Executive Summary:

The focal point of this report was to establish which of the three wells provided would generate the maximum amount of gas and oil to subsequently produce the a highest profit for the company hiring. Such a task was a result of using a hyperbolic decline formula to forecast the production of the three wells, three years into the future. After tedious calculations, the results show that the well offered through the company BP will yield the leading profit results. The BP gas well produced $172,288.92 in profit while the BP oil well produced $74,978.43, grossing a total net production of $247,267.35, thus my recommendation is to invest in the BP gas and oil well.

Table of Contents:

Introduction:

The goal of our consulting firm was to select one well from three, offered by the following companies: BP, Shell, and Haliburton. Information was researched and records were provided, displaying the production of the three wells numerous years into the past. From here, we graphed the production of those three wells in BBLS ("Blue" Barrels) for oil and MCF (one thousand cubic feet of gas) for gas. After this course of action, we needed to anticipate the production of the three wells, three years into the future, so the data was manipulated using a hyperbolic decline formula (*please refer to methodology for a further explanation). After we had the net profit for the future years, we used the Net Present Value Formula to convert this to the present value of the U.S. dollar to take in consideration inflation and also to "level the playing field" so to say between the three wells; this way, the amount of money produced is at an equal standard, and can be compared in the same manner. After the present value for the future profit is determined, we are ready to compare productivity. From this point, it is a simple analysis of which sum is the greatest. The sum with greatest value will be the recommended well by our consulting firm.

Methodology:

(**BBLS)**: a standard measurement of oil production

(MCF): a standard measurement of gas production; it stands for one thousand cubic feet of gas

(Hyperbolic Decline Formula): $q=q_i * (1+b*D_i *t)^{(-1/b)}$ where:
q_i = initial rate
b = decline rate
D_i = decline exponent
t = time

(Net Present Value Formula): $P=F/(1+i)^n$ where:
P = present value
F = net cash flow
i = interest rate set at (.01) or 1%
n = number of months

(Revenue): $R= A_p * C$ where:
A_p = Amount Produced
C = cost for that year

(Direct Cost): $DC= A_p * DC$ where:
A_p = Amount Produced
DC = Direct Cost; set at $4.35 for oil and $.65 for gas

(Tax in a Dollar Amount): $T=(R-DC)*T_r$ where:
R = Revenue
DC = Direct Cost
T_r = Tax Rate at 46% or .46

(Net Cash Flow): NCF = (R-DC-T) where:
R = Revenue
DC = Direct Cost
T = Tax Rate in Dollar Amount

Further needed information:

Price Expectancy for Oil in next three years:
Year 1: $27.75
Year 2: $34.50
Year 3: $30.00

Price Expectancy for Gas in next three years:
Year 1: $7.65
Year 2: $8.07
Year 3: $9.05

Set Tax Rate: 46% or .46

Direct Cost Rate:
For Oil: $4.35
For Gas: $.65

Results and Discussion:

Note to client: The information used to explain the process of selection and analysis of the well receiving our recommendation will be explained and displayed through only one well's data to keep from redundancy. These steps and measures are applied to the other two wells, just as they were to the well used as an example for this discussion. Keep in mind, all well data will be displayed so that you, the client, will be able to see for yourself the information used to determine a final recommendation.

To begin the selection process, each well was analyzed and any information that would some how render an inaccurate display of the well's production, such as zeros resulting from no production what-so-ever, were deleted, making way for a clear slate to analyze the actual production of both gas and oil for each well.

The second step provided to determine energy production was to simply use the data accumulated from the well's history and graph it. This was done for both oil and gas, taking into consideration the number of months, and the actual amount produced for those months (see figure: 1 for example).

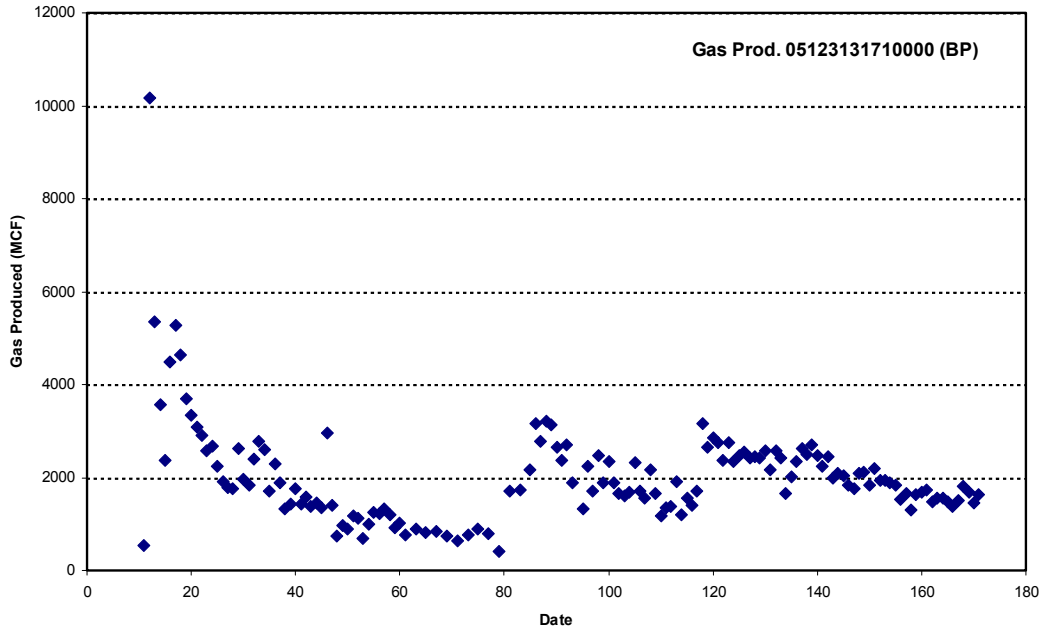


Figure: 1

As you can see, the production for the well has a pattern of rise and fall, rise and fall. This is due to regeneration of the well, meaning the well has been "stirred up" to produce once again. This pattern can also be traced through the use of a hyperbolic decline formula (see list of equations in introduction). The formula uses the existing information to track production, and must be set up for each of the pieces above (please see graph). Keep in mind, the final decline is the standard for future production. Using the formula above, we find a general area where production begins, and adjust the formula to make a smooth curve for each of the declines. The curve, though, must start where you can see a noticeable lump amount of production. Stray data can alter your ultimate

outcome, so we started our curves where actual production could be smoothly tracked and would follow an even downward decline (please see figure: 2).

