9 2 1 2 6 4 6 1 2 1 2

200-DP-1 OPERABLE UNIT



- TASK-01 BASIC REVISION SURVEY
- TASK-02 REVIEW, TESTING & REPAIR
- TASK-03 GEOMETRIC CONTROL
- TASK-04 FIELD RECORDS
- TASK-05 DATA REDUCTION & INTERPRETATION
- TASK-06 INSTALLATION OF MONITORING WELLS
- TASK-07 REVIEW & EVALUATE FROM TASK 5 & 7
- TASK-08 REPAIR
- TASK-09 STAGE 1 DRILL, SWAB & WELL INSTALLATION
- TASK-10 GEOMETRIC CONTROL
- TASK-11 GEOMETRIC SURVEY
- TASK-12 RELIABILITY EVALUATION OF DATA
- TASK-13 STAGE 2 DRILL, SWAB & WELL INSTALLATION
- TASK-14 GEOMETRIC CONTROL
- TASK-15 GEOMETRIC SURVEY
- TASK-16 QUALIFIER SAMPLED & ANALYSIS
- TASK-17 LEVEL & SAS ANALYSIS METHODS
- TASK-18 QUALIFIER SAMPLED ANALYSIS METHODS
- TASK-19 QUANTITY ANALYSIS
- TASK-20 REVIEW OF EXISTING WELLS
- TASK-21 QUALITY CONTROL
- TASK-22 QUALITY ANALYSIS

### 200-BP-1 OPERABLE UNIT

TASK-8 SITE TOPOGRAPHIC MAP  
 TASK-8a PREPARATION  
 TASK-8b FIELD SURVEY  
 TASK-8c DATA REDUCTION ON CAD

TASK-9 BIOTA SURVEY  
 TASK-9a SITE RECONNAISSANCE  
 TASK-9b BIOTA SAMPLING  
 TASK-9c LABORATORY AVAIL. & CHEMICAL ANALYSIS

TASK-10 COLUMN LEACH TEST  
 TASK-10a PREPARATION  
 TASK-10b TESTING PERIOD  
 TASK-10c LABORATORY AVAIL. & CHEMICAL ANALYSIS

TASK-11 HYDRAULIC PUMP TESTS  
 TASK-11a PREPARATION  
 TASK-11b CONDUCT SLUG TEST  
 TASK-11c CONDUCT DRAINOFF/RECOVERY TESTS

