	MRO AUTHORIZATION FOR EXPENDITURE DETAIL OF ESTIMATED WELL CONSTRUCTION COSTS	CD No. 201702955
Well Name: HEAP OF HAIR BIA 1-14		
County: CANADIAN	AFE #: DX.16.41449	
Formation: MISS LIME	MD: 16,000	Costs
LING COSTS - TANGIBLE		
Surface Casing		\$39,165
Intermediate Casing		\$221,350
Production Casing Wellhead Equip & Csg Access		\$185,280 \$128,000
TOTAL DRILLING COSTS - TANGIBLE		\$573,795
LING COSTS - INTANGIBLE		33,31,33
Location and Access		\$350,500
Rig Move		\$130,000
Drilling Rig Directional Services		\$424,050 \$170,000
Mud Fluids & Services		\$150,000
Solids Control		\$18,445
Bits		\$72,000
Casing Crew and Services		\$28,500
Cementing Service Rental Equipment		\$85,000
Fuel Equipment		\$149,060 \$80,955
Water & Water Services		\$98,000
Logging Services		\$23,600
Inspection Services		\$20,000
Contract Labor		\$60,000
Freight Misc Materials & Equipment		\$40,000 \$25,700
Telecom Services		\$3,855
Supervision & Overhead		\$152,100
HES Equip & Service		\$22,102
Air Drilling Services Coring & Analysis		\$0 \$0
Contingency		\$90,000
TOTAL DRILLING COSTS - INTANGIB	BLE	\$2,193,867
	TOTAL DRY HOLE COSTS	\$2,452,840
		7-71-7-1-
	TOTAL DRILLING COSTS	\$2,767,662
PLETION COSTS - TANGIBLE	TOTAL DRILLING COSTS	\$2,767,662
Tubing & Accessories	TOTAL DRILLING COSTS	\$2,767,662 \$75,190
Tubing & Accessories Artificial Lift	TOTAL DRILLING COSTS	\$75,190 \$12,000
Tubing & Accessories Artificial Lift Wellhead Equipment		\$75,190 \$12,000 \$27,800
Tubing & Accessories Artificial Lift Weilhead Equipment TOTAL COMPLETION COSTS - TANG		\$75,190 \$12,000
Tubing & Accessories Artificial Lift Wellhead Equipment TOTAL COMPLETION COSTS - TANG PLETION COSTS - INTANGIBLE		\$75,190 \$12,000 \$27,800 \$114,990
Tubing & Accessories Artificial Lift Wellhead Equipment TOTAL COMPLETION COSTS - TANG PLETION COSTS - INTANGIBLE Location and Access Completion Rig		\$75,190 \$12,000 \$27,800 \$114,990 \$7,500 \$25,000
Tubing & Accessories Artificial Lift Wellhead Equipment TOTAL COMPLETION COSTS - TANG PLETION COSTS - INTANGIBLE Location and Access Completion Rig Colled Tubing		\$75,190 \$12,000 \$27,800 \$114,990 \$7,500 \$25,000 \$100,000
Tubing & Accessories Artificial Lift Wellhead Equipment TOTAL COMPLETION COSTS - TANG PLETION COSTS - INTANGIBLE Location and Access Completion Rig Colled Tubing Rental Equipment		\$75,190 \$12,000 \$27,800 \$114,990 \$7,500 \$25,000 \$100,000 \$156,700
Tubing & Accessories Artificial Lift Wellhead Equipment TOTAL COMPLETION COSTS - TANG PLETION COSTS - INTANGIBLE Location and Access Completion Rig Colled Tubing		\$75,190 \$12,000 \$27,800 \$114,990 \$7,500 \$25,000 \$100,000
Tubing & Accessories Artificial Lift Wellhead Equipment TOTAL COMPLETION COSTS - TANG PLETION COSTS - INTANGIBLE Location and Access Completion Rig Colled Tubing Rental Equipment Snubbling Pulling/Swab Units Fuel		\$75,190 \$12,000 \$27,800 \$114,990 \$51,500 \$25,000 \$100,000 \$155,700
Tubing & Accessories Artificial Lift Wellhead Equipment TOTAL COMPLETION COSTS - TANG PLETION COSTS - INTANGIBLE Location and Access Completion Rig Colled Tubing Rental Equipment Snubbing Pulling/Swab Units Puel Casing Crews		\$75,190 \$12,000 \$27,800 \$114,990 \$7,500 \$25,000 \$100,000 \$156,700 \$0 \$0
Tubing & Accessories Artificial Lift Wellhead Equipment TOTAL COMPLETION COSTS - TANG PLETION COSTS - INTANGIBLE Location and Access Completion Rig Colled Tubing Rental Equipment Snubbing Pulling/Swab Units Fuel Cassing Crews Cement		\$75,190 \$12,000 \$27,800 \$114,990 \$7,500 \$25,000 \$100,000 \$155,700 \$0 \$0 \$0 \$0