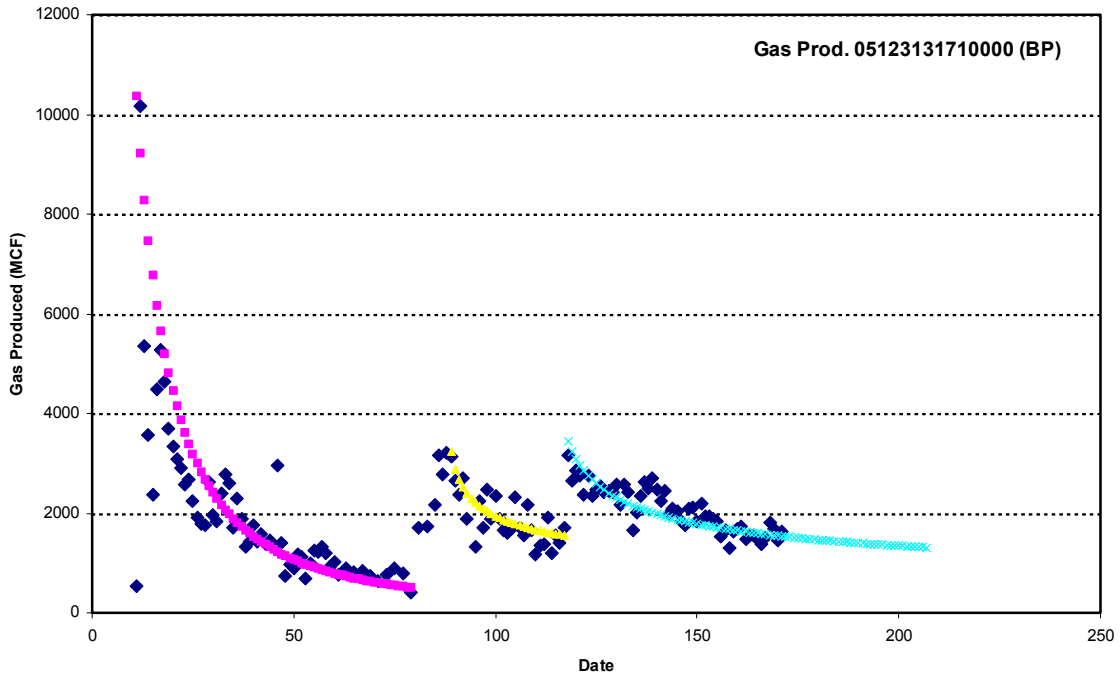


Figure 2

As you can see in the figure above, we only provided a curve for area with recognizable declines. Any stray marks were simply ignored.

The third step in determining the highest production is to use the final decline curve of each graph (for example, the light blue curve in fig. 2) and use it to predict the next three years. This is done simply through taking the values used to find the decline curves and extending them an additional 3 years (36 months). We simply grabbed the info from the hyperbolic decline formula and dragged it 36 more cells to represent 36 more months. This will give you the actual nature of production values for the next three years.

After this step, we are now ready to find dollar amounts and conclusively, the actual profit you will make from this well. We do this by applying the Net Present Value Formula (see methodology for further explanation) and by calculating other aspects of such as revenue, direct cost of production, etc. This will give you the actual dollar amount for production of each well, but the dollar amount does not remain the same over the next three years. The effect of war on our nation must be taken into consideration and may result in an increase in prices, so meticulous research was done to find the predictions of prices for those next three years. For gas, the prices were as follows: year one would produce a price of $7.65 per MCF, year 2 would produce a price of $8.07 per MCF, and year 3 would produce a price of $9.05 per MCF. These dollar amounts were used to calculate **revenue** (please see methodology for further explanation). From here, we had to also calculate the direct cost. The direct cost was calculated by multiplying a set rate of $4.35 for oil and $.65 for gas by the amount each energy resource produced. Next, the tax in dollar amounts was calculated; this was done by subtracting direct cost from revenue and multiplying the difference by a tax rate of 46%. Finally, we can calculate the future dollar profit

(Net Cash Flow) by subtracting direct cost and tax in dollar amount from the revenue (please see methodology for best explanations of each equation). Please see the tables below to see a visual presentation of this material and keep in mind since the two figures above represent only the gas production of the company BP, the table below will only show visual values for gas dollar values of BP.

Month	Revenue	Direct Cost	Tax @ 46%	Net Cash Flow
1	$11,623.60	$ 987.63	$ 4,892.55	$ 5,743.43
2	$11,559.91	$ 982.21	$ 4,865.74	$ 5,711.96
3	$11,497.59	$ 976.92	$ 4,839.51	$ 5,681.16
4	$11,436.60	$ 971.74	$ 4,813.83	$ 5,651.02
5	$11,376.87	$ 966.66	$ 4,788.70	$ 5,621.51
6	$11,318.38	$ 961.69	$ 4,764.08	$ 5,592.61
7	$11,261.07	$ 956.82	$ 4,739.95	$ 5,564.29
8	$11,204.90	$ 952.05	$ 4,716.31	$ 5,536.54
9	$11,149.84	$ 947.37	$ 4,693.14	$ 5,509.33
10	$11,095.85	$ 942.78	$ 4,670.41	$ 5,482.65
11	$11,042.88	$ 938.28	$ 4,648.12	$ 5,456.48
12	$10,990.92	$ 933.87	$ 4,626.24	$ 5,430.81

Month	Revenue	Direct Cost	Tax @ 46%	Net Cash Flow
13	$11,540.54	$ 929.54	$ 4,881.06	$ 5,729.94
14	$11,487.72	$ 925.28	$ 4,858.72	$ 5,703.72
15	$11,435.85	$ 921.10	$ 4,836.79	$ 5,677.97
16	$11,384.91	$ 917.00	$ 4,815.24	$ 5,652.67
17	$11,334.87	$ 912.97	$ 4,794.07	$ 5,627.83
18	$11,285.69	$ 909.01	$ 4,773.28	$ 5,603.41
19	$11,237.36	$ 905.12	$ 4,752.83	$ 5,579.41
20	$11,189.84	$ 901.29	$ 4,732.74	$ 5,555.82
21	$11,143.12	$ 897.53	$ 4,712.97	$ 5,532.62
22	$11,097.17	$ 893.82	$ 4,693.54	$ 5,509.81
23	$11,051.97	$ 890.18	$ 4,674.42	$ 5,487.36
24	$11,007.49	$ 886.60	$ 4,655.61	$ 5,465.28

Month	Revenue	Direct Cost	Tax @ 46%	Net Cash Flow
25	$12,295.13	$ 883.08	$5,249.55	$ 6,162.51
26	$12,246.82	$ 879.61	$5,228.92	$ 6,138.30
27	$12,199.26	$ 876.19	$5,208.61	$ 6,114.46
28	$12,152.43	$ 872.83	$5,188.62	$ 6,090.99
29	$12,106.31	$ 869.51	$5,168.93	$ 6,067.87
30	$12,060.88	$ 866.25	$5,149.53	$ 6,045.10
31	$12,016.13	$ 863.04	$5,130.42	$ 6,022.67
32	$11,972.03	$ 859.87	$5,111.59	$ 6,000.57
33	$11,928.58	$ 856.75	$5,093.04	$ 5,978.79
34	$11,885.74	$ 853.67	$5,074.75	$ 5,957.32
35	$11,843.52	$ 850.64	$5,056.73	$ 5,936.16
36	$11,801.89	$ 847.65	$5,038.95	$ 5,915.29

Figure 3

As you can see in figure 3, this is the generated future dollar amount. Now we must bring this to the present value of the U.S. dollar so that each well can be compared equally. This, as stated above, is done through the Net Present Value Formula (see methodology for further explanation). In order to do this we take the Net Cash Flow values (see figure 3) and insert them into the Net Present Value Formula (please use methodology as reference). The outcome of the formula will be the actual profit you would receive from each well. Please see figure 4 for visual present dollar amounts of BP gas example.

