

Alberta
Drilled and Completed
Engineering Costs Breakdown

Costs Update
to June 30, 2008

Prepared for

Alberta Municipal Affairs and Housing
Assessment Services Branch
Edmonton, Alberta.

By

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Summary of Cost Factors

Industry Overview

In true form, the longer “Boom” of 2004-2007 finally went “Bust”, in the fall of 2007. The combination of several factors, including the world price of oil, which continues to increase, accompanied by the meltdown in the U.S. housing market and the resulting decrease in demand by U.S. consumers, as well as a “Bubble” in the Natural Gas supply, finally slowed down activity in the Alberta “Oil patch”.

Additional complications such as the Petroleum Royalty Review, followed by the Oil and Gas Operator reaction to same, also aggravated the situation. The reaction by some of the bigger operators who cancelled drilling programs, or who moved operations to Saskatchewan or B.C., also helped to reduce industry activity in Alberta.

For the first time in several years, drilling and well servicing activity was slowed in the fall of ‘07, and continued to languish into the spring and summer of ‘08, partly due to decreased natural gas demand and also due to an excessively long ‘break-up” and road bans.

Surprisingly, and in spite of what appears to have been a serious slowdown, Operators report that well costs have not decreased in any appreciable way, despite increased competition amongst service providers. Material costs for such things as metal and fuel, and resiliently strong labour costs continue to eat into profits on both sides of the industry as both service contractors and Oil and Gas operators blame each other for high costs. In truth, diesel fuel costs have soared from around \$1.25 in 2007, to over \$1.65 a litre in 2008 in many field locations as a result of world oil prices spiking at some points to over \$145.00 per barrel.

Industry pundits such as the Petroleum Services Association of Canada initially predicted, in third quarter 2007 that 2008 would see a slowdown of up to 25% of wells drilled in 2007. By November 2007, they had revised their predictions to 12-15% of 2007 numbers, based on an assumption that the natural gas market would remain strong. In truth, drilling activity did decrease to a greater number than anticipated as reported by CAODC published rig utilization rates which show that for the first time in several years, rig activity dropped to about 65% of 2007 rates.

The net result of all of the above was a disappointing year in terms of drilling and servicing activity, combined with costs that did not decrease as expected, but which in many cases actually increased.

Not all news is bad however, as the decrease in activity has allowed contractors to begin to catch up on personnel requirements, including days off and vacations. However, while the need for more personnel has slowed, the labour pool has not increased and labour costs have also not decreased.

The levels of experience continues to be a problem, as retirements of senior experienced personnel are leaving holes where there are few to replace them.

Chinese demand for base metals and other commodities continues to push up the price of steel which translates into continually higher prices for oil and gas materials and equipment. In some cases, price anomalies are occurring with shortages of stocks of some materials such as certain sizes of well casing, which were not replaced in the previous drilling boom, then sudden slowdown. These have become scarce, pushing the prices much higher than would normally be expected, in this time of downturn.

As a result of all of the above, a comparison of the current costs for 2008 Drilling and Completions Cost Estimates for Area 5, WL10, WL20, WL40, WL50, WL70, WL90, WL110, WL230 and WL240, shows that while activity has decreased in the last 12 months, in many cases costs have still increased, albeit modestly in most cases in comparison to the 2007 costs incurred for specific categories studied.

With a significant drop in wells drilled in Alberta to June 2008, some increases in activity levels are being predicted for the balance of the year, and expectations for 2009 are for a return to higher levels of activity. .

Application of Price Information

Supplier assistance in acquiring cost information has improved, as activity levels have decreased, and competition has increased amongst suppliers and contractors. That being said, prices quoted showed some variance between suppliers of the same services or materials due to activity fluctuations in June 2008, as drilling activity was beginning to increase and competition was causing some jockeying.

Once again, suppliers would not guarantee prices for more than 14 days, and in some cases (well casing) orders were being taken, but supply not guaranteed without a purchase order, as competition for materials by Operators was pushing prices up, as supply of certain sizes of casing were in very short supply.

Nonetheless, several providers in each category were contacted, and for the most part, prices quoted were relatively consistent..

As previously stated, inventories of some materials are very low, according to many suppliers and demand remains higher than expected, as activity levels begin to increase for the balance of the year.

In order to create the presentation of prices which are supplied with this report, several steps are taken in it's construction:

1. Service and materials suppliers are contacted for prices in each category of cost. These suppliers are based mostly in Alberta, but most are major and have bases and operations all over North America, and some are international.
2. While a minimum of 3 suppliers are contacted where possible, it is not always possible to get 3, and for the most part a minimum of 2 are provided.

3. Both Operators and Contractors are contacted to discuss current industry trends, such as days required to drill, days required to service, time and costs in general and areas where increases have occurred. Also discussed are topics on technology change if any, problems which they are dealing with and where they see the industry going.

One fact that has become apparent is that it is taking longer to drill wells, due to inexperienced personnel. Breakdowns and equipment service also takes longer, and both these factors have added to the costs of drilling and completing wells. The consensus of opinion from contacts polled within the industry is that increases in time would approximate 5-6%, over that of last year. This is a phenomenon that is recent, due mostly to the fact that there are now some 80-100 more drilling rigs, 60-80 more service rigs, and many more service type crews and vehicles now operating, than were last year, due to the ramping up of contractors who now believe that capital equipment expansion will be profitable for the next few years.

As such, in order to accommodate this increase in time to complete wells, a factor of 5-6% has been added into the well costs for wells drilled from June 30, 2005 to June 30, 2006.

4. Contractors and Operators are also polled as to what they are currently paying field and base personnel. Many are not willing to discuss this due to fears of poaching, but the author has developed relationships with many, over the years, and feels that enough information is provided to feel comfortable in making both suppositions and predictions in this regard. As such, percentage increases in wages, and the facts that labour is in short supply, is common industry knowledge.
5. Costs developed for this survey do not specifically use either industry or government Cost Price Indexes. For the most part, these indices are too general or do not represent the specifics of what is actually happening in Alberta on a local basis. Most C.P.I.'s do not adequately reflect the scope of the Oil and Gas activity levels in the business locally, nor do they take into account regional challenges.
6. While some Operators deal with suppliers outside of the local area, they do so through local offices of those businesses. As such, prices quoted are usually and mostly provided either in Canadian or U.S dollars. While currency exchanges are taken into account for equipment which may be supplied from the U.S., for the most part, over the past 3 years, the exchange rate for equipment imported does not provide a large differential, and in fact, the \$CAD vs the \$USD continues to be relatively close and stable and has been for over two years.
7. All costs acquired for the purposes of this report are based on supply within a 50 km radius of Edmonton, Alberta. This area is central to both Alberta and to the major supply depots of most suppliers contacted. As a result, it would be unusual for any equipment or service to NOT be available in this area.

8. In order to maintain the minimum standards of both the government and industry, only those contractors and suppliers are contacted who are certified as required for their particular industry segment, and are accepted by major Oil and Gas Operators. Few Contractors or Suppliers in Alberta do not have requisite certification, as they must do so to achieve placement on the Bid Lists of Major Operators.
9. Unless otherwise requested, all costs are based on those in place on June 30, of the current years study.
10. In order to do the requisite calculations required for all the well depths, in all the WL categories, an MS Excel spreadsheet program, which was created by the author, several years ago, for the generation of A.F.E's (Authority for Expenditure) for Oil and Gas Operators, and which has been used for several years to that purpose, is used. The program utilizes a very detailed input of factors used to calculate costs in drilling a well.

Every service provided, every tool required, every type of material needed, indeed every aspect of the costs of drilling a well is included, and costs for each and every service are updated, as required.

11. Specific price information for every cost is input into the program. That price information along with all the other data relating to drilling, completing and tying in the well is input into the calculations done by the program which determines actual category and total well cost.
12. The program then transfers specific information to the Individual Well Cost Summary sheet which does additional calculations for other parameters input into it. A total of 70 such spreadsheets are used, one for each well in the 10 WL categories and the 7 wells in each category.
13. The numbers from each of these Individual Well Cost Summary sheets are then transferred to the "Drilled Wells Cost Study Update" Summary sheets for each WKL category, which are then provided to the A.M.A.

The costs which are presented to the A.M.A, are derived by a highly complex and sophisticated system, which ensures that the most accurate data available is provided.

Conclusion

In spite of what appears to have been a fairly serious downturn in industry activity in Alberta in 2008, many of the factors which caused the dramatic increases in prices over the past 3-4 years and the costs of doing business, appear to be still in effect.

The combination of very high crude oil prices combined with continuing limitations on refining capacity continue to cause high diesel and gasoline prices all around the world. And

while there may appear to be some respite in the months to come, both diesel and gasoline prices which are currently decreasing from all time highs, are expected to level out above \$1.25 – \$1.30/Litre in the field, in Alberta.

Pushed mainly by commodity speculators, the price of oil worldwide is expected to continue to remain high as a result of continuing worldwide tension. The war in Iraq, continued NATO policing in Afghanistan, Iranian nuclear materials manufacturing, Nigerian unrest, Venezuelan posturing and many other regional factors continue to fuel speculation on shortage of world oil supply. The biggest question mark is whether Chinese demand will remain high, in spite of declining U.S. markets for Chinese manufactured goods, as it is the demand for all types of energy and raw materials which started the price increases worldwide, in the first place.

With natural gas prices returning to higher levels of \$9-10.00USD/Mcf from previously lower levels of \$6-7.00USD/Mcf., drilling activity in Alberta is expected to once again increase. Indeed, major Operators such as Encana have recently announced increased Alberta drilling programs and as a result, we will again expect to see increases in prices and costs for drilling and servicing wells in Alberta over the next 12-18 months as a result of the increasing demand for materials and services.

