

Float less than 22 days; activities planned to start per baseline but did not start (but if had float of >22 days --> no schedule impact)																	
	Milestones	1.3.1 Cryomodules	1.3.2 Power Systems	1.3.3 Cryogenics	1.3.4 Beam Transport	1.3.5 Extraction	1.3.6 IC&S	1.5 Hall D	1.6.1.1.3 BSY (Civil)	1.23 Acc Maint	1.24.1 Hall A	1.24.2 Hall B	1.24.3 Hall C	1.26 Conventional Facilities (FML)	1.27 FEL	1.28 ESH&Q	1.29 Cryogenics
end of May 2012	no issues	CM installation & commissioning has slipped, but plans to be back on track at the end (only has 8 days of float)  girders ahead of schedule	associated RP with CM installation and commissioning (16 days float)	no issues	on schedule or even early for removal activities	delay in some work, but plenty of float	on schedule or even early	delay in some work, but plenty of float	behind, but plenty of float	no issues	behind, but plenty of float	HDI/Ce removal moved out a little - but no major impacts	Decommissioning and removal of QWeak (1.24.3.7) -> BUT need info from 12GeV Hall C as the float is relative to end of 6GeV Hall C De-installation work.	10MVA to 22MVA line looks good Headers and setting of tower - need to look at logic for header work.  CHL#1 cooling tower submittals behind  HVAC roof design one month behind but shortened construction duration to make up  Tunnel penetration design specs design but shortened procurement cycle & submittal review	Changes made in progress sheet for Admiral WBS - needs a CR to clean up because its delayed 2 months (but has float)	no issues	N/A
end of June 2012	no issues	no issues	no issues	no issues	no issues	no issues	no issues	a little behind, but has float	no issues	no issues	a little behind, but has float	a little behind, but has float	a little behind (~ 3 weeks), but plenty of float	a little behind (counting house reno, MCC HVAC roof), but plenty of float	no issues	no issues	N/A
end of July 2012	Test Lab VTA Off Line Now September 14th.	no issues	no issues	Cooldown for solenoid is behind schedule with respect to November deadline.	no issues	no issues	no issues	no issues	no issues	no issues	no issues	Behind (2 to 3 weeks in some areas), but has float	a little behind (2 to 3 weeks in some areas), but has float	no issues	no issues	no issues	N/A
end of Aug 2012	no issues	no issues	no issues	Cooldown for solenoid is behind schedule with respect to November deadline.	no issues	no issues	no issues	no issues	no issues	no issues	a little behind, but has float	Behind (3 weeks to 2 months in some areas), but has float	Behind (6 weeks in some areas), but has constrained float	a little behind, but has float	a little behind, but has minimal float	no issues	Behind (2 months) - extend hall d gas lines
end of Sept 2012	no issues	no issues	no issues	Cooldown for solenoid is behind schedule with respect to November deadline.	no issues	no issues	PSS behind Acc/Hall D system tasks - one month. Target date to finish is now Mid Jan and not Dec 15th so this will change at next progress collection. Note: testlab work for PSS is not in this schedule.	no issues	no issues	no issues	a little behind, but has float	Behind (3 weeks in some areas), but has float	Behind (3 weeks in some areas), but has constrained float	no issues	Admiral (F100) behind schedule due to test lab VTA.	no issues	Behind (3 months) - extend hall d gas lines & CHLI Tasks