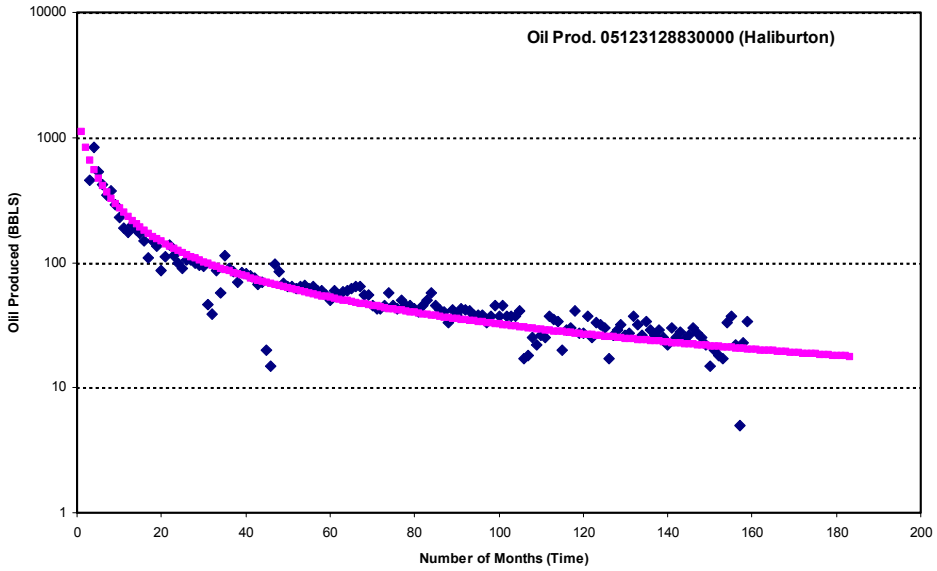
Year 1	Year2	Year 3	
$ 5,686.56	$ 5,034.68	$4,805.33	
$ 5,599.41	$ 4,962.02	$4,739.06	
$ 5,514.08	$ 4,890.71	$4,673.92	
$ 5,430.52	$ 4,820.72	$4,609.87	
$ 5,348.68	$ 4,752.01	$4,546.91	Total
$ 5,268.49	$ 4,684.55	$4,485.00	$ 172,288.92
$ 5,189.92	$ 4,618.30	$4,424.12	
$ 5,112.90	$ 4,553.24	$4,364.24	
$ 5,037.40	$ 4,489.34	$4,305.34	
$ 4,963.38	$ 4,426.56	$4,247.41	
$ 4,890.78	$ 4,364.88	$4,190.42	
$ 4,819.56	$ 4,304.27	$4,134.34	

Figure 4

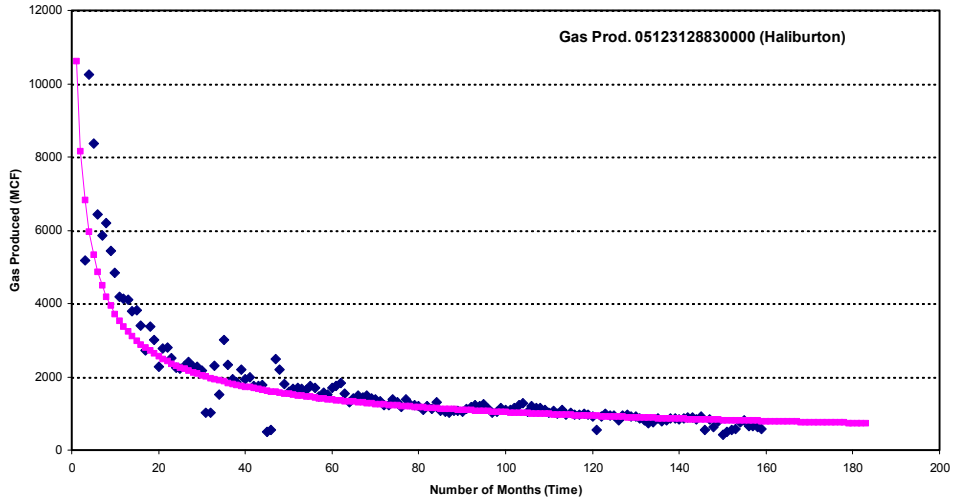
Now that you know the process by which each well was analyzed, I would like to present to you the information regarding all three wells, and finally, the outcome by which we determine our final conclusion.

Haliburton Data & Results:

The first well offered was Haliburton (ID # 05123128830000). The well, as you can see from its graph, presents only one hyperbolic decline, so only one curve was needed for both the graph of its gas and oil (see the figures below for visual).



Figures 5



These two graphs simply depict the actual production of the Haliburton well as well as the curve used to forecast production for the next three years.

This data was actually obtained and can be viewed in the figure below. The first two columns indicate the future months and amount of production. The final five are actual processing toward a future profit amount, which is explained in the methodology.

OIL

Proj. Month	Amount Prod.
148	21.97
149	21.83
150	21.68
151	21.54
152	21.41
153	21.27
154	21.13
155	21.00
156	20.87
157	20.74
158	20.61
159	20.48
160	20.36
161	20.23
162	20.11
163	19.99
164	19.87
165	19.75
166	19.64
167	19.52
168	19.41
169	19.29
170	19.18
171	19.07
172	18.97
173	18.86
174	18.75
175	18.65
176	18.54
177	18.44
178	18.34
179	18.24
180	18.14
181	18.04
182	17.94
183	17.85

