



**White Rose Development Plan Amendment
Production Volume Increase
Supplemental Information #2**



December 2006

Husky Document No. WR-DVG-RP-0011

Table of Contents

1.0	Introduction	3
2.0	Supplemental Information	3

List of Tables

Table 2.1	Oil, Water and Gas Production for 15,900 Sm ³ /d Sealing Fault Scenario.....	4
Table 2.2	Oil, Water and Gas Production for 15,900 Sm ³ /d Non-Sealing Fault Scenario.....	4
Table 2.3	Oil, Water and Gas Production for 19,875 Sm ³ /d Sealing Fault Scenario.....	5
Table 2.4	Oil, Water and Gas Production for 19,875 Sm ³ /d Non-Sealing Fault Scenario.....	5
Table 2.5	Oil, Water and Gas Production for 22,261 Sm ³ /d Sealing Fault Scenario.....	6
Table 2.6	Oil, Water and Gas Production for 22,261 Sm ³ /d Non-Sealing Fault Scenario.....	6
Table 2.7	Field Water Injection for Sealing Fault Scenario.....	7
Table 2.8	Field Water Injection for Non-Sealing Fault Scenario.....	7
Table 2.9	Field Gas Injection Summary	8

1.0 Introduction

On September 29, 2006, Husky Energy submitted an Amendment to its White Rose Development Plan, **White Rose Development Plan Amendment – Production Volume Increase** (WR-RP-00187) to the Canada – Newfoundland and Labrador Offshore Petroleum Board (C-NLOPB).

Following submission of the Development Plan Amendment, the C-NLOPB conducted a Completeness Review and on October 26, 2006 issued a request for additional information (C-NLOPB File:8010) (Husky Reference No. 003979508). This information was provided in a supplemental report submitted by Husky on November 20, 2006 (WR-DVG-RP-010). Following that submission, on December 4, 2006 the C-NLOPB issued a second request for additional information (C-NLOPB File: 8010 P7R3) (Husky Reference No. 003981903). This report addresses the second request for additional information received from the C-NLOPB.

2.0 Supplemental Information

The following supplemental information is provided using the same numbering scheme as that used in the request for further information received from the C-NLOPB on December 4, 2006. The specific request from the C-NLOPB is shown in bold text.

1. In addition to the cumulative forecasts provided in response to item 4 of our letter dated October 26, 2006, we require, for each rate case presented, forecasts of average daily rates for each year of production and/or injection of oil, gas and water. This should be presented in tabular format similar to that suggested below. A similar forecast was provided by your company in its original Development Plan Application.

Tables 2.1 through 2.9 provide the forecasts of average daily and cumulative rates for each year of production.

Table 2.1 Oil, Water and Gas Production for 15,900 Sm³/d Sealing Fault Scenario

Year	Sealing Fault Scenario					
	Field Oil Rate (Sm ³ /d)	Field Oil Cumulative (Sm ³)	Field Water Rate (Sm ³ /d)	Field Water Cumulative (Sm ³)	Field Gas Rate (1000 Sm ³ /d)	Field Gas Cumulative (1000 Sm ³)
2005	1070	390,387	2	607	143	52,293
2006	14019	5,507,277	22	8,798	1,973	772,603
2007	15900	11,310,777	47	25,964	2,471	1,674,378
2008	15944	17,130,176	777	309,401	2,989	2,765,351
2009	14887	22,563,862	3,956	1,753,426	3,564	4,066,370
2010	11619	26,804,948	8,536	4,869,248	3,333	5,282,902
2011	8254	29,817,548	12,011	9,253,129	2,329	6,133,107
2012	5623	31,869,856	13,850	14,308,429	1,775	6,780,962
2013	4130	33,377,132	15,187	19,851,586	1,487	7,323,887
2014	3258	34,566,348	16,296	25,799,482	1,286	7,793,330
2015	2644	35,531,408	17,018	32,010,882	1,127	8,204,697
2016	2237	36,348,016	17,528	38,408,424	1,020	8,577,034
2017	1920	37,048,644	17,883	44,935,704	936	8,918,829
2018	1669	37,657,944	18,265	51,602,432	864	9,234,355
2019	1502	38,206,272	19,031	58,548,876	822	9,534,278
2020	1348	38,698,124	19,661	65,725,164	771	9,815,687
2021	1204	39,137,636	19,906	72,990,904	708	10,073,971

