| EDISON OPERATING COMPANYLLC                                                                                                                          |                                                                                                                 |                    |                                                               |  |  |  |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|--------------------|---------------------------------------------------------------|--|--|--|--|--|
|                                                                                                                                                      | Scale 1:240 Imperial                                                                                            |                    |                                                               |  |  |  |  |  |
| Well Name:<br>Surface Location:<br>Bottom Location:                                                                                                  | Kuhn #1-17<br>Sec. 17 - T19S - R12W                                                                             |                    |                                                               |  |  |  |  |  |
| Bottom Location:<br>API:<br>License Number:                                                                                                          | 15-009-26277-0000<br>34434                                                                                      | _                  |                                                               |  |  |  |  |  |
| Spud Date:<br>Region:                                                                                                                                | 10/29/2019<br>Barton County                                                                                     | Time:              | 7:30 AM                                                       |  |  |  |  |  |
| Drilling Completed:<br>Surface Coordinates:<br>Bottom Hole Coordinates:                                                                              | 11/5/2019<br>1829' FSL & 1451' FEL                                                                              | Time:              | 8:30 AM                                                       |  |  |  |  |  |
| Ground Elevation:<br>K.B. Elevation:<br>Logged Interval:<br>Total Depth:<br>Formation:                                                               | 1874.00ft<br>1884.00ft<br>2600.00ft<br>3575.00ft<br>Arbuckle                                                    | To:                | 3575.00ft                                                     |  |  |  |  |  |
| Drilling Fluid Type:                                                                                                                                 | Chemical/Fresh Water Gel                                                                                        |                    |                                                               |  |  |  |  |  |
| Company:<br>Address:                                                                                                                                 | <b>OPERATOR</b><br>Edison Operating Company LLC<br>8100 E. 22nd St. North<br>Building 1900<br>Wichita, KS 67226 |                    |                                                               |  |  |  |  |  |
| Contact Geologist:<br>Contact Phone Nbr:<br>Well Name:<br>Location:<br>API:                                                                          | David Withrow<br>316.613.1544<br>Kuhn #1-17<br>Sec. 17 - T19S - R12W<br>15-009-26277-0000                       |                    |                                                               |  |  |  |  |  |
| Pool:<br>State:                                                                                                                                      | Kansas                                                                                                          | Field:<br>Country: | Ft. Zarrah North<br>USA                                       |  |  |  |  |  |
|                                                                                                                                                      | LOGGED BY                                                                                                       |                    |                                                               |  |  |  |  |  |
|                                                                                                                                                      | EDISON OPERATING COMPAN                                                                                         | <b>VY</b> LLC      |                                                               |  |  |  |  |  |
| Company:<br>Address:                                                                                                                                 | Edison Operating Company LLC<br>8100 E. 22nd St. North<br>Building 1900<br>Wichita, KS 67226                    |                    |                                                               |  |  |  |  |  |
| Phone Nbr:<br>Logged By:                                                                                                                             | 316.650.9677<br>Geologist                                                                                       | Name:              | Adam T. Kennedy                                               |  |  |  |  |  |
|                                                                                                                                                      | REMARKS                                                                                                         |                    |                                                               |  |  |  |  |  |
|                                                                                                                                                      |                                                                                                                 |                    | d by the operator that the Kuhn #1-17<br>ugged and abandoned. |  |  |  |  |  |
| The well samples were saved, submitted, and will be available for review at the Kansas Geologic Survey's Well Sample Library located in Wichita, KS. |                                                                                                                 |                    |                                                               |  |  |  |  |  |

Respectfully Submitted,

Adam T. Kennedy

# GENERAL INFORMATION Service Companies Drilling Contractor: Southwind Drilling - Rig #1 Drilling Fluid: Mud-Co/Service Mud Inc. Tool Pusher: Cecil Farmer Engineer: Jason Whiting Daylight Driller: Ryan Colby Evening Driller: Angel Martinez

Morning Driller: Shawn Jensen

Gas Detector: Bluestem Environmental Engineer: Keith Reavis Unit: 5279 Operational By: 1900'

 Deviation Survey

 Depth
 Survey

 392'
 1 deg

 3225'
 1/2 deg

 3575'
 1/2 deg

Logging Company: ELI Engineer: Jason Cappellucci Logs Ran: CDNL DIL MEL SONIC

Testing Company: Eagle Testers Tester: Gene Budig

| Pipe Strap |            |  |  |  |  |  |  |
|------------|------------|--|--|--|--|--|--|
| Depth      | Pipe Strap |  |  |  |  |  |  |
| 3225'      | 1.01 LTB   |  |  |  |  |  |  |

|       |        |      |      | Bit Record    |          |           |      |       |
|-------|--------|------|------|---------------|----------|-----------|------|-------|
| Bit # | Size   | Make | Туре | Serial Number | Depth In | Depth Out | Feet | Hours |
| 1     | 12 1/4 | JZ   | RR   |               | 0        | 392       | 392  | 3.25  |
| 2     | 7 7/8  | JZ   | RR   |               | 392      | 3225      | 2833 | 53.25 |
| 3     | 7 7/8  | JZ   | RR   |               | 3225     | 3575      | 350  | 12.5  |

### Surface Casing

Ran 9 joints of new 24# 8 5/8 casing, tally @ 379, set @ 392. Used 250 sacks of 60/40 poz, 3%cc, 2% gel, cement did circulate, by Basic (ticket 18390), plug down @ 645 am on 10.30.19.