2008 Well Cost Update WL10

WL10 - 2008 (June 30)	18 m	305 m	1067	1829	2743	3658	5486
Casing and Cementing							
Surface Casing	0.00	2,781.95	12,986.39	28,752.55	52,487.84	53,787.77	101,408.22
Attachments & Acces.	0.00	166.91	621.14	1,075.52	1,784.87	1,829.08	3,448.43
Tongs	0.00	1,609.29	5,988.82	10,369.79	17,209.15	17,635.36	33,248.64
Cement and Service	0.00	1,930.67	7,184.79	12,440.63	20,645.82	21,157.15	39,888.41
Intermediate Casing	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Attachments & Acces.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tongs	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cement and Service	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Production Casing	715.57	12,050.50	43,104.01	105,390.85	202,038.64	424,243.49	501,450.75
Attachments & Acces.	29.05	489.20	1,749.85	2,997.52	4,597.09	6,312.04	7,460.75
Tongs	612.68	10,317.84	36,906.37	63,221.12	96,958.01	133,128.24	157,356.00
Cement and Service	437.52	7,368.04	26,355.11	45,146.67	69,238.43	95,067.86	112,369.08
Production Liner	0.00	0.00	0.00	0.00	0.00	0.00	73,900.45
Attachments & Acces.	0.00	0.00	0.00	0.00	0.00	0.00	2,057.78
Linear Hanger & Running Eqpt	0.00	0.00	0.00	0.00	0.00	0.00	35,267.48
Tongs	0.00	0.00	0.00	0.00	0.00	0.00	1,116.03
Cement and Service	0.00	0.00	0.00	0.00	0.00	0.00	30,992.96
TOTAL	1,794.81	30,225.58	108,115.34	216,756.16	372,832.18	658,751.63	921,971.27
Rentals							
Wellsite trailer(s)	0.00	762.55	2,464.36	4,655.01	10,461.22	59,374.00	152,570.29
Sump pump(s)	0.00	0.00	0.00	0.00	8,496.88	24,112.57	61,960.83
Additional pumps, etc.	0.00	0.00	0.00	0.00	0.00	32,420.72	83,309.85
Solids control equipment	0.00	0.00	6,172.09	12,109.11	26,200.59	148,704.82	382,119.06
High Speed Mixer (s)	0.00	0.00	0.00	0.00	8,917.42	25,305.99	65,027.50
Tank Rental	0.00	0.00	0.00	1,454.03	3,267.65	34,773.72	56,592.28
TOTAL	0.00	762.55	8,636.45	18,218.15	57,343.77	324,691.83	801,579.82
Supervision and Administrations							
Drilling Supervisor(s)	966.63	2,482.98	8,024.35	15,157.47	34,063.45	96,665.74	248,396.95
Drilling Sup. Expenses	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Environmental Supervision	0.00	0.00	0.00	0.00	30,282.50	85,936.11	220,825.56
Cleanup/reclamation Supervision	997.10	1,078.42	1,102.65	1,101.92	1,126.83	1,160.18	1,166.58
Geologist(s)	0.00	0.00	3,453.13	13,154.18	29,768.16	87,703.04	230,052.22
Geologist Expenses	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Geology Supplies	0.00	0.00	562.28	2,141.90	4,847.17	14,280.75	37,459.57
Communications	190.18	488.53	1,578.79	2,982.23	6,701.98	19,018.99	48,872.11
Operations overhead	216.14	555.20	1,794.27	3,389.26	7,616.69	21,614.77	55,542.35
TOTAL	2,370.05	4,605.13	16,515.47	37,926.96	114,406.78	326,379.58	842,315.33
Completion and Testing							
Wellhead	3,787.27	7,881.67	15,744.24	20,249.97	25,102.61	27,609.60	33,159.99
Tubing	384.84	6,520.90	22,812.46	39,104.02	58,645.34	78,208.04	117,290.68
Packers, Plugs, Retainers	0.00	0.00	0.00	0.00	15,016.98	15,461.48	0.00
Sucker Rod	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Downhole Pump, PSN, Tbg Anchor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Service Rig	4,848.10	20,974.05	19,513.21	30,408.81	52,567.58	181,809.50	265,416.08
Boiler	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crew Subs & Accom.	92.81	201.50	373.53	582.10	1,006.28	2,062.41	2,903.29
Crew Transportation	199.39	431.30	501.58	781.64	2,702.44	6,092.61	8,576.69
Snubbing Unit	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Freight and Trucking	420.82	1,820.55	1,693.75	2,639.49	4,562.88	6,912.18	9,730.42
Vacuum Truck	445.43	1,927.04	1,792.82	2,793.88	4,829.76	7,836.51	11,031.62

2008 Well Cost Update WL10

Water and Trucking	571.21	1,235.59	2,299.06	3,582.79	7,432.26	15,232.66	21,698.60
Chemicals	0.00	597.81	1,945.68	3,464.97	5,389.91	7,365.87	11,107.71
Surface Eqpt. Rental	0.00	0.00	0.00	323.28	8,243.11	17,896.75	24,085.10
Downhole Tool Rentals	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cased Hole Well Logs	0.00	903.68	5,477.39	9,788.68	15,101.71	21,319.83	31,379.01
Perforating Shot and Run Charges	0.00	1,492.35	3,260.93	5,996.98	9,328.93	12,042.91	17,097.12
Other Wireline Services	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Slickline Services	0.00	0.00	2,706.04	4,819.06	14,992.51	20,488.82	30,897.08
Stimulation	0.00	1,239.99	1,153.62	1,198.52	1,243.12	1,273.91	1,280.93
Completions Supervisor	493.54	2,135.19	2,177.53	3,095.66	5,351.46	10,967.99	15,439.86
Completion Supervision Expenses	147.94	640.00	595.43	927.90	1,604.05	3,287.56	4,627.96
Inspection s(C/H Tool Rentals)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Environmental Inspections	2,715.56	2,937.04	5,464.95	5,677.61	5,888.92	6,034.76	6,144.76
Lease Cleanup & Reclam.	1,004.99	1,086.96	1,111.38	1,110.64	1,135.75	1,169.37	1,175.82
Flow Testing Crew & Equipment	0.00	9,393.10	13,108.31	13,618.40	32,958.90	33,775.17	33,961.42
Pump Jank (If Req'd)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Injection Eqpt - Glycol/Chemical	4,302.00	4,652.88	4,328.80	4,497.25	4,664.63	4,780.16	4,806.52
Flow Measure, Record and Transmit	7,401.74	8,005.43	7,447.86	7,737.68	8,025.66	8,224.42	8,269.78
TOTAL	10,232.89	43,621.22	77,685.58	122,960.64	237,736.88	410,426.16	569,650.97
Other							
Inspections	1,054.23	1,140.22	1,962.48	4,649.40	4,822.44	4,941.87	4,969.13
Garbage	155.26	398.81	1,288.85	2,434.56	5,471.20	15,526.24	39,896.98
TOTAL	1,209.49	1,539.03	3,251.34	7,083.96	10,293.64	20,468.11	44,866.10
SUB-TOTAL ASSESS	15,607.24	80,753.51	214,204.17	402,945.88	792,613.24	1,740,717.31	3,180,383.49
Contingency (5% of sub-total)	780.36	4,037.68	10,710.21	20,147.29	39,630.66	87,035.87	159,019.17
Office Administration (2% of sub)	312.14	1,615.07	4,284.08	8,058.92	15,852.26	34,814.35	63,607.67
Assessable Cost	16,699.75	86,406.26	229,198.46	431,152.10	848,096.16	1,862,567.52	3,403,010.33
# of wells							
Depth	18	305	1067	1829	2743	3658	5486
Assess.Cost							
FORMULA	used in calculating linear equation						
	$y = 121.99x + 7597.8$						
	(based on 1067\1829\2743 with an x-intercept of 7597.78)						

2008 Well Cost Update WL20

WL20 - 2008 (June 30)	18 m	305 m	1067	1829	2743	3658	5486
Casing and Cementing							
Surface Casing	0.00	2,781.95	12,986.39	28,752.55	52,487.84	53,787.77	101,408.22
Attachments & Acces.	0.00	166.91	621.14	1,075.52	1,784.87	1,829.08	3,448.43
Tongs	0.00	1,609.29	5,988.82	10,369.79	17,209.15	17,635.36	33,248.64
Cement and Service	0.00	1,930.67	7,184.79	12,440.63	20,645.82	21,157.15	39,888.41
Intermediate Casing	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Attachments & Acces.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tongs	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cement and Service	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Production Casing	715.57	12,050.50	43,104.01	105,390.85	202,038.64	424,243.49	501,450.75
Attachments & Acces.	29.05	489.20	1,749.85	2,997.52	4,597.09	6,312.04	7,460.75
Tongs	612.68	10,317.84	36,906.37	63,221.12	96,958.01	133,128.24	157,356.00
Cement and Service	437.52	7,368.04	26,355.11	45,146.67	69,238.43	95,067.86	112,369.08
Production Liner	0.00	0.00	0.00	0.00	0.00	0.00	73,900.45
Attachments & Acces.	0.00	0.00	0.00	0.00	0.00	0.00	2,057.78
Linear Hanger & Running Eqpt	0.00	0.00	0.00	0.00	0.00	0.00	35,267.48
Tongs	0.00	0.00	0.00	0.00	0.00	0.00	1,116.03
Cement and Service	0.00	0.00	0.00	0.00	0.00	0.00	30,992.96
TOTAL	1,794.81	30,225.58	108,115.34	216,756.16	372,832.18	658,751.63	921,971.27
Rentals							
Wellsite trailer(s)	0.00	762.55	2,464.36	5,818.76	10,461.22	59,374.00	152,570.29
Sump pump(s)	0.00	0.00	0.00	0.00	8,496.88	24,112.57	61,960.83
Additional pumps, etc.	0.00	0.00	0.00	0.00	0.00	32,420.72	83,309.85
Solids control equipment	0.00	0.00	6,172.09	12,109.11	26,200.59	148,704.82	382,119.06
High Speed Mixer (s)	0.00	0.00	0.00	0.00	8,917.42	25,305.99	65,027.50
Tank Rental	0.00	0.00	0.00	1,817.54	3,267.65	34,773.72	56,592.28
TOTAL	0.00	762.55	8,636.45	19,745.41	57,343.77	324,691.83	801,579.82
Supervision and Administrations							
Drilling Supervisor(s)	966.63	2,482.98	8,024.35	18,946.84	34,063.45	96,665.74	248,396.95
Drilling Sup. Expenses	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Environmental Supervsion	0.00	0.00	0.00	0.00	30,282.50	85,936.11	220,825.56
Cleanup/reclamation Supervision	997.10	1,078.42	1,102.65	1,101.92	1,126.83	1,160.18	1,166.58
Geologist(s)	0.00	0.00	3,453.13	16,741.68	29,768.16	87,703.04	230,052.22
Geologist Expenses	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Geology Supplies	0.00	0.00	562.28	2,726.06	4,847.17	14,280.75	37,459.57
Communications	190.18	488.53	1,578.79	3,727.79	6,701.98	19,018.99	48,872.11
Operations overhead	216.14	555.20	1,794.27	4,236.57	7,616.69	21,614.77	55,542.35
TOTAL	2,370.05	4,605.13	16,515.47	47,480.86	114,406.78	326,379.58	842,315.33
Completion and Testing							

