

REVISED TABLE E.2: NON EDGE MODEL CASES -SUMMARY OF RESULTS

	Description																						
	Run Number	Barrier (m)	Gas Cap (m)	Bitumen (m)	Gas Cap OGIP (m3)	Bitumen OBIP (m3)	OGIP/OBIP	Gas Cap Production	Gas Cap Pressure Before CSS (kPa)	Well Model	Sensitivity Gas Cap Permeability (md)	Permeability of Bitumen Zone (md)	Dilation Grid Block Treatment	Max Injection Pressure (kPa)	Injection Pressure (KPa)	Steam Rate (m3/day)	Cum Steam Injection (m3)	Cum Oil Production (m3)	Cum Water Production (m3)	Cum OSR	Cum Gas Evolved from Bitumen Before CSS (m3)	Cum Gas Transferred into Bitumen Zone from Gas Cap During CSS (m3)	Recovery Factor (% OOIP)
Non Edge pool	NE 1	No	1	10	2.32E+06	617208	3.75	Yes	1011.60	HW	1500	3000	All Layers K x 10	108000	108000	250	5.852E+05	6.893E+04	5.734E+05	0.12	5.540E+05	2.220E+05	11.17
	NE 2	1	1	10	2.32E+06	617208	3.75	Yes	972.00	HW	1500	3000	All Layers K x 10	108000	108000	250	5.853E+05	9.191E+04	5.797E+05	0.16	0.000E+00	0.000E+00	14.90
	NE 3	No	1	10	2.32E+06	617208	3.75	No	2585.09	HW	1500	3000	All Layers K x 10	108000	108000	250	5.852E+05	6.974E+04	5.705E+05	0.12	0.000E+00	2.170E+06	11.30
	NE 4	No	1	10	2.32E+06	617208	3.75	No	2585.09	HW	1500	3000	All Layers K x 2	108000	108000	250	5.852E+05	6.744E+04	5.680E+05	0.12	0.000E+00	2.180E+06	10.93
	NE 5	No	1	10	2.32E+06	617208	3.75	No	2585.09	HW	1500	3000	Well Layer K x 10	108000	108000	250	5.852E+05	6.993E+04	5.696E+05	0.12	0.000E+00	2.180E+06	11.3
	*NE 6	No	1	10	2.32E+06	617208	3.75	Yes	1011.60	HW	1500	3000	All Layers K x 10	9800	12000	400	935625	89230.1	916757	0.10	5.500E+05	2.240E+05	14.46
	NE 7	1	1	10	2.32E+06	617208	3.75	Yes	972.00	HW	1500	3000	All Layers K x 10	108000	108000	400	9.357E+05	1.125E+05	9.338E+05	0.12	0.000E+00	0.000E+00	18.23
	*NE 8	No	1	10	2.32E+06	617208	3.75	No	2585.09	HW	1500	3000	All Layers K x 10	9800	12000	400	935648	88751.5	911989	0.09	0.000E+00	2.170E+06	14.38
	NE 9	No	10	20	2.32E+07	1.23E+06	18.76	Yes	1001.76	HW	1500	3000	All Layers K x 10	108000	108000	250	5.852E+05	1.156E+05	5.589E+05	0.20	1.520E+05	6.750E+06	9.36
	NE 10	1	10	20	2.32E+07	1.23E+06	18.76	Yes	1033.27	HW	1500	3000	All Layers K x 10	108000	108000	250	5.852E+05	1.655E+05	5.914E+05	0.28	0.000E+00	0.000E+00	13.40
	NE 11	No	10	20	2.32E+07	1.23E+06	18.76	No	2585.80	HW	1500	3000	All Layers K x 10	108000	108000	250	5.852E+05	1.206E+05	5.375E+05	0.21	0.000E+00	2.160E+07	9.76
	NE 12	No	10	20	2.32E+07	1.23E+06	18.76	Yes	1001.76	HW	1500	3000	All Layers K x 10	108000	108000	400	9.357E+05	1.790E+05	9.235E+05	0.19	1.52E+05	6.950E+06	14.49
	NE 13	1	10	20	2.32E+07	1.23E+06	18.76	Yes	1033.27	HW	1500	3000	All Layers K x 10	108000	108000	400	9.357E+05	2.209E+05	9.203E+05	0.24	0.000E+00	0.000E+00	17.89
	NE 14	No	10	20	2.32E+07	1.23E+06	18.76	No	2585.80	HW	1500	3000	All Layers K x 10	108000	108000	400	9.356E+05	1.788E+05	8.876E+05	0.19	0.000E+00	2.170E+07	14.48