Table 2.2 Oil, Water and Gas Production for 15,900 Sm³/d Non-Sealing Fault Scenario

Year	Non-Sealing Fault Scenario					
	Field Oil Rate (Sm ³ /d)	Field Oil Cumulative (Sm ³)	Field Water Cumulative (Sm ³)	Field Water Cumulative (Sm ³)	Field Gas Rate (1000 Sm ³ /d)	Field Gas Cumulative (1000 Sm ³)
2005	1,521	555,000	2	866	204	74,514
2006	13,854	5,611,700	22	8,910	1,988	799,994
2007	15,900	11,415,200	33	20,974	2,473	1,702,745
2008	15,944	17,234,600	289	126,287	2,825	2,733,760
2009	15,900	23,038,100	2,433	1,014,219	3,430	3,985,553
2010	14,240	28,235,548	7,650	3,806,470	3,870	5,398,273
2011	8,516	31,344,022	10,795	7,746,823	2,522	6,318,691
2012	5,317	33,284,872	12,884	12,449,355	1,811	6,979,624
2013	3,866	34,695,828	14,464	17,728,610	1,475	7,518,041
2014	3,046	35,807,664	15,758	23,480,162	1,280	7,985,162
2015	2,515	36,725,732	16,835	29,624,762	1,152	8,405,791
2016	2,132	37,503,808	17,851	36,140,232	1,061	8,793,202
2017	1,806	38,162,968	18,495	42,890,820	973	9,148,463
2018	1,553	38,729,784	19,259	49,920,284	892	9,473,975
2019	1,358	39,225,488	19,911	57,187,700	826	9,775,460
2020	1,205	39,665,200	20,456	64,654,144	772	10,057,081
2021	1,076	40,058,008	20,914	72,287,808	718	10,319,256

Table 2.3 Oil, Water and Gas Production for 19,875 Sm³/d Sealing Fault Scenario

Year	Sealing Fault Scenario					
	Field Oil Rate (Sm ³ /d)	Field Oil Cumulative (Sm ³)	Field Water Rate (Sm ³ /d)	Field Water Cumulative (Sm ³)	Field Gas Rate (1000 Sm ³ /d)	Field Gas Cumulative (1000 Sm ³)
2005	1070	390,387	2	608	143	52,310
2006	14646	5,736,067	23	9,171	2,067	806,850
2007	19875	12,990,442	94	43,322	3,163	1,961,449
2008	19114	19,966,886	1,629	638,028	4,027	3,431,145
2009	14496	25,257,752	6,709	3,086,994	4,194	4,961,989
2010	9927	28,881,116	12,306	7,578,557	3,199	6,129,546
2011	6502	31,254,198	14,857	13,001,257	2,275	6,959,988
2012	4479	32,888,936	16,491	19,020,356	1,811	7,620,856
2013	3348	34,110,972	17,608	25,447,154	1,502	8,169,133
2014	2652	35,079,096	18,474	32,190,128	1,295	8,641,987
2015	2202	35,882,864	19,189	39,194,220	1,149	9,061,348
2016	1873	36,566,564	19,810	46,424,888	1,025	9,435,325
2017	1622	37,158,588	20,228	53,807,988	915	9,769,377
2018	1438	37,683,600	20,754	61,383,352	835	10,074,307
2019	1279	38,150,300	20,952	69,030,656	742	10,345,004
2020	1145	38,568,156	21,041	76,710,760	669	10,589,202
2021	1017	38,939,300	20,887	84,334,528	609	10,811,402

