077995

Meeting Minutes Transmittal/Approval
Unit Managers' Meeting
Remedial Action and Waste Disposal Unit/Source Operable Unit
3350 George Washington Way, Richland, Washington
June 1999

0052962

APPROVAL: _____ Date 1/19/00
Glenn Goldberg/Chris Smith, 100 Area Unit Managers, RL (H0-12)

APPROVAL: _____ Date 1-27-00
Wayne Soper, 100 Aggregated Area Unit Manager, Ecology (B5-18)

APPROVAL: _____ Date 3-28-00
Dennis Faulk, 100 Aggregate Area Unit Manager, EPA (B5-01)

APPROVAL: N/A Date _____
Rick Bond, 100-N Area Unit Manager, Ecology (H0-18)

RECEIVED
APR 21 2000
EDMC

077905

Distribution
Unit Mangers' Meeting: Remedial Action Unit/Source Operable Units
100 Areas

Glenn Goldberg ..... DOE-RL, RP (H0-12)
Owen Robertson ..... DOE-RL, RP (H0-12)
Chris Smith ..... DOE-RL, RP (H0-12)

Lisa Treichel ..... DOE-HQ (EM-442)

Wayne Soper ..... WDOE (Kennewick) (B5-18)
Rick Bond ..... WDOE (Kennewick) (B5-18)

Lynn Albin ..... Washington Dept. of Health
Richard Jauish ..... Washington Dept. of Health

John April ..... BHI (H0-17)
Dave Blumenkranz ..... CHI (H9-02)
Ella Coenenburg ..... BHI (H9-03)
Frank Corpuz ..... BHI (X9-06)
Rick Donahoe ..... BHI (H0-17)
Jon Fancher ..... CHI (H9-02)
Dennis Falk ..... (B5-01)
Alvina Goforth ..... BHI (H0-09)
Chris Kemp ..... BHI (S3-20)
Tom Kisenwether ..... BHI (X9-10)
Alvin Langstaff ..... BHI (X3-40)
Tamen Rodriguez ..... BHI (H0-17)
Fred Roeck ..... BHI (H0-17)
Mark Sturges ..... CHI (X3-40)
Joan Woolard ..... BHI (H0-02)

Amy Jones ..... (H0-10)

Please inform Tamen Rodriguez (372-9562) – BHI
Of deletions or additions to the distribution list.

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

Attachment 1	–	Agenda
Attachment 2	–	Attendance Record
Attachment 3	–	100 Area UMM Minutes - June 1999
Attachment 4	–	Status and Preliminary Results Summary of Cr6+ Kd/Leachability Testing
Attachment 5	–	100 Area River Effluent Pipelines Expedited Response Action Proposal
Attachment 6	–	Schedule of CVP Document Reviews
Attachment 7	–	SAP and RDR/RAWP Revisions
Attachment 8	–	116-H-4 Pluto Crib Site Maps
Attachment 9	–	126-F-1 Ash Pit Site Maps
Attachment 10	–	108-F Biological Lab D&D and RA Interface
Attachment 11	–	108-F Wall Release Survey Data Interpretation Subject Meeting Minutes
Attachment 12	–	Review Process Chart

Prepared by: Tamen Rodriguez Date 3/28/00
Amy J. Jones (H0-10)/Tamen Rodriguez

Concurrence by: Michael Hall Date 3/28/00
Vern Dronen, BHI Remedial Action and Waste Disposal Project Manager (H0-17)

UNIT MANAGERS' MEETING AGENDA

3350 George Washington Way, Room 2A01
June 16, 1999

1:00 – 3:00 p.m. 100 Area 2A01

100 Area Remedial Action

- Cr6+ Kd/Leachability Testing, Status and Preliminary Results (116-D7 Waste Site Soils)
- Outfall Remediation
- Site Closeouts Current and Balance of FY99 Schedule for EPA/Ecology Review
- RDR/RAWP & SAP Upcoming Revision
- 116H4 Waste Site, Preliminary Data from 116-B3 Analagous Site
- 126-F1 Ash Pit Site
- 108 F Building - Masonry Block Rubble as Remedial Action Fill and Post D&D Remaining Work

100 Area Assessment

- Remaining Sites ROD Status
- 100-N RODs Status
- Burial Ground FFS Status
- Update to Remedial Action Regulator Review Schedule

Attachment 2

Remedial Action and Waste Disposal Unit Manager's Meeting
Official Attendance Record
June 16, 1999

Please print clearly and use black ink

PRINTED NAME	ORGANIZATION	O.U. ROLE	TELEPHONE
F. Roeck	BHI	Environ Lead	372-9086
A.L. Langstaff	BHI	100 BC & D Task Lead	373-5876
Glenn Goldberg	DOE	Proj. Manager	376-9552
Jack Donnelly	Ecology	Cleanup Proj. mngr	509-736-3013
Chris Smith	DOE	Project manager 100 Area D&D	372-1544
Jon Fomhar	ERC	Closeouts	372-9610
Pamela Innis	EPA	Support	376-4919
Craig Cameron	EPA	Support	376-8665
[illegible]	Ecology	D Area	736-3049
D. Blumenkranz	CHI	Rem. Sites	372-9658
Rick Donahue	BHI	Task Lead	2-9565
John April	"	"	2-9632
Richard Jaquish	WDOH	Support WDOE	628-2804
Dennis Faulk	EPA	RPM	376-8631

Attachment 2

Remedial Action and Waste Disposal Unit Manager's Meeting
Official Attendance Record
June 16, 1999

Please print clearly and use black ink

PRINTED NAME	ORGANIZATION	O.U. ROLE	TELEPHONE
Frank Corpuz	BHI	Proj Engr	373-1661
Grant Ceffalo	BHI	Rad Release (Rad Cov)	373-6238
Dick Day	BHI	D&D Proj. Engr	373-7564
Joseph Zoric	BHI	D&D PEL	373-4315
Mike Mihalic	BHI	D&D	373 1382
Jeff Armatrout	BHI	RA 100H	531 0676
Mark Buckmaster	BHI	RA 100H	521-2089
Ella Coenenberg	CNI	100 Area Assoc	372-9303

MEETING MINUTES
REMEDIAL ACTION AND WASTE DISPOSAL
UNIT MANAGERS' MEETING -- 100 AREA
June 16, 1999

Attendees: See Attachment #2

Agenda: See Attachment #1

Topics of Discussion:

100 Area Remedial Action

1. Cr6+ Kd/Leachability Testing, Status and Preliminary Results (116-D-7 Waste Site Soils) –ERC provided a handout that outlined the status of the testing (Attachment 4). The preliminary test results from lower protocol Kd testing indicate that the Cr(VI) Kd for Hanford sediments is under the value required to continue more formal batch absorption (Kd) testing. More accurate test results are expected shortly, but ERC does not anticipate significant differences from the preliminary information. Leachability testing is in progress and a status briefing will provided at the July 1999 UMM. ERC technical staff is ready to perform RESRAD analyses with the leachability test result data. *(internal note: recommend not to include this side note inquiry in the minutes)*

2. Outfalls Remediation– ERC responded to EPA's previous request to find and present a previous DOE study regarding outfalls in the 100 Area. ERC presented a copy of key excerpts from the document, *100 Area River Effluent Pipelines Expedited Response Action Proposal* (DOE/RL-94-79, Draft A) to EPA and also provided a document summary handout (Attachment 5). ERC also discussed how the 100 Area outfall structures are currently listed among the remaining waste sites, and will be addressed in future work planning. The disposition of outfall pipes associated with the outfall structures will also be addressed in the future planning of work. Ecology requested that current and future plans for the outfall structures and pipelines going into the Columbia River to be more clearly outlined in the applicable Record of Decision (ROD). ERC stated that this specific information would be provided as appropriate in both the ROD and the Remedial Design Report/Remedial Action Work Plan (RDW/RWP) documents. EPA and Ecology will discuss this issue further; EPA wishes to address the disposition of outfall structures and associated pipelines prior to completing remediation of the River sites. All attendees agreed that the ROD should specify the outfall and associated pipe remediation plans, and that design work should seek the most effective remediation alternative for these structures. ERC noted that several closeout parameters and requirements would need to be evaluated for these structures at the river interface, including: applicability of current Dillution Attenuation Factor used for 100 Area Remedial Action; applicability and requirement for the 30" per year irrigation scenario, etc.

3. Site Closeouts Current and Balance of FY99 Schedule for EPA/Ecology Review – ERC provided Ecology with informal copies of the soon-to-be-issued Cleanup Verification Package (CVP) documents for the 116-B-13 and 116-B-14 sites. ERC also provided a schedule (Attachment 6) of CVP document reviews to be conducted for the balance of FY99 (and immediately beyond). ERC stated that with both the CVP reviews, and upcoming RDR/RAWP and Sampling Analysis Plan document revisions, all review parties need to make the commitment to meet the rigorous review schedules. ERC

asked EPA if they could meet the current commitment to review the RDR/RAWP, confirmatory site SAP, and Data Quality Objectives documents as now scheduled. EPA, Ecology and ERC representatives decided to meet on the morning of 7/14/99, prior to an afternoon meeting addressing the global issues associated with the waste sites. Rick Donahoe, ERC, took the action to schedule this morning meeting.

4. RDR/RAWP & SAP Upcoming Revision – ERC distributed a handout (Attachment 7) that summarized the main revisions to the two documents. ERC emphasized that these revisions will support the need for a strategy on how to remediate waste sites that are not radioactively contaminated. The revisions will also include the adoption of the new PCB cleanup level. EPA stated that they would provide input on some of the revisions, such as the definition wording for Remedial Action Objectives and Remedial Action Goals.

5. 116-H-4 Waste Site, Preliminary Data from 116-B-3 Analogous Site – ERC passed out a map of the site (Attachment 8) and discussed the proposed activity to closeout the waste site. The finalized 116-B-3 data was not available at the time of the UMM. Ecology inquired as to why this site couldn't be closed concurrent with the 117H Filter Building site. Ecology requested that ERC provide a description of both the 116-B-3 and 116-H-4 sites and of the analogous situation. ERC agreed to provide the requested information. ERC will look into these issues a little further, and respond at the next (7/99 UMM). Attendee consensus was, wherever practicable, such overlapping waste sites ought to be combined in to one remediation activity and one CVP package.

6. 126-F-1 Ash Pit Site – ERC provided a site map (Attachment 9) and briefly discussed the location of contamination at the site. ERC described how some of the ash in the waste site, was contaminated by reactor cooling water overflow. However, some of the ash could be left in the waste sites if analytical data indicates that the ash material meets cleanup standards. EPA (as lead regulatory agency) took no exception, with an open item being concurrence on the Contaminants of Concern listing, with respect to leaving the ash in place.

7. 108-F Building - Masonry Block Rubble as Remedial Action Fill and Post D&D Remaining Work – the ERC Decontamination and Decommissioning (D&D) group presented information (Attachment 10) regarding remediation of the site and the use of masonry block and backfill material. The ERC D&D group also distributed an ERC Interoffice memorandum (Attachment 11) that provided release survey data interpretation for use of the 108-F wall material as site backfill material at a selected ERC Remedial Action site. ERC Remedial Action noted that final laboratory test results would need to be received and reviewed for final concurrence/acceptance of the material as backfill, and as well field details and coordination with the Remedial Action Subcontractor would still need to occur. ERC D&D noted that planned shipment of the rubble material would be approximately 3 to 4 weeks after the 25th of June, and that currently the material quantity is estimated at 400 to 500 tons, unpainted surfaces, and with no reinforcing steel. EPA requested that this issue be discussed again at the July 1999 UMM, to include presentation/discussion in the closeout/verification package for the waste site. The ERC D&D group also took the action to provide Ecology with the Return on Investment package being prepared for this demolition activity, which documents cost savings by using clean portions of the structure as backfill material rather than disposing of the rubble as waste. EPA also requested that debris to be used as backfill, extend below 15 feet in depth at the selected Remedial Action waste site. ERC Remedial Action will also request in writing from ERC D&D the building radiological

surveys for the 108-F site, so the information can be included in the CVP package by Remedial Action.

The ERC D&D group also discussed the deferral of closeout verification of the building, and any necessary remediation/closeout verification for associated French drains and sumps to ERC Remedial Action group. The ERC D&D group will apply a fixative to the 108F Building Footprint area prior to transitioning to the ERC Remedial Action Group. The ERC Remedial Action group agreed to deferral of the closeout and any necessary additional remediation of waste sites within the 108-F building footprint (post D&D), to Remedial Action. Remedial Action would complete planning details to include the deferred structures into their work scope. After this discussion, EPA gave their official approval for the transfer of the 108-F Building waste site to the ERC Remedial Action work scope. EPA requested that this official approval be documented through the Unit Manager Meeting Minutes. ERC, which will review the actual waste site data, will make a presentation to the regulators at a future Unit Manager Meeting.

100 Area Assessment

8. Remaining Sites ROD Status – EPA stated that comments from regulators and the Department of Energy are being incorporated into the Remaining Sites ROD document. EPA anticipated having both the 100-N and Remaining Sites ROD document comment incorporations completed shortly. EPA requested that the remedy section in the two ROD documents be compared for consistency in wording and proposed actions. Previous discrepancies between the two documents should be eliminated during this revision. EPA also stated that the ROD documents will retain mention of both the Model Toxic Control Act and revegetation activities. Also, the ROD documents will strengthen the institutional controls wording to make clear the regulators have decision making control of the waste sites.

9. 100-N ROD Status – See item #8.

10. Burial Ground FFS Status – the National Trustees Resources Council and the Native American Tribes are currently reviewing the Burial Ground Focused Feasibility Study (FFS). DOE will make presentations of more detail to the reviewers as requested. In response to ERC's question, EPA stated that the Burial Ground FSS should be issued as a draft document at the next iteration. Because the National Remedy Board has not reviewed the Burial Ground FFS yet, EPA stated that issuance in Draft form was appropriate and would also meet the Tri-Party Agreement milestone. ERC briefly discussed a handout (Attachment 12) that illustrated the review process with specific dates for the Burial Ground FFS.

11. Update to Remedial Action Regulator Review Schedule – The schedule was briefly discussed. EPA stated that, in the future, there will be a need to establish success criteria for waste site revegetation activities. Once all parties have agreed to the success criteria, EPA would like to present the agreed-upon criteria to the National Trustees Resources Council for further consideration.

