



U.S. Department of Energy

P.O. Box 450, MSIN H6-60
Richland, Washington, 99352

12-WTP-0041

JAN 31 2012

The Honorable Peter S. Winokur
Chairman
Defense Nuclear Facilities Safety Board
625 Indiana Avenue, NW, Suite 700
Washington, DC 20004-2901

DEFENSE NUCLEAR FACILITIES SAFETY BOARD (DNFSB) RECOMMENDATION 2010-2
IMPLEMENTATION PLAN (IP) QUARTERLY PROGRESS REPORT FOR OCTOBER THROUGH
DECEMBER 2011

Dear Mr. Chairman:

Reference: DOE-HQ letter from S. Chu to P. S. Winokur, DNFSB, "Department of Energy Plan to Address Waste Treatment and Immobilization Plant Vessel Mixing Issues, Revision 0, Implementation Plan for Defense Nuclear Safety Board Recommendation 2010-2," dated November 10, 2011.

The Quarterly Progress Report to the DNFSB on Recommendation 2010-2 for the period October through December 2011 is attached. This report meets Commitment 6.3.1 of the IP to provide quarterly progress reports and describes the status of activities undertaken, and results achieved to meet the U. S. Department of Energy's (DOE) commitments as described in Reference 1.

DOE has made good progress this quarter toward closing safety issues related to Pulse Jet Mixing at the Waste Treatment and Immobilization Plant. In accordance with the IP, no deliverables were completed or due during this reporting period.

Details may be found in the attached report.

If you have any questions, please contact me at (509) 376-6727 or your staff may contact Ben Harp, WTP Start-up and Commissioning Integration Manager at (509) 376-1462.

Sincerely,

A handwritten signature in black ink, appearing to read "Dale E. Knutson".

Dale E. Knutson, Federal Project Director
Waste Treatment and Immobilization Plan

WTP:WRW

Attachment

Hon. Peter S. Winokur
12-WTP-0041

-2-

cc w/attach

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W. W. Gay, BNI
F. M. Russo, BNI
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ATTACHMENT
to
12-WTP-0041

DEFENSE NUCLEAR FACILITIES SAFETY BOARD (DNFSB)
RECOMMENDATION 2010-2 IMPLEMENTATION PLAN (IP)
QUARTERLY PROGRESS REPORT FOR
OCTOBER THROUGH DECEMBER 2011

(Total Number of Pages including coversheet: 25)

EXECUTIVE SUMMARY

On December 17, 2010, the Defense Nuclear Facility Safety Board (DNFSB) issued Recommendation 2010-2, *Pulse Jet Mixing at the Waste Treatment and Immobilization Plant*. The recommendation addressed the need for the U. S. Department of Energy (DOE) to ensure that the Hanford Waste Treatment and Immobilization Plant (WTP), in conjunction with the Hanford tank farm waste feed delivery system, will operate safely and effectively during a 40-year operating life to eliminate the safety hazards posed by Hanford Site tank wastes.

On November 10, 2011, DOE Secretary Chu forwarded the DOE Implementation Plan (IP) for DNFSB recommendation 2010-2 to Chairman Winokur. This IP includes Commitment 6.3.1 to provide quarterly progress reports and briefings to the DNFSB and DNFSB staff, including updates on the status of completing actions identified in the IP. This quarterly report is for the period from October through December 2011, meeting the Commitment 6.3.1.

No IP deliverables were due or provided during this quarterly reporting period. DOE expects to submit IP deliverables on schedule during the next period.

DOE has made good progress this quarter towards meeting IP objectives. WTP foundation documents were issued this period consisting of the Integrated Pulse Jet Mixed (PJM) Vessel Design and Control Strategy, Project Execution Plan for the Vessel Completion Team (VCT), Charter for the Large Scale Integrated Mixing System Expert Review Team, and Experimental Data Gap Analysis for Computational Fluid Dynamics (CFD) Verification and Validation. Modifications to the scaled test platform at Mid-Columbia Engineering were initiated to support testing in an 8-ft acrylic vessel and ground was broken for construction of test facilities to house the 14-ft vessel for testing. Washington River Protection Solutions LLC (WRPS) prepared a draft of the Waste Feed Delivery Mixing and Sampling Program Plan identifying test requirements for addressing risks with waste feed delivery. The External Review Team (ERT) was actively engaged with review of both WTP and WRPS programs.

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1. PURPOSE

On December 17, 2010, the DNFSB issued *Recommendation 2010-2, Pulse Jet Mixing at the Waste Treatment and Immobilization Plant*. The recommendation identified safety issues associated with PJM vessels mixing, sampling, and transfer capabilities in WTP and issues with the integration of Tank Farm feed staging system mixing, sampling, and transfer system capabilities.

The DOE commitments, outlined in *Implementation Plan for Defense Nuclear Safety Board Recommendation 2010-2*, submitted to the DNFSB on November 10, 2011, are fulfilled by a program of tests, analyses, and other activities. Each DOE commitment has a corresponding deliverable and a due date falling between January 30, 2012, and May 9, 2016. During this period, Commitment 6.3.1 to DNFSB requires quarterly progress reports on the completion of IP milestones and deliverables, together with the status of ongoing and planned activities, and a description of issues and risks identified and how they are being managed and closed. This Quarterly Progress Report fulfills that commitment.

2. HIGHLIGHTS FOR THIS QUARTER

2.2 DELIVERABLES SUBMITTED

On November 10, 2011, Secretary Chu forwarded the DOE Implementation Plan for DNFSB Recommendation 2010-2 to Chairman Winokur. No other deliverables were due during this period.

2.3 WORK COMPLETED

WTP

Foundation Documents

On October 27, 2011, WTP issued Revision 1 to 24590-WTP-RPT-ENG-10-001, *Integrated Pulse Jet Mixed Vessel Design and Control Strategy*. This revision addresses management of the technical risks associated with verification of the designs of the PJM mixed vessels, including activities to be completed before installing the 11 remaining vessels in the WTP Pretreatment and High-Level Waste Vitrification Facilities.

On November 30, 2011, WTP issued Revision 1 to 24590-WTP-PL-MGT-11-0001, *Project Execution Plan for the Vessel Completion Team*. The Vessel Completion Team (VCT) was established to complete the design verification and pre-installation tasks associated with PJM vessels. The scope includes supporting DOE in meeting the commitments of the 2010-2 IP, resolving outstanding vessel technical issues and conducting Large-Scale Integrated Testing (LSIT) for selected vessels. The VCT was staffed and an integrated schedule established for its scope.

conducting Large-Scale Integrated Testing (LSIT) for selected vessels. The VCT was staffed and an integrated schedule established for its scope.

On December 16, 2011, ORP, WTP, and WRPS issued Revision 2 to WTP-CH-MGT-11-001, *Charter for the Large Scale Integrated Mixing System Expert Review Team*. This revision extended the scope of the ERT, originally formed to provide independent advice and counsel on WTP PJM mixing testing programs, to include WRPS tank farm testing programs for retrieval and sampling of staged waste.

On November 18, 2011, WTP issued WTP-RPT-ENG-11-152, Revision 1, *Experimental Data Gap Analysis for CFD Verification & Validation*, identifying additional data needed from testing to support Verification and Validation (V&V) of the CFD code to be used in support of PJM mixed vessels design completion. Plans for this testing are being completed, and an independent review of the document is scheduled by the National Energy Technology Laboratory (NETL).

Testing and Design Related Activities

Modifications of the scaled test platform at Mid-Columbia Engineering were initiated to install and support testing in an 8 ft acrylic vessel, in addition to the existing 4 ft vessel capability.

A contract was let, and ground broken, for construction of an Engineering Laboratory Building at WSU Tri-Cities. This building will house the 14-ft vessel for large scale integrated testing of PJM-mixed vessel mixing, sampling, and transfer capabilities.

A concept was developed for a modification to the PJM control strategy to allow positive identification of the end of stroke condition. If successful, this approach could significantly reduce the potential for inadvertent overblows of PJMs. Engineering evaluation of the concept will continue in parallel with progress on the existing design.

A subcontract for Test Operations support to the WTP large scale integrated test program was placed with Energy Solutions, LLC.

A series of monthly telecons on large scale integrated testing program status was established with the DNFSB Technical Staff to improve communications.

A review plan which ensures adequate internal and external review of Defense Nuclear Facilities Safety Board Recommendation 2010-2 Implementation Plan commitments was prepared and transmitted to the Office of River Protection (ORP). The plan will be incorporated into the VCT Project Execution Plan at its next revision.

The ERT was actively engaged with review of both WTP and WRPS programs. The ERT issued reports to WTP concerning their reviews of CFD V&V plans; the document underpinning the assumption that Newtonian techniques can be used to assess aspects of non-Newtonian vessel performance, and the approach to testing

the assumption; and the draft request for technology development to support CFD V&V testing. The ERT issued a review report to WRPS on their deliverable on waste feed test requirements.

WRPS

On December 5, 2011, ORP issued Contract Modification 143 directing WRPS to perform the work identified in the IP with a not to exceed \$1M limitation. WRPS began work on the early commitments and developed an Advanced Work Authorization Baseline Change Request (RPP-12-054) for the initial \$1M. The majority of the work will occur in FY12 and FY13, but final closure of IP commitments is not expected until 2016. A certified cost and pricing proposal is on track for submittal to DOE-ORP by January 27, 2012.

On December 8, 2011, ORP requested a review plan which ensures adequate internal WRPS and external DOE review of DNFSB Recommendation 2010-2 IP Commitments. The review plan, *Washington River Protection Solutions LLC 2010-2 Commitment Document Review Plan*, was prepared and transmitted to ORP on December 20, 2011.

On December 13, 2011, WRPS completed a draft of the Waste Feed Delivery Mixing and Sampling Program Plan and Test Requirements. This document is being prepared to satisfy Commitment 5.5.3.4 of the Implementation Plan. Comments were due on December 31, 2011, and have been received by the ERT and required project reviewers. Comments have been incorporated and the document has been approved. It is currently on schedule for delivery to the DNFSB by the commitment due date of January 31, 2012.

On January 2, 2012, WRPS began mobilizing teams to initiate work on the next three commitments, 5.5.3.2 Evaluation of Waste Transferred to WTP, 5.5.3.5 Definition of Simulants for Tank Farm Performance Testing, and 5.5.3.6 Test Plan to Establish Tank Farm Performance Capability. Resources are being identified and contracts are being placed to begin the work.

3. SUMMARY OF TEST RESULTS

3.2 TANK FARM FEED STAGING MIXING, SAMPLING, AND TRANSFER TESTS

Nothing to report

3.3 WTP PJM MIXING, SAMPLING, AND TRANSFER TESTS

A concept for testing to support demonstration of the assumption that Newtonian techniques can be used to assess aspects of non-Newtonian vessel performance was developed. Initial proof-of-concept tests were performed. These tests were aimed

at determining if the test could be run in a meaningful manner, and to provide input to management on whether to proceed to build a larger scale test apparatus. Test results were not consistent with predicted performance, so construction of the larger scale test apparatus was suspended pending data evaluation, and a determination of whether the experiment should be redesigned or the test approach abandoned. Results of that analysis and an assessment of the implications to the DOE 2010-2 IP are underway.

4. DISCUSSION

4.2 IMPACT OF THE RESULTS ON WTP DESIGN AND CONTROL

Nothing to report

4.3 ISSUES AND RISKS IN MIXING, SAMPLING, AND TRANSFER

4.3.1 IDENTIFIED ISSUES AND RISKS

Tank Farm Issues and Risks

The TOC has identified two critical risks TOC-08-65 and TOC-12-64 per the TFC-PLN-39 (*Risk Management Plan*, Rev. F-11) which address emerging Waste Acceptance Criteria (WAC) and sampling method requirements. These risks are being addressed in RPP-PLAN-41807, Waste Feed Delivery Mixing and Sampling Program Plan and Test Requirements (Commitment 5.5.3.4) and follow-on actions. Detailed issues and risks associated with the tank waste feed mixing, sampling, and transfer systems will be included in this section of the report as they are identified.

WTP Issues and Risks

WTP drafted the 24590-PTF-PL-ENS-11-0007, Plan and Schedule to Systematically Evaluate the Hazards of Known Technical Issues, M3 Vessel Assessment Summary Reports, LOAM Benchmark Data and LSIT - Response to DNFSB Recommendation 2010-2 Implementation Plan Commitment 5.7.3.1. The final document (due January 30, 2012), will include a list of known technical issues that will be updated and stated in future revisions of the quarterly report.

