Tool B
A. Generic Economic Factors

Heavy Oil Vent Gas Options Study

Generic Economic Factors for Fuel Gas Displacement by Casing Gas

- Input values for consistent use for all cases considered
- Input values in highlighted spaces
- Values input should be based on experience in a given area
- Economic calculations are simplified to allow for rough screening of options on a consistent basis

by B. Peachey 2000.08.04

	Metric Value	Common Use Units	Comments
1. Displaced Fuel Costs (Only put a value in for fuel displaced on a specific lease)			
1.1 Propane	$0.00	$/GJ = $/mcf	
1.2 Purchased Natural Gas	$3.00	$/GJ = $/mcf	
1.3 In-House Natural Gas	$0.00	$/GJ = $/mcf	
2. Capital Costs			
2.1 Major Equipment Varies by Option		$ per site	
2.2 Pipe Insulation (Installed)	$1.00	$/ft of 2.5" OD pipe	Assume cost of Insulation per foot x 2 for installed cost
2.3 Surface Piping 1"+ (Installed)	$0.75	$/Nominal O.D. in-ft	Assume cost of Piping per foot x 3 for installed cost
2.4 Small Pipe/Tubing (incl materials)	$50.00	$/hr	
3. Operating Costs			
3.1 Time Required Varies by Option		hr/yr	
3.2 Routine Task Time	$15	$/hr	Input average cost for Pumper or Operator per hour
3.3 Call-out (Including travel time and expense)	$45	$/hr on-site	Assume average callout 1 hr plus 1/2 hr travel at double time
4. Maintenance Costs			
4.1 Time and Materials Vary by Option		$/yr	
4.2 Routine (Not Done by Pumper/Operator)	$25	$/hr	Input average cost for normal maint person
4.3 Local Area Call-out (Incl travel and expenses)	$100	$/hr	Input average cost for normal maint person for Callout
4.4 Call-out from Edm/Calg (Inlc travel & expense	$250	$/hr	Input average cost for service callout from outside local area
5. Commodity Costs			
5.1 Use Varies by Option			
5.2 Methanol	$0.50	$/l	
5.3 CaCl2	$2.00	$/lb	
5.4 Line Power	$0.05	$/kw-hr	
6. Environmental Impacts			
6.1 GHG Emissions Vary by Option		tonne CO2 eq	
6.2 GHG Reduction Value	$0.50	$/tonne CO2 eq reduction	
7. Risk Assessment			
7.1 Duration and Frequency Varies with Option		d/hr of downtime	
7.2 Production Loss Value	$150	$/m3 of Oil	Input netback for incremental production
7.3 Months with risk of freezing	5	months	Input months where there is risk of casing gas freezing