## **INTEROFFICE MEMO**

RCVD DEC 8'11

TO:

Records & Regulatory

DATE:

12/1/201**QIL CONS. DIV.** 

FROM:

Sharon Nez

LOCATION: Farmington, NDIST. 3

| Final Geologic Summar | y |
|-----------------------|---|
|-----------------------|---|

| Well Name & No.: Har | ncock 4A                     | API: 3004526384                   | DEC 0 2 2011   |
|----------------------|------------------------------|-----------------------------------|--|
| Location:            | NW Section 23 Tv             | wp28NRge09W                       | Bureau of Land Management<br>Farmington Field Office |
| County & State.      | San Juan, New Mexico         |                                   | T diffing con T total a service                      |
| Elevation:           | GL: 6174' KB: 6163'          | _                                 |  |
| Tops From:           | X Wireline Log               | Mudlog Correlation                |  |
| Ojo Alamo1           | 409' Chao                    | cra Greenhorn _                   |  |
| Kirtland1            | Upper Cliff Hou              | use Graneros                      |  |
| · Fruitland2         |                              | use Dakota (Two Wells)            | ·  |
| Pictured Cliffs 2    |                              | fee Paguate                       |  |
| . Lewis 2            | Point Looks                  | out Upper Cubero _                | ·<br>  |
| Huerfanito Bentonite | nde Mano                     | cos Lower Cubero _                |  |
|                      | Upper Gall                   | lup Oak Canyon _                  |  |
|                      |                              | Encinal_                          |  |
|                      |                              | Burro Canyon                      |  |
| ·                    |                              | Morrison_                         |  |
|                      |                              | DTD                               | 5159'  |
|                      |                              | LTD_                              | 2800'  |
| Electric Logs Run:   | Gas Spectrum Log CNL Tool Oc | t 21, 2011                        |  |
|                      | `                            |                                   |  |
|                      |                              |                                   |  |
| Well Cored?          | <u>X</u> NoYes               |                                   |  |
| ·Well DST'd?         | <u>X</u> NoYes               | •                                 |  |
|                      |                              | Geologist <sup>.</sup> Sharon Nez |  |

\* Revised geo tops from attached completion report accepted 11/21/2011 TL Salyers

ACCEPTED FOR RECORD DEC 0 6 2011

Form 3160-4 (Oktober 1990) \*~

UNITED STATES
DEPARTMENT OF THE INTERIOR

SUBMIT IN DUPLICATE

(See other instructions on reverse side) FOR APPROVED

OMB NO. 10040112 CONS. DIV.

Expires: December 31, 1991
LEASE DESIGNATION AND SERIAL NO.