Comment:

Case *NE6 and *NE8 were run with proper dilation and injection pressure.

REVISED TABLE E.3: EDGE MODEL CASES -SUMMARY OF RESULTS

	Description																						Recovery Factor (% OOIP)		
	Run Number	Barrier (m)	Gas Cap (m)	Bitumen (m)	Gas Cap OGIP (m3)	Bitumen OBIP (m3)	OGIP/OBIP	Initial water Saturatiomn	Gas Cap Production	Gas Cap Pressure Before CSS (kPa)	Well Model	Sensitivity Gas Cap Permeability (md)	Permeability of Bitumen Zone (md)	Dilation Grid Block Treatment	Dilation Pressure (kPa)	Max Injection Pressure (kPa)	Steam Rate (m3/day)	Cum Steam Injection (m3)	Cum Oil Production (m3)	Cum Water Production (m3)	Cum OSR	Cum Gas Evolved from Bitumen Before CSS (m3)	Cum Gas Transferred into Bitumen Zone from Gas Cap During CSS (m3)	Total Bitumen Model	Assigned Drainage Volume
Edge Pool	ED 1	No	10	20	8.99E+06	1.53E+06	5.85	0.45	Yes	1046.00	HW	1500	3000	Well Layer K x 10	108000	108000	250	5.868E+05	1.542E+05	5.864E+05	0.26	6.000E+04	-1.500E+05	10.02	22.4
	ED 2	No	10	20	8.99E+06	1.53E+06	5.85	0.45	No	2585.80	HW	1500	3000	Well Layer K x 10	108000	108000	250	5.852E+05	1.538E+05	5.855E+05	0.26	0.000E+00	0.000E+00	10.02	22.3
	ED 3	No	10	20	2.87E+07	1.53E+06	18.7	0.45	Yes	1010.10	HW	1500	3000	Well Layer K x 10	108000	108000	250	5.852E+05	1.549E+05	5.875E+05	0.26	5.980E+04	-2.000E+05	10.09	22.5
	ED 4	No	10	20	2.87E+07	1.53E+06	18.7	0.45	No	2585.80	HW	1500	3000	Well Layer K x 10	108000	108000	250	5.852E+05	1.539E+05	5.856E+05	0.26	0.000E+00	0.000E+00	10.02	22.3
	ED 5	No	10	20	2.87E+07	1.26E+06	18.7	0.55	Yes	1145.00	HW	1500	3000	Well Layer K x 10	108000	108000	250	5.852E+05	8.421E+04	6.740E+05	0.14	5.870E+05	-1.740E+05	6.70	14.3
	ED 6	No	10	20	2.87E+07	1.26E+06	18.7	0.55	No	2585.00	HW	1500	3000	Well Layer K x 10	108000	108000	250	5.852E+05	7.661E+04	7.171E+05	0.13	0.000E+00	7.62E+06	6.10	13.0