2008 Well Cost Update WL20

Wellhead	3,787.27	7,881.67	15,744.24	20,249.97	25,102.61	27,609.60	33,159.99
Tubing	384.84	6,520.90	22,812.46	39,104.02	58,645.34	78,208.04	117,290.68
Packers, Plugs, Retainers	0.00	0.00	0.00	0.00	15,016.98	15,461.48	0.00
Sucker Rod	181.91	3,063.49	10,957.93	19,498.64	29,903.77	41,059.38	0.00
Downhole Pump, PSN, Tbg Anchor	12,369.54	12,293.67	12,569.84	12,561.49	12,845.49	13,225.72	49,972.00
Service Rig	9,696.20	26,217.56	27,318.49	40,545.09	63,081.09	218,171.41	322,290.95
Boiler	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crew Subs & Accom.	185.61	501.87	522.95	776.14	1,207.54	2,474.89	3,525.43
Crew Transportation	398.78	539.13	702.21	1,042.19	3,242.93	7,311.13	10,414.55
Snubbing Unit	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Freight and Trucking	841.63	2,275.69	2,371.25	3,519.33	5,475.46	8,294.62	15,985.69
Vacuum Truck	890.86	2,408.80	2,509.95	3,725.17	5,795.71	9,403.81	16,920.68
Water and Trucking	1,142.41	3,088.97	3,218.68	4,777.05	7,432.26	15,232.66	21,698.60
Chemicals	0.00	597.81	1,945.68	3,464.97	5,389.91	7,365.87	11,107.71
Surface Eqpt. Rental	0.00	0.00	0.00	431.04	9,891.74	21,476.10	29,246.19
Downhole Tool Rentals	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cased Hole Well Logs	0.00	903.68	5,477.39	9,788.68	15,101.71	21,319.83	31,379.01
Perforating Shot and Run Charges	0.00	1,492.35	3,260.93	5,996.98	9,328.93	12,042.91	17,097.12
Other Wireline Services	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Slickline Services	0.00	0.00	2,706.04	4,819.06	14,992.51	20,488.82	30,897.08
Stimulation	0.00	1,239.99	1,153.62	1,198.52	1,243.12	1,273.91	1,280.93
Completions Supervisor	987.09	2,668.99	2,781.06	4,127.55	6,421.75	13,161.59	18,748.40
Completion Supervision Expenses	295.87	800.01	833.60	1,237.20	1,924.86	3,945.07	5,619.67
Inspection s(C/H Tool Rentals)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Environmental Inspections	2,715.56	2,937.04	5,464.95	5,677.61	5,888.92	6,034.76	6,144.76
Lease Cleanup & Reclam.	1,004.99	1,086.96	1,111.38	1,110.64	1,135.75	1,169.37	1,175.82
Flow Testing Crew & Equipment	0.00	9,393.10	13,108.31	13,618.40	32,958.90	33,775.17	33,961.42
Pump Jank (If Req'd)	0.00	31,233.03	38,700.11	66,739.38	119,209.99	179,862.18	0.00
Injection Eqpt - Glycol/Chemical	4,302.00	0.00	0.00	0.00	0.00	0.00	0.00
Flow Measure, Record and Transmit	7,401.74	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	28,845.12	66,769.07	110,779.96	167,800.26	276,322.06	510,042.39	689,788.35
Other							
Inspections	1,054.23	1,140.22	1,962.48	4,649.40	4,822.44	4,941.87	4,969.13
Garbage	155.26	398.81	1,288.85	3,043.20	5,471.20	15,526.24	39,896.98
TOTAL	1,209.49	1,539.03	3,251.34	7,692.60	10,293.64	20,468.11	44,866.10
SUB-TOTAL ASSESS	34,219.47	103,901.36	247,298.55	459,475.30	831,198.42	1,840,333.54	3,300,520.87
Contingency (5% of sub-total)	1,710.97	5,195.07	12,364.93	22,973.76	41,559.92	92,016.68	165,026.04
Office Administration (2% of sub)	684.39	2,078.03	4,945.97	9,189.51	16,623.97	36,806.67	66,010.42
Assessable Cost	36,614.84	111,174.46	264,609.45	491,638.57	889,382.31	1,969,156.89	3,531,557.33

2008 Well Cost Update WL20

# of wells							
Depth	18	305	1067	1829	2743	3658	5486
Assess.Cost							
	used in calculating linear equation						
FORMULA	$y = 121.99x + 7597.8$						
	(based on 1067\1829\2743 with an x-intercept of 7597.78)						

2008 Well Cost Update WL40

WL40 - 2008 (June 30)	18 m	305 m	1067	1829	2743	3658	5486
Casing and Cementing							
Surface Casing	0.00	2,781.95	12,986.39	28,752.55	52,487.84	53,787.77	101,408.22
Attachments & Acces.	0.00	166.91	621.14	1,075.52	1,784.87	1,829.08	3,448.43
Tongs	0.00	1,609.29	5,988.82	10,369.79	17,209.15	17,635.36	33,248.64
Cement and Service	0.00	1,930.67	7,184.79	12,440.63	20,645.82	21,157.15	39,888.41
Intermediate Casing	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Attachments & Acces.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tongs	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cement and Service	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Production Casing	715.57	12,050.50	43,104.01	105,390.85	202,038.64	424,243.49	501,450.75
Attachments & Acces.	29.05	489.20	1,749.85	2,997.52	4,597.09	6,312.04	7,460.75
Tongs	612.68	10,317.84	36,906.37	63,221.12	96,958.01	133,128.24	157,356.00
Cement and Service	437.52	7,368.04	26,355.11	45,146.67	69,238.43	95,067.86	112,369.08
Production Liner	0.00	0.00	0.00	0.00	0.00	0.00	73,900.45
Attachments & Acces.	0.00	0.00	0.00	0.00	0.00	0.00	2,057.78
Linear Hanger & Running Eqpt	0.00	0.00	0.00	0.00	0.00	0.00	35,267.48
Tongs	0.00	0.00	0.00	0.00	0.00	0.00	1,116.03
Cement and Service	0.00	0.00	0.00	0.00	0.00	0.00	30,992.96
TOTAL	1,794.81	30,225.58	108,115.34	216,756.16	372,832.18	658,751.63	921,971.27
Rentals							
Wellsite trailer(s)	0.00	762.55	2,464.36	5,818.76	10,461.22	59,374.00	152,570.29
Sump pump(s)	0.00	0.00	0.00	0.00	8,496.88	24,112.57	61,960.83
Additional pumps, etc.	0.00	0.00	0.00	0.00	0.00	32,420.72	83,309.85
Solids control equipment	0.00	0.00	6,172.09	12,109.11	26,200.59	148,704.82	382,119.06
High Speed Mixer (s)	0.00	0.00	0.00	0.00	8,917.42	25,305.99	65,027.50
Tank Rental	0.00	0.00	0.00	1,817.54	3,267.65	34,773.72	56,592.28
TOTAL	0.00	762.55	8,636.45	19,745.41	57,343.77	324,691.83	801,579.82
Supervision and Administrations							
Drilling Supervisor(s)	966.63	2,482.98	8,024.35	18,946.84	34,063.45	96,665.74	248,396.95
Drilling Sup. Expenses	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Environmental Supervsion	0.00	0.00	0.00	0.00	30,282.50	85,936.11	220,825.56
Cleanup/reclamation Supervision	997.10	1,078.42	1,102.65	1,101.92	1,126.83	1,160.18	1,166.58
Geologist(s)	0.00	0.00	3,453.13	16,741.68	29,768.16	87,703.04	230,052.22
Geologist Expenses	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Geology Supplies	0.00	0.00	562.28	2,726.06	4,847.17	14,280.75	37,459.57
Communications	190.18	488.53	1,578.79	3,727.79	6,701.98	19,018.99	48,872.11
Operations overhead	216.14	555.20	1,794.27	4,236.57	7,616.69	21,614.77	55,542.35
TOTAL	2,370.05	4,605.13	16,515.47	47,480.86	114,406.78	326,379.58	842,315.33
Completion and Testing							