Plugging Info

Plugged well with 235 sacks of 60/40 poz 4% gel, 1/4 flo seal, 1st plug @ 3457', with 50 sacks, 2nd plug @ 750 w/ 50 sacks 3rd plug @ 450' w/ 80 sacks, 4th plug @ 40' w/ 10 sacks. 30 sacks for rathole, 15 sacks for mousehole, cemented by Quality ticket # 1821, job complete @ 1230 am 11.6.19.

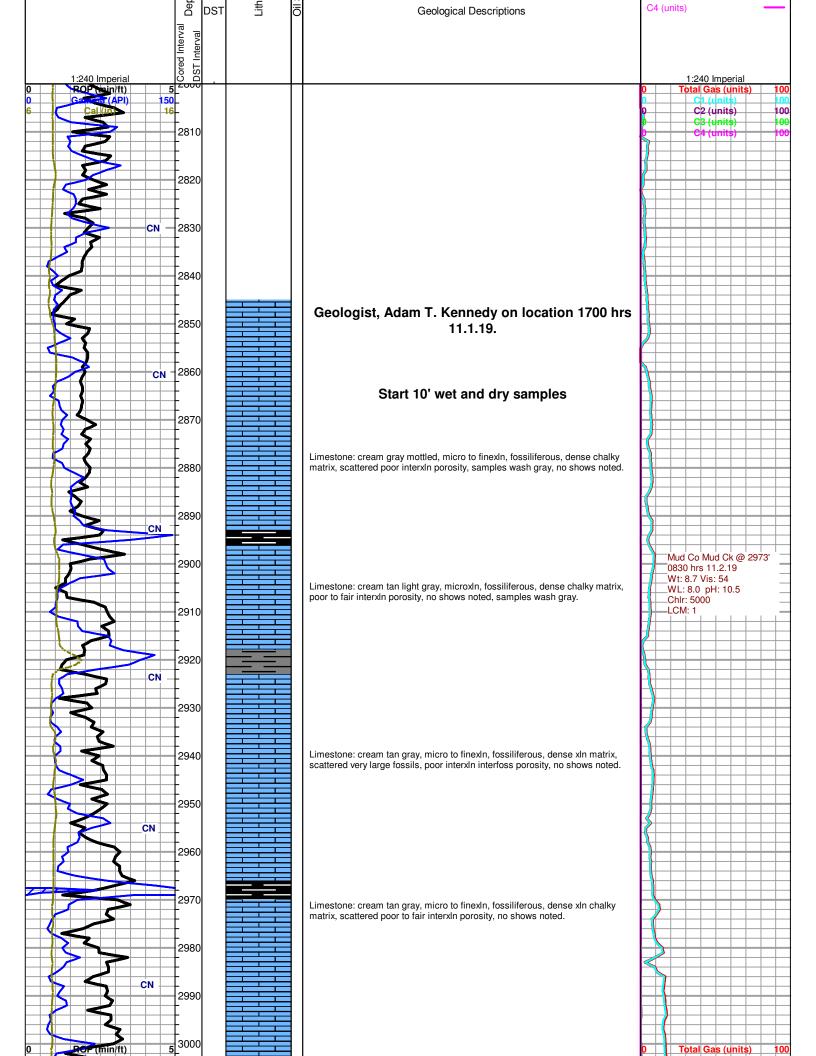
|         |                | DAILY DRILLING REPORT                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Date    | 0700 Hrs Depth | Previous 24 Hours of Operations                                                                                                                                                                                                                                                                                                                                                                                                            |
| 11.2.19 | 2941'          | Displace mud system @ 2500'. Geologist Adam T. Kennedy on location 11.1.19 @ 1700 hrs.<br>Drilling ahead through Topeka.<br>WOB: 32k RPM: 75 PP: 720 SPM: 60<br>DMC: \$561.01 CMC: \$4,112.34                                                                                                                                                                                                                                              |
| 11.3.19 | 3225'          | Drilling and connections Topeka, Heebner, Lansing. Short trip 20 stands @ 3178'. CTCH resume drilling Lansing A and B. CFS @ 3225'. Shows warrant test, TOH for DST #1. Short trip 15 stands. TOH for test, conduct test. Currently TOH to resume drilling. WOB: 32k RPM: 75 PP: 720 SPM: 60 DMC: \$0.00 CMC: 4,112.34                                                                                                                     |
| 11.4.19 | 3390'          | Drilling and connections LKC, CFS @ 3331'. Shows warrant test, TOH for DST #2. Conduct test.<br>TIH to resume drilling, drilling and connections lower Lansing.<br>WOB: 32k RPM: 75 PP: 720 SPM: 60<br>DMC: \$845.70 CMC: 4,958.04                                                                                                                                                                                                         |
| 11.5.19 | 3575'          | Drilling and connections Lansing through Arbuckle. CFS @ 3470', 3478', 3486', 3494'. Shows warrant test, TOH for DST #3. Conduct test, TIH resume drilling Arbuckle. CFS @ 3504', 3514'. Rathole ahead to RTD of 3575'. RTD Reached 0900 hrs 11.6.19. Rig up loggers, logging complete 1700 hrs, orders received to plug well @ 1730 hours 11.6.19. Geologist off location. WOB: 32k RPM: 75 PP: 720 SPM: 60 DMC: \$369.81 CMC: \$6,178.67 |