	The critical path (as defined by activities with float less than 22 days).						
	1.20M CHL Milestones/Outages	1.3.1 Cryomodules (J. Hogan/L. Harwood)	1.3.6.4 Instrumentation & Controls (PSS)	1.23.1.2 Cryomodule Shuffle (S. Suhring)	1.3.3 Cryogenics (D. Arenius/L. Harwood)	1.26 Conventional Facilities (FML) (B. Sperlazza)	1.24.3 6GeV Hall C
end of May 2012							
end of June 2012	1.20M.2.2 CHL Milestones/Outages (5 days float) Relative to 1.26 CHL cooling tower replacement (see details under 1.26).	1.3.1.4 Checkout/Commissioning: CMs #3, 6, 7, 8, 9, 10. (22 days float). Driven by 13123025 Install CM #3 (NL22) Constrained to a must start on 21 Dec 2012.  <b>** NOTE: L. Harwood has stated that this installation will start mid August 2012, information will be updated during July progress. **</b>	N/A	2L21 recommission 0L04. (22 days float) 12GeV Checkout/commissioning of CM#10 NL 26 must finish first (9 Aug 2013). 0L04 can be then start but must be completed by end of the down.  <b>** NOTE: This will be off critical path when 1.3.1 changes are made &lt;-).</b>	N/A	1.26.5 CHL Cooling Tower Replacement: (1 day float) All activities in this WBS relative to Commissioning Towers 1 & 2 complete by 30 Jan 2013 (constrained date)	
end of July 2012	1.20M.2.2 CHL Milestones/Outages (1 day float) Relative to 1.26 CHL cooling tower header to start of transfer line maintenance work	1.3.1.4 Checkout/Commissioning: CMs #3, 6, 7, 8, 9, 10. (16 days float now). Driven by 13123025 Install CM #3 (NL22) Constrained to a must start on 21 Dec 2012.  <b>** NOTE: L. Harwood has stated that this installation will start mid August 2012, july progress still states Dec 2012 **</b>	N/A	2L21 recommission 0L04. (16 days float now) 12GeV Checkout/commissioning of CM#10 NL 26 must finish first (9 Aug 2013). 0L04 can be then start but must be completed by end of the down.	1.3.3.2.1 CHL Hall D Transfer Line and Header Fabrication & Installation of cryogenics transfer line & can for solenoid (20 days & 5 days float) Relative to Start Hall D cooldown (15 Nov 2012)	Same as CHL milestone critical path	
end of Aug 2012	1.20M.2.2 CHL Milestones/Outages (6 days float) Relative to 1.26 CHL cooling tower header to start of transfer line maintenance work	No longer on critical path. CM#3 and #7 installation to be done earlier now. Made changes to associated RF system logic. Now has 34 days float	N/A	B/C of change done for 12GeV CM commissioning, this now has 34 days float and no longer on the critical path	1.3.3.2.1 CHL Hall D Transfer Line and Header Fabrication & Installation of cryogenics transfer line & can for solenoid (4 days & 5 days float) Relative to Start Hall D cooldown (15 Nov 2012)	Same as CHL milestone critical path	, Concrete Floor, C-Can /Platform)
end of Sept 2012	No longer critical path. Corrected link to FML activity for header work.	N/A	1.3.6.4.3 PSS Hall D PSS System Complete (Aug 2013) has 20 days float. Install & Test Hall ABC Upgrades (PSS) by 30 Aug 2013. 20 days float. --> Relative to end of the down (Sept 2013)  Install & Test PSS Logic programs by 30 Aug. 20 days float. --> Relative to PSS installation complete milestone (must finish by end of the down)	N/A	1.3.3.2.1 CHL Hall D Transfer Line and Header Fabrication & Installation of cryogenics transfer line & can for solenoid (-3 days float)  --> relative to: 1.8.1.3.3.2 Hall D Cryogenics Pre-Ops Commission Solenoid Distribution can header (-3 days float) -->Relative to Start Hall D cooldown (26 Nov constrained date)  NOTE: constrained date will be moved to mid Dec, still on CP	N/A	Removal work (QWeak, SOS Dipole, Shield Hut, , Concrete Floor, C-Can /Platform) (-15 days float)  -->Relative to end of de-installation (mid Feb 2013)

Analysis UF >1 & through end of Dec 2012														
	S&A	12GeV & S/R Removal: Mech Inst, Vac, Meas Tech	Other: Mech Inst, Vac, Meas Tech	Safety Sysems	RadCon Tech	ICD Elec Tech	ICD Elec Eng	Electrician	DC Elec Tech	DC Elec Eng	RF Elec Tech	RF Elec Eng		
<b>end of May 2012</b>	9/12/12: (UF = 1.6) Q1 alignment for hookup for 12GeV & CM Shuffle for 6GeV Ops  9/28:12 (UF=1.14) OL/OR 12GeV bolt marking; Hall D network survey; ES stand alignment	week of 9/5/12 (UF=1.2)  9/18/12 - 9/28/12 (UF=1.2 to 1.3)  group leader working on CR for smoothing	no issues	no issues	no issues	no issues	no issues	no issues	8/30/12 - 9/30/12: (UF= 1.16) 12GeV Magnet Power & Hall B Cable Removal  UF only 1.16 but resources have limited low areas to move work around. Group leader is aware of this scope/resources as it is his scope and his resources (we saw this at baseline review)	no issues	no issues	no issues		
<b>end of June 2012</b>	7/2/11: UF = 2 but there are plenty of low areas for the following weeks and months.	no issues	no issues	no issues	7/2/11: UF = 1.5 but some low areas for the following weeks and months	no issues	no issues	7/2/11: UF = 1.2 but there are plenty of low areas for the following weeks and months.	8/30/12 - 9/30/12: (UF= 1.16) 12GeV Magnet Power & Hall B Cable Removal  UF only 1.16 but resources have limited low areas to move work around. Group leader is aware of this scope/resources as it is his scope and his resources (we saw this at baseline review)	no issues	no issues	no issues		
<b>end of July 2012</b>	no issues	no issues	no issues	no issues	no issues	no issues	no issues	no issues	no issues	no issues	no issues	no issues		
<b>end of Aug 2012</b>	UF of 1.5 to 2.0 entire month of Sept 2012 (12GeV & TL re- alignment)	no issues	no issues	no issues	no issues	no issues	no issues	no issues	no issues	no issues	no issues	no issues		
<b>end of Sept 2012</b>	UF of 1.2 to 2.0 entire month of Oct, Nov, Dec 2012 (12Gev Acc, HA and HD)	no issues	no issues	no issues	no issues	no issues	no issues	no issues	no issues, resources moved from beam transport	no issues	no issues	no issues		