

State of Alaska
Department of Revenue

Commissioner Bryan Butcher



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The Honorable Eric Feige
State Capitol Room 126
Juneau AK, 99801

February 23, 2011

The Honorable Paul Seaton
State Capitol Room 102
Juneau AK, 99801

SUBJECT: Response to Modeling Request from Co-Chair Seaton

Dear Representative Feige and Seaton:

Enclosed please find the results of the hypothetical modeling project requested by Co-chair Seaton during the House Resources Committee meeting on February 21, 2011, and earlier by email.

Please pay particular attention to the assumptions and caveats provided in the cover sheet for the analysis. The assumptions used were as requested, and this analysis in no way represents a Department of Revenue forecast or expectation.

Sincerely,

Bruce Tangeman
Deputy Commissioner

Comparison of Revenue under ACES and HB 110 with Requested Volume, Price, and Cost Assumptions*

Preparer:

Cherie Nienhuis, Petroleum Economic Policy Analyst and Dan Stickel, Petroleum Economist

Date:

23-Feb-11

Purpose:

As requested by Representative Seaton

Data Source:

Major ACES tax variables and major proposed variables in HB 110

Key Assumptions:

*Assumptions as requested by requestor, which are neither supported nor condoned by the Department of Revenue. The following assumptions were dictated:

50% TAPS throughput is oil from New Fields (over a seven-year period TAPS Legacy Field oil is switched over to New Field Oil at a rate of 7% per year so that at the end of the seven years roughly 50% of TAPS throughput is New Field Oil.)

ANS WC price of \$90 per barrel, and \$50 per barrel

Costs of \$36 per barrel

\$15 Billion in capital investment for new infrastructure available for credit

With the models, please provide tables below the model, or on a separate page, so we can review the input data.

The following assumptions were made by the Department, to implement the models:

Incremental oil only occurs in the HB 110 case

Stated decline rate, and incremental oil additions, continue beyond the first 7 years.

Stated cost of \$36 is for incremental oil and includes \$7 transportation costs, \$19 operating costs, \$10 capital costs.

Costs for existing oil are \$10 / barrel operating costs, \$10 / barrel capital costs, plus \$7 / barrel transportation costs (\$27 / barrel total)

Simplified transportation cost model - half of transit costs vary relative to production (costs will increase as throughput declines)

The \$15 billion of new infrastructure is exclusive to incremental oil and spread evenly across the first 7 years (appx \$2.1 billion per year)

Production decline rate is levied on a compound basis, resulting in smaller absolute declines each year

This analysis does not include assumptions relating to lease expenditure exemptions, or proposed credits other than the 20% capital credit, and for simplification we assume all credits can be taken in one year.

See assumptions listed on each sheet.

History:

None

Disclaimer:

This analysis does not represent a Department of Revenue forecast or expectation. The modeling shown here represents a hypothetical scenario only using assumptions provided by the requestor. Under HB 110, the 15% base tax rate would apply only to oil and gas produced from leases or properties that have not been in a unit as of 1/1/2011 and have never had commercial production. We forecast that the vast majority of additional North Slope production will come from existing units and will not receive the 15% base tax rate.

The Department of Revenue is in the process of reviewing and updating the data on which this analysis is based. As a result, future analysis could have different results.

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Comparison of Revenue under ACES and HB 110 with Requested Volume, Price, and Cost Assumptions - \$90 ANS Scenario

Prepared 02/23/11 by Department of Revenue for Rep Seaton

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These hypothetical assumptions were specifically requested by the requestor and the Department of Revenue does not in any way support the assumptions.
This analysis does not include assumptions relating to lease expenditure exemptions, or proposed credits

KEY INPUTS

Initial Production (bpd)	600,000	Incremental facilities capital (\$ mm)	\$ 15,000
Decline rate - existing	7%	Years to spread facilities spend	7
Oil Price	\$90	Incremental Opex / bbl	\$ 19
Existing Opex / bbl	\$ 10	Incremental Capex / bbl	\$ 10
Existing Capex / bbl	\$ 10	Transit costs	\$ 7

All amounts in \$ millions except for oil production and amounts labeled as per barrel amounts

