

**Table 1: PRODUCTION SUMMARY - CROWSNEST ASP FLOOD BASE CASE**

Project classified as conventional oil, natural gas, or oilsands? Conventional Oil  
 Oil Density (Kg/m<sup>3</sup>), if applicable: 935  
 Production Start Date (MM/YYYY): 01/2008  
 Production End Date (MM/YYYY): 05/2017

	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12	Yr 13	Yr 14	Yr 15	Rem.*	Tot.
<b># of Wells</b>	# of Producing Oil Wells	28.00	25.00	24.00	22.00	18.00	15.00	15.00	15.00	15.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	# of Producing Gas Wells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	# of Injection Wells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Production Volumes</b>	Oil [MSTB]	108.00	96.60	86.80	78.80	71.90	65.00	59.50	54.30	49.90	19.40	0.00	0.00	0.00	0.00	0.00	690.30
	Raw Gas [MMSCF]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Sales Gas [MMSCF]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Ethane [MSTB]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Propane [MSTB]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Butane [MSTB]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Condensate [MSTB]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Sulpher [MLt]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

\* Remaining years to be summed up.

Notes:

- M \$ stands for thousand dollars

**Table 1: PRODUCTION SUMMARY - CROWSNEST ASP FLOOD TOTAL CASE**

Project classified as conventional oil, natural gas, or oilsands? Conventional Oil  
 Oil Density (Kg/m<sup>3</sup>), if applicable: 935  
 Production Start Date (MM/YYYY): 01/2008  
 Production End Date (MM/YYYY): 12/2032

	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12	Yr 13	Yr 14	Yr 15	Rem.*	Tot.		
<b># of Wells</b>	# of Producing Oil Wells	51.33	46.08	45.08	44.00	44.00	44.00	43.83	39.25	33.50	32.00	29.33	28.42	24.92	24.00	22.83	17.08	Total	
	# of Producing Gas Wells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	# of Injection Wells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
<b>Production Volumes</b>	Oil [MSTB]	98.90	187.10	331.20	530.00	674.20	735.90	773.70	520.90	298.00	207.00	146.60	114.00	99.40	88.60	81.30	597.60	5,484.40	
	Raw Gas [MMSCF]	0.00	0.00	0.20	14.40	30.70	37.70	41.90	14.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	139.00	
	Sales Gas [MMSCF]	0.00	0.00	0.20	14.40	30.70	37.70	41.90	14.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	139.00
	Ethane [MSTB]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Propane [MSTB]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Butane [MSTB]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Condensate [MSTB]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Sulpher [MLt]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

\* Remaining years to be summed up.

Notes:

- M \$ stands for thousand dollars

**Table 1: PRODUCTION SUMMARY - CROWSNEST ASP FLOOD INCREMENTAL CASE**

Project classified as conventional oil, natural gas, or oilsands? Conventional Oil  
 Oil Density (Kg/m<sup>3</sup>), if applicable: 935  
 Production Start Date (MM/YYYY): 01/2008  
 Production End Date (MM/YYYY): 10/2034

	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12	Yr 13	Yr 14	Yr 15	Rem.*	Tot.	
<b># of Wells</b>	# of Producing Oil Wells	23.33	21.08	21.08	22.00	26.00	29.00	28.83	24.25	18.50	17.00	29.33	28.42	24.92	24.00	22.83	17.08	#VALUE!
	# of Producing Gas Wells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	# of Injection Wells	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Production Volumes</b>	Oil [MSTB]	-9.10	90.50	244.40	451.20	602.30	670.90	714.20	466.60	248.10	187.60	146.60	114.00	99.40	88.60	81.30	597.60	4,794.10
	Raw Gas [MMSCF]	0.00	0.00	0.20	14.40	30.70	37.70	41.90	14.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	139.00
	Sales Gas [MMSCF]	0.00	0.00	0.20	14.40	30.70	37.70	41.90	14.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	139.00
	Ethane [MSTB]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Propane [MSTB]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Butane [MSTB]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Condensate [MSTB]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Sulpher [MLt]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

\* Remaining years to be summed up.