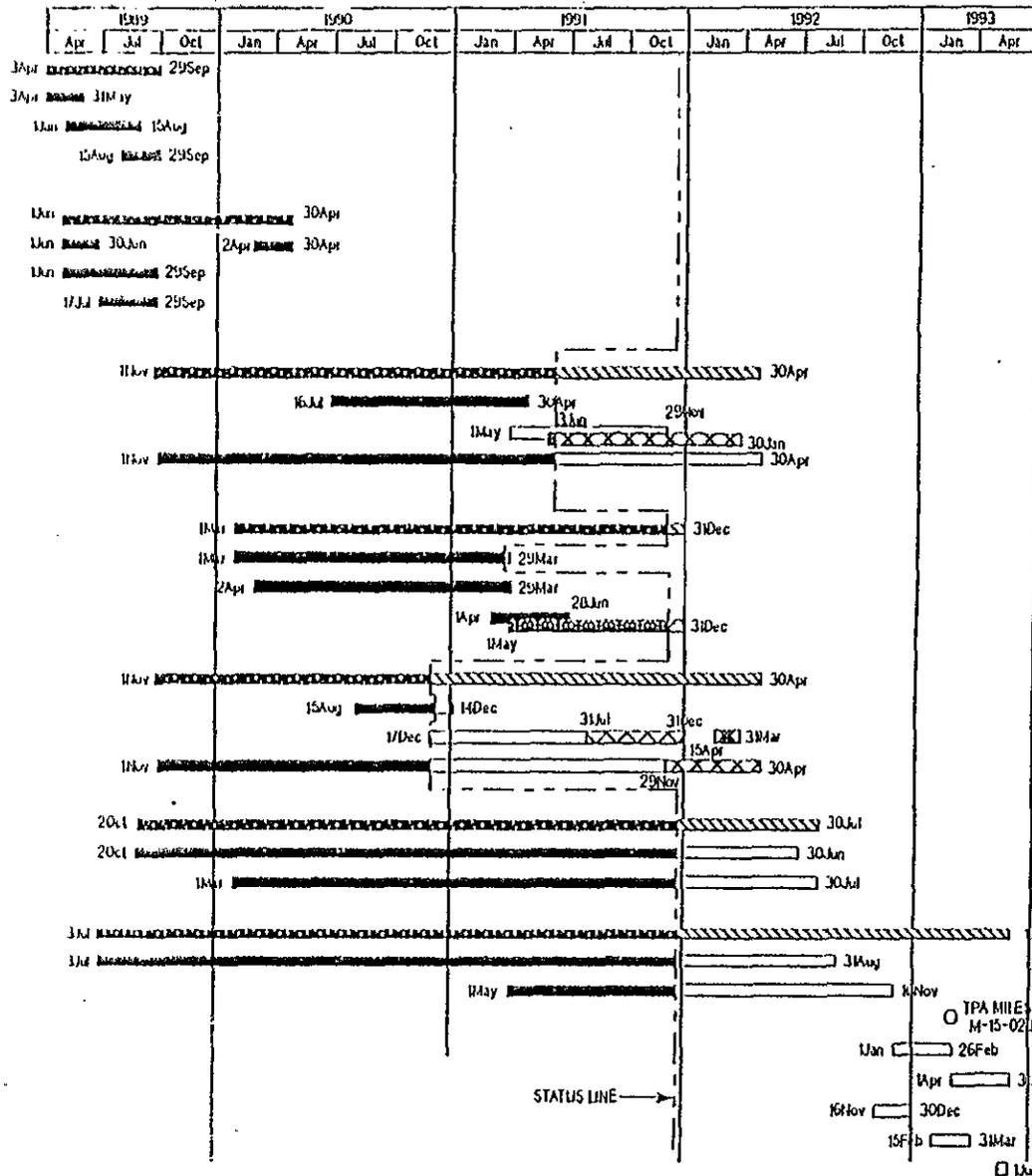
TASK-12 SORPTION TEST  
 TASK-12a PREPARATION  
 TASK-12b TEST PERIOD  
 TASK-12c LABORATORY AVAIL. & CHEMICAL ANALYSIS

TASK-13 BASELINE RISK ASSESSMENT  
 TASK-13a DATA COMPILATION  
 TASK-13b DATA ANALYSIS

TASK-14 EVALUATION AND REPORT  
 TASK-14a EVALUATION AND REPORT  
 TASK-14b DRAFT REPORTS

TASK-14c FINAL REPORT & REVIEW

FINAL SECONDARY REPORT



LEGEND:	
	ORIGINAL SCHEDULE ACTIVITIES
	SUMMARY ACTIVITIES
	REVISED ACTIVITIES
	ACTUAL ACTIVITIES

Project: PE13A	200BP13U	Date: 13 Dec 91 09:45
200-BP-1 REMEDIAL INVESTIGATION (Pg.3)		
Page: 3 of 3	Drawn by: Steve J. Sakey	6-3092