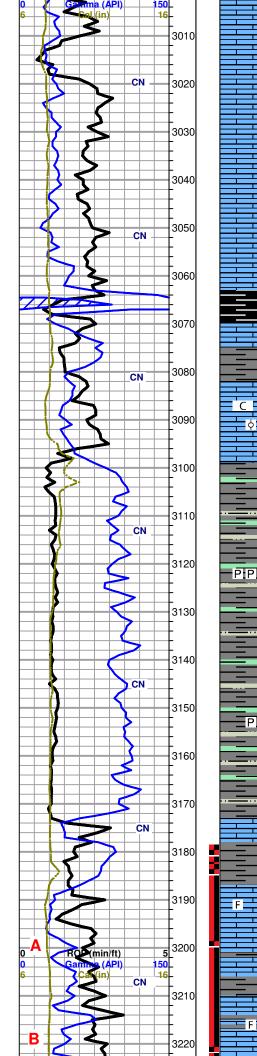
|           | WELL CO          | MPA      | RISON   | SHEET                              | Γ               |        |        |  |  |
|-----------|------------------|----------|---------|------------------------------------|-----------------|--------|--------|--|--|
| Γ         | Drilling         | Well     |         |                                    | Comparison Well |        |        |  |  |
| Γ         | Edison Operating | g - Kuhr | ı #1-17 | Murfin Drilling Compnay - Traux #1 |                 |        |        |  |  |
|           | Sec. 17 - T19    | 9S - R12 | 2W      | Sec. 17 - T19S - R12W              |                 |        |        |  |  |
|           | 1829' FSL &      | 1380' F  | EL.     | SW NW SE                           |                 |        |        |  |  |
|           | 1874 GL          | 1        | Dry     | Struc                              | ctural          |        |        |  |  |
|           | 1884 KB          |          |         | 1874 KB Relationship               |                 |        | onship |  |  |
| Formation | Sample Sub-Sea   | Log      | Sub-Sea | Log                                | Sub-Sea         | Sample | Log    |  |  |

