

American Warrior
Microbial Enhanced Oil Recovery Project

PRELIMINARY RESULTS

Lease Name	Pre-MEOR BOPD	Post-MEOR BOPD
J.S. Burchett 34 week pre vs. 6 week post	1.88	2.28
J.S. Burchett 6 week pre vs. 6 week post	1.78	2.28
Marcellus B1 & B2 32 weeks pre vs. 6 weeks post	4.42	3.41
Marcellus B1 & B2 6 weeks pre vs. 6 week post	3.07	3.41
Marcellus E-1 40 week pre vs. 1 week post	1.67	2.00
H.H. Wulfmeyer 8 weeks pre vs. 4 weeks post	2.95	2.76
H.H. Wulfmeyer 4 weeks pre vs. 4 weeks post	2.66	2.76

NOTE: These preliminary results reflect one (1) 50-gallon MEOR treatment made on 16 October 2009. The number of production weeks was calculated by dividing the actual production days by 7. The Marcellus E-1 shows only 1 week of production, because it only pumped 7 days out of 42 post-treatment days. The H.H. Wulfmeyer shows a decrease in production when comparing 8 weeks pre-treatment to 4 weeks post-treatment, but a slight increase when comparing 4 weeks pre-treatment to 4 week post-treatment.

PROJECT OVERVIEW

This microbial enhanced oil recovery (MEOR) project is being conducted to validate the production of additional oil in stripper wells by stimulating native microbial populations present in the critical production matrix and surrounding oil-bearing strata. Five single wells located about 30 miles North of Liberal, Kansas are presently involved in the project. Additional wells meeting the criteria for MEOR treatment have been identified and may be added to the project pending the positive results. Each well was to receive a minimum of three 50-gallon injections of a specially prepared MEOR treatment fluid at regular 30 to 45 day intervals. The treatment regimen for all wells with one exception specified: injection, shut-in 1 day, and 1 day circulation before turning back into production. The exception is the Marcellus B-1 well which specified no shut-in and a 2 day circulation due to scaling problems. Unfortunately the recommended treatment schedule could not be implemented.

Knock-out-pots were fabricated and installed on all project wells prior to treatment for barrel testing and to facilitate injection of treatment fluids without killing casinghead gas production used to run the pump jacks. The project's Principal Investigator requested one or two barrel tests before treatment and monthly testing after treatments started to gather solid base-line production data in support the weekly gauge reports. 1,250 gallons of treatment fluid were delivered to American Warrior's Garden City office on 1 July, 2009; sufficient to enable five 50-gallon treatments for each project well.

DATA COLLECTION AND ANALYSIS

Historical Data

Daily gauge reports and pumper notes were used to establish pre-treatment and post-treatment production averages. Days showing zero production, typically noted as down were excluded from the arithmetic mean calculations. Multiple well leases pumping into a common tank battery were assumed to be pumping all wells on those days showing gauge inches of production. Weekly Gauge and Production Reports from 1 January 2009 to 30 April 2010 have been received. A consolidated spreadsheet showing cumulative production from 1 January, 2009 through 1 January, 2010 has also been received and cross-checked against the weekly reports. Minor discrepancies between the two were found; mostly in the December 2009 and January 2010 data sets. Major issues exist in the February through April 2010 weekly reports with regard to gauging accuracy, number of actual production days. Consequently this preliminary analysis runs through 30 November, 2009 and is based on the consolidated spreadsheet data which is validated by the daily gauge reports.

Arithmetic Mean Method

One analytical method was used for low production wells and leases. It does not involve standard deviation calculations. Unless noted as down days, days showing zero gauge inches of production were counted as production days and included in calculation of the daily production arithmetic mean for a given date range. There are two reasons for taking this approach: 1) production is typically shown in whole inches and a zero production day does not mean the well or lease was not pumped. It might take two or more days for oil production to register one gauge inch. Consequently, days showing zero gauge inches of production are true production days and were included in the total number of production days for a given date range; 2) Low producing wells typically show from 0 to 3 gauge inches. Application of standard deviation analysis and the exclusion of production days that are one or more deviation from the mean would force exclusion of too many valid gauge readings. Arithmetic mean calculations are made as follows: 1) gauge inches for production days in a given date range are totaled; 2) total gauge inches are divided by the number of production days to yield an arithmetic mean; 3) the mean value of gauge inches is multiplied by the barrels per inch for a given stock tank to yield the average BOPD production.

