



EMERALD OPERATING COMPANY

<https://EOC-Energy.com/>

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(o)303-761-9041 (m)720-838-8338

LEASE OPERATING EXPENSES (OPEX) COMPARISON **Conventional, de-watering CBM vs GEM TOOL Equipped CBM**

<u>ITEM</u>	<u>Conventional NE WY CBM</u> <u>(~2009 actual) +</u>		<u>Estimated 2025</u> <u>Conventional CBM</u> <u>Monthly OPEX</u>	<u>2025 BioGem CBM</u> <u>Monthly OPEX</u>
	<u>Yearly Expense</u>	<u>Average Monthly OPEX 2009</u>	<u>**Average Monthly OPEX 2025 (Used 25%)</u>	<u>Monthly BioGem OPEX</u>
Pumping Services	\$6,000	\$500	\$625	\$100
Contract Labor	\$9,000	\$750	\$938	\$500
Pump Change	\$15,000	\$1,250	\$1,563	\$0
Chemicals	\$750	\$63	\$78	\$0
Service Rig	\$7,500	\$625	\$781	\$250
Electricity	\$60,000	\$5,000	\$6,250	\$0
Lease & Road Mte.	\$600	\$50	\$63	\$63
Water Analysis	\$20	\$2	\$2	\$2
Chart Integration	\$100	\$8	\$10	\$140
Operating Supplies	\$36	\$3	\$4	\$4
Water Disposal/Water Hauling	\$1,000	\$83	\$104	\$0
Water Treatment	\$500	\$42	\$52	\$0
Gas Marketing	\$100	\$8	\$10	\$4
Fuel	\$1,250	\$104	\$130	\$125
Miscellaneous	\$1,000	\$83	\$104	\$105
Overhead	\$6,000	\$500	\$625	\$625
Annual SUA Payment	\$1,550	\$129	\$161	\$161
Annual Property Taxes (all)	\$17,500	\$438	\$547	\$550
TOTALS	\$127,906	\$9,638	\$12,048	\$2,629
+MCF of Natural gas at \$2.50/MCF to Cover OPEX +Production taxes & royalties		5,507	6,884	1,502

** <https://www.cbsnews.com/news/minimum-wage-no-increases-11-years/>
<https://www.newsweek.com/federal-minimum-wage-hasnt-risen-since-2009-our-living-costs-have-soared-1590437>
<https://www.in2013dollars.com/us/inflation/2009?amount=1#:~:text=The%202009%20inflation%20rate%20was,power%20to%20241.05%20next%20year.>

+ includes 12.5% AD Val & Severance Taxes and assumes a 80% Net Revenue Interest

++ PreCorp(local electrical utility) has reaised its rates it charges CBM producers 2X since 2009

First increase was 21%

Second Increase was 24%



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ITEM	<u>Conventional NE WY CBM</u> <u>(~2009 actual) +</u>		<u>Estimated 2025</u> <u>Conventional CBM</u> <u>Monthly OPEX</u>	<u>2025 BioGem CBM</u> <u>Monthly OPEX</u>
	<u>Yearly Expense</u>	<u>Average Monthly</u> <u>OPEX 2009</u>	<u>**Average Monthly</u> <u>OPEX 2025 (Used</u> <u>25%)</u>	<u>Monthly GEM Tool</u> <u>OPEX</u>
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Annual SUA Payment	\$1,550	\$129	\$161	\$161
Annual Property Taxes (all)	\$17,500	\$438	\$547	\$550
TOTALS	\$127,906	\$9,638	\$12,048	\$2,629
+MCF of Natural gas at \$2.50/MCF to Cover OPEX +Production taxes & royalties		5,507	6,884	835

OPEX COMPARISON - 5 SPOT 1 Conventional, de-watering CBM & 4 GEM TOOL equipped

<u>CBM Producers</u>			
<u>Conventional CBM</u> <u>De-watering well</u>	<u>4 BioGem Wells</u> <u>Producing wells</u>	<u>5 SPOT De-</u> <u>watering</u> <u>BioGem</u>	<u>5 SPOT De-</u> <u>watering</u> <u>BioGem</u>
<u>**Average Monthly</u> <u>OPEX 2025 (Used</u> <u>25%)</u>	<u>Monthly BioGem</u> <u>OPEX</u>	<u>Combination</u> <u>Lease Total</u>	<u>Combination</u> <u>Per Well</u>
\$625	\$400	\$1,025	\$205
\$938	\$2,000	\$2,938	\$588
\$1,563	\$0	\$1,563	\$313
\$78	\$0	\$78	\$16
\$781	\$1,000	\$1,781	\$356
\$6,250	\$0	\$6,250	\$1,250
\$63	\$250	\$313	\$63
\$2	\$8	\$10	\$2
\$10	\$560	\$570	\$114
\$4	\$16	\$20	\$4
\$104	\$0	\$104	\$21
\$52	\$0	\$52	\$10
\$10	\$16	\$26	\$5
\$130	\$500	\$630	\$126
\$104	\$420	\$524	\$105
\$625	\$2,500	\$3,125	\$625
\$161	\$646	\$807	\$161
\$547	\$2,200	\$2,747	\$549
\$12,048	\$10,516	\$22,564	\$4,513
+MCF of Natural gas at \$2.50/MCF to Cover per well OPEX		2,579	

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