CONSTANT DISCHARGE TEST  
PUMPING WELL 53-55C, 200-BP-1

**DRAFT**

- o DESCRIPTION OF AQUIFER TEST
- o WELL CONFIGURATION
- o PRELIMINARY TEST RESULTS

92126461214

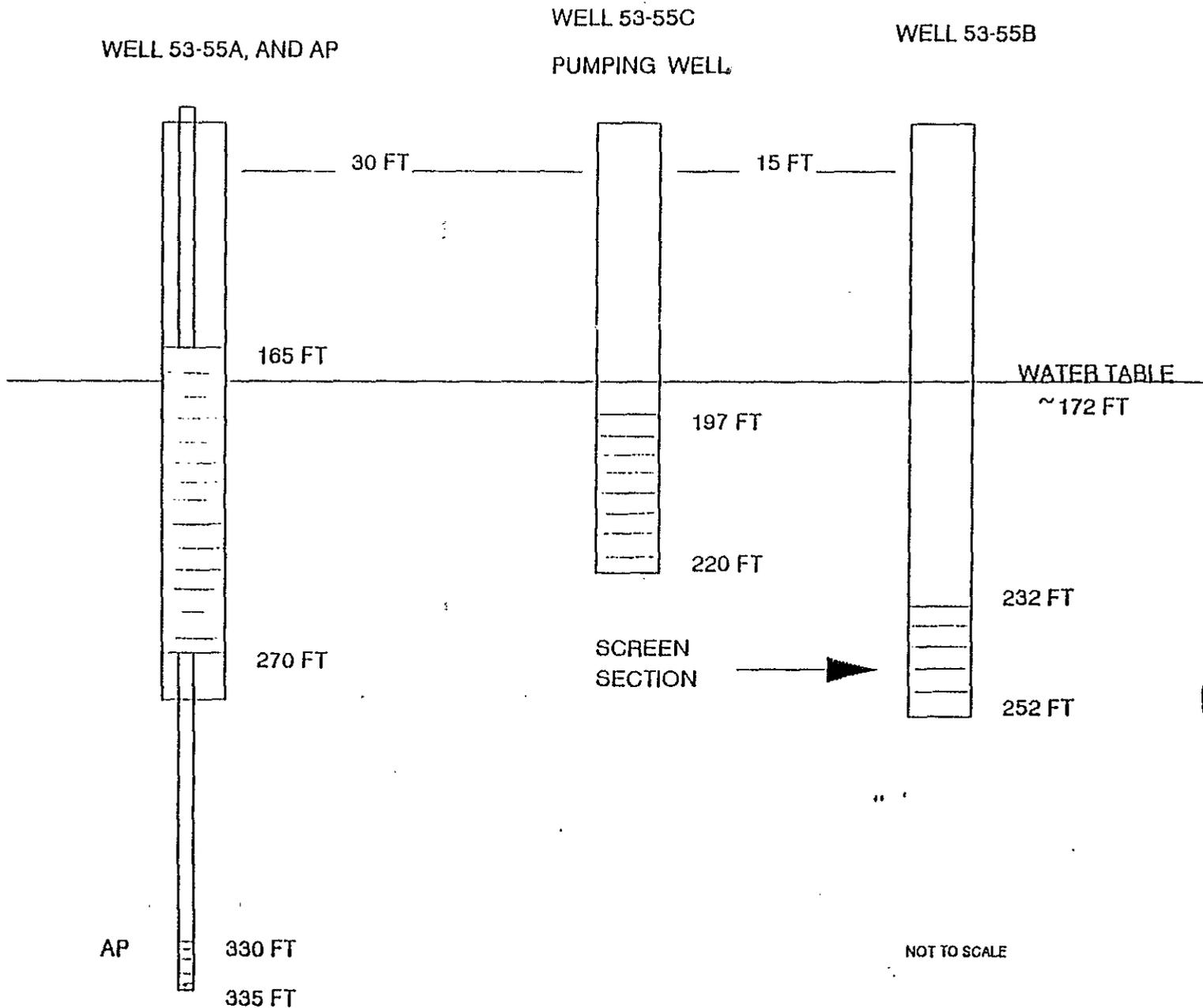
## DESCRIPTION OF TEST ACTIVITIES

**DRAFT**

- o AQUIFER TESTING THE THIRD WEEK OF JANUARY
- o COLLECT PRE-TEST DATA (6 DAYS)
- o STEP-DRAWDOWN TESTING (1/2 DAY)  
-RATES OF 600, 1200, 1800, AND 2400 GPM
- o RECOVERY PERIOD
- o ABORT LONG-TERM TEST (3 HOURS)
- o RECOVERY PERIOD
- o PERFORM LONG-TERM TEST (24 HOURS)
- o RECOVERY PERIOD