Standard Deviation Method

A more stringent method was used for higher production single leases and multiple well leases pumping into a common tank battery in an effort to eliminate abnormal gauge readings. These readings show up when produced oil is pushed over from the gun barrel into the stock tanks, and on days when one or more wells may not have been pumping. Stringent calculations are made as follows: 1) daily

gauge inches are recorded for a given date range excluding zero gauge inch days noted as down days; 2) an arithmetic mean is calculated for the given date range; 3) variance and standard deviations are calculated; 5) gauge inches are then reviewed and days showing more than one standard deviation from the mean are not counted as production days counted; 6) production day gauge inches are re-totaled and divided by the number of production days in the given date range to yield average inches per day; 7) average inches are then multiplied by the barrels per inch for the given stock tanks to yield the average BOPD production.

PRELIMINARY RESULTS

The Josephine S. Burchett #1 well produces from the Shuck Northwest Field located in South Central Kansas. Oil production is from the Chester Sandstone Formation at 6,300 feet. This formation is part of the much larger Mississippian System. Casinghead gas production is used to power the pump jack. Gas pressure is approximately 80 psi.

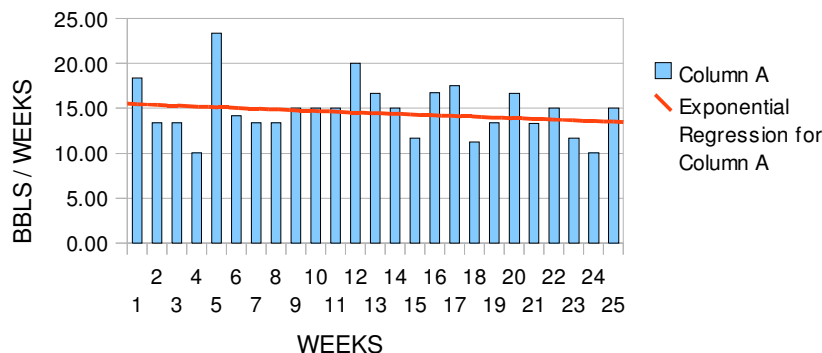
J. S. Burchett		106320
	Pre MEOR	Post MEOR
Production Days	236	43
Total BBLs	443.01	97.98
Avg BOPD	1.88	2.28

NOTE: Post-treatment production data from 1 December, 2009 through 30 April, 2010 is suspect and therefore was not used. Charted data runs through 30 November, 2009.

J.S. Burchett Production Trend

1 Apr 2009 to 16 Oct 2009

Zero Production Weeks Not Included

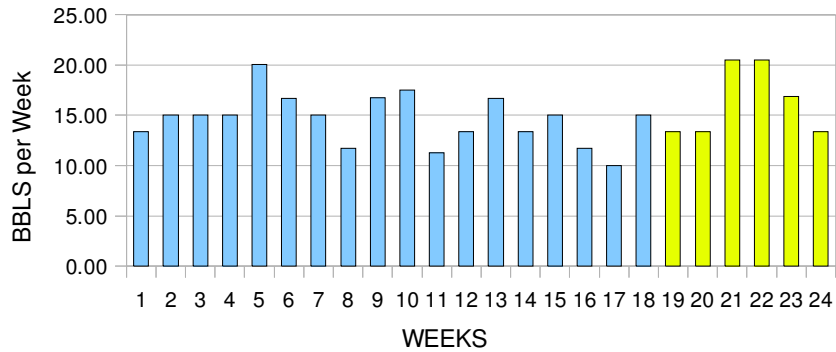


Oil production shows a slight downward trend from 4/01/2009 through 10/16/2009. Pre-treatment production from 1/01/2009 to 10/16/2009 (235 production days) = 1.89 BOPD. Post-treatment production 10/17/2009 to 11/30/2009 (43 production days) = 2.28 BOPD, a 0.39 BOPD / 21% increase. The 18 week pre-treatment = 1.90 BOPD production is virtually the same as the 235 day pre-treatment production of 1.89 BOPD.