REVISED TABLE E.4: FLANK MODEL CASES -SUMMARY OF RESULTS

Run Number	Description										Recovery Factor (% OOIP)												
	Barrier (m)	Gas Cap (m)	Bitumen (m)	Gas Cap OGIP (m3)	Bitumen OBIP (m3)	OGIP/OBIP	Gas Cap Production	Gas Cap Pressure Before CSS (kPa)	Well Model	Sensitivity Gas Cap Permeability (md)	Permeability of Bitumen Zone (md)	Dilation Grid Block Treatment	Dilation Pressure (kPa)	Max Injection Pressure (kPa)	Steam Rate (m3/day)	Cum Steam Injection (m3)	Cum Oil Production (m3)	Cum Water Production (m3)	Cum OSR	Cum Gas Evolved from Bitumen Before CSS (m3)	Cum Gas Transferred into Bitumen Zone from Gas Cap During CSS (m3)	Total Bitumen Model	Assigned Drainage Volume
<i>No Barrier Max Model</i>																							
FL 1	No	5	17	3.46E+07	3.79E+06	9.13	Yes	850	HW	7500	3000	Well Layer K x 10	10800	10800	400	9.36E+05	2.28E+05	9.19E+05	0.24	3.80E+06	5.58E+06	6.00	25.6
FL 2	No	5	17	3.46E+07	3.79E+06	9.13	Yes	201	HW	7500	3000	Well Layer K x 10	10800	10800	400	9.36E+05	2.28E+05	8.71E+05	0.24	1.56E+07	-4.15E+05	6.02	25.6
FL 3	No	5	17	3.46E+07	3.79E+06	9.13	No	2584	HW	7500	3000	Well Layer K x 10	10800	10800	400	9.36E+05	2.09E+05	9.41E+05	0.22	0.00E+00	1.81E+07	5.52	23.5
<i>Cases #FL4 were run to 2029-11-03</i>																							
#FL 4	No	5	17	3.46E+07	3.79E+06	9.13	Yes	201	HW	7500	3000	All Layers K x 60	9800	12000	2000	3.68E+06	4.24E+05	2.73E+06	0.12	1.57E+07	-3.39E+05	11.17	
FL 6	No	5	17	3.46E+07	3.79E+06	9.13	Yes	201	HW	7500	3000	All Layers K x 60	9800	12000	1000	2.34E+06	3.24E+05	2.23E+06	0.14	1.57E+07	-6.31E+04	8.53	34.8
FL 7	No	5	17	3.46E+07	3.79E+06	9.13	No	2585	HW	7500	3000	All Layers K x 60	9800	12000	1000	2.34E+06	3.27E+05	2.36E+06	0.14	0.00E+00	2.95E+07	8.60	35.1
<i>Cases *FL 19 and *FL 20 were conducted with a formation diffusivity of 1.5 E-03 m2/s</i>																							
*FL 19	No	5	17	3.46E+07	3.79E+06	9.13	Yes	201	HW	7500	5250	All Layers K x 60	9800	12000	1000	2.34E+06	3.91E+05	2.30E+06	0.17	1.57E+07	-6.01E+04	10.25	43.7
*FL 20	No	5	17	3.46E+07	3.79E+06	9.13	No	2585	HW	7500	5250	All Layers K x 60	9800	12000	1000	2.34E+06	3.99E+05	2.35E+06	0.17	0.00E+00	3.04E+07	10.46	44.5
Cases FL21RE and FL22RE No Barrier Max Refined Model																							