Months	Revenue	Direct Cost	Tax @46%	Net Cash Flow
1	**609.70**	**95.57**	236.50	277.63
2	605.70	94.95	234.95	275.81
3	601.75	94.33	233.41	274.01
4	597.85	93.72	231.90	272.23
5	594.00	93.11	230.41	270.48
6	590.20	92.52	228.93	268.75
7	586.45	91.93	227.48	267.04
8	582.75	91.35	226.04	265.35
9	579.09	90.78	224.62	263.69
10	575.48	90.21	223.22	262.04
11	571.91	89.65	221.84	260.42
12	568.39	89.10	220.47	258.82
13	702.32	88.55	282.33	331.44
14	698.05	88.02	280.62	329.42
15	693.83	87.48	278.92	327.43
16	689.66	86.96	277.24	325.46
17	685.55	86.44	275.59	323.52
18	681.48	85.93	273.95	321.60
19	677.45	85.42	272.34	319.70
20	673.48	84.92	270.74	317.82
21	669.55	84.42	269.16	315.97
22	665.67	83.93	267.60	314.14
23	661.84	83.45	266.06	312.33
24	658.04	82.97	264.53	310.54
25	568.95	82.50	223.77	262.69
26	565.73	82.03	222.50	261.20
27	562.54	81.57	221.25	259.73
28	559.39	81.11	220.01	258.27
29	556.28	80.66	218.78	256.83
30	553.20	80.21	217.57	255.41
31	550.15	79.77	216.37	254.00
32	547.14	79.34	215.19	252.61
33	544.16	78.90	214.02	251.24
34	541.21	78.48	212.86	249.88
35	538.30	78.05	211.71	248.53
36	535.41	77.63	210.58	247.20

Figures 6

GAS

Proj. Month	Amount Prod.
148	828.31
149	825.14
150	822.01
151	818.91
152	815.84
153	812.80
154	809.80
155	806.82
156	803.88
157	800.96
158	798.07
159	795.21
160	792.38
161	789.58
162	786.80
163	784.05
164	781.33
165	778.63
166	775.96
167	773.31
168	770.69
169	768.09
170	765.51
171	762.96
172	760.44
173	757.93
174	755.45
175	752.99
176	750.55
177	748.14
178	745.74
179	743.37
180	741.01
181	738.68
182	736.37
183	734.07

Months	Revenue	Direct Cost	Tax @46%	Net Cash Flow
1	**6336.56**	**538.40**	1257.37	1473.05
2	6312.34	536.34	2656.96	3119.04
3	6288.37	534.31	2646.87	3107.19
4	6264.65	532.29	2636.89	3095.47
5	6241.18	530.30	2627.01	3083.88
6	6217.94	528.32	2617.23	3072.40
7	6194.95	526.37	2607.55	3061.03
8	6172.18	524.43	2597.96	3049.78
9	6149.64	522.52	2588.48	3038.65
10	6127.33	520.62	2579.09	3027.62
11	6105.24	518.75	2569.79	3016.71
12	6083.37	516.89	2560.58	3005.90
13	6394.51	515.05	2704.55	3174.91
14	6371.88	513.22	2694.98	3163.68
15	6349.48	511.42	2685.51	3152.55
16	6327.29	509.63	2676.12	3141.53
17	6305.31	507.86	2666.82	3130.62
18	6283.54	506.11	2657.62	3119.81
19	6261.97	504.37	2648.50	3109.10
20	6240.61	502.65	2639.46	3098.50
21	6219.45	500.95	2630.51	3087.99
22	6198.48	499.26	2621.64	3077.58
23	6177.70	497.58	2612.85	3067.26
24	6157.12	495.93	2604.15	3057.04
25	6881.95	494.28	2939.08	3448.59
26	6859.29	492.66	2929.39	3437.24
27	6836.82	491.04	2919.79	3425.99
28	6814.56	489.44	2910.28	3414.84
29	6792.50	487.86	2900.86	3403.78
30	6770.63	486.29	2891.51	3392.83
31	6748.96	484.73	2882.25	3381.97
32	6727.47	483.19	2873.07	3371.21
33	6706.18	481.66	2863.98	3360.54
34	6685.06	480.14	2854.95	3349.96
35	6664.13	478.64	2846.01	3339.48
36	6643.38	477.15	2836.47	3329.76

The two images in figure 6 show the projected amounts. Now it is time to bring them to a standard present dollar amount so that they may be compared equally with the other two wells.

This again is by taking the future Net Cash Flow found in the tables above and plugging that value into your Net Present Value Formula. The following resulted.

Oil Profit	
$ 274.88	
$ 270.37	
$ 265.95	
$ 261.61	
$ 257.35	
$ 253.17	
$ 249.07	
$ 245.05	
$ 241.10	
$ 237.23	
$ 233.42	
$ 229.69	
$ 291.22	
$ 286.58	
$ 282.03	
$ 277.56	Total
$ 273.17	$ 8,485.24
$ 268.86	
$ 264.63	
$ 260.47	
$ 256.39	
$ 252.38	
$ 248.44	
$ 244.57	
$ 204.83	
$ 201.66	
$ 198.54	
$ 195.47	
$ 192.46	
$ 189.50	
$ 186.59	
$ 183.73	
$ 180.92	
$ 178.16	
$ 175.44	
$ 172.77	

Gas Profit	
$ 1,458.47	
$ 3,057.58	
$ 3,015.81	
$ 2,974.69	
$ 2,934.20	
$ 2,894.34	
$ 2,855.08	
$ 2,816.42	
$ 2,778.36	
$ 2,740.87	
$ 2,703.95	
$ 2,667.58	
$ 2,789.67	
$ 2,752.28	
$ 2,715.45	
$ 2,679.17	Total
$ 2,643.43	$94,067.26
$ 2,608.22	
$ 2,573.53	
$ 2,539.36	
$ 2,505.69	
$ 2,472.52	
$ 2,439.83	
$ 2,407.62	
$ 2,689.10	
$ 2,653.71	
$ 2,618.84	
$ 2,584.47	
$ 2,550.60	
$ 2,517.22	
$ 2,484.32	
$ 2,451.89	
$ 2,419.94	
$ 2,388.44	
$ 2,357.39	
$ 2,327.25	

As you can see, the Haliburton well produced $8,485.24 in oil and $94,067.26 in gas giving a combined total of $102,552.50.

Shell Data & Results:

The second well was offered by Shell (ID # 05123123280000). The graph of figure 8 clearly shows the well was regenerated once more, so the second and final decline is used to anticipate the following three years of production. Below, in figure 8, are the graphs of oil and gas with their decline curves.