2008 Well Cost Update WL40

Wellhead	3,787.27	7,881.67	15,744.24	20,249.97	25,102.61	27,609.60	33,159.99
Tubing	384.84	6,520.90	22,812.46	39,104.02	58,645.34	78,208.04	117,290.68
Packers, Plugs, Retainers	0.00	0.00	0.00	0.00	15,016.98	15,461.48	0.00
Sucker Rod	181.91	3,063.49	10,957.93	19,498.64	29,903.77	41,059.38	0.00
Downhole Pump, PSN, Tbg Anchor	12,369.54	12,293.67	12,569.84	12,561.49	12,845.49	13,225.72	49,972.00
Service Rig	9,696.20	26,217.56	27,318.49	40,545.09	63,081.09	218,171.41	322,290.95
Boiler	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crew Subs & Accom.	185.61	501.87	522.95	776.14	1,207.54	2,474.89	3,525.43
Crew Transportation	398.78	539.13	702.21	1,042.19	3,242.93	7,311.13	10,414.55
Snubbing Unit	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Freight and Trucking	841.63	2,275.69	2,371.25	3,519.33	5,475.46	8,294.62	15,985.69
Vacuum Truck	890.86	2,408.80	2,509.95	3,725.17	5,795.71	9,403.81	16,920.68
Water and Trucking	1,142.41	3,088.97	3,218.68	4,777.05	7,432.26	15,232.66	21,698.60
Chemicals	0.00	597.81	1,945.68	3,464.97	5,389.91	7,365.87	11,107.71
Surface Eqpt. Rental	0.00	0.00	0.00	431.04	9,891.74	21,476.10	29,246.19
Downhole Tool Rentals	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cased Hole Well Logs	0.00	903.68	5,477.39	9,788.68	15,101.71	21,319.83	31,379.01
Perforating Shot and Run Charges	0.00	1,492.35	3,260.93	5,996.98	9,328.93	12,042.91	17,097.12
Other Wireline Services	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Slickline Services	0.00	0.00	2,706.04	4,819.06	14,992.51	20,488.82	30,897.08
Stimulation	0.00	1,239.99	1,153.62	1,198.52	1,243.12	1,273.91	1,280.93
Completions Supervisor	987.09	2,668.99	2,781.06	4,127.55	6,421.75	13,161.59	18,748.40
Completion Supervision Expenses	295.87	800.01	833.60	1,237.20	1,924.86	3,945.07	5,619.67
Inspection s(C/H Tool Rentals)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Environmental Inspections	2,715.56	2,937.04	5,464.95	5,677.61	5,888.92	6,034.76	6,144.76
Lease Cleanup & Reclam.	1,004.99	1,086.96	1,111.38	1,110.64	1,135.75	1,169.37	1,175.82
Flow Testing Crew & Equipment	0.00	9,393.10	13,108.31	13,618.40	32,958.90	33,775.17	33,961.42
Pump Jank (If Req'd)	0.00	31,233.03	38,700.11	66,739.38	119,209.99	179,862.18	0.00
Injection Eqpt - Glycol/Chemical	4,302.00	0.00	0.00	0.00	0.00	0.00	0.00
Flow Measure, Record and Transmit	7,401.74	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	28,845.12	66,769.07	110,779.96	167,800.26	276,322.06	510,042.39	689,788.35
Other							
Inspections	1,054.23	1,140.22	1,962.48	4,649.40	4,822.44	4,941.87	4,969.13
Garbage	155.26	398.81	1,288.85	3,043.20	5,471.20	15,526.24	39,896.98
TOTAL	1,209.49	1,539.03	3,251.34	7,692.60	10,293.64	20,468.11	44,866.10
SUB-TOTAL ASSESS	34,219.47	103,901.36	247,298.55	459,475.30	831,198.42	1,840,333.54	3,300,520.87
Contingency (5% of sub-total)	1,710.97	5,195.07	12,364.93	22,973.76	41,559.92	92,016.68	165,026.04
Office Administration (2% of sub)	684.39	2,078.03	4,945.97	9,189.51	16,623.97	36,806.67	66,010.42
Assessable Cost	36,614.84	111,174.46	264,609.45	491,638.57	889,382.31	1,969,156.89	3,531,557.33

2008 Well Cost Update WL40

# of wells							
Depth	18	305	1067	1829	2743	3658	5486
Assess.Cost							
	used in calculating linear equation						
FORMULA	y = 121.99x + 7597.8						
	(based on 1067\1829\2743 with an x-intercept of 7597.78)						

2008 Well Cost Update WL50

WL50 - 2008 (June 30)	18 m	305 m	1067	1829	2743	3658	5486
Casing and Cementing							
Surface Casing	0.00	2,781.95	12,986.39	28,752.55	52,487.84	53,787.77	101,408.22
Attachments & Acces.	0.00	166.91	621.14	1,075.52	1,784.87	1,829.08	3,448.43
Tongs	0.00	1,609.29	5,988.82	10,369.79	17,209.15	17,635.36	33,248.64
Cement and Service	0.00	1,930.67	7,184.79	12,440.63	20,645.82	21,157.15	39,888.41
Intermediate Casing	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Attachments & Acces.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tongs	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cement and Service	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Production Casing	715.57	12,050.50	43,104.01	105,390.85	202,038.64	424,243.49	501,450.75
Attachments & Acces.	29.05	489.20	1,749.85	2,997.52	4,597.09	6,312.04	7,460.75
Tongs	612.68	10,317.84	36,906.37	63,221.12	96,958.01	133,128.24	157,356.00
Cement and Service	437.52	7,368.04	26,355.11	45,146.67	69,238.43	95,067.86	112,369.08
Production Liner	0.00	0.00	0.00	0.00	0.00	0.00	73,900.45
Attachments & Acces.	0.00	0.00	0.00	0.00	0.00	0.00	2,057.78
Linear Hanger & Running Eqpt	0.00	0.00	0.00	0.00	0.00	0.00	35,267.48
Tongs	0.00	0.00	0.00	0.00	0.00	0.00	1,116.03
Cement and Service	0.00	0.00	0.00	0.00	0.00	0.00	30,992.96
TOTAL	1,794.81	30,225.58	108,115.34	216,756.16	372,832.18	658,751.63	921,971.27
Rentals							
Wellsite trailer(s)	0.00	762.55	2,464.36	5,818.76	10,461.22	59,374.00	152,570.29
Sump pump(s)	0.00	0.00	0.00	0.00	8,496.88	24,112.57	61,960.83
Additional pumps, etc.	0.00	0.00	0.00	0.00	0.00	32,420.72	83,309.85
Solids control equipment	0.00	0.00	6,172.09	12,109.11	26,200.59	148,704.82	382,119.06
High Speed Mixer (s)	0.00	0.00	0.00	0.00	8,917.42	25,305.99	65,027.50
Tank Rental	0.00	0.00	0.00	1,454.03	3,267.65	34,773.72	56,592.28
TOTAL	0.00	762.55	8,636.45	19,381.91	57,343.77	324,691.83	801,579.82
Supervision and Administrations							
Drilling Supervisor(s)	966.63	2,482.98	8,024.35	18,946.84	34,063.45	96,665.74	248,396.95
Drilling Sup. Expenses	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Environmental Supervsion	0.00	0.00	0.00	0.00	30,282.50	85,936.11	220,825.56
Cleanup/reclamation Supervision	997.10	1,078.42	1,102.65	1,101.92	1,126.83	1,160.18	1,166.58
Geologist(s)	0.00	0.00	3,453.13	16,741.68	29,768.16	87,703.04	230,052.22
Geologist Expenses	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Geology Supplies	0.00	0.00	562.28	2,726.06	4,847.17	14,280.75	37,459.57
Communications	190.18	488.53	1,578.79	3,727.79	6,701.98	19,018.99	48,872.11

2008 Well Cost Update WL50

Operations overhead	216.14	555.20	1,794.27	4,236.57	7,616.69	21,614.77	55,542.35
TOTAL	2,370.05	4,605.13	16,515.47	47,480.86	114,406.78	326,379.58	842,315.33
Completion and Testing							
Wellhead	3,787.27	7,881.67	15,744.24	20,249.97	25,102.61	27,609.60	33,159.99
Tubing	384.84	6,520.90	22,812.46	39,104.02	58,645.34	78,208.04	117,290.68
Packers, Plugs, Retainers	0.00	0.00	0.00	0.00	15,016.98	15,461.48	0.00
Sucker Rod	181.91	3,063.49	10,957.93	19,498.64	29,903.77	41,059.38	0.00
Downhole Pump, PSN, Tbg Anchor	12,369.54	12,293.67	12,569.84	12,561.49	12,845.49	13,225.72	49,972.00
Service Rig	9,696.20	26,217.56	27,318.49	40,545.09	63,081.09	218,171.41	322,290.95
Boiler	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crew Subs & Accom.	185.61	501.87	522.95	776.14	1,207.54	2,474.89	3,525.43
Crew Transportation	398.78	539.13	702.21	1,042.19	3,242.93	7,311.13	10,414.55
Snubbing Unit	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Freight and Trucking	841.63	2,275.69	2,371.25	3,519.33	5,475.46	8,294.62	15,985.69
Vacuum Truck	890.86	2,408.80	2,509.95	3,725.17	5,795.71	9,403.81	16,920.68
Water and Trucking	1,142.41	3,088.97	3,218.68	4,777.05	7,432.26	15,232.66	21,698.60
Chemicals	0.00	597.81	1,945.68	3,464.97	5,389.91	7,365.87	11,107.71
Surface Eqpt. Rental	0.00	0.00	0.00	431.04	9,891.74	21,476.10	29,246.19
Downhole Tool Rentals	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cased Hole Well Logs	0.00	903.68	5,477.39	9,788.68	15,101.71	21,319.83	31,379.01
Perforating Shot and Run Charges	0.00	1,492.35	3,260.93	5,996.98	9,328.93	12,042.91	17,097.12
Other Wireline Services	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Slickline Services	0.00	0.00	2,706.04	4,819.06	14,992.51	20,488.82	30,897.08
Stimulation	0.00	1,239.99	1,153.62	1,198.52	1,243.12	1,273.91	1,280.93
Completions Supervisor	987.09	2,668.99	2,781.06	4,127.55	6,421.75	13,161.59	18,748.40
Completion Supervision Expenses	295.87	800.01	833.60	1,237.20	1,924.86	3,945.07	5,619.67
Inspection s(C/H Tool Rentals)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Environmental Inspections	2,715.56	2,937.04	5,464.95	5,677.61	5,888.92	6,034.76	6,144.76
Lease Cleanup & Reclam.	1,004.99	1,086.96	1,111.38	1,110.64	1,135.75	1,169.37	1,175.82
Flow Testing Crew & Equipment	0.00	9,393.10	13,108.31	13,618.40	32,958.90	33,775.17	33,961.42
Pump Jank (If Req'd)	0.00	31,233.03	38,700.11	66,739.38	119,209.99	179,862.18	0.00
Injection Eqpt - Glycol/Chemical	4,302.00	0.00	0.00	0.00	0.00	0.00	0.00
Flow Measure, Record and Transmit	7,401.74	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	28,845.12	66,769.07	110,779.96	167,800.26	276,322.06	510,042.39	689,788.35
Other							
Inspections	1,054.23	1,140.22	1,962.48	4,649.40	4,822.44	4,941.87	4,969.13
Garbage	155.26	398.81	1,288.85	3,043.20	5,471.20	15,526.24	39,896.98

2008 Well Cost Update WL50

TOTAL	1,209.49	1,539.03	3,251.34	7,692.60	10,293.64	20,468.11	44,866.10
SUB-TOTAL ASSESS	34,219.47	103,901.36	247,298.55	459,111.79	831,198.42	1,840,333.54	3,300,520.87
Contingency (5% of sub-total)	1,710.97	5,195.07	12,364.93	22,955.59	41,559.92	92,016.68	165,026.04
Office Administration (2% of sub)	684.39	2,078.03	4,945.97	9,182.24	16,623.97	36,806.67	66,010.42
Assessable Cost	36,614.84	111,174.46	264,609.45	491,249.62	889,382.31	1,969,156.89	3,531,557.33
# of wells							
Depth	18	305	1067	1829	2743	3658	5486
Assess.Cost							
	used in calculating linear equation						
FORMULA	y = 121.99x + 7597.8						
	(based on 1067\1829\2743 with an x-intercept of 7597.78)						