ACES Scenario - Existing oil with decline rate														
Year	Production (bpd)	Annual Taxable GVPP	Capital Expenditures	Operating Expenditures	Total Costs	PTV	PTV /barrel	Base Tax	Progressive Tax	Total Tax before Credits	Capital Credits	NOL Tax Credits	Total Tax after Credits	Credits for carry forward or refund
1	600,000	\$ 15,905	\$ 2,190	\$ 2,190	\$ 4,380	\$ 11,525	60.14	\$ 2,881	\$ 1,390	\$ 4,271	\$ 438	\$ -	\$ 3,833	\$ -
2	558,000	\$ 14,745	\$ 2,037	\$ 2,037	\$ 4,073	\$ 10,671	59.88	\$ 2,668	\$ 1,275	\$ 3,943	\$ 407	\$ -	\$ 3,536	\$ -
3	518,940	\$ 13,666	\$ 1,894	\$ 1,894	\$ 3,788	\$ 9,877	59.60	\$ 2,469	\$ 1,169	\$ 3,639	\$ 379	\$ -	\$ 3,260	\$ -
4	482,614	\$ 12,662	\$ 1,762	\$ 1,762	\$ 3,523	\$ 9,139	59.29	\$ 2,285	\$ 1,071	\$ 3,355	\$ 352	\$ -	\$ 3,003	\$ -
5	448,831	\$ 11,729	\$ 1,638	\$ 1,638	\$ 3,276	\$ 8,452	58.96	\$ 2,113	\$ 979	\$ 3,092	\$ 328	\$ -	\$ 2,765	\$ -
6	417,413	\$ 10,861	\$ 1,524	\$ 1,524	\$ 3,047	\$ 7,814	58.61	\$ 1,953	\$ 894	\$ 2,848	\$ 305	\$ -	\$ 2,543	\$ -
7	388,194	\$ 10,054	\$ 1,417	\$ 1,417	\$ 2,834	\$ 7,220	58.23	\$ 1,805	\$ 815	\$ 2,620	\$ 283	\$ -	\$ 2,337	\$ -
8	361,021	\$ 9,303	\$ 1,318	\$ 1,318	\$ 2,635	\$ 6,667	57.83	\$ 1,667	\$ 742	\$ 2,409	\$ 264	\$ -	\$ 2,145	\$ -
9	335,749	\$ 8,605	\$ 1,225	\$ 1,225	\$ 2,451	\$ 6,154	57.39	\$ 1,538	\$ 674	\$ 2,213	\$ 245	\$ -	\$ 1,967	\$ -
10	312,247	\$ 7,955	\$ 1,140	\$ 1,140	\$ 2,279	\$ 5,676	56.92	\$ 1,419	\$ 611	\$ 2,030	\$ 228	\$ -	\$ 1,802	\$ -
11	290,389	\$ 7,352	\$ 1,060	\$ 1,060	\$ 2,120	\$ 5,232	56.41	\$ 1,308	\$ 553	\$ 1,861	\$ 212	\$ -	\$ 1,649	\$ -
12	270,062	\$ 6,790	\$ 986	\$ 986	\$ 1,971	\$ 4,819	55.87	\$ 1,205	\$ 499	\$ 1,703	\$ 197	\$ -	\$ 1,506	\$ -
13	251,158	\$ 6,268	\$ 917	\$ 917	\$ 1,833	\$ 4,434	55.28	\$ 1,109	\$ 448	\$ 1,557	\$ 183	\$ -	\$ 1,374	\$ -
14	233,577	\$ 5,782	\$ 853	\$ 853	\$ 1,705	\$ 4,077	54.65	\$ 1,019	\$ 402	\$ 1,421	\$ 171	\$ -	\$ 1,251	\$ -
15	217,226	\$ 5,330	\$ 793	\$ 793	\$ 1,586	\$ 3,745	53.98	\$ 936	\$ 359	\$ 1,295	\$ 159	\$ -	\$ 1,137	\$ -
16	202,021	\$ 4,910	\$ 737	\$ 737	\$ 1,475	\$ 3,436	53.25	\$ 859	\$ 319	\$ 1,178	\$ 147	\$ -	\$ 1,031	\$ -
17	187,879	\$ 4,520	\$ 686	\$ 686	\$ 1,372	\$ 3,148	52.47	\$ 787	\$ 283	\$ 1,070	\$ 137	\$ -	\$ 933	\$ -
18	174,728	\$ 4,156	\$ 638	\$ 638	\$ 1,276	\$ 2,881	51.62	\$ 720	\$ 249	\$ 969	\$ 128	\$ -	\$ 842	\$ -
19	162,497	\$ 3,818	\$ 593	\$ 593	\$ 1,186	\$ 2,632	50.72	\$ 658	\$ 218	\$ 876	\$ 119	\$ -	\$ 758	\$ -
20	151,122	\$ 3,504	\$ 552	\$ 552	\$ 1,103	\$ 2,401	49.75	\$ 600	\$ 190	\$ 790	\$ 110	\$ -	\$ 680	\$ -

HB 110 Scenario - Summary Existing + Incremental Production

Year	Production (bpd)	Annual taxable GVPP	Capital Expenditures	Operating Expenditures	Total Costs	PTV	PTV / barrel	Total tax before Credits	Capital Credits	NOL Tax Credits	Total tax after Credits	Credits for carry forward or refund
1	600,000	\$ 15,905	\$ 4,333	\$ 2,190	\$ 6,523	\$ 9,382	\$ 48.96	\$ 3,244	\$ 867	\$ 536	\$ 1,842	\$ -
2	600,000	\$ 15,905	\$ 4,333	\$ 2,328	\$ 6,661	\$ 9,244	\$ 48.24	\$ 3,017	\$ 867	\$ 369	\$ 1,782	\$ -
3	600,000	\$ 15,905	\$ 4,333	\$ 2,456	\$ 6,789	\$ 9,116	\$ 47.57	\$ 2,806	\$ 867	\$ 213	\$ 1,726	\$ -
4	600,000	\$ 15,905	\$ 4,333	\$ 2,576	\$ 6,908	\$ 8,996	\$ 46.95	\$ 2,609	\$ 867	\$ 68	\$ 1,674	\$ -
5	600,000	\$ 15,905	\$ 4,333	\$ 2,687	\$ 7,019	\$ 8,885	\$ 46.37	\$ 2,466	\$ 867	\$ -	\$ 1,600	\$ -
6	600,000	\$ 15,905	\$ 4,333	\$ 2,790	\$ 7,123	\$ 8,782	\$ 45.83	\$ 2,371	\$ 867	\$ -	\$ 1,505	\$ -
7	600,000	\$ 15,905	\$ 4,333	\$ 2,886	\$ 7,219	\$ 8,686	\$ 45.33	\$ 2,283	\$ 867	\$ -	\$ 1,417	\$ -
8	600,000	\$ 15,905	\$ 2,190	\$ 2,975	\$ 5,165	\$ 10,740	\$ 56.05	\$ 2,589	\$ 438	\$ -	\$ 2,151	\$ -
9	600,000	\$ 15,905	\$ 2,190	\$ 3,058	\$ 5,248	\$ 10,657	\$ 55.61	\$ 2,519	\$ 438	\$ -	\$ 2,081	\$ -
10	600,000	\$ 15,905	\$ 2,190	\$ 3,135	\$ 5,325	\$ 10,580	\$ 55.21	\$ 2,455	\$ 438	\$ -	\$ 2,017	\$ -
11	600,000	\$ 15,905	\$ 2,190	\$ 3,207	\$ 5,397	\$ 10,508	\$ 54.84	\$ 2,395	\$ 438	\$ -	\$ 1,957	\$ -
12	600,000	\$ 15,905	\$ 2,190	\$ 3,274	\$ 5,464	\$ 10,441	\$ 54.49	\$ 2,339	\$ 438	\$ -	\$ 1,901	\$ -
13	600,000	\$ 15,905	\$ 2,190	\$ 3,336	\$ 5,526	\$ 10,379	\$ 54.16	\$ 2,287	\$ 438	\$ -	\$ 1,849	\$ -
14	600,000	\$ 15,905	\$ 2,190	\$ 3,394	\$ 5,584	\$ 10,321	\$ 53.86	\$ 2,239	\$ 438	\$ -	\$ 1,801	\$ -
15	600,000	\$ 15,905	\$ 2,190	\$ 3,447	\$ 5,637	\$ 10,267	\$ 53.58	\$ 2,194	\$ 438	\$ -	\$ 1,756	\$ -
16	600,000	\$ 15,905	\$ 2,190	\$ 3,497	\$ 5,687	\$ 10,218	\$ 53.32	\$ 2,153	\$ 438	\$ -	\$ 1,715	\$ -
17	600,000	\$ 15,905	\$ 2,190	\$ 3,544	\$ 5,734	\$ 10,171	\$ 53.08	\$ 2,114	\$ 438	\$ -	\$ 1,676	\$ -
18	600,000	\$ 15,905	\$ 2,190	\$ 3,587	\$ 5,777	\$ 10,128	\$ 52.85	\$ 2,078	\$ 438	\$ -	\$ 1,640	\$ -
19	600,000	\$ 15,905	\$ 2,190	\$ 3,627	\$ 5,817	\$ 10,088	\$ 52.64	\$ 2,044	\$ 438	\$ -	\$ 1,606	\$ -
20	600,000	\$ 15,905	\$ 2,190	\$ 3,665	\$ 5,855	\$ 10,050	\$ 52.45	\$ 2,013	\$ 438	\$ -	\$ 1,575	\$ -