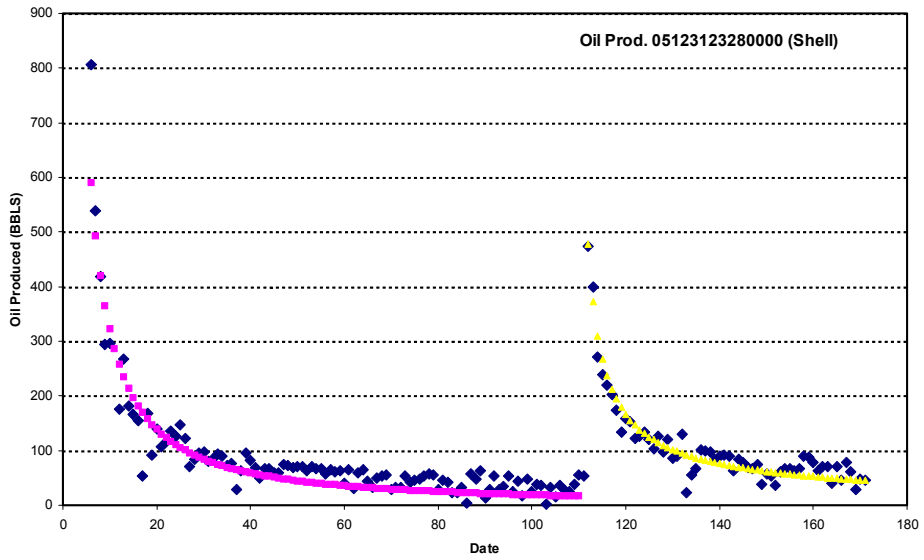
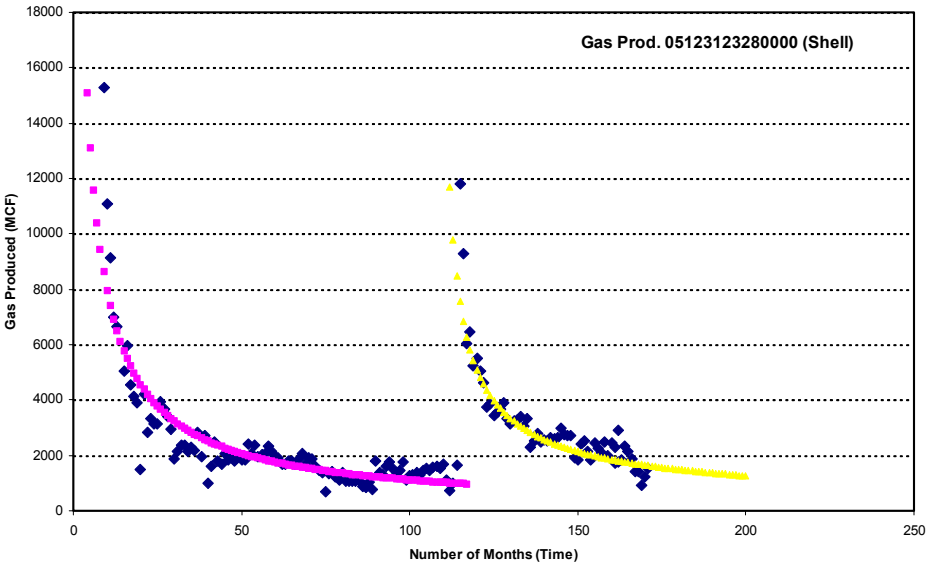


Figure 8



As visualized above in the chart, the projection of the future, three years are produced from the second final curve. The following data was obtained and the following dollar amounts were produced for those three years (see figure 9).

OIL

Month	Amount Prod.
173	44.60
174	44.09
175	43.60
176	43.12
177	42.65
178	42.20
179	41.75
180	41.32
181	40.90
182	40.49
183	40.08
184	39.69
185	39.30
186	38.93
187	38.56
188	38.20
189	37.85
190	37.51
191	37.17
192	36.84
193	36.52
194	36.20
195	35.89
196	35.59
197	35.29
198	35.00
199	34.71
200	34.43
201	34.16
202	33.89
203	33.62
204	33.36
205	33.11
206	32.86
207	32.61
208	32.37

Month	Revenue	Direct Cost	Tax @ 46%	Net Cash Flow
1	1237.66	194.01	480.08	563.57
2	1223.62	191.81	474.63	557.18
3	1209.95	189.67	469.33	550.95
4	1196.63	187.58	464.16	544.89
5	1183.66	185.55	459.13	538.98
6	1171.01	183.56	454.23	533.22
7	1158.68	181.63	449.44	527.61
8	1146.65	179.75	444.78	522.13
9	1134.92	177.91	440.23	516.79
10	1123.47	176.11	435.78	511.57
11	1112.28	174.36	431.44	506.48
12	1101.36	172.65	427.21	501.50
13	1355.99	170.97	545.11	639.91
14	1343.02	169.34	539.89	633.79
15	1330.34	167.74	534.80	627.81
16	1317.94	166.18	529.81	621.95
17	1305.82	164.65	524.94	616.23
18	1293.95	163.15	520.17	610.63
19	1282.34	161.69	515.50	605.15
20	1270.97	160.25	510.93	599.79
21	1259.83	158.85	506.45	594.53
22	1248.93	157.47	502.07	589.38
23	1238.24	156.13	497.77	584.34
24	1227.77	154.81	493.56	579.40
25	1058.70	153.51	416.39	492.24
26	1049.95	152.24	412.95	488.14
27	1041.37	151.00	409.57	484.11
28	1032.96	149.78	406.26	480.16
29	1024.70	148.58	403.02	476.29
30	1016.60	147.41	399.83	472.49
31	1008.65	146.25	396.70	468.76
32	1000.85	145.12	393.63	465.10
33	993.18	144.01	390.62	461.51
34	985.66	142.92	387.66	457.98
35	978.26	141.85	384.75	454.52
36	971.00	140.80	381.89	448.31

Figure 9

GAS

Month	Amount Prod.
173	1,592.79
174	1,576.47
175	1,560.56
176	1,545.04
177	1,529.91
178	1,515.14
179	1,500.72
180	1,486.64
181	1,472.89
182	1,459.44
183	1,446.31
184	1,433.46
185	1,420.89
186	1,408.60
187	1,396.57
188	1,384.79
189	1,373.26
190	1,361.97
191	1,350.90
192	1,340.06
193	1,329.43
194	1,319.01
195	1,308.79
196	1,298.77
197	1,288.93
198	1,279.29
199	1,269.82
200	1,260.52
201	1,251.39
202	1,242.42
203	1,233.62
204	1,224.97
205	1,216.46
206	1,208.11
207	1,199.89
208	1,191.82