|  | -  | OKEAU OF LA  | ND MANAGEMENT   |  | land line ber   |  | M-04209  |
|--|--|--|---|--|---|--|--|
|  |  |  | ETION REPO  | ORT AND  | LOG   | B IF INDIAN, ALLOT   | TEE OR TRIBE NAME  DIST. 3   |
| a. TYPE OF WELL:   | OIL<br>WELL  | GAS<br>WELL X  | DRY   |  | 2.155.0   | 175 UNIT AGREEMEN  |  |
| TYPE OF COMPLE   | TION:  |  |   |  | Silli   | 17 504   |  |
| NEW<br>WELL  | WORK DEEP-<br>OVER EN  | PLUG<br>BACK   | DIFF<br>RESVR X Other   | RECOMPL  | ETE   | 8. FARM OR LEASE   |  |
|  |  |  |   |  | rammo   | ton Field Offic <b>ua</b>  | ncock 4A   |
| NAME OF OPERAT   | ron<br>n Resources Oil   | e Coo Como   |   |  | DETERMINE.  | orenewall  | :<br>045-26384   |
| ADDRESS AND TE   |  | & Gas Compa  | any   |  | **  | 10 FIELD AND POO   |  |
|  | 89, Farmington, N  |  | )5) 326-9700  |  |   |  | Fruitland Coal   |
|  | • •  | <del>-</del>   | ance with any State rec   | quirements)*   |   | 11. SEC., T., R., M.,<br>OR AREA   | OR BLOCK AND SURVEY  |
| At surface (   | Jnit C (NENW), 810   | ' FNL & 1560' F  | WL  |  |   | CICARES  |  |
| At top prod. interval  | reported below   | same as abov   | re  |  |   | Sec. 2   | 3, T28N, R9W   |
| At total depth s   | ame as above   | •  |   |  |   | [  |  |
|  |  | ſ  | 14. PERMIT NO.  | DATE ISSUE   | D   | 12. COUNTY OR  | 13. STATE  |
|  |  |  |   | 1  |   | PARISH   |  |
| DATE SPUDDED 1   | 6. DATE T.D. REACHED   | 117 DATED  | OMPL. (Ready to prod.)  | Ĺ  | 18. ELEVATIONS (DF,   | San Juan   | New Mexico  19. ELEV. CASINGHEAD   |
| 7/12/85  | 6. DATE T.D. REACHED<br>7/18/85  | , I''. DAIEC   | 11/11/11  |  |   | 6164"  | The erest one indirector   |
| TOTAL DEPTH, MD &  |  | BACK T.D , MD &TVI   | 22. IF MULTIPLE CO  |  | 23. INTERVALS   | ROTARY TOOLS   | CABLE TOOLS  |
| 5159'  | Į  | 5149'  | HOW M   |  | DRILLED BY  | yes  | 1  |
|  | VAL (S) OF THIS COMPLE   |  |   |  | <u> </u>  | 25, WAS DIRE   |  |
|  |  |  | -   |  |   | SURVEY   | MADE<br><b>NO</b>  |
| TYPE ELECTRIC AND  | d Coal 2256' - 24<br>OTHER LOGS RUN  | 104  |   | *  | <del></del>   | 27. WAS WELL CORE  |  |
| CNL  |  |  |   |  |   |  | No   |
|  |  |  | CASING RECORD (   |  |   |  |  |
| ASING SIZE/GRADE   | WEIGHT, LB./FT.  | DEPTH SET (M   |   |  | MENT, CEMENTING RE  |  | AMOUNT PULLED  |
| 9 5/8", H-40   | 32.3#  | 299'   | 12 1/4"   | Surfa  | ice, 130sx (153cf)  | <del>'                                     </del>  |  |
| 7", K-55   | 20#  | 2819'  | 8 3/4"  | тос @  | 1000', 260sx (427   | /cf)   |  |
|  | LIMERR   | L<br>ECORD   | L   | 30.  |   | TUBING RECO  | RD   |
|  |  | <del></del>  | TA CORESI (MD)  | SIZE   | DEPTH SE  | T (MD)   | PACKER SET (MD)  |
| SIZE TOP (M  | D) BOTTOM (MD)   | SACKS CEMEN  | T* SCREEN (MD)  |  |   |  |  |
| SIZE TOP (MI<br>11/2" 2668   | D) BOTTOM (MD)   | 325sx  | 1 SCREEN (MD)   | 2 3/8", 4.7#,  | J-55 505  | 8'   |  |
| SIZE TOP (MI<br>4 1/2" 2668<br>5#, K-55  | D) BOTTOM (MD) 5159'   | 325sx<br>436cf   |   |  |   |  | E. ETC.  |
| SIZE TOP (MI<br>4 1/2" 2668<br>5#, K-55<br>PERFORATION RECO  | D) BOTTOM (MD)   | 325sx<br>436cf   | 32. 2256' -   | ACI  |   | 8'<br>RE, CEMENT SQUEEZI   | E, ETC.  |
| SIZE TOP (M<br>4 1/2" 2668<br>.5#, K-55<br>PERFORATION RECO<br>per Basin Fruitlan<br>PF @ 2379' - 2397   | D) BOTTOM (MD) ' 5159'  DRD (Interval, size and num and Coal w/ .40" dia " = 36 holes  | 325sx<br>436cf   | 32.   | ACI  | D, SHOT, FRACTUF<br>Acidized w/ 500g  | RE, CEMENT SQUEEZE   | id. Pump 4000gals 25#  |