Status and Preliminary Results
Summary of Cr6+ Kd/Leachability Testing
(116D7 Waste Site Soils)

Kd Testing:

The preliminary 14-day screening batch test results suggest that the Cr(VI) Kd for Hanford sediments being tested is <0.5. Per the Test Plan, a minimum Kd value of 0.5 is needed to continue the formal batch adsorption testing. This is based on initial rough screening measurements performed to monitor the testing. More accurate test results will be coming in next week, but no significant differences are expected. Based on this information, the more formal batch testing for Kd determination will not be performed.

Leach Testing:

Testing started Monday (June 14) and will continue for 40 days, with results anticipated early August. PNNL has been providing weekly progress updates. Preliminary leach rate data should be available for the July UMM.

100 Area River Effluent Pipelines
Expedited Response Action Proposal
DOE/RL-94-79, Draft A (June, 1994)

Summary

Scope

- **Outfall/Spillways**
- **Outfall to River Discharge Pipeline**

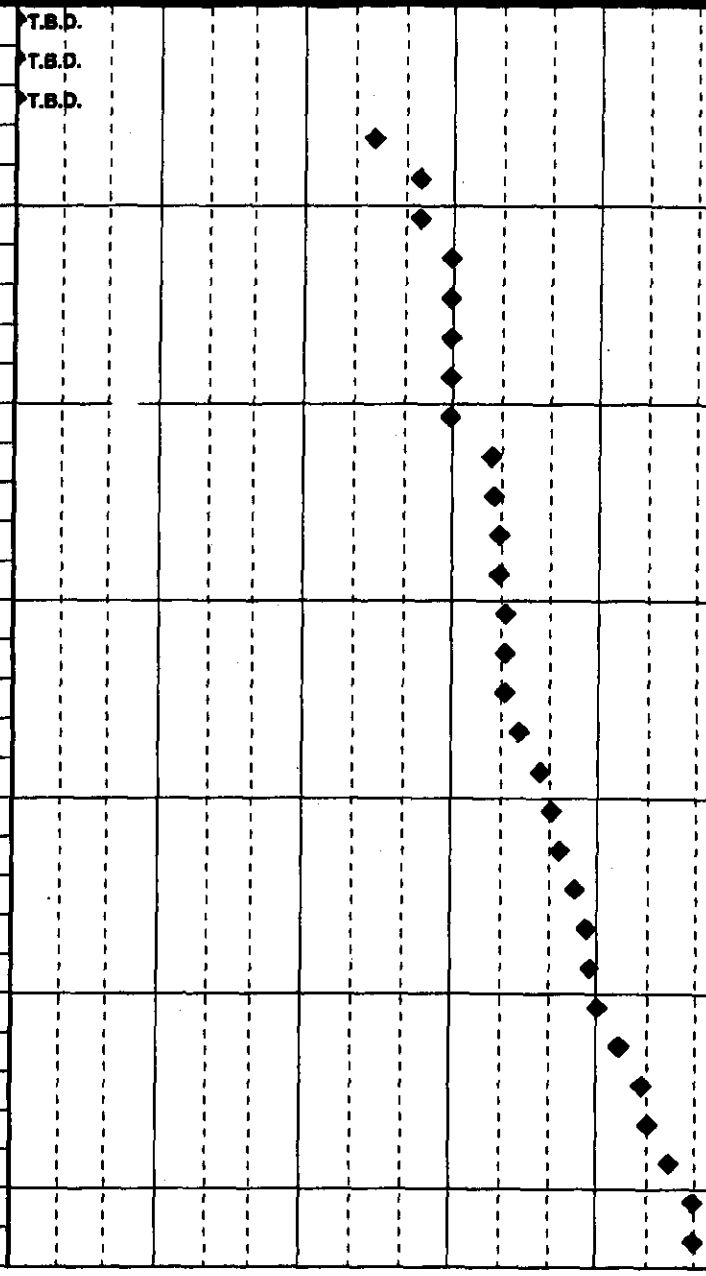
Alternatives

- **No Action**
- **Pipe Inspection and Separate Work Plans, with suggestions to:**
  - Decon inside of River Pipeline to "clean release standards", and backfill the pipe interiors with grout, cement or rock to further anchor the pipe to the river bed
  - Plug the River outlet with Rock, cement or grout
  - Demolish associated outfall structure and spillway
- **Outfall and River Pipeline Removal**

Preferred Alternative

Pipe Inspection and Separate Work Plans

FINAL FFS / 100 AREA BURIAL GROUNDS		01OCT98
DRAFT A 100 AREA BURIAL GROUNDS PROPOSED PLAN		01OCT98
REV 0 100 AREA BURIAL GROUNDS PROPOSED PLAN		01OCT98
DRAFT B 100 AREA BURIAL GROUNDS FFS		12MAY99*
REG REVIEW OF VERIFICATION PACKAGE / 116-B-13	V	10JUN99*
REG REVIEW OF VERIFICATION PACKAGE / 116-B-14	V	10JUN99*
REG REVIEW OF VERIFICATION PACKAGE / 116-C-5	V	30JUN99*
REG REVIEW OF VERIFICATION PACKAGE / 116-B-11	V	30JUN99*
REG REVIEW OF VERIFICATION PACKAGE / 1607-D2	V	30JUN99*
REG REVIEW OF VERIFICATION PACKAGE / 107-D5	V	30JUN99*
ISSUE ROD / 100 AREA REMAINING SITES		30JUN99*
REG REVIEW OF VERIFICATION PACKAGE / 116-B-1	V	26JUL99*
REG REVIEW OF VERIFICATION PACKAGE / 116-DR-9	V	27JUL99*
ISSUE ROD / TSD		30JUL99*
ISSUE ROD / 100-NR- 1/2		30JUL99*
RDR/RAWP REVISION REVIEW / GROUP 5		03AUG99*
CSE SAP REVIEW / GROUP 5		03AUG99*
100 AREAS SAP REVISION/REVIEW		03AUG99*
REG REVIEW OF VERIFICATION PACKAGE / 116-B-12	V	12AUG99*
REG REVIEW OF VERIFICATION PACKAGE / 116-B-9	V	26AUG99*
REG REVIEW OF VERIFICATION PACKAGE / 116-B-6B	V	02SEP99*
REG REVIEW OF VERIFICATION PACKAGE / 116-D-7	V	07SEP99*
REG REVIEW SMALL SITES	V	17SEP99*
REG REVIEW OF VERIFICATION PACKAGE / 116-B-4	V	24SEP99*
REG REVIEW OF VERIFICATION PACKAGE / 116-B-3	V	27SEP99*
REG REVIEW OF VERIFICATION PACKAGE / 116-B-10	V	01OCT99*
SAP REVIEW / 100-NR-1 TSD SITES REMEDIAL DESIGN		15OCT99*
REG REVIEW OF VERIFICATION PKG / 116-C-2A/2B/2C	V	29OCT99*
RDR/RAWP REVIEW / 100-NR-1 TSD SITES REM DESIGN		01NOV99*
REG REVIEW OF VERIFICATION PACKAGE / 116-B-2	V	15NOV99*
REG REVIEW OF VERIFICATION PACKAGE / 116-B-16	V	30NOV99*
REG REVIEW OF VERIFICATION PACKAGE / 116-B-6A	V	30NOV99*



Project Start 01OCT98
Project Finish 29NOV99
Data Date 01OCT98
Run Date 15JUN99

Early Bar
Progress Bar
Critical Activity

REGR

Sheet 1 of 1

RA Regulator Review Dates

100 AREA

© Primavera Systems, Inc.

SAP and RDR/RAWP Revisions

Initial driver for revisions is the addition of sites in the remaining sites ROD and incorporation of minor comments provided by Regulators and others

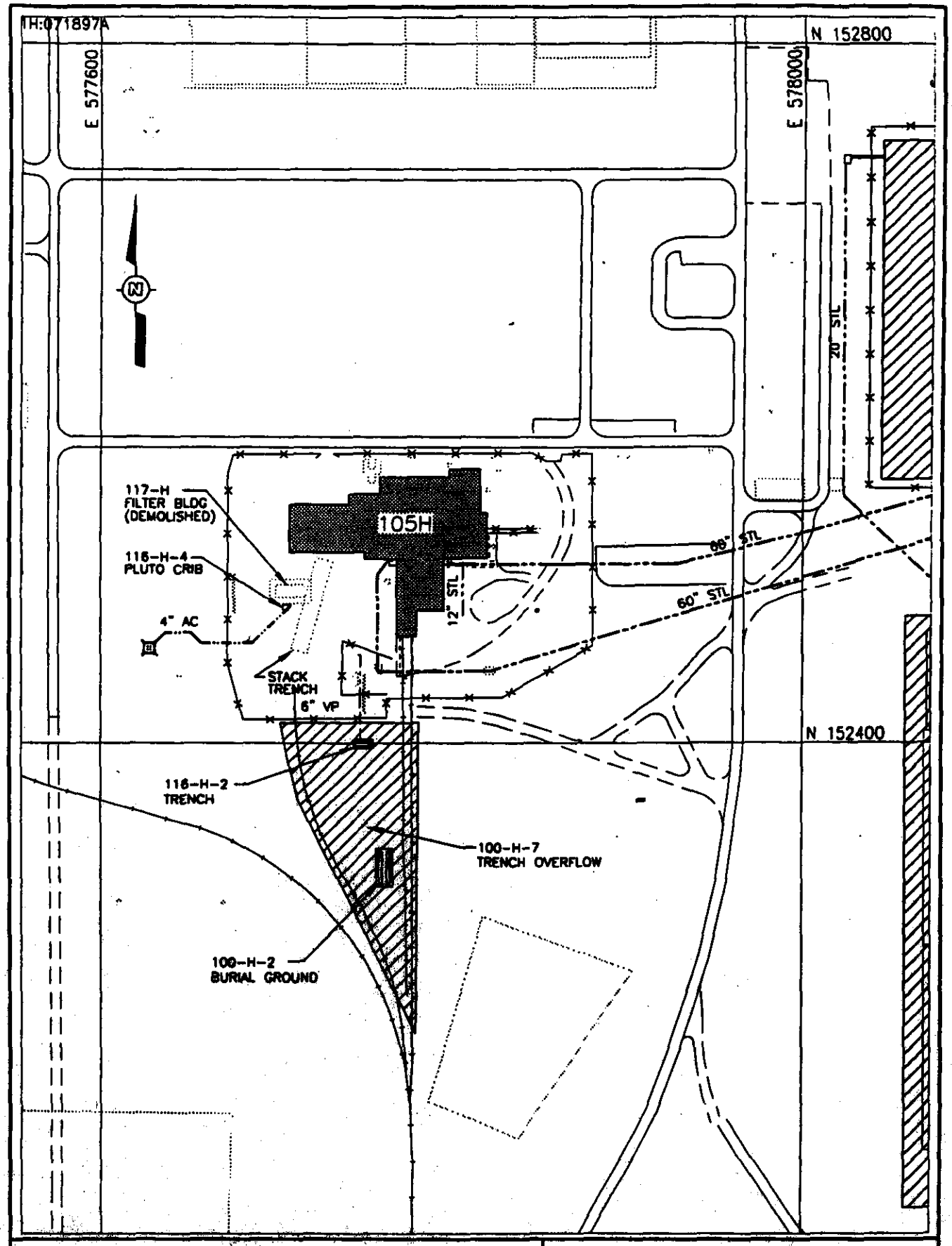
SAP

- Incorporate new waste sites
- Sampling/Closeout strategy for non-radionuclide sites
- New PCB cleanup level (approved at April UMM)
- Discuss regulator splits
- Review detection levels
- Review added value of GEA variance samples
- Consider using backfill sample results in determining the dose.
- Housekeeping changes

RDR/RAWP

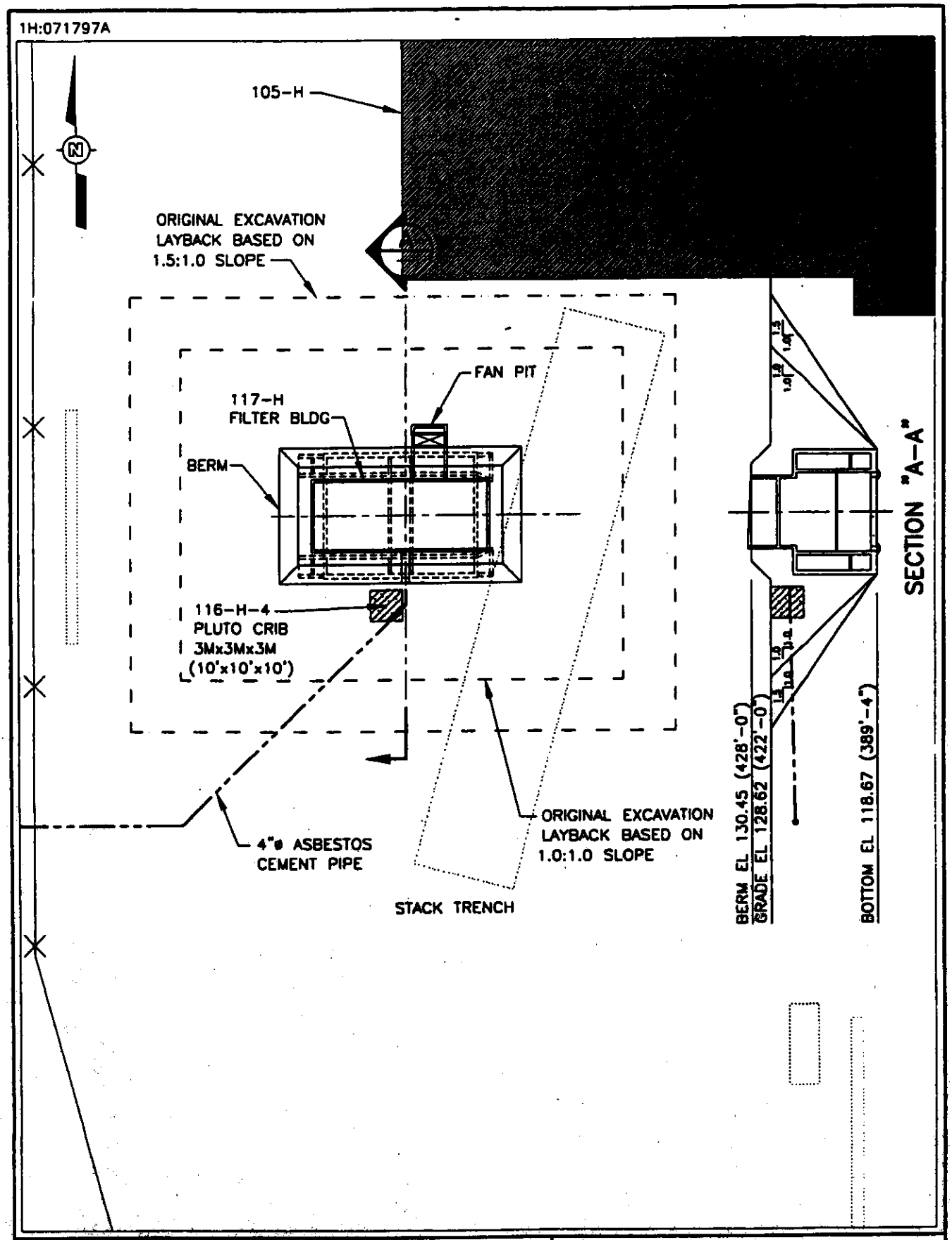
- Incorporate new waste sites
- New PCB cleanup level (approved at April UMM)
- Define additional RESRAD input parameters
- Review wording of attainment of RAOs vs RAGs
- Possibly new Cr+6 Kd or leach rate value
- CVP "mother document" describing process
- Housekeeping changes

Additional Changes...