2008 Well Cost Update WL70

WL70 - 2008 (June 30)	18 m	305 m	1067	1829	2743	3658	5486
Casing and Cementing							
Surface Casing	0.00	2,781.95	12,986.39	28,752.55	52,487.84	53,787.77	101,408.22
Attachments & Acces.	0.00	166.91	621.14	1,075.52	1,784.87	1,829.08	3,448.43
Tongs	0.00	1,609.29	5,988.82	10,369.79	17,209.15	17,635.36	33,248.64
Cement and Service	0.00	1,930.67	7,184.79	12,440.63	20,645.82	21,157.15	39,888.41
Intermediate Casing	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Attachments & Acces.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tongs	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cement and Service	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Production Casing	715.57	12,050.50	43,104.01	105,390.85	202,038.64	424,243.49	501,450.75
Attachments & Acces.	29.05	489.20	1,749.85	2,997.52	4,597.09	6,312.04	7,460.75
Tongs	612.68	10,317.84	36,906.37	63,221.12	96,958.01	133,128.24	157,356.00
Cement and Service	437.52	7,368.04	26,355.11	45,146.67	69,238.43	95,067.86	112,369.08
Production Liner	0.00	0.00	0.00	0.00	0.00	0.00	73,900.45
Attachments & Acces.	0.00	0.00	0.00	0.00	0.00	0.00	2,057.78
Linear Hanger & Running Eqpt	0.00	0.00	0.00	0.00	0.00	0.00	35,267.48
Tongs	0.00	0.00	0.00	0.00	0.00	0.00	5,580.13
Cement and Service	0.00	0.00	0.00	0.00	0.00	0.00	30,992.96
TOTAL	1,794.81	30,225.58	108,115.34	216,756.16	372,832.18	658,751.63	926,435.37
Rentals							
Wellsite trailer(s)	0.00	762.55	2,464.36	5,818.76	10,461.22	59,374.00	152,570.29
Sump pump(s)	0.00	0.00	0.00	0.00	0.00	24,112.57	61,960.83
Additional pumps, etc.	0.00	0.00	0.00	0.00	0.00	32,420.72	83,309.85
Solids control equipment	0.00	0.00	6,172.09	12,109.11	26,200.59	148,704.82	382,119.06
High Speed Mixer (s)	0.00	0.00	0.00	0.00	0.00	25,305.99	65,027.50
Tank Rental	0.00	0.00	769.76	1,817.54	3,267.65	34,773.72	56,592.28
TOTAL	0.00	762.55	9,406.21	19,745.41	39,929.46	324,691.83	801,579.82
Supervision and Administrations							
Drilling Supervisor(s)	966.63	2,482.98	8,024.35	18,946.84	34,063.45	96,665.74	248,396.95
Drilling Sup. Expenses	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Environmental Supervsion	0.00	0.00	0.00	0.00	30,282.50	85,936.11	220,825.56
Cleanup/reclamation Supervision	997.10	1,078.42	1,102.65	1,101.92	1,126.83	1,160.18	1,166.58
Geologist(s)	0.00	0.00	0.00	16,741.68	29,768.16	0.00	0.00
Geologist Expenses	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Geology Supplies	0.00	0.00	0.00	2,726.06	4,847.17	0.00	0.00
Communications	190.18	488.53	1,578.79	3,727.79	6,701.98	19,018.99	48,872.11
Operations overhead	216.14	555.20	1,794.27	4,236.57	7,616.69	21,614.77	55,542.35
TOTAL	2,370.05	4,605.13	12,500.06	47,480.86	114,406.78	224,395.78	574,803.54
Completion and Testing							

2008 Well Cost Update WL70

Wellhead	3,787.27	7,881.67	15,744.24	20,249.97	25,102.61	27,609.60	33,159.99
Tubing	384.84	6,520.90	22,812.46	39,104.02	58,645.34	78,208.04	117,290.68
Packers, Plugs, Retainers	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sucker Rod	181.91	3,063.49	10,957.93	19,498.64	29,903.77	41,059.38	0.00
Downhole Pump, PSN, Tbg Anchor	12,369.54	12,293.67	12,569.84	12,561.49	12,845.49	13,225.72	49,972.00
Service Rig	9,696.20	20,974.05	19,513.21	30,408.81	42,054.06	127,266.65	189,582.91
Boiler	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crew Subs & Accom.	185.61	373.53	401.50	582.10	805.03	1,443.69	2,073.78
Crew Transportation	398.78	431.30	501.58	781.64	2,161.95	4,264.83	6,126.21
Snubbing Unit	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Freight and Trucking	841.63	1,820.55	1,693.75	2,639.49	3,650.31	4,838.53	9,403.35
Vacuum Truck	890.86	1,927.04	1,792.82	2,793.88	3,863.81	5,485.56	9,953.34
Water and Trucking	1,142.41	3,819.09	4,389.12	6,839.87	9,459.24	16,963.64	24,367.41
Chemicals	0.00	597.81	1,945.68	3,464.97	5,389.91	7,365.87	11,107.71
Surface Eqpt. Rental	0.00	0.00	207.45	323.28	6,594.49	12,527.72	17,203.64
Downhole Tool Rentals	0.00	0.00	0.00	0.00	3,334.31	0.00	0.00
Cased Hole Well Logs	0.00	903.68	5,477.39	9,788.68	15,101.71	21,319.83	31,379.01
Perforating Shot and Run Charges	0.00	1,492.35	3,260.93	5,996.98	9,328.93	12,042.91	17,097.12
Other Wireline Services	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Slickline Services	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Stimulation	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Completions Supervisor	987.09	2,135.19	1,986.47	3,095.66	4,281.17	7,677.59	11,028.47
Completion Supervision Expenses	295.87	0.00	0.00	0.00	0.00	0.00	0.00
Inspection s(C/H Tool Rentals)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Environmental Inspections	2,715.56	2,937.04	2,732.47	2,838.81	2,944.46	3,017.38	6,144.76
Lease Cleanup & Reclam.	1,004.99	1,086.96	1,111.38	1,110.64	1,135.75	1,169.37	1,175.82
Flow Testing Crew & Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pump Jank (If Req'd)	18,129.52	31,233.03	38,700.11	66,739.38	119,209.99	179,862.18	0.00
Injection Eqpt - Glycol/Chemical	4,302.00	4,652.88	4,328.80	4,497.25	4,664.63	4,780.16	4,806.52
Flow Measure, Record and Transmit	7,401.74	8,005.43	7,447.86	7,737.68	8,025.66	8,224.42	8,269.78
TOTAL	28,845.12	59,681.89	98,864.71	151,332.38	222,041.03	365,266.97	502,188.96
Other							
Inspections	1,054.23	1,140.22	1,962.48	4,649.40	4,822.44	4,941.87	4,969.13
Garbage	155.26	398.81	1,288.85	2,434.56	5,471.20	15,526.24	39,896.98
TOTAL	1,209.49	1,539.03	3,251.34	7,083.96	10,293.64	20,468.11	44,866.10
SUB-TOTAL ASSESS	34,219.47	96,814.18	232,137.66	442,398.78	759,503.08	1,593,574.32	2,849,873.78
Contingency (5% of sub-total)	1,710.97	4,840.71	11,606.88	22,119.94	37,975.15	79,678.72	142,493.69
Office Administration (2% of sub)	684.39	1,936.28	4,642.75	8,847.98	15,190.06	31,871.49	56,997.48
Assessable Cost	36,614.84	103,591.17	248,387.29	473,366.70	812,668.30	1,705,124.53	3,049,364.95

2008 Well Cost Update WL70

# of wells							
Depth	18	305	1067	1829	2743	3658	5486
Assess.Cost							
	used in calculating linear equation						
FORMULA	y = 121.99x + 7597.8						
	(based on 1067\1829\2743 with an x-intercept of 7597.78)						

2008 Well Cost Update WL80

WL80 - 2008 (June 30)	18 m	305 m	1067	1829	2743	3658	5486
Casing and Cementing							
Surface Casing	0.00	2,781.95	12,986.39	28,752.55	52,487.84	53,787.77	101,408.22
Attachments & Acces.	0.00	166.91	621.14	1,075.52	1,784.87	1,829.08	3,448.43
Tongs	0.00	1,609.29	5,988.82	10,369.79	17,209.15	17,635.36	33,248.64
Cement and Service	0.00	1,930.67	7,184.79	12,440.63	20,645.82	21,157.15	39,888.41
Intermediate Casing	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Attachments & Acces.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tongs	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cement and Service	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Production Casing	715.57	12,050.50	43,104.01	105,390.85	202,038.64	424,243.49	501,450.75
Attachments & Acces.	29.05	489.20	1,749.85	2,997.52	4,597.09	6,312.04	7,460.75
Tongs	612.68	10,317.84	36,906.37	63,221.12	96,958.01	133,128.24	157,356.00
Cement and Service	437.52	7,368.04	26,355.11	45,146.67	69,238.43	95,067.86	112,369.08
Production Liner	0.00	0.00	0.00	0.00	0.00	0.00	73,900.45
Attachments & Acces.	0.00	0.00	0.00	0.00	0.00	0.00	2,057.78
Linear Hanger & Running Eqpt	0.00	0.00	0.00	0.00	0.00	0.00	35,267.48
Tongs	0.00	0.00	0.00	0.00	0.00	0.00	1,116.03
Cement and Service	0.00	0.00	0.00	0.00	0.00	0.00	30,992.96
TOTAL	1,794.81	30,225.58	108,115.34	216,756.16	372,832.18	658,751.63	921,971.27
Rentals							
Wellsite trailer(s)	0.00	762.55	2,464.36	5,818.76	10,461.22	59,374.00	152,570.29
Sump pump(s)	0.00	0.00	0.00	0.00	8,496.88	24,112.57	61,960.83
Additional pumps, etc.	0.00	0.00	0.00	0.00	0.00	32,420.72	83,309.85
Solids control equipment	0.00	0.00	6,172.09	12,109.11	26,200.59	148,704.82	382,119.06
High Speed Mixer (s)	0.00	0.00	0.00	0.00	8,917.42	25,305.99	65,027.50
Tank Rental	0.00	0.00	769.76	1,817.54	3,267.65	34,773.72	56,592.28
TOTAL	0.00	762.55	9,406.21	19,745.41	57,343.77	324,691.83	801,579.82
Supervision and Administrations							
Drilling Supervisor(s)	966.63	2,482.98	8,024.35	18,946.84	34,063.45	96,665.74	248,396.95
Drilling Sup. Expenses	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Environmental Supervsion	0.00	0.00	0.00	0.00	30,282.50	85,936.11	220,825.56
Cleanup/reclamation Supervision	997.10	1,078.42	1,102.65	1,101.92	1,126.83	1,160.18	1,166.58
Geologist(s)	0.00	0.00	3,453.13	16,741.68	29,768.16	87,703.04	230,052.22
Geologist Expenses	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Geology Supplies	0.00	0.00	562.28	2,726.06	4,847.17	14,280.75	37,459.57
Communications	190.18	488.53	1,578.79	3,727.79	6,701.98	19,018.99	48,872.11
Operations overhead	216.14	555.20	1,794.27	4,236.57	7,616.69	21,614.77	55,542.35
TOTAL	2,370.05	4,605.13	16,515.47	47,480.86	114,406.78	326,379.58	842,315.33
Completion and Testing							