Comparison of Revenue under ACES and HB 110 with Requested Volume, Price, and Cost Assumptions - \$90 ANS Scenario

Prepared 02/23/11 by Department of Revenue for Rep Seaton

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This analysis does not include assumptions relating to lease expenditure exemptions, or proposed credits

HB 110 Scenario - Existing oil with decline rate																			
Year	Production (bpd)	Production			Annual Taxable			Capital			Operating			Credits for carry forward or refund					
		GVPP	Expenditures	Annual Taxable	Expenditures	Capital	Expenditures	Operating	Expenditures	Total Costs	PTV	PTV / barrel	Base Tax		Progressive Tax	Total Tax before Credits	Capital Credits	NOL Tax Credits	Total Tax after Credits
1	600,000	\$ 15,905	\$ 2,190	\$ 15,905	\$ 2,190	\$ 2,190	\$ 4,380	\$ 4,380	\$ 11,525	60.14	\$ 2,881	\$ 363	\$ 3,244	\$ 438	\$ -	\$ 2,806	\$ -	\$ 2,806	\$ -
2	558,000	\$ 14,792	\$ 2,037	\$ 14,792	\$ 2,037	\$ 2,037	\$ 4,073	\$ 4,073	\$ 10,718	60.14	\$ 2,680	\$ 337	\$ 3,017	\$ 407	\$ -	\$ 2,610	\$ -	\$ 2,610	\$ -
3	518,940	\$ 13,756	\$ 1,894	\$ 13,756	\$ 1,894	\$ 1,894	\$ 3,788	\$ 3,788	\$ 9,968	60.14	\$ 2,492	\$ 314	\$ 2,806	\$ 379	\$ -	\$ 2,427	\$ -	\$ 2,427	\$ -
4	482,614	\$ 12,793	\$ 1,762	\$ 12,793	\$ 1,762	\$ 1,762	\$ 3,523	\$ 3,523	\$ 9,270	60.14	\$ 2,318	\$ 292	\$ 2,609	\$ 352	\$ -	\$ 2,257	\$ -	\$ 2,257	\$ -
5	448,831	\$ 11,898	\$ 1,638	\$ 11,898	\$ 1,638	\$ 1,638	\$ 3,276	\$ 3,276	\$ 8,621	60.14	\$ 2,155	\$ 271	\$ 2,427	\$ 328	\$ -	\$ 2,099	\$ -	\$ 2,099	\$ -
6	417,413	\$ 11,065	\$ 1,524	\$ 11,065	\$ 1,524	\$ 1,524	\$ 3,047	\$ 3,047	\$ 8,018	60.14	\$ 2,004	\$ 252	\$ 2,257	\$ 305	\$ -	\$ 1,952	\$ -	\$ 1,952	\$ -
7	388,194	\$ 10,290	\$ 1,417	\$ 10,290	\$ 1,417	\$ 1,417	\$ 2,834	\$ 2,834	\$ 7,456	60.14	\$ 1,864	\$ 235	\$ 2,099	\$ 283	\$ -	\$ 1,815	\$ -	\$ 1,815	\$ -
8	361,021	\$ 9,570	\$ 1,318	\$ 9,570	\$ 1,318	\$ 1,318	\$ 2,635	\$ 2,635	\$ 6,935	60.14	\$ 1,734	\$ 218	\$ 1,952	\$ 264	\$ -	\$ 1,688	\$ -	\$ 1,688	\$ -
9	335,749	\$ 8,900	\$ 1,225	\$ 8,900	\$ 1,225	\$ 1,225	\$ 2,451	\$ 2,451	\$ 6,449	60.14	\$ 1,612	\$ 203	\$ 1,815	\$ 245	\$ -	\$ 1,570	\$ -	\$ 1,570	\$ -
10	312,247	\$ 8,277	\$ 1,140	\$ 8,277	\$ 1,140	\$ 1,140	\$ 2,279	\$ 2,279	\$ 5,998	60.14	\$ 1,499	\$ 189	\$ 1,688	\$ 228	\$ -	\$ 1,460	\$ -	\$ 1,460	\$ -
11	290,389	\$ 7,698	\$ 1,060	\$ 7,698	\$ 1,060	\$ 1,060	\$ 2,120	\$ 2,120	\$ 5,578	60.14	\$ 1,394	\$ 176	\$ 1,570	\$ 212	\$ -	\$ 1,358	\$ -	\$ 1,358	\$ -
12	270,062	\$ 7,159	\$ 986	\$ 7,159	\$ 986	\$ 986	\$ 1,971	\$ 1,971	\$ 5,187	60.14	\$ 1,297	\$ 163	\$ 1,460	\$ 197	\$ -	\$ 1,263	\$ -	\$ 1,263	\$ -
13	251,158	\$ 6,658	\$ 917	\$ 6,658	\$ 917	\$ 917	\$ 1,833	\$ 1,833	\$ 4,824	60.14	\$ 1,206	\$ 152	\$ 1,358	\$ 183	\$ -	\$ 1,175	\$ -	\$ 1,175	\$ -
14	233,577	\$ 6,192	\$ 853	\$ 6,192	\$ 853	\$ 853	\$ 1,705	\$ 1,705	\$ 4,487	60.14	\$ 1,122	\$ 141	\$ 1,263	\$ 171	\$ -	\$ 1,092	\$ -	\$ 1,092	\$ -
15	217,226	\$ 5,758	\$ 793	\$ 5,758	\$ 793	\$ 793	\$ 1,586	\$ 1,586	\$ 4,173	60.14	\$ 1,043	\$ 131	\$ 1,174	\$ 159	\$ -	\$ 1,016	\$ -	\$ 1,016	\$ -
16	202,021	\$ 5,355	\$ 737	\$ 5,355	\$ 737	\$ 737	\$ 1,475	\$ 1,475	\$ 3,880	60.14	\$ 970	\$ 122	\$ 1,092	\$ 147	\$ -	\$ 945	\$ -	\$ 945	\$ -
17	187,879	\$ 4,980	\$ 686	\$ 4,980	\$ 686	\$ 686	\$ 1,372	\$ 1,372	\$ 3,609	60.14	\$ 902	\$ 114	\$ 1,016	\$ 137	\$ -	\$ 879	\$ -	\$ 879	\$ -
18	174,728	\$ 4,632	\$ 638	\$ 4,632	\$ 638	\$ 638	\$ 1,276	\$ 1,276	\$ 3,356	60.14	\$ 839	\$ 106	\$ 945	\$ 128	\$ -	\$ 817	\$ -	\$ 817	\$ -
19	162,497	\$ 4,307	\$ 593	\$ 4,307	\$ 593	\$ 593	\$ 1,186	\$ 1,186	\$ 3,121	60.14	\$ 780	\$ 98	\$ 879	\$ 119	\$ -	\$ 760	\$ -	\$ 760	\$ -
20	151,122	\$ 4,006	\$ 552	\$ 4,006	\$ 552	\$ 552	\$ 1,103	\$ 1,103	\$ 2,903	60.14	\$ 726	\$ 91	\$ 817	\$ 110	\$ -	\$ 707	\$ -	\$ 707	\$ -