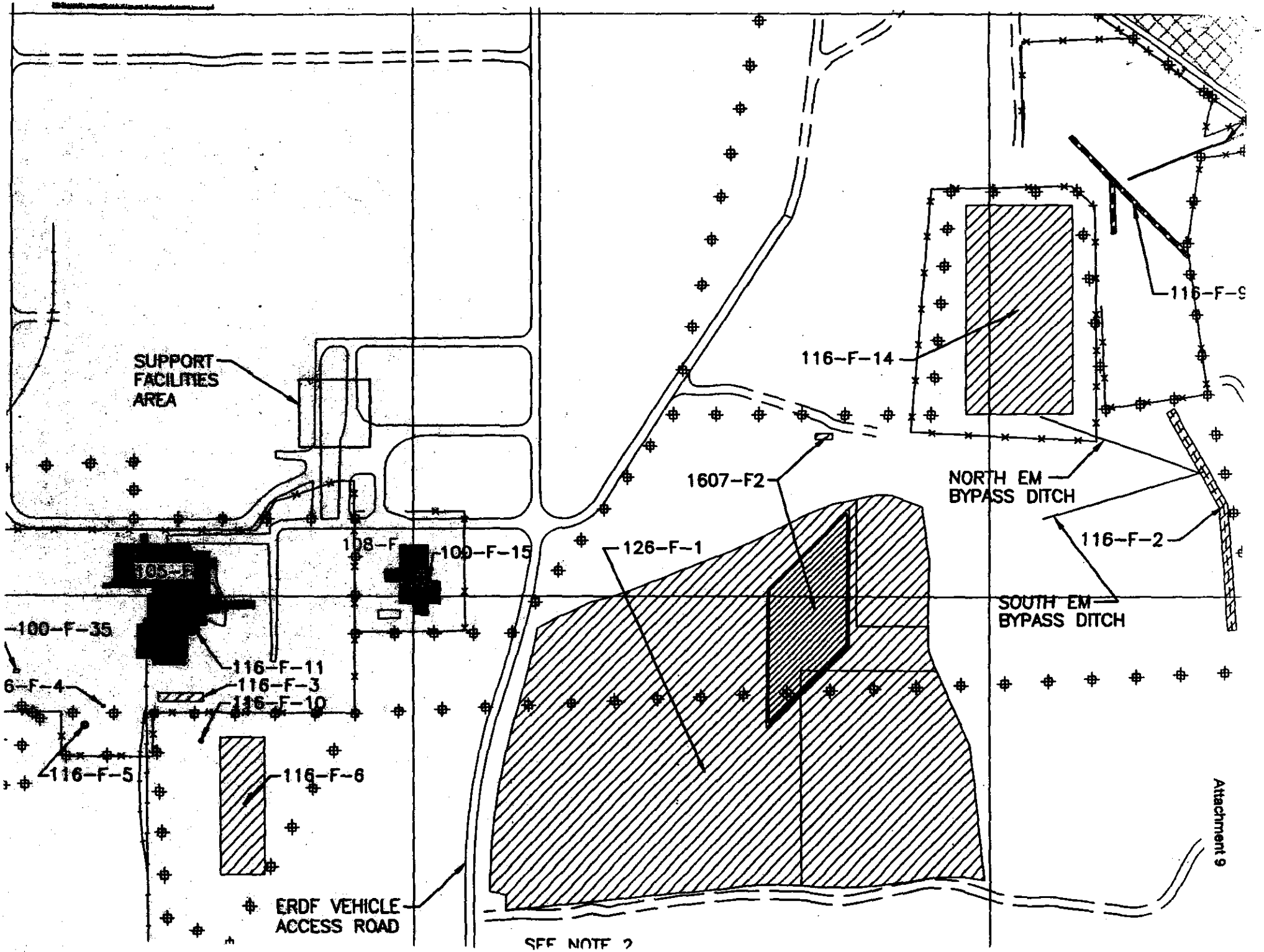
U.S DEPARTMENT OF ENERGY
DOE FIELD OFFICE, RICHLAND
HANFORD ENVIRONMENTAL RESTORATION PROGRAM

116-H-4 PLUTO CRIB
LOCATION MAP
FIGURE 1

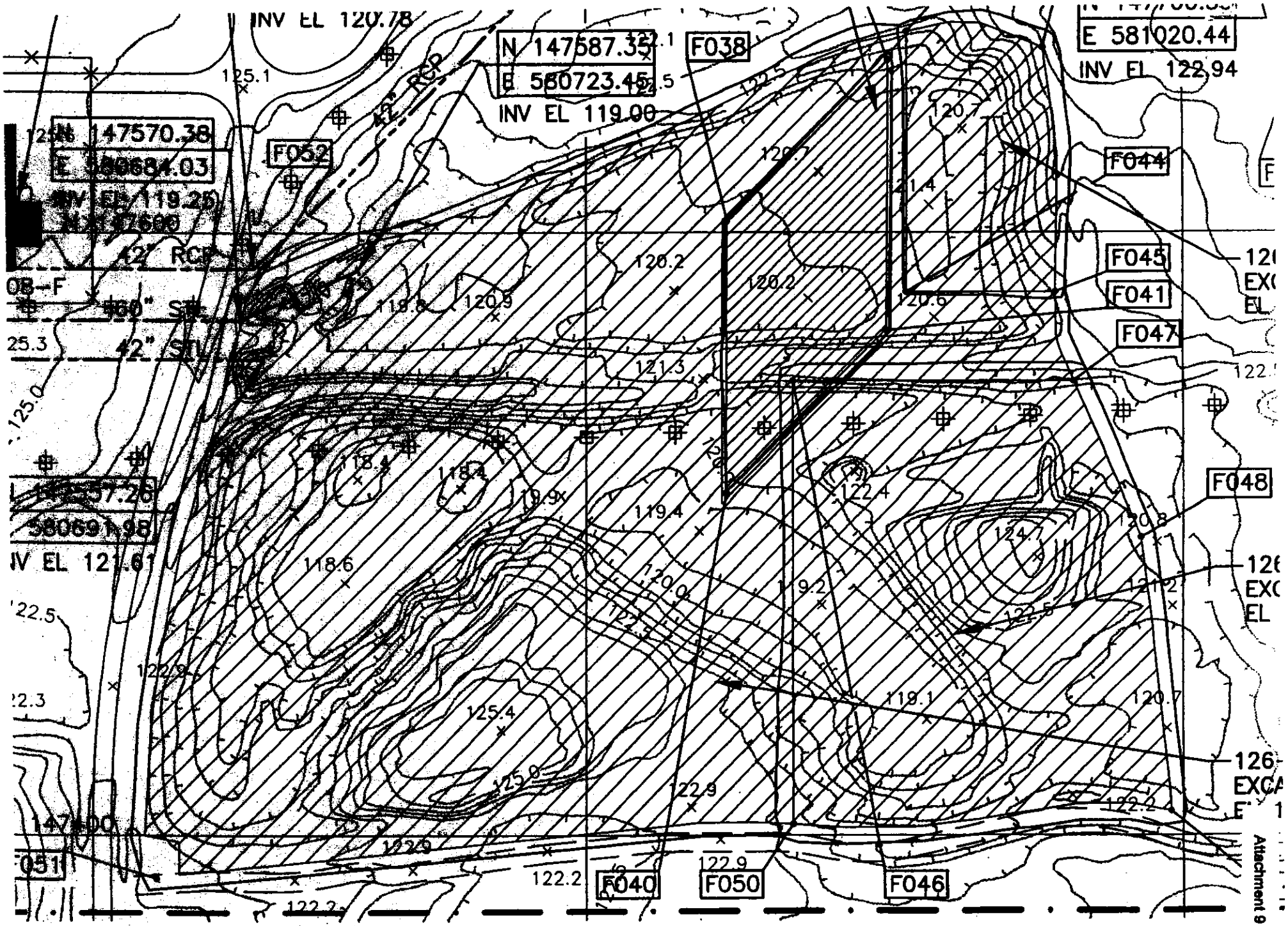


U.S DEPARTMENT OF ENERGY
DOE FIELD OFFICE, RICHLAND
HANFORD ENVIRONMENTAL RESTORATION PROGRAM

116-H-4 PLUTO CRIB
LOCATION MAP
FIGURE 2



Attachment 9



Attachment 9

108-F BIOLOGICAL LAB D&D and RA INTERFACE

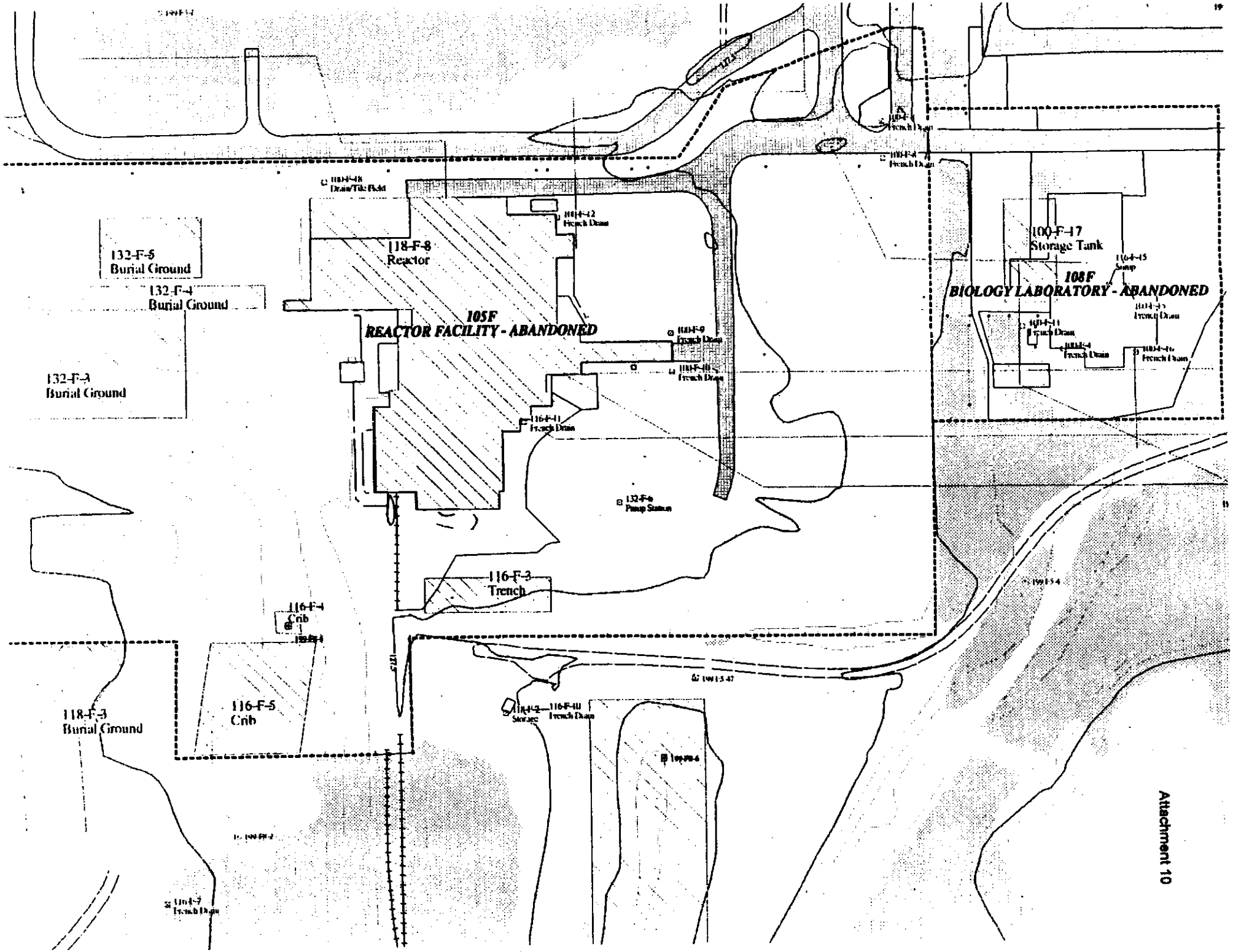
- Site Remediation and Verification
- Masonry Block Backfill Material

Attachment 10

Site Remediation & Verification

- Multiple WIDS Sites in Close Proximity
- Sump, French Drains Impacted by D&D
- Group 4 Remediation Starts in FY00
- Cost Effective to Defer Sump/French Drain Remediation/Verification to RA

Attachment 10



Attachment 10

Site Remediation & Verification

- Physical Condition at Turnover to RA
  - Building debris and foundations removed
  - Sump and french drain 100-F-15 removed
  - Piping cut at edge of excavation
  - Excavation left open
  - Excavation max slope 1.5:1 (~15' deep)
  - Disturbed areas graded smooth
  - Surface contamination fixed w/soil cement

Attachment 10

Site Remediation & Verification

- Sampling/Surveys Prior to Turnover
  - Ground surface surveys at sump and french drain locations
  - Survey results recorded/provided to RA
  - No soil samples taken

Attachment 10

Masonry Block Backfill Material

- Unpainted Masonry Block only
- Survey/Sampling/Analysis Plan Based on MARSSIM (Class 3)
- Survey/Sampling Prior to Demolition
- RA Project Directly Involved

Attachment 10

Masonry Block Backfill Material

- Sampling
  - One confirmation sample
  - Confirm correlation between direct dose data and isotopes/quantities present
- Survey Plan, Basis, and Results
  - Grant Ceffalo Presentation

Attachment 10

Copies:
M. E. Byrnes H0-02
G. M. Ceffalo L5-64
D.H. Denham L5-64
M. R. Mihalic X9-08
S. R. Reed X9-09
Document and Info Services H0-09

Attachment 11

070078

Job No. 22192
Written Response Required: NO
Due Date: N/A
Actionee: N/A
Closes CCN: N/A
OU: N/A
TSD: N/A
ERA: N/A
Subject Code: 5600, 5660

Environmental Restoration Contractor **ERC Team**

Interoffice Memorandum

TO: R.S. Day X9-08

DATE: June 14, 1999

COPIES: See Below

FROM: G.M. Ceffalo gmcffalo
Radiological Measurements & Environmental Support
L5-64/373-6238

SUBJECT: **108-F WALL RELEASE SURVEY DATA INTERPRETATION**

Following the completion of data-gathering activities at the 108-F facility, I have analyzed the data set to determine the radiological conditions of the cinderblock walls. The results of the analysis were compared to the release criteria specified in DOE Order 5400.5, and the walls were determined to be releasable per the requirements of surface-contaminated material.