**FL 21RE	No	5	17	3.46E+07	3.83E+06	9.03	Yes	209	HW	7500	3000	Well Layer K x 60	9800	12000	1000	7.43E+05	1.68E+05	6.83E+05	0.23	1.54E+07	-1.85E+05	4.38	17.9
**FL 22RE	No	5	17	3.46E+07	3.83E+06	9.03	No	2585	HW	7500	3000	Well Layer K x 60	9800	12000	1000	7.43E+05	1.73E+05	7.61E+05	0.23	0.00E+00	3.03E+07	4.52	18.5
<i>No Barrier Min Model</i>																							
FL 8	No	1	10	6.92E+06	2.20E+06	3.15	Yes	843	HW	7500	3000	Well Layer K x 10	10800	10800	400	9.36E+05	1.25E+05	9.31E+05	0.13	5.780E+06	-166529	5.67	25.2
FL 9	No	1	10	6.92E+06	2.20E+06	3.15	No	2585	HW	7500	3000	Well Layer K x 10	10800	10800	400	9.35E+05	1.23E+05	9.34E+05	0.13	0.000E+00	5.43E+06	5.59	24.9
<i>Barrier Max Model</i>																							
FL 10	20	5	5+17	3.46E+07	4.97E+06	6.96	Yes	885	HW	3000	3000	Well Layer K x 10	10800	10800	400	9.36E+05	2.59E+05	9.58E+05	0.28	2.750E+06	-3.74E+04	5.20	21.2
FL 11	20	5	5+17	3.46E+07	4.97E+06	6.96	Yes	200	HW	3000	3000	Well Layer K x 10	10800	10800	400	9.36E+05	2.59E+05	9.53E+05	0.28	4.650E+06	-3.65E+04	5.20	21.2
FL 12	20	5	5+17	3.46E+07	4.97E+06	6.96	No	2585	HW	3000	3000	Well Layer K x 10	10800	10800	400	9.36E+05	2.48E+05	9.82E+05	0.26	0.000E+00	5.13E+06	4.98	20.3
FL 13	20	5	5+17	3.46E+07	4.97E+06	6.96	Yes	201	HW	1500	3000	All Layers K x 60	9800	12000	1000	2.34E+06	4.35E+05	2.31E+06	0.19	4.65E+06	-6.06E+05	8.75	35.7
FL 14	20	5	5+17	3.46E+07	4.97E+06	6.96	No	2585	HW	1500	3000	All Layers K x 60	9800	12000	1000	2.34E+06	4.02E+05	2.37E+06	0.17	0.00E+00	3.02E+07	8.07	32.9
FL 15	20	5	5+17	3.46E+07	4.97E+06	6.96	Yes	201	HW	1500	3000	All Layers K x 60	9800	12000	2000	4.68E+06	5.97E+05	4.75E+06	0.13	4.64E+06	-1.08E+05	12.00	48.9
FL 16	20	5	5+17	3.46E+07	4.97E+06	6.96	Yes	201	HW	1500	3000	All Layers K x 30	9800	12000	2000	4.68E+06	6.02E+05	4.75E+06	0.13	4.64E+06	-8.82E+04	12.10	49.3
<i>Barrier Min Model</i>																							
FL 17	5	1	2+10	6.92E+06	2.67E+06	2.59	Yes	840	HW	3000	3000	Well Layer K x 10	10800	10800	400	9.36E+05	1.76E+05	9.43E+05	0.19	1.180E+06	9.90E+05	6.60	28.3
FL 18	5	1	2+10	6.92E+06	2.67E+06	2.59	No	2585	HW	3000	3000	Well Layer K x 10	10800	10800	400	9.36E+05	1.71E+05	9.54E+05	0.18	0.000E+00	5.670E+06	6.40	27.4
Cases FL 23 and FL 24 No Barrier Max VERTICAL WELL CSS																							
FL 23	No	5	17	2.16E+07	2.00E+06	10.82	Yes	201	VW	7500	3000	All Layers K x 60	9800	12000	250	5.85E+05	4.38E+04	4.82E+05	0.07	9.78E+06	-3.16E+04	2.19	23.4
FL 24	No	5	17	2.16E+07	2.00E+06	10.82	No	2585	VW	7500	3000	All Layers K x 60	9800	12000	250	5.85E+05	5.20E+04	5.47E+05	0.09	0.00E+00	1.83E+07	2.60	27.8