5. FORWARD LOOK

DOE expects to submit conditional IP deliverables associated with CFD V&V testing (e.g.; requests for technology development, test specs, test plans, simulant basis documents, etc.)

during the period from January to March 2012. Additionally, there are six 'date firm' IP deliverables due during this period. These are summarized below:

<u>Commitment</u>	<u>Title</u>	<u>Date</u>	<u>Status</u>
5.7.3.4	Identify key inputs, assumptions, safety margin uncertainties, and nuclear safety parameters required to be included in the WAC	January 15, 2012	Submitted
5.7.3.1	Establish the plan and schedule to systematically evaluate the hazards of known technical issues, M3 vessel summary reports, LOAM benchmark data, and LSIT results	January 30, 2012	Submitted
5.5.3.4	Identification of tank farm sampling and transfer capability test requirements document	January 31, 2012	Submitted
5.3.3.4	Analysis of data sets required to support CFD V&V	February 1, 2012	On Track
5.1.3.2	Issue responses to recommendations from key stakeholders	March 31, 2012	On Track
5.6.3.1	Define functional design criteria for heel management system	March 31, 2012	On Track
5.5.3.5	Definition of simulants for tank farm performance testing	March 31, 2012	On Track

6. ACRONYMS

ASME	American Society of Mechanical Engineers
ASX	WTP's automatic sampling system
BNI	Bechtel National, Inc.o
CFD	Computational Fluid Dynamics
CFR	Code of Federal Regulations
CCN	Correspondence Control Number
cP	Centipoise
CRESP	Consortium for Risk Evaluation with Stakeholder Participation
CSER	Criticality Safety Evaluation Report
DBE	Design Basis Event
DNFSB	Defense Nuclear Facility Safety Board
DOE	U.S. Department of Energy
DQO	Data Quality Objective

DSA	Documented Safety Analysis
DST	Double Shell Tank
EFRT	External Flowsheet Review Team
EM	Environmental Management
EPA	Environmental Protection Agency
ERT	Expert Review Team
FEP-17	Evaporator Feed Vessel 17
FLUENT	Software made by ANSYS Corporation used to model flow, turbulence, heat transfer, and chemical reactions
FRP-02	Feed Receipt Vessel 02
ft	Feet
FY	Fiscal Year
HAR	Hazards Analysis Report
HLP-22	High level waste feed vessel 22
HLW	High Level Waste
HPAV	Hydrogen in Piping and Ancillary Vessels
ICD	Interface Control Document
IDF	Interim Disposal Facility
IP	Implementation Plan
ISARD	Integrated Sampling and Analysis Requirements Document
LAW	Low Activity Waste
LOAM	Low Order Accumulation Model
LSIT	Large-Scale Integrated Testing
ml	Milliliter
NETL	National Energy Technology Laboratory
ORP	Office of River Protection
Pa	Pascal
PDSA	Preliminary Documented Safety Analysis
PJM	Pulse Jet Mixer
PNNL	Pacific Northwest National Laboratory
PTF	Pretreatment Facility
RTD	Request for Technology Development
SAC	Specific Administrative Control
SDS	Safety Design Strategy
SRD	Safety Requirements Document
SRNL	Savannah River National Laboratory
SSC	Structures, Systems, and Components
TOC	Tank Farm Operations Contractor
UFP-01	Ultrafilter Feed Preparation Vessel 01
VCT	Vessel Completion Team
V&V	Verification and validation
WAC	Waste Acceptance Criteria
WRPS	Washington River Protection Solutions, Limited Liability Corporation (the Hanford Tank Farms Operations Contractor)
WTP	Waste Treatment and Immobilization Plant

7. ATTACHMENTS –

VCT Summary Schedule (Attached, Pages 1-15)

VCT Summary Schedule

Activity ID	Start	Finish	Resp Person	Total Float	Predecessors	2012	2013	2014	2015	2016	2017
WP 00 Summary	16-May-11 A	15-Feb-17		1099							
01 Summary	16-Nov-11 A	22-Jul-14		1746							
2BPR1LA405		29-Feb-12	French	2350	2BPR1LE807						
2BPR1LA413		14-Mar-12	French	2340	2BPR1LD215						
2BPR1LA409		02-Apr-12	French	2327	2BPR1LD210						
2BPR1LA411		06-Apr-12	French	2323	2BPR1LD259						
2BPR1LA407		21-May-12	French	2292	2BPR1LE188						
2BPR1LA433		28-Jun-12	French	2265	2BPR1VS021, 2BPR1VS395						
2BPR1LA061	16-Nov-11 A	28-Jun-12	French	2265	2BPR1QR120, 2BPR1QR116,						
2BPR1LA431		09-Aug-12	French	2236	2BPR1VS351, 2BPR1VS018						
2BPR1LA423		23-Aug-12	French	2226	2BPR1VS179, 2BPR1VS006						
2BPR1LA417		29-Aug-12	French	2222	2BPR1LE110						
2BPR1LA435		07-Sep-12	French	2216	2BPR1VS024, 2BPR1VS429						
2BPR1LA429		21-Sep-12	French	2206	2BPR1VS311, 2BPR1VS015						
2BPR1LA427		05-Oct-12	French	2196	2BPR1VS261, 2BPR1VS012						
2BPR1LA434		18-Oct-12	French	2187	2BPR1LE122						
2BPR1LA432		13-Nov-12	French	2169	2BPR1LE121						
2BPR1LA063	24-May-12	28-Nov-12	French	1525	2BPR1QR161, 2BPR1QR146,						
2BPR1LA403		12-Dec-12	French	2150	2BPR1VV306						
2BPR1LA425		22-Feb-13	French	2102	2BPR1VS221, 2BPR1VS009						
2BPR1LA421		22-Mar-13	French	3017	2BPR1VS139, 2BPR1VS003						
2BPR1LA062	24-May-12	14-May-13	French	2045	2BPR1QR121, 2BPR1QR145						
2BPR1LA424		20-May-13	French	2041	2BPR1LE118						
2BPR1LA430		20-May-13	French	2041	2BPR1LE124						
2BPR1LA428		11-Jun-13	French	2026	2BPR1LE120						
2BPR1LA436		11-Jun-13	French	2026	2BPR1LE123						
2BPR1LA422		02-Jul-13	French	2011	2BPR1LE117						
2BPR1LA401		19-Feb-14	French	1853	2BPR1LE189						
2BPR1LA064	05-Jun-13	11-Apr-14	French	1396	2BPR1QR227, 2BPR1QR163						
2BPR1LA419		22-Jul-14	French	1746	2BPR1LE279, 2BPR1LE297						
04 Foot Vessel	16-May-11 A	01-Oct-13		1948							
2BPR1LA301		13-Feb-12	French	2361	2BPR1LC315						
2BPR1LA302		03-Apr-12	French	2326	2BPR1LF790						
2BPR1LA331		17-Apr-12	French	2316	2BPR1LC324						
2BPR1LA304		11-Jun-12	French	2278	2BPR1SM114						
2BPR1LA332		27-Jun-12	French	2266	2BPR1LF850						
2BPR1LA303		13-Jul-12	French	2255	2BPR1LF798						

- ◆ PT - R&T - Integrated Testing - Complete Trade Study
- ◆ PT - R&T - Integrated Testing - Issue Testing Scaling Basis Document
- ◆ PT - R&T - Integrated Testing - Issue Vessel Selection Report
- ◆ PT - R&T - Integrated Testing - Issue Simulant Properties Document
- ◆ PT - R&T - Integrated Testing - Complete Revision #2 PJM Control Strategy
- ◆ PT - R&T - Integrated Testing - Complete Design Confirmation for Vessel - HLW RLD-08
- ◆ PT - R&T - Integrated Testing - Develop Quality Requirement Independent Review,
- ◆ PT - R&T - Integrated Testing - Complete Design Confirmation for Vessel - HLW RLD-07
- ◆ PT - R&T - Integrated Testing - Complete Design Confirmation for Vessel - PWD-44
- ◆ PT - R&T - Integrated Testing - Issue Revision White Paper Newtonian Analysis of Non-Newtonian Vessels
- ◆ PT - R&T - Integrated Testing - Complete Design Confirmation for Vessel - HLP-22
- ◆ PT - R&T - Integrated Testing - Complete Design Confirmation for Vessel - UFP-01A/B
- ◆ PT - R&T - Integrated Testing - Complete Design Confirmation for Vessel - UFP-02A/B
- ◆ PT - R&T - Integrated Testing - Complete Design Verification for Vessel - HLW RLD-08
- ◆ PT - R&T - Integrated Testing - Complete Design Verification for Vessel - HLW RLD-07
- ◆ PT - R&T - Integrated Testing - Develop Design Confirmation Independent Review Program,
- ◆ PT - R&T - Integrated Testing - Complete CFD V&V
- ◆ PT - R&T - Integrated Testing - Complete Design Confirmation for Vessel - HLP-27A/B
- ◆ PT - R&T - Integrated Testing - Complete Design Confirmation for Vessel - HLP-28
- ◆ PT - R&T - Integrated Testing - Perform Quality Requirement Independent Review - Existing Vessels,
- ◆ PT - R&T - Integrated Testing - Complete Design Verification for Vessel - PWD-44
- ◆ PT - R&T - Integrated Testing - Complete Design Verification for Vessel - UFP-01A/B
- ◆ PT - R&T - Integrated Testing - Complete Design Verification for Vessel - UFP-02A/B
- ◆ PT - R&T - Integrated Testing - Complete Design Verification for Vessel - HLP-22
- ◆ PT - R&T - Integrated Testing - Complete Design Verification for Vessel - HLP-28
- ◆ PT - R&T - Integrated Testing - Issue Updated CSER
- ◆ PT - R&T - Integrated Testing - Perform Design Confirmation Independent Reviews,
- ◆ PT - R&T - Integrated Testing - Update PJM System Description
- ◆ PT - R&T - Integrated Testing - Performance & Scaling - 4 Foot Vessel - Issue RTD
- ◆ PT - R&T - Integrated Testing - Performance & Scaling - 4 Foot Vessel - Issue Test Spec
- ◆ PT - R&T - Integrated Testing - Heel Management - 4 Foot Vessel - Issue RTD
- ◆ PT - R&T - Integrated Testing - Performance & Scaling - 4 Foot Vessel - Issue Simulant Basis
- ◆ PT - R&T - Integrated Testing - Heel Management - 4 Foot Vessel - Issue Test Spec
- ◆ PT - R&T - Integrated Testing - Performance & Scaling - 4 Foot Vessel - Issue Test Plan

VCT Summary Schedule

Activity ID	Start	Finish	Resp Person	Total Float	Predecessors	2012	2013	2014	2015	2016	2017
2BPR1LA334		30-Aug-12	French	2221	2BPR1SM144			◆ PT - R&T - Integrated Testing - Heel Management - 4 Foot Vessel - Issue Simulant Basis			
2BPR1LA012	09-Apr-12	19-Sep-12	French	588	2BPR1SM111, 2BPR1SM118,		■ PT - R&T - Integrated Testing - Performance & Scaling - Summary - 4 Foot Vessel - Simulant,				
2BPR1LA305		19-Sep-12	French	2208	2BPR1SM120			◆ PT - R&T - Integrated Testing - Performance & Scaling - 4 Foot Vessel - Issue Simulant Qualification Document			
2BPR1LA333		04-Oct-12	French	2197	2BPR1LF858			◆ PT - R&T - Integrated Testing - Heel Management - 4 Foot Vessel - Issue Test Plan			
2BPR1LA011	16-May-11 A	18-Oct-12	French	719	2BPR1LC311, 2BPR1LC315,		■ PT - R&T - Integrated Testing - Performance & Scaling - Summary - 4 Foot Vessel - Test Preparations,				
2BPR1LA022	28-Jun-12	11-Dec-12	French	553	2BPR1SM146, 2BPR1SM150,		■ PT - R&T - Integrated Testing - Heel Management - Summary - 4 Foot Vessel - Simulant,				
2BPR1LA335		11-Dec-12	French	2151	2BPR1SM150			◆ PT - R&T - Integrated Testing - Heel Management - 4 Foot Vessel - Issue Simulant Qualification Document			
2BPR1LA021	29-Aug-11 A	11-Jan-13	French	553	2BPR1LF858, 2BPR1LG827,		■ PT - R&T - Integrated Testing - Heel Management - Summary - 4 Foot Vessel - Test Preparations,				
2BPR1LA013	29-Jan-13	14-Jun-13	French	455	2BPR1LT104, 2BPR1LT204,		■ PT - R&T - Integrated Testing - Performance & Scaling - Summary - 4 Foot Vessel - Testing,				
2BPR1LA023	29-Jan-13	14-Jun-13	French	475	2BPR1HL325, 2BPR1HL324		■ PT - R&T - Integrated Testing - Heel Management - Summary - 4 Foot Vessel - Testing,				
2BPR1LA337		14-Jun-13	French	2023	2BPR1HL325			◆ PT - R&T - Integrated Testing - Heel Management - 4 Foot Vessel - Complete Testing			
2BPR1LA307		14-Jun-13	French	2023	2BPR1LT504			◆ PT - R&T - Integrated Testing - Performance & Scaling - 4 Foot Vessel - Complete Testing			
2BPR1LA024	28-May-13	01-Oct-13	French	501	2BPR1HL333, 2BPR1LG961,		■ PT - R&T - Integrated Testing - Heel Management - Summary - 4 Foot Vessel - Test Results / Reporting,				
2BPR1LA014	20-Feb-13	01-Oct-13	French	559	2BPR1LT511, 2BPR1LT411,		■ PT - R&T - Integrated Testing - Performance & Scaling - Summary - 4 Foot Vessel - Test Results / Reporting,				
2BPR1LA336		01-Oct-13	French	1948	2BPR1LG968			◆ PT - R&T - Integrated Testing - Heel Management - 4 Foot Vessel - Issue Technical Evaluation Report			
2BPR1LA306		01-Oct-13	French	1948	2BPR1LG948			◆ PT - R&T - Integrated Testing - Performance & Scaling - 4 Foot Vessel - Issue Technical Evaluation Report			
08 Foot Vessel	24-Oct-11 A	17-Oct-13		1936							
2BPR1LA361		09-Jan-12	French	2386	2BPR1LC350			◆ PT - R&T - Integrated Testing - CFD V&V - 8 Foot Vessel - Issue RTD			
2BPR1LA364		03-Feb-12	French	2367	2BPR1SM104			◆ PT - R&T - Integrated Testing - CFD V&V - 8 Foot Vessel - Issue Simulant Basis			
2BPR1LA362		14-Feb-12	French	2360	2BPR1LF910			◆ PT - R&T - Integrated Testing - CFD V&V - 8 Foot Vessel - Issue Test Spec			
2BPR1LA002	23-Nov-11 A	16-Feb-12	French	-231	2BPR1SM106, 2BPR1SM104,		■ PT - R&T - Integrated Testing - CFD V&V - Summary - Simulant,				
2BPR1LA363		16-Feb-12	French	2358	2BPR1LF918			◆ PT - R&T - Integrated Testing - CFD V&V - 8 Foot Vessel - Issue Test Plan			
2BPR1LA365		16-Feb-12	French	2358	2BPR1SM110			◆ PT - R&T - Integrated Testing - CFD V&V - 8 Foot Vessel - Issue Simulant Qualification Document			
2BPR1LA311		06-Mar-12	French	2346	2BPR1LC340			◆ PT - R&T - Integrated Testing - Performance & Scaling - 8 Foot Vessel - Issue RTD			
2BPR1LA001	24-Oct-11 A	12-Mar-12	French	-247	2BPR1LG808, 2BPR1LF911,		■ PT - R&T - Integrated Testing - CFD V&V - Summary - Test Preparations,				
2BPR1LA341		12-Mar-12	French	2342	2BPR1LC349			◆ PT - R&T - Integrated Testing - Heel Management - 8 Foot Vessel - Issue RTD			
2BPR1LA312		13-Apr-12	French	2318	2BPR1LF810			◆ PT - R&T - Integrated Testing - Performance & Scaling - 8 Foot Vessel - Issue Test Spec			
2BPR1LA342		17-May-12	French	2294	2BPR1LF870			◆ PT - R&T - Integrated Testing - Heel Management - 8 Foot Vessel - Issue Test Spec			
2BPR1LA313		24-May-12	French	2289	2BPR1LF818			◆ PT - R&T - Integrated Testing - Performance & Scaling - 8 Foot Vessel - Issue Test Plan			
2BPR1LA314		18-Jun-12	French	2273	2BPR1SM124			◆ PT - R&T - Integrated Testing - Performance & Scaling - 8 Foot Vessel - Issue Simulant Basis			
2BPR1LA344		19-Jun-12	French	2272	2BPR1SM154			◆ PT - R&T - Integrated Testing - Heel Management - 8 Foot Vessel - Issue Simulant Basis			
2BPR1LA343		22-Jun-12	French	2269	2BPR1LF878			◆ PT - R&T - Integrated Testing - Heel Management - 8 Foot Vessel - Issue Test Plan			
2BPR1LA381		13-Jul-12	French	2255	2BPR1LC359			◆ PT - R&T - Integrated Testing - Single PJM - 8 Foot Vessel - Issue RTD			
2BPR1LA003	09-Mar-12	04-Sep-12	French	-250	2BPR1LT322, 2BPR1LT326,		■ PT - R&T - Integrated Testing - CFD V&V - Summary - Testing,				
2BPR1LA367		04-Sep-12	French	2219	2BPR1LT426			◆ PT - R&T - Integrated Testing - CFD V&V - 8 Foot Vessel - Complete Testing			
2BPR1LA382		20-Sep-12	French	2207	2BPR1LF940			◆ PT - R&T - Integrated Testing - Single PJM - 8 Foot Vessel - Issue Test Spec			
2BPR1LA315		26-Sep-12	French	2203	2BPR1SM130			◆ PT - R&T - Integrated Testing - Performance & Scaling - 8 Foot Vessel - Issue Simulant Qualification Document			

