1.08	Construction Pre-Ops								11/07/2013	08:16	Rollup				1179		
DESCRIPTION:	This summary WBS covers the pre-operations phase, including both ¿hot checkout¿ periods and commissioning with beam periods. Hot checkout periods involve the last stages of checkout of all devices related to beam delivery and associated diagnostics, and is typically done just before accelerator/Hall close-up for be																
INHOUSE LABOR (MANWEEKS)----------																	
	Weekly Rate	**ETC**	**ETC Total**		**Weekly Rate**	**ETC**	**ETC Total**		**Weekly Rate**	**ETC**	**ETC Total**						
Plant Eng	2.992			Mech Dsgn	2.052	5.444	11.170	Office	1.216	199.383	242.448						
Skilled Trades	1.425			Mech Tech	1.893	144.347	273.237	Directorate	8.135	178.130	1449.028						
Elect Engr	3.005	167.922	504.657	Senior Staff	4.813	263.103	1266.256	Contrib Univ Labor		82.000							
Elect Dsgn	2.151	27.040	58.172	Scientists	3.007	226.172	680.184	Visiting Users	0.823	95.130	78.335						
Elect Tech	1.880	376.227	707.198	Comp Scientist	2.795	65.636	183.440	Paid Univ Staff	2.393								
Mech Eng	2.987	305.760	913.222	Admin	2.502	99.456	248.813	Paid Univ Student	0.454	10.510	4.776						
	FY04-11 Actuals + Committed	**FY12 Actuals + Committed**	**FY13 Actuals + Committed**	**FY14 Actuals + Committed**	**Cost + Committed To Date Total**	**ETC in FY14 $**	**Estimate at Completion**	**Lehman May-2013**	**Variance**								
Labor Manweeks			586.825 $K		586.825 $K	2,246.260 $K	2,833.085 $K	2,801.120 $K	32						44		
FTE Years			13.337 $K		13.337 $K	51.051 $K	64.388 $K	63.662 $K	0.7						1.026		
TOTAL LABOR $			**1,553.815 $K**		**1,553.815 $K**	**6,620.935 $K**	**8,174.749 $K**	**7,904.596 $K**	**270 $K**								
$ per Jlab FTE YEAR			116.505 $K		116.505 $K	139.736 $K	139.736 $K	131.724 $K	$8 K								
Supplies & Materials			154.760 $K		154.760 $K	123.163 $K	277.924 $K	438.363 $K	-$160 K								
Travel																	
Consult & Prch Labor			36.829 $K		36.829 $K	81.726 $K	118.556 $K	110.367 $K	$8 K								
Machine Shop Labor																	
TOTAL EXPENSES			**191.590 $K**		**191.590 $K**	**204.890 $K**	**396.480 $K**	**548.730 $K**	**-$152 K**								
Major Components/A&E < $50K			87.654 $K		87.654 $K	-0.240 $K	87.414 $K	4.822 $K	$83 K								
Major Components/A&E > $50K			121.752 $K		121.752 $K	2,059.945 $K	2,181.697 $K	2,042.000 $K	$140 K								
TOTAL PROCUREMENTS			**209.407 $K**		**209.407 $K**	**2,059.704 $K**	**2,269.111 $K**	**2,046.822 $K**	**$222 K**								
Total Costs (No overhead)			**1,954.811 $K**		**1,954.811 $K**	**8,885.529 $K**	**10,840.340 $K**	**10,500.149 $K**	**$340 K**								
Labor w/overhead			1,736.552 $K		1,736.552 $K	7,415.447 $K	9,151.999 $K	8,851.652 $K	$300 K								
Expenses w/overhead			214.122 $K		214.122 $K	229.477 $K	443.598 $K	614.209 $K	-$171 K								
Procurement w/overhead			219.715 $K		219.715 $K	2,059.676 $K	2,279.391 $K	2,047.395 $K	$232 K								
GRAND TOTAL			**2,170.389 $K**		**2,170.389 $K**	**9,704.599 $K**	**11,874.988 $K**	**11,513.256 $K**	**$362 K**								
