Drilling Finished Date: December 07, 2012
1st Prod Date: January 25, 2013
Completion Date: January 23, 2013

| Drill Type: $\quad$ HORIZONTAL HOLE | Min Gas Allowable: Yes |  |
| :--- | :--- | :--- |
| Well Name: SERGE $1-4 \mathrm{~N}$ | Purchaser/Measurer: PVR CHEROKEE GAS |  |
| Location: | NOBLE $9 \quad 24 \mathrm{~N} \quad 1 \mathrm{~W}$ | First Sales Date: $01 / 25 / 2013$ |
|  | W2 NE NE NW |  |
|  | 330 FNL 2250 FWL of $1 / 4$ SEC |  |
|  | Derrick Elevation: 0 Ground Elevation: 1010 |  |
| Operator: | RANGE PRODUCTION COMPANY 22664 |  |

5600 N MAY AVE STE 350
OKLAHOMA CITY, OK 73112-3967

| Completion Type |  | Location Excep | Increased Density |
| :---: | :---: | :---: | :---: |
| X | Single Zone | Order No | Order No |
|  | Multiple Zone | 607987 | There are no Increased Density records to display. |
|  | Commingled |  |  |


| Casing and Cement |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type | Size | Weight | Grade | Feet | PSI | SAX | Top of CMT |
| SURFACE | $95 / 8$ | 36 | $J-55$ | 321 |  | 225 | SURFACE |
| PRODUCTION | 7 | 23 | P-110 | 5257 |  | 250 | 2977 |


| Liner |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type | Size | Weight | Grade | Length | PSI | SAX | Top Depth | Bottom Depth |
| LINER | $41 / 2$ | 11.6 | $\mathrm{P}-110$ | 4168 | 0 | 0 | 5165 |  |

Total Depth: 9515

| Packer |  | Plug |  |
| :---: | :---: | :---: | :---: |
| Depth | Brand \& Type | Depth | Plug Type |
| There are no Packer records to display. |  | There are no Plug records to display. |  |


| Initial Test Data |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Test Date | Formation | $\begin{gathered} \text { Oil } \\ \text { BBL/Day } \end{gathered}$ | Oil-Gravity (API) | $\begin{gathered} \text { Gas } \\ \text { MCF/Day } \end{gathered}$ | Gas-Oil Ratio Cu FT/BBL | Water BBL/Day | Pumpin or Flowing | Initial ShutIn Pressure | Choke Size | Flow Tubing Pressure |
| Jan 31, 2013 | MISSISSIPPIAN | 258 |  | 619 | 2399 | 580 | PUMPING |  | 64 | 72 |
| Completion and Test Data by Producing Formation |  |  |  |  |  |  |  |  |  |  |
| Formation Name: MISSISSIPPIAN |  |  | Code: 359MSSP |  |  | Class: OIL |  |  |  |  |
| Spacing Orders |  |  | Perforated Intervals |  |  |  |  |  |  |  |
| Orde | Unit Size |  |  | From |  | To |  |  |  |  |
| 602500 | 640 |  |  | There are no Perf. Intervals records to display. |  |  |  |  |  |  |
| Acid Volumes |  |  | Fracture Treatments |  |  |  |  |  |  |  |
| 40,000 GALLONS 7 1/2\% HCL |  |  | 1,203,090 POUNDS 40/70, 533,544 POUNDS 20/40, 61,777 BARRELS RESIN |  |  |  |  |  |  |  |


| Formation | Top |
| :--- | :--- |
| CHECKERBOARD | 3657 |
| BIG LIME | 3799 |
| OSWEGO | 3869 |
| RED FORK | 4221 |
| MISSISSIPPIAN | 4535 |

Were open hole logs run? No
Date last log run:
Were unusual drilling circumstances encountered? No Explanation:

## Other Remarks

OCC - THIS WELL IS AN OPEN HOLE COMPLETION FROM THE BOTTOM OF THE 7" CASING AT 5,257' TO TERMINUS AT 9,515'. THE 4 1/2" LINER IS OPEN FROM $5,346^{\prime}$ TO $9,319^{\prime}$ BUT THE LINER IS NOT CEMENTED.

## Lateral Holes

Sec: 4 TWP: 24N RGE: 1W County: NOBLE
NE NE NE NW
208 FNL 2331 FWL of $1 / 4$ SEC
Depth of Deviation: 3583 Radius of Turn: 800 Direction: 356 Total Length: 4675
Measured Total Depth: 9515 True Vertical Depth: 4262 End Pt. Location From Release, Unit or Property Line: 208

## FOR COMMISSION USE ONLY

Status: Accepted





II more than three drainholes are proposed, attech a seperate theet indicating the necoesery infornation.

Direction muat be stated in degrees azimuth. Ploase note, the hoitzontal dralinhole and its end polot must be located within the boundaries of the lease or spacing unit.

Directional surveys are required for all drainholes and directlonal wells.


BOTTOM HOLE LOCATION FOR DIRECTIONAL HOLE


BOTTOM HOLE LOCATION FOR HORIZONTAL HOLE: (LATERALS)

## LATERAL \#1



| LATERAL \#2 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SEC TWP | RGE | COUNTY |  |  |  |
| Spot Location 1/4 | $1 / 4 \quad 1 / 4$ | 1/4 | Feet From $1 / 4 \mathrm{Sec}$ Lines | FSL | FWL |
| Depth of Deviation | Radius of Tum |  | Direction | Tolal Length |  |
| Measured Total Depth | True Vertical Depth End Pi Localion From Lease. Unit or Property Line: |  |  |  |  |

LATERAL *3

| SEC TWP | $\bar{R} \bar{E} \overline{1}$ | COUNTY |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Spot Location $1 / 4$ | $1 / 4$ | $1 / 4$ | Feet From 1/4 Sec Lines | FSL. | FWL |
| Depth of Deviation | Radius of Tum |  | Direction | Total Length |  |
| Measured Total Depth | True Vertical Depth | End PI Location From Lease, Unit or Property Line: |  |  |  |