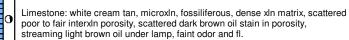
|                                                                                                                                                                                                               | Торека                                                                                                  | 2722         | -838                   | 2720         | -838                       | 2/10         | -836           | -2      | -2      |                                           |            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|--------------|------------------------|--------------|----------------------------|--------------|----------------|---------|---------|-------------------------------------------|------------|
|                                                                                                                                                                                                               | King Hill                                                                                               | 2895         | -1011                  | 2894         | -1011                      | 2054         | 1090           | 4       | 4       |                                           |            |
|                                                                                                                                                                                                               | Queen Hill<br>Heebner                                                                                   | 2968<br>3061 | -1084<br>-1177         | 2968<br>3062 | -1084<br>-1177             | 2954<br>3052 | -1080<br>-1178 | -4<br>1 | -4<br>1 |                                           |            |
|                                                                                                                                                                                                               | Douglas                                                                                                 | 3094         | -1210                  | 3096         | -1210                      | 3081         | -1207          | -3      | -3      |                                           |            |
|                                                                                                                                                                                                               | Brown Lime<br>Lansing-Kansas City                                                                       | 3174<br>3186 | -1290<br>-1302         | 3172<br>3186 | -1290<br>-1302             | 3168<br>3179 | -1294<br>-1305 | 4       | 4       |                                           |            |
|                                                                                                                                                                                                               | LKC 'B'                                                                                                 | 3204         | -1320                  | 3202         | -1320                      |              |                |         |         |                                           |            |
|                                                                                                                                                                                                               | LKC 'D'<br>LKC 'F'                                                                                      | 3234<br>3244 | -1350<br>-1360         | 3232<br>3242 | -1350<br>-1360             | 3224         | -1350          | 0       | 0       |                                           |            |
|                                                                                                                                                                                                               | LKC 'G'                                                                                                 | 3262         | -1378                  | 3261         | -1378                      | 3255         | -1381          | 3       | 3       |                                           |            |
|                                                                                                                                                                                                               | Muncie Creek                                                                                            | 3316         | -1432                  | 3318         | -1432                      | 3312         | -1438          | 6       | 6       |                                           |            |
|                                                                                                                                                                                                               | LKC 'H'<br>LKC 'I'                                                                                      | 3324<br>3347 | -1440<br>-1463         | 3222<br>3342 | -1440<br>-1463             | 3320<br>3345 | -1446<br>-1471 | 6<br>8  | 6<br>8  |                                           |            |
|                                                                                                                                                                                                               | LKC 'J'                                                                                                 | 3364         | -1480                  | 3362         | -1480                      | 3354         | -1480          | 0       | 0       |                                           |            |
|                                                                                                                                                                                                               | Stark                                                                                                   | 3380         | -1496                  | 3378         | -1496                      | 3374         | -1500          | 4       | 4       |                                           |            |
|                                                                                                                                                                                                               | LKC 'K'<br>Base Kansas City                                                                             | 3390<br>3414 | -1506<br>-1530         | 3388<br>3413 | -1506<br>-1530             | 3380<br>3406 | -1506<br>-1532 | 0       | 0       |                                           |            |
|                                                                                                                                                                                                               | Arbuckle                                                                                                | 3482         | -1598                  | 3482         | -1598                      | 3470         | -1596          | -2      | -2      |                                           |            |
|                                                                                                                                                                                                               | Total Depth                                                                                             | 3575         | -1691                  | 3575         | -1691                      | 3515         | -1641          | -50     | -50     |                                           |            |
|                                                                                                                                                                                                               |                                                                                                         |              |                        |              |                            |              |                |         |         |                                           |            |
|                                                                                                                                                                                                               |                                                                                                         |              |                        |              |                            |              |                |         |         |                                           |            |
| Cht vari                                                                                                                                                                                                      | DOL2                                                                                                    |              | R                      | SIL          | TYPES<br>TSTONE<br>ALE CAR |              |                | SHALE   |         | SHALE RED                                 |            |
|                                                                                                                                                                                                               |                                                                                                         |              |                        | SIL          | TSTONE<br>ALE CAR          |              |                |         |         | SHALE RED                                 |            |
| Congl                                                                                                                                                                                                         | LMST2                                                                                                   |              | AC                     | SIL<br>SH    | TSTONE                     |              |                |         |         | SHALE RED                                 |            |