Comments:

Cases #FL4 coarse grid run to 2029-11-03 due to numerical problems

Cases *FL19 and *FL20 were conducted with a hydraulic diffusivity of 1.5 E-03 m2/s

Cases FL21RE and FL22RE were obtained by refining FL6 and FL7 respectively. These cases are currently running and not yet completed. Results provided in the Table for FL211RE and FL22RE are for the first 15 cycles of HW CSS.

Cases FL23 and FL24 run for no barrier max model using vertical well

REVISED TABLE 2.6: INJECTION AND PRODUCTION WELL SCHEDULES

Injector					Maxium			Producer		
Cycle	Open Date	Shut In Date	Period	Soak Dates	Steam Rate	Cycle Size	Cum. Steam	Open Date	Shut In Date	Production Time
			(days)	(days)	(m3/day)	(m3)	(m3)			(days)
1	2007-01-01	2007-01-16	15	4	1000	15000.00	15000	2007-01-21	2007-03-22	60
2	2007-03-23	2007-04-12	20	4	1000	20000.00	35000.00	2007-04-17	2007-07-06	80
3	2007-07-07	2007-08-01	25	4	1000	25000.00	60000.00	2007-08-06	2007-11-14	100
4	2007-11-15	2007-12-15	30	4	1000	30000.00	90000.00	2007-12-20	2008-04-18	120
5	2008-04-19	2008-05-24	35	4	1000	35000.00	125000.00	2008-05-29	2008-10-16	140
6	2008-10-17	2008-11-26	40	4	1000	40000.00	165000.00	2008-12-01	2009-05-10	160
7	2009-05-11	2009-06-25	45	4	1000	45000.00	210000.00	2009-06-30	2009-12-27	180
8	2009-12-28	2010-02-16	50	4	1000	50000.00	260000.00	2010-02-21	2010-09-09	200
9	2010-09-10	2010-11-04	55	4	1000	55000.00	315000.00	2010-11-09	2011-06-17	220
10	2011-06-18	2011-08-17	60	4	1000	60000.00	375000.00	2011-08-22	2012-04-18	240
11	2012-04-19	2012-06-23	65	4	1000	65000.00	440000.00	2012-06-28	2013-03-15	260
12	2013-03-16	2013-05-25	70	4	1000	70000.00	510000.00	2013-05-30	2014-03-06	280
13	2014-03-07	2014-05-21	75	4	1000	75000.00	585000.00	2014-05-26	2015-03-22	300
14	2015-03-23	2015-06-11	80	4	1000	80000.00	665000.00	2015-06-16	2016-05-01	320
15	2016-05-02	2016-07-26	85	4	1000	85000.00	750000.00	2016-07-31	2017-07-06	340
16	2017-07-07	2017-11-04	120	4	1000	120000.00	870000.00	2017-11-09	2019-02-02	450
17	2019-02-03	2019-06-08	125	4	1000	125000.00	995000.00	2019-06-13	2020-09-15	460
18	2020-09-16	2021-01-24	130	4	1000	130000.00	1125000.00	2021-01-29	2022-05-14	470
19	2022-05-15	2022-09-27	135	4	1000	135000.00	1260000.00	2022-10-02	2024-01-25	480
20	2024-01-26	2024-06-14	140	4	1000	140000.00	1400000.00	2024-06-19	2025-10-22	490
21	2025-10-23	2026-03-17	145	4	1000	145000.00	1545000.00	2026-03-22	2027-08-04	500
22	2027-08-05	2028-01-02	150	4	1000	150000.00	1695000.00	2028-01-07	2029-05-31	510
23	2029-06-01	2029-11-03	155	4	1000	155000.00	1850000.00	2029-11-08	2031-04-12	520
24	2031-04-13	2031-09-20	160	4	1000	160000.00	2010000.00	2031-09-25	2033-03-08	530
25	2033-03-09	2033-08-21	165	4	1000	165000.00	2175000.00	2033-08-26	2035-02-17	540
26	2035-02-18	2035-08-07	170	4	1000	170000.00	2345000.00	2035-08-12	2037-02-12	550