Grand Mesa Operating Company

Economic Study for Flaring Natural Gas

Sections 15, 16 and 22 7S-55W Lincoln County, CO

Date Prepared: 9-12-2019

Subject Well: NANA UNIT #1-16

Current Producing Leases:

1) Betty #1-15 SE/SW section 15
2) Bob #1-22 NW/NW section 22

Leases being Completed:

1) Nana Unit #1-16 SE/SE section 16

Costs:

Natural Gas Sales:

Nearest pipeline for natural gas sales is southwest of Limon, CO owned by Colorado Interstate Gas a Kinder Morgan Company. This is about 16+ miles away and need to cross under I-70.

a. Estimated connection cost for pipeline from our wells to connection is about $2-3,000,000. Route assumes a straight line from well to connection terminal. Additional costs could be incurred for having to use road ditches for portions or all of the pipeline.
b. Connection fee to pipe line is $1.0 – 1,500,000 and takes 7-8 months for CIG to complete.
c. Processing equipment and other equipment $1.0 – 2,000,000.
d. Unknown costs for right of ways
e. Need to buy or lease land for CIG to put equipment at their site for connection
f. Total known costs $4-5.5 MM

NGL Separation:

GMOC is having difficulty locating proper onsite NGL separating equipment at this time but has learned the following:

a. Need 150 and preferable 200+ mcfpd
b. Need to lease for at least 12 months
    a. If lease falls under sales quota then operator owes for difference
c. To purchase would be $750,000 to $1.5M
d. Another $75-100,000 for construction of pipelines between leases, meters for each lease, labor, and other miscellaneous costs.

Current and forecast production:

*All wells use lease gas to operating engine for pumping unit and the heater treater. The gas metered here is what is going to the combustor or flare.

1) Betty #1-15: 7-23-2019 new zone perf and started producing and avg 80 mcfpd until it surged on 8-9-2019 through 8-12-19 and gas went up to 200-250 mcfpd. Well shut in and ECD repaired on 8-12 and 8-13, open flare was set since this was an upset period and well re-started on 8-14. Gas since then has been 55-120mcfpd, open flare shut off and gas moved to ECD on 8-16-19. Well now has about 90 mcfpd being combusted.
2) Bob #1-22: Averaged 64mcfpd during first 85 days of operation and is currently combusting about 3.7 mcfpd after 12+ months of producing.
3) Nana Unit #1-16: being completed at this time and should be similar to Bob #1-22
4) Summary: currently have 90-100 mcfpd between Bob and Betty and maybe another 60 mcfpd for Nana for a total 160 mcfpd for the next 90 days. If decline trends hold for next twelve months this area will have less than 50 mcfpd.

Conclusions:

With Natural Gas prices about $2.50/mcf then taking transportation and area discounts into account prices will be under $2.00/mcf. With at least $4,000,000 and most likely well over $5,000,000 to connect to CIG and production of estimated 50 mcfpd or less after twelve months this project is not economical in the opinion of Grand Mesa Operating Company. The alternative is to extract the NGLs from the gas and from the guidance and current information we do not meet the minimum criteria now and will not after a twelve-month period; for these reasons this project is not feasible in the opinion of Grand Mesa Operating Company.