|                                                                                                                                                                                                               |                                                                                                         | TE           |                        |              | TSTONE<br>ALE CAR          |              |                |         |         | SHALE RED                                 |            |
| Congl                                                                                                                                                                                                         | F Fossils < 20%<br>↓ Oolite<br>♣ Oomoldic                                                               | TE           | AC<br>EXTURE<br>Chalky |              | TSTONE<br>ALE CAR          |              |                |         |         | SHALE RED                                 |            |
| Congl<br>MINERAL<br>1 Calcareous<br>P Pyrite<br>• Sandy<br>MISC                                                                                                                                               | FOSSIL<br>F Fossils < 20%<br>♦ Oolite<br>♣ Oomoldic                                                     | TE           | AC<br>EXTURE<br>Chalky |              | TSTONE<br>ALE CAR          |              |                |         |         | SHALE RED                                 |            |
| Congl                                                                                                                                                                                                         | FOSSIL<br>F Fossils < 20%<br>♦ Oolite<br>♦ Oomoldic<br>DST<br>DST1<br>DST1<br>DST2                      | TE           | AC<br>EXTURE<br>Chalky |              | TSTONE<br>ALE CAR          |              |                |         |         | SHALE RED                                 |            |
| Congl  MINERAL  Calcareous P Pyrite Sandy  MISC  DR Daily Report                                                                                                                                              | FOSSIL<br>F Fossils < 20%<br>♦ Oolite<br>♦ Oomoldic<br>DST<br>DST1<br>DST2<br>PDST3                     | TE           | AC<br>EXTURE<br>Chalky |              | TSTONE<br>ALE CAR          |              |                |         |         | SHALE RED                                 |            |
| Congl<br>MINERAL<br>L Calcareous<br>P Pyrite<br>· Sandy<br>MISC<br>PR Daily Report<br>Digital Photo                                                                                                           | FOSSIL<br>F Fossils < 20%<br>♦ Oolite<br>♣ Oomoldic<br>DST<br>DST<br>DST1<br>DST2<br>DST3<br>€ Core     | TE           | AC<br>EXTURE<br>Chalky |              | TSTONE<br>ALE CAR          |              |                |         |         | SHALE RED                                 |            |
| Congl  MINERAL  Calcareous P Pyrite Sandy  MISC  DR Daily Report                                                                                                                                              | FOSSIL<br>F Fossils < 20%<br>♦ Oolite<br>♦ Oomoldic<br>DST<br>DST1<br>DST2<br>PDST3                     | TE           | AC<br>EXTURE<br>Chalky |              | TSTONE<br>ALE CAR          |              |                |         |         | SHALE RED                                 |            |
| Congl<br>MINERAL<br>L Calcareous<br>P Pyrite<br>· Sandy<br>MISC<br>PR Daily Report<br>Digital Photo                                                                                                           | FOSSIL<br>F Fossils < 20%<br>♦ Oolite<br>♣ Oomoldic<br>DST<br>DST<br>DST1<br>DST2<br>DST3<br>€ Core     | TE           | AC<br>EXTURE<br>Chalky |              | TSTONE<br>ALE CAR          |              |                |         |         | SHALE RED                                 |            |
| MINERAL         L Calcareous         P Pyrite         • Sandy             MISC         P         Daily Report         Digital Photo         Document         Folder                                           | FOSSIL<br>F Fossils < 20%<br>♦ Oolite<br>♣ Oomoldic<br>DST<br>DST<br>DST1<br>DST2<br>DST3<br>€ Core     | TE           | AC<br>EXTURE<br>Chalky |              | TSTONE<br>ALE CAR          |              |                |         |         | SHALE RED                                 |            |
| Congl<br>MINERAL<br>1 Calcareous<br>P Pyrite<br>• Sandy<br>MISC<br>PR Daily Report<br>Digital Photo<br>Document<br>Folder<br>Folder<br>Link                                                                   | FOSSIL<br>F Fossils < 20%<br>♦ Oolite<br>♣ Oomoldic<br>DST<br>DST<br>DST1<br>DST2<br>DST3<br>€ Core     | TE           | AC<br>EXTURE<br>Chalky |              | TSTONE<br>ALE CAR          |              |                |         |         | SHALE RED                                 |            |
| MINERAL         L Calcareous         P Pyrite         • Sandy             MISC         P         Daily Report         Digital Photo         Document         Folder                                           | FOSSIL<br>F Fossils < 20%<br>♦ Oolite<br>♣ Oomoldic<br>DST<br>DST<br>DST1<br>DST2<br>DST3<br>€ Core     | TE           | AC<br>EXTURE<br>Chalky |              | TSTONE<br>ALE CAR          |              |                |         |         | SHALE RED                                 |            |
| Congl<br>MINERAL<br>L Calcareous<br>P Pyrite<br>Sandy<br>MISC<br>PR Daily Report<br>Digital Photo<br>Document<br>Folder<br>Congl                                                                              | FOSSIL<br>F Fossils < 20%<br>♦ Oolite<br>♣ Oomoldic<br>DST<br>DST<br>DST1<br>DST2<br>DST3<br>€ Core     | TE           | AC<br>EXTURE<br>Chalky |              | TSTONE<br>ALE CAR          |              |                |         |         | SHALE RED                                 |            |
| Congl<br>MINERAL<br>L Calcareous<br>P Pyrite<br>Sandy<br>MISC<br>P Daily Report<br>Digital Photo<br>Document<br>Folder<br>Folder<br>Link<br>Vertical Log File<br>Horizontal Log File                          | FOSSIL<br>F Fossils < 20%<br>♦ Oolite<br>♣ Oomoldic<br>DST<br>DST<br>DST1<br>DST2<br>DST3<br>€ Core     | TE           | AC<br>EXTURE<br>Chalky |              | TSTONE<br>ALE CAR          |              |                |         |         | SHALE RED                                 |            |
| Congl<br>MINERAL<br>L Calcareous<br>P Pyrite<br>Sandy<br>MISC<br>PR Daily Report<br>Digital Photo<br>Document<br>Folder<br>Congl                                                                              | FOSSIL<br>F Fossils < 20%<br>♦ Oolite<br>♣ Oomoldic<br>DST<br>DST<br>DST1<br>DST2<br>DST3<br>€ Core     | TE           | AC<br>EXTURE<br>Chalky |              | TSTONE<br>ALE CAR          |              |                |         |         | SHALE RED                                 |            |
| Congl<br>MINERAL<br>L Calcareous<br>P Pyrite<br>Sandy<br>MISC<br>P Daily Report<br>Digital Photo<br>Document<br>Folder<br>Folder<br>Link<br>Vertical Log File<br>Horizontal Log File                          | FOSSIL<br>F Fossils < 20%<br>♦ Oolite<br>♣ Oomoldic<br>DST<br>DST<br>DST1<br>DST2<br>DST3<br>€ Core     | TE           | AC<br>EXTURE<br>Chalky |              | TSTONE<br>ALE CAR          |              |                |         |         | SHALE RED                                 |            |
| Congl<br>MINERAL<br>1 Calcareous<br>P Pyrite<br>• Sandy<br>MISC<br>P Daily Report<br>Digital Photo<br>Document<br>Cocument<br>Folder<br>Cocument<br>Vertical Log File<br>Horizontal Log File<br>Core Log File | FOSSIL<br>F Fossils < 20%<br>♦ Oolite<br>♣ Oomoldic<br>DST<br>DST<br>DST1<br>DST2<br>DST3<br>€ Core     | TE           | AC<br>EXTURE<br>Chalky |              | TSTONE<br>ALE CAR          |              |                |         |         | SHALE RED                                 |            |
| Congl<br>MINERAL<br>1. Calcareous<br>P Pyrite<br>Sandy<br>MISC<br>P Daily Report<br>Digital Photo<br>Document<br>Core Log File<br>Core Log File<br>Drill Cuttings Rpt                                         | FOSSIL<br>F Fossils < 20%<br>♦ Oolite<br>♣ Oomoldic<br>DST<br>DST<br>DST1<br>DST2<br>DST3<br>€ Core     | TE           | AC<br>EXTURE<br>Chalky |              | TSTONE<br>ALE CAR          | S            |                | SHALE   | GRA     | plog version 4.0.8.15 (www                | w.grsi.ca) |
| Congl<br>MINERAL<br>1 Calcareous<br>P Pyrite<br>• Sandy<br>MISC<br>P Daily Report<br>Digital Photo<br>Digital Photo<br>Document<br>P Folder<br>Folder<br>Curve Track #1<br>Curve Track #1                     | FOSSIL<br>F Fossils < 20%<br>♦ Oolite<br>♣ Oomoldic<br>DST<br>DST<br>DST1<br>DST2<br>DST3<br>€ Core     | TE           | AC<br>EXTURE<br>Chalky |              | TSTONE<br>ALE CAR          | S            |                | SHALE   | GRA     | plog version 4.0.8.15 (www<br>TG, C1 - C5 | w.grsi.ca) |
| Congl<br>MINERAL<br>1. Calcareous<br>P Pyrite<br>Sandy<br>MISC<br>P Daily Report<br>Digital Photo<br>Document<br>Core Log File<br>Core Log File<br>Drill Cuttings Rpt                                         | FOSSIL<br>F Fossils < 20%<br>♦ Oolite<br>♦ Oomoldic<br>DST<br>DST1<br>DST2<br>DST3<br>Core<br>tail pipe | TE           | AC<br>EXTURE<br>Chalky |              | TSTONE<br>ALE CAR          | S            |                | SHALE   | GRA     | plog version 4.0.8.15 (www                | w.grsi.ca) |
| Congl<br>MINERAL<br>1 Calcareous<br>P Pyrite<br>• Sandy<br>MISC<br>P Daily Report<br>Digital Photo<br>Digital Photo<br>Document<br>P Folder<br>Folder<br>Curve Track #1<br>Curve Track #1                     | FOSSIL<br>F Fossils < 20%<br>♦ Oolite<br>♣ Oomoldic<br>DST<br>DST1<br>DST2<br>DST3<br>Core              | TE           | AC<br>EXTURE<br>Chalky |              | TSTONE<br>ALE CAR          | S            |                | SHALE   | GRA     | plog version 4.0.8.15 (www<br>TG, C1 - C5 | w.grsi.ca) |