Notes:

- M \$ stands for thousand dollars

**Table 2: COST SUMMARY-CROWSNEST ASP BASE CASE**

		Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12	Yr 13	Yr 14	Yr 15	Rem.*	Tot.	
Capital Cost	Capital Expenditures <sup>1</sup>																		
	Item 1 [M \$]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Item 2 [M \$]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Item 3 [M \$]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Item 4 [M \$]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Item 5 [M \$]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	<b>TOTAL CAPITAL</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	
Operating Cost	Direct																		
	Fuel	920	900	893	896	886	881	899	917	935	396	0	0	0	0	0	0	8,523	
	Labour	359	348	345	344	337	332	339	346	353	149	0	0	0	0	0	0	3,252	
	Maintenance	705	668	656	644	607	580	592	604	616	259	0	0	0	0	0	0	5,930	
	Facility	488	467	460	455	435	421	429	438	447	189	0	0	0	0	0	0	4,227	
		<b>TOTAL Direct</b>	<b>2,471</b>	<b>2,383</b>	<b>2,353</b>	<b>2,340</b>	<b>2,264</b>	<b>2,215</b>	<b>2,259</b>	<b>2,304</b>	<b>2,351</b>	<b>994</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>21,933</b>
	Indirect																		
Overhead	178	170	167	165	158	153	156	159	162	68	0	0	0	0	0	0	1,535		
	<b>TOTAL Indirect</b>	<b>178</b>	<b>170</b>	<b>167</b>	<b>165</b>	<b>158</b>	<b>153</b>	<b>156</b>	<b>159</b>	<b>162</b>	<b>68</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,535</b>	
	<b>Total Operating Costs</b>	<b>2,649</b>	<b>2,552</b>	<b>2,520</b>	<b>2,505</b>	<b>2,422</b>	<b>2,368</b>	<b>2,415</b>	<b>2,463</b>	<b>2,513</b>	<b>1,062</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>23,468</b>	

<b>TOTAL COSTS [M \$]</b>	<b>2,649</b>	<b>2,552</b>	<b>2,520</b>	<b>2,505</b>	<b>2,422</b>	<b>2,368</b>	<b>2,415</b>	<b>2,463</b>	<b>2,513</b>	<b>1,062</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>23,468</b>
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\* Remaining years to be summed up.

<sup>1</sup> For Oil sands' projects, please distinguish between strategic and sustaining capital

Notes:

- M \$ stands for thousand dollars
- Direct costs include such items as: operating labor, fuel, water, electricity, well service & maintenance, etc.
- Indirect costs such as overhead, insurance, property taxes that are directly attributable to the innovation technology.
- Add more rows or columns as required
- Table should be shown for **Base Case**, **Incremental Case** and a **Total Case**

**Table 2: COST SUMMARY - CROWSNEST ASP TOTAL CASE**

		Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12	Yr 13	Yr 14	Yr 15	Rem.*	Tot.	
Capital Cost	Capital Expenditures <sup>1</sup>																		
	Chemical	14,957	11,576	4,033	3,766	2,231	0	0	0	0	0	0	0	0	0	0	0	0	36,563
	Facility	32,914	341	1,360	1,387	1,415	-5,306	0	0	0	0	0	0	0	0	0	0	0	32,111
	Pipeline	6,910	135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7,045
	Reservoir	12,594	215	680	765	780	0	0	0	0	0	0	0	0	0	0	0	0	15,034
	Laboratory	347	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	381
	<b>TOTAL CAPITAL</b>	<b>67,722</b>	<b>12,301</b>	<b>6,073</b>	<b>5,918</b>	<b>4,426</b>	<b>-5,306</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>91,134</b>
Operating Cost	Direct																		
	Fuel	1,132	1,096	1,146	1,158	1,181	903	920	904	877	883	879	889	877	887	894	9,337	23,962	
	Labour	666	861	879	890	908	453	462	453	439	442	440	445	439	444	448	4,671	13,340	
	Maintenance	1,321	1,596	1,615	1,628	1,661	1,026	1,044	1,004	945	943	924	929	896	900	900	8,914	26,248	
	Facility	1,019	1,279	1,301	1,316	1,342	734	748	727	697	699	691	697	681	686	690	7,047	20,353	
	<b>TOTAL Direct</b>	<b>4,138</b>	<b>4,831</b>	<b>4,941</b>	<b>4,992</b>	<b>5,093</b>	<b>3,117</b>	<b>3,174</b>	<b>3,088</b>	<b>2,959</b>	<b>2,967</b>	<b>2,933</b>	<b>2,960</b>	<b>2,893</b>	<b>2,917</b>	<b>2,932</b>	<b>29,969</b>	<b>83,902</b>	
	Indirect																		
	Overhead	315	377	383	387	394	240	245	236	224	224	221	222	216	217	218	2,189	6,310	
<b>TOTAL Indirect</b>	<b>315</b>	<b>377</b>	<b>383</b>	<b>387</b>	<b>394</b>	<b>240</b>	<b>245</b>	<b>236</b>	<b>224</b>	<b>224</b>	<b>221</b>	<b>222</b>	<b>216</b>	<b>217</b>	<b>218</b>	<b>2,189</b>	<b>6,310</b>		
<b>Total Operating Costs</b>	<b>4,453</b>	<b>5,208</b>	<b>5,324</b>	<b>5,379</b>	<b>5,487</b>	<b>3,357</b>	<b>3,419</b>	<b>3,324</b>	<b>3,183</b>	<b>3,191</b>	<b>3,154</b>	<b>3,182</b>	<b>3,109</b>	<b>3,134</b>	<b>3,150</b>	<b>32,158</b>	<b>90,212</b>		