VCT Summary Schedule

Activity ID	Start	Finish	Resp Person	Total Float	Predecessors	2012					2013					2014					2015					2016					2017				
2BPR1LA007	16-Apr-12	26-Sep-12	French	-284	2BPR1SM127, 2BPR1SM130	PT - R&T - Integrated Testing - Performance & Scaling - Summary - 8 Foot Vessel - Simulant,																													
2BPR1LA027	17-Apr-12	27-Sep-12	French	-250	2BPR1SM154, 2BPR1SM156	PT - R&T - Integrated Testing - Heel Management - Summary - 8 Foot Vessel - Simulant,																													
2BPR1LA345		27-Sep-12	French	2202	2BPR1SM160	◆ PT - R&T - Integrated Testing - Heel Management - 8 Foot Vessel - Issue Simulant Qualification Document																													
2BPR1LA006	09-Jan-12	18-Oct-12	French	-284	2BPR1LF818, 2BPR1LC340	PT - R&T - Integrated Testing - Performance & Scaling - Summary - 8 Foot Vessel - Test Preparations,																													
2BPR1LA026	09-Jan-12	26-Oct-12	French	-253	2BPR1LG824, 2BPR1LF871	PT - R&T - Integrated Testing - Heel Management - Summary - 8 Foot Vessel - Test Preparations,																													
2BPR1LA384		26-Nov-12	French	2162	2BPR1SM184	◆ PT - R&T - Integrated Testing - Single PJM - 8 Foot Vessel - Issue Simulant Basis																													
2BPR1LA366		28-Nov-12	French	2160	2BPR1LG918	◆ PT - R&T - Integrated Testing - CFD V&V - 8 Foot Vessel - Issue Technical Evaluation Report																													
2BPR1LA383		10-Dec-12	French	2152	2BPR1LF968	◆ PT - R&T - Integrated Testing - Single PJM - 8 Foot Vessel - Issue Test Plan																													
2BPR1LA004	07-May-12	12-Dec-12	French	-192	2BPR1LT227, 2BPR1LT228	PT - R&T - Integrated Testing - CFD V&V - Summary - Test Results / Reporting,																													
2BPR1LA039	31-Oct-11 A	27-Dec-12	French	225	2BPR1LF101, 2BPR1LF170	PT - R&T - Integrated Testing - Single PJM - Summary - EPC,																													
2BPR1LA008	12-Sep-12	28-Jan-13	French	-284	2BPR1LT344, 2BPR1LT543	PT - R&T - Integrated Testing - Performance & Scaling - Summary - 8 Foot Vessel - Testing,																													
2BPR1LA317		28-Jan-13	French	2120	2BPR1LT544	◆ PT - R&T - Integrated Testing - Performance & Scaling - 8 Foot Vessel - Complete Testing																													
2BPR1LA028	25-Oct-12	28-Jan-13	French	-284	2BPR1HL344, 2BPR1HL345	PT - R&T - Integrated Testing - Heel Management - Summary - 8 Foot Vessel - Testing,																													
2BPR1LA347		28-Jan-13	French	2120	2BPR1HL345	◆ PT - R&T - Integrated Testing - Heel Management - 8 Foot Vessel - Complete Testing																													
2BPR1LA385		08-Mar-13	French	2092	2BPR1SM190	◆ PT - R&T - Integrated Testing - Single PJM - 8 Foot Vessel - Issue Simulant Qualification Document																													
2BPR1LA036	21-Sep-12	08-Mar-13	French	161	2BPR1SM181, 2BPR1SM186	PT - R&T - Integrated Testing - Single PJM - Summary - Simulant,																													
2BPR1LA035	30-May-12	08-Apr-13	French	161	2BPR1LF968, 2BPR1LF941	PT - R&T - Integrated Testing - Single PJM - Summary - Test Preparations,																													
2BPR1LA037	28-Dec-12	13-May-13	French	161	2BPR1HL364, 2BPR1HL365	PT - R&T - Integrated Testing - Single PJM - Summary - Testing,																													
2BPR1LA387		13-May-13	French	2046	2BPR1HL365	◆ PT - R&T - Integrated Testing - Single PJM - 8 Foot Vessel - Complete Testing																													
2BPR1LA029	03-Jan-13	14-May-13	French	-255	2BPR1HL348, 2BPR1LG971	PT - R&T - Integrated Testing - Heel Management - Summary - 8 Foot Vessel - Test Results / Reporting,																													
2BPR1LA316		14-May-13	French	2045	2BPR1LG938	◆ PT - R&T - Integrated Testing - Performance & Scaling - 8 Foot Vessel - Issue Technical Evaluation Report																													
2BPR1LA009	25-Oct-12	14-May-13	French	-62	2BPR1LT547, 2BPR1LT252	PT - R&T - Integrated Testing - Performance & Scaling - Summary - 8 Foot Vessel - Test Results / Reporting,																													
2BPR1LA346		14-May-13	French	2045	2BPR1LG978	◆ PT - R&T - Integrated Testing - Heel Management - 8 Foot Vessel - Issue Technical Evaluation Report																													
2BPR1LA386		17-Oct-13	French	1936	2BPR1LG929	◆ PT - R&T - Integrated Testing - Single PJM - 8 Foot Vessel - Issue Technical Evaluation Report																													
14 Foot Vessel	09-Jan-12	15-Feb-17		1099																															
2BPR1LA415		09-Jan-12	French	2386	2BPR1CS167	◆ PT - R&T - Integrated Testing - Issue Construction Specs for 14 Foot Platform																													
2BPR1LA351		23-Apr-12	French	2312	2BPR1LC389	◆ PT - R&T - Integrated Testing - Heel Management - 14 Foot Vessel - Issue RTD																													
2BPR1LA321		26-Apr-12	French	2309	2BPR1LC369	◆ PT - R&T - Integrated Testing - Performance & Scaling - 14 Foot Vessel - Issue RTD																													
2BPR1LA371		08-Jun-12	French	2279	2BPR1LC429	◆ PT - R&T - Integrated Testing - Integrated Operations - 14 Foot Vessel - Issue RTD																													
2BPR1LA322		02-Aug-12	French	2241	2BPR1LF830	◆ PT - R&T - Integrated Testing - Performance & Scaling - 14 Foot Vessel - Issue Test Spec																													
2BPR1LA352		21-Sep-12	French	2206	2BPR1LF890	◆ PT - R&T - Integrated Testing - Heel Management - 14 Foot Vessel - Issue Test Spec																													
2BPR1LA324		19-Oct-12	French	2186	2BPR1SM134	◆ PT - R&T - Integrated Testing - Performance & Scaling - 14 Foot Vessel - Issue Simulant Basis																													
2BPR1LA323		24-Oct-12	French	2183	2BPR1LF838	◆ PT - R&T - Integrated Testing - Performance & Scaling - 14 Foot Vessel - Issue Test Plan																													
2BPR1LA354		27-Nov-12	French	2161	2BPR1SM164	◆ PT - R&T - Integrated Testing - Heel Management - 14 Foot Vessel - Issue Simulant Basis																													
2BPR1LA353		07-Dec-12	French	2153	2BPR1LF898	◆ PT - R&T - Integrated Testing - Heel Management - 14 Foot Vessel - Issue Test Plan																													
2BPR1LA325		01-Feb-13	French	2116	2BPR1SM140	◆ PT - R&T - Integrated Testing - Performance & Scaling - 14 Foot Vessel - Issue Simulant Qualification Document																													
2BPR1LA017	17-Aug-12	01-Feb-13	French	10	2BPR1SM134, 2BPR1SM135	PT - R&T - Integrated Testing - Performance & Scaling - Summary - 14 Foot Vessel - Simulant,																													

VCT Summary Schedule

Activity ID	Start	Finish	Resp Person	Total Float	Predecessors	Year					
						2012	2013	2014	2015	2016	2017
2BPR1LA016	07-Mar-12	05-Mar-13	French	3	2BPR1LF830, 2BPR1LC361	PT - R&T - Integrated Testing - Performance & Scaling - Summary - 14 Foot Vessel - Test Preparations,					
2BPR1LA031	24-Sep-12	11-Mar-13	French	220	2BPR1SM164, 2BPR1SM170	PT - R&T - Integrated Testing - Heel Management - Summary - 14 Foot Vessel - Simulant,					
2BPR1LA355		11-Mar-13	French	2091	2BPR1SM170	◆ PT - R&T - Integrated Testing - Heel Management - 14 Foot Vessel - Issue Simulant Qualification Document					
2BPR1LA030	13-Mar-12	09-Apr-13	French	-264	2BPR1LF890, 2BPR1LC389	PT - R&T - Integrated Testing - Heel Management - Summary - 14 Foot Vessel - Test Preparations,					
2BPR1LA391		16-Jul-13	French	2002	2BPR1LD234	◆ PT - R&T - Integrated Testing - Performance Limits - 14 Foot Vessel - Issue RTD					
2BPR1LA372		24-Jan-14	French	1870	2BPR1LF920	◆ PT - R&T - Integrated Testing - Integrated Operations - 14 Foot Vessel - Issue Test Spec					
2BPR1LA392		10-Feb-14	French	1859	2BPR1LF608	◆ PT - R&T - Integrated Testing - Performance Limits - 14 Foot Vessel - Issue Test Spec					
2BPR1LA032	01-Apr-13	10-Feb-14	French	-10	2BPR1HL304, 2BPR1HL305	PT - R&T - Integrated Testing - Heel Management - Summary - 14 Foot Vessel - Testing,					
2BPR1LA357		10-Feb-14	French	1859	2BPR1HL305	◆ PT - R&T - Integrated Testing - Heel Management - 14 Foot Vessel - Complete Testing					
2BPR1LA374		31-Mar-14	French	1825	2BPR1SM194	◆ PT - R&T - Integrated Testing - Integrated Operations - 14 Foot Vessel - Issue Simulant Basis					
2BPR1LA394		15-Apr-14	French	1814	2BPR1SM174	◆ PT - R&T - Integrated Testing - Performance Limits - 14 Foot Vessel - Issue Simulant Basis					
2BPR1LA373		17-Apr-14	French	1812	2BPR1LF948	◆ PT - R&T - Integrated Testing - Integrated Operations - 14 Foot Vessel - Issue Test Plan					
2BPR1LA393		29-Apr-14	French	1804	2BPR1LF612	◆ PT - R&T - Integrated Testing - Performance Limits - 14 Foot Vessel - Issue Test Plan					
2BPR1LA018	01-Apr-13	05-May-14	French	-74	2BPR1LT274, 2BPR1LT474	PT - R&T - Integrated Testing - Performance & Scaling - Summary - 14 Foot Vessel - Testing,					
2BPR1LA327		05-May-14	French	1800	2BPR1LT574	◆ PT - R&T - Integrated Testing - Performance & Scaling - 14 Foot Vessel - Complete Testing					
2BPR1LA033	24-Dec-13	11-Jun-14	French	345	2BPR1LG988, 2BPR1HL308	PT - R&T - Integrated Testing - Heel Management - Summary - 14 Foot Vessel - Test Results / Reporting,					
2BPR1LA356		11-Jun-14	French	1774	2BPR1LG988	◆ PT - R&T - Integrated Testing - Heel Management - 14 Foot Vessel - Issue Technical Evaluation Report					
2BPR1LA375		09-Jul-14	French	1755	2BPR1SM200	◆ PT - R&T - Integrated Testing - Integrated Operations - 14 Foot Vessel - Issue Simulant Qualification Document					
2BPR1LA042	27-Jan-14	09-Jul-14	French	-69	2BPR1SM195, 2BPR1SM196	PT - R&T - Integrated Testing - Integrated 14 Foot Operations - Summary - Simulant,					
2BPR1LA395		24-Jul-14	French	1744	2BPR1SM180	◆ PT - R&T - Integrated Testing - Performance Limits - 14 Foot Vessel - Issue Simulant Qualification Document					
2BPR1LA047	26-Mar-14	24-Jul-14	French	134	2BPR1SM175, 2BPR1SM177	PT - R&T - Integrated Testing - Performance Limits - Summary - Simulant,					
2BPR1LA041	27-Apr-12	01-Aug-14	French	270	2BPR1LG836, 2BPR1LF943	PT - R&T - Integrated Testing - Integrated 14 Foot Operations - Summary - Test Preparations,					
2BPR1LA046	06-Jun-13	18-Aug-14	French	55	2BPR1LF612, 2BPR1LG839	PT - R&T - Integrated Testing - Performance Limits - Summary - Test Preparations,					
2BPR1LA326		20-Aug-14	French	1725	2BPR1LG958	◆ PT - R&T - Integrated Testing - Performance & Scaling - 14 Foot Vessel - Issue Technical Evaluation Report					
2BPR1LA019	22-Apr-13	20-Aug-14	French	372	2BPR1LT582, 2BPR1LT477	PT - R&T - Integrated Testing - Performance & Scaling - Summary - 14 Foot Vessel - Test Results / Reporting,					
2BPR1LA377		02-Dec-14	French	1654	2BPR1LS818	◆ PT - R&T - Integrated Testing - Integrated Operations - 14 Foot Vessel - Complete Testing					
2BPR1LA043	13-May-14	02-Dec-14	French	-74	2BPR1LS882, 2BPR1LS853	PT - R&T - Integrated Testing - Integrated 14 Foot Operations - Summary - Testing,					
2BPR1LA050	06-Jun-13	04-May-15	French	83	2BPR1LF523, 2BPR1LF539	PT - R&T - Integrated Testing - Performance Limits - Summary - EPC,					
2BPR1LA376		18-May-15	French	1539	2BPR1HL938	◆ PT - R&T - Integrated Testing - Integrated Operations - 14 Foot Vessel - Issue Technical Evaluation Report					
2BPR1LA044	04-Jun-14	18-May-15	French	86	2BPR1LS891, 2BPR1LS819	PT - R&T - Integrated Testing - Integrated 14 Foot Operations - Summary - Test Results / Reporting,					
2BPR1LA397		04-Mar-16	French	1339	2BPR1LT907	◆ PT - R&T - Integrated Testing - Performance Limits - 14 Foot Vessel - Complete Testi					
2BPR1LA048	17-Jun-15	04-Mar-16	French	-74	2BPR1LT907, 2BPR1LT907	PT - R&T - Integrated Testing - Performance Limits - Summary - Testing,					
2BPR1LA396		27-May-16	French	1279	2BPR1LG998	◆ PT - R&T - Integrated Testing - Performance Limits - 14 Foot Vessel - Issu					
2BPR1LA049	07-Mar-16	15-Feb-17	French	-74	2BPR1LG998, 2BPR1LT908	PT - R&T - Integrated Testing - Perform					
Test 5	10-Oct-11 A	03-Jul-12		-28							
2BPR1LA206	25-Oct-11 A	17-Feb-12	French	-58	2BPR1LF923, 2BPR1LF929	PT - R&T - Integrated Testing - Test 5 - 12 Foot - Summary - Test Preparations,					
2BPR1LA202	01-Feb-12	28-Feb-12	French	-47	2BPR1LG667, 2BPR1LG679	PT - R&T - Integrated Testing - Test 5 - 34 Inch - Summary - Simulant,					