9 2 1 2 6 1 6 1 2 1 5

9 2 1 2 6 1 6 1 2 1 6  
WELL CONFIGURATION AT 53-55C SITE



**DRAFT**

PRELIMINARY TEST RESULTS

**DRAFT**

o ANALYSIS FACTORS AND CONSTRAINTS

-PARTIALLY PENETRATING WELLS

-NO FOOT VALVE ON PUMP DISCHARGE  
COLUMN

-PROBABLE BOUNDARY AFTER ABOUT 150  
MINUTES

-LONG-TERM RECOVERY DATA NOT AVAILABLE  
DUE TO DATA LOGGER PROBLEM

o TEST RESULTS

-BOTH OBSERVATION WELLS EXHIBITED SIMILAR  
RESPONSE,  
EVEN THOUGH DIFFERENT DISTANCES, AND  
SCREEN LOCATIONS

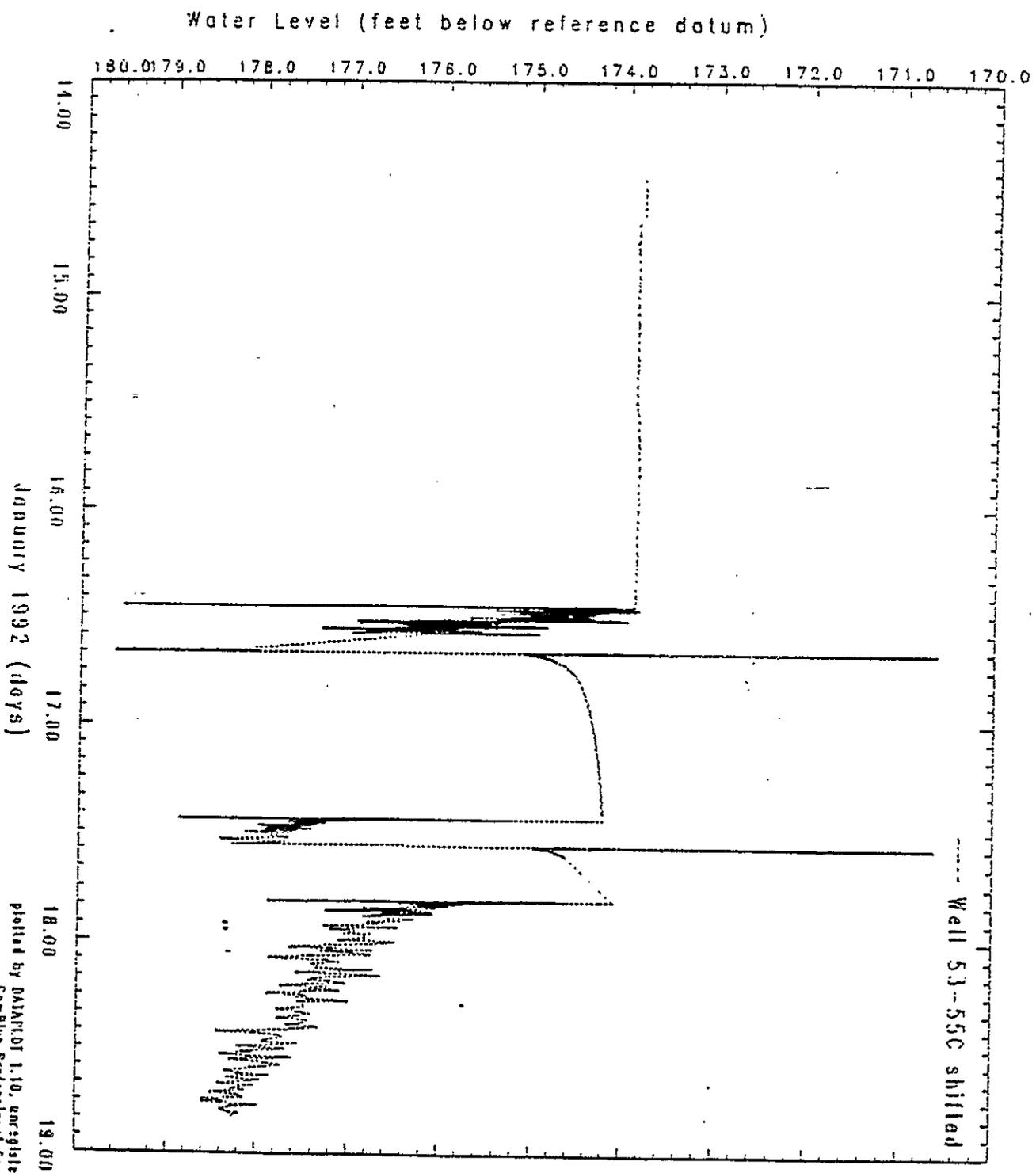
-INITIAL TRANSMISSIVITIES ESTIMATED AT  
60,000 TO 70,000 FT<sup>2</sup>/D