<b>TOTAL COSTS [M \$]</b>	<b>72,175</b>	<b>17,509</b>	<b>11,397</b>	<b>11,297</b>	<b>9,913</b>	<b>-1,949</b>	<b>3,419</b>	<b>3,324</b>	<b>3,183</b>	<b>3,191</b>	<b>3,154</b>	<b>3,182</b>	<b>3,109</b>	<b>3,134</b>	<b>3,150</b>	<b>32,158</b>	<b>181,346</b>
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\* Remaining years to be summed up.

<sup>1</sup> For Oil sands' projects, please distinguish between strategic and sustaining capital

Notes:

- M \$ stands for thousand dollars
- Direct costs include such items as: operating labor, fuel, water, electricity, well service & maintenance, etc.
- Indirect costs such as overhead, insurance, property taxes that are directly attributable to the innovation technology.
- Add more rows or columns as required
- Table should be shown for **Base Case**, **Incremental Case** and a **Total Case**

**Table 2: COST SUMMARY - CROWSNEST ASP INCREMENTAL CASE**

		Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12	Yr 13	Yr 14	Yr 15	Rem.*	Tot.	
Capital Cost	Capital Expenditures <sup>1</sup>																		
	Chemical	14,957	11,576	4,033	3,766	2,231	0	0	0	0	0	0	0	0	0	0	0	0	36,563
	Facility	32,914	341	1,360	1,387	1,415	-5,306	0	0	0	0	0	0	0	0	0	0	0	32,111
	Pipeline	6,910	135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7,045
	Reservoir	12,594	215	680	765	780	0	0	0	0	0	0	0	0	0	0	0	0	15,034
	Laboratory	347	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	381
	<b>TOTAL CAPITAL</b>	<b>67,722</b>	<b>12,301</b>	<b>6,073</b>	<b>5,918</b>	<b>4,426</b>	<b>-5,306</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>91,134</b>
Operating Cost	Direct																		
	Fuel	212	196	253	261	295	22	21	-13	-58	486	879	889	877	887	894	9,337	15,439	
	Labour	307	512	534	546	572	121	123	107	87	293	440	445	439	444	448	4,671	10,088	
	Maintenance	617	928	959	984	1,054	446	453	400	330	684	924	929	896	900	900	8,914	20,317	
	Facility	531	812	841	861	908	313	319	289	250	510	691	697	681	686	690	7,047	16,125	
	<b>TOTAL Direct</b>	<b>1,667</b>	<b>2,448</b>	<b>2,588</b>	<b>2,652</b>	<b>2,829</b>	<b>902</b>	<b>915</b>	<b>783</b>	<b>608</b>	<b>1,973</b>	<b>2,933</b>	<b>2,960</b>	<b>2,893</b>	<b>2,917</b>	<b>2,932</b>	<b>29,969</b>	<b>61,969</b>	
	Indirect																		
Overhead	137	207	216	221	237	88	89	78	63	156	221	222	216	217	218	2,189	4,775		
<b>TOTAL Indirect</b>	<b>137</b>	<b>207</b>	<b>216</b>	<b>221</b>	<b>237</b>	<b>88</b>	<b>89</b>	<b>78</b>	<b>63</b>	<b>156</b>	<b>221</b>	<b>222</b>	<b>216</b>	<b>217</b>	<b>218</b>	<b>2,189</b>	<b>4,775</b>		
<b>Total Operating Costs</b>	<b>1,804</b>	<b>2,656</b>	<b>2,804</b>	<b>2,874</b>	<b>3,066</b>	<b>989</b>	<b>1,004</b>	<b>861</b>	<b>671</b>	<b>2,129</b>	<b>3,154</b>	<b>3,182</b>	<b>3,109</b>	<b>3,134</b>	<b>3,150</b>	<b>32,158</b>	<b>66,744</b>		

<b>TOTAL COSTS [M \$]</b>	<b>69,526</b>	<b>14,957</b>	<b>8,877</b>	<b>8,792</b>	<b>7,492</b>	<b>-4,317</b>	<b>1,004</b>	<b>861</b>	<b>671</b>	<b>2,129</b>	<b>3,154</b>	<b>3,182</b>	<b>3,109</b>	<b>3,134</b>	<b>3,150</b>	<b>32,158</b>	<b>157,878</b>
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\* Remaining years to be summed up.