VCT Summary Schedule

Activity ID	Start	Finish	Resp Person	Total Float	Predecessors	2012	2013	2014	2015	2016	2017
2BPR1LA207	10-Oct-11 A	28-Feb-12	French	-47	2BPR1LG711, 2BPR1LG679,	PT - R&T - Integrated Testing - Test 5 - 12 Foot - Summary - Simulant,					
2BPR1LA201	31-Oct-11 A	14-Mar-12	French	-58	2BPR1LC334, 2BPR1LG805,	PT - R&T - Integrated Testing - Test 5 - 34 Inch - Summary - Test Preparations,					
2BPR1LA203	15-Mar-12	03-Apr-12	French	-58	2BPR1LG701, 2BPR1LG703	PT - R&T - Integrated Testing - Test 5 - 34 Inch - Summary - Testing,					
2BPR1LA208	30-Jan-12	23-Apr-12	French	-58	2BPR1LG693, 2BPR1LG705,	PT - R&T - Integrated Testing - Test 5 - 12 Foot - Summary - Testing,					
2BPR1LA204	19-Apr-12	14-May-12	French	-53	2BPR1LG747, 2BPR1LG753	PT - R&T - Integrated Testing - Test 5 - 34 Inch - Summary - Test Results / Reporting,					
2BPR1LA209	24-Apr-12	03-Jul-12	French	-58	2BPR1LG901, 2BPR1LG908	PT - R&T - Integrated Testing - Test 5 - 12 Foot - Summary - Test Results / Reporting,					
WP 10 - EPC	13-Sep-11 A	29-Mar-13		412							
01 Summary	13-Sep-11 A	29-Mar-13		412							
2BPR1CS160	02-Jan-12 A	25-Jan-12	Omel	0	2BPR1CS161, 2BPR1CS167	PT - R&T - Integrated Testing - Construction Spec - 14 Foot Summary,					
2BPR1LU505	17-Oct-11 A	13-Mar-12	Omel	0	2BPR1LU216, 2BPR1LU215,	PT - R&T - Integrated Testing - Large Scale - 8 Foot Platform EPC Summary,					
2BPR1LU503	08-Mar-12	01-May-12	Omel	0	2BPR1LU121, 2BPR1LU133,	PT - R&T - Integrated Testing - Large Scale - 4 Foot Platform Array Summary,					
2BPR1LU507	03-Apr-12	01-May-12	Omel	-262	2BPR1LU226, 2BPR1LU225,	PT - R&T - Integrated Testing - Large Scale - 8 Foot Platform Array Summary,					
2BPR1LU501	13-Sep-11 A	10-Oct-12	Omel	528	2BPR1LG557, 2BPR1LG558,	PT - R&T - Integrated Testing - Large Scale - 4 Foot Platform EPC Summary,					
2BPR1LC560	02-Nov-11 A	18-Oct-12	Underhill	36	2BPR1LC524, 2BPR1LC550,	PT - R&T - Integrated Testing - 14 Foot Vessel - C&I - ICN Hardware/Software Summary,					
2BPR1LC570	07-Nov-11 A	18-Oct-12	Underhill	36	2BPR1LC538, 2BPR1LC525	PT - R&T - Integrated Testing - 14 Foot Vessel - C&I - PPJ Hardware/Software Summary,					
2BPR1LU511	19-Feb-13	19-Feb-13	Omel	-45	2BPR1LU346, 2BPR1LU326,	PT - R&T - Integrated Testing - Large Scale - 14 Foot Platform Array Summary,					
2BPR1LU509	28-Feb-12	29-Mar-13	Omel	-74	2BPR1LU315, 2BPR1LU316,	PT - R&T - Integrated Testing - Large Scale - 14 Foot Platform EPC Summary,					
04 Foot Vessel	28-Feb-12	10-Oct-12		528							
2BPR1LU105		28-Feb-12*	Omel	0	2BPR1LU101	PT - R&T - Integrated Testing - Large Scale - ES - 42 Inch - Modification Complete					
2BPR1LU122		07-Mar-12*	Omel	0		PT - R&T - Integrated Testing - Large Scale - WTP - 4 Foot - UFP-02 Array					
2BPR1LU123		07-Mar-12*	Omel	0		PT - R&T - Integrated Testing - Large Scale - WTP - 4 Foot - RLD-08 Array					
2BPR1LU110		23-Mar-12*	Omel	0	2BPR1LU101, 2BPR1LU105	PT - R&T - Integrated Testing - Large Scale - ES - 42 Inch - Platform Ready to Test					
2BPR1LU121		01-May-12*	Omel	0		PT - R&T - Integrated Testing - Large Scale - WTP - 4 Foot - HLP-27 Array					
2BPR1LU133		01-May-12*	Omel	0		PT - R&T - Integrated Testing - Large Scale - WTP - 4 Foot - HLP-22 Array					
2BPR1LU111		10-Oct-12	Anderson	528	2BPR1LT425, 2BPR1SM114,	PT - R&T - Integrated Testing - Large Scale - WTP - 42 Inch - Platform Ready to Test					
08 Foot Vessel	15-Feb-12	01-May-12		-35							
2BPR1LU225		15-Feb-12*	Omel	-179		PT - R&T - Integrated Testing - Large Scale - WTP - 8 Foot - RLD-08 Array					
2BPR1LU224		01-Mar-12*	Omel	-159		PT - R&T - Integrated Testing - Large Scale - WTP - 8 Foot - UFP-02 Array					
2BPR1LU210		08-Mar-12*	Omel	-250	2BPR1LU205, 2BPR1LU201	PT - R&T - Integrated Testing - Large Scale - ES - 8 Foot - Construction Complete					
2BPR1LU215		13-Mar-12*	Omel	0	2BPR1LU210	PT - R&T - Integrated Testing - Large Scale - ES - 8 Foot - Platform Ready to Test					
2BPR1LU216		13-Mar-12	Anderson	-248	2BPR1SM203, 2BPR1SM103,	PT - R&T - Integrated Testing - Large Scale - WTP - 8 Foot - Platform Ready to Test					
2BPR1LU221		02-Apr-12*	Omel	-262		PT - R&T - Integrated Testing - Large Scale - WTP - CFD RLD-08 Full Scale Array					
2BPR1LU222		02-Apr-12*	Omel	-233		PT - R&T - Integrated Testing - Large Scale - WTP - CFD RLD-08 Scaled Array					
2BPR1LU223		01-May-12*	Omel	-170		PT - R&T - Integrated Testing - Large Scale - WTP - 8 Foot - HLP-27 Array					
2BPR1LU226		01-May-12*	Omel	-135		PT - R&T - Integrated Testing - Large Scale - WTP - 8 Foot - HLP-22 Array					
14 Foot Vessel	02-Jul-12	29-Mar-13		-29							
2BPR1LU306		02-Jul-12*	Omel	0		PT - R&T - Integrated Testing - Large Scale - ES - 14 Foot - Procurement of 14 Foot Heads					

VCT Summary Schedule

Activity ID	Start	Finish	Resp Person	Total Float	Predecessors	2012	2013	2014	2015	2016	2017
2BPR1LU305		02-Jul-12*	Omel	0			◆ PT - R&T - Integrated Testing - Large Scale - ES - 14 Foot - Procurement of 14 Foot Vessel				
2BPR1LU310		31-Aug-12*	Omel	0	2BPR1LU301, 2BPR1LU305		◆ PT - R&T - Integrated Testing - Large Scale - ES - 14 Foot - Construction Complete				
2BPR1LU326		15-Feb-13*	Omel	0			◆ PT - R&T - Integrated Testing - Large Scale - WTP - 14 Foot - HLP-27 Array				
2BPR1LU346		15-Feb-13*	Omel	0			◆ PT - R&T - Integrated Testing - Large Scale - WTP - 14 Foot - RLD-08 Array				
2BPR1LU356		15-Feb-13*	Omel	0			◆ PT - R&T - Integrated Testing - Large Scale - WTP - 14 Foot - HLP-22 Array				
2BPR1LU336		15-Feb-13*	Omel	-45			◆ PT - R&T - Integrated Testing - Large Scale - WTP - 14 Foot - UFP-02 Array				
2BPR1LU315		29-Mar-13*	Omel	-74			◆ PT - R&T - Integrated Testing - Large Scale - ES - 14 Foot - Platform Ready to Test				
2BPR1LU316		29-Mar-13	Anderson	-74	2BPR1SM134, 2BPR1LJ917		◆ PT - R&T - Integrated Testing - Large Scale - WTP - 14 Foot - Platform Ready to Test				
WP A Vessel PI:	20-Sep-12	10-Apr-14		0							
01 Summary	20-Sep-12	10-Apr-14		0							
2BPR1LA117	20-Sep-12*		French	0	2BPR1LA707, 2BPR1LA107		◆ PT - Vessel Installation - UFP-1B				
2BPR1LA112		29-Nov-12	French	88	2BPR1LE115, 2BPR1LE135		◆ PT - R&T - Integrated Testing - DOE Vessel Release - RLD-08				
2BPR1LA710		29-Nov-12	French	88	2BPR1LE135, 2BPR1LE736		◆ PT - R&T - Integrated Testing - DOE Vessel Release - RLD-07 (Early)				
2BPR1LA712		29-Nov-12	French	88	2BPR1LE135, 2BPR1LE720		◆ PT - R&T - Integrated Testing - DOE Vessel Release - RLD-08 (Early)				
2BPR1LA110		20-Dec-12	French	73	2BPR1LE135, 2BPR1LE636		◆ PT - R&T - Integrated Testing - DOE Vessel Release - RLD-07				
2BPR1LA121	24-Dec-12*		French	0	2BPR1LA101, 2BPR1LA701		◆ PT - Vessel Installation - HLP-28				
2BPR1LA135	02-Jan-13*		French	0	2BPR1LA715, 2BPR1LA115		◆ PT - Vessel Installation - UFP-1A				
2BPR1LA146	10-Jan-13*		French	0	2BPR1LA714, 2BPR1LA114		◆ PT - Vessel Installation - PWD-44				
2BPR1LA133	13-Feb-13*		French	0	2BPR1LA113, 2BPR1LA713		◆ PT - Vessel Installation - HLP-22				
2BPR1LA123	25-Feb-13*		French	5	2BPR1LA103, 2BPR1LA703		◆ PT - Vessel Installation - HLP-27A				
2BPR1LA125	25-Feb-13*		French	0	2BPR1LA105, 2BPR1LA705		◆ PT - Vessel Installation - HLP-27B				
2BPR1LA134	09-Apr-13*		French	0	2BPR1LA110, 2BPR1LA710		◆ PT - Vessel Installation - RLD-07				
2BPR1LA136	09-Apr-13*		French	0	2BPR1LA712, 2BPR1LA112		◆ PT - Vessel Installation - RLD-08				
2BPR1LA714		04-Jun-13	French	-101	2BPR1LE708, 2BPR1LE192		◆ PT - R&T - Integrated Testing - DOE Vessel Release - PWD-44 (Early)				
2BPR1LA707		04-Jun-13	French	-177	2BPR1LE207, 2BPR1LE726		◆ PT - R&T - Integrated Testing - DOE Vessel Release - UFP-1B (Early)				
2BPR1LA715		04-Jun-13	French	-107	2BPR1LE726, 2BPR1LE196		◆ PT - R&T - Integrated Testing - DOE Vessel Release - UFP-1A (Early)				
2BPR1LA107		25-Jun-13	French	-192	2BPR1LE127, 2BPR1LE207		◆ PT - R&T - Integrated Testing - DOE Vessel Release - UFP-1B				
2BPR1LA114		25-Jun-13	French	-116	2BPR1LE608, 2BPR1LE192		◆ PT - R&T - Integrated Testing - DOE Vessel Release - PWD-44				
2BPR1LA115		25-Jun-13	French	-122	2BPR1LE626, 2BPR1LE625		◆ PT - R&T - Integrated Testing - DOE Vessel Release - UFP-1A				
2BPR1LA709		25-Jun-13	French	132	2BPR1LE716, 2BPR1LE154		◆ PT - R&T - Integrated Testing - DOE Vessel Release - UFP-2A (Early)				
2BPR1LA711		25-Jun-13	French	198	2BPR1LE154, 2BPR1LE716		◆ PT - R&T - Integrated Testing - DOE Vessel Release - UFP-2B (Early)				
2BPR1LA713		25-Jun-13	French	-93	2BPR1LE216, 2BPR1LE724		◆ PT - R&T - Integrated Testing - DOE Vessel Release - HLP-22 (Early)				
2BPR1LA109		17-Jul-13	French	117	2BPR1LE615, 2BPR1LE154		◆ PT - R&T - Integrated Testing - DOE Vessel Release - UFP-2A				
2BPR1LA111		17-Jul-13	French	183	2BPR1LE114, 2BPR1LE154		◆ PT - R&T - Integrated Testing - DOE Vessel Release - UFP-2B				
2BPR1LA113		17-Jul-13	French	-108	2BPR1LE116, 2BPR1LE623		◆ PT - R&T - Integrated Testing - DOE Vessel Release - HLP-22				
2BPR1LA703		17-Jul-13	French	-96	2BPR1LE193, 2BPR1LE712		◆ PT - R&T - Integrated Testing - DOE Vessel Release - HLP-27A (Early)				
2BPR1LA705		17-Jul-13	French	-101	2BPR1LE193, 2BPR1LE712		◆ PT - R&T - Integrated Testing - DOE Vessel Release - HLP-27B (Early)				