J.S. Burchett EOR Project

Weekly Production - Pre-treatment vs. Post-treatment

18 Week Pre = 1.90 BOPD - 6 Week Post = 2.28 BOPD

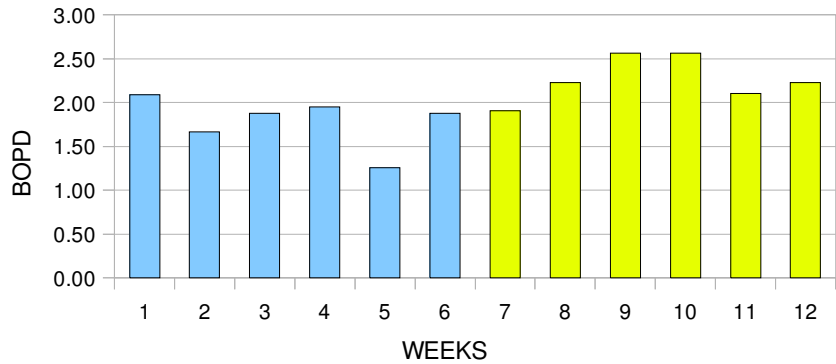


Comparing 6 weeks pre-treatment vs. 6 weeks post-treatment shows 1.78 BOPD vs. 2.28 BOPD, a 0.5 BOPD / 28% increase.

J.S. Burchett EOR Project

BOPD Pre-treatment vs. Post-treatment

6 Week Pre = 1.78 BOPD - 6 Week Post = 2.28 BOPD

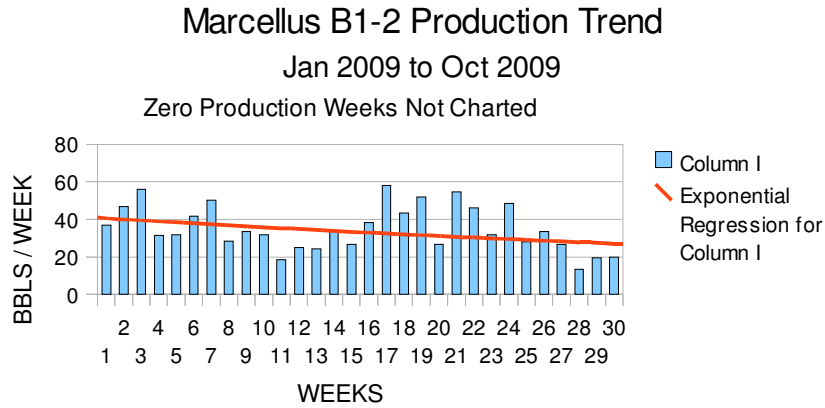


Marcellus B1-2	106350
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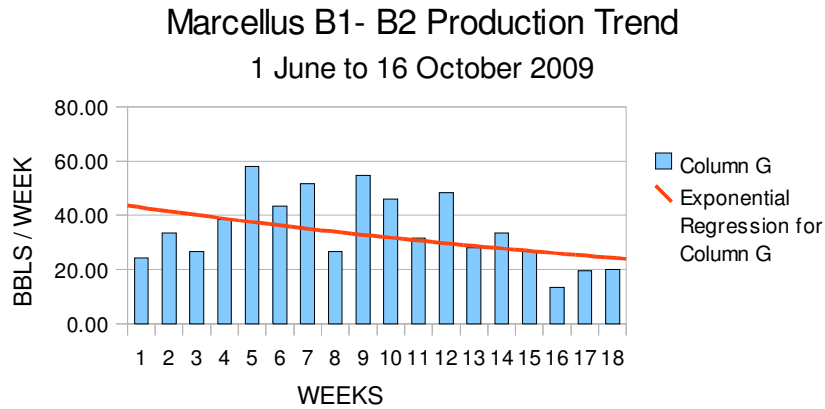
	Pre MEOR	Post MEOR
Production Days	228	45
Total BBLs	1007.53	153.25
Avg BOPD	4.42	3.41