<sup>1</sup> For Oil sands' projects, please distinguish between strategic and sustaining capital

Notes:

- M \$ stands for thousand dollars
- Direct costs include such items as: operating labor, fuel, water, electricity, well service & maintenance, etc.
- Indirect costs such as overhead, insurance, property taxes that are directly attributable to the innovation technology.
- Add more rows or columns as required
- Table should be shown for **Base Case**, **Incremental Case** and a **Total Case**

**Table 3: ROYALTY SUMMARY-CROWSNEST ASP BASE CASE**

Crown Land %: 100%  
 Vintage (Old, New, or Thrid Tier), if applicable - Provide further split between old and new if applicable: 35% Old Heavy and 65% New Heavy  
 Base Case Royalty Regime (e.g. Hz. Reentry Royalty Reduction, Deep Gas Holiday, etc.): No Incentive

	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12	Yr 13	Yr 14	Yr 15	Rem.*	Tot.	
Royalty Rate	Oil royalty rate [%]	6.0%	5.6%	10.6%	10.8%	12.9%	14.9%	14.3%	13.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.00	10.8%
	Gas royalty rate [%]	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Freehold Royalty (%)	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	16.0%
	GORR (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	<b>AVERAGE ROYALTY RATE [%]</b>	<b>7.1%</b>	<b>6.8%</b>	<b>11.2%</b>	<b>11.3%</b>	<b>13.2%</b>	<b>15.0%</b>	<b>14.5%</b>	<b>14.0%</b>	<b>13.2%</b>	<b>12.7%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>	<b>0.0%</b>
Royalty Due	Oil royalty due [M\$]	489	288	595	558	615	655	599	549	483	182	0	0	0	0	0	0	5011
	Gas royalty due [M\$]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Freehold Royalty (M\$)	160	101	111	102	94	87	83	79	74	29	0	0	0	0	0	0	921
	GORR (M\$)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	<b>TOTAL ROYALTY DUE [M \$]</b>	<b>649</b>	<b>389</b>	<b>706</b>	<b>660</b>	<b>709</b>	<b>742</b>	<b>682</b>	<b>628</b>	<b>557</b>	<b>211</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5932</b>

\* Remaining years to be summed up.

Notes:

- M \$ stands for thousand dollars

**Table 3: ROYALTY SUMMARY CROWSNEST ASP TOTAL CASE**

Crown Land %: 100%  
 Vintage (Old, New, or Thrid Tier), if applicable - Provide further split between old and new if applicable: 35% Old Heavy and 65% New Heavy  
 Base Case Royalty Regime (e.g. Hz. Reentry Royalty Reduction, Deep Gas Holiday, etc.): Tertiary Royalty Relief on Incremental Volumes<sup>(1)</sup>

	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12	Yr 13	Yr 14	Yr 15	Rem.*	Tot.	
Royalty Rate	Oil royalty rate [%]	3.3%	9.1%	9.7%	7.5%	8.4%	26.4%	38.2%	34.8%	28.4%	24.6%	20.1%	16.4%	17.0%	16.4%	16.6%	20.9%	21.7%
	Gas royalty rate [%]	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Freehold Royalty (%)	16.0%	16.0%	16.0%	16.0%	16.1%	16.1%	16.1%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%
	GORR (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	<b>AVERAGE ROYALTY RATE [%]</b>	<b>4.7%</b>	<b>9.8%</b>	<b>10.4%</b>	<b>8.4%</b>	<b>9.2%</b>	<b>25.2%</b>	<b>35.6%</b>	<b>32.7%</b>	<b>27.0%</b>	<b>23.7%</b>	<b>19.6%</b>	<b>16.3%</b>	<b>16.9%</b>	<b>16.4%</b>	<b>16.5%</b>	<b>20.4%</b>	<b>21.0%</b>
Royalty Due	Oil royalty due [M\$]	245	925	2,078	2,598	3,764	13,110	20,827	13,343	6,350	3,895	2,293	1,484	1,371	1,205	1,138	11,697	86,324
	Gas royalty due [M\$]	0	0	0	1	2	2	2	1	0	0	0	0	0	0	0	0	7
	Freehold Royalty (M\$)	147	202	423	690	886	986	1,084	759	442	313	226	179	160	145	136	1,105	7,884
	GORR (M\$)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	<b>TOTAL ROYALTY DUE [M \$]</b>	<b>392</b>	<b>1,126</b>	<b>2,501</b>	<b>3,288</b>	<b>4,652</b>	<b>14,098</b>	<b>21,914</b>	<b>14,103</b>	<b>6,792</b>	<b>4,208</b>	<b>2,519</b>	<b>1,663</b>	<b>1,530</b>	<b>1,350</b>	<b>1,274</b>	<b>12,802</b>	<b>94,214</b>