Table 2.4 Oil, Water and Gas Production for 19,875 Sm³/d Non-Sealing Fault Scenario

Year	Non-Sealing Fault Scenario					
	Field Oil Rate (Sm ³ /d)	Field Oil Cumulative (Sm ³)	Field Water Cumulative (Sm ³)	Field Water Cumulative (Sm ³)	Field Gas Rate (1000 Sm ³ /d)	Field Gas Cumulative (1000 Sm ³)
2005	1,521	555,000	2	866	204	74,514
2006	14,793	5,954,500	24	9,447	2,115	846,455
2007	19,875	13,208,875	44	25,370	3,216	2,020,159
2008	19,701	20,399,808	681	273,813	3,948	3,461,227
2009	16,251	26,331,584	4,640	1,967,559	4,142	4,972,937
2010	10,403	30,128,546	8,275	4,988,074	2,968	6,056,128
2011	6,137	32,368,376	10,482	8,814,030	1,981	6,779,338
2012	4,345	33,954,476	12,483	13,370,445	1,563	7,349,928
2013	3,328	35,169,340	14,030	18,491,388	1,308	7,827,414
2014	2,715	36,160,236	15,283	24,069,714	1,151	8,247,606
2015	2,292	36,996,764	16,288	30,014,762	1,052	8,631,520
2016	1,975	37,717,648	17,294	36,327,112	979	8,988,809
2017	1,688	38,333,884	17,862	42,846,712	901	9,317,619
2018	1,477	38,872,856	18,776	49,700,088	836	9,622,908
2019	1,289	39,343,312	19,282	56,737,988	776	9,906,092
2020	1,150	39,762,968	19,873	63,991,520	727	10,171,404
2021	1,028	40,138,352	20,269	71,389,624	678	10,418,844

Table 2.5 Oil, Water and Gas Production for 22,261 Sm³/d Sealing Fault Scenario

Year	Sealing Fault Scenario					
	Field Oil Rate (Sm ³ /d)	Field Oil Cumulative (Sm ³)	Field Water Rate (Sm ³ /d)	Field Water Cumulative (Sm ³)	Field Gas Rate (1000 Sm ³ /d)	Field Gas Cumulative (1000 Sm ³)
2005	1070	390,387	2	608	143	52,310
2006	14646	5,736,067	23	9,171	2,068	806,951
2007	22110	13,806,067	117	52,023	3,569	2,109,690
2008	18905	20,706,422	1,783	702,660	4,211	3,646,536
2009	13940	25,794,440	6,947	3,238,270	4,176	5,170,894
2010	9365	29,212,568	12,312	7,732,076	3,058	6,287,127
2011	6229	31,486,062	14,545	13,040,982	2,202	7,090,958
2012	4302	33,056,262	16,138	18,931,230	1,764	7,734,833
2013	3264	34,247,620	17,311	25,249,700	1,476	8,273,656
2014	2599	35,196,260	18,214	31,897,748	1,277	8,739,885
2015	2183	35,993,024	19,005	38,834,636	1,143	9,157,192
2016	1866	36,674,108	19,690	46,021,376	1,030	9,533,087
2017	1612	37,262,536	20,133	53,370,056	922	9,869,740
2018	1429	37,784,148	20,642	60,904,372	843	10,177,350
2019	1277	38,250,348	21,099	68,605,480	774	10,459,847
2020	1131	38,663,156	21,106	76,308,992	696	10,713,849
2021	1010	39,031,936	21,044	83,989,976	628	10,942,894

Table 2.6 Oil, Water and Gas Production for 22,261 Sm³/d Non-Sealing Fault Scenario