HB 110 Scenario - Incremental oil to maintain production														
Year	Production (bpd)	Annual Taxable GVP	Capital Expenditures	Operating Expenditures	Total Costs	PTV	PTV / barrel	Base Tax	Progressive Tax	Total Tax before Credits	Capital Credits	NOL Tax Credits	Total Tax after Credits	Credits for carry forward or refund
1	-	-	\$ 2,143	-	\$ 2,143	\$ (\$2,143)	\$ -	-	\$ (\$321)	\$ -	\$ -	\$ 429	\$ 536	\$ 964
2	42,000	\$ 1,113	\$ 2,296	\$ 291	\$ 2,587	\$ (\$1,474)	\$ (109.89)	-	\$ (\$221)	\$ -	\$ -	\$ 459	\$ 369	\$ 828
3	81,060	\$ 2,149	\$ 2,439	\$ 562	\$ 3,001	\$ (\$852)	\$ (32.92)	-	\$ (\$128)	\$ -	\$ -	\$ 488	\$ 213	\$ 701
4	117,386	\$ 3,112	\$ 2,571	\$ 814	\$ 3,385	\$ (\$274)	\$ (7.30)	-	\$ (\$41)	\$ -	\$ -	\$ 514	\$ 68	\$ 583
5	151,169	\$ 4,007	\$ 2,695	\$ 1,048	\$ 3,743	\$ 264	\$ 5.47	-	\$ 40	\$ -	\$ 40	\$ 539	-	\$ 499
6	182,587	\$ 4,840	\$ 2,809	\$ 1,266	\$ 4,076	\$ 764	\$ 13.11	-	\$ 115	\$ -	\$ 115	\$ 562	-	\$ 447
7	211,806	\$ 5,615	\$ 2,916	\$ 1,469	\$ 4,385	\$ 1,230	\$ 18.18	-	\$ 184	\$ -	\$ 184	\$ 583	-	\$ 399
8	238,979	\$ 6,335	\$ 872	\$ 1,657	\$ 2,530	\$ 3,805	\$ 49.86	-	\$ 66	\$ 66	\$ 637	\$ 174	-	\$ -
9	264,251	\$ 7,005	\$ 965	\$ 1,833	\$ 2,797	\$ 4,208	\$ 49.86	-	\$ 631	\$ 73	\$ 704	\$ 193	-	\$ -
10	287,753	\$ 7,628	\$ 1,050	\$ 1,996	\$ 3,046	\$ 4,582	\$ 49.86	-	\$ 687	\$ 79	\$ 767	\$ 210	-	\$ -
11	309,611	\$ 8,207	\$ 1,130	\$ 2,147	\$ 3,277	\$ 4,930	\$ 49.86	-	\$ 739	\$ 85	\$ 825	\$ 226	-	\$ -
12	329,938	\$ 8,746	\$ 1,204	\$ 2,288	\$ 3,492	\$ 5,254	\$ 49.86	-	\$ 788	\$ 91	\$ 879	\$ 241	-	\$ -
13	348,842	\$ 9,247	\$ 1,273	\$ 2,419	\$ 3,692	\$ 5,555	\$ 49.86	-	\$ 833	\$ 96	\$ 929	\$ 255	-	\$ -
14	366,423	\$ 9,713	\$ 1,337	\$ 2,541	\$ 3,879	\$ 5,835	\$ 49.86	-	\$ 875	\$ 101	\$ 976	\$ 267	-	\$ -
15	382,774	\$ 10,147	\$ 1,397	\$ 2,655	\$ 4,052	\$ 6,095	\$ 49.86	-	\$ 914	\$ 106	\$ 1,020	\$ 279	-	\$ -
16	397,979	\$ 10,550	\$ 1,453	\$ 2,760	\$ 4,213	\$ 6,337	\$ 49.86	-	\$ 951	\$ 110	\$ 1,060	\$ 291	-	\$ -
17	412,121	\$ 10,925	\$ 1,504	\$ 2,858	\$ 4,362	\$ 6,562	\$ 49.86	-	\$ 984	\$ 114	\$ 1,098	\$ 301	-	\$ -
18	425,272	\$ 11,273	\$ 1,552	\$ 2,949	\$ 4,502	\$ 6,772	\$ 49.86	-	\$ 1,016	\$ 117	\$ 1,133	\$ 310	-	\$ -
19	437,503	\$ 11,597	\$ 1,597	\$ 3,034	\$ 4,631	\$ 6,966	\$ 49.86	-	\$ 1,045	\$ 121	\$ 1,166	\$ 319	-	\$ -
20	448,878	\$ 11,899	\$ 1,638	\$ 3,113	\$ 4,751	\$ 7,148	\$ 49.86	-	\$ 1,072	\$ 124	\$ 1,196	\$ 328	-	\$ -

Comparison of Revenue under ACES and HB 110 with Requested Volume, Price, and Cost Assumptions - \$90 ANS Scenario