To summarize the attached spreadsheet, a total of 544 counts were collected over four days of surveying. Of these 544 counts, six were rejected from the analysis due to instrument error during reading (electronic noise). The rejection rate was 1.1%. The average contamination readings are shown below:

	β/γ dpm/100 cm^2	α dpm/100 cm^2	
Average Surface contamination value from 'sample' points:	364	7.55	
Standard Deviation:	72.3	6.06	
Coefficient of Variation:	0.20	0.80	
95% Upper Confidence Level:	482	17.5	(1.64 Two-tailed)
95% Upper Confidence Level:	505	19.4	(1.96 One-tailed)
Maximum Value:	491	24.0	

The values from the scanning surveys were slightly higher, and much more variable. No significant elevated readings were found. The highest-contaminated spots were 4067 dpm/100 cm^2 beta-gamma and 73 dpm/100 cm^2 alpha.

As even the highest spots of contamination are less than the DOE Order 5400.5 release values of 5000 dpm/100 cm^2 beta-gamma and 100 dpm/100cm2 transuranic, the cinderblock walls surveyed can be unconditionally released. The volumetric contamination that can be correlated with the surface contamination is less than 0.0158 pCi/g ^{239}Pu, and 0.41 pCi/g ^{137}Cs, well below the volumetric release criteria. In summary, the walls of the building can be released for use as backfill from a Radiological Controls perspective. Please call me at 373-6238 or 531-0678 if you have any questions.

GMC:kmh

Attachment: Data Analysis Spreadsheet "108-F Survey Data.xls"

C:\user\word\CEFFALO\release survey 108-F analysis IOM.doc

108-F Wall Release Survey Data Points and Interpretation

α Efficiency: 0.089 α CF: 11.24
βγ Efficiency: 0.205 βγ CF: 4.88

	#	Location	Count 1	Count 2	Units	Operating I	Int Val T	Log Time	Log Date	dpm/ 100 cm2 beta/gamma	alpha
Background Checks	1	1002	900	3	cpm	Sampler	20 s	2:10:00	6/3/99	732	5.6
	2	1002	939	0	cpm	Sampler	20 s	2:10:00	6/3/99	763	0.0
	3	1002	975	0	cpm	Sampler	20 s	2:11:00	6/3/99	793	0.0
	4	1001	957	0	cpm	Sampler	20 s	2:11:00	6/3/99	778	0.0
Background Determinations in 108-F	5	1001	1511	5.4	cpm	Sampler	300 s	7:41:00	6/4/99	1228	10.1
	6	1001	1489	4.4	cpm	Sampler	300 s	7:46:00	6/4/99	1211	8.2
	7	1001	1502	2.4	cpm	Sampler	300 s	7:52:00	6/4/99	1221	4.5
	8	1001	1489	4.4	cpm	Sampler	300 s	7:57:00	6/4/99	1211	8.2
	9	1001	1516	4	cpm	Sampler	300 s	8:02:00	6/4/99	1233	7.5
	10	1001	1518	3	cpm	Sampler	300 s	8:07:00	6/4/99	1234	5.6
	11	1001	1519	5	cpm	Sampler	300 s	8:13:00	6/4/99	1235	9.4
	12	1001	1527	3.6	cpm	Sampler	300 s	8:18:00	6/4/99	1241	6.7
	13	1001	1509	6.4	cpm	Sampler	300 s	8:23:00	6/4/99	1227	12.0
	14	1001	1547	3.2	cpm	Sampler	300 s	8:28:00	6/4/99	1258	6.0
	15	1001	1527	6.2	cpm	Sampler	300 s	8:33:00	6/4/99	1241	11.6
	16	1001	1510	5	cpm	Sampler	300 s	8:39:00	6/4/99	1228	9.4
	17	1001	1534	5.2	cpm	Sampler	300 s	8:44:00	6/4/99	1247	9.7
	18	1001	1530	4.8	cpm	Sampler	300 s	8:49:00	6/4/99	1244	9.0
	19	1001	1519	5	cpm	Sampler	300 s	8:54:00	6/4/99	1235	9.4
	20	1001	1534	5.8	cpm	Sampler	300 s	9:00:00	6/4/99	1247	10.9
	21	1001	1557	6	cpm	Sampler	300 s	9:05:00	6/4/99	1266	11.2
	22	1001	1532	5.6	cpm	Sampler	300 s	9:10:00	6/4/99	1246	10.5
	23	1001	1587	5.8	cpm	Sampler	300 s	9:15:00	6/4/99	1290	10.9
	24	1001	1560	4.6	cpm	Sampler	300 s	9:20:00	6/4/99	1268	8.6
								Background Averages:		1241	9.0
Sample and Survey points	25	18	1687	11.6	cpm	Sampler	300 s	9:32:00	6/4/99	363	4.9
	26	20	1716	11.8	cpm	Sampler	300 s	9:37:00	6/4/99	387	5.3
	27	3	1755	10	cpm	Sampler	300 s	9:42:00	6/4/99	418	1.9
	28	16	1643	12.2	cpm	Sampler	300 s	9:47:00	6/4/99	327	6.0
	29	9	1545	13	cpm	Sampler	300 s	9:53:00	6/4/99	248	7.5
	30	4	1592	11	cpm	Integrate	300 s	10:00:00	6/4/99	286	3.8
	31	5	1568	21.8	cpm	Integrate	300 s	10:27:00	6/4/99	266	24.0
	32	13	1776	14.6	cpm	Integrate	300 s	10:34:00	6/4/99	435	10.5
	33	2	1705	12.4	cpm	Integrate	300 s	10:40:00	6/4/99	378	6.4
	34	14	1713	13.8	cpm	Integrate	300 s	10:45:00	6/4/99	384	9.0
	35	17	1715	12.4	cpm	Integrate	300 s	10:51:00	6/4/99	386	6.4
	36	100	1478	21	cpm	Integrate	300 s	10:57:00	6/4/99	193	22.5
Source Checks	37	1002	10460	17.88	cpm	Integrate	60 s	11:46:00	6/4/99	-	-
	38	1002	1493	2623	cpm	Integrate	60 s	11:58:00	6/4/99	-	-

Survey By
Mark Lippy
6/3/99
to
6/10/99

Analysis By
Grant Ceffalo
6/14/99

070078

Attachment 11

108-F Wall Release Survey Data Points and Interpretation

#	Location	Count 1	Count 2	Units	Operating I	Int Val T	Log Time	Log Date	beta/gamma	alpha	
39	26	1560	12	cpm	Integrate	5 s	12:12:00	6/4/99	260	5.7	
40	26	1728	12	cpm	Integrate	5 s	12:12:00	6/4/99	396	5.7	
41	26	1584	12	cpm	Integrate	5 s	12:12:00	6/4/99	279	5.7	
42	26	1680	12	cpm	Integrate	5 s	12:13:00	6/4/99	357	5.7	
43	26	1860	0	cpm	Integrate	5 s	12:13:00	6/4/99	504	-16.8	
44	26	1860	12	cpm	Integrate	5 s	12:14:00	6/4/99	504	5.7	
45	26	1716	12	cpm	Integrate	5 s	12:14:00	6/4/99	387	5.7	
46	26	1812	36	cpm	Integrate	5 s	12:14:00	6/4/99	465	50.6	
47	26	1872	0	cpm	Integrate	5 s	12:15:00	6/4/99	513	-16.8	
48	26	1872	24	cpm	Integrate	5 s	12:15:00	6/4/99	513	28.1	
49	26	3637	12	cpm	Integrate	5 s	12:16:00	6/4/99	1948	5.7	
50	26	1320	24	cpm	Integrate	5 s	12:16:00	6/4/99	65	28.1	
51	26	1764	0	cpm	Integrate	5 s	12:16:00	6/4/99	426	-16.8	
52	29	1824	0	cpm	Integrate	5 s	12:17:00	6/4/99	474	-16.8	
53	29	1728	12	cpm	Integrate	5 s	12:18:00	6/4/99	396	5.7	
54	29	1548	36	cpm	Integrate	5 s	12:18:00	6/4/99	250	50.6	
55	29	1488	24	cpm	Integrate	5 s	12:19:00	6/4/99	201	28.1	
56	29	1548	0	cpm	Integrate	5 s	12:19:00	6/4/99	250	-16.8	
57	29	1524	0	cpm	Integrate	5 s	12:19:00	6/4/99	230	-16.8	
58	35	1596	12	cpm	Integrate	5 s	12:26:00	6/4/99	289	5.7	
59	35	1824	24	cpm	Integrate	5 s	12:27:00	6/4/99	474	28.1	
60	35	1728	12	cpm	Integrate	5 s	12:27:00	6/4/99	396	5.7	
61	35	1896	0	cpm	Integrate	5 s	12:27:00	6/4/99	533	-16.8	
62	35	1572	12	cpm	Integrate	5 s	12:27:00	6/4/99	269	5.7	
63	35	1812	0	cpm	Integrate	5 s	12:28:00	6/4/99	465	-16.8	
64	35	1596	24	cpm	Integrate	5 s	12:28:00	6/4/99	289	28.1	
65	35	1464	0	cpm	Integrate	5 s	12:28:00	6/4/99	182	-16.8	
66	35	1620	36	cpm	Integrate	5 s	12:28:00	6/4/99	309	50.6	
67	35	1668	12	cpm	Integrate	5 s	12:29:00	6/4/99	348	5.7	
68	35	1776	12	cpm	Integrate	5 s	12:29:00	6/4/99	435	5.7	
69	35	1908	24	cpm	Integrate	5 s	12:29:00	6/4/99	543	28.1	
70	35	1872	12	cpm	Integrate	5 s	12:29:00	6/4/99	513	5.7	
71	35	1608	0	cpm	Integrate	5 s	12:30:00	6/4/99	299	-16.8	
72	35	1620	12	cpm	Integrate	5 s	12:30:00	6/4/99	309	5.7	
73	35	1860	0	cpm	Integrate	5 s	12:30:00	6/4/99	504	-16.8	
74	35	1560	12	cpm	Integrate	5 s	12:30:00	6/4/99	260	5.7	
75	35	1752	24	cpm	Integrate	5 s	12:31:00	6/4/99	416	28.1	
76	35	2028	12	cpm	Integrate	5 s	12:31:00	6/4/99	640	5.7	
77	35	1836	36	cpm	Integrate	5 s	12:31:00	6/4/99	484	50.6	
78	35	1464	72.01	cpm	Integrate	5 s	12:31:00	6/4/99	-	-	Noted bad count
79	35	1872	12	cpm	Integrate	5 s	12:31:00	6/4/99	513	5.7	
80	35	1596	36	cpm	Integrate	5 s	12:32:00	6/4/99	289	50.6	

Attachment 11

070078

108-F Wall Release Survey Data Points and Interpretation

#	Location	Count 1	Count 2	Units	Operating I	Int Val T	Log Time	Log Date	beta/gamma	alpha
81	35	1824	12	cpm	Integrate	5 s	12:32:00	6/4/99	474	5.7
82	35	2040	12	cpm	Integrate	5 s	12:32:00	6/4/99	650	5.7
83	35	1788	0	cpm	Integrate	5 s	12:32:00	6/4/99	445	-16.8
84	35	1896	24	cpm	Integrate	5 s	12:33:00	6/4/99	533	28.1
85	35	1716	0	cpm	Integrate	5 s	12:33:00	6/4/99	387	-16.8
86	35	1800	12	cpm	Integrate	5 s	12:33:00	6/4/99	455	5.7
87	35	1872	24	cpm	Integrate	5 s	12:33:00	6/4/99	513	28.1
88	35	2112	12	cpm	Integrate	5 s	12:33:00	6/4/99	709	5.7
89	35	1512	12	cpm	Integrate	5 s	12:34:00	6/4/99	221	5.7
90	35	2040	0	cpm	Integrate	5 s	12:34:00	6/4/99	650	-16.8
91	35	1572	0	cpm	Integrate	5 s	12:34:00	6/4/99	269	-16.8
92	35	1560	0	cpm	Integrate	5 s	12:34:00	6/4/99	260	-16.8
93	35	1776	24	cpm	Integrate	5 s	12:35:00	6/4/99	435	28.1
94	35	1836	12	cpm	Integrate	5 s	12:35:00	6/4/99	484	5.7
95	35	1656	0	cpm	Integrate	5 s	12:35:00	6/4/99	338	-16.8
96	35	1656	12	cpm	Integrate	5 s	12:35:00	6/4/99	338	5.7
97	35	1620	12	cpm	Integrate	5 s	12:35:00	6/4/99	309	5.7
98	35	1704	0	cpm	Integrate	5 s	12:36:00	6/4/99	377	-16.8
99	35	1560	12	cpm	Integrate	5 s	12:36:00	6/4/99	260	5.7
100	35	1656	12	cpm	Integrate	5 s	12:36:00	6/4/99	338	5.7
101	35	1572	48	cpm	Integrate	5 s	12:36:00	6/4/99	269	73.1
102	35	1884	0	cpm	Integrate	5 s	12:36:00	6/4/99	523	-16.8
103	30	1668	0	cpm	Integrate	5 s	12:37:00	6/4/99	348	-16.8
104	30	1740	0	cpm	Integrate	5 s	12:38:00	6/4/99	406	-16.8
105	30	1668	12	cpm	Integrate	5 s	12:38:00	6/4/99	348	5.7
106	30	1536	36	cpm	Integrate	5 s	12:38:00	6/4/99	240	50.6
107	30	1668	36	cpm	Integrate	5 s	12:38:00	6/4/99	348	50.6
108	30	1932	12	cpm	Integrate	5 s	12:39:00	6/4/99	562	5.7
109	30	1632	12	cpm	Integrate	5 s	12:39:00	6/4/99	318	5.7
110	30	1908	0	cpm	Integrate	5 s	12:39:00	6/4/99	543	-16.8
111	30	1932	0	cpm	Integrate	5 s	12:39:00	6/4/99	562	-16.8
112	30	1704	12	cpm	Integrate	5 s	12:40:00	6/4/99	377	5.7
113	30	1704	0	cpm	Integrate	5 s	12:40:00	6/4/99	377	-16.8
114	30	1728	36	cpm	Integrate	5 s	12:40:00	6/4/99	396	50.6
115	30	1740	24	cpm	Integrate	5 s	12:40:00	6/4/99	406	28.1
116	30	1860	36	cpm	Integrate	5 s	12:41:00	6/4/99	504	50.6
117	30	1656	0	cpm	Integrate	5 s	12:41:00	6/4/99	338	-16.8
118	30	1632	12	cpm	Integrate	5 s	12:41:00	6/4/99	318	5.7
119	30	1800	12	cpm	Integrate	5 s	12:41:00	6/4/99	455	5.7
120	30	1896	24	cpm	Integrate	5 s	12:41:00	6/4/99	533	28.1
121	30	1860	48	cpm	Integrate	5 s	12:42:00	6/4/99	504	73.1
122	30	1872	0	cpm	Integrate	5 s	12:42:00	6/4/99	513	-16.8