Month	Revenue	Direct Cost	Tax @ 46%	Net Cash Flow
1	$ 12,184.87	$ 1,035.32	$ 5,128.79	$ 6,020.76
2	$ 12,060.00	$ 1,024.71	$ 5,076.24	$ 5,959.05
3	$ 11,938.28	$ 1,014.36	$ 5,025.00	$ 5,898.02
4	$ 11,819.59	$ 1,004.28	$ 4,975.04	$ 5,840.27
5	$ 11,703.81	$ 994.44	$ 4,926.31	$ 5,783.06
6	$ 11,590.82	$ 984.84	$ 4,878.75	$ 5,727.23
7	$ 11,480.51	$ 975.47	$ 4,832.32	$ 5,672.72
8	$ 11,372.80	$ 966.32	$ 4,786.98	$ 5,619.50
9	$ 11,267.57	$ 957.38	$ 4,742.69	$ 5,567.51
10	$ 11,164.75	$ 948.64	$ 4,699.41	$ 5,516.70
11	$ 11,064.24	$ 940.10	$ 4,657.11	$ 5,467.04
12	$ 10,965.97	$ 931.75	$ 4,615.74	$ 5,418.48
13	$ 11,466.62	$ 931.75	$4,846.04	$ 5,688.83
14	$ 11,466.62	$ 923.58	$4,849.80	$ 5,693.24
15	$ 11,367.41	$ 915.59	$4,807.84	$ 5,643.98
16	$ 11,270.32	$ 907.77	$4,766.77	$ 5,595.78
17	$ 11,175.28	$ 900.12	$4,726.58	$ 5,548.59
18	$ 11,082.22	$ 892.62	$4,687.21	$ 5,502.38
19	$ 10,991.07	$ 885.28	$4,648.66	$ 5,457.13
20	$ 10,901.77	$ 878.09	$4,610.89	$ 5,412.79
21	$ 10,814.26	$ 871.04	$4,573.88	$ 5,369.34
22	$ 10,728.49	$ 864.13	$4,537.61	$ 5,326.76
23	$ 10,644.40	$ 857.36	$4,502.04	$ 5,285.00
24	$ 10,561.94	$ 850.71	$4,467.16	$ 5,244.06
25	$ 11,753.85	$ 844.20	$ 5,018.44	$ 5,891.21
26	$ 11,664.86	$ 7,582.16	$ 1,878.04	$ 2,204.66
27	$ 11,577.54	$ 7,525.40	$ 1,863.98	$ 2,188.15
28	$ 11,491.83	$ 7,469.69	$ 1,850.18	$ 2,171.96
29	$ 11,407.69	$ 7,415.00	$ 1,836.64	$ 2,156.05
30	$ 11,325.08	$ 7,361.30	$ 1,823.34	$ 2,140.44
31	$ 11,243.94	$ 7,308.56	$ 1,810.27	$ 2,125.10
32	$ 11,164.24	$ 7,256.76	$ 1,797.44	$ 2,110.04
33	$ 11,085.94	$ 7,205.86	$ 1,784.84	$ 2,095.24
34	$ 11,009.00	$ 7,155.85	$ 1,772.45	$ 2,080.70
35	$ 10,933.38	$ 7,106.70	$ 1,760.27	$ 2,066.41
36	$ 10,859.05	$ 7,058.38	$ 1,748.31	$ 2,052.36

As stated before, the projected amounts of Net Cash Flow are then plugged into the Net Present Value Formula, and thus, a final present dollar amount is once again ready to be compared.

Oil Profit	
$ 557.99	
$ 546.20	
$ 534.75	
$ 523.63	
$ 512.82	
$ 502.32	
$ 492.11	
$ 482.18	
$ 472.52	
$ 463.12	
$ 453.97	
$ 445.06	
$ 562.26	
$ 551.37	
$ 540.76	
$ 530.42	
$ 520.33	
$ 510.50	
$ 500.91	
$ 491.55	
$ 482.42	
$ 473.51	**Total**
$ 464.81	$16,249.11
$ 456.32	
$ 383.84	
$ 376.87	
$ 370.06	
$ 363.41	
$ 356.91	
$ 350.55	
$ 344.34	
$ 338.27	
$ 332.34	
$ 326.53	
$ 320.85	
$ 313.34	

Gas Profit	
$ 5,961.15	
$ 5,841.63	
$ 5,724.56	
$ 5,612.38	
$ 5,502.38	
$ 5,395.31	
$ 5,291.05	
$ 5,189.51	
$ 5,090.59	
$ 4,994.20	
$ 4,900.24	
$ 4,808.62	
$ 4,998.56	
$ 4,952.91	
$ 4,861.44	
$ 4,772.20	
$ 4,685.10	
$ 4,600.09	
$ 4,517.08	
$ 4,436.02	
$ 4,356.85	
$ 4,279.50	**Total**
$ 4,203.91	$140,902.45
$ 4,130.05	
$ 4,593.78	
$ 1,702.10	
$ 1,672.63	
$ 1,643.81	
$ 1,615.62	
$ 1,588.04	
$ 1,561.05	
$ 1,534.64	
$ 1,508.79	
$ 1,483.48	
$ 1,458.71	
$ 1,434.45	

Figure 10

As you can see from the present profit figures above, the Shell well produced $16,249.11 in oil and $140,902.45 in gas, thus a total is produced in the amount of $157,151.56

BP Data & Results:

The third well offered was through BP (ID # 05123131710000). The graphs below are once again the visual tracking of their production and also the hyperbolic decline curve for each of the regenerations. Keep in mind that one of the graphs had three hyperbolic declines, so the third and final curve was used to predict the following three years. In the oil graph, they're two declines so two curves are needed, but keep in mind that the second decline is "fuzzy" so you must start the curve where an actual trend can be physically seen. If not, this can ultimately alter your results.

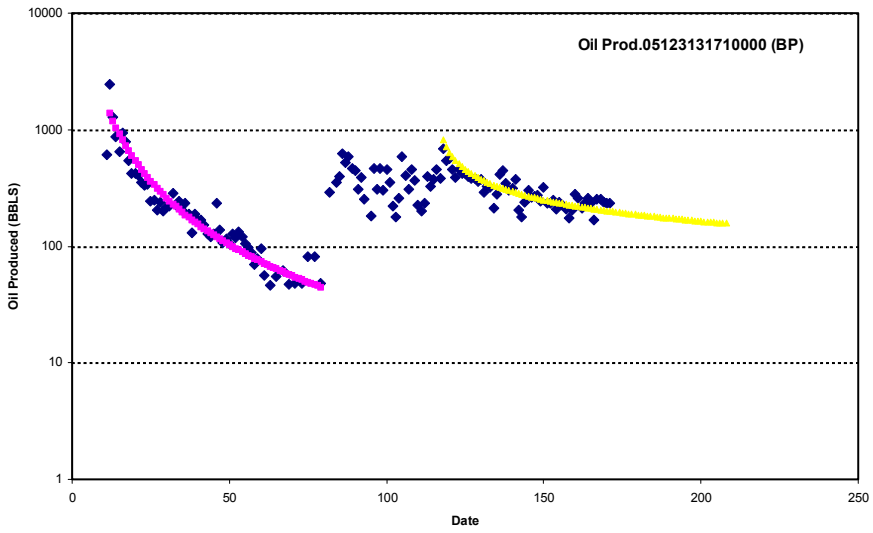
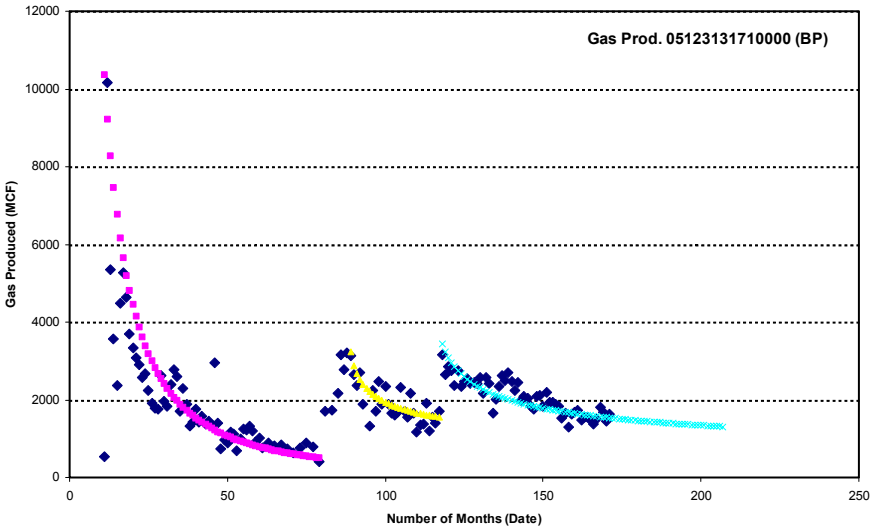