-ANALYSIS STILL IN PROGRESS, USING INVERSE  
PROBLEM APPROACH

9 2 1 2 6 4 6 1 2 1 7

9 2 1 2 6 1 6 1 2 1 3

# Well Hydrograph Response

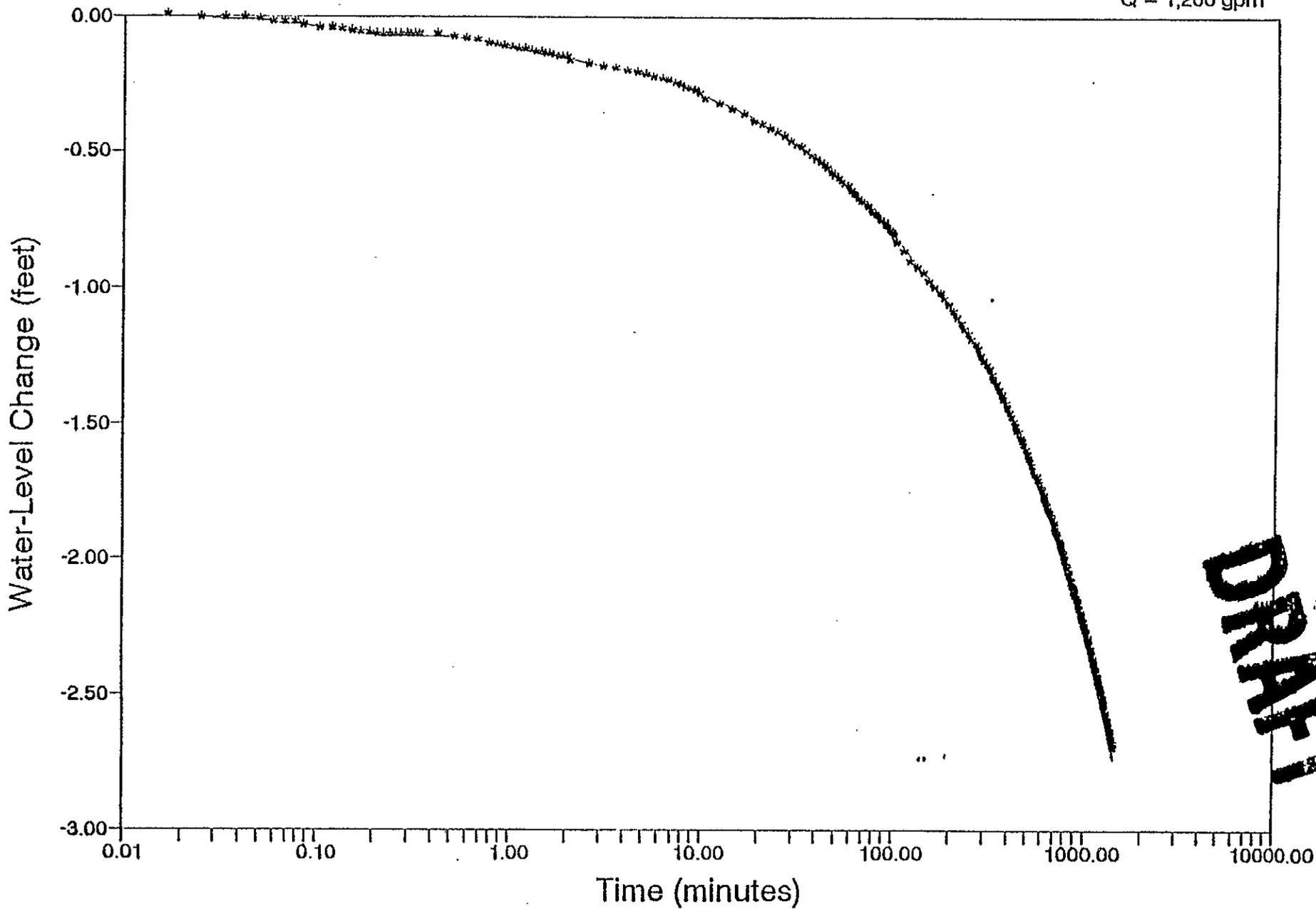