108-F Wall Release Survey Data Points and Interpretation

#	Location	Count 1	Count 2	Units	Operating I	Int Val T	Log Time	Log Date	beta/gamma	alpha
123	30	1440	12	cpm	Integrate	5 s	12:42:00	6/4/99	162	5.7
124	30	1860	12	cpm	Integrate	5 s	12:42:00	6/4/99	504	5.7
125	30	1584	12	cpm	Integrate	5 s	12:43:00	6/4/99	279	5.7
126	30	1872	36	cpm	Integrate	5 s	12:43:00	6/4/99	513	50.6
127	30	1788	12	cpm	Integrate	5 s	12:43:00	6/4/99	445	5.7
128	30	1908	12	cpm	Integrate	5 s	12:43:00	6/4/99	543	5.7
129	30	1476	0	cpm	Integrate	5 s	12:43:00	6/4/99	191	-16.8
130	32	1704	12	cpm	Integrate	5 s	12:44:00	6/4/99	377	5.7
131	32	1788	12	cpm	Integrate	5 s	12:45:00	6/4/99	445	5.7
132	32	1752	0	cpm	Integrate	5 s	12:45:00	6/4/99	416	-16.8
133	32	1920	12	cpm	Integrate	5 s	12:45:00	6/4/99	552	5.7
134	32	1620	0	cpm	Integrate	5 s	12:45:00	6/4/99	309	-16.8
135	32	1884	0	cpm	Integrate	5 s	12:46:00	6/4/99	523	-16.8
136	32	1812	0	cpm	Integrate	5 s	12:46:00	6/4/99	465	-16.8
137	32	1656	36	cpm	Integrate	5 s	12:46:00	6/4/99	338	50.6
138	32	1788	12	cpm	Integrate	5 s	12:46:00	6/4/99	445	5.7
139	32	1644	48.0	cpm	Integrate	5 s	12:46:00	6/4/99	328	73.1
140	32	1536	0	cpm	Integrate	5 s	12:47:00	6/4/99	240	-16.8
141	32	1668	0	cpm	Integrate	5 s	12:47:00	6/4/99	348	-16.8
142	32	1632	0	cpm	Integrate	5 s	12:48:00	6/4/99	318	-16.8
143	32	1488	0	cpm	Integrate	5 s	12:48:00	6/4/99	201	-16.8
144	32	1812	0	cpm	Integrate	5 s	12:49:00	6/4/99	465	-16.8
145	32	1668	0	cpm	Integrate	5 s	12:49:00	6/4/99	348	-16.8
146	32	1884	0	cpm	Integrate	5 s	12:49:00	6/4/99	523	-16.8
147	32	1608	0	cpm	Integrate	5 s	12:50:00	6/4/99	299	-16.8
148	32	1728	0	cpm	Integrate	5 s	12:51:00	6/4/99	396	-16.8
149	32	1728	0	cpm	Integrate	5 s	12:51:00	6/4/99	396	-16.8
150	32	1608	0	cpm	Integrate	5 s	12:51:00	6/4/99	299	-16.8
151	32	1344	36	cpm	Integrate	5 s	12:51:00	6/4/99	84	50.6
152	32	1212	12	cpm	Integrate	5 s	12:51:00	6/4/99	-23	5.7
153	32	1440	0	cpm	Integrate	5 s	12:52:00	6/4/99	162	-16.8
154	32	1656	12	cpm	Integrate	5 s	12:52:00	6/4/99	338	5.7
155	32	1728	12	cpm	Integrate	5 s	12:52:00	6/4/99	396	5.7
156	32	1788	0	cpm	Integrate	5 s	12:52:00	6/4/99	445	-16.8
157	34	1620	0	cpm	Integrate	5 s	12:54:00	6/4/99	309	-16.8
158	34	1548	12	cpm	Integrate	5 s	12:54:00	6/4/99	250	5.7
159	34	1836	12	cpm	Integrate	5 s	12:54:00	6/4/99	484	5.7
160	34	1476	0	cpm	Integrate	5 s	12:54:00	6/4/99	191	-16.8
161	34	1548	24	cpm	Integrate	5 s	12:54:00	6/4/99	250	28.1
162	34	1392	24	cpm	Integrate	5 s	12:55:00	6/4/99	123	28.1
163	15	1845	13.8	cpm	Integrate	300 s	9:16:00	6/7/99	491	9.0
164	22	1698	15	cpm	Integrate	300 s	9:22:00	6/7/99	372	11.3

108-F Wall Release Survey Data Points and Interpretation

#	Location	Count 1	Count 2	Units	Operating I	Int Val T	Log Time	Log Date	beta/gamma	alpha
165	33	1650	12.8	cpm	Integrate	300 s	9:28:00	6/7/99	333	7.2
166	19	1677	10.8	cpm	Integrate	300 s	9:34:00	6/7/99	355	3.4
167	21	1694	13	cpm	Integrate	300 s	9:40:00	6/7/99	369	7.5
168	204	1659	11.6	cpm	Integrate	300 s	9:47:00	6/7/99	340	4.9
169	25	1980	0	cpm	Integrate	5 s	9:49:00	6/7/99	601	-16.8
170	25	1704	0	cpm	Integrate	5 s	9:50:00	6/7/99	377	-16.8
171	25	1632	0	cpm	Integrate	5 s	9:50:00	6/7/99	318	-16.8
172	25	1992	24	cpm	Integrate	5 s	9:50:00	6/7/99	611	28.1
173	25	1716	0	cpm	Integrate	5 s	9:50:00	6/7/99	387	-16.8
174	25	1704	24	cpm	Integrate	5 s	9:51:00	6/7/99	377	28.1
175	25	1584	24	cpm	Integrate	5 s	9:51:00	6/7/99	279	28.1
176	25	1896	36.01	cpm	Integrate	5 s	9:51:00	6/7/99	533	50.6
177	25	1824	12	cpm	Integrate	5 s	9:51:00	6/7/99	474	5.7
178	25	1812	12	cpm	Integrate	5 s	9:52:00	6/7/99	465	5.7
179	25	1620	12	cpm	Integrate	5 s	9:52:00	6/7/99	309	5.7
180	25	1896	0	cpm	Integrate	5 s	9:52:00	6/7/99	533	-16.8
181	25	1704	12	cpm	Integrate	5 s	9:53:00	6/7/99	377	5.7
182	25	1560	12	cpm	Integrate	5 s	9:53:00	6/7/99	260	5.7
183	25	1752	36.01	cpm	Integrate	5 s	9:53:00	6/7/99	416	50.6
184	25	1716	12	cpm	Integrate	5 s	9:54:00	6/7/99	387	5.7
185	27	1668	24	cpm	Integrate	5 s	9:55:00	6/7/99	348	28.1
186	27	1884	24	cpm	Integrate	5 s	9:55:00	6/7/99	523	28.1
187	27	1728	0	cpm	Integrate	5 s	9:55:00	6/7/99	396	-16.8
188	27	1776	12	cpm	Integrate	5 s	9:55:00	6/7/99	435	5.7
189	27	1848	24	cpm	Integrate	5 s	9:56:00	6/7/99	494	28.1
190	27	1596	12	cpm	Integrate	5 s	9:56:00	6/7/99	289	5.7
191	27	1704	24	cpm	Integrate	5 s	9:56:00	6/7/99	377	28.1
192	27	1812	24	cpm	Integrate	5 s	9:57:00	6/7/99	465	28.1
193	27	1800	12	cpm	Integrate	5 s	9:57:00	6/7/99	455	5.7
194	27	1632	12	cpm	Integrate	5 s	9:57:00	6/7/99	318	5.7
195	27	1884	12	cpm	Integrate	5 s	9:58:00	6/7/99	523	5.7
196	27	1536	24	cpm	Integrate	5 s	9:58:00	6/7/99	240	28.1
197	27	1560	0	cpm	Integrate	5 s	9:58:00	6/7/99	260	-16.8
198	27	1704	24	cpm	Integrate	5 s	9:59:00	6/7/99	377	28.1
199	27	1668	0	cpm	Integrate	5 s	9:59:00	6/7/99	348	-16.8
200	27	1788	24	cpm	Integrate	5 s	9:59:00	6/7/99	445	28.1
201	27	1704	12	cpm	Integrate	5 s	10:00:00	6/7/99	377	5.7
202	27	1620	12	cpm	Integrate	5 s	10:00:00	6/7/99	309	5.7
203	27	1692	12	cpm	Integrate	5 s	10:01:00	6/7/99	367	5.7
204	27	1776	12	cpm	Integrate	5 s	10:01:00	6/7/99	435	5.7
205	27	1620	12	cpm	Integrate	5 s	10:01:00	6/7/99	309	5.7
206	27	1608	12	cpm	Integrate	5 s	10:02:00	6/7/99	299	5.7

108-F Wall Release Survey Data Points and Interpretation

#	Location	Count 1	Count 2	Units	Operating I	Int Val T	Log Time	Log Date	beta/gamma	alpha	
207	27	4838	48.02	cpm	Integrate	5 s	10:02:00	6/7/99	-	-	Noted bad count
208	27	1656	0	cpm	Integrate	5 s	10:03:00	6/7/99	338	-16.8	
209	27	1404	12	cpm	Integrate	5 s	10:03:00	6/7/99	133	5.7	
210	27	1716	0	cpm	Integrate	5 s	10:03:00	6/7/99	387	-16.8	
211	27	1620	12	cpm	Integrate	5 s	10:04:00	6/7/99	309	5.7	
212	27	1824	0	cpm	Integrate	5 s	10:04:00	6/7/99	474	-16.8	
213	27	1884	12	cpm	Integrate	5 s	10:05:00	6/7/99	523	5.7	
214	27	2148	0	cpm	Integrate	5 s	10:05:00	6/7/99	738	-16.8	
215	27	1728	24	cpm	Integrate	5 s	10:06:00	6/7/99	396	28.1	
216	27	1656	0	cpm	Integrate	5 s	10:06:00	6/7/99	338	-16.8	
217	27	1728	12	cpm	Integrate	5 s	10:06:00	6/7/99	396	5.7	
218	27	3661	12	cpm	Integrate	5 s	10:07:00	6/7/99	1968	5.7	
219	27	1524	24	cpm	Integrate	5 s	10:07:00	6/7/99	230	28.1	
220	27	10110	1459	cpm	Integrate	5 s	10:07:00	6/7/99	-	-	Noted bad count
221	27	1584	12	cpm	Integrate	5 s	10:08:00	6/7/99	279	5.7	
222	27	1452	0	cpm	Integrate	5 s	10:08:00	6/7/99	172	-16.8	
223	27	1836	12	cpm	Integrate	5 s	10:08:00	6/7/99	484	5.7	
224	28	1572	24	cpm	Integrate	5 s	10:12:00	6/7/99	269	28.1	
225	28	1764	0	cpm	Integrate	5 s	10:12:00	6/7/99	426	-16.8	
226	28	1848	24	cpm	Integrate	5 s	10:13:00	6/7/99	494	28.1	
227	28	1932	12	cpm	Integrate	5 s	10:13:00	6/7/99	562	5.7	
228	28	1740	24	cpm	Integrate	5 s	10:13:00	6/7/99	406	28.1	
229	28	1656	0	cpm	Integrate	5 s	10:14:00	6/7/99	338	-16.8	
230	28	1788	0	cpm	Integrate	5 s	10:14:00	6/7/99	445	-16.8	
231	28	1896	12	cpm	Integrate	5 s	10:14:00	6/7/99	533	5.7	
232	28	1836	12	cpm	Integrate	5 s	10:15:00	6/7/99	484	5.7	
233	28	1668	24	cpm	Integrate	5 s	10:15:00	6/7/99	348	28.1	
234	28	1716	0	cpm	Integrate	5 s	10:15:00	6/7/99	387	-16.8	
235	28	1740	24	cpm	Integrate	5 s	10:15:00	6/7/99	406	28.1	
236	28	1944	48.01	cpm	Integrate	5 s	10:16:00	6/7/99	572	73.1	
237	28	1848	0	cpm	Integrate	5 s	10:16:00	6/7/99	494	-16.8	
238	28	1728	0	cpm	Integrate	5 s	10:17:00	6/7/99	396	-16.8	
239	28	1896	0	cpm	Integrate	5 s	10:17:00	6/7/99	533	-16.8	
240	28	2280	12	cpm	Integrate	5 s	10:17:00	6/7/99	845	5.7	
241	28	1884	0	cpm	Integrate	5 s	10:18:00	6/7/99	523	-16.8	
242	28	1848	0	cpm	Integrate	5 s	10:18:00	6/7/99	494	-16.8	
243	28	1716	12	cpm	Integrate	5 s	10:18:00	6/7/99	387	5.7	
244	28	1704	0	cpm	Integrate	5 s	10:18:00	6/7/99	377	-16.8	
245	28	1716	0	cpm	Integrate	5 s	10:19:00	6/7/99	387	-16.8	
246	28	2004	24	cpm	Integrate	5 s	10:19:00	6/7/99	621	28.1	
247	28	1620	24	cpm	Integrate	5 s	10:20:00	6/7/99	309	28.1	
248	28	2076	24	cpm	Integrate	5 s	10:20:00	6/7/99	679	28.1	