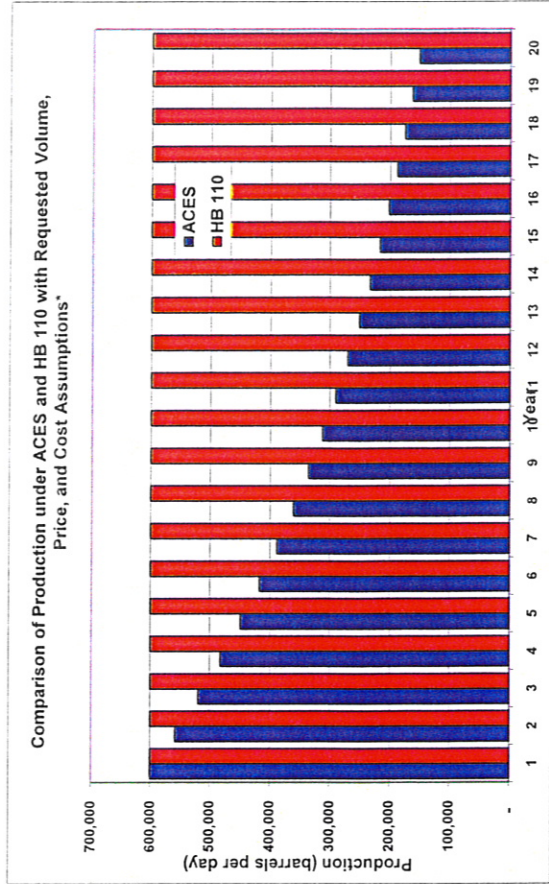
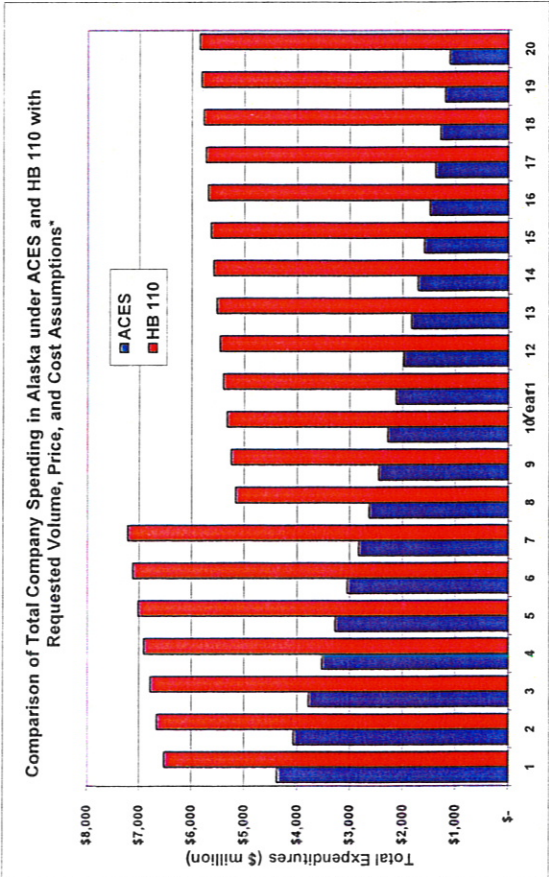
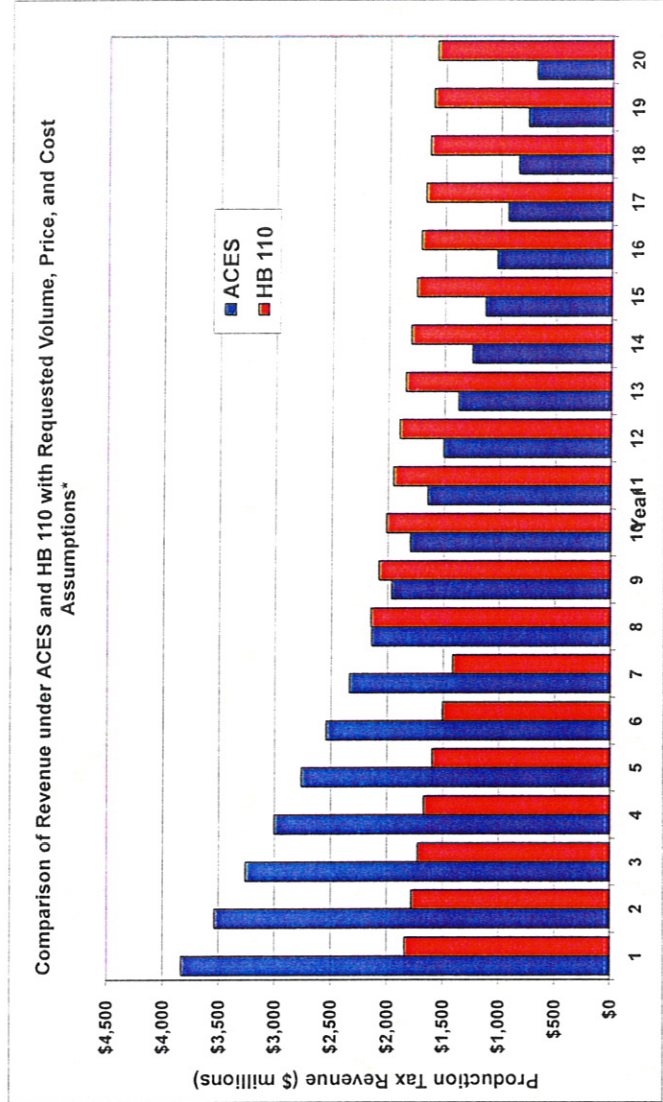
Prepared 02/23/11 by Department of Revenue for Rep Seaton

This analysis does not represent a Department of Revenue forecast or expectation.

These hypothetical assumptions were specifically requested by the requestor and the Department of Revenue does not in any way support the assumptions.

This analysis does not include assumptions relating to lease expenditure exemptions, or proposed credits

COMPARISON OF SCENARIOS			
Year	ACES		HB 110
	Tax Liability	Credits for carry forward or refund	Tax Liability
1	\$3,833	\$0	\$1,842
2	\$3,536	\$0	\$1,782
3	\$3,260	\$0	\$1,726
4	\$3,003	\$0	\$1,674
5	\$2,765	\$0	\$1,600
6	\$2,543	\$0	\$1,505
7	\$2,337	\$0	\$1,417
8	\$2,145	\$0	\$2,151
9	\$1,967	\$0	\$2,081
10	\$1,802	\$0	\$2,017
11	\$1,649	\$0	\$1,957
12	\$1,506	\$0	\$1,901
13	\$1,374	\$0	\$1,849
14	\$1,251	\$0	\$1,801
15	\$1,137	\$0	\$1,756
16	\$1,031	\$0	\$1,715
17	\$933	\$0	\$1,676
18	\$842	\$0	\$1,640
19	\$758	\$0	\$1,606
20	\$680	\$0	\$1,575
Sum	\$38,350	\$0	\$35,271



Comparison of Revenue under ACES and HB 110 with Requested Volume, Price, and Cost Assumptions - \$50 ANS Scenario