<sup>(1)</sup> t-factor of 0.78

\* Remaining years to be summed up.

Notes:

- M \$ stands for thousand dollars



**Table 3: ROYALTY SUMMARY CROWSNEST ASP INCREMENTAL CASE**

Crown Land %: 100%  
 Vintage (Old, New, or Thrid Tier), if applicable - Provide further split between old and new if applicable: 35% Old Heavy and 65% New Heavy  
 Base Case Royalty Regime (e.g. Hz. Reentry Royalty Reduction, Deep Gas Holiday, etc.): Tertiary Royalty Relief on Incremental Volumes<sup>(1)</sup>

	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12	Yr 13	Yr 14	Yr 15	Rem.*	Tot.	
Royalty Rate	Oil royalty rate [%]	31.9%	11.1%	8.4%	6.1%	7.0%	24.4%	35.6%	33.1%	28.0%	23.0%	17.9%	14.6%	15.1%	14.6%	14.8%	18.6%	20.6%
	Gas royalty rate [%]	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Freehold Royalty (%)	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%	16.0%
	GORR (%)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	<b>AVERAGE ROYALTY RATE [%]</b>	<b>33.7%</b>	<b>12.9%</b>	<b>10.1%</b>	<b>7.9%</b>	<b>8.8%</b>	<b>26.1%</b>	<b>37.3%</b>	<b>34.9%</b>	<b>29.8%</b>	<b>24.8%</b>	<b>19.6%</b>	<b>16.3%</b>	<b>16.9%</b>	<b>16.4%</b>	<b>16.5%</b>	<b>20.4%</b>	<b>22.3%</b>
Royalty Due	Oil royalty due [M\$]	-244	637	1,483	2,040	3,150	12,455	20,229	12,794	5,867	3,713	2,293	1,484	1,371	1,205	1,138	11,697	81,312
	Gas royalty due [M\$]	0	0	0	1	2	2	2	1	0	0	0	0	0	0	0	0	7
	Freehold Royalty (M\$)	-13	101	312	588	792	900	1,001	680	368	284	226	179	160	145	136	1,105	6,963
	GORR M\$)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	<b>TOTAL ROYALTY DUE [M \$]</b>	<b>-257</b>	<b>738</b>	<b>1,795</b>	<b>2,628</b>	<b>3,943</b>	<b>13,357</b>	<b>21,232</b>	<b>13,475</b>	<b>6,235</b>	<b>3,997</b>	<b>2,519</b>	<b>1,663</b>	<b>1,530</b>	<b>1,350</b>	<b>1,274</b>	<b>12,802</b>	<b>88,282</b>

<sup>(1)</sup> t-factor of 0.78

\* Remaining years to be summed up.

Notes:

- M \$ stands for thousand dollars

**Table 4: CASH FLOW SUMMARY - CROWSNEST ASP BASE CASE**

	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12	Yr 13	Yr 14	Yr 15	Rem.*	Tot.	
<b>Revenue</b>	<b>Revenue</b>																	
	Oil Revenue [M \$]	9,105	5,738	6,311	5,815	5,352	4,930	4,712	4,488	4,205	1,664	0	0	0	0	0	0	52,319
	Sales Gas Revenue [M \$]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Ethane Revenue [M \$]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Propane Revenue [M \$]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Butane Revenue [M \$]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Condensate Revenue [M \$]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sulphur Revenue [M \$]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Other Revenue [M \$]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	<b>Total Revenue [M \$]</b>	<b>9,105</b>	<b>5,738</b>	<b>6,311</b>	<b>5,815</b>	<b>5,352</b>	<b>4,930</b>	<b>4,712</b>	<b>4,488</b>	<b>4,205</b>	<b>1,664</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Costs</b>	<b>Costs</b>																	
	Total Capital [M \$]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total Operating [M \$]	2,649	2,552	2,520	2,505	2,422	2,368	2,415	2,463	2,513	1,062	0	0	0	0	0	0	23,468
	Total Royalties [M \$]	649	389	706	660	709	742	682	628	557	211	0	0	0	0	0	0	5,932
	<b>Total Costs [M \$]</b>	<b>3,298</b>	<b>2,941</b>	<b>3,227</b>	<b>3,165</b>	<b>3,130</b>	<b>3,109</b>	<b>3,096</b>	<b>3,091</b>	<b>3,069</b>	<b>1,273</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>BEFORE TAX CASH FLOW [M \$]</b>	<b>5,807</b>	<b>2,797</b>	<b>3,084</b>	<b>2,650</b>	<b>2,222</b>	<b>1,821</b>	<b>1,615</b>	<b>1,397</b>	<b>1,135</b>	<b>391</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>22,918</b>
<b>Taxes</b>	<b>Taxes</b>																	
	Provincial Taxes [M \$]	571	280	308	265	222	182	162	140	114	39	0	0	0	0	0	0	2,283
	Federal Taxes [M \$]	1,132	531	555	437	334	273	242	209	170	59	0	0	0	0	0	0	3,942
	<b>Total Taxes</b>	<b>1,703</b>	<b>811</b>	<b>863</b>	<b>702</b>	<b>556</b>	<b>455</b>	<b>404</b>	<b>349</b>	<b>284</b>	<b>98</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6,225</b>
<b>AFTER TAX CASH FLOW [M \$]</b>	<b>4,104</b>	<b>1,986</b>	<b>2,221</b>	<b>1,948</b>	<b>1,666</b>	<b>1,366</b>	<b>1,211</b>	<b>1,048</b>	<b>851</b>	<b>293</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>16,693</b>

\* Remaining years to be summed up.

Notes:

- M \$ stands for thousand dollars

**Table 4: CASH FLOW SUMMARY - CROWSNEST ASP TOTAL CASE**

	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12	Yr 13	Yr 14	Yr 15	Rem.*	Tot.		
<b>Revenue</b>	<b>Revenue</b>																		
	Oil Revenue [M \$]	8,341	11,472	24,044	39,113	50,162	55,781	61,277	43,024	25,122	17,784	12,845	10,190	9,062	8,236	7,706	62,811	446,968	
	Sales Gas Revenue [M \$]	0	0	1	89	198	254	305	105	0	0	0	0	0	0	0	0	0	951
	Ethane Revenue [M \$]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Propane Revenue [M \$]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Butane Revenue [M \$]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Condensate Revenue [M \$]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sulphur Revenue [M \$]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Other Revenue [M \$]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	<b>Total Revenue [M \$]</b>	<b>8,341</b>	<b>11,472</b>	<b>24,045</b>	<b>39,202</b>	<b>50,360</b>	<b>56,035</b>	<b>61,581</b>	<b>43,128</b>	<b>25,122</b>	<b>17,784</b>	<b>12,845</b>	<b>10,190</b>	<b>9,062</b>	<b>8,236</b>	<b>7,706</b>	<b>62,811</b>	<b>447,919</b>	
<b>Costs</b>	<b>Costs</b>																		
	Total Capital [M \$]	67,722	12,301	6,073	5,918	4,426	-5,306	0	0	0	0	0	0	0	0	0	0	91,134	
	Total Operating [M \$]	4,453	5,208	5,324	5,379	5,487	3,357	3,419	3,324	3,183	3,191	3,154	3,182	3,109	3,134	3,150	32,158	90,212	
	Total Royalties [M \$]	392	1,126	2,501	3,288	4,652	14,098	21,914	14,103	6,792	4,208	2,519	1,663	1,530	1,350	1,274	12,802	94,214	
	<b>Total Costs [M \$]</b>	<b>72,567</b>	<b>18,635</b>	<b>13,898</b>	<b>14,585</b>	<b>14,566</b>	<b>12,149</b>	<b>25,333</b>	<b>17,427</b>	<b>9,975</b>	<b>7,399</b>	<b>5,673</b>	<b>4,845</b>	<b>4,639</b>	<b>4,484</b>	<b>4,424</b>	<b>44,960</b>	<b>275,561</b>	
<b>BEFORE TAX CASH FLOW [M \$]</b>	<b>-64,226</b>	<b>-7,164</b>	<b>10,146</b>	<b>24,617</b>	<b>35,794</b>	<b>43,886</b>	<b>36,249</b>	<b>25,702</b>	<b>15,147</b>	<b>10,385</b>	<b>7,172</b>	<b>5,345</b>	<b>4,423</b>	<b>3,752</b>	<b>3,282</b>	<b>17,850</b>	<b>172,358</b>		
<b>Taxes</b>	<b>Taxes</b>																		
	Provincial Taxes [M \$]	-1,850	-1,805	316	1,949	3,200	3,913	3,269	2,304	1,315	889	605	451	379	328	293	1,683	17,239	
	Federal Taxes [M \$]	-3,609	-3,430	568	3,217	4,801	5,870	4,903	3,455	1,973	1,334	908	675	570	492	440	2,521	24,688	
	<b>Total Taxes</b>	<b>-5,459</b>	<b>-5,235</b>	<b>884</b>	<b>5,166</b>	<b>8,001</b>	<b>9,783</b>	<b>8,172</b>	<b>5,759</b>	<b>3,288</b>	<b>2,223</b>	<b>1,513</b>	<b>1,126</b>	<b>949</b>	<b>820</b>	<b>733</b>	<b>4,204</b>	<b>41,927</b>	
<b>AFTER TAX CASH FLOW [M \$]</b>	<b>-58,767</b>	<b>-1,929</b>	<b>9,262</b>	<b>19,451</b>	<b>27,793</b>	<b>34,103</b>	<b>28,077</b>	<b>19,943</b>	<b>11,859</b>	<b>8,162</b>	<b>5,659</b>	<b>4,219</b>	<b>3,474</b>	<b>2,932</b>	<b>2,549</b>	<b>13,646</b>	<b>130,431</b>		