2008 Well Cost Update WL80

Wellhead	3,787.27	7,881.67	15,744.24	20,249.97	25,102.61	27,609.60	33,159.99
Tubing	384.84	6,520.90	22,812.46	39,104.02	58,645.34	78,208.04	117,290.68
Packers, Plugs, Retainers	7,412.56	9,842.92	11,051.92	17,153.04	17,540.84	25,336.04	22,470.93
Sucker Rod	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Downhole Pump, PSN, Tbg Anchor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Service Rig	9,696.20	31,461.07	29,269.82	40,545.09	63,081.09	218,171.41	322,290.95
Boiler	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crew Subs & Accom.	185.61	602.25	560.30	776.14	1,207.54	2,474.89	3,525.43
Crew Transportation	398.78	646.95	752.36	1,042.19	3,242.93	7,311.13	10,414.55
Snubbing Unit	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Freight and Trucking	841.63	2,730.83	2,540.63	3,519.33	5,475.46	8,294.62	15,985.69
Vacuum Truck	890.86	2,890.55	2,689.23	3,725.17	5,795.71	9,403.81	16,920.68
Water and Trucking	1,142.41	3,706.77	3,448.59	4,777.05	7,432.26	15,232.66	21,698.60
Chemicals	0.00	597.81	1,945.68	3,464.97	5,389.91	7,365.87	11,107.71
Surface Eqpt. Rental	0.00	0.00	311.17	431.04	9,891.74	21,476.10	29,246.19
Downhole Tool Rentals	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cased Hole Well Logs	0.00	903.68	5,477.39	9,788.68	15,101.71	21,319.83	31,379.01
Perforating Shot and Run Charges	0.00	1,492.35	3,260.93	5,996.98	9,328.93	12,042.91	17,097.12
Other Wireline Services	34.38	743.69	1,976.84	3,850.82	6,390.62	8,731.85	11,523.76
Slickline Services	90.73	1,662.85	8,118.11	14,457.18	29,985.01	40,977.64	61,794.16
Stimulation	0.00	1,239.99	1,153.62	1,198.52	1,243.12	1,273.91	1,280.93
Completions Supervisor	987.09	3,202.78	2,979.71	4,127.55	6,421.75	13,161.59	18,748.40
Completion Supervision Expenses	295.87	960.01	893.14	1,237.20	1,924.86	3,945.07	5,619.67
Inspection s(C/H Tool Rentals)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Environmental Inspections	2,715.56	2,937.04	5,464.95	5,677.61	5,888.92	6,034.76	6,144.76
Lease Cleanup & Reclam.	1,004.99	1,086.96	1,111.38	1,110.64	1,135.75	1,169.37	1,175.82
Flow Testing Crew & Equipment	0.00	9,393.10	13,108.31	13,618.40	32,958.90	33,775.17	33,961.42
Pump Jank (If Req'd)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Injection Eqpt - Glycol/Chemical	4,302.00	4,652.88	4,328.80	4,497.25	4,664.63	4,780.16	4,806.52
Flow Measure, Record and Transmit	7,401.74	8,005.43	7,447.86	7,737.68	8,025.66	8,224.42	8,269.78
TOTAL	23,831.35	70,216.49	108,443.62	166,382.10	257,479.79	494,852.53	704,708.11
Other							
Inspections	1,054.23	1,140.22	1,962.48	4,649.40	4,822.44	4,941.87	4,969.13
Garbage	155.26	398.81	1,288.85	2,434.56	5,471.20	15,526.24	39,896.98
TOTAL	1,209.49	1,539.03	3,251.34	7,083.96	10,293.64	20,468.11	44,866.10
SUB-TOTAL ASSESS	29,205.70	107,348.78	245,731.98	457,448.50	812,356.15	1,825,143.68	3,315,440.63
Contingency (5% of sub-total)	1,460.29	5,367.44	12,286.60	22,872.43	40,617.81	91,257.18	165,772.03
Office Administration (2% of sub)	584.11	2,146.98	4,914.64	9,148.97	16,247.12	36,502.87	66,308.81
Assessable Cost	31,250.10	114,863.19	262,933.21	489,469.90	869,221.09	1,952,903.74	3,547,521.47

2008 Well Cost Update WL80

# of wells							
Depth	18	305	1067	1829	2743	3658	5486
Assess.Cost							
	used in calculating linear equation						
FORMULA	y = 121.99x + 7597.8						
	(based on 1067\1829\2743 with an x-intercept of 7597.78)						

2008 Well Cost Update WL90

WL90 - 2008 (June 30)	18 m	305 m	1067	1829	2743	3658	5486
Casing and Cementing							
Surface Casing	0.00	4,427.36	14,610.20	28,752.55	52,487.84	53,787.77	101,408.22
Attachments & Acces.	0.00	166.91	621.14	1,075.52	1,784.87	1,829.08	3,448.43
Tongs	0.00	1,609.29	5,988.82	10,369.79	17,209.15	17,635.36	33,248.64
Cement and Service	0.00	1,930.67	7,184.79	12,440.63	20,645.82	21,157.15	39,888.41
Intermediate Casing	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Attachments & Acces.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tongs	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cement and Service	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Production Casing	1,519.47	25,588.71	91,529.49	153,770.93	294,785.26	424,243.49	501,450.75
Attachments & Acces.	29.05	489.20	1,749.85	2,997.52	4,597.09	6,312.04	7,460.75
Tongs	612.68	10,317.84	36,906.37	63,221.12	96,958.01	133,128.24	157,356.00
Cement and Service	437.52	7,368.04	26,355.11	45,146.67	69,238.43	95,067.86	112,369.08
Production Liner	0.00	0.00	0.00	0.00	0.00	0.00	73,900.45
Attachments & Acces.	0.00	0.00	0.00	0.00	0.00	0.00	2,057.78
Linear Hanger & Running Eqpt	0.00	0.00	0.00	0.00	0.00	0.00	35,267.48
Tongs	0.00	0.00	0.00	0.00	0.00	0.00	1,116.03
Cement and Service	0.00	0.00	0.00	0.00	0.00	0.00	30,992.96
TOTAL	2,598.72	43,763.79	156,540.83	265,136.24	465,578.79	658,751.63	921,971.27
Rentals							
Wellsite trailer(s)	0.00	762.55	2,464.36	5,818.76	10,461.22	59,374.00	152,570.29
Sump pump(s)	0.00	0.00	0.00	0.00	8,496.88	24,112.57	61,960.83
Additional pumps, etc.	0.00	0.00	0.00	0.00	0.00	32,420.72	83,309.85
Solids control equipment	0.00	0.00	6,172.09	12,109.11	26,200.59	148,704.82	382,119.06
High Speed Mixer (s)	0.00	0.00	0.00	0.00	8,917.42	25,305.99	65,027.50
Tank Rental	0.00	0.00	769.76	1,817.54	3,267.65	34,773.72	56,592.28
TOTAL	0.00	762.55	9,406.21	19,745.41	57,343.77	324,691.83	801,579.82
Supervision and Administrations							
Drilling Supervisor(s)	966.63	2,482.98	8,024.35	18,946.84	34,063.45	96,665.74	248,396.95
Drilling Sup. Expenses	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Environmental Supervsion	0.00	0.00	0.00	0.00	30,282.50	85,936.11	220,825.56
Cleanup/reclamation Supervision	997.10	1,078.42	1,102.65	1,101.92	1,126.83	1,160.18	1,166.58
Geologist(s)	0.00	0.00	3,453.13	16,741.68	29,768.16	87,703.04	230,052.22
Geologist Expenses	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Geology Supplies	0.00	0.00	562.28	2,726.06	4,847.17	14,280.75	37,459.57
Communications	190.18	488.53	1,578.79	3,727.79	6,701.98	19,018.99	48,872.11
Operations overhead	216.14	555.20	1,794.27	4,236.57	7,616.69	21,614.77	55,542.35
TOTAL	2,370.05	4,605.13	16,515.47	47,480.86	114,406.78	326,379.58	842,315.33
Completion and Testing							