108-F Wall Release Survey Data Points and Interpretation

#	Location	Count 1	Count 2	Units	Operating I	Int Val T	Log Time	Log Date	beta/gamma	alpha	
249	28	4296	158.7	cpm	Integrate	5 s	10:20:00	6/7/99	-	-	Noted bad count
250	28	1776	0	cpm	Integrate	5 s	10:21:00	6/7/99	435	-16.8	
251	28	1728	12	cpm	Integrate	5 s	10:21:00	6/7/99	396	5.7	
252	28	1812	12	cpm	Integrate	5 s	10:21:00	6/7/99	465	5.7	
253	28	1824	0	cpm	Integrate	5 s	10:21:00	6/7/99	474	-16.8	
254	28	1692	12	cpm	Integrate	5 s	10:22:00	6/7/99	367	5.7	
255	28	1692	0	cpm	Integrate	5 s	10:22:00	6/7/99	367	-16.8	
256	28	1932	0	cpm	Integrate	5 s	10:22:00	6/7/99	562	-16.8	
257	28	1608	12	cpm	Integrate	5 s	10:23:00	6/7/99	299	5.7	
258	28	1992	24	cpm	Integrate	5 s	10:23:00	6/7/99	611	28.1	
259	28	1788	12	cpm	Integrate	5 s	10:23:00	6/7/99	445	5.7	
260	28	1740	0	cpm	Integrate	5 s	10:24:00	6/7/99	406	-16.8	
261	28	2030	108.0	cpm	Integrate	5 s	10:24:00	6/7/99	-	-	Noted bad count
262	28	1776	48.01	cpm	Integrate	5 s	10:24:00	6/7/99	435	73.1	
263	28	1968	12	cpm	Integrate	5 s	10:24:00	6/7/99	591	5.7	
264	28	1896	12	cpm	Integrate	5 s	10:25:00	6/7/99	533	5.7	
265	28	1908	24	cpm	Integrate	5 s	10:25:00	6/7/99	543	28.1	
266	28	1860	12	cpm	Integrate	5 s	10:25:00	6/7/99	504	5.7	
267	28	1848	0	cpm	Integrate	5 s	10:25:00	6/7/99	494	-16.8	
268	28	1896	0	cpm	Integrate	5 s	10:26:00	6/7/99	533	-16.8	
269	28	1896	0	cpm	Integrate	5 s	10:26:00	6/7/99	533	-16.8	
270	28	1704	24	cpm	Integrate	5 s	10:26:00	6/7/99	377	28.1	
271	1002	1704	24	cpm	Integrate	5 s	10:26:00	6/7/99	377	28.1	
272	28	1548	12	cpm	Integrate	5 s	10:27:00	6/7/99	250	5.7	
273	28	1944	0	cpm	Integrate	5 s	10:27:00	6/7/99	572	-16.8	
274	28	1932	24	cpm	Integrate	5 s	10:27:00	6/7/99	562	28.1	
275	28	2016	12	cpm	Integrate	5 s	10:28:00	6/7/99	630	5.7	
276	28	1716	24	cpm	Integrate	5 s	10:28:00	6/7/99	387	28.1	
277	28	1692	24	cpm	Integrate	5 s	10:28:00	6/7/99	367	28.1	
278	28	1512	36	cpm	Integrate	5 s	10:29:00	6/7/99	221	50.6	
279	28	1944	24	cpm	Integrate	5 s	10:29:00	6/7/99	572	28.1	
280	28	2016	0	cpm	Integrate	5 s	10:29:00	6/7/99	630	-16.8	
281	28	1848	0	cpm	Integrate	5 s	10:30:00	6/7/99	494	-16.8	
282	28	1716	36.01	cpm	Integrate	5 s	10:30:00	6/7/99	387	50.6	
283	28	1824	0	cpm	Integrate	5 s	10:30:00	6/7/99	474	-16.8	
284	28	1728	12	cpm	Integrate	5 s	10:31:00	6/7/99	396	5.7	
285	28	2016	12	cpm	Integrate	5 s	10:31:00	6/7/99	630	5.7	
286	28	1752	12	cpm	Integrate	5 s	10:32:00	6/7/99	416	5.7	
287	28	1704	12	cpm	Integrate	5 s	10:32:00	6/7/99	377	5.7	
288	0	1920	24	cpm	Integrate	5 s	10:32:00	6/7/99	552	28.1	
289	28	1884	0	cpm	Integrate	5 s	10:33:00	6/7/99	523	-16.8	
290	28	2040	24	cpm	Integrate	5 s	10:33:00	6/7/99	650	28.1	

108-F Wall Release Survey Data Points and Interpretation

	#	Location	Count 1	Count 2	Units	Operating I	Int Val T	Log Time	Log Date	beta/gamma	alpha
	291	28	1848	0	cpm	Integrate	5 s	10:33:00	6/7/99	494	-16.8
	292	23	1737	12.8	cpm	Integrate	300 s	10:43:00	6/7/99	404	7.2
Background and Source Checks	293	1002	1012	1	cpm	N/A	60 s	7:53:00	6/9/99	-	-
	294	1002	1515	3279	cpm	N/A	60 s	7:54:00	6/9/99	-	-
	295	1002	1434	3278	cpm	N/A	60 s	7:56:00	6/9/99	-	-
	296	1002	1409	3252	cpm	N/A	60 s	7:57:00	6/9/99	-	-
	297	1002	1432	3215	cpm	N/A	60 s	7:58:00	6/9/99	-	-
	298	1002	1430	3215	cpm	N/A	60 s	7:59:00	6/9/99	-	-
	299	1002	10520	13.01	cpm	N/A	60 s	8:01:00	6/9/99	-	-
	300	1002	10430	15.01	cpm	N/A	60 s	8:02:00	6/9/99	-	-
	301	1002	10540	6.005	cpm	N/A	60 s	8:03:00	6/9/99	-	-
	302	1002	10640	14.01	cpm	N/A	60 s	8:04:00	6/9/99	-	-
	303	1002	10650	16.01	cpm	N/A	60 s	8:06:00	6/9/99	-	-
	304	1002	1487	2770	cpm	N/A	60 s	11:37:00	6/9/99	-	-
	305	1002	1446	2808	cpm	N/A	60 s	11:38:00	6/9/99	-	-
	306	1002	1519	2797	cpm	N/A	60 s	11:40:00	6/9/99	-	-
	307	1002	1468	2851	cpm	N/A	60 s	11:41:00	6/9/99	-	-
	308	1002	1440	2774	cpm	N/A	60 s	11:42:00	6/9/99	-	-
	309	1002	10110	10.01	cpm	N/A	60 s	11:44:00	6/9/99	-	-
	310	1002	10250	11.01	cpm	N/A	60 s	11:45:00	6/9/99	-	-
	311	1002	10050	11.01	cpm	N/A	60 s	11:47:00	6/9/99	-	-
	312	1002	10240	12.01	cpm	N/A	60 s	11:48:00	6/9/99	-	-
	313	1002	10030	8.007	cpm	N/A	60 s	11:50:00	6/9/99	-	-
	314	28	1944	12	cpm	N/A	5 s	12:34:00	6/9/99	572	5.7
	315	28	1584	12	cpm	N/A	5 s	12:34:00	6/9/99	279	5.7
	316	28	1560	24	cpm	N/A	5 s	12:34:00	6/9/99	260	28.1
	317	28	1836	24	cpm	N/A	5 s	12:35:00	6/9/99	484	28.1
	318	28	2100	0	cpm	N/A	5 s	12:35:00	6/9/99	699	-16.8
	319	28	1440	36	cpm	N/A	5 s	12:36:00	6/9/99	162	50.6
	320	28	1956	12	cpm	N/A	5 s	12:36:00	6/9/99	582	5.7
	321	28	1368	0	cpm	N/A	5 s	12:37:00	6/9/99	104	-16.8
	322	28	1788	24	cpm	N/A	5 s	12:37:00	6/9/99	445	28.1
	323	28	1740	0	cpm	N/A	5 s	12:38:00	6/9/99	406	-16.8
	324	28	1620	12	cpm	N/A	5 s	12:38:00	6/9/99	309	5.7
	325	28	1644	12	cpm	N/A	5 s	12:38:00	6/9/99	328	5.7
	326	28	1524	0	cpm	N/A	5 s	12:39:00	6/9/99	230	-16.8
	327	28	1668	0	cpm	N/A	5 s	12:39:00	6/9/99	348	-16.8
	328	28	1680	12	cpm	N/A	5 s	12:39:00	6/9/99	357	5.7
	329	28	1788	12	cpm	N/A	5 s	12:39:00	6/9/99	445	5.7
	330	28	1668	12	cpm	N/A	5 s	12:40:00	6/9/99	348	5.7
	331	0	1560	12	cpm	N/A	5 s	12:40:00	6/9/99	260	5.7
	332	28	1548	0	cpm	N/A	5 s	12:40:00	6/9/99	250	-16.8

108-F Wall Release Survey Data Points and Interpretation

#	Location	Count 1	Count 2	Units	Operating I	Int Val T	Log Time	Log Date	beta/gamma	alpha
333	28	1956	0	cpm	N/A	5 s	12:41:00	6/9/99	582	-16.8
334	28	1848	0	cpm	N/A	5 s	12:41:00	6/9/99	494	-16.8
335	28	1704	12	cpm	N/A	5 s	12:41:00	6/9/99	377	5.7
336	28	1836	12	cpm	N/A	5 s	12:42:00	6/9/99	484	5.7
337	28	1776	12	cpm	N/A	5 s	12:42:00	6/9/99	435	5.7
338	28	1680	24	cpm	N/A	5 s	12:43:00	6/9/99	357	28.1
339	28	1908	0	cpm	N/A	5 s	12:43:00	6/9/99	543	-16.8
340	28	1668	0	cpm	N/A	5 s	12:43:00	6/9/99	348	-16.8
341	28	1860	0	cpm	N/A	5 s	12:44:00	6/9/99	504	-16.8
342	28	1932	0	cpm	N/A	5 s	12:44:00	6/9/99	562	-16.8
343	28	1836	36.01	cpm	N/A	5 s	12:44:00	6/9/99	484	50.6
344	28	1752	12	cpm	N/A	5 s	12:45:00	6/9/99	416	5.7
345	28	1404	12	cpm	N/A	5 s	12:45:00	6/9/99	133	5.7
346	28	1776	0	cpm	N/A	5 s	12:45:00	6/9/99	435	-16.8
347	28	1848	0	cpm	N/A	5 s	12:46:00	6/9/99	494	-16.8
348	28	1680	12	cpm	N/A	5 s	12:46:00	6/9/99	357	5.7
349	28	1608	12	cpm	N/A	5 s	12:46:00	6/9/99	299	5.7
350	28	1692	0	cpm	N/A	5 s	12:46:00	6/9/99	367	-16.8
351	28	1860	36.01	cpm	N/A	5 s	12:47:00	6/9/99	504	50.6
352	28	1944	12	cpm	N/A	5 s	12:47:00	6/9/99	572	5.7
353	28	1548	12	cpm	N/A	5 s	12:47:00	6/9/99	250	5.7
354	28	1428	12	cpm	N/A	5 s	12:48:00	6/9/99	152	5.7
355	27	1632	36.01	cpm	N/A	5 s	12:51:00	6/9/99	318	50.6
356	27	2220	0	cpm	N/A	5 s	12:51:00	6/9/99	796	-16.8
357	27	1716	12	cpm	N/A	5 s	12:52:00	6/9/99	387	5.7
358	27	1800	0	cpm	N/A	5 s	12:52:00	6/9/99	455	-16.8
359	27	1776	0	cpm	N/A	5 s	12:53:00	6/9/99	435	-16.8
360	27	1440	0	cpm	N/A	5 s	12:53:00	6/9/99	162	-16.8
361	27	1956	24	cpm	N/A	5 s	12:53:00	6/9/99	582	28.1
362	27	1488	0	cpm	N/A	5 s	12:54:00	6/9/99	201	-16.8
363	27	1260	12	cpm	N/A	5 s	12:54:00	6/9/99	16	5.7
364	27	1680	24	cpm	N/A	5 s	12:55:00	6/9/99	357	28.1
365	27	1704	48.01	cpm	N/A	5 s	12:55:00	6/9/99	377	73.1
366	1002	1620	12	cpm	N/A	5 s	12:56:00	6/9/99	309	5.7
367	27	1392	12	cpm	N/A	5 s	12:56:00	6/9/99	123	5.7
368	27	1572	12	cpm	N/A	5 s	12:56:00	6/9/99	269	5.7
369	27	1620	24	cpm	N/A	5 s	12:57:00	6/9/99	309	28.1
370	27	1668	12	cpm	N/A	5 s	12:57:00	6/9/99	348	5.7
371	27	1584	24	cpm	N/A	5 s	12:57:00	6/9/99	279	28.1
372	27	1572	12	cpm	N/A	5 s	12:58:00	6/9/99	269	5.7
373	27	1608	12	cpm	N/A	5 s	12:58:00	6/9/99	299	5.7
374	27	1488	12	cpm	N/A	5 s	12:58:00	6/9/99	201	5.7