NOTE: Post-treatment production data from 1 December, 2009 through 30 April, 2010 is suspect and therefore was not used. Charted data runs through 30 November, 2009.

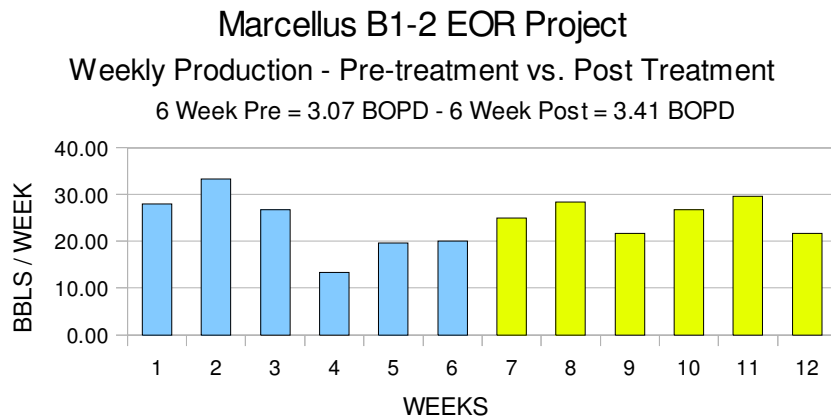
Oil production was trending downwards from 1/01/2009 to 10/16/2009.



Oil production shows an even steeper downward trend when charted from 6/01 to 10/16/2009



Marcellus B1-B2 lease average 3.07 BOPD for 6 weeks prior to the treatment date and 3.41 BOPD for 6 weeks thereafter.

