



Cost Estimate - Drilling & Completion

Operator: Gastar Exploration USA, Inc.	Prepared By: RDJ	Tax Rate
Well Name: Burton 16-1H	Field: Sooner Trend	Depth: 12,750'
Legal: T18N-R6W, Section 16	Parish/County: Kingfisher	Days: 30
Contractor: TBD	State: OK	Spud Date: TBD

Well Program

Casing	Hole Size	Casing Size Weight, & Grade	Depth	Drilling Fluid	Formation Evaluation
Conductor	20	16	30'	N/A	
Surface	12 1/4	9 5/8" 36# J55	500'	FW	
Intermediate	8 3/4	7" 26# J55	7,700'	FW Gel w/ABO	CBL, Triple Combo, RSW Cores
Production	6 1/8	4 1/2" 11.6# P110	12,700'	FW w/Gel	CBL, Triple Combo, FMI

Costs

Code	Item	Item Cost per Unit	Drilling Days/Units	Drilling Cost	Completion Days/No.	Completion Cost	Total Cost
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Capitalized Intangible Drilling & Completion Costs

100	Site Preparation & Maintenance			124,000		35,000	159,000
	Permits & Surveys			5,000			5,000
	Location, Roads, Pits			60,000		5,000	65,000
	Water/Water Well/Plugging			30,000		5,000	35,000
	Conductor/Mousehole Installation			9,000			9,000
	Site Restoration & Land Use			10,000		5,000	15,000
	Wellsite Security						
	Roustabouts & Labor			10,000		20,000	30,000
110	Title Opinion			5,000		2,500	7,500
120	Drilling/Completion Rig			785,000		4,500	789,500
	Mob/Demob			125,000			125,000
	Rig Rental	22,000	30	660,000		4,500	664,500
	Top Drive & Mousehole						
	Additional Crew/Oil Base pay						
130	Engineering & Supervision			88,000		14,000	102,000
	Wellsite Supervision	1,400	30	42,000	10	14,000	56,000
	Engineering & Geology			15,000			15,000
	Rig Supervisor Camp			30,000			30,000
	Communications			500			500
	Field/Office Supplies			500			500
140	Fuel	1,200	30	36,000		1,500	37,500
150	Well Evaluation			72,500		100,000	172,500
	Open Hole Logging			35,000		80,000	115,000
	Cased Hole Logging			7,500		10,000	17,500
	Mud Logging	1,500	20	30,000			30,000
	Core Analysis						
	Drill Stem Testing						
	Fluid Analysis						
	Production Testing				10	10,000	10,000
160	Casing Services			23,500		29,500	53,000
	Casing Crews & Rental Tools			20,000		25,000	45,000
	Roustabouts & Cleaning			3,500		4,500	8,000
	Thread Specialist						
170	Cementing Services			35,000		40,000	75,000
	Primary Cementing			35,000		40,000	75,000
	Remedial Cementing						
	Loss Circulation						
	Squeeze Packers & Cementers						
	Kick-Off Plugs						
180	Drilling Tools			60,000		7,500	67,500
	Drill Bits			60,000		7,500	67,500
	Core Bits						
	Stabilizers/Reamers						
	Performance Motors/Turbines (ATK)						
	Drilling Jars						
	Shock Subs						
190	Drilling/Completion Fluids & Services			130,000		10,000	140,000
	Fluids & Services			125,000		10,000	135,000
	Shaker Screens			5,000			5,000
200	Equipment Rentals			62,500		53,500	116,000
	Shale Shaker						
	Mud Cleaner						
	Centrifuge					10,000	10,000
	Transfer Pumps						
	Steam Cleaners						
	Wear Bushing						
	Rentals - Surface			60,000			60,000
	Rentals - Subsurface						
	PVT/Flo-Show						
	BOP Rental						
	Forklift			2,500		3,500	6,000
	Hydraulic Choke						
	Tankage (Frac Tanks)					40,000	40,000
210	Drill String			25,000			25,000
	Drill Pipe			20,000			20,000
	Drill Collars						
	Drill Pipe Protectors						
	Inspections & Repair			5,000			5,000
	Corrosion Control						
220	Environmental			45,000		20,000	65,000