\* Remaining years to be summed up.

Notes:

- M \$ stands for thousand dollars

**Table 4: CASH FLOW SUMMARY - CROWSNEST ASP INCREMENTAL CASE**

	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Yr 11	Yr 12	Yr 13	Yr 14	Yr 15	Rem.*	Tot.		
<b>Revenue</b>	<b>Revenue</b>																		
	Oil Revenue [M \$]	-764	5,734	17,733	33,298	44,810	50,851	56,565	38,536	20,917	16,120	12,845	10,190	9,062	8,236	7,706	62,811	394,650	
	Sales Gas Revenue [M \$]	0	0	1	89	198	254	305	105	0	0	0	0	0	0	0	0	0	951
	Ethane Revenue [M \$]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Propane Revenue [M \$]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Butane Revenue [M \$]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Condensate Revenue [M \$]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Sulphur Revenue [M \$]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Other Revenue [M \$]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	<b>Total Revenue [M \$]</b>	<b>-764</b>	<b>5,734</b>	<b>17,734</b>	<b>33,387</b>	<b>45,008</b>	<b>51,105</b>	<b>56,870</b>	<b>38,640</b>	<b>20,917</b>	<b>16,120</b>	<b>12,845</b>	<b>10,190</b>	<b>9,062</b>	<b>8,236</b>	<b>7,706</b>	<b>62,811</b>	<b>395,601</b>	
<b>Costs</b>	<b>Costs</b>																		
	Total Capital [M \$]	67,722	12,301	6,073	5,918	4,426	-5,306	0	0	0	0	0	0	0	0	0	0	91,134	
	Total Operating [M \$]	1,804	2,656	2,804	2,874	3,066	989	1,004	861	671	2,129	3,154	3,182	3,109	3,134	3,150	32,158	66,744	
	Total Royalties [M \$]	-257	738	1,795	2,628	3,943	13,357	21,232	13,475	6,235	3,997	2,519	1,663	1,530	1,350	1,274	12,802	88,282	
	<b>Total Costs [M \$]</b>	<b>69,269</b>	<b>15,694</b>	<b>10,671</b>	<b>11,420</b>	<b>11,435</b>	<b>9,040</b>	<b>22,236</b>	<b>14,336</b>	<b>6,906</b>	<b>6,126</b>	<b>5,673</b>	<b>4,845</b>	<b>4,639</b>	<b>4,484</b>	<b>4,424</b>	<b>44,960</b>	<b>246,160</b>	
<b>BEFORE TAX CASH FLOW [M \$]</b>	<b>-70,033</b>	<b>-9,960</b>	<b>7,062</b>	<b>21,966</b>	<b>33,573</b>	<b>42,064</b>	<b>34,634</b>	<b>24,305</b>	<b>14,012</b>	<b>9,994</b>	<b>7,172</b>	<b>5,345</b>	<b>4,423</b>	<b>3,752</b>	<b>3,282</b>	<b>17,850</b>	<b>149,440</b>		
<b>Taxes</b>	<b>Taxes</b>																		
	Provincial Taxes [M \$]	-2,421	-2,085	8	1,684	2,978	3,731	3,107	2,164	1,201	850	605	451	379	328	293	1,683	14,956	
	Federal Taxes [M \$]	-4,741	-3,961	13	2,780	4,467	5,597	4,661	3,246	1,803	1,275	908	675	570	492	440	2,521	20,746	
	<b>Total Taxes</b>	<b>-7,162</b>	<b>-6,046</b>	<b>21</b>	<b>4,464</b>	<b>7,445</b>	<b>9,328</b>	<b>7,768</b>	<b>5,410</b>	<b>3,004</b>	<b>2,125</b>	<b>1,513</b>	<b>1,126</b>	<b>949</b>	<b>820</b>	<b>733</b>	<b>4,204</b>	<b>35,702</b>	
<b>AFTER TAX CASH FLOW [M \$]</b>	<b>-62,871</b>	<b>-3,914</b>	<b>7,041</b>	<b>17,502</b>	<b>26,128</b>	<b>32,736</b>	<b>26,866</b>	<b>18,895</b>	<b>11,008</b>	<b>7,869</b>	<b>5,659</b>	<b>4,219</b>	<b>3,474</b>	<b>2,932</b>	<b>2,549</b>	<b>13,646</b>	<b>113,738</b>		