Figure 11



Data from the graph was projected once again three years into the future and the following production and dollar amounts were produced (see figure 12).

OIL

Month	Amount Produced
173.00	196.73
174.00	195.13
175.00	193.57
176.00	192.05
177.00	190.57
178.00	189.12
179.00	187.71
180.00	186.32
181.00	184.97
182.00	183.65
183.00	182.36
184.00	181.09
185.00	179.85
186.00	178.64
187.00	177.45
188.00	176.29
189.00	175.15
190.00	174.03
191.00	172.94
192.00	171.86
193.00	170.81
194.00	169.78
195.00	168.76
196.00	167.76
197.00	166.79
198.00	165.82
199.00	164.88
200.00	163.95
201.00	163.04
202.00	162.14
203.00	161.26
204.00	160.40
205.00	159.55
206.00	158.71
207.00	157.88
208.00	157.07

Month	Revenue	Net Cost	Tax at 46%	Net Cash Flow
1	$ 5,459.25	$ 855.77	$ 2,117.60	$ 2,485.88
2	$ 5,414.92	$ 848.82	$ 2,100.40	$ 2,465.69
3	$ 5,371.68	$ 842.05	$ 2,083.63	$ 2,446.00
4	$ 5,329.50	$ 835.44	$ 2,067.27	$ 2,426.80
5	$ 5,288.33	$ 828.98	$ 2,051.30	$ 2,408.05
6	$ 5,248.13	$ 822.68	$ 2,035.71	$ 2,389.74
7	$ 5,208.86	$ 816.52	$ 2,020.47	$ 2,371.86
8	$ 5,170.49	$ 810.51	$ 2,005.59	$ 2,354.39
9	$ 5,132.98	$ 804.63	$ 1,991.04	$ 2,337.31
10	$ 5,096.30	$ 798.88	$ 1,976.81	$ 2,320.61
11	$ 5,060.43	$ 793.26	$ 1,962.90	$ 2,304.27
12	$ 5,025.32	$ 787.75	$ 1,949.28	$ 2,288.29
13	$ 6,204.97	$ 782.37	$ 2,494.40	$ 2,928.21
14	$ 6,163.15	$ 777.09	$ 2,477.59	$ 2,908.47
15	$ 6,122.18	$ 771.93	$2,461.12	$ 2,889.14
16	$ 6,082.05	$ 766.87	$2,444.98	$ 2,870.20
17	$ 6,042.72	$ 761.91	$2,429.17	$ 2,851.64
18	$ 6,004.17	$ 757.05	$2,413.68	$ 2,833.45
19	$ 5,966.37	$ 752.28	$2,398.48	$ 2,815.61
20	$ 5,929.30	$ 747.61	$2,383.58	$ 2,798.12
21	$ 5,892.94	$ 743.02	$2,368.96	$ 2,780.95
22	$ 5,857.25	$ 738.52	$2,354.62	$ 2,764.11
23	$ 5,822.23	$ 734.11	$2,340.54	$ 2,747.59
24	$ 5,787.85	$ 729.77	$2,326.72	$ 2,731.36
25	$ 5,003.56	$ 725.52	$1,967.90	$ 2,310.14
26	$ 4,974.73	$ 721.34	$1,956.56	$ 2,296.83
27	$ 4,946.41	$ 717.23	$ 1,945.42	$ 2,283.76
28	$ 4,918.58	$ 713.19	$ 1,934.48	$ 2,270.91
29	$ 4,891.23	$ 709.23	$ 1,923.72	$ 2,258.28
30	$ 4,864.35	$ 705.33	$ 1,913.15	$ 2,245.87
31	$ 4,837.92	$ 701.50	$ 1,902.75	$ 2,233.67
32	$ 4,811.93	$ 697.73	$ 1,892.53	$ 2,221.67
33	$ 4,786.37	$ 694.02	$ 1,882.48	$ 2,209.87
34	$ 4,761.22	$ 690.38	$ 1,872.59	$ 2,198.26
35	$ 4,736.48	$ 686.79	$ 1,862.86	$ 2,186.83
36	$ 4,712.14	$ 683.26	$ 1,853.28	$ 2,175.59

Figure 12

GAS

Month	Amount Produced
173	1,519.43
174	1,511.10
175	1,502.95
176	1,494.98
177	1,487.17
178	1,479.53
179	1,472.04
180	1,464.69
181	1,457.50
182	1,450.44
183	1,443.51
184	1,436.72
185	1,430.05
186	1,423.51
187	1,417.08
188	1,410.77
189	1,404.57
190	1,398.48
191	1,392.49
192	1,386.60
193	1,380.81
194	1,375.11
195	1,369.51
196	1,364.00
197	1,358.58
198	1,353.24
199	1,347.98
200	1,342.81
201	1,337.71
202	1,332.69
203	1,327.75
204	1,322.88
205	1,318.07
206	1,313.34
207	1,308.68
208	1,304.08