VCT Summary Schedule

Activity ID	Start	Finish	Resp Person	Total Float	Predecessors	2012	2013	2014	2015	2016	2017
2BPR1LA701		17-Jul-13	French	-142	2BPR1LE132, 2BPR1LE704			◆ PT - R&T - Integrated Testing - DOE Vessel Release - HLP-28 (Early)			
2BPR1LA105		07-Aug-13	French	-116	2BPR1LE612, 2BPR1LE611			◆ PT - R&T - Integrated Testing - DOE Vessel Release - HLP-27B			
2BPR1LA103		07-Aug-13	French	-111	2BPR1LE193, 2BPR1LE611			◆ PT - R&T - Integrated Testing - DOE Vessel Release - HLP-27A			
2BPR1LA101		07-Aug-13	French	-157	2BPR1LE604, 2BPR1LE111			◆ PT - R&T - Integrated Testing - DOE Vessel Release - HLP-28			
2BPR1LA119	06-Jan-14*		French	0	2BPR1LA709, 2BPR1LA109			◆ PT - Vessel Installation - UFP-2A			
2BPR1LA131	10-Apr-14*		French	0	2BPR1LA711, 2BPR1LA111			◆ PT - Vessel Installation - UFP-2B			
WP B - E&NS											
01 Summary											
2BPR1LE150	18-Nov-11 A	11-Jan-12	Busche	0	2BPR1LE157, 2BPR1LE151			PT - R&T - Update Plan for Nuclear Safety Parameters in WAC,			
2BPR1LE160	21-Nov-11 A	23-Jan-12	Busche	-166	2BPR1LE168, 2BPR1LE161			PT - R&T - Update Plan to Evaluate Hazards,			
2BPR1LD270	14-Nov-11 A	06-Mar-12	Caimi	2346	2BPR1LD271, 2BPR1LD275			PT - R&T - Integrated Testing - E&NS Questions for LSIT Resolution - Summary, PT - R&T - Integrated Testing - E&NS Questions for LSIT Resolution - Summary,			
2BPR1LE170	05-Apr-12	19-Feb-14	Busche	-284	2BPR1LE189, 2BPR1LE171			PT - R&T - CSER Summary,			
WP 101 HLP-28											
2BPR1LE503	15-Feb-13	15-Mar-13	Busche	-110	2BPR1V303, 2BPR1LT150			PT - R&T - HLP-28 - E&NS - NS Evaluate Results,			
2BPR1LE504	18-Mar-13	10-Jun-13	Busche	-110	2BPR1LE502, 2BPR1LE503			PT - R&T - HLP-28 - E&NS - Issue HAR/AA/CSR,			
2BPR1LE505	11-Jun-13	06-Aug-13	Busche	1947	2BPR1LE504, 2BPR1LG938			PT - R&T - HLP-28 - E&NS - Update PDSA (JCDPI / ABAR) - Prep,			
2BPR1LE506	07-Aug-13	02-Oct-13	Busche	1947	2BPR1LE505			PT - R&T - HLP-28 - E&NS - Update PDSA (JCDPI / ABAR) - DOE Approve,			
WP C - Design C											
WP 101 HLP-28											
2BPR1VS001	31-Oct-11 A	16-Mar-12	Olson	2338	2BPR1VS101, 2BPR1VS103			PT - R&T - VCT - HLP-28 - Develop Input for CFD Analysis,			
2BPR1VS002	14-Nov-11 A	15-Feb-13	Underhill	2106	2BPR1VS109, 2BPR1VS117			PT - R&T - VCT - HLP-28 - Perform CFD Analysis,			
2BPR1VS003	07-Mar-12	25-Jun-13	Olson	33	2BPR1VS129, 2BPR1VS141			PT - R&T - VCT - HLP-28 - Design Calculation Update,			
WP 102 PWD-44											
2BPR1VS004	18-Nov-11 A	13-Mar-12	Olson	-54	2BPR1VS151, 2BPR1VS153			PT - R&T - VCT - PWD-44 - Develop Input for CFD Analysis,			
2BPR1VS005	17-Feb-12	15-Feb-13	Underhill	-157	2BPR1VS157, 2BPR1VS161			PT - R&T - VCT - PWD-44 - Perform CFD Analysis,			
2BPR1VS006	07-Mar-12	13-May-13	Olson	1	2BPR1VS177, 2BPR1VS187			PT - R&T - VCT - PWD-44 - Design Calculation Update,			
WP 103 HLP-27A/B											
2BPR1VS007	28-Nov-11 A	24-Apr-12	Olson	-18	2BPR1VS195, 2BPR1VS191			PT - R&T - VCT - HLP-27A/B - Develop Input for CFD Analysis,			
2BPR1VS008	19-Mar-12	15-Feb-13	Underhill	-86	2BPR1VS205, 2BPR1VS203			PT - R&T - VCT - HLP-27A/B - Perform CFD Analysis,			
2BPR1VS009	07-Mar-12	25-Jun-13	Olson	94	2BPR1VS230, 2BPR1VS223			PT - R&T - VCT - HLP-27A/B - Design Calculation Update,			
WP 104 UFP-02A/B											
2BPR1VS010	12-Dec-11 A	03-Apr-12	Olson	-59	2BPR1VS233, 2BPR1VS231			PT - R&T - VCT - UFP-02A/B - Develop Input for CFD Analysis,			
2BPR1VS011	05-Mar-12	15-Feb-13	Underhill	-142	2BPR1VS241, 2BPR1VS247			PT - R&T - VCT - UFP-02A/B - Perform CFD Analysis,			
2BPR1VS012	07-Mar-12	04-Jun-13	Olson	23	2BPR1VS253, 2BPR1VS259			PT - R&T - VCT - UFP-02A/B - Design Calculation Update,			
WP 105 UFP-01A/B											
2BPR1VS013	12-Dec-11 A	13-Mar-12	Underhill	-57	2BPR1VS281, 2BPR1VS283			PT - R&T - VCT - UFP-01A/B - Develop Input for CFD Analysis,			
2BPR1VS014	17-Feb-12	15-Feb-13	Underhill	-192	2BPR1VS295, 2BPR1VS291			PT - R&T - VCT - UFP-01A/B - Perform CFD Analysis,			

VCT Summary Schedule

Activity ID	Start	Finish	Resp Person	Total Float	Predecessors	2012	2013	2014	2015	2016	2017
2BPR1VS015	07-Mar-12	13-May-13	Olson	-59	2BPR1VS303, 2BPR1VS307,	PT - R&T - VCT - UFP-01A/B - Design Calculation Update,					
WP 106 HLW RLD-07	03-Jan-12 A	06-Nov-12		2174							
2BPR1VS016	03-Jan-12 A	30-Jan-12	Olson	-17	2BPR1VS323, 2BPR1VS321,	PT - R&T - VCT - HLW RLD-07 - Develop Input for CFD Analysis,					
2BPR1VS017	17-Jan-12	13-Aug-12	Underhill	-79	2BPR1VS337, 2BPR1VS335,	PT - R&T - VCT - HLW RLD-07 - Perform CFD Analysis,					
2BPR1VS018	27-Feb-12	06-Nov-12	Olson	-25	2BPR1VS343, 2BPR1VS359,	PT - R&T - VCT - HLW RLD-07 - Design Calculation Update,					
WP 107 HLW RLD-08	03-Jan-12 A	11-Oct-12		2192							
2BPR1VS019	03-Jan-12 A	30-Jan-12	Olson	-17	2BPR1VS365, 2BPR1VS361,	PT - R&T - VCT - HLW RLD-08 - Develop Input for CFD Analysis,					
2BPR1VS020	17-Jan-12	18-Jul-12	Underhill	-61	2BPR1VS369, 2BPR1VS371,	PT - R&T - VCT - HLW RLD-08 - Perform CFD Analysis,					
2BPR1VS021	27-Feb-12	11-Oct-12	Olson	-25	2BPR1VS399, 2BPR1VS379,	PT - R&T - VCT - HLW RLD-08 - Design Calculation Update,					
WP 108 HLP-22	05-Mar-12	04-Jun-13		2031							
2BPR1VS022	05-Mar-12	03-Apr-12	Olson	-59	2BPR1VS401, 2BPR1VS401,	PT - R&T - VCT - HLP-22 - Develop Input for CFD Analysis,					
2BPR1VS023	05-Mar-12	15-Feb-13	Underhill	-142	2BPR1VS417, 2BPR1VS409,	PT - R&T - VCT - HLP-22 - Perform CFD Analysis,					
2BPR1VS024	07-Mar-12	04-Jun-13	Olson	23	2BPR1VS427, 2BPR1VS437,	PT - R&T - VCT - HLP-22 - Design Calculation Update,					
WP 109 CNP-VSL-00003	10-Aug-12	16-Sep-13		1824							
2BPR1VS025	19-Feb-13	11-Mar-13	Olson	1579	2BPR1VS447, 2BPR1VS445,	PT - R&T - VCT - CNP-VSL-00003 - Develop Input for CFD Analysis,					
2BPR1VS026	12-Mar-13	20-Jun-13	Underhill	1579	2BPR1VS457, 2BPR1VS453,	PT - R&T - VCT - CNP-VSL-00003 - Perform CFD Analysis,					
2BPR1VS027	10-Aug-12	16-Sep-13	Olson	1746	2BPR1VS467, 2BPR1VS461,	PT - R&T - VCT - CNP-VSL-00003 - Design Confirmation,					
WP 110 CNP-VSL-00004	24-Aug-12	05-Mar-14		1718							
2BPR1VS028	05-Mar-13	01-Apr-13	Olson	1604	2BPR1VS485, 2BPR1VS487,	PT - R&T - VCT - CNP-VSL-00004 - Develop Input for CFD Analysis,					
2BPR1VS029	26-Mar-13	05-Jul-13	Underhill	1599	2BPR1VS495, 2BPR1VS497,	PT - R&T - VCT - CNP-VSL-00004 - Perform CFD Analysis,					
2BPR1VS030	24-Aug-12	05-Mar-14	Olson	1718	2BPR1VS511, 2BPR1VS519,	PT - R&T - VCT - CNP-VSL-00004 - Design Confirmation,					
WP 111 CXP-VSL-00004	10-Aug-12	14-Oct-13		1804							
2BPR1VS031	19-Mar-13	22-Apr-13	Olson	1619	2BPR1VS525, 2BPR1VS529,	PT - R&T - VCT - CXP-VSL-00004 - Develop Input for CFD Analysis,					
2BPR1VS032	09-Apr-13	19-Jul-13	Underhill	1619	2BPR1VS533, 2BPR1VS537,	PT - R&T - VCT - CXP-VSL-00004 - Perform CFD Analysis,					
2BPR1VS033	10-Aug-12	14-Oct-13	Olson	1804	2BPR1VS543, 2BPR1VS539,	PT - R&T - VCT - CXP-VSL-00004 - Design Confirmation,					
WP 112 CXP-VSL-00026A/B/C	24-Aug-12	04-Nov-13		1799							
2BPR1VS034	02-Apr-13	13-May-13	Olson	1634	2BPR1VS569, 2BPR1VS565,	PT - R&T - VCT - CXP-VSL-00026A/B/C - Develop Input for CFD Analysis,					
2BPR1VS035	23-Apr-13	09-Aug-13	Underhill	1634	2BPR1VS571, 2BPR1VS573,	PT - R&T - VCT - CXP-VSL-00026A/B/C - Perform CFD Analysis,					
2BPR1VS036	24-Aug-12	04-Nov-13	Olson	1799	2BPR1VS593, 2BPR1VS583,	PT - R&T - VCT - CXP-VSL-00026A/B/C - Design Confirmation,					
WP 113 UFP-VSL-00062A/B/C	10-Aug-12	21-Nov-13		1746							
2BPR1VS037	16-Apr-13	04-Jun-13	Olson	1651	2BPR1VS605, 2BPR1VS609,	PT - R&T - VCT - UFP-VSL-00062A/B/C - Develop Input for CFD Analysis,					
2BPR1VS038	07-May-13	30-Aug-13	Underhill	1661	2BPR1VS617, 2BPR1VS611,	PT - R&T - VCT - UFP-VSL-00062A/B/C - Perform CFD Analysis,					
2BPR1VS039	10-Aug-12	21-Nov-13	Olson	1746	2BPR1VS623, 2BPR1VS631,	PT - R&T - VCT - UFP-VSL-00062A/B/C - Design Confirmation,					
WP 114 FEP-VSL-00017A/B	24-Aug-12	24-Dec-13		1735							
2BPR1VS040	30-Apr-13	25-Jun-13	Olson	1660	2BPR1VS649, 2BPR1VS645,	PT - R&T - VCT - FEP-VSL-00017A/B - Develop Input for CFD Analysis,					
2BPR1VS041	21-May-13	27-Sep-13	Underhill	1660	2BPR1VS651, 2BPR1VS657,	PT - R&T - VCT - FEP-VSL-00017A/B - Perform CFD Analysis,					
2BPR1VS042	24-Aug-12	24-Dec-13	Olson	1735	2BPR1VS659, 2BPR1VS663,	PT - R&T - VCT - FEP-VSL-00017A/B - Design Confirmation,					