2008 Well Cost Update WL90

Wellhead	14,202.25	13,259.68	19,680.31	28,116.87	37,840.14	42,181.34	50,125.57
Tubing	491.86	12,998.68	42,416.59	75,581.72	119,406.76	163,889.75	232,816.52
Packers, Plugs, Retainers	16,344.09	22,886.31	23,894.37	24,063.61	21,831.41	25,336.04	0.00
Sucker Rod	222.34	5,875.86	19,173.81	35,489.88	56,068.20	76,955.47	0.00
Downhole Pump, PSN, Tbg Anchor	12,912.19	12,832.99	13,121.28	13,112.56	13,409.02	13,805.93	88,736.68
Service Rig	29,088.59	73,409.17	87,809.45	121,635.26	157,702.73	327,257.11	454,998.99
Boiler	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crew Subs & Accom.	556.83	1,405.25	1,680.90	2,328.42	3,018.85	3,712.33	4,977.07
Crew Transportation	1,196.33	1,509.55	2,257.09	3,126.56	8,107.31	10,966.70	14,702.90
Snubbing Unit	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Freight and Trucking	2,524.90	6,371.94	7,621.89	10,557.98	13,688.64	12,441.93	22,568.03
Vacuum Truck	2,672.58	6,744.63	8,067.68	11,175.50	14,489.28	14,105.72	23,888.01
Water and Trucking	3,427.24	8,649.12	10,345.77	14,331.15	18,580.65	22,848.99	30,633.32
Chemicals	0.00	597.81	1,945.68	3,464.97	5,389.91	7,365.87	11,107.71
Surface Eqpt. Rental	0.00	0.00	933.52	1,293.13	24,729.34	32,214.15	41,288.74
Downhole Tool Rentals	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cased Hole Well Logs	0.00	903.68	5,477.39	9,788.68	15,101.71	21,319.83	31,379.01
Perforating Shot and Run Charges	0.00	2,231.93	5,226.82	9,826.47	15,684.15	20,720.97	28,557.04
Other Wireline Services	34.38	743.69	1,976.84	3,850.82	6,390.62	8,731.85	11,523.76
Slickline Services	166.35	4,784.10	23,674.65	52,627.62	84,330.79	153,604.55	218,205.69
Stimulation	0.00	1,239.99	1,153.62	1,198.52	1,243.12	1,273.91	1,280.93
Completions Supervisor	2,961.26	7,473.16	8,939.13	12,382.65	16,054.37	19,742.38	26,468.33
Completion Supervision Expenses	887.61	2,240.02	2,679.43	3,711.59	4,812.16	5,917.61	7,933.65
Inspection s(C/H Tool Rentals)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Environmental Inspections	2,715.56	2,937.04	5,464.95	5,677.61	5,888.92	6,034.76	6,144.76
Lease Cleanup & Reclam.	1,004.99	1,086.96	1,111.38	1,110.64	1,135.75	1,169.37	1,175.82
Flow Testing Crew & Equipment	0.00	9,393.10	13,108.31	13,618.40	32,958.90	33,775.17	33,961.42
Pump Jank (If Req'd)	18,129.52	31,233.03	38,700.11	66,739.38	119,209.99	179,862.18	0.00
Injection Eqpt - Glycol/Chemical	4,302.00	4,652.88	4,328.80	4,497.25	4,664.63	4,780.16	4,806.52
Flow Measure, Record and Transmit	7,401.74	8,005.43	7,447.86	7,737.68	8,025.66	8,224.42	8,269.78
TOTAL	80,738.14	170,126.18	268,448.64	410,475.50	598,575.08	943,165.74	1,235,055.96
Other							
Inspections	1,054.23	1,140.22	1,962.48	4,649.40	4,822.44	4,941.87	4,969.13
Garbage	155.26	398.81	1,288.85	2,434.56	5,471.20	15,526.24	39,896.98
TOTAL	1,209.49	1,539.03	3,251.34	7,083.96	10,293.64	20,468.11	44,866.10
SUB-TOTAL ASSESS	86,916.41	220,796.68	454,162.48	749,921.97	1,246,198.05	2,273,456.90	3,845,788.47
Contingency (5% of sub-total)	4,345.82	11,039.83	22,708.12	37,496.10	62,309.90	113,672.84	192,289.42
Office Administration (2% of sub)	1,738.33	4,415.93	9,083.25	14,998.44	24,923.96	45,469.14	76,915.77
Assessable Cost	93,000.55	236,252.45	485,953.86	802,416.51	1,333,431.92	2,432,598.88	4,114,993.67

2008 Well Cost Update WL90

# of wells							
Depth	18	305	1067	1829	2743	3658	5486
Assess.Cost							
	used in calculating linear equation						
FORMULA	y = 121.99x + 7597.8						
	(based on 1067\1829\2743 with an x-intercept of 7597.78)						

2008 Well Cost Update WL110

WL110 - 2008 (June 30)	18 m	305 m	1067	1829	2743	3658	5486
Casing and Cementing							
Surface Casing	0.00	4,462.12	16,605.35	28,752.55	52,487.84	53,787.77	101,408.22
Attachments & Acces.	0.00	166.91	621.14	1,075.52	1,784.87	1,829.08	3,448.43
Tongs	0.00	1,609.29	5,988.82	10,369.79	17,209.15	17,635.36	33,248.64
Cement and Service	0.00	1,930.67	7,184.79	12,440.63	20,645.82	21,157.15	39,888.41
Intermediate Casing	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Attachments & Acces.	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tongs	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cement and Service	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Production Casing	1,561.95	26,304.11	94,088.45	161,174.81	308,978.81	424,243.49	501,450.75
Attachments & Acces.	29.05	489.20	1,749.85	2,997.52	4,597.09	6,312.04	7,460.75
Tongs	612.68	10,317.84	36,906.37	63,221.12	96,958.01	133,128.24	157,356.00
Cement and Service	437.52	7,368.04	26,355.11	45,146.67	69,238.43	95,067.86	112,369.08
Production Liner	0.00	0.00	0.00	0.00	0.00	0.00	73,900.45
Attachments & Acces.	0.00	0.00	0.00	0.00	0.00	0.00	2,057.78
Linear Hanger & Running Eqpt	0.00	0.00	0.00	0.00	0.00	0.00	35,267.48
Tongs	0.00	0.00	0.00	0.00	0.00	0.00	3,348.08
Cement and Service	0.00	0.00	0.00	0.00	0.00	0.00	30,992.96
TOTAL	2,641.20	44,479.20	159,099.78	272,540.12	479,772.35	658,751.63	924,203.32
Rentals							
Wellsite trailer(s)	0.00	762.55	2,464.36	5,818.76	10,461.22	59,374.00	152,570.29
Sump pump(s)	0.00	0.00	0.00	0.00	8,496.88	24,112.57	61,960.83
Additional pumps, etc.	0.00	0.00	0.00	0.00	0.00	32,420.72	83,309.85
Solids control equipment	0.00	0.00	6,172.09	12,109.11	26,200.59	148,704.82	382,119.06
High Speed Mixer (s)	0.00	0.00	0.00	0.00	8,917.42	25,305.99	65,027.50
Tank Rental	185.45	0.00	1,539.53	3,635.08	6,535.31	34,773.72	56,592.28
TOTAL	185.45	762.55	10,175.98	21,562.95	60,611.42	324,691.83	801,579.82
Supervision and Administrations							
Drilling Supervisor(s)	966.63	2,482.98	8,024.35	18,946.84	34,063.45	96,665.74	248,396.95
Drilling Sup. Expenses	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Environmental Supervsion	0.00	0.00	0.00	0.00	30,282.50	85,936.11	220,825.56
Cleanup/reclamation Supervision	997.10	1,078.42	1,102.65	1,101.92	1,126.83	1,160.18	1,166.58
Geologist(s)	0.00	0.00	3,453.13	16,741.68	29,768.16	87,703.04	230,052.22
Geologist Expenses	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Geology Supplies	0.00	0.00	562.28	2,726.06	4,847.17	14,280.75	37,459.57
Communications	190.18	488.53	1,578.79	3,727.79	6,701.98	19,018.99	48,872.11
Operations overhead	216.14	555.20	1,794.27	4,236.57	7,616.69	21,614.77	55,542.35
TOTAL	2,370.05	4,605.13	16,515.47	47,480.86	114,406.78	326,379.58	842,315.33
Completion and Testing							

2008 Well Cost Update WL110

Wellhead	15,385.77	14,043.85	20,773.66	20,249.97	37,840.14	43,715.20	50,125.57
Tubing	491.86	12,998.68	42,416.59	75,581.72	119,406.76	163,889.75	232,816.52
Packers, Plugs, Retainers	16,344.09	22,898.39	23,894.37	24,063.61	21,831.41	25,336.04	22,470.93
Sucker Rod	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Downhole Pump, PSN, Tbg Anchor	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Service Rig	19,392.39	62,922.14	78,052.84	111,498.99	52,567.58	272,714.26	360,207.54
Boiler	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Crew Subs & Accom.	371.22	1,204.50	1,494.14	2,134.38	1,006.28	3,093.61	3,940.18
Crew Transportation	797.55	1,293.90	2,006.30	2,866.02	2,702.44	9,138.91	11,639.79
Snubbing Unit	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Freight and Trucking	1,683.27	4,562.88	5,461.66	6,775.01	9,678.15	10,368.27	17,866.36
Vacuum Truck	1,781.72	4,829.76	5,781.11	7,171.27	10,244.21	11,754.77	18,911.34
Water and Trucking	2,284.83	7,413.53	9,196.24	13,136.89	16,193.55	19,040.82	24,251.38
Chemicals	0.00	597.81	1,945.68	3,464.97	5,389.91	7,365.87	11,107.71
Surface Eqpt. Rental	206.16	0.00	829.79	1,185.37	8,243.11	26,845.12	32,686.92
Downhole Tool Rentals	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cased Hole Well Logs	0.00	903.68	5,477.39	9,788.68	15,101.71	21,319.83	31,379.01
Perforating Shot and Run Charges	0.00	2,231.93	5,226.82	9,826.47	15,684.15	20,720.97	28,557.04
Other Wireline Services	34.38	743.69	1,976.84	3,850.82	6,390.62	8,731.85	11,523.76
Slickline Services	110.90	3,189.40	6,405.57	7,945.90	11,350.76	38,401.14	54,551.42
Stimulation	0.00	1,239.99	1,153.62	1,198.52	1,243.12	1,273.91	1,280.93
Completions Supervisor	1,974.17	5,351.46	7,945.90	11,350.76	5,351.46	16,451.98	20,954.10
Completion Supervision Expenses	591.74	1,920.01	2,381.71	3,402.29	1,604.05	4,931.34	6,280.81
Inspection s(C/H Tool Rentals)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Environmental Inspections	2,715.56	2,937.04	5,464.95	5,677.61	5,888.92	6,034.76	6,144.76
Lease Cleanup & Reclam.	1,004.99	1,086.96	1,111.38	1,110.64	1,135.75	1,169.37	1,175.82
Flow Testing Crew & Equipment	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pump Jank (If Req'd)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Injection Eqpt - Glycol/Chemical	4,302.00	4,652.88	4,328.80	4,497.25	4,664.63	4,780.16	4,806.52
Flow Measure, Record and Transmit	7,401.74	8,005.43	7,447.86	7,737.68	8,025.66	8,224.42	8,269.78
TOTAL	56,816.29	137,508.67	210,741.31	306,141.60	324,957.83	670,738.10	888,193.64
Other							
Inspections	1,054.23	1,140.22	1,962.48	4,649.40	4,822.44	4,941.87	4,969.13
Garbage	155.26	398.81	1,288.85	2,434.56	5,471.20	15,526.24	39,896.98
TOTAL	1,209.49	1,539.03	3,251.34	7,083.96	10,293.64	20,468.11	44,866.10
SUB-TOTAL ASSESS	63,222.48	188,894.57	399,783.87	654,809.50	990,042.01	2,001,029.25	3,501,158.21
Contingency (5% of sub-total)	3,161.12	9,444.73	19,989.19	32,740.47	49,502.10	100,051.46	175,057.91
Office Administration (2% of sub)	1,264.45	3,777.89	7,995.68	13,096.19	19,800.84	40,020.59	70,023.16
Assessable Cost	67,648.06	202,117.19	427,768.74	700,646.16	1,059,344.95	2,141,101.30	3,746,239.28