| ft) |           |       |      | Total Gas (uni |
|-----|-----------|-------|------|----------------|
| PI) | <br>vals  |       |      | C1 (units)     |
|     | <br>Inter | ~     | >    | C2 (units)     |
|     | th        | ology | Show | C3 (units)     |

Cal (in)







Limestone: white cream, micro to finexln, fossiliferous oolitic, dense xln matrix, scattered good interfossiliferous oomoldic porosity, trace dark brown oil stain and show under lamp, no odor or fl.

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### Heebner 3061' (-1177)

Shale: gray black, dense fissile waxy, pyritic, trace carbonaceous

Limestone: cream tan, micro to finexln, trace fossils, oolitic, dense chalky matrix, poor visible porosity, no shows noted.

### Douglas 3094' (-1210)

Shale: gray dark gray green, waxy chalky fissile, abundant micas and pyrite, with abundant gray siltstones, samples wash gray, abundant chalk.

Shales as above with increasing siltstones, very chalky, samples gummy, wash gray.

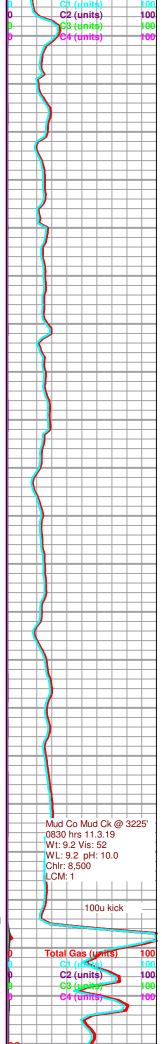
# Brown Lime 3174' (-1290)

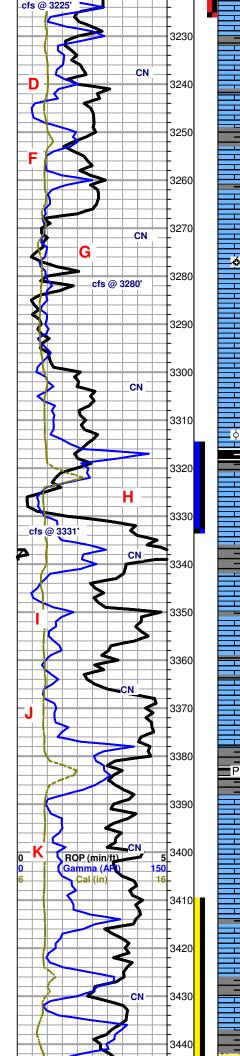
## Lansing-Kansas City 3188' (-1304)

Limestone: white cream, micro to finexln, fossiliferous, dense xln matrix, abundant poor to fair interxln porosity, abundant light brown saturated stain and free oil/gas show, very strong odor, bright yellow green fl.

Limestone as above with slight decrease in show.

Limestone: cream tan, micro to finexln, trace fossils, dense subchalky matrix, scattered poor to good interxln porosity, scattered good light brown oil stain in porosity, increase under lamp, very strong odor, bright yellow fl.





Limestone: cream tan gray, micro to finexIn, fossiliferous, dense xIn matrix, scattered poor pinpoint porosity, mottled, scattered light brown oil stain in porosity, faint odor, no free oil in tray, pale yellow fl.

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Limestone: cream tan gray, micro to finexIn, trace fossils, dense xIn matrix, scattered poor to fair interxln vuggy porosity, scattered secondary crystals, scattered dark brown/black oil stain, slight free oil under lamp, faint odor.

Limestone: cream tan light brown mottled, micro to finexIn, fossiliferous, dense chalky matrix, poor visible porosity, scattered trace dark brown stain in porosity, samples wash gray, no odor or fl.

Limestone: white cream tan, micro to finexIn, fossiliferous oolitic, dense xIn matrix, scattered poor to fair interxIn porosity, no shows noted.

cfs Limestone: cream tan light brown, micro to finexln, fossiliferous ooliitc, dense xln matrix, scattered good interxln vuggy porostiy, scattered sucrosic texture, scattered trace light brown oil, faint odor.

Limestone: cream tan, micro to finexIn fossiliferous oolitic, friable xIn matrix, oomoldic, abundant good to vgood vuggy oomoldic porosity, abundant secondary rexln, no odor or shows noted.

Limestone: cream tan, micro to finexln, fossiliferous oolitic, dense xln oomoldic matrix, scattered good interxIn oomoldic porosity, abundant rexIn, no shows noted.

# Muncie Creek 3316' (-1432)

cfs Limestone: cream tan, micro to finexln, fossiliferous oolitic, friable xln matrix, excellent vuggy interxln porosity, abundant golden brown stain and free oil / gas, abundant rexIn, strong odor, even yellowish fl.

Limestone: white cream tan, micro to finexIn, fossiliferous oolitic, dense xIn matrix, scattered poor to fair interxIn porosity, scattered light brown stain in porosity, no free oil shows, faint odor.

Limestone: white cream light brown, micro to finexIn, fossiliferous oolitic, dense sub chalky matrix, poor visible porosity, scattered dead black wormy stain, no shows noted.

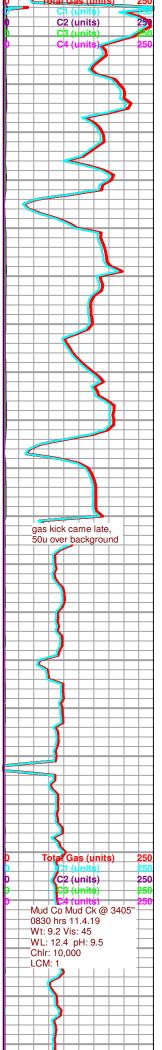
# Stark 3380' (-1496)