Prepared 02/23/11 by Department of Revenue for Rep Seaton

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These hypothetical assumptions were specifically requested by the requestor and the Department of Revenue does not in any way support the assumptions.
This analysis does not include assumptions relating to lease expenditure exemptions, or proposed credits

KEY INPUTS		600,000	Incremental facilities capital (\$ mm)	\$ 15,000
Initial Production (bpd)				
Decline rate - existing	7%			7
Oil Price	\$50			19
Existing Opex / bbl	\$ 10			10
Existing Capex / bbl	\$ 10			7

All amounts in \$ millions except for oil production and amounts labeled as per barrel amounts

ACES Scenario - Existing oil with decline rate														
Year	Production (bpd)	Annual Taxable GVP	Capital Expenditures	Operating Expenditures	Total Costs	PTV	PTV / barrel	Base Tax	Progressive Tax	Total Tax before Credits	Capital Credits	NOL Tax Credits	Total Tax after Credits	Credits for carry forward or refund
1	600,000	\$ 8,240	\$ 2,190	\$ 2,190	\$ 4,380	\$3,860	20.14	\$965	\$0	\$965	\$	438	\$	\$527
2	558,000	\$ 7,616	\$ 2,037	\$ 2,037	\$ 4,073	\$3,543	19.88	\$886	\$0	\$886	\$	407	\$	\$478
3	518,940	\$ 7,036	\$ 1,894	\$ 1,894	\$ 3,788	\$3,248	19.60	\$812	\$0	\$812	\$	379	\$	\$433
4	482,614	\$ 6,497	\$ 1,762	\$ 1,762	\$ 3,523	\$2,974	19.29	\$743	\$0	\$743	\$	352	\$	\$391
5	448,831	\$ 5,995	\$ 1,638	\$ 1,638	\$ 3,276	\$2,718	18.96	\$680	\$0	\$680	\$	328	\$	\$352
6	417,413	\$ 5,528	\$ 1,524	\$ 1,524	\$ 3,047	\$2,481	18.61	\$620	\$0	\$620	\$	305	\$	\$316
7	388,194	\$ 5,094	\$ 1,417	\$ 1,417	\$ 2,834	\$2,261	18.23	\$565	\$0	\$565	\$	283	\$	\$282
8	361,021	\$ 4,691	\$ 1,318	\$ 1,318	\$ 2,635	\$2,055	17.83	\$514	\$0	\$514	\$	264	\$	\$250
9	335,749	\$ 4,316	\$ 1,225	\$ 1,225	\$ 2,451	\$1,865	17.39	\$466	\$0	\$466	\$	245	\$	\$221
10	312,247	\$ 3,966	\$ 1,140	\$ 1,140	\$ 2,279	\$1,687	16.92	\$422	\$0	\$422	\$	228	\$	\$194
11	290,389	\$ 3,642	\$ 1,060	\$ 1,060	\$ 2,120	\$1,522	16.41	\$381	\$0	\$381	\$	212	\$	\$169
12	270,062	\$ 3,340	\$ 986	\$ 986	\$ 1,971	\$1,369	15.87	\$342	\$0	\$342	\$	197	\$	\$145
13	251,158	\$ 3,059	\$ 917	\$ 917	\$ 1,833	\$1,226	15.28	\$306	\$0	\$306	\$	183	\$	\$123
14	233,577	\$ 2,798	\$ 853	\$ 853	\$ 1,705	\$1,093	14.65	\$273	\$0	\$273	\$	171	\$	\$103
15	217,226	\$ 2,555	\$ 793	\$ 793	\$ 1,586	\$970	13.98	\$242	\$0	\$242	\$	159	\$	\$84
16	202,021	\$ 2,330	\$ 737	\$ 737	\$ 1,475	\$855	13.25	\$214	\$0	\$214	\$	147	\$	\$66
17	187,879	\$ 2,119	\$ 686	\$ 686	\$ 1,372	\$748	12.47	\$187	\$0	\$187	\$	137	\$	\$50
18	174,728	\$ 1,924	\$ 638	\$ 638	\$ 1,276	\$649	11.62	\$162	\$0	\$162	\$	128	\$	\$35
19	162,497	\$ 1,743	\$ 593	\$ 593	\$ 1,186	\$556	10.72	\$139	\$0	\$139	\$	119	\$	\$20
20	151,122	\$ 1,574	\$ 552	\$ 552	\$ 1,103	\$470	9.75	\$118	\$0	\$118	\$	110	\$	\$7

HB 110 Scenario - Summary Existing + Incremental Production													
Year	Production (bpd)	GVP		Operating		Total Costs	PTV	PTV / barrel	Total tax before Credits		NOL Tax Credits	Total Tax after Credits	Credits for carry forward or refund
		Annual taxable	Capital	Expenditures	Expenditures				Credits	Credits			
1	600,000	\$ 8,240	\$ 4,333	\$ 2,190	\$ 6,523	\$1,717	\$ 8.96	\$ 965	\$ 867	\$ 536	\$ -	\$ 437	
2	600,000	\$ 8,240	\$ 4,333	\$ 2,328	\$ 6,661	\$1,579	\$ 8.24	\$ 897	\$ 867	\$ 503	\$ -	\$ 1,369	
3	600,000	\$ 8,240	\$ 4,333	\$ 2,456	\$ 6,789	\$1,451	\$ 7.57	\$ 835	\$ 867	\$ 472	\$ -	\$ 1,338	
4	600,000	\$ 8,240	\$ 4,333	\$ 2,576	\$ 6,908	\$1,331	\$ 6.95	\$ 776	\$ 867	\$ 443	\$ -	\$ 1,310	
5	600,000	\$ 8,240	\$ 4,333	\$ 2,687	\$ 7,019	\$1,220	\$ 6.37	\$ 722	\$ 867	\$ 417	\$ -	\$ 1,283	
6	600,000	\$ 8,240	\$ 4,333	\$ 2,790	\$ 7,123	\$1,117	\$ 5.83	\$ 671	\$ 867	\$ 392	\$ -	\$ 1,259	
7	600,000	\$ 8,240	\$ 4,333	\$ 2,886	\$ 7,219	\$1,021	\$ 5.33	\$ 624	\$ 867	\$ 369	\$ -	\$ 1,236	
8	600,000	\$ 8,240	\$ 2,190	\$ 2,975	\$ 5,165	\$3,075	\$ 16.05	\$ 693	\$ 438	\$ -	\$ 255	\$ -	
9	600,000	\$ 8,240	\$ 2,190	\$ 3,058	\$ 5,248	\$2,992	\$ 15.61	\$ 665	\$ 438	\$ -	\$ 227	\$ -	
10	600,000	\$ 8,240	\$ 2,190	\$ 3,135	\$ 5,325	\$2,915	\$ 15.21	\$ 638	\$ 438	\$ -	\$ 200	\$ -	
11	600,000	\$ 8,240	\$ 2,190	\$ 3,207	\$ 5,397	\$2,843	\$ 14.84	\$ 613	\$ 438	\$ -	\$ 175	\$ -	
12	600,000	\$ 8,240	\$ 2,190	\$ 3,274	\$ 5,464	\$2,776	\$ 14.49	\$ 590	\$ 438	\$ -	\$ 152	\$ -	
13	600,000	\$ 8,240	\$ 2,190	\$ 3,336	\$ 5,526	\$2,714	\$ 14.16	\$ 569	\$ 438	\$ -	\$ 131	\$ -	
14	600,000	\$ 8,240	\$ 2,190	\$ 3,394	\$ 5,584	\$2,656	\$ 13.86	\$ 549	\$ 438	\$ -	\$ 111	\$ -	
15	600,000	\$ 8,240	\$ 2,190	\$ 3,447	\$ 5,637	\$2,602	\$ 13.58	\$ 530	\$ 438	\$ -	\$ 92	\$ -	
16	600,000	\$ 8,240	\$ 2,190	\$ 3,497	\$ 5,687	\$2,553	\$ 13.32	\$ 513	\$ 438	\$ -	\$ 75	\$ -	
17	600,000	\$ 8,240	\$ 2,190	\$ 3,544	\$ 5,734	\$2,506	\$ 13.08	\$ 497	\$ 438	\$ -	\$ 59	\$ -	
18	600,000	\$ 8,240	\$ 2,190	\$ 3,587	\$ 5,777	\$2,463	\$ 12.85	\$ 482	\$ 438	\$ -	\$ 44	\$ -	
19	600,000	\$ 8,240	\$ 2,190	\$ 3,627	\$ 5,817	\$2,423	\$ 12.64	\$ 468	\$ 438	\$ -	\$ 30	\$ -	
20	600,000	\$ 8,240	\$ 2,190	\$ 3,665	\$ 5,855	\$2,385	\$ 12.45	\$ 455	\$ 438	\$ -	\$ 17	\$ -	