2008 Well Cost Update WL110

# of wells							
Depth	18	305	1067	1829	2743	3658	5486
Assess.Cost							
	used in calculating linear equation						
FORMULA	y = 121.99x + 7597.8						
	(based on 1067\1829\2743 with an x-intercept of 7597.78)						

2008 Well Cost Update WL230

WL230 - 2008 (June 30)	18 m	305 m	1067
Casing and Cementing			
Surface Casing	0.00	0.00	10,352.76
Attachments & Acces.	0.00	0.00	621.14
Tongs	0.00	0.00	5,988.82
Cement and Service	0.00	0.00	7,184.79
Intermediate Casing	0.00	0.00	0.00
Attachments & Acces.	0.00	0.00	0.00
Tongs	0.00	0.00	0.00
Cement and Service	0.00	0.00	0.00
Production Casing	715.57	12,050.50	43,104.01
Attachments & Acces.	29.05	489.20	1,749.85
Tongs	612.68	10,317.84	36,906.37
Cement and Service	437.52	7,368.04	26,355.11
Production Liner	0.00	0.00	0.00
Attachments & Acces.	0.00	0.00	0.00
Linear Hanger & Running Eqpt	0.00	0.00	0.00
Tongs	0.00	0.00	0.00
Cement and Service	0.00	0.00	0.00
TOTAL	1,794.81	30,225.58	108,115.34
Rentals			
Wellsite trailer(s)	0.00	762.55	1,344.19
Sump pump(s)	0.00	0.00	0.00
Additional pumps, etc.	0.00	0.00	0.00
Solids control equipment	0.00	0.00	3,366.60
High Speed Mixer (s)	0.00	0.00	0.00
Tank Rental	0.00	0.00	0.00
TOTAL	0.00	762.55	4,710.79
Supervision and Administrations			
Drilling Supervisor(s)	966.63	2,482.98	4,376.92
Drilling Sup. Expenses	0.00	0.00	0.00
Environmental Supervision	0.00	0.00	0.00
Cleanup/reclamation Supervision	997.10	1,078.42	1,102.65
Geologist(s)	0.00	0.00	0.00
Geologist Expenses	0.00	0.00	0.00
Geology Supplies	0.00	0.00	0.00
Communications	190.18	488.53	861.16

2008 Well Cost Update WL230

Operations overhead	0.00	0.00	0.00
TOTAL	2,153.91	4,049.93	6,340.73
Completion and Testing			
Wellhead	3,787.27	7,881.67	15,744.24
Tubing	384.84	6,520.90	22,812.46
Packers, Plugs, Retainers	0.00	0.00	0.00
Sucker Rod	0.00	0.00	0.00
Downhole Pump, PSN, Tbg Anchor	0.00	0.00	0.00
Service Rig	5,635.91	12,191.17	11,342.05
Boiler	0.00	0.00	0.00
Crew Subs & Accom.	92.81	201.50	373.53
Crew Transportation	199.39	215.65	250.79
Snubbing Unit	0.00	0.00	0.00
Freight and Trucking	420.82	910.28	846.88
Vacuum Truck	445.43	963.52	896.41
Water and Trucking	571.21	1,235.59	1,449.53
Chemicals	0.00	597.81	1,945.68
Surface Eqpt. Rental	0.00	0.00	103.72
Downhole Tool Rentals	0.00	0.00	0.00
Cased Hole Well Logs	0.00	903.68	5,477.39
Perforating Shot and Run Charges	0.00	36,027.82	48,498.61
Other Wireline Services	0.00	0.00	0.00
Slickline Services	0.00	0.00	0.00
Stimulation	0.00	885.71	824.02
Completions Supervisor	493.54	1,067.59	993.24
Completion Supervision Expenses	147.94	320.00	297.71
Inspection s(C/H Tool Rentals)	0.00	0.00	0.00
Environmental Inspections	2,715.56	2,937.04	5,464.95
Lease Cleanup & Reclam.	1,004.99	1,086.96	1,111.38
Flow Testing Crew & Equipment	0.00	0.00	0.00
Pump Jank (If Req'd)	0.00	0.00	0.00
Injection Eqpt - Glycol/Chemical	4,302.00	4,652.88	4,328.80
Flow Measure, Record and Transmit	0.00	0.00	0.00
TOTAL	11,020.71	67,631.93	109,188.65
Other			
Inspections	1,054.23	1,140.22	1,962.48
Garbage	135.54	348.17	1,125.20

2008 Well Cost Update WL230

TOTAL	1,189.78	1,488.39	3,087.68
SUB-TOTAL ASSESS	16,159.20	104,158.38	231,443.19
Contingency (5% of sub-total)	807.96	5,207.92	11,572.16
Office Administration (2% of sub)	323.18	2,083.17	4,628.86
Assessable Cost	17,290.35	111,449.46	247,644.21
# of wells			
Depth	18	305	1067
Assess.Cost			
	used in calculating linear equation		
FORMULA	$y = 121.99x + 7597.8$		
	(based on 1067\1829\2743 with an x-intercept of 7597.78)		

2008 Well Cost Update WL240

WL240 - 2008 (June 30)	18 m	305 m	1067
Casing and Cementing			
Surface Casing	0.00	0.00	10,352.76
Attachments & Acces.	0.00	0.00	621.14
Tongs	0.00	0.00	5,988.82
Cement and Service	0.00	0.00	7,184.79
Intermediate Casing	0.00	0.00	0.00
Attachments & Acces.	0.00	0.00	0.00
Tongs	0.00	0.00	0.00
Cement and Service	0.00	0.00	0.00
Production Casing	715.57	12,050.50	43,104.01
Attachments & Acces.	29.05	489.20	1,749.85
Tongs	612.68	10,317.84	36,906.37
Cement and Service	437.52	7,368.04	26,355.11
Production Liner	0.00	0.00	0.00
Attachments & Acces.	0.00	0.00	0.00
Linear Hanger & Running Eqpt	0.00	0.00	0.00
Tongs	0.00	0.00	0.00
Cement and Service	0.00	0.00	0.00
TOTAL	1,794.81	30,225.58	108,115.34
Rentals			
Wellsite trailer(s)	0.00	762.55	1,344.19
Sump pump(s)	0.00	0.00	0.00
Additional pumps, etc.	0.00	0.00	0.00
Solids control equipment	0.00	0.00	3,366.60
High Speed Mixer (s)	0.00	0.00	0.00
Tank Rental	0.00	0.00	419.87
TOTAL	0.00	762.55	5,130.66
Supervision and Administrations			
Drilling Supervisor(s)	966.63	2,482.98	4,376.92
Drilling Sup. Expenses	0.00	0.00	0.00
Environmental Supervsion	0.00	0.00	0.00
Cleanup/reclamation Supervision	997.10	1,078.42	1,102.65
Geologist(s)	0.00	0.00	0.00
Geologist Expenses	0.00	0.00	0.00
Geology Supplies	0.00	0.00	0.00
Communications	190.18	488.53	861.16
Operations overhead	216.14	555.20	978.69
TOTAL	2,370.05	4,605.13	7,319.42
Completion and Testing			

2008 Well Cost Update WL240

Wellhead	3,787.27	7,881.67	15,744.24
Tubing	384.84	6,520.90	22,812.46
Packers, Plugs, Retainers	7,412.56	8,574.82	7,964.79
Sucker Rod	0.00	0.00	0.00
Downhole Pump, PSN, Tbg Anchor	0.00	0.00	0.00
Service Rig	11,271.83	24,382.33	34,026.16
Boiler	0.00	0.00	0.00
Crew Subs & Accom.	185.61	401.50	560.30
Crew Transportation	398.78	431.30	752.36
Snubbing Unit	0.00	0.00	0.00
Freight and Trucking	841.63	1,820.55	2,540.63
Vacuum Truck	890.86	1,927.04	2,689.23
Water and Trucking	1,142.41	2,471.18	3,448.59
Chemicals	0.00	597.81	1,945.68
Surface Eqpt. Rental	0.00	0.00	311.17
Downhole Tool Rentals	0.00	0.00	0.00
Cased Hole Well Logs	0.00	903.68	5,477.39
Perforating Shot and Run Charges	0.00	36,027.82	48,498.61
Other Wireline Services	34.38	743.69	1,976.84
Slickline Services	90.73	1,662.85	5,412.07
Stimulation	0.00	885.71	824.02
Completions Supervisor	987.09	2,135.19	2,979.71
Completion Supervision Expenses	295.87	640.00	893.14
Inspection s(C/H Tool Rentals)	0.00	0.00	0.00
Environmental Inspections	2,715.56	2,937.04	5,464.95
Lease Cleanup & Reclam.	1,004.99	1,086.96	1,111.38
Flow Testing Crew & Equipment	0.00	0.00	0.00
Pump Jank (If Req'd)	0.00	0.00	0.00
Injection Eqpt - Glycol/Chemical	4,302.00	4,652.88	4,328.80
Flow Measure, Record and Transmit	7,401.74	8,005.43	7,447.86
TOTAL	25,406.98	93,427.64	152,314.88
Other			
Inspections	1,054.23	1,140.22	1,962.48
Garbage	155.26	398.81	1,288.85
TOTAL	1,209.49	1,539.03	3,251.34
SUB-TOTAL ASSESS	30,781.33	130,559.93	276,131.63
Contingency (5% of sub-total)	1,539.07	6,528.00	13,806.58
Office Administration (2% of sub)	615.63	2,611.20	5,522.63
Assessable Cost	32,936.03	139,699.12	295,460.84

2008 Well Cost Update WL240

# of wells			
Depth	18	305	1067
Assess.Cost			
	used in calculating linear equation		
FORMULA	$y = 121.99x + 7597.8$		
	(based on 1067\1829\2743 with an x-intercept of 7597.78)		