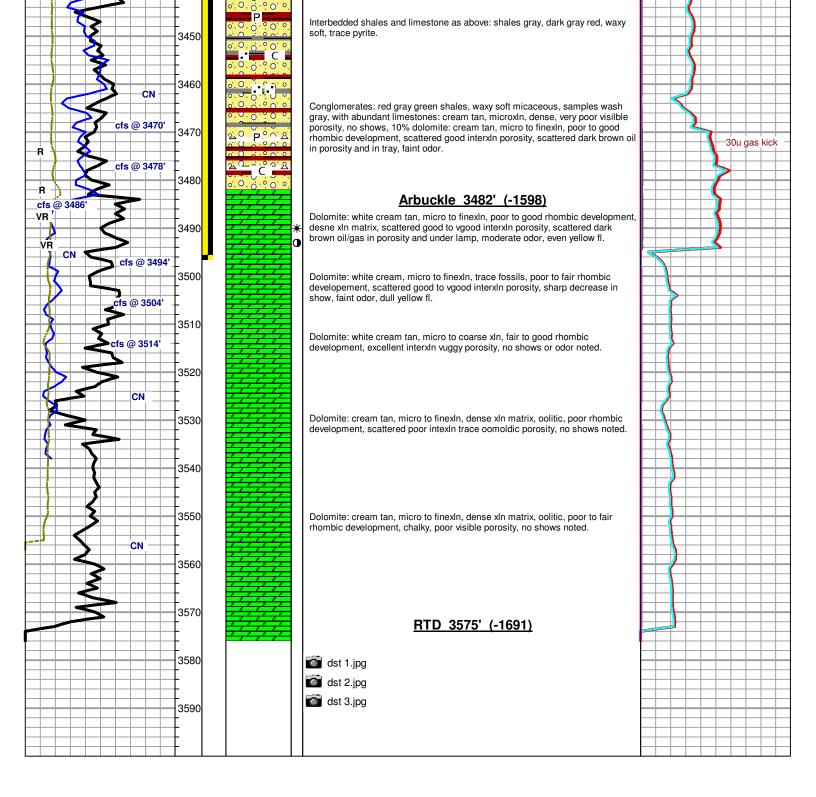
Shale: gray dark gray black, dense fissile waxy, pyritic, trace carbonaceous.

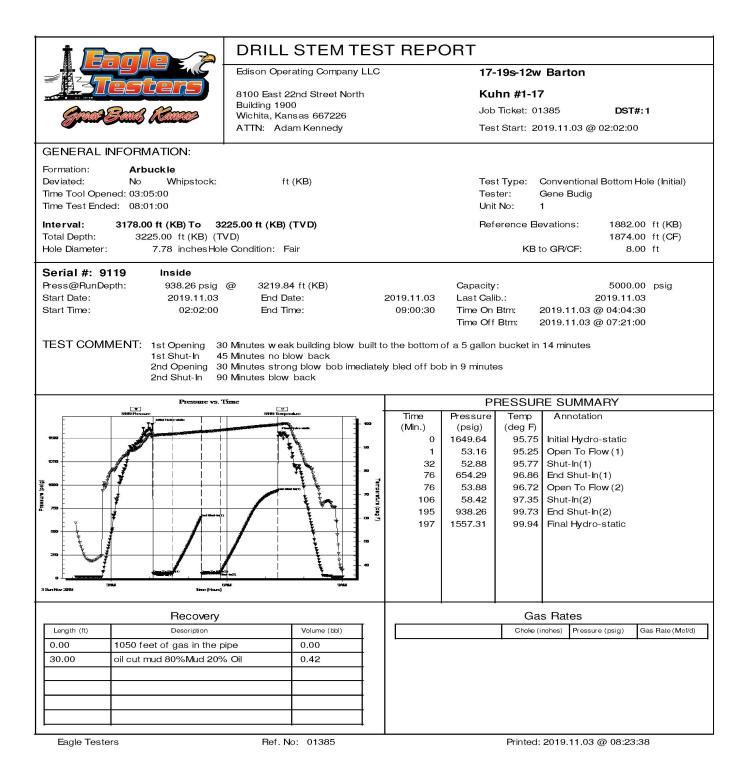
Limestone: cream tan light brown, micro to finexIn, fossiliferous trace oolitic, dense xln calcareous matrix, poor visible porosity, no shows noted.

# Base Kansas City 3414' (-1530)

Limestone: cream tan, micro to finexln, dense chalky matrix, scattered poor interxIn porosity, no shows noted.







|                                                                                                                                                                   | DRILL STEM TES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | TREP                                                       | ORT                                                                                                                                                       |                                   |                                                |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|------------------------------------------------|--|--|
|                                                                                                                                                                   | Edison Operating Company LLC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                            | 17-19s-1                                                                                                                                                  | 2w Barton                         |                                                |  |  |
|                                                                                                                                                                   | 8100 East 22nd Street North                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                            | Kuhn #1-17                                                                                                                                                |                                   |                                                |  |  |
| Great Bend, Kanzaz                                                                                                                                                | Building 1900<br>Wichita, Kansas 667226                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                            | Job Ticket                                                                                                                                                | DST#:2                            |                                                |  |  |
|                                                                                                                                                                   | ATTN: Adam Kennedy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                            | Test Start                                                                                                                                                | :2019.11.03 @                     | 17:55:00                                       |  |  |
| GENERAL INFORMATION:                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                            |                                                                                                                                                           |                                   |                                                |  |  |
| Formation:Kansas City "H"Deviated:NoWhipstock:Time Tool Opened:19:28:00Time Test Ended:                                                                           | ft (KB)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                            | Test Type<br>Tester:<br>Unit No:                                                                                                                          | e: Conventiona<br>Gene Budig<br>1 | al Bottom Hole (Initial)                       |  |  |
| Interval:3314.00 ft (KB) To333Total Depth:3331.00 ft (KB) (TVHole Diameter:7.78 inches Hole                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                            |                                                                                                                                                           | e Eevations:<br>KB to GR/CF:      | 1882.00 ft (KB)<br>1874.00 ft (CF)<br>8.00 ft  |  |  |
| Serial #: 9119 Inside                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                            |                                                                                                                                                           |                                   |                                                |  |  |
| Press@RunDepth:         550.24 psig         6           Start Date:         2019.11.03         2019.11.03           Start Time:         17:55:00         17:55:00 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 2019.11.04<br>00:16:30                                     | Capacity:<br>Last Calib.:<br>Time On Btm:<br>Time Off Btm:                                                                                                | 2019.11.03<br>2019.11.03          | <b>G</b>                                       |  |  |
| 1st Shut-In 45<br>2nd Opening 45                                                                                                                                  | Minutes weak blow built to 4 inch<br>Minutes no blow back<br>Minutes weak steady 1 1/2 inch t<br>Minutes no blow back                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                            | ater                                                                                                                                                      |                                   |                                                |  |  |
| Pressure vs. Th                                                                                                                                                   | nte<br>9119 Tomponiure 105                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                            |                                                                                                                                                           | SURE SUMM                         |                                                |  |  |
| Shorther 2020                                                                                                                                                     | 100 Trapador<br>100 Trapador<br>10 | Time<br>(Min.)<br>0<br>11<br>55<br>56<br>108<br>192<br>193 | 39.25         94           37.71         95           501.93         95           38.40         95           48.77         96           550.24         98 |                                   | o-static<br>low (1)<br>n(1)<br>low (2)<br>n(2) |  |  |
| Recovery                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                            | ł                                                                                                                                                         | Gas Rates                         |                                                |  |  |
| Length (ft) Description                                                                                                                                           | Volume (bbl)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                            | Ch                                                                                                                                                        | noke (inches) Pressu              | re (psig) Gas Rate (Mcf/d)                     |  |  |
| 30.00 oil cut mud 10% Oil 90%M                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                            |                                                                                                                                                           |                                   |                                                |  |  |