YEAR	**FY 2004/09**	**FY 2010**	**FY 2011**	**FY 2012**	**FY2013**	**Actuals**	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**Total**	**Original**	**Delta**	
LABOR - Obligation					$1,736.552 K		$2,690.060 K	$2,785.498 K	$1,939.889 K					$9,151.999 K	$8,897.438 K	$254.560 K	
EXPENSES - Obligation					$214.122 K		$45.208 K	$112.105 K	$72.164 K					$443.598 K	$438.672 K	$4.926 K	
PROCUREMENTS - Obligation					$219.715 K		$876.086 K	$554.130 K	$629.459 K					$2,279.391 K	$2,198.978 K	$80.412 K	
TOTAL					**$2,170.389 K**		**$3,611.355 K**	**$3,451.733 K**	**$2,641.512 K**					**$11,874.988 K**	**$11,535.089 K**	**$339.899 K**	
ESCL TOTAL					**$2,170.389 K**		**$3,611.355 K**	**$3,561.843 K**	**$2,812.728 K**					**$12,156.315 K**	**$12,117.937 K**	**$38.378 K**	
MANWEEKS	**FY 2004/09**	**FY 2010**	**FY 2011**	**FY 2012**	**FY2013**	**Actuals**	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**Total**	Total		
Plant Eng																	
Skilled Trades, Electrician																	
Elect Engr					109.800 MW		98.132 MW	43.541 MW	26.249 MW					277.722 MW	278.120 MW	-0.398 MW	
Elect Dsgn							27.040 MW							27.040 MW	27.160 MW	-0.120 MW	
Elect Tech					113.305 MW		265.337 MW	56.430 MW	54.460 MW					489.532 MW	489.358 MW	0.175 MW	
Mech Eng					90.368 MW		84.961 MW	133.838 MW	86.961 MW					396.127 MW	391.832 MW	4.295 MW	
Mech Dsgn					1.313 MW		0.944 MW	3.878 MW	0.622 MW					6.756 MW	6.525 MW	0.231 MW	
Mech Tech					134.275 MW		60.595 MW	59.703 MW	24.050 MW					278.622 MW	278.278 MW	0.344 MW	
Senior Staff					54.683 MW		66.753 MW	111.748 MW	84.602 MW					317.785 MW	316.973 MW	0.813 MW	
Scientists					41.990 MW		78.458 MW	97.977 MW	49.737 MW					268.162 MW	267.770 MW	0.392 MW	
Comp Scientist					1.600 MW		53.636 MW	6.000 MW	6.000 MW					67.236 MW	67.250 MW	-0.014 MW	
Admin					8.700 MW		22.456 MW	43.823 MW	33.177 MW					108.156 MW	107.823 MW	0.333 MW	
Office					15.833 MW		45.383 MW	87.645 MW	66.355 MW					215.216 MW	214.965 MW	0.251 MW	
Directorate					14.960 MW		43.380 MW	76.690 MW	58.060 MW					193.090 MW	193.083 MW	0.007 MW	
Contributed University Labor							4.200 MW	40.000 MW	37.800 MW					82.000 MW	82.000 MW		
Visting Users							9.591 MW	43.382 MW	42.157 MW					95.130 MW	95.130 MW		
Paid University Staff																	
Paid University Students							0.745 MW	9.686 MW	0.078 MW					10.510 MW	10.510 MW		
TOTAL MANWEEKS					**586.825 MW**		**862 MW**	**814 MW**	**570 MW**					**2,833 MW**	**2,826.775 MW**	**6.310 MW**	
TOTAL FTEs					**32.009 FTEs**		**19.6 FTEs**	**18.5 FTEs**	**13.0 FTEs**					**64.4 FTEs**	**64.245 FTEs**	**0.143 FTEs**	
Supplies & Materials					$154.760 K		$40.365 K	$41.523 K	$41.276 K					$277.924 K	$275.968 K	$1.956 K	
Travel																	
Purch Labor					$36.829 K			$58.571 K	$23.156 K					$118.556 K	$116.029 K	$2.526 K	
Machine Shop Labor																	
PROCUREMENTS <50K					$87.654 K		-$0.240 K							$87.414 K	$73.722 K	$13.692 K	