VCT Summary Schedule

Activity ID	Start	Finish	Resp Person	Total Float	Predecessors	2012	2013	2014	2015	2016	2017
WP 115 FRP-VSL-00002A/B/	10-Sep-12	31-Jan-14		1740							
2BPR1VS043	07-May-13	17-Jul-13	Olson	1665	2BPR1VS683, 2BPR1VS687						
2BPR1VS044	05-Jun-13	01-Nov-13	Underhill	1665	2BPR1VS689, 2BPR1VS695						
2BPR1VS045	10-Sep-12	31-Jan-14	Olson	1740	2BPR1VS713, 2BPR1VS709						
WP 116 RDP-VSL-00002A/B/	10-Sep-12	09-Jan-14		1735							
2BPR1VS048	10-Sep-12	09-Jan-14	Olson	1735	2BPR1VS723, 2BPR1VS717						
WP 117 HOP-VSL-000903/904	24-Sep-12	07-Feb-14		1735							
2BPR1VS049	21-May-13	07-Aug-13	Olson	1675	2BPR1VS737, 2BPR1VS735						
2BPR1VS050	19-Jun-13	08-Nov-13	Underhill	1710	2BPR1VS741, 2BPR1VS745						
2BPR1VS051	24-Sep-12	07-Feb-14	Olson	1735	2BPR1VS765, 2BPR1VS751						
WP 118 TCP-VSL-00001	24-Sep-12	03-Mar-14		1720							
2BPR1VS052	05-Jun-13	28-Aug-13	Olson	1670	2BPR1VS771, 2BPR1VS775						
2BPR1VS053	03-Jul-13	03-Dec-13	Underhill	1705	2BPR1VS777, 2BPR1VS779						
2BPR1VS054	24-Sep-12	03-Mar-14	Olson	1720	2BPR1VS799, 2BPR1VS795						
WP 119 TLP-VSL-00009A/B	24-Sep-12	07-Apr-14		1685							
2BPR1VS055	19-Jun-13	19-Sep-13	Olson	1665	2BPR1VS807, 2BPR1VS805						
2BPR1VS056	18-Jul-13	09-Jan-14	Underhill	1685	2BPR1VS809, 2BPR1VS811						
2BPR1VS057	24-Sep-12	07-Apr-14	Olson	1685	2BPR1VS831, 2BPR1VS833						
WP 120 PWD-VSL-00015/16	08-Oct-12	21-Apr-14		1685							
2BPR1VS058	03-Jul-13	10-Oct-13	Olson	1660	2BPR1VS847, 2BPR1VS847						
2BPR1VS059	11-Oct-13	14-Feb-14	Underhill	1660	2BPR1VS851, 2BPR1VS857						
2BPR1VS060	08-Oct-12	21-Apr-14	Olson	1685	2BPR1VS859, 2BPR1VS869						
WP 121 PWD-VSL-00033	08-Oct-12	12-May-14		1670							
2BPR1VS061	18-Jul-13	31-Oct-13	Olson	1665	2BPR1VS885, 2BPR1VS881						
2BPR1VS062	25-Oct-13	14-Feb-14	Underhill	1660	2BPR1VS891, 2BPR1VS889						
2BPR1VS063	08-Oct-12	12-May-14	Olson	1670	2BPR1VS897, 2BPR1VS901						
WP 122 PWD-VSL-00043	01-Aug-13	03-Jul-14		1633							
2BPR1VS064	01-Aug-13	21-Nov-13	Olson	1660	2BPR1VS917, 2BPR1VS919						
2BPR1VS065	08-Nov-13	03-Mar-14	Olson	1660	2BPR1VS925, 2BPR1VS923						
2BPR1VS066	17-Dec-13	03-Jul-14	Olson	1633	2BPR1VS939, 2BPR1VS943						
WP D - Design V	27-Jul-12	02-Jul-13		102							
WP 101 HLP-28	25-Apr-13	02-Jul-13		-157							
2BPR1LE117	25-Apr-13	02-Jul-13	Olson	-157	2BPR1VS133, 2BPR1LE108						
WP 102 PWD-44	14-Mar-13	20-May-13		-116							
2BPR1LE118	14-Mar-13	20-May-13	Olson	-116	2BPR1VS171, 2BPR1LE433						
WP 103 HLP-27A/B	10-Apr-13	02-Jul-13		-116							
2BPR1LE119	10-Apr-13	02-Jul-13	Olson	-116	2BPR1LE431, 2BPR1VS227						

VCT Summary Schedule

Activity ID	Start	Finish	Resp Person	Total Float	Predecessors	2012	2013	2014	2015	2016	2017
WP 104 UFP-02A/B	20-Mar-13	11-Jun-13		117							
2BPR1LE120	20-Mar-13	11-Jun-13	Olson	117	2BPR1LE108, 2BPR1LE433						
WP 105 UFP-01A/B	27-Feb-13	20-May-13		-192							
2BPR1LE124	27-Feb-13	20-May-13	Olson	-192	2BPR1LE433, 2BPR1LE434						
WP 106 HLW RLD-07	22-Aug-12	13-Nov-12		73							
2BPR1LE121	22-Aug-12	13-Nov-12	Olson	73	2BPR1LE108, 2BPR1VS343						
WP 107 HLW RLD-08	27-Jul-12	18-Oct-12		91							
2BPR1LE122	27-Jul-12	18-Oct-12	Olson	91	2BPR1VS385, 2BPR1VS393						
WP 108 HLP-22	20-Mar-13	11-Jun-13		-108							
2BPR1LE123	20-Mar-13	11-Jun-13	Olson	-108	2BPR1VS423, 2BPR1VS429						
WP E Program [22-Dec-10 A	15-Feb-17		67							
01 Summary	22-Dec-10 A	15-Feb-17		67							
2BPR1HL440	12-Dec-11 A	29-Jul-13	Olson	700	2BPR1HL469, 2BPR1HL448						
2BPR1LA051	22-Dec-10 A	15-Feb-17	French	67	2BPR1LT909, 2BPR1LA073						
WP F - DNFSB 2	14-Jan-12 A	30-Jan-18		859							
5.0.1 - Safety Basis Approva	05-Apr-12	29-Jun-12		0							
2BPR1LJ102		05-Apr-12	Busche	0							
2BPR1LJ103		29-Jun-12*	Busche	0	2BPR1LJ102						
5.1.3 - Large Scale Test Plan	08-Feb-12	27-May-16		1279							
2BPR1LJ122		08-Feb-12	Olson	-24	2BPR1LE139, 2BPR1LA069						
2BPR1LJ123		08-Feb-12	Olson	-24	2BPR1LA069, 2BPR1LE139						
2BPR1LJ222		12-Mar-12	Damerow	2342	2BPR1LG808						
2BPR1LJ202		12-Mar-12	Hanson	874	2BPR1LG808						
2BPR1LJ162		12-Mar-12	Damerow	874	2BPR1LG808						
2BPR1LJ152		12-Mar-12	Busche	2342	2BPR1LG808						
2BPR1LJ161		14-Mar-12	Damerow	872	2BPR1LG805						
2BPR1LJ201		14-Mar-12	Hanson	872	2BPR1LG805						
2BPR1LJ231		14-Mar-12	Hanson	-27	2BPR1LD215						
2BPR1LJ151		14-Mar-12	Busche	2340	2BPR1LF938, 2BPR1LG805						
2BPR1LJ221		14-Mar-12	Damerow	2340	2BPR1LG805						
2BPR1LJ121		30-Mar-12*	Olson	0	2BPR1LJ122, 2BPR1LJ123						
2BPR1LJ242		02-Apr-12	Hanson	-40	2BPR1LD210						
2BPR1LJ240		30-Apr-12*	Hanson	0	2BPR1LJ230, 2BPR1LJ242						
2BPR1LJ210		30-Apr-12	Omel	-39	2BPR1LJ230, 2BPR1LG833						
2BPR1LJ230		30-Apr-12*	Hanson	0	2BPR1LJ231						
2BPR1LJ132		17-May-12	Olson	-8	2BPR1LJ121, 2BPR1LE146						
2BPR1LJ133		17-May-12	Olson	-8	2BPR1LE139, 2BPR1LE147						

PT - R&T - Design Verification UFP-02 A/B,

PT - R&T - Design Verification UFP-01 A/B,

PT - R&T - Design Verification HLW RLD-07,

PT - R&T - Design Verification HLW RLD-08,

PT - R&T - Design Verification HLP-22,

PT - R&T - VCT - Process Sampling Requirements,

PT - R&T - Integrated Testing - Define &

◆ PT - R&T - DNFSB - 5.0.1 - Develop Safety Basis Approval Strategy Document Target

◆ PT - R&T - DNFSB - 5.0.1 - Develop Safety Basis Approval Strategy Document

◆ PT - R&T - DNFSB - 5.1.3.02.01 - Issue Responses to recommendations from key stakeholders - CRESP Response

◆ PT - R&T - DNFSB - 5.1.3.02.02 - Issue Responses to recommendations from key stakeholders - PNNL Vulnerabilities Respons

◆ PT - R&T - DNFSB - 5.1.3.12.02 - Test Specifications - CFD V&V

◆ PT - R&T - DNFSB - 5.1.3.10.02 - Documented test objectives - CFD V&V

◆ PT - R&T - DNFSB - 5.1.3.06.02 - Develop test plans - CFD V&V

◆ PT - R&T - DNFSB - 5.1.3.05.02 - Define and document functional requirements - CFD V&V

◆ PT - R&T - DNFSB - 5.1.3.06.01 - Develop test plans - Test 5

◆ PT - R&T - DNFSB - 5.1.3.10.01 - Documented test objectives - Test 5

◆ PT - R&T - DNFSB - 5.1.3.13.01 - Scaling Basis Target - C&S Scaling Basis

◆ PT - R&T - DNFSB - 5.1.3.05.01 - Define and document functional requirements - Test 5

◆ PT - R&T - DNFSB - 5.1.3.12.01 - Test Specifications - Test 5

◆ PT - R&T - DNFSB - 5.1.3.02 - Issue Responses to recommendations from key stakeholders

◆ PT - R&T - DNFSB - 5.1.3.14.01 - Vessel Configurations for testing Target - C&S Vessel Selection Basis

◆ PT - R&T - DNFSB - 5.1.3.14 - Vessel Configurations for testing

◆ PT - R&T - DNFSB - 5.1.3.11 - Construction specifications Target

◆ PT - R&T - DNFSB - 5.1.3.13 - Scaling Basis

◆ PT - R&T - DNFSB - 5.1.3.03.01 - Documentation of stakeholder acceptance of recommendation dispositions - CRESP Concur

◆ PT - R&T - DNFSB - 5.1.3.03.02 - Documentation of stakeholder acceptance of recommendation dispositions - PNNL Concur

VCT Summary Schedule

Activity ID	Start	Finish	Resp Person	Total Float	Predecessors	2012	2013	2014	2015	2016	2017
2BPR1LJ110		21-May-12	Olson	-10	2BPR1LA069, 2BPR1LE188						
2BPR1LJ211		30-May-12*	Ornel	0	2BPR1LJ230, 2BPR1LJ240						
2BPR1LJ111		01-Aug-12*	Olson	0	2BPR1LJ110, 2BPR1LC509						
2BPR1LJ131		01-Aug-12*	Olson	0	2BPR1LJ123, 2BPR1LJ121						
2BPR1LJ164		18-Oct-12	Damerow	719	2BPR1LG817						
2BPR1LJ165		18-Oct-12	Damerow	719	2BPR1LG814						
2BPR1LJ224		18-Oct-12	Damerow	2187	2BPR1LG817						
2BPR1LJ225		18-Oct-12	Damerow	2187	2BPR1LG814						
2BPR1LJ204		18-Oct-12	Hanson	719	2BPR1LG817						
2BPR1LJ205		18-Oct-12	Hanson	719	2BPR1LG814						
2BPR1LJ154		18-Oct-12	Busche	2187	2BPR1LG817						
2BPR1LJ155		18-Oct-12	Busche	2187	2BPR1LG814						
2BPR1LJ228		26-Oct-12	Damerow	2181	2BPR1LG824						
2BPR1LJ158		26-Oct-12	Busche	2181	2BPR1LG824						
2BPR1LJ208		26-Oct-12	Hanson	713	2BPR1LG824						
2BPR1LJ168		26-Oct-12	Damerow	709	2BPR1LG824						
2BPR1LJ157		11-Jan-13	Busche	2130	2BPR1LG827						
2BPR1LJ227		11-Jan-13	Damerow	2130	2BPR1LG827						
2BPR1LJ207		11-Jan-13	Hanson	662	2BPR1LG827						
2BPR1LJ167		11-Jan-13	Damerow	658	2BPR1LG827						
2BPR1LJ226		05-Mar-13	Damerow	2095	2BPR1LG820						
2BPR1LJ206		05-Mar-13	Hanson	627	2BPR1LG820						
2BPR1LJ156		05-Mar-13	Busche	2095	2BPR1LG820						
2BPR1LJ166		05-Mar-13	Damerow	627	2BPR1LG820						
2BPR1LJ223		08-Apr-13	Damerow	2071	2BPR1LG811						
2BPR1LJ163		08-Apr-13	Damerow	603	2BPR1LG811						
2BPR1LJ203		08-Apr-13	Hanson	603	2BPR1LG811						
2BPR1LJ153		08-Apr-13	Busche	2071	2BPR1LG811						
2BPR1LJ229		09-Apr-13	Damerow	2070	2BPR1LG830						
2BPR1LJ159		09-Apr-13	Busche	2070	2BPR1LG830						
2BPR1LJ209		09-Apr-13	Hanson	602	2BPR1LG830						
2BPR1LJ169		09-Apr-13	Damerow	598	2BPR1LG830						
2BPR1LJ175		14-May-13	Hanson	692	2BPR1LG938						
2BPR1LJ178		14-May-13	Hanson	692	2BPR1LG978						
2BPR1LJ251		01-Aug-13	Daniel	637	2BPR1VV306						
2BPR1LJ174		01-Oct-13	Hanson	595	2BPR1LG948						
2BPR1LJ177		01-Oct-13	Hanson	595	2BPR1LG968						