Year	Non-Sealing Fault Scenario					
	Field Oil Rate (Sm ³ /d)	Field Oil Cumulative (Sm ³)	Field Water Cumulative (Sm ³)	Field Water Cumulative (Sm ³)	Field Gas Rate (1000 Sm ³ /d)	Field Gas Cumulative (1000 Sm ³)
2005	1,521	555,000	2	866	204	74,514
2006	14,793	5,954,500	24	9,447	2,115	846,461
2007	21,974	13,975,000	50	27,819	3,608	2,163,463
2008	20,099	21,311,196	862	342,365	4,208	3,699,343
2009	15,514	26,973,784	5,062	2,189,947	4,047	5,176,589
2010	9,541	30,456,082	8,221	5,190,446	2,767	6,186,667
2011	5,766	32,560,624	10,375	8,977,428	1,896	6,878,861
2012	4,161	34,079,236	12,370	13,492,393	1,510	7,429,839
2013	3,227	35,256,960	13,914	18,571,170	1,274	7,894,738
2014	2,651	36,224,648	15,177	24,110,682	1,124	8,305,031
2015	2,244	37,043,536	16,149	30,005,118	1,028	8,680,097
2016	1,942	37,752,440	17,174	36,273,480	960	9,030,444
2017	1,664	38,359,980	17,734	42,746,376	882	9,352,293
2018	1,461	38,893,152	18,667	49,559,832	824	9,653,204
2019	1,277	39,359,352	19,162	56,554,040	766	9,932,948
2020	1,140	39,775,500	19,760	63,766,476	718	10,195,038
2021	1,028	40,150,588	20,259	71,160,936	676	10,441,891

Table 2.7 Field Water Injection for Sealing Fault Scenario

Year	Sealing Fault Scenario 15,900 Sm ³ /d Case		Sealing Fault Scenario 19,875 Sm ³ /d Case		Sealing Fault Scenario 22,261 Sm ³ /d Case	
	Field Water Injection Rate (Sm ³ /d)	Field Water Cumulative Sm ³	Field Water Injection Rate (Sm ³ /d)	Field Water Cumulative (Sm ³)	Field Water Injection Rate (Sm ³ /d)	Field Water Cumulative (Sm ³)
2005	1,570	573,025	1,570	573,025	1,570	573,025
2006	21,105	8,276,458	21,901	8,566,814	21,902	8,567,249
2007	24,878	17,356,886	29,816	19,449,809	32,180	20,313,022
2008	26,124	26,892,116	31,994	31,127,457	32,724	32,257,416
2009	30,022	37,850,076	34,331	43,658,452	34,714	44,927,993
2010	31,812	49,461,596	34,236	56,154,444	33,520	57,162,903
2011	29,174	60,110,016	30,628	67,333,527	29,850	68,058,011
2012	26,431	69,757,240	28,411	77,703,406	27,758	78,189,632
2013	25,252	78,974,056	27,200	87,631,444	26,753	87,954,614
2014	24,843	88,041,696	26,650	97,358,570	26,287	97,549,408
2015	24,337	96,924,608	26,286	106,953,116	26,078	107,067,852
2016	23,999	105,684,290	26,054	116,462,850	25,963	116,544,500
2017	23,720	114,341,940	25,781	125,872,822	25,718	125,931,650
2018	23,568	122,944,360	25,789	135,285,916	25,711	135,316,212
2019	24,005	131,706,310	25,448	144,574,316	25,741	144,711,580
2020	24,270	140,564,720	25,143	153,751,676	25,342	153,961,428
2021	24,115	149,366,560	24,706	162,769,508	24,928	163,060,228

