

Alaska Native selected lands within the program area boundary; however, it limited surface disturbance from oil and gas production and support facilities to a maximum of 2,000 acres.

Oil and Gas Resources

The Coastal Plain encompasses approximately 1,563,500 acres. Currently no acreage is open to petroleum leasing. It is estimated that approximately 427,900 acres of the program area is high potential for petroleum resources, 658,400 acres are moderate potential, and 477,200 acres are low potential. Estimates are based on best available information, but due to the limited amount of exploration that has occurred in the area, petroleum development potential and acreages should be considered rough estimates. The one exploration well drilled in the Coastal Plain is held as confidential information, so exact formation compositions and oil and gas percentages are not well established across the entire region. Existing oil and gas wells are shown in **Map 3-3**, Oil and Gas Infrastructure, in **Appendix A**. See the hypothetical development scenario (**Appendix B**) for more information on development potential, assumptions behind potential estimates, and estimates for the baseline future development scenario for petroleum.

Approximately 80 percent of petroleum resources are estimated to be in the undeformed western portion of the program area (USGS 1998b). As shown in **Table 3-8**, the identified potential plays in the undeformed area are the Topset play, Thompson play, Turbidite play, Wedge, Kemik, and Undeformed Franklinian. Potential plays in the deformed area are the Thin-Skinned Thrust Belt, Ellesmerian Thrust Belt, Deformed Franklinian, and Niguanak/Aurora (Attanasi 2005).

Table 3-8
Estimated Mean Undiscovered Petroleum Resources in the Coastal Plain

	Play Name	Oil (BBO)	Gas (TCF)	Natural Gas Liquids (Billion Barrels of Liquid)
Undeformed	Topset	4.325	1.193	0.010
	Turbidite	1.279	1.120	0.065
	Wedge	0.438	0.226	0.005
	Thompson	0.246	0.470	0.039
	Kemik	0.047	0.116	0.010
	Undeformed Franklinian	0.085	0.30	0.029
	<i>Undeformed subtotal</i>	<i>6.420</i>	<i>3.424</i>	<i>0.159</i>
Deformed	Thin-Skinned Thrust Belt	1.038	1.608	0.017
	Ellesmerian Thrust Belt	0.000	0.876	0.018
	Deformed Franklinian	0.046	0.86	0.046
	Niguanak/Aurora	0.183	0.273	0.016
	<i>Deformed subtotal</i>	<i>1.267</i>	<i>3.617</i>	<i>0.096</i>
Total		7.687	7.041	0.225

Source: Attanasi 2005

Note: Totals are technically recoverable amounts; oil associated gas and natural gas liquid estimates were combined with non-oil associated gas and natural gas liquid estimates.

All oil and gas volumes represent the mean estimated technically recoverable volumes unless otherwise noted. The Topset is expected to be the primary play in the Coastal Plain, with an estimated technically recoverable 4.325 BBO and 1.193 TCF of gas. The Turbidite play is the second most productive, with an estimated technically recoverable 1.279 BBO and 1.120 TCF of gas. In the deformed area, the Thin-Skinned Thrust Belt is the primary play, with an estimated technically recoverable 1.038 BBO and 1.608