Tubing & Accessories Artificial Lift Weilhead Equipment TOTAL COMPLETION COSTS - TANG PLETION COSTS - INTANGIBLE Location and Access Completion Rig Colled Tubing Rental Equipment Snubbing Pulling/Swab Units Fuel Casing Crews Cament Well Testing /Flowback		\$75,190 \$12,000 \$27,800 \$114,990 \$7,500 \$25,000 \$100,000 \$155,700 \$0 \$0 \$0 \$0 \$0 \$0 \$79,500
Tubing & Accessories Artificial Lift Wellhead Equipment TOTAL COMPLETION COSTS - TANG PLETION COSTS - INTANGIBLE Location and Access Completion Rig Colled Tubing Rental Equipment Snubbing Pulling/Swab Units Fuel Cassing Crews Cement		\$75,190 \$12,000 \$27,800 \$114,990 \$15,500 \$25,000 \$150,000 \$155,700 \$0 \$0 \$0 \$0 \$10,000 \$155,700 \$10,000 \$155,700 \$0 \$10,000 \$155,700 \$10,000 \$
Tubing & Accessories Artificial Lift Wellhead Equipment TOTAL COMPLETION COSTS - TANG PLETION COSTS - INTANGIBLE Location and Access Completion Rig Colled Tubing Rental Eguipment Snubbing Pulling/Swab Units Fuel Casing Crews Cement Well Testing /Flowback Fracturing Services Perforating and Wireline Services		\$75,190 \$12,000 \$27,800 \$114,990 \$7,500 \$25,000 \$100,000 \$155,700 \$0 \$0 \$0 \$0 \$0 \$0 \$79,500
Tubing & Accessories Artificial Lift Wellhead Equipment TOTAL COMPLETION COSTS - TANG PLETION COSTS - INTANGIBLE Location and Access Completion Rig Colled Tubing Rental Equipment Snubbing Pulling/Swab Units Fuel Casing Crews Cement Well Testing /Flowback Fracturing Services Actidizing and N2 Services Perforating and Wireline Services Cased Hole Logging		\$75,190 \$12,000 \$27,800 \$27,800 \$114,990 \$7,500 \$25,000 \$100,000 \$155,700 \$0 \$0 \$0 \$0 \$0 \$0 \$10 \$0 \$10 \$10 \$10
Tubing & Accessories Artificial Lift Wellhead Equipment TOTAL COMPLETION COSTS - TANG PLETION COSTS - INTANGIBLE Location and Access Completion Rig Colled Tubing Rental Equipment Snubbing Pulling/Swab Units Fuel Casing Crews Cement Well Testing /Flowback Fracturing Services Acidizing and N2 Services Perforating and Wrelline Services Cassed Hole Logging Comp Fluids & Services		\$75,190 \$12,000 \$27,800 \$27,800 \$114,990 \$51,500 \$25,000 \$100,000 \$155,700 \$0 \$0 \$0 \$0 \$10 \$10 \$10 \$10 \$10 \$10 \$
Tubing & Accessories Artificial Lift Wellhead Equipment TOTAL COMPLETION COSTS - TANG PLETION COSTS - INTANGIBLE Location and Access Completion Riig Colled Tubing Rental Equipment Snubbing Pulling/Swab Units Fuel Casing Crews Cement Well Testing /Flowback Fracturing Services Perforating and N2 Services Perforating and Wireline Services Cased Hole Logging Comp Fluids & Services Water & Water Services		\$75,190 \$12,000 \$27,800 \$27,800 \$214,990 \$5114,990 \$57,500 \$25,000 \$100,000 \$155,700 \$50 \$50 \$50 \$50 \$50 \$50 \$51,516,200 \$117,050 \$117,050 \$117,050 \$147,836 \$217,852
Tubing & Accessories Artificial Lift Wellhead Equipment TOTAL COMPLETION COSTS - TANG PLETION COSTS - INTANGIBLE Location and Access Completion Rig Colled Tubing Rental Equipment Snubbing Pulling/Swab Units Fuel Casing Crews Cement Well Testing /Flowback Fracturing Services Perforating and Wireline Services Perforating and Wireline Services Cased Hole Logging Comp Fluids & Services Water & Water Services Freight		\$75,190 \$12,000 \$27,800 \$27,800 \$21,4,990 \$7,500 \$2,5000 \$3,100,000 \$1,100,00