Month	Revenue	Net Cost	Tax at 46%	Net Cash Flow
1	$ 11,623.60	$ 987.63	$ 4,892.55	$ 5,743.43
2	$ 11,559.91	$ 982.21	$ 4,865.74	$ 5,711.96
3	$ 11,497.59	$ 976.92	$ 4,839.51	$ 5,681.16
4	$ 11,436.60	$ 971.74	$ 4,813.83	$ 5,651.02
5	$ 11,376.87	$ 966.66	$ 4,788.70	$ 5,621.51
6	$ 11,318.38	$ 961.69	$ 4,764.08	$ 5,592.61
7	$ 11,261.07	$ 956.82	$ 4,739.95	$ 5,564.29
8	$ 11,204.90	$ 952.05	$ 4,716.31	$ 5,536.54
9	$ 11,149.84	$ 947.37	$ 4,693.14	$ 5,509.33
10	$ 11,095.85	$ 942.78	$ 4,670.41	$ 5,482.65
11	$ 11,042.88	$ 938.28	$ 4,648.12	$ 5,456.48
12	$ 10,990.92	$ 933.87	$ 4,626.24	$ 5,430.81
13	$ 11,540.54	$ 929.54	$ 4,881.06	$ 5,729.94
14	$ 11,487.72	$ 925.28	$4,858.72	$ 5,703.72
15	$ 11,435.85	$ 921.10	$4,836.79	$ 5,677.97
16	$ 11,384.91	$ 917.00	$4,815.24	$ 5,652.67
17	$ 11,334.87	$ 912.97	$4,794.07	$ 5,627.83
18	$ 11,285.69	$ 909.01	$4,773.28	$ 5,603.41
19	$ 11,237.36	$ 905.12	$4,752.83	$ 5,579.41
20	$ 11,189.84	$ 901.29	$4,732.74	$ 5,555.82
21	$ 11,143.12	$ 897.53	$4,712.97	$ 5,532.62
22	$ 11,097.17	$ 893.82	$4,693.54	$ 5,509.81
23	$ 11,051.97	$ 890.18	$4,674.42	$ 5,487.36
24	$ 11,007.49	$ 886.60	$4,655.61	$ 5,465.28
25	$ 12,295.13	$ 883.08	$5,249.55	$ 6,162.51
26	$ 12,246.82	$ 879.61	$ 5,228.92	$ 6,138.30
27	$ 12,199.26	$ 876.19	$ 5,208.61	$ 6,114.46
28	$ 12,152.43	$ 872.83	$ 5,188.62	$ 6,090.99
29	$ 12,106.31	$ 869.51	$ 5,168.93	$ 6,067.87
30	$ 12,060.88	$ 866.25	$ 5,149.53	$ 6,045.10
31	$ 12,016.13	$ 863.04	$ 5,130.42	$ 6,022.67
32	$ 11,972.03	$ 859.87	$ 5,111.59	$ 6,000.57
33	$ 11,928.58	$ 856.75	$ 5,093.04	$ 5,978.79
34	$ 11,885.74	$ 853.67	$ 5,074.75	$ 5,957.32
35	$ 11,843.52	$ 850.64	$ 5,056.73	$ 5,936.16
36	$ 11,801.89	$ 847.65	$ 5,038.95	$ 5,915.29

The projected dollar amounts are once again plugged into the Net Present Value Formula, and thus, a present dollar profit is displayed for comparison. This is the final data piece (see figure 13).

Oil Profit	
$ 2,461.26	
$ 2,417.11	
$ 2,374.07	
$ 2,332.10	
$ 2,291.18	
$ 2,251.25	
$ 2,212.28	
$ 2,174.24	
$ 2,137.10	
$ 2,100.82	
$ 2,065.37	
$ 2,030.74	
$ 2,572.91	
$ 2,530.26	
$ 2,488.56	
$ 2,447.77	
$ 2,407.86	
$ 2,368.81	
$ 2,330.59	
$ 2,293.18	**Total**
$ 2,256.55	$ 74,978.43
$ 2,220.68	
$ 2,185.55	
$ 2,151.13	
$ 1,801.38	
$ 1,773.26	
$ 1,745.71	
$ 1,718.70	
$ 1,692.23	
$ 1,666.26	
$ 1,640.80	
$ 1,615.83	
$ 1,591.33	
$ 1,567.30	
$ 1,543.72	
$ 1,520.58	

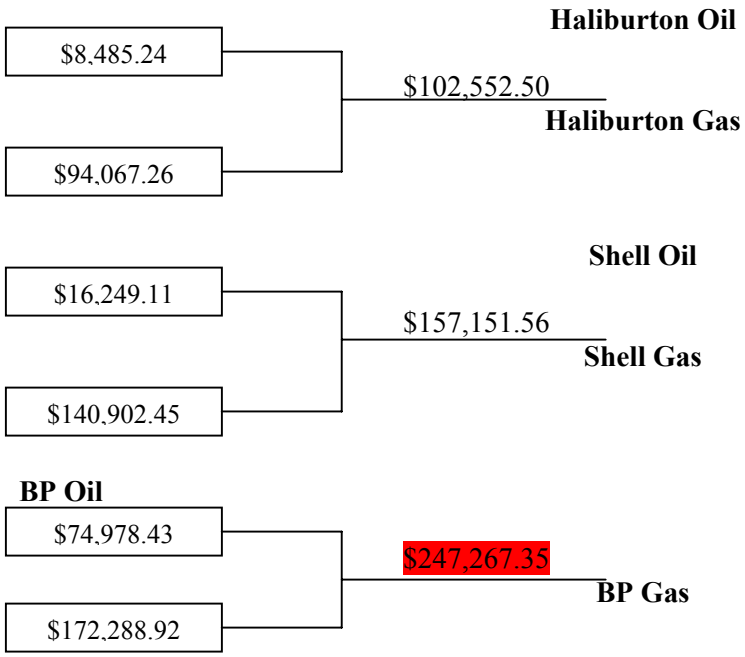
Gas Profit	
$5,686.56	
$5,599.41	
$5,514.08	
$5,430.52	
$5,348.68	
$5,268.49	
$5,189.92	
$5,112.90	
$5,037.40	
$4,963.38	
$4,890.78	
$4,819.56	
$5,034.68	
$4,962.02	
$4,890.71	
$4,820.72	
$4,752.01	
$4,684.55	
$4,618.30	
$4,553.24	**Total**
$4,489.34	$ 172,288.92
$4,426.56	
$4,364.88	
$4,304.27	
$4,805.33	
$4,739.06	
$4,673.92	
$4,609.87	
$4,546.91	
$4,485.00	
$4,424.12	
$4,364.24	
$4,305.34	
$4,247.41	
$4,190.42	
$ 4,134.34	

This is the final step in determining the production profit from the BP well. The following were the results: a present profit of $74,978.43 was produced from oil and $172,288.92 was produced in gas. This gives a sum production profit of $247,267.35

Conclusion:

Coming to a conclusion was quite simple. After researching past data, graphing it, finding a general behavior, taking that behavior and projecting a future production, using production to find a future profit, and finally, taking that future profit and bringing it to a present value that can be compared evenly, it is a simple question of which produced the highest dollar amount.

The tree below can show the following comparison:



It was the task of our company to determine a way to some-how project future production of these three wells in order to give our client some basis for investment. I believe that we have accomplished this task through meticulous analysis and calculations. The ranking of the three wells in the figure above go in ascending order of present profit value, so my conclusion is as follows: in the best interest of my client, I, Michael E. Bayne recommend the BP well which produces a profit of $247,267.35.