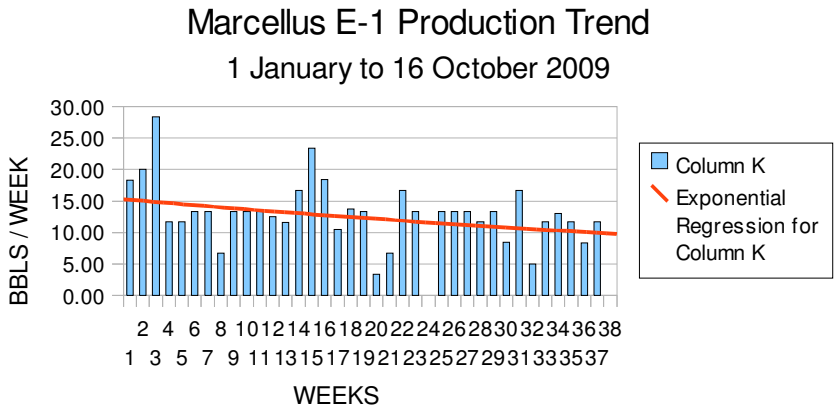


Marcellus E-1	106410
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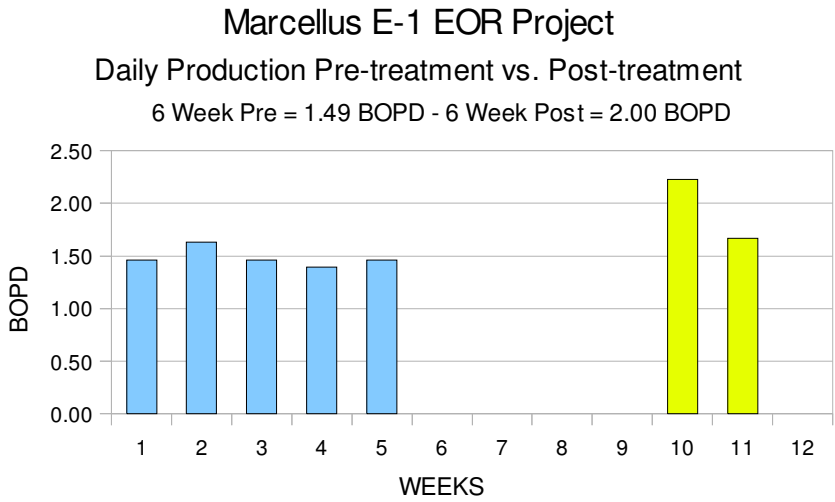
	Pre MEOR	Post MEOR
Production Days	276	5
Total BBLs	460.53	10.02
Avg BOPD	1.67	2.00

NOTE: NOTE: Post-treatment production data from 1 December, 2009 through 30 April, 2010 is suspect and therefore was not used. Charted data runs through 30 November, 2009.

Oil production was trending downward from 1/01/2009 to 10/16/2009

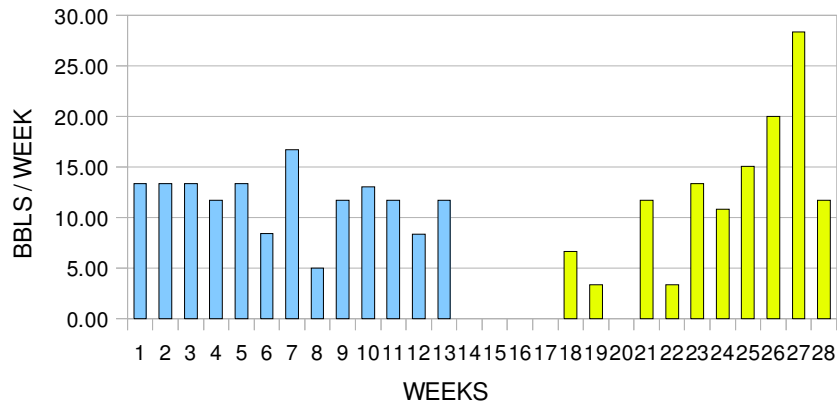


The Marcellus E-1 produced an average of 1.49 BOPD for the 6 weeks before the treatment date and 2.00 BOPD for 6 weeks thereafter. However, only five (5) production days are shown from 10/17/ to 11/30/2009. This is too little post-treatment data to establish a production trend.



If the weekly production data through January 2010 is verifiable, the Marcellus E-1 shows a significant post-treatment 57 day increase of 0.51 BOPD.

Marcellus E-1 Production 1 July 2009 to 31 January 2010



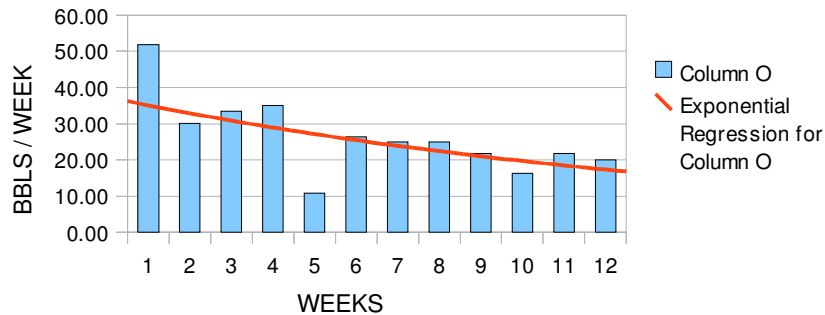
H.H. Wulfmeyer	106440
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	Pre MEOR	Post MEOR
Production Days	89	46
Total BBLs	285.69	108.21
Avg BOPD	3.21	2.35