Prepared 02/23/11 by Department of Revenue for Rep Seaton

These hypothetical assumptions were specifically requested by the requestor and the Department of Revenue does not in any way support the assumptions.

This analysis does not include assumptions relating to lease expenditure exemptions, or proposed credits

Production	Annual Taxable Credit	Cost
HB 110 Scenario - Existing oil with decline rate		

H1B H1O Scenario - Incremental oil to maintain production															
Year	Production (bpd)	Annual Taxable Capital			Operating			PTV	PTV / barrel	Base Tax	Progressive Tax	Total Tax before		Total Tax after	
		GVP	Expenditures	Capital Expenditures	Expenditures	Total Costs	Credits					Credits	forward or refund		
1		\$ -	\$ 2,143	\$ -	\$ 2,143	\$ -	\$ 2,143	\$ (\$2,143)	\$ -	\$ (\$321)	\$ -	\$ -	\$ 429	\$ 536	\$ 964
2	42,000	\$ 577	\$ 2,296	\$ 291	\$ 2,587	\$ (149.89)	\$ (\$2,011)	\$ (149.89)	\$ (\$302)	\$ -	\$ -	\$ -	\$ 459	\$ 503	\$ 962
3	81,060	\$ 1,113	\$ 2,439	\$ 562	\$ 3,001	\$ (72.92)	\$ (\$1,888)	\$ (72.92)	\$ (\$283)	\$ -	\$ -	\$ -	\$ 488	\$ 472	\$ 960
4	117,386	\$ 1,612	\$ 2,571	\$ 814	\$ 3,385	\$ (47.30)	\$ (\$1,773)	\$ (47.30)	\$ (\$266)	\$ -	\$ -	\$ -	\$ 514	\$ 443	\$ 958
5	151,169	\$ 2,076	\$ 2,695	\$ 1,048	\$ 3,743	\$ (34.53)	\$ (\$1,667)	\$ (34.53)	\$ (\$250)	\$ -	\$ -	\$ -	\$ 539	\$ 417	\$ 956
6	182,587	\$ 2,507	\$ 2,809	\$ 1,266	\$ 4,076	\$ (26.89)	\$ (\$1,568)	\$ (26.89)	\$ (\$235)	\$ -	\$ -	\$ -	\$ 562	\$ 392	\$ 954
7	211,806	\$ 2,909	\$ 2,916	\$ 1,469	\$ 4,385	\$ (21.82)	\$ (\$1,476)	\$ (21.82)	\$ (\$221)	\$ -	\$ -	\$ -	\$ 583	\$ 369	\$ 952
8	238,979	\$ 3,282	\$ 872	\$ 1,657	\$ 2,530	\$ -	\$ 2,530	\$ 752	\$ 9.86	\$ 113	\$ -	\$ 113	\$ 174	\$ 174	\$ 62
9	264,251	\$ 3,629	\$ 965	\$ 1,833	\$ 2,797	\$ -	\$ 2,797	\$ 832	\$ 9.86	\$ 125	\$ -	\$ 125	\$ 193	\$ 193	\$ 68
10	287,753	\$ 3,952	\$ 1,050	\$ 1,996	\$ 3,046	\$ -	\$ 3,046	\$ 906	\$ 9.86	\$ 136	\$ -	\$ 136	\$ 210	\$ 210	\$ 74
11	309,611	\$ 4,252	\$ 1,130	\$ 2,147	\$ 3,277	\$ -	\$ 3,277	\$ 975	\$ 9.86	\$ 146	\$ -	\$ 146	\$ 226	\$ 226	\$ 80
12	329,938	\$ 4,531	\$ 1,204	\$ 2,288	\$ 3,492	\$ -	\$ 3,492	\$ 1,039	\$ 9.86	\$ 156	\$ -	\$ 156	\$ 241	\$ 241	\$ 85
13	348,842	\$ 4,791	\$ 1,273	\$ 2,419	\$ 3,692	\$ -	\$ 3,692	\$ 1,098	\$ 9.86	\$ 165	\$ -	\$ 165	\$ 255	\$ 255	\$ 90
14	366,423	\$ 5,032	\$ 1,337	\$ 2,541	\$ 3,879	\$ -	\$ 3,879	\$ 1,154	\$ 9.86	\$ 173	\$ -	\$ 173	\$ 267	\$ 267	\$ 94
15	382,774	\$ 5,257	\$ 1,397	\$ 2,655	\$ 4,052	\$ -	\$ 4,052	\$ 1,205	\$ 9.86	\$ 181	\$ -	\$ 181	\$ 279	\$ 279	\$ 99
16	397,979	\$ 5,466	\$ 1,453	\$ 2,760	\$ 4,213	\$ -	\$ 4,213	\$ 1,253	\$ 9.86	\$ 188	\$ -	\$ 188	\$ 291	\$ 291	\$ 103
17	412,121	\$ 5,660	\$ 1,504	\$ 2,858	\$ 4,362	\$ -	\$ 4,362	\$ 1,297	\$ 9.86	\$ 195	\$ -	\$ 195	\$ 301	\$ 301	\$ 106
18	425,272	\$ 5,840	\$ 1,552	\$ 2,949	\$ 4,502	\$ -	\$ 4,502	\$ 1,339	\$ 9.86	\$ 201	\$ -	\$ 201	\$ 310	\$ 310	\$ 110
19	437,503	\$ 6,008	\$ 1,597	\$ 3,034	\$ 4,631	\$ -	\$ 4,631	\$ 1,377	\$ 9.86	\$ 207	\$ -	\$ 207	\$ 319	\$ 319	\$ 113
20	448,878	\$ 6,164	\$ 1,638	\$ 3,113	\$ 4,751	\$ -	\$ 4,751	\$ 1,413	\$ 9.86	\$ 212	\$ -	\$ 212	\$ 328	\$ 328	\$ 116