PROCUREMENTS >50K					$121.752 K		$876.355 K	$554.130 K	$629.459 K					$2,181.697 K	$2,116.557 K	$65.140 K	
Total					**$400.997 K**		**$916.480 K**	**$654.224 K**	**$693.891 K**					**$2,665.591 K**	**$2,582.277 K**	**$83.314 K**	
$$$$$$$$$$	**FY 2004/09**	**FY 2010**	**FY 2011**	**FY 2012**	**FY2013**	**Actuals**	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**Total**	Total		
Plant Eng																	
Skilled Trades, Electrician																	
Elect Engr					$308.722 K		$294.916 K	$130.855 K	$78.885 K					$813.379 K	$795.539 K	$17.839 K	
Elect Dsgn							$58.172 K							$58.172 K	$56.623 K	$1.549 K	
Elect Tech					$224.559 K		$498.757 K	$106.072 K	$102.369 K					$931.756 K	$908.904 K	$22.852 K	
Mech Eng					$256.079 K		$253.755 K	$399.737 K	$259.730 K					$1,169.301 K	$1,127.974 K	$41.327 K	
Mech Dsgn					$2.214 K		$1.937 K	$7.958 K	$1.275 K					$13.384 K	$12.972 K	$0.412 K	
Mech Tech					$242.375 K		$114.700 K	$113.012 K	$45.524 K					$515.612 K	$506.890 K	$8.722 K	
Senior Staff					$259.516 K		$321.266 K	$537.817 K	$407.173 K					$1,525.772 K	$1,479.651 K	$46.120 K	
Scientists					$109.317 K		$235.953 K	$294.654 K	$149.577 K					$789.501 K	$768.265 K	$21.235 K	
Comp Scientist					$3.964 K		$149.903 K	$16.769 K	$16.769 K					$187.404 K	$181.776 K	$5.628 K	
Admin					$16.035 K		$56.179 K	$109.633 K	$83.001 K					$264.848 K	$257.192 K	$7.656 K	
Office					$16.333 K		$55.186 K	$106.576 K	$80.687 K					$258.781 K	$251.330 K	$7.451 K	
Directorate					$114.701 K		$352.880 K	$623.844 K	$472.303 K					$1,563.728 K	$1,518.918 K	$44.810 K	
Contributed University Labor																	
Visting Users							$7.898 K	$35.723 K	$34.714 K					$78.335 K	$75.914 K	$2.422 K	
Paid University Staff																	
Paid University Students							$0.339 K	$4.402 K	$0.036 K					$4.776 K	$4.629 K	$0.148 K	
TOTAL					$1,553.815 K		$2,401.839 K	$2,487.052 K	$1,732.044 K					$8,174.749 K	**$7,946.578 K**	**$228.172 K**	
TOTAL w/G&A					**$1,736.552 K**		**$2,690.060 K**	**$2,785.498 K**	**$1,939.889 K**					**$9,151.999 K**			
New Direct					**$1,954.811 K**		**$3,318.319 K**	**$3,141.275 K**	**$2,425.935 K**					**$10,840.340 K**			
Original Direct					**$1,870.723 K**		**$3,263.026 K**	**$3,044.166 K**	**$2,350.940 K**					**$10,528.854 K**			
Delta					**$84.089 K**		**$55.294 K**	**$97.109 K**	**$74.995 K**					**$311.486 K**		**$311.486 K**	
New Burden					**$2,170.389 K**		**$3,611.355 K**	**$3,451.733 K**	**$2,641.512 K**					**$11,874.988 K**			
Original Burdened					**$2,083.022 K**		**$3,547.189 K**	**$3,345.026 K**	**$2,559.853 K**					**$11,535.089 K**			
Delta					**$87.367 K**		**$64.166 K**	**$106.706 K**	**$81.659 K**					**$339.899 K**		**$339.899 K**	
New Escalated					**$2,170.389 K**		**$3,611.355 K**	**$3,561.843 K**	**$2,812.728 K**					**$12,156.315 K**			
Original Escalated					**$2,083.022 K**		**$3,660.344 K**	**$3,561.843 K**	**$2,812.728 K**					**$12,117.937 K**			
Delta					**$87.367 K**		**-$48.989 K**	**$0.000 K**	**$0.000 K**					**$38.378 K**		**$38.378 K**	