|                                                                                              | DRILL STEM TES                                                             | T REP                                                     | ORT                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                      |
|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                              | Edison Operating Company LLC                                               |                                                           | 17-19 <del>s</del> -12                                                                                                                                                                                                                                                                            | w Barton                                                                                                                                                                             |
|                                                                                              | 8100 East 22nd Street North<br>Building 1900                               |                                                           | Kuhn #1-                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                      |
| Great Bands Kanear                                                                           | Wichita, Kansas 667226                                                     |                                                           | Job Ticket:                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                      |
|                                                                                              | ATTN: Adam Kennedy                                                         |                                                           | Test Start: 1                                                                                                                                                                                                                                                                                     | 2019.11.04 @ 19:09:00                                                                                                                                                                |
| GENERAL INFORMATION:                                                                         |                                                                            |                                                           |                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                      |
| Formation:Arbuck leDeviated:NoWhipstock:Time Tool Opened:20:49:00Time Test Ended:00:13:00    | ft (KB)                                                                    |                                                           | Test Type:<br>Tester:<br>Unit No:                                                                                                                                                                                                                                                                 | Conventional Bottom Hole (Initial)<br>Gene Budig<br>1                                                                                                                                |
| Interval:3410.00 ft (KB) To349Total Depth:3494.00 ft (KB) (TV)Hole Diameter:7.78 inches Hole |                                                                            |                                                           | Reference E                                                                                                                                                                                                                                                                                       | Bevations: 1882.00 ft (KB)<br>1874.00 ft (CF)<br>8 to GR/CF: 8.00 ft                                                                                                                 |
| Serial #: 9139 Outside                                                                       |                                                                            |                                                           |                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                      |
| Press@RunDepth: 1180.13 psig @<br>Start Date: 2019.11.04                                     |                                                                            | 2019.11.05                                                | Capacity:<br>Last Calib.:                                                                                                                                                                                                                                                                         | 5000.00 psig<br>2019.11.05                                                                                                                                                           |
| Start Time: 19:09:14                                                                         | End Time:                                                                  | 00:13:14                                                  | Time On Btm:<br>Time Off Btm:                                                                                                                                                                                                                                                                     | 2019.11.04 @ 20:48:44<br>2019.11.04 @ 22:30:44                                                                                                                                       |
| 1st Shuyt-in 30<br>2nd Opening 30                                                            | minutes w eak blow for 8 minutes<br>Minurw a<br>Minutes no blow<br>Minutes | and died                                                  |                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                      |
| Pressure vs. Th<br>T                                                                         | DC<br>939 Tomponiure                                                       |                                                           |                                                                                                                                                                                                                                                                                                   | JRE SUMMARY                                                                                                                                                                          |
| NET Product                                                                                  | UED TERPENDATION<br>100<br>100<br>100<br>100<br>100<br>100<br>100<br>10    | Time<br>(Min.)<br>0<br>11<br>41<br>42<br>72<br>101<br>102 | Pressure<br>(psig)         Temp<br>(deg F           1779.74         102.6           75.79         102.4           78.12         102.7           1206.41         105.0           80.07         104.8           84.96         106.5           1180.13         108.0           1731.08         107.7 | <ul> <li>Initial Hydro-static</li> <li>Open To Flow (1)</li> <li>Shut-ln(1)</li> <li>End Shut-ln(1)</li> <li>Open To Flow (2)</li> <li>Shut-ln(2)</li> <li>End Shut-ln(2)</li> </ul> |
| Recovery                                                                                     |                                                                            |                                                           | G                                                                                                                                                                                                                                                                                                 | as Rates                                                                                                                                                                             |
| Length (ft) Description 30.00 Drilling Mud                                                   | Volume (bb)<br>0.42                                                        |                                                           | Choke                                                                                                                                                                                                                                                                                             | (inches) Pressure (psig) Gas Rate (Mcf/d)                                                                                                                                            |
| Eagle Testers                                                                                | Ref. No: 01387                                                             |                                                           | Printee                                                                                                                                                                                                                                                                                           | d: 2019.11.05 @ 00:32:34                                                                                                                                                             |