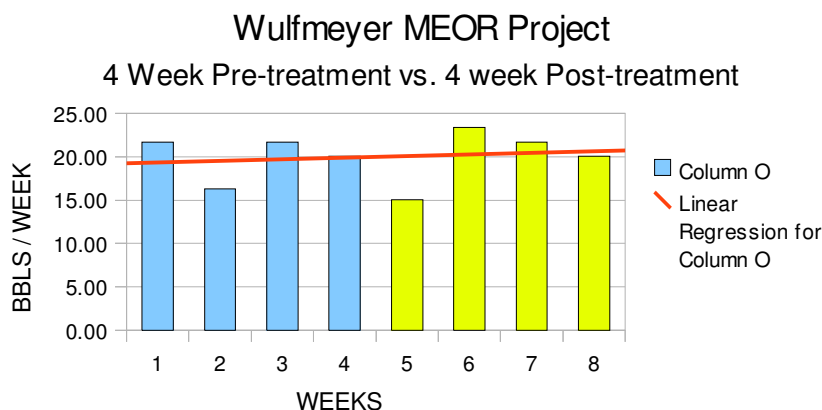
NOTE: Post-treatment production data from 1 December, 2009 through 30 April, 2010 is suspect and therefore was not used. Charted data runs through 30 November. No production data prior to July 2009 is presently available.

The H.H. Wulfmeyer production has been trending downward since July 2009. The 86 day pre-treatment average was 3.21 BOPD, trending down to a 53 day pre-treatment 2.95 BOPD average, and down further to a 30 day pre-treatment average of 2.66 BOPD.

Wulfmeyer Production Trend 16 July to 16 October 2009



This trend continues downward during the 46 day post-treatment period which averages 2.35 BOPD. However, MEOR treatments were scheduled to take place at 30 day intervals. The 30 day post-treatment average shows 2.76 BOPD which is slightly **above** the pre-treatment 30 day average of 2.66 BOPD. The production decline then resumes its downward trend about 40 days after the treatment.



FINDINGS

Although there is insufficient verifiable post-treatment data available to validate the preliminary positive results shown, the following findings are noted:

- 1) All leases show a general pre-treatment decline in production from 1/01/2009 up to 10/16/2009.
- 2) Looking at average production over a shorter pre-treatment time frame (120 down to 30 days) rather than going back 200 days or more to the first of the year shows an even steeper decline trend for most wells, particularly the H.H. Wulfmeyer.
- 3) Looking at the 6 week period before and after treatment for the J.S. Burchett, Marcellus B-1-2, and Marcellus E-1 shows increased production and an arrested decline trend.
- 4) Looking at the 4 week period before and after treatment, the Wulfmeyer well's decline trend is arrested and it shows a slight production increase before trending downward again.

RECOMMENDATIONS

1. Barrel test all project wells to gather base-line production data for comparison with gauging.
2. Re-run the project using a fresh batch of treatment fluid.
3. Treat all project wells a minimum of three times each at regular 30 to 45 day intervals and barrel test at least once a month.
4. Track both oil and water production.
5. Treat the Wulfmeyer well with a combination of treatment fluid, nutrient, and a microbial system designed for paraffin control.
6. Note all treatment, workover, and maintenance activities on the weekly gauge reports.
7. Do not perform any chemical, acid or biocide treatments during the project period.
8. Assign one individual to collect and review weekly gauging and reporting activities and coordinate the exchange information with RAM Biochemicals.

CONCLUSION

There is not enough verifiable post-treatment production data available at this time to validate the production of incremental oil and attribute it positively to MEOR treatments. Only 6 weeks of post-treatment daily gauge records are available from the date of the first MEOR treatment on 10/16/2010 through to 11/30/2010. Production data from 12/01/2010 through 4/30/2010 has not been verified for accuracy and was not used in this preliminary report.

RAM Biochemicals will revised and update this report as soon as daily and weekly production results from December 2009 through April-May 2010 have been verified for accuracy and analyzed.

Respectfully Submitted

by RAM Biochemicals, Inc.