plotted by DATACOT 1.10, unregistered version  
Campus Professional Services

1992

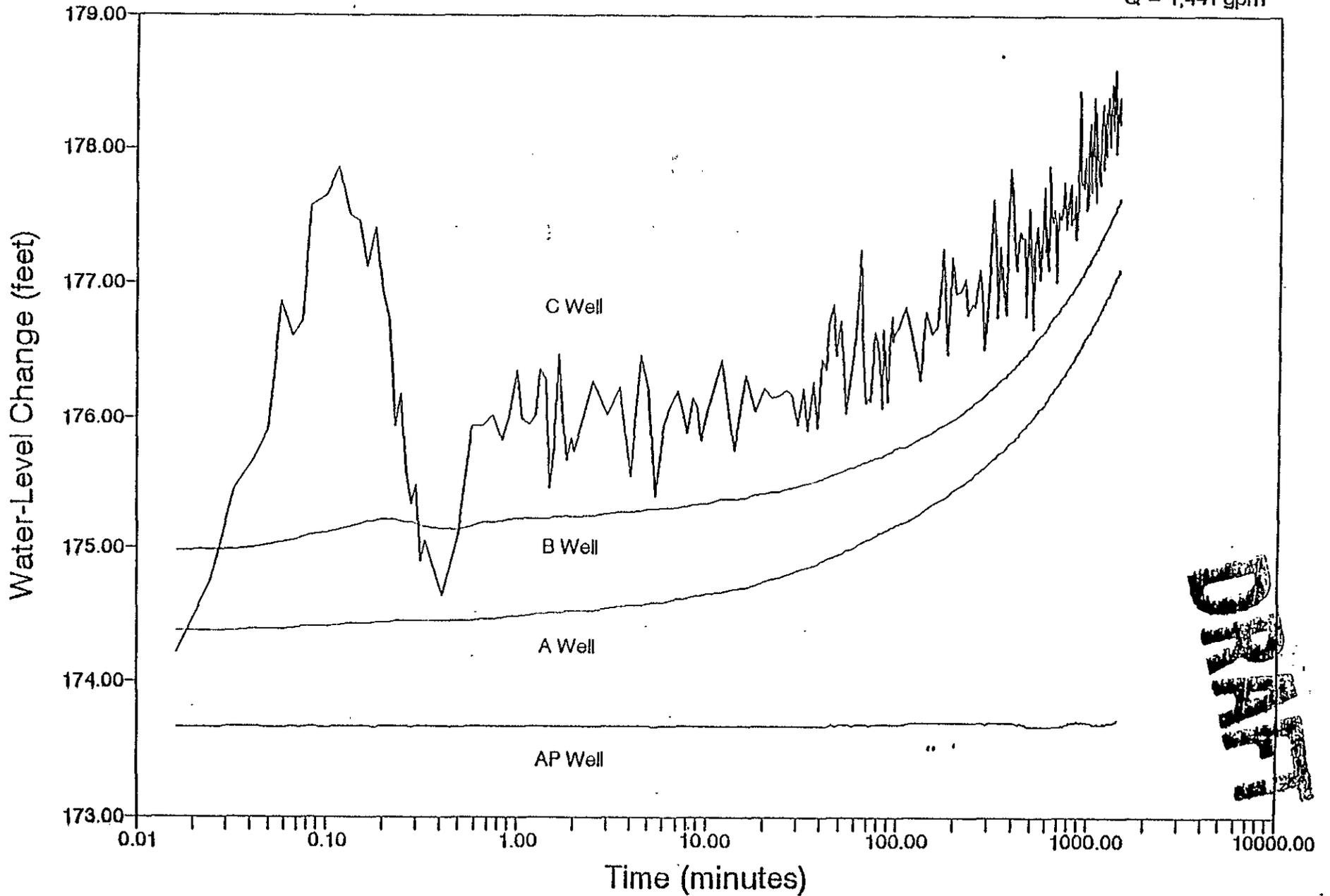
9 2 | 2 6 | 6 | 2 | 9  
Observation Well 53-55A  
Constant Discharge at Well 53-55C