108-F Wall Release Survey Data Points and Interpretation

	#	Location	Count 1	Count 2	Units	Operating I Int Val T	Log Time	Log Date	beta/gamma	alpha
	375	27	1644	0	cpm	N/A 5 s	12:59:00	6/9/99	328	-16.8
	376	27	1860	24	cpm	N/A 5 s	1:00:00	6/9/99	504	28.1
	377	27	1956	0	cpm	N/A 5 s	1:00:00	6/9/99	582	-16.8
	378	27	1572	0	cpm	N/A 5 s	1:00:00	6/9/99	269	-16.8
	379	27	1824	12	cpm	N/A 5 s	1:00:00	6/9/99	474	5.7
	380	27	1656	12	cpm	N/A 5 s	1:01:00	6/9/99	338	5.7
	381	27	1752	12	cpm	N/A 5 s	1:01:00	6/9/99	416	5.7
	382	27	1620	24	cpm	N/A 5 s	1:01:00	6/9/99	309	28.1
	383	27	1596	0	cpm	N/A 5 s	1:01:00	6/9/99	289	-16.8
	384	27	1872	12	cpm	N/A 5 s	1:02:00	6/9/99	513	5.7
	385	27	1644	24	cpm	N/A 5 s	1:02:00	6/9/99	328	28.1
	386	27	1644	12	cpm	N/A 5 s	1:02:00	6/9/99	328	5.7
	387	25	1824	12	cpm	N/A 5 s	1:03:00	6/9/99	474	5.7
	388	25	1920	12	cpm	N/A 5 s	1:04:00	6/9/99	552	5.7
	389	25	2028	12	cpm	N/A 5 s	1:04:00	6/9/99	640	5.7
	390	25	1716	12	cpm	N/A 5 s	1:04:00	6/9/99	387	5.7
	391	25	1776	12	cpm	N/A 5 s	1:05:00	6/9/99	435	5.7
	392	25	1932	0	cpm	N/A 5 s	1:05:00	6/9/99	562	-16.8
	393	25	1764	0	cpm	N/A 5 s	1:06:00	6/9/99	426	-16.8
	394	25	1812	12	cpm	N/A 5 s	1:06:00	6/9/99	465	5.7
	395	25	1872	36.01	cpm	N/A 5 s	1:06:00	6/9/99	513	50.6
	396	25	1704	0	cpm	N/A 5 s	1:06:00	6/9/99	377	-16.8
	397	25	1860	36.01	cpm	N/A 5 s	1:07:00	6/9/99	504	50.6
	398	25	1656	24	cpm	N/A 5 s	1:07:00	6/9/99	338	28.1
	399	25	1872	0	cpm	N/A 5 s	1:08:00	6/9/99	513	-16.8
	400	25	1704	12	cpm	N/A 5 s	1:08:00	6/9/99	377	5.7
	401	25	1620	0	cpm	N/A 5 s	1:08:00	6/9/99	309	-16.8
	402	25	1704	36.01	cpm	N/A 5 s	1:09:00	6/9/99	377	50.6
Source Checks	403	1002	1479	2711	cpm	N/A 60 s	6:45:00	6/10/99	-	-
	404	1002	1462	2710	cpm	N/A 60 s	6:46:00	6/10/99	-	-
	405	1002	1425	2642	cpm	N/A 60 s	6:47:00	6/10/99	-	-
	406	1002	1467	2731	cpm	N/A 60 s	6:48:00	6/10/99	-	-
	407	1002	1574	2711	cpm	N/A 60 s	6:51:00	6/10/99	-	-
	408	1002	10280	14.01	cpm	N/A 60 s	6:53:00	6/10/99	-	-
	409	1002	10340	7.006	cpm	N/A 60 s	6:54:00	6/10/99	-	-
	410	1002	10360	9.008	cpm	N/A 60 s	6:55:00	6/10/99	-	-
	411	1002	10390	16.01	cpm	N/A 60 s	6:56:00	6/10/99	-	-
	412	1002	10550	13.01	cpm	N/A 60 s	6:58:00	6/10/99	-	-
	413	26	1668	24	cpm	N/A 5 s	7:30:00	6/10/99	348	28.1
	414	26	1572	0	cpm	N/A 5 s	7:31:00	6/10/99	269	-16.8
	415	26	1680	0	cpm	N/A 5 s	7:31:00	6/10/99	357	-16.8
	416	26	1728	24	cpm	N/A 5 s	7:31:00	6/10/99	396	28.1

108-F Wall Release Survey Data Points and Interpretation

#	Location	Count 1	Count 2	Units	Operating I	Int Val T	Log Time	Log Date	beta/gamma	alpha
417	26	1704	0	cpm	N/A	5 s	7:32:00	6/10/99	377	-16.8
418	26	1836	0	cpm	N/A	5 s	7:32:00	6/10/99	484	-16.8
419	26	1728	0	cpm	N/A	5 s	7:32:00	6/10/99	396	-16.8
420	26	1752	0	cpm	N/A	5 s	7:33:00	6/10/99	416	-16.8
421	26	1800	0	cpm	N/A	5 s	7:33:00	6/10/99	455	-16.8
422	26	1980	0	cpm	N/A	5 s	7:33:00	6/10/99	601	-16.8
423	26	1788	12	cpm	N/A	5 s	7:33:00	6/10/99	445	5.7
424	26	1776	0	cpm	N/A	5 s	7:34:00	6/10/99	435	-16.8
425	26	1824	24	cpm	N/A	5 s	7:34:00	6/10/99	474	28.1
426	26	1776	12	cpm	N/A	5 s	7:34:00	6/10/99	435	5.7
427	26	1620	36	cpm	N/A	5 s	7:35:00	6/10/99	309	50.6
428	26	1788	24	cpm	N/A	5 s	7:35:00	6/10/99	445	28.1
429	26	1560	0	cpm	N/A	5 s	7:36:00	6/10/99	260	-16.8
430	26	1896	36.01	cpm	N/A	5 s	7:36:00	6/10/99	533	50.6
431	26	1560	0	cpm	N/A	5 s	7:37:00	6/10/99	260	-16.8
432	26	1776	0	cpm	N/A	5 s	7:37:00	6/10/99	435	-16.8
433	26	1836	24	cpm	N/A	5 s	7:38:00	6/10/99	484	28.1
434	26	1500	12	cpm	N/A	5 s	7:38:00	6/10/99	211	5.7
435	26	1848	24	cpm	N/A	5 s	7:38:00	6/10/99	494	28.1
436	26	2148	0	cpm	N/A	5 s	7:38:00	6/10/99	738	-16.8
437	26	1884	12	cpm	N/A	5 s	7:39:00	6/10/99	523	5.7
438	26	1728	0	cpm	N/A	5 s	7:39:00	6/10/99	396	-16.8
439	26	1608	36	cpm	N/A	5 s	7:40:00	6/10/99	299	50.6
440	26	1656	24	cpm	N/A	5 s	7:40:00	6/10/99	338	28.1
441	26	1728	0	cpm	N/A	5 s	7:41:00	6/10/99	396	-16.8
442	26	1824	12	cpm	N/A	5 s	7:41:00	6/10/99	474	5.7
443	26	1668	0	cpm	N/A	5 s	7:41:00	6/10/99	348	-16.8
444	26	1776	12	cpm	N/A	5 s	7:41:00	6/10/99	435	5.7
445	26	1620	24	cpm	N/A	5 s	7:42:00	6/10/99	309	28.1
446	26	1620	24	cpm	N/A	5 s	7:42:00	6/10/99	309	28.1
447	26	1404	0	cpm	N/A	5 s	7:42:00	6/10/99	133	-16.8
448	26	1872	0	cpm	N/A	5 s	7:42:00	6/10/99	513	-16.8
449	26	1644	0	cpm	N/A	5 s	7:43:00	6/10/99	328	-16.8
450	26	1560	0	cpm	N/A	5 s	7:43:00	6/10/99	260	-16.8
451	26	1596	24	cpm	N/A	5 s	7:43:00	6/10/99	289	28.1
452	26	1716	24	cpm	N/A	5 s	7:44:00	6/10/99	387	28.1
453	26	1704	0	cpm	N/A	5 s	7:44:00	6/10/99	377	-16.8
454	26	1692	24	cpm	N/A	5 s	7:44:00	6/10/99	367	28.1
455	26	1680	48.01	cpm	N/A	5 s	7:44:00	6/10/99	357	73.1
456	26	1848	12	cpm	N/A	5 s	7:56:00	6/10/99	494	5.7
457	26	1752	24	cpm	N/A	5 s	7:56:00	6/10/99	416	28.1
458	26	1680	0	cpm	N/A	5 s	7:57:00	6/10/99	357	-16.8

108-F Wall Release Survey Data Points and Interpretation

#	Location	Count 1	Count 2	Units	Operating I	Int Val T	Log Time	Log Date	beta/gamma	alpha
459	26	1728	0	cpm	N/A	5 s	7:57:00	6/10/99	396	-16.8
460	26	1932	12	cpm	N/A	5 s	7:57:00	6/10/99	562	5.7
461	26	1668	24	cpm	N/A	5 s	7:57:00	6/10/99	348	28.1
462	26	1884	24	cpm	N/A	5 s	7:58:00	6/10/99	523	28.1
463	26	1872	12	cpm	N/A	5 s	7:58:00	6/10/99	513	5.7
464	26	1824	12	cpm	N/A	5 s	7:58:00	6/10/99	474	5.7
465	26	1740	0	cpm	N/A	5 s	7:59:00	6/10/99	406	-16.8
466	26	2040	0	cpm	N/A	5 s	7:59:00	6/10/99	650	-16.8
467	26	1668	0	cpm	N/A	5 s	7:59:00	6/10/99	348	-16.8
468	26	1788	12	cpm	N/A	5 s	8:00:00	6/10/99	445	5.7
469	26	1536	36	cpm	N/A	5 s	8:00:00	6/10/99	240	50.6
470	26	1884	0	cpm	N/A	5 s	8:00:00	6/10/99	523	-16.8
471	26	1656	0	cpm	N/A	5 s	8:00:00	6/10/99	338	-16.8
472	26	1632	12	cpm	N/A	5 s	8:01:00	6/10/99	318	5.7
473	26	1836	12	cpm	N/A	5 s	8:01:00	6/10/99	484	5.7
474	26	1788	0	cpm	N/A	5 s	8:01:00	6/10/99	445	-16.8
475	26	1644	24	cpm	N/A	5 s	8:02:00	6/10/99	328	28.1
476	26	1692	12	cpm	N/A	5 s	8:02:00	6/10/99	367	5.7
477	26	2196	12	cpm	N/A	5 s	8:03:00	6/10/99	777	5.7
478	26	2004	12	cpm	N/A	5 s	8:03:00	6/10/99	621	5.7
479	26	1812	0	cpm	N/A	5 s	8:04:00	6/10/99	465	-16.8
480	26	1560	0	cpm	N/A	5 s	8:04:00	6/10/99	260	-16.8
481	26	1788	12	cpm	N/A	5 s	8:05:00	6/10/99	445	5.7
482	26	1620	0	cpm	N/A	5 s	8:05:00	6/10/99	309	-16.8
483	26	1812	0	cpm	N/A	5 s	8:05:00	6/10/99	465	-16.8
484	26	1680	12	cpm	N/A	5 s	8:06:00	6/10/99	357	5.7
485	26	1752	12	cpm	N/A	5 s	8:06:00	6/10/99	416	5.7
486	26	1728	12	cpm	N/A	5 s	8:06:00	6/10/99	396	5.7
487	26	2112	0	cpm	N/A	5 s	8:07:00	6/10/99	709	-16.8
488	26	1908	24	cpm	N/A	5 s	8:07:00	6/10/99	543	28.1
489	26	1584	0	cpm	N/A	5 s	8:07:00	6/10/99	279	-16.8
490	26	1704	12	cpm	N/A	5 s	8:08:00	6/10/99	377	5.7
491	26	1848	24	cpm	N/A	5 s	8:08:00	6/10/99	494	28.1
492	1002	1860	24	cpm	N/A	5 s	8:08:00	6/10/99	504	28.1
493	26	1680	0	cpm	N/A	5 s	8:09:00	6/10/99	357	-16.8
494	26	1992	12	cpm	N/A	5 s	8:09:00	6/10/99	611	5.7
495	26	1728	12	cpm	N/A	5 s	8:09:00	6/10/99	396	5.7
496	26	1656	0	cpm	N/A	5 s	8:10:00	6/10/99	338	-16.8
497	32	1608	12	cpm	N/A	5 s	8:24:00	6/10/99	299	5.7
498	32	1380	36	cpm	N/A	5 s	8:24:00	6/10/99	113	50.6
499	32	1692	0	cpm	N/A	5 s	8:24:00	6/10/99	367	-16.8
500	32	1716	0	cpm	N/A	5 s	8:25:00	6/10/99	387	-16.8