Tubing & Accessories Artificial Lift Wellhead Equipment TOTAL COMPLETION COSTS - TANG PLETION COSTS - INTANGIBLE Location and Access Completion Riig Colled Tubing Rental Equipment Snubbing Pulling/Swab Units Fuel Casing Crews Cement Well Testing /Flowback Fracturing Services Perforating and N2 Services Perforating and Wireline Services Cased Hole Logging Comp Fluids & Services Water & Water Services		\$75,190 \$12,000 \$27,800 \$27,800 \$114,990 \$7,500 \$25,000 \$100,000 \$156,700 \$0 \$0 \$0 \$0 \$0 \$0 \$150,000 \$1,516,200 \$1,516,200 \$1,71,000 \$1
Tubing & Accessories Artificial Lift Wellhead Equipment TOTAL COMPLETION COSTS - TANG PLETION COSTS - INTANGIBLE Location and Access Completion Rig Colled Tubing Rental Equipment Snubbing Pulling/Swab Units Fuel Casing Crews Cement Well Testing /Flowback Fracturing Services Acidizing and N2 Services Perforating and Wireline Services Cased Hole Logging Comp Filuds & Services Freight Inspection Services Freight Inspection Services Misc Materials & Equip Frac Plugs		\$75,190 \$12,000 \$27,800 \$27,800 \$21,4,990 \$51,14,990 \$51,500 \$25,000 \$100,000 \$155,700 \$0 \$0 \$0 \$0 \$50 \$50 \$50 \$51,516,200 \$510,250 \$517,000 \$5447,896 \$217,962 \$22,000 \$4,000 \$54,500 \$54,500 \$54,500 \$532,400
Tubing & Accessories Artificial Lift Wellhead Equipment TOTAL COMPLETION COSTS - TANG PLETION COSTS - INTANGIBLE Location and Access Completion Rig Colled Tubing Rental Equipment Snubbing Pulling/Swab Units Fuel Casing Crews Cament Well Testing /Flowback Fracturing Services Acidizing and N2 Services Perforating and Wireline Services Cased Hole Logging Comp Fluids & Services Water & Water Services Presponding Comp Fluids & Services Mater & Water Services Mater & Water Services Misc Materials & Equip Frac Plugs Contract Labor		\$75,190 \$12,000 \$27,800 \$27,800 \$214,990 \$5134,990 \$51,000 \$25,000 \$100,000 \$155,700 \$0 \$0 \$0 \$0 \$0 \$0 \$1,516,200 \$1,516,200 \$1,700 \$1,
Tubing & Accessories Artificial Lift Wellhead Equipment TOTAL COMPLETION COSTS - TANG PLETION COSTS - INTANGIBLE Location and Access Completion Rig Colled Tubing Rental Equipment Snubbing Pulling/Swab Units Fuel Casing Crews Cement Well Testing /Flowback Fracturing Services Acidizing and N2 Services Perforating and Wireline Services Cased Hole Logging Comp Fluids & Services Water & Water Services Mac Water Services Misc Materials & Equip Frac Plugs Contract Labor Telecom Services Contract Labor Telecom Services		\$75,190 \$12,000 \$27,800 \$27,800 \$2144,990 \$7,500 \$25,000 \$100,000 \$155,700 \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$51,516,200 \$51,516,200 \$51,516,200 \$51,716,20
Tubing & Accessories Artificial Lift Wellhead Equipment TOTAL COMPLETION COSTS - TANG PLETION COSTS - INTANGIBLE Location and Access Completion Rig Colled Tubing Rental Equipment Snubbing Pulling/Swab Units Fuel Casing Crews Cament Well Testing /Flowback Fracturing Services Acidizing and N2 Services Perforating and Wireline Services Cased Hole Logging Comp Fluids & Services Water & Water Services Presponding Comp Fluids & Services Mater & Water Services Mater & Water Services Misc Materials & Equip Frac Plugs Contract Labor		\$75,190 \$12,000 \$27,800 \$27,800 \$21,4,990 \$7,500 \$215,000 \$100,000 \$100,000 \$5155,700 \$0 \$0 \$0 \$0 \$0 \$1,516,200 \$1,516,200 \$1,516,200 \$217,000 \$147,896 \$217,952 \$22,000 \$4,000 \$54,000 \$532,400 \$522,400 \$549,500 \$532,400 \$549,500 \$5151,000