Q = 1,200 gpm



9 2 1 2 6 1 6 1 2 2 0  
Water-Level Change vs Time  
Constant Discharge at Well 53-55C

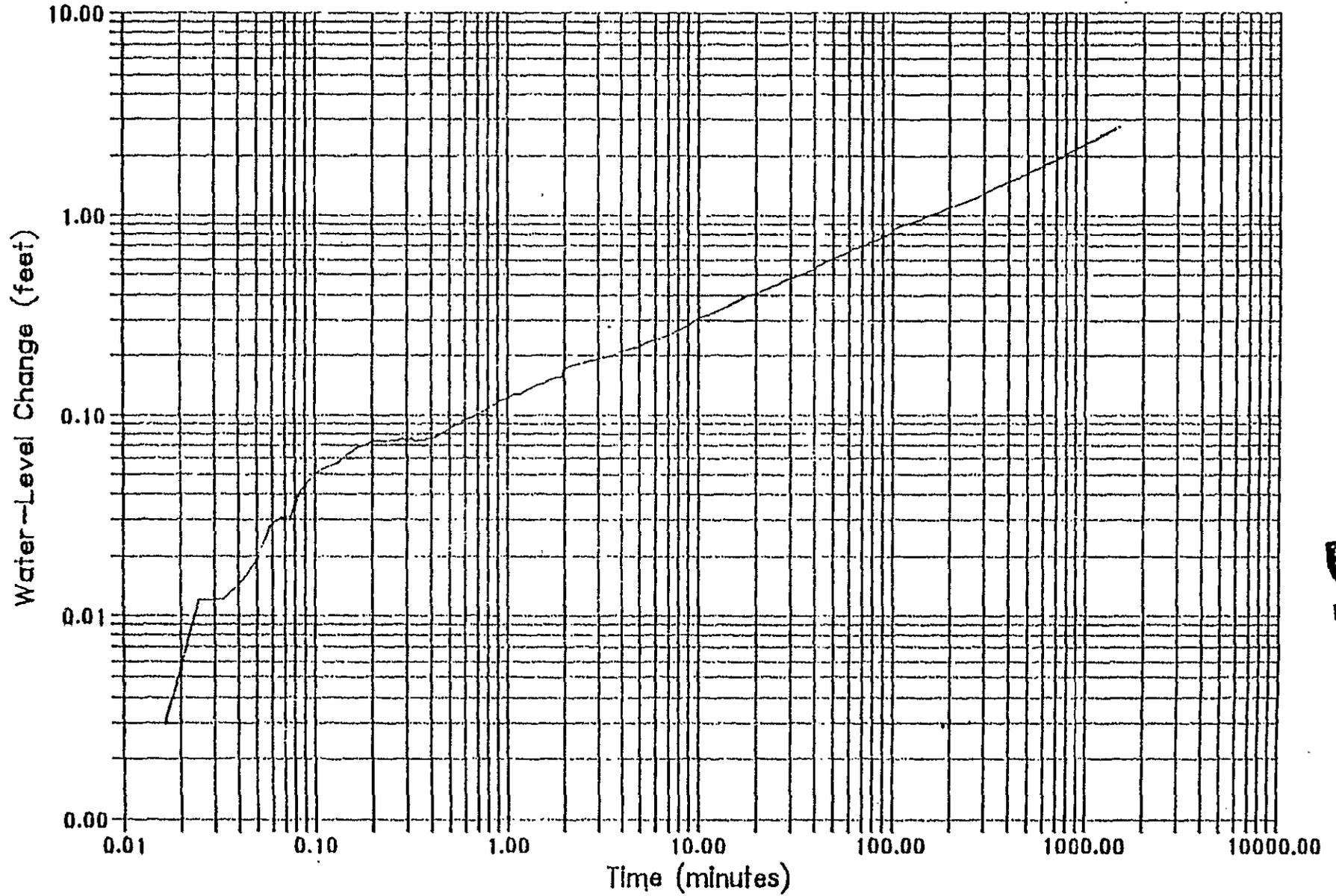
Q = 1,441 gpm



DRAFT

9 2 1 2 5 4 6 1 2 2 1

Observation Well 53-55A  
Constant Discharge at Well 53-55C



DRAFT

200-BP-1 Operable Unit Managers Meeting  
December 17, 1991

## Distribution

Donna Lacombe, PRC	<del>Ronald D. Izatt (A6-95)</del>
Ward Staubitz, USGS	<del>Director, DOE-RL, ERD</del>
Doug Fassett, SWEC (A4-35)	Donald E. Gerton (A6-80)
Linda Powers, WHC (B2-35)	Director, DOE-RL, WMD
Tom Wintczak, WHC (B2-15)	Roger D. Freeberg (A6-95)
Me1 Adams, WHC (H4-55)	Chief, Rstr. Br., DOE-RL/ERD
Wayne Johnson, WHC (H4-55)	<del>Steven H. Wisness (A6-95)</del>
Rich Carlson, WHC (H4-55)	<del>Tri-Party Agreement Proj. Mgr</del>
Brian Sprouse, WHC (H4-22)	Richard D. Wojtasek (B2-15)
Bill Price, WHC (S0-03)	Prgm. Mgr. WHC
Ralph O. Patt,	Mary Harmon, DOE-HQ (EM-442)
OR Water Resources Dept.	
Doug Dunster, Golder Assoc.	
Mike Thompson, DOE (A6-95)	
Djane Clark, DOE (A5-55)	
Mark Buckmaster, WHC (H4-55)	
Don Praast, GAO (A1-80)	
L.D. Arnold, WHC (B2-35)	

ADMINISTRATIVE RECORD: 200-BP-1; Care of Susan Wray, WHC (H4-51C)

Please inform Doug Fassett (SWEC) of deletions or additions to the distribution list.

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