20/305/58



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Contractor: TBD			State: OK		Spud Date: TBD	
	Solid Waste Disposal			5,000		5,000
	Brine & Water Disposal			5,000	15,000	20,000
	Cuttings Haul-off & Disposal			10,000	5,000	15,000
	Closed Loop Services			25,000		25,000
	Reserve & Flare Pit Closure					
	Spill Cleanup					
230	Miscellaneous			20,000	10,000	30,000
240	Specialty Tools & Services			260,000	10,500	270,500
	Directional & MWD Services			260,000		260,000
	Well Surveying (SS,EMS,Gyro)					
	Fishing Tools and Services					
	Sidetrack: Whipstock, Mills, Service					
	Coring Services					
	Safety (H2S)					
	Control Of Well					
	BOP NU & Testing Services				6,000	6,000
	Wellhead Technician				4,500	4,500
250	Trucking & Transportation			10,000	7,500	17,500
260	Welding			7,500	3,000	10,500
270	Production Services				2,080,000	2,080,000
	Stimulation				1,600,000	1,600,000
	Perforating				100,000	100,000
	Wireline Services				25,000	25,000
	Stimulation Water/ Transfer				80,000	80,000
	Coil Tubing & Nitrogen Services				200,000	200,000
	Misc. Rental Equipment				50,000	50,000
	Pressure Testing Services					
	Facilities Construction				25,000	25,000
300	Contract Labor			10,000	20,000	30,000
310	Plug and Abandonment					
400	OEE Insurance			5,000		5,000
500	Overhead Allocation			15,000	10,000	25,000
Total Intangible Cost				\$1,819,000	\$2,459,000	\$4,278,000
Tangible Drilling & Completion Costs				8400	8600	
100	Casing			164,600	152,400	317,000
	Conductor Casing			15,000		15,000
	Surface Casing	22	500	11,000		11,000
	Protection Casing	18	7700	138,600		138,600
	Protection Casing					
	Drilling Liner & Tieback					
	Production Liner/Casing	12	12700		152,400	152,400
110	Production Tubing				32,200	32,200
	Tubing	4	7800		31,200	31,200
	Pups and cross-overs				1,000	1,000
120	Subsurface Equipment			4,500	63,000	67,500
	Liner Hanger & Packer					
	Production Packer, Anchor, Seals				8,000	8,000
	Cementing Equipment			4,500	15,000	19,500
	Gas Lift Mandrels & Valves				20,000	20,000
	Pumps					
	Bridge Plugs				20,000	20,000
130	Wellhead Equipment			15,000	10,000	25,000
140	Production Equipment				78,000	78,000
	Stock Tanks 400 BBL	10,500	2		21,000	21,000
	Water Tank 400 BBL	9,000	1		9,000	9,000
	Sand Separator				6,000	6,000
	Gas Meters	4,500	3		13,500	13,500
	Separator - 2 Phase 36"x 10'	8,500	1		8,500	8,500
	Heater Treater 6"x 20"	20,000	1		20,000	20,000
150	Miscellaneous Equipment				45,000	45,000
	Surface Lines/Gathering System				20,000	20,000
	Line Pipe/Fittings				25,000	25,000
	Sucker Rods					
Total Tangible Cost				\$184,100	\$380,600	\$564,700
				Drilling	Completion	Total
Total Cost				\$2,003,100	\$2,839,600	\$4,842,700
Contingencies			5%	\$100,155	\$141,980.00	\$242,135
AFE Cost				\$2,103,255	\$2,981,580	\$5,084,835
W.I. Share			100.00%	\$2,103,255	\$2,981,580	\$5,084,835

Approved By: 

Company: Gastar Exploration

Title: OPS Manager

Signed this 30 day of Aug, 2013