108-F Wall Release Survey Data Points and Interpretation

#	Location	Count 1	Count 2	Units	Operating I	Int Val T	Log Time	Log Date	beta/gamma	alpha	
501	32	1680	0	cpm	N/A	5 s	8:25:00	6/10/99	357	-16.8	
502	32	1524	36	cpm	N/A	5 s	8:25:00	6/10/99	230	50.6	
503	32	1428	12	cpm	N/A	5 s	8:25:00	6/10/99	152	5.7	
504	32	1728	12	cpm	N/A	5 s	8:26:00	6/10/99	396	5.7	
505	32	1524	12	cpm	N/A	5 s	8:26:00	6/10/99	230	5.7	
506	32	1536	0	cpm	N/A	5 s	8:27:00	6/10/99	240	-16.8	
507	32	1860	0	cpm	N/A	5 s	8:27:00	6/10/99	504	-16.8	
508	32	1752	12	cpm	N/A	5 s	8:27:00	6/10/99	416	5.7	
509	32	1836	0	cpm	N/A	5 s	8:27:00	6/10/99	484	-16.8	
510	32	1716	0	cpm	N/A	5 s	8:28:00	6/10/99	387	-16.8	
511	32	1668	12	cpm	N/A	5 s	8:28:00	6/10/99	348	5.7	
512	32	1572	24	cpm	N/A	5 s	8:29:00	6/10/99	269	28.1	
513	32	1236	12	cpm	N/A	5 s	8:29:00	6/10/99	-4	5.7	
514	32	1488	12	cpm	N/A	5 s	8:29:00	6/10/99	201	5.7	
515	32	1680	12	cpm	N/A	5 s	8:29:00	6/10/99	357	5.7	
516	32	1476	0	cpm	N/A	5 s	8:30:00	6/10/99	191	-16.8	
517	32	1356	48.01	cpm	N/A	5 s	8:30:00	6/10/99	94	73.1	
518	32	1548	0	cpm	N/A	5 s	8:31:00	6/10/99	250	-16.8	
519	32	1260	12	cpm	N/A	5 s	8:31:00	6/10/99	16	5.7	
520	32	1524	12	cpm	N/A	5 s	8:32:00	6/10/99	230	5.7	
521	32	1524	12	cpm	N/A	5 s	8:32:00	6/10/99	230	5.7	
522	1002	1752	12	cpm	N/A	5 s	8:32:00	6/10/99	416	5.7	
523	32	1368	12	cpm	N/A	5 s	8:33:00	6/10/99	104	5.7	
524	32	1704	12	cpm	N/A	5 s	8:34:00	6/10/99	377	5.7	
525	32	1476	0	cpm	N/A	5 s	8:34:00	6/10/99	191	-16.8	
526	32	1560	12	cpm	N/A	5 s	8:34:00	6/10/99	260	5.7	
527	32	1620	0	cpm	N/A	5 s	8:35:00	6/10/99	309	-16.8	
528	32	1788	24	cpm	N/A	5 s	8:35:00	6/10/99	445	28.1	
529	32	1680	36.01	cpm	N/A	5 s	8:35:00	6/10/99	357	50.6	
530	1002	8600	195.2	cpm	N/A	5 s	8:41:00	6/10/99	-	-	Noted bad count
531	1002	6243	12.01	cpm	N/A	5 s	8:43:00	6/10/99	4067	5.7	
532	35	1872	12	cpm	N/A	5 s	8:44:00	6/10/99	513	5.7	
533	35	1968	48.01	cpm	N/A	5 s	8:44:00	6/10/99	591	73.1	
534	35	1872	12	cpm	N/A	5 s	8:45:00	6/10/99	513	5.7	
535	35	1704	24	cpm	N/A	5 s	8:45:00	6/10/99	377	28.1	
536	35	1320	0	cpm	N/A	5 s	8:45:00	6/10/99	65	-16.8	
537	35	1992	0	cpm	N/A	5 s	8:46:00	6/10/99	611	-16.8	
538	35	1860	12	cpm	N/A	5 s	8:46:00	6/10/99	504	5.7	
539	35	1632	0	cpm	N/A	5 s	9:05:00	6/10/99	318	-16.8	
540	35	1848	0	cpm	N/A	5 s	9:05:00	6/10/99	494	-16.8	
541	35	1800	12	cpm	N/A	5 s	9:05:00	6/10/99	455	5.7	
542	35	2016	12	cpm	N/A	5 s	9:06:00	6/10/99	630	5.7	

108-F Wall Release Survey Data Points and Interpretation

#	Location	Count 1	Count 2	Units	Operating I	Int Val T	Log Time	Log Date	beta/gamma	alpha
543	35	1788	24	cpm	N/A	5 s	9:06:00	6/10/99	445	28.1
544	35	1896	24	cpm	N/A	5 s	9:06:00	6/10/99	533	28.1
545	35	1728	0	cpm	N/A	5 s	9:07:00	6/10/99	396	-16.8
546	35	1788	0	cpm	N/A	5 s	9:07:00	6/10/99	445	-16.8
547	35	1632	0	cpm	N/A	5 s	9:07:00	6/10/99	318	-16.8
548	32	1944	0	cpm	N/A	5 s	9:10:00	6/10/99	572	-16.8
549	32	1788	36.01	cpm	N/A	5 s	9:10:00	6/10/99	445	50.6
550	32	2004	36.01	cpm	N/A	5 s	9:10:00	6/10/99	621	50.6
551	32	1956	24	cpm	N/A	5 s	9:11:00	6/10/99	582	28.1
552	32	1620	12	cpm	N/A	5 s	9:11:00	6/10/99	309	5.7
553	32	1608	12	cpm	N/A	5 s	9:12:00	6/10/99	299	5.7
554	32	1992	36.01	cpm	N/A	5 s	9:12:00	6/10/99	611	50.6
555	32	1740	24	cpm	N/A	5 s	9:12:00	6/10/99	406	28.1
556	32	1788	12	cpm	N/A	5 s	9:12:00	6/10/99	445	5.7
557	32	1848	36.01	cpm	N/A	5 s	9:13:00	6/10/99	494	50.6
558	32	1608	0	cpm	N/A	5 s	9:17:00	6/10/99	299	-16.8
559	32	1668	0	cpm	N/A	5 s	9:17:00	6/10/99	348	-16.8
560	32	1920	0	cpm	N/A	5 s	9:17:00	6/10/99	552	-16.8
561	32	1752	0	cpm	N/A	5 s	9:18:00	6/10/99	416	-16.8
562	32	1752	48.01	cpm	N/A	5 s	9:18:00	6/10/99	416	73.1
563	32	2076	12	cpm	N/A	5 s	9:18:00	6/10/99	679	5.7
564	32	1704	0	cpm	N/A	5 s	9:19:00	6/10/99	377	-16.8
565	32	1896	0	cpm	N/A	5 s	9:19:00	6/10/99	533	-16.8
566	32	1968	0	cpm	N/A	5 s	9:19:00	6/10/99	591	-16.8
567	32	1968	0	cpm	N/A	5 s	9:20:00	6/10/99	591	-16.8
568	32	1776	48.01	cpm	N/A	5 s	9:20:00	6/10/99	435	73.1
569	32	1908	24	cpm	N/A	5 s	9:20:00	6/10/99	543	28.1
570	32	1740	12	cpm	N/A	5 s	9:21:00	6/10/99	406	5.7
571	32	1932	12	cpm	N/A	5 s	9:21:00	6/10/99	562	5.7
572	32	1788	12	cpm	N/A	5 s	9:21:00	6/10/99	445	5.7
573	32	1776	24	cpm	N/A	5 s	9:21:00	6/10/99	435	28.1
574	32	1920	24	cpm	N/A	5 s	9:22:00	6/10/99	552	28.1
575	32	1620	12	cpm	N/A	5 s	9:22:00	6/10/99	309	5.7
576	32	1704	12	cpm	N/A	5 s	9:22:00	6/10/99	377	5.7
577	32	2064	0	cpm	N/A	5 s	9:23:00	6/10/99	669	-16.8
578	32	1824	36.01	cpm	N/A	5 s	9:23:00	6/10/99	474	50.6
579	1002	1284	12	cpm	N/A	5 s	9:25:00	6/10/99	35	5.7
580	30	1800	12	cpm	N/A	5 s	9:31:00	6/10/99	455	5.7
581	30	1860	12	cpm	N/A	5 s	9:31:00	6/10/99	504	5.7
582	30	1884	0	cpm	N/A	5 s	9:32:00	6/10/99	523	-16.8
583	30	1704	0	cpm	N/A	5 s	9:32:00	6/10/99	377	-16.8
584	30	1548	12	cpm	N/A	5 s	9:32:00	6/10/99	250	5.7

108-F Wall Release Survey Data Points and Interpretation

#	Location	Count 1	Count 2	Units	Operating I	Int Val T	Log Time	Log Date	beta/gamma	alpha
585	30	1896	0	cpm	N/A	5 s	9:33:00	6/10/99	533	-16.8
586	30	1848	12	cpm	N/A	5 s	9:33:00	6/10/99	494	5.7
587	30	1728	12	cpm	N/A	5 s	9:33:00	6/10/99	396	5.7
588	30	1764	24	cpm	N/A	5 s	9:33:00	6/10/99	426	28.1
589	30	1776	0	cpm	N/A	5 s	9:34:00	6/10/99	435	-16.8
590	30	1584	24	cpm	N/A	5 s	9:34:00	6/10/99	279	28.1
591	30	1716	12	cpm	N/A	5 s	9:34:00	6/10/99	387	5.7
592	30	2040	12	cpm	N/A	5 s	9:35:00	6/10/99	650	5.7
593	30	1656	0	cpm	N/A	5 s	9:35:00	6/10/99	338	-16.8
594	30	1596	24	cpm	N/A	5 s	9:35:00	6/10/99	289	28.1
595	30	1608	24	cpm	N/A	5 s	9:36:00	6/10/99	299	28.1
596	30	1824	12	cpm	N/A	5 s	9:36:00	6/10/99	474	5.7
597	30	1740	0	cpm	N/A	5 s	9:36:00	6/10/99	406	-16.8
598	30	1824	12	cpm	N/A	5 s	9:37:00	6/10/99	474	5.7
599	30	1620	36	cpm	N/A	5 s	9:37:00	6/10/99	309	50.6
600	1002	1797	8.801	cpm	N/A	300 s	12:38:00	6/10/99	452	-0.3
601	1002	1797	8.801	cpm	N/A	300 s	12:38:00	6/10/99	452	-0.3
								Average (all points):	413	6
								Standard Deviation:	225	22
								Coefficient of Variation:	0.55	3.58
								95% UCL:	783	42 (1.64 Two-tailed)
								95% UCL:	855	49 (1.96 One-tailed)
								Maximum Value:	4067	73
								Total Data Points:	538	563
								Edited Data Points:	6	6

Note: All survey points which indicated 49 dpm or higher alpha, or more than 4000 cpm beta-gamma were re-counted. In each case, the follow-up count indicted a much lower value. During the first two days of surveying it was noted that some electronic noise was generated if the cable was moved, giving the high reading. On later surveys, more care was taken to prevent this from occuring, and only one data point on 6-10 was rejected. All points edited are marked "noted bad count". A total of 6 data points were rejected of a total of 544 collected, a rejection rate of 1.1%.

Based on repeat counts, the data points which record 48.01 counts are presumed to be incorrect and high, but these points were retained in order to maintain the consistently conservative approach to this survey.

Average Surface contamination value from 'sample' points:	**364**	**7.55**	
Standard Deviation:	**72.3**	**6.06**	
Coefficient of Variation:	**0.20**	**0.80**	
95% UCL:	**482**	**17.5**	**(1.64 Two-tailed)**

070078

Attachment 11

108-F Wall Release Survey Data Points and Interpretation

#	Location	Count 1	Count 2	Units	Operating I Int Val T	Log Time	Log Date	beta/gamma	alpha	
							95% UCL:	**505**	**19.4**	**(1.96 One-tailed)**
							Maximum Value:	**491**	**24.0**	

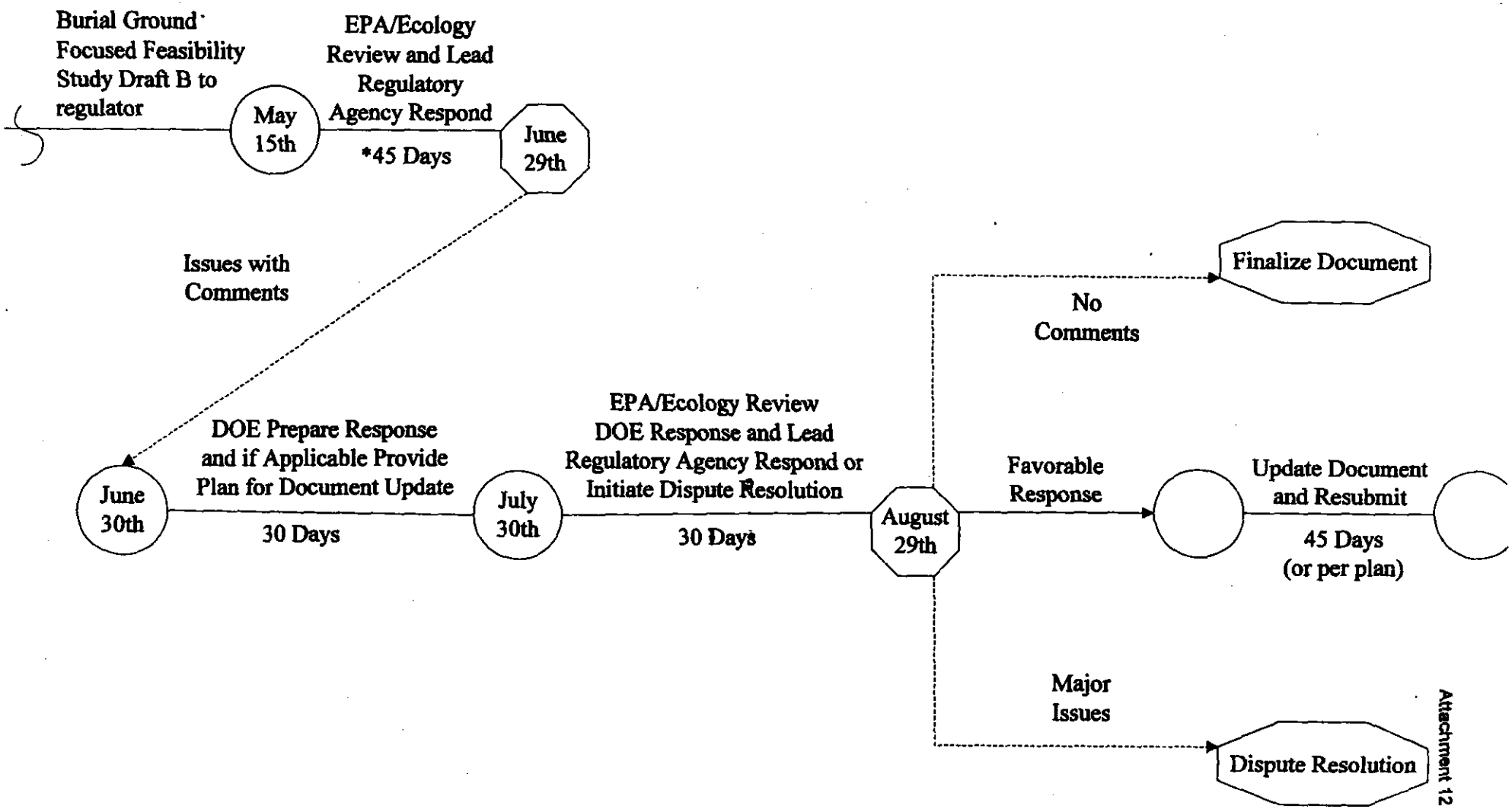
Note: The values determined by the 'sample' points indicate the most statistically reliable values for the true contamination values. Based on these data, the walls of the building are releasable from surface contamination limits, or valumetric limits. The surface release limits (DOE Order 5400.5) are 5000 dpm/100 cm^2 beta-gamma and 100 dpm/100cm^2 transuranic.

MDA (5-s count) = 96.2 dpm/100 cm^2 alpha and 714.3 dpm/100 cm^2 beta/gamma
MDA (300-s count) = 8.07 dpm/100 cm^2 alpha and 87.9 dpm/100 cm^2 beta/gamma

Attachment 11

070078

Review Process per the TPA



Attachment 12