VCT Summary Schedule

Activity ID	Start	Finish	Resp Person	Total Float	Predecessors	2012	2013	2014	2015	2016	2017
2BPR1LJ173		17-Oct-13	Hanson	583	2BPR1LG928			◆ PT - R&T - DNFSB - 5.1.3.07.03 - Analysis of Test Results - Single PJM			
2BPR1LJ141		31-Dec-13*	Busche	0	2BPR1LJ140			◆ PT - R&T - DNFSB - 5.1.3.04 - Update the CSER			
2BPR1LJ140		19-Feb-14	Busche	-93	2BPR1LE189			◆ PT - R&T - DNFSB - 5.1.3.04 - Update the CSER Target			
2BPR1LJ253		28-Mar-14	Daniel	473	2BPR1HL372			◆ PT - R&T - DNFSB - 5.1.3.15.03 - Decision point on the need for larger scale testing - Heel Management			
2BPR1LJ179		11-Jun-14	Hanson	421	2BPR1LG988			◆ PT - R&T - DNFSB - 5.1.3.07.09 - Analysis of Test Results - 14 Foot Heel Mgmt Test			
2BPR1LJ215		01-Aug-14	Damerow	1738	2BPR1LG836			◆ PT - R&T - DNFSB - 5.1.3.12.08 - Test Specifications - Integrated 14 Foot Operations			
2BPR1LJ144		01-Aug-14	Busche	1738	2BPR1LG836			◆ PT - R&T - DNFSB - 5.1.3.05.10 - Define and document functional requirements - Integrated 14 Foot Operations Test			
2BPR1LJ145		01-Aug-14	Damerow	270	2BPR1LF948, 2BPR1LG836			◆ PT - R&T - DNFSB - 5.1.3.06.10 - Develop test plans - Integrated 14 Foot Operations Test			
2BPR1LJ245		01-Aug-14	Hanson	270	2BPR1LG836			◆ PT - R&T - DNFSB - 5.1.3.10.10 - Documented test objectives - Integrated 14 Foot Operations			
2BPR1LJ171		18-Aug-14	Hanson	374	2BPR1LG658, 2BPR1LG705			◆ PT - R&T - DNFSB - 5.1.3.07.01 - Analysis of Test Results - Test 5			
2BPR1LJ146		18-Aug-14	Busche	1727	2BPR1LG839, 2BPR1LD234			◆ PT - R&T - DNFSB - 5.1.3.05.11 - Define and document functional requirements - Performance Limits Testing			
2BPR1LJ147		18-Aug-14	Damerow	259	2BPR1LG839, 2BPR1LF612			◆ PT - R&T - DNFSB - 5.1.3.06.11 - Develop test plans - Performance Limits Test			
2BPR1LJ216		18-Aug-14	Damerow	1727	2BPR1LG839			◆ PT - R&T - DNFSB - 5.1.3.12.08 - Test Specifications - Performance Limits Testing			
2BPR1LJ172		18-Aug-14	Hanson	374	2BPR1LJ160, 2BPR1LG918			◆ PT - R&T - DNFSB - 5.1.3.07.02 - Analysis of Test Results - CFD V&V			
2BPR1LJ200		18-Aug-14	Hanson	259	2BPR1LC369, 2BPR1LC509			◆ PT - R&T - DNFSB - 5.1.3.10 - Documented test objectives			
2BPR1LJ220		18-Aug-14	Damerow	1727	2BPR1LJ222, 2BPR1LJ215			◆ PT - R&T - DNFSB - 5.1.3.12 - Test Specifications			
2BPR1LJ150		18-Aug-14	Busche	1727	2BPR1LJ152, 2BPR1LJ146			◆ PT - R&T - DNFSB - 5.1.3.05 - Define and document functional requirements			
2BPR1LJ160		18-Aug-14	Damerow	259	2BPR1LJ167, 2BPR1LJ165			◆ PT - R&T - DNFSB - 5.1.3.06 - Develop test plans			
2BPR1LJ246		18-Aug-14	Hanson	259	2BPR1LG839			◆ PT - R&T - DNFSB - 5.1.3.10.11 - Documented test objectives - Performance Limits Testing			
2BPR1LJ176		20-Aug-14	Hanson	372	2BPR1LG958			◆ PT - R&T - DNFSB - 5.1.3.07.06 - Analysis of Test Results - 14 Foot Performance Test			
2BPR1LJ252		27-Mar-15	Daniel	222	2BPR1LT582			◆ PT - R&T - DNFSB - 5.1.3.15.02 - Decision point on the need for larger scale testing - Performance and Scaling			
2BPR1LJ135		18-May-15	Hanson	186	2BPR1HL938			◆ PT - R&T - DNFSB - 5.1.3.07.10 - Analysis of Test Results - Integrated 14 Foot Test			
2BPR1LJ254		17-Aug-15	Daniel	123	2BPR1LS891			◆ PT - R&T - DNFSB - 5.1.3.15.04 - Decision point on the need for larger scale testing - Integrated 14 Foot Operat			
2BPR1LJ170		27-May-16	Hanson	-74	2BPR1LJ172, 2BPR1LJ175			◆ PT - R&T - DNFSB - 5.1.3.07 - Analysis of Test Results			
2BPR1LJ180		27-May-16	Underhill	-74	2BPR1LT582, 2BPR1LG918			◆ PT - R&T - DNFSB - 5.1.3.08 - Assess the need to test lvi instrumtn and P			
2BPR1LJ136		27-May-16	Hanson	-74	2BPR1LG998, 2BPR1LT907			◆ PT - R&T - DNFSB - 5.1.3.07.11 - Analysis of Test Results - Performance I			
2BPR1LJ250		27-May-16	Daniel	-74	2BPR1LJ251, 2BPR1LJ190			◆ PT - R&T - DNFSB - 5.1.3.15 - Decision point on the need for larger scale			
2BPR1LJ190		27-May-16	Underhill	-74	2BPR1LJ170, 2BPR1LS891			◆ PT - R&T - DNFSB - 5.1.3.09 - Rpt addressing extrn of PJM level instrmntn			
5.2.3 - Waste Simulant	12-Mar-12	18-Aug-14		374							
2BPR1LJ272		12-Mar-12	Hanson	989	2BPR1LG808			◆ PT - R&T - DNFSB - 5.2.3.02.02 - Qualification reports for simulants - CFD V&V			
2BPR1LJ271		14-Mar-12	Hanson	987	2BPR1LG805			◆ PT - R&T - DNFSB - 5.2.3.02.01 - Qualification reports for simulants - Test 5			
2BPR1LJ261		06-Apr-12	Hanson	-43	2BPR1LD259			◆ PT - R&T - DNFSB - 5.2.3.01 - Physical properties important to mixing and scaling Target			
2BPR1LJ260		01-May-12*	Hanson	0	2BPR1LJ261			◆ PT - R&T - DNFSB - 5.2.3.01 - Physical properties important to mixing and scaling			
2BPR1LJ273		18-Oct-12	Hanson	834	2BPR1LG817			◆ PT - R&T - DNFSB - 5.2.3.02.03 - Qualification reports for simulants - Performance and Scaling - 4 Foot			
2BPR1LJ274		18-Oct-12	Hanson	834	2BPR1LG814			◆ PT - R&T - DNFSB - 5.2.3.02.04 - Qualification reports for simulants - Performance and Scaling - 8 Foot			
2BPR1LJ277		26-Oct-12	Hanson	828	2BPR1LG824			◆ PT - R&T - DNFSB - 5.2.3.02.07 - Qualification reports for simulants - Heel Management - 8 Foot			
2BPR1LJ276		11-Jan-13	Hanson	777	2BPR1LG827			◆ PT - R&T - DNFSB - 5.2.3.02.06 - Qualification reports for simulants - Heel Management - 4 Foot			

VCT Summary Schedule

Activity ID	Start	Finish	Resp Person	Total Float	Predecessors	2012	2013	2014	2015	2016	2017
						2BPR1LJ275		05-Mar-13	Hanson	742	2BPR1LG820
2BPR1LJ279		08-Apr-13	Hanson	718	2BPR1LG811		◆ PT - R&T - DNFSB - 5.2.3.02.08 - Qualification reports for simulants - Single PJM				
2BPR1LJ278		09-Apr-13	Hanson	717	2BPR1LG830		◆ PT - R&T - DNFSB - 5.2.3.02.08 - Qualification reports for simulants - Heel Management - 14 Foot				
2BPR1LJ264		01-Aug-14	Hanson	385	2BPR1LG836			◆ PT - R&T - DNFSB - 5.2.3.02.08 - Qualification reports for simulants - Integrated 14 Foot Operations			
2BPR1LJ265		18-Aug-14	Hanson	374	2BPR1LG839			◆ PT - R&T - DNFSB - 5.2.3.02.08 - Qualification reports for simulants - Performance Limits Testing			
2BPR1LJ270		18-Aug-14	Hanson	374	2BPR1LJ277, 2BPR1LJ264,			◆ PT - R&T - DNFSB - 5.2.3.02 - Qualification reports for simulants			
5.3.3 - Model Verification and Validation											
2BPR1LJ310	01-Feb-12	27-Mar-15		222			◆ PT - R&T - DNFSB - 5.3.3.04 - Analysis of data set required to support CFD V&V				
2BPR1LJ321		06-Mar-12	ORP	0	2BPR1VW116		◆ PT - R&T - DNFSB - 5.3.3.05 - NETL independent review of data sets to support CFD V&V Target				
2BPR1LJ331		04-May-12	ORP	0			◆ PT - R&T - DNFSB - 5.3.3.06 - Decision on need for LSIT to support CFD V&V Target				
2BPR1LJ320		30-May-12*	ORP	0	2BPR1LJ310, 2BPR1LJ321		◆ PT - R&T - DNFSB - 5.3.3.05 - NETL independent review of data sets to support CFD V&V				
2BPR1LJ281		07-Jun-12	Olson	0	2BPR1LG898, 2BPR1LG747,		◆ PT - R&T - DNFSB - 5.3.3.01.01 - Update assess of use of Newtonian analysis techniques - Test 5				
2BPR1LJ330		31-Jul-12*	ORP	0	2BPR1LJ320, 2BPR1LJ331		◆ PT - R&T - DNFSB - 5.3.3.06 - Decision on need for LSIT to support CFD V&V				
2BPR1LJ371		07-Aug-12	Hanson	0	2BPR1LC369, 2BPR1LF830		◆ PT - R&T - DNFSB - 5.3.3.10 - Data required to support assessment of CFD against LSIT Target				
2BPR1LJ282		29-Aug-12	Olson	-58	2BPR1LE110		◆ PT - R&T - DNFSB - 5.3.3.01.02 - Update assess of use of Newtonian analysis techniques				
2BPR1LJ280		31-Aug-12*	Olson	0	2BPR1LJ282, 2BPR1LJ281		◆ PT - R&T - DNFSB - 5.3.3.01 - Update assess of use of Newtonian analysis techniques to assess non-Newtonian vessel perf				
2BPR1LJ291		03-Oct-12	ORP	0	2BPR1LE110		◆ PT - R&T - DNFSB - 5.3.3.02 - Ind rvw of paper concluding non-Newtonian cond can be assessed Target				
2BPR1LJ340		31-Oct-12*	Underhill	0	2BPR1LJ341, 2BPR1LJ330		◆ PT - R&T - DNFSB - 5.3.3.07 - Complete V&V of CFD				
2BPR1LJ370		31-Oct-12*	Hanson	0	2BPR1LJ371, 2BPR1LJ111,		◆ PT - R&T - DNFSB - 5.3.3.10 - Data required to support assessment of CFD against LSIT				
2BPR1LJ301		30-Nov-12	ORP	0	2BPR1LE110		◆ PT - R&T - DNFSB - 5.3.3.03 - Conclusion regarding use of Newtonian techniques to assess non-Newtonian conditions Target				
2BPR1LJ341		12-Dec-12	Underhill	-88	2BPR1VW306		◆ PT - R&T - DNFSB - 5.3.3.07 - Complete V&V of CFD Target				
2BPR1LJ351		19-Dec-12	ORP	-13	2BPR1VW307		◆ PT - R&T - DNFSB - 5.3.3.08 - External review of complete V&V of CFD Target				
2BPR1LJ290		31-Dec-12*	ORP	0	2BPR1LJ291, 2BPR1LJ280		◆ PT - R&T - DNFSB - 5.3.3.02 - Ind rvw of paper concluding non-Newtonian cond can be assessed using Newtonian techniques				
2BPR1LJ300		28-Feb-13*	ORP	0	2BPR1LJ290, 2BPR1LJ301		◆ PT - R&T - DNFSB - 5.3.3.03 - Conclusion regarding use of Newtonian techniques to assess non-Newtonian conditions				
2BPR1LJ350		28-Feb-13*	ORP	0	2BPR1LJ351, 2BPR1LJ340		◆ PT - R&T - DNFSB - 5.3.3.08 - External review of complete V&V of CFD				
2BPR1LJ361		06-Jun-13	Daniel	0	2BPR1VW306		◆ PT - R&T - DNFSB - 5.3.3.09 - Assessment of whether CFD has required precision Target				
2BPR1LJ381		06-Jun-13	Underhill	0	2BPR1VW308		◆ PT - R&T - DNFSB - 5.3.3.11 - CFD analysis of planned LSIT Target				
2BPR1LJ360		30-Aug-13*	Daniel	0	2BPR1LJ361, 2BPR1LJ350		◆ PT - R&T - DNFSB - 5.3.3.09 - Assessment of whether CFD has required precision				
2BPR1LJ380		30-Aug-13*	Underhill	0	2BPR1LJ381, 2BPR1LJ370		◆ PT - R&T - DNFSB - 5.3.3.11 - CFD analysis of planned LSIT				
2BPR1LJ390		27-Mar-15	Underhill	222	2BPR1LT582, 2BPR1LC369,			◆ PT - R&T - DNFSB - 5.3.3.12 - CFD prediction of LSIT performance assessment			
5.4.3 - Sampling in Vessels											
2BPR1LJ411	05-Jul-12	05-Jul-12	Olson	0			◆ PT - R&T - DNFSB - 5.4.3.02 - WTP sampling requirement input considering tank farm sampling capability Target				
2BPR1LJ431		12-Jul-12	Olson	-5	2BPR1HL448		◆ PT - R&T - DNFSB - 5.4.3.04 - WTP process control sampling requirements Target				
2BPR1LJ410		28-Sep-12*	Olson	0	2BPR1LJ411, 2BPR1LJ102,		◆ PT - R&T - DNFSB - 5.4.3.02 - WTP sampling requirement input considering tank farm sampling capability				
2BPR1LJ430		28-Sep-12*	Olson	0	2BPR1LJ103, 2BPR1LJ102,		◆ PT - R&T - DNFSB - 5.4.3.04 - WTP process control sampling requirements				
2BPR1LJ440		29-Mar-13*	Busche	0	2BPR1LJ410, 2BPR1LJ102,		◆ PT - R&T - DNFSB - 5.4.3.05 - Sampling required to maintain safety design basis				
2BPR1LJ401		02-Oct-13	Slaathaug	0			◆ PT - R&T - DNFSB - 5.4.3.01 - Identify sampling requirements to support definition of required SST Target				