Tubing & Accessories Artificial Lift Wellhead Equipment TOTAL COMPLETION COSTS - TANG PLETION COSTS - INTANGIBLE Location and Access Completion Rig Colled Tubing Rental Equipment Snubbing Pulling/Swab Units Fuel Casing Crews Cement Well Testing /Flowback Frecturing Services Acidizing and N2 Services Perforating and Wrielline Services Cased Hole Logging Comp Fluids & Services Water & Water Services Materials & Equip Frac Pluss Contract Labor Telecom Services HES Equip & Service HES Equip & Services HES Equip & Services HES Equip & Services HES Equip & Services Supervision & Overhead Tracers		\$75,190 \$12,000 \$27,800 \$27,800 \$2144,990 \$7,500 \$25,000 \$100,000 \$155,700 \$50 \$50 \$50 \$50 \$50 \$50 \$50 \$51,516,200 \$51,516,200 \$51,516,200 \$51,716,20
Tubing & Accessories Artificial Lift Wellhead Equipment TOTAL COMPLETION COSTS - TANG PLETION COSTS - INTANGIBLE Location and Access Completion Riig Colled Tubing Rental Equipment Snubbing Pulling/Swab Units Puel Casing Crews Cement Well Testing /Flowback Fracturing Services Actidizing and N2 Services Perforating and Wireline Services Cased Hole Logging Comp Fluids & Services Water & Water Services Water & Water Services Hospection Services Telegon Services Water Services Water Services Hospection Services Hospecticus Hospec		\$75,190 \$12,000 \$27,800 \$27,800 \$21,4,990 \$7,500 \$215,000 \$2100,000 \$100,000 \$1515,700 \$0 \$0 \$0 \$0 \$0 \$1,516,200 \$1,516,200 \$1,516,200 \$217,000 \$147,896 \$217,952 \$22,000 \$4,000 \$5,400
Tubing & Accessories Artificial Lift Wellhead Equipment TOTAL COMPLETION COSTS - TANG PLETION COSTS - INTANGIBLE Location and Access Completion Rig Colled Tubing Rental Equipment Snubbing Pulling/Swab Units Fuel Cassing Crews Cement Well Testing /Flowback Frecturing Services Acidizing and N2 Services Perforating and Wireline Services Perforating and Wireline Services Freight Inspection Services Mater & Water Services Misc Materials & Equip Frac Plugs Contract Labor Telecom Services HES Equip & Service Supervision & Overhead Tracers Surface Facilities Contrage Labor Telecom Services Supervision & Overhead Tracers Surface Facilities Contingency	SIBLE	\$75,190 \$12,000 \$27,800 \$27,800 \$214,990 \$5114,990 \$51,000 \$25,000 \$1,000,000 \$155,700 \$50 \$50 \$50 \$50 \$50 \$50 \$517,500 \$1,516,200 \$517,000 \$1,516,200 \$517,000 \$1,516,200 \$517,000 \$1,516,200 \$517,000 \$1,516,200 \$517,500 \$1,516,200 \$517,500 \$1,516,200 \$517,500 \$1,516,200 \$51,516,200
Tubing & Accessories Artificial Lift Wellhead Equipment TOTAL COMPLETION COSTS - TANG PLETION COSTS - INTANGIBLE Location and Access Completion Riig Colled Tubing Rental Equipment Snubbing Pulling/Swab Units Puel Casing Crews Cement Well Testing /Flowback Fracturing Services Actidizing and N2 Services Perforating and Wireline Services Cased Hole Logging Comp Fluids & Services Water & Water Services Water & Water Services Hospection Services Telegon Services Water Services Water Services Hospection Services Hospecticus Hospec	SIBLE	\$75,190 \$12,000 \$27,800 \$27,800 \$21,4,990 \$7,500 \$215,000 \$2100,000 \$100,000 \$1515,700 \$0 \$0 \$0 \$0 \$0 \$1,516,200 \$1,516,200 \$1,516,200 \$217,000 \$147,896 \$217,952 \$22,000 \$4,000 \$5,400

This AFE is only an estimate of the costs to be incurred in conducting the referenced operation. In no event shall this AFE be construed as a respresentation or warrant as to the accuracy of such estimate, or construed in any way to limit a participant's responsibility to pay its proportionate share of all costs and expenses incurred in connection with the referenced operations.