Table 2.8 Field Water Injection for Non-Sealing Fault Scenario

Year	Non-Sealing Scenario 15,900 Sm ³ /d Case		Non-Sealing Scenario 19,875 Sm ³ /d Case		Non-Sealing Scenario 22,261 Sm ³ /d Case	
	Field Water Injection Rate (Sm ³ /d)	Field Water Cumulative (Sm ³)	Field Water Injection Rate (Sm ³ /d)	Field Water Cumulative (Sm ³)	Field Water Injection Rate (Sm ³ /d)	Field Water Cumulative (Sm ³)
2005	2,050	748,273	2,050	748,273	2,050	748,273
2006	19,410	7,832,780	20,680	8,296,583	20,680	8,296,609
2007	25,243	17,046,379	29,872	19,199,992	32,367	20,110,682
2008	26,311	26,650,066	32,587	31,094,238	33,839	32,462,077
2009	30,052	37,619,164	33,680	43,387,556	32,943	44,486,340
2010	33,595	49,881,308	27,838	53,548,314	26,523	54,167,386
2011	28,011	60,105,476	24,445	62,470,598	23,848	62,872,080
2012	25,457	69,397,112	23,673	71,111,066	23,292	71,373,502
2013	24,907	78,488,256	23,577	79,716,640	23,286	79,873,024
2014	24,833	87,552,332	23,768	88,391,976	23,531	88,461,896
2015	24,915	96,646,132	23,949	97,133,344	23,723	97,120,624
2016	25,163	105,830,508	24,300	106,003,008	24,119	105,924,124
2017	25,150	115,010,316	24,345	114,889,052	24,176	114,748,432
2018	25,345	124,261,296	24,699	123,904,012	24,556	123,711,492
2019	25,538	133,582,504	24,830	132,966,824	24,693	132,724,308
2020	25,731	142,974,400	25,040	142,106,460	24,933	141,824,976
2021	25,948	152,445,448	25,275	151,331,760	25,270	151,048,684

Table 2.9 Field Gas Injection Summary

Year	Daily Gas Injection Rate (Sm ³ /d) (15,900 Case)	Cumulative Gas Injection Volume (1000 Sm ³) (15,900 Case)	Daily Gas Injection Rate (Sm ³ /d) (19,875 Case)	Cumulative Gas Injection Volume (1000 Sm ³) (19,875 Case)	Daily Gas Injection Rate (Sm ³ /d) (22,261 Case)	Cumulative Gas Injection Volume (1000 Sm ³) (22,261 Case)
2005	0	0	0	0	0	0
2006	1,314,041	479,625	1,366,652	498,828	1,366,755	498,865
2007	2,098,520	1,245,585	2,777,166	1,512,493	3,136,331	1,643,626
2008	2,588,427	2,190,361	3,638,154	2,840,420	3,853,664	3,050,214
2009	3,206,926	3,360,889	3,544,068	4,134,005	3,296,914	4,253,588
2010	2,815,064	4,388,387	1,619,958	4,725,289	1,437,008	4,778,096
2011	1,300,248	4,862,978	837,521	5,030,984	777,802	5,061,994
2012	704,976	5,120,294	530,898	5,224,762	502,067	5,245,248
2013	453,258	5,285,733	362,054	5,356,912	344,788	5,371,096
2014	312,591	5,399,829	254,544	5,449,820	242,361	5,459,557
2015	220,171	5,480,192	180,043	5,515,536	172,311	5,522,451
2016	156,598	5,537,350	128,245	5,562,346	123,266	5,567,443
2017	111,127	5,577,911	91,533	5,595,755	87,762	5,599,476
2018	79,304	5,606,857	65,514	5,619,668	62,665	5,622,349
2019	56,737	5,627,566	46,961	5,636,808	44,653	5,638,647
2020	40,850	5,642,476	33,701	5,649,109	32,123	5,650,372
2021	29,203	5,653,135	24,060	5,657,891	23,145	5,658,820

2. We have reviewed the bibliography and require that a copy of the following study be provided:

- **White Rose Field Development Sea Rose Metering for 140,000 bbls/d Case (WR-DVG-RP-0003). 2006. Report prepared for Husky Energy by SGS Canada.**

The requested study is provided on the CD accompanying this document.