VCT Summary Schedule

Activity ID	Start	Finish	Resp Person	Total Float	Predecessors	2012	2013	2014	2015	2016	2017
2BPR1LJ400		30-Dec-13*	Slaathaug	0	2BPR1LJ440, 2BPR1LJ410,				◆ PT - R&T - DNFSB - 5.4.3.01 - Identify sampling requirements to support definition of required sampling system testing		
2BPR1LJ420		31-Dec-13*	Busche	0	2BPR1LJ421, 2BPR1LJ102,				◆ PT - R&T - DNFSB - 5.4.3.03 - Develop criticality sampling requirements		
2BPR1LJ441		19-Feb-14	Busche	-284	2BPR1LE189				◆ PT - R&T - DNFSB - 5.4.3.05 - Sampling required to maintain safety design basis Target		
2BPR1LJ421		19-Feb-14	Busche	-93	2BPR1LE189				◆ PT - R&T - DNFSB - 5.4.3.03 - Develop criticality sampling requirements Target		
2BPR1LJ450		31-Mar-14	Damerow	532	2BPR1LF955, 2BPR1LJ440				◆ PT - R&T - DNFSB - 5.4.3.06 - Sampling system test plan		
2BPR1LJ460		18-May-15	Hanson	246	2BPR1HL938, 2BPR1LJ450				◆ PT - R&T - DNFSB - 5.4.3.07 - Initial sampling system test report		
2BPR1LJ470		06-Jul-15	Hanson	53	2BPR1LJ440, 2BPR1LS888,				◆ PT - R&T - DNFSB - 5.4.3.08 - Integrated testing report		
2BPR1LJ480		24-Feb-16	Hanson	53	2BPR1LJ470, 2BPR1HL458,				◆ PT - R&T - DNFSB - 5.4.3.09 - Assessment of sampling system performance and gap analysis		
5.5.3 - Representative Samp											
2BPR1LJ528	14-Jan-12 A	26-Jan-12	Thien	0	2BPR1LJ527				◆ PT - R&T - DNFSB - 5.5.3.04 - Issue Test Requirements Document and Provide documentation of ERT Comment Resolution,		
2BPR1LJ520		31-Jan-12*	Thien	0	2BPR1LJ529				◆ PT - R&T - DNFSB - 5.5.3.04 - ID of tank farm sampling and xfer capability test reqs to be docmtd in a test req doc		
2BPR1LJ529	26-Jan-12	31-Jan-12	Thien	0	2BPR1LJ528				◆ PT - R&T - DNFSB - 5.5.3.04 - DOE transmit Test Requirements to DNFSB,		
2BPR1LJ531		30-Mar-12*	Thien	0	2BPR1LJ521, 2BPR1LJ520				◆ PT - R&T - DNFSB - 5.5.3.05 - Definition of simulants for tank farm performance testing		
2BPR1LJ541		31-May-12*	Thien	0	2BPR1LJ531				◆ PT - R&T - DNFSB - 5.5.3.06 - Test plan to establish Tank Farm performance capability		
2BPR1LJ500		29-Jun-12*	Thien	0					◆ PT - R&T - DNFSB - 5.5.3.02 - Evaluation of waste transferred to WTP		
2BPR1LJ491		03-Oct-12	Slaathaug	0					◆ PT - R&T - DNFSB - 5.5.3.01 - Initial gap analysis between WTP WAC and tank farm sampling and transfer capability Target		
2BPR1LJ490		31-Dec-12*	Slaathaug	0	2BPR1LJ491, 2BPR1LJ500				◆ PT - R&T - DNFSB - 5.5.3.01 - Initial gap analysis between WTP WAC and tank farm sampling and transfer capability		
2BPR1LJ561		31-Dec-12*	Thien	0					◆ PT - R&T - DNFSB - 5.5.3.08 - Issue remote sampler test report		
2BPR1LJ551		29-Mar-13*	Thien	0	2BPR1LJ541				◆ PT - R&T - DNFSB - 5.5.3.07 - Results from Tank Farm performance testing		
2BPR1LJ571		05-Jun-14	Thien	0					◆ PT - R&T - DNFSB - 5.5.3.09 - Gap Analysis Target		
2BPR1LJ570		29-Aug-14*	Thien	0	2BPR1LJ561, 2BPR1LJ571,				◆ PT - R&T - DNFSB - 5.5.3.09 - Gap Analysis		
2BPR1LJ581		05-Mar-15	Slaathaug	0					◆ PT - R&T - DNFSB - 5.5.3.10 - Optimized WAC DQC Target		
2BPR1LJ580		29-May-15*	Slaathaug	0	2BPR1LJ581, 2BPR1LJ570				◆ PT - R&T - DNFSB - 5.5.3.10 - Optimized WAC DQC		
2BPR1LJ510		30-Jan-18	Slaathaug	859	2BPR1LJ570, 2BPR1LJ420,						
5.6.3 - Functional Design Cr											
2BPR1LJ591	12-Mar-12	12-Mar-12	Olson	-46	2BPR1HL428				◆ PT - R&T - DNFSB - 5.6.3.01 - Define functional design criteria for heel management system Target		
2BPR1LJ601		14-Mar-12	Olson	-6	2BPR1HL409				◆ PT - R&T - DNFSB - 5.6.3.02 - Heel management system design Target		
2BPR1LJ590		30-Mar-12*	Olson	0	2BPR1LJ591				◆ PT - R&T - DNFSB - 5.6.3.01 - Define functional design criteria for heel management system		
2BPR1LJ600		30-May-12*	Olson	0	2BPR1LJ601, 2BPR1LJ590				◆ PT - R&T - DNFSB - 5.6.3.02 - Heel management system design		
2BPR1LJ611		05-Sep-12	Olson	0	2BPR1HL428				◆ PT - R&T - DNFSB - 5.6.3.03 - Heel management system description Target		
2BPR1LJ610		30-Nov-12*	Olson	0	2BPR1LJ611, 2BPR1LJ600				◆ PT - R&T - DNFSB - 5.6.3.03 - Heel management system description		
2BPR1LJ620		29-Mar-13*	Busche	0	2BPR1LJ610, 2BPR1LJ621				◆ PT - R&T - DNFSB - 5.6.3.04 - Heel management system hazard analysis		
2BPR1LJ640		09-Apr-13	Damerow	598	2BPR1LF167, 2BPR1LF898,				◆ PT - R&T - DNFSB - 5.6.3.06 - Heel management test plan		
2BPR1LJ621		24-Jul-13	Busche	-141	2BPR1LE564, 2BPR1LE554,				◆ PT - R&T - DNFSB - 5.6.3.04 - Heel management system hazard analysis Target		
2BPR1LJ650		11-Jun-14	Hanson	301	2BPR1LG988, 2BPR1LG968,				◆ PT - R&T - DNFSB - 5.6.3.07 - Heel management test report		
2BPR1LJ660		02-Dec-14	Olson	361	2BPR1LJ610, 2BPR1HL438,				◆ PT - R&T - DNFSB - 5.6.3.08 - Heel management performance gap analysis		
2BPR1LJ670		03-Feb-15	Olson	259	2BPR1HL466, 2BPR1LJ160,				◆ PT - R&T - DNFSB - 5.6.3.09 - Assessment of need for Heel Management in Additional Vessels		

VCT Summary Schedule

Activity ID	Start	Finish	Resp Person	Total Float	Predecessors	2012	2013	2014	2015	2016	2017
2BPR1LJ630		26-May-15	Olson	1534	2BPR1LJ620, 2BPR1HL417				◆ PT - R&T - DNFSB - 5.6.3.05 - Heel management system committed design		
5.7.3 - Technical & Safety R	30-Jan-12	27-May-16		-14							
2BPR1LJ680		30-Jan-12*	Busche	0	2BPR1LE168		◆ PT - R&T - DNFSB - 5.7.3.01 - Establish plan and sched. to eval the hazard of known tech issues - 2012				
2BPR1LJ690		25-Jul-12*	ORP	0			◆ PT - R&T - DNFSB - 5.7.3.02 - Strengthen IMP to improve the integrated mgmt of the tech & safety risks				
2BPR1LJ681		30-Jan-13*	Busche	0	2BPR1LJ680		◆ PT - R&T - DNFSB - 5.7.3.01 - Update plan and sched. to eval the hazard of known tech issues - 2013				
2BPR1LJ720		30-Jan-13*	DOE HQ	0	2BPR1LJ690		◆ PT - R&T - DNFSB - 5.7.3.05 - Conduct independent review of the IMP strengthened under Com 5.7.3.02 to eval effectiveness				
2BPR1LJ682		30-Jan-14*	Busche	0	2BPR1LJ681		◆ PT - R&T - DNFSB - 5.7.3.01 - Update plan and sched. to eval the hazard of known tech issues - 2014				
2BPR1LJ683		30-Jan-15*	Busche	0	2BPR1LJ682				◆ PT - R&T - DNFSB - 5.7.3.01 - Update plan and sched. to eval the hazard of known tech issues - 2015		
2BPR1LJ684		01-Feb-16*	Busche	0	2BPR1LJ683				◆ PT - R&T - DNFSB - 5.7.3.01 - Update plan and sched. to eval the hazard of known tech is		
2BPR1LJ702		12-Feb-16	ORP	0	2BPR1LJ270				◆ PT - R&T - DNFSB - 5.7.3.03.02 - Eval the closure doc for each sub-recommendation to		
2BPR1LJ703		12-Feb-16	ORP	0	2BPR1LJ360, 2BPR1LJ390				◆ PT - R&T - DNFSB - 5.7.3.03.03 - Eval the closure doc for each sub-recommendation to		
2BPR1LJ704		12-Feb-16	ORP	0	2BPR1LJ400, 2BPR1LJ420				◆ PT - R&T - DNFSB - 5.7.3.03.04 - Eval the closure doc for each sub-recommendation to		
2BPR1LJ705		12-Feb-16	ORP	0	2BPR1LJ580				◆ PT - R&T - DNFSB - 5.7.3.03.05 - Eval the closure doc for each sub-recommendation to		
2BPR1LJ706		12-Feb-16	ORP	0	2BPR1LJ670				◆ PT - R&T - DNFSB - 5.7.3.03.06 - Eval the closure doc for each sub-recommendation to		
2BPR1LJ707		12-Feb-16	ORP	0	2BPR1LJ720				◆ PT - R&T - DNFSB - 5.7.3.03.07 - Eval the closure doc for each sub-recommendation to		
2BPR1LJ700		09-May-16*	ORP	0	2BPR1LJ250, 2BPR1LJ660				◆ PT - R&T - DNFSB - 5.7.3.03 - Eval the closure doc for each sub-recommend		
2BPR1LJ701		27-May-16	ORP	-74	2BPR1LJ250				◆ PT - R&T - DNFSB - 5.7.3.03.01 - Eval the closure doc for each sub-recom		
6.3.1 - Reporting	30-Jan-12	31-Oct-14		0							
2BPR1LJ730		30-Jan-12*	ORP	0			◆ PT - R&T - DNFSB - 6.3.1 - Quarterly Progress Report and briefing to the DNFSB and staff - Jan 2012				
2BPR1LJ735		30-Apr-12*	ORP	0	2BPR1LJ730		◆ PT - R&T - DNFSB - 6.3.1 - Quarterly Progress Report and briefing to the DNFSB and staff - Apr 2012				
2BPR1LJ740		31-Jul-12*	ORP	0	2BPR1LJ735		◆ PT - R&T - DNFSB - 6.3.1 - Quarterly Progress Report and briefing to the DNFSB and staff - Jul 2012				
2BPR1LJ745		31-Oct-12*	ORP	0	2BPR1LJ740		◆ PT - R&T - DNFSB - 6.3.1 - Quarterly Progress Report and briefing to the DNFSB and staff - Oct 2012				
2BPR1LJ750		30-Jan-13*	ORP	0	2BPR1LJ745		◆ PT - R&T - DNFSB - 6.3.1 - Quarterly Progress Report and briefing to the DNFSB and staff - Jan 2013				
2BPR1LJ755		30-Apr-13*	ORP	0	2BPR1LJ750		◆ PT - R&T - DNFSB - 6.3.1 - Quarterly Progress Report and briefing to the DNFSB and staff - Apr 2013				
2BPR1LJ760		31-Jul-13*	ORP	0	2BPR1LJ755		◆ PT - R&T - DNFSB - 6.3.1 - Quarterly Progress Report and briefing to the DNFSB and staff - Jul 2013				
2BPR1LJ765		31-Oct-13*	ORP	0	2BPR1LJ760		◆ PT - R&T - DNFSB - 6.3.1 - Quarterly Progress Report and briefing to the DNFSB and staff - Oct 2013				
2BPR1LJ770		30-Jan-14*	ORP	0	2BPR1LJ765		◆ PT - R&T - DNFSB - 6.3.1 - Quarterly Progress Report and briefing to the DNFSB and staff - Jan 2014				
2BPR1LJ775		30-Apr-14*	ORP	0	2BPR1LJ770		◆ PT - R&T - DNFSB - 6.3.1 - Quarterly Progress Report and briefing to the DNFSB and staff - Apr 2014				
2BPR1LJ780		31-Jul-14*	ORP	0	2BPR1LJ775		◆ PT - R&T - DNFSB - 6.3.1 - Quarterly Progress Report and briefing to the DNFSB and staff - Jul 2014				
2BPR1LJ785		31-Oct-14*	ORP	0	2BPR1LJ780		◆ PT - R&T - DNFSB - 6.3.1 - Quarterly Progress Report and briefing to the DNFSB and staff - Oct 2014				