Comparison of Revenue under ACES and HB 110 with Requested Volume, Price, and Cost Assumptions - \$50 ANS Scenario

Prepared 02/23/11 by Department of Revenue for Rep Seaton

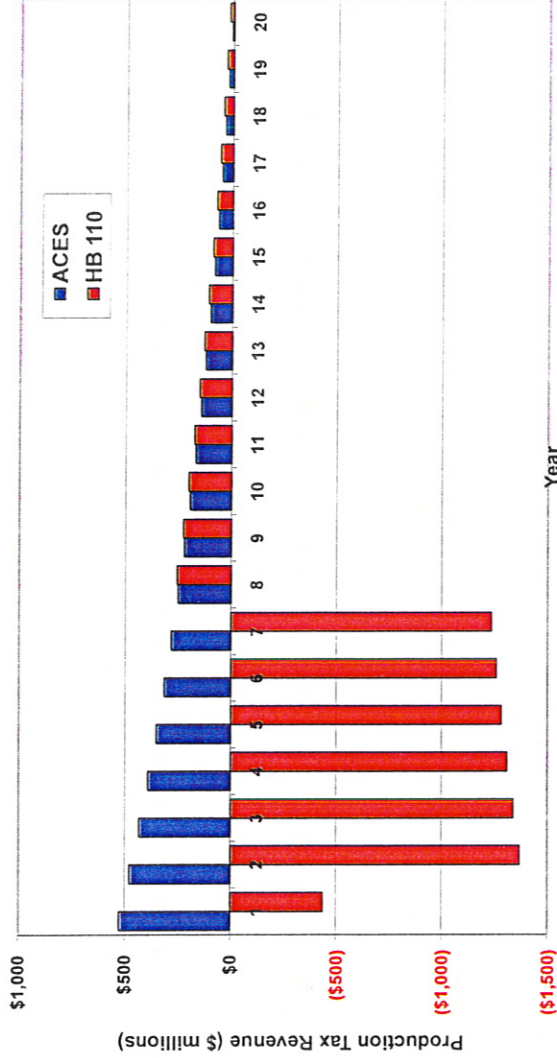
This analysis does not represent a Department of Revenue forecast or expectation.

These hypothetical assumptions were specifically requested by the requestor and the Department of Revenue does not in any way support the assumptions.

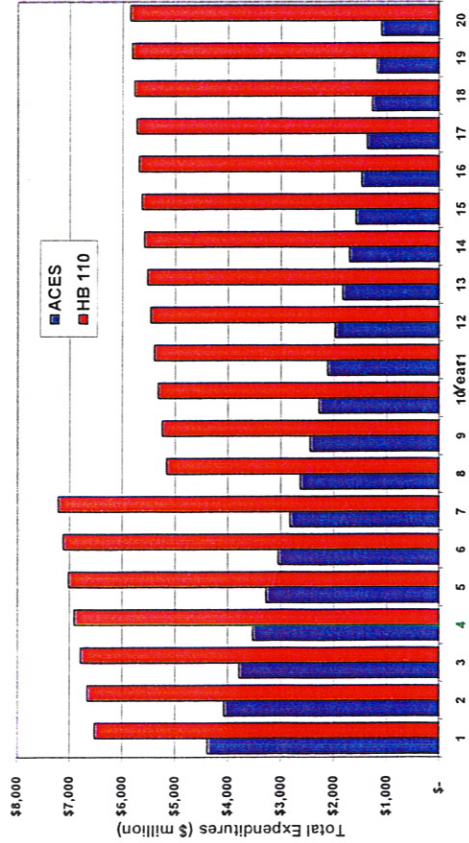
This analysis does not include assumptions relating to lease expenditure exemptions, or proposed credits

COMPARISON OF SCENARIOS				
Year	ACES		HB 110	
	Tax Liability	Credits for carry forward or refund	Tax Liability	Credits for carry forward or refund
1	\$527	\$0	\$0	\$437
2	\$478	\$0	\$0	\$1,369
3	\$433	\$0	\$0	\$1,338
4	\$391	\$0	\$0	\$1,310
5	\$352	\$0	\$0	\$1,283
6	\$316	\$0	\$0	\$1,259
7	\$282	\$0	\$0	\$1,236
8	\$250	\$0	\$255	\$0
9	\$221	\$0	\$227	\$0
10	\$194	\$0	\$200	\$0
11	\$169	\$0	\$175	\$0
12	\$145	\$0	\$152	\$0
13	\$123	\$0	\$131	\$0
14	\$103	\$0	\$111	\$0
15	\$84	\$0	\$92	\$0
16	\$66	\$0	\$75	\$0
17	\$50	\$0	\$59	\$0
18	\$35	\$0	\$44	\$0
19	\$20	\$0	\$30	\$0
20	\$7	\$0	\$17	\$0
Sum	\$4,246	\$0	\$1,568	\$8,232

Comparison of Revenue under ACES and HB 110 with Requested Volume, Price, and Cost Assumptions*



Comparison of Total Company Spending in Alaska under ACES and HB 110 with Requested Volume, Price, and Cost Assumptions*



Comparison of Production under ACES and HB 110 with Requested Volume, Price, and Cost Assumptions*