\* Remaining years to be summed up.

Notes:

- M \$ stands for thousand dollars

**Table 5: ECONOMIC INDICATORS -CROWSNEST ASP BASE  
CASE**

	Before Tax & Royalty	Before Tax	After Tax & Royalty
1) Rate of Return [%]	NA	NA	NA
2) Payout [months]	NA	NA	NA
3) Project NPV			
NPV6 [M \$]	22,873	19,043	13,822
NPV8 [M \$]	21,556	18,025	13,070
NPV12 [M \$]	19,327	16,295	11,791
NPV15 [M \$]	17,941	15,212	10,992
4) NPV of Crown royalty			
NPV6 [M \$]		3,830	9,051
NPV8 [M \$]		3,531	8,486
NPV12 [M \$]		3,032	7,536
NPV15 [M \$]		2,729	6,949

Notes:

<sup>(1)</sup> Value for After Tax and Royalty is the NPV of Crown Royalty **plus** Taxes

- M \$ stands for thousand dollars

**Table 5: ECONOMIC INDICATORS -CROWSNEST ASP TOTAL  
CASE**

	Before Tax & Royalty	Before Tax	After Tax & Royalty
1) Rate of Return [%]	30.3	23.9	21.5
2) Payout [months]	57	60	61
3) Project NPV			
NPV6 [M \$]	147,530	93,599	68,675
NPV8 [M \$]	122,712	75,738	54,618
NPV12 [M \$]	84,163	47,785	32,562
NPV15 [M \$]	62,277	31,797	19,908
4) NPV of Crown royalty <sup>(1)</sup>			
NPV6 [M \$]		53,931	78,855
NPV8 [M \$]		46,974	68,094
NPV12 [M \$]		36,378	51,601
NPV15 [M \$]		30,480	42,369

Notes:

<sup>(1)</sup> Value for After Tax and Royalty is the NPV of Crown Royalty **plus** Taxes

- M \$ stands for thousand dollars

**Table 5: ECONOMIC INDICATORS -CROWSNEST ASP  
INCREMENTAL CASE**

	Before Tax & Royalty	Before Tax	After Tax & Royalty
1) Rate of Return [%]	25.2	19.3	17.8
2) Payout [months]	61	63	64
3) Project NPV			
NPV6 [M \$]	124,657	74,556	54,853
NPV8 [M \$]	101,156	57,713	41,548
NPV12 [M \$]	64,836	31,490	20,771
NPV15 [M \$]	44,336	16,585	8,916
4) NPV of Crown royalty <sup>(1)</sup>			
NPV6 [M \$]		50,101	69,804
NPV8 [M \$]		43,443	59,608
NPV12 [M \$]		33,346	44,065
NPV15 [M \$]		27,751	35,420

Notes:

<sup>(1)</sup> Value for After Tax and Royalty is the NPV of Crown Royalty **plus** Taxes  
- M \$ stands for thousand dollars