| SIZE TOP (M<br>4 1/2" 2668<br>5#, K-55<br>PERFORATION RECO<br>per Basin Fruitlan<br>PF @ 2379' - 2397<br>PF @ 2292' - 2358   | D) BOTTOM (MD)  ' 5159'  DRD (Interval, size and nun nd Coal W/ .40" dia  " = 36 holes " = 38 holes  | 325sx<br>436cf   | 32.   | ACI  | D, SHOT, FRACTUF<br>Acidized w/ 500g<br>X-Link Pre-Pad,   | RE, CEMENT SQUEEZE<br>gals 10% Formic Ac<br>w/ 29,988gals 25# I  | id. Pump 4000gals 25#<br>Linear 75% N2 foam w/   |
| 4 1/2" 2668<br>.5#, K-55<br>PERFORATION RECO   | D) BOTTOM (MD)  ' 5159'  DRD (Interval, size and nun nd Coal W/ .40" dia  " = 36 holes " = 38 holes  | 325sx<br>436cf   | 32. 2256' -   | ACI<br>2397'   | D, SHOT, FRACTUF<br>Acidized w/ 500g<br>X-Link Pre-Pad,   | RE, CEMENT SQUEEZE   | id. Pump 4000gals 25#<br>Linear 75% N2 foam w/   |
| SIZE TOP (M<br>4 1/2" 2668<br>5#, K-55<br>PERFORATION RECC<br>per Basin Fruitlan<br>PF @ 2379' - 2397<br>PF @ 2292' - 2358<br>PF @ 2256' - 2258<br>Wer Basin Fruitla   | D) BOTTOM (MD)  5159  BRD (Interval, size and num and Coal w/ .40" dia  1" = 36 holes 3" = 48 holes 3" = 6 holes and Coal w/ .40" dia  | 325sx<br>436cf<br>nber)<br>m.  | 32.   | ACI<br>2397'   | D, SHOT, FRACTUF<br>Acidized w/ 5000<br>X-Link Pre-Pad,<br>112,457# 20/40 A   | RE, CEMENT SQUEEZI<br>gals 10% Formic Ac<br>w/ 29,988gals 25# I<br>Arizona Sand. N2:1,   | id. Pump 4000gals 25#<br>Linear 75% N2 foam w/<br>337,300SCF.  |
| SIZE TOP (M<br>4 1/2" 2668<br>5#, K-55<br>PERFORATION RECC<br>per Basin Fruitla<br>PF @ 2379' - 2397<br>PF @ 2292' - 2358<br>PF @ 2256' - 2258<br>Wer Basin Fruitla  | D) BOTTOM (MD)  5159  BRD (Interval, size and num and Coal w/ .40" dia  1" = 36 holes 3" = 48 holes 3" = 6 holes and Coal w/ .40" dia  | 325sx<br>436cf<br>nber)<br>m.  | 32. 2256' -   | ACI<br>2397'   | D, SHOT, FRACTUF Acidized w/ 500g X-Link Pre-Pad, 112,457# 20/40 /  | gals 10% Formic Ac<br>y 29,988 gals 25# l<br>Arizona Sand. N2:1,<br>gals 10% Formic Ac   | id. Pump 4000gals 25#<br>Linear 75% N2 foam w/   |
| SIZE TOP (M<br>4 1/2" 2668<br>5#, K-55<br>PERFORATION RECO<br>per Basin Fruitla<br>PF @ 2379' - 2397<br>PF @ 2292' - 2358<br>PF @ 2256' - 2258<br>Wer Basin Fruitla<br>PF @ 2440' - 2452   | D) BOTTOM (MD)  5159  CRD (Interval, size and num  CRD (Interval, size and | 325sx<br>436cf<br>nber)<br>m.  | 32. 2256' -   | ACI<br>2397'   | D, SHOT, FRACTUF Acidized w/ 500g X-Link Pre-Pad, 112,457# 20/40 / Acidized w/ 500g X-Link Pre-Pad,   | gals 10% Formic Ac<br>y 29,988 gals 25# l<br>Arizona Sand. N2:1,<br>gals 10% Formic Ac   | id. Pump 4000gals 25#<br>Linear 75% N2 foam w/<br>337,300SCF.<br>Id. Pump 2,304gals 25#<br>Linear 75% N2 foam w/   |
| SIZE TOP (M<br>4 1/2" 2668<br>5#, K-55<br>PERFORATION RECO<br>per Basin Fruitla<br>PF @ 2379' - 2397<br>PF @ 2292' - 2358<br>PF @ 2256' - 2258<br>Wer Basin Fruitla<br>PF @ 2440' - 2452   | D) BOTTOM (MD)  5159  CRD (Interval, size and num  CRD (Interval, size and | 325sx<br>436cf<br>nber)<br>m.  | 2256' -   | ACI 2397'  | D, SHOT, FRACTUF Acidized w/ 500g X-Link Pre-Pad, 112,457# 20/40 / Acidized w/ 500g X-Link Pre-Pad,   | gals 10% Formic Ac<br>w/ 29,988 gals 25# l<br>Arizona Sand. N2:1,<br>gals 10% Formic Ac<br>w/ 16,338 gals 25# l  | id. Pump 4000gals 25#<br>Linear 75% N2 foam w/<br>337,300SCF.<br>Id. Pump 2,304gals 25#<br>Linear 75% N2 foam w/   |
| SIZE TOP (M<br>14 1/2" 2668<br>54, K-55<br>PERFORATION RECO<br>DET BASIN FIVE 12397<br>PF @ 2379' - 2358<br>PF @ 2292' - 2358<br>PF @ 2256' - 2258<br>Ver Basin Fruitla<br>PF @ 2440' - 2452<br>itland Coal Total  | D) BOTTOM (MD)  5159  CRD (Interval, size and num  CRD (Interval, size and | 325sx<br>436cf<br>m.   | 2256' -   | ACI 2397' 2452'  | D, SHOT, FRACTUP<br>Acidized w/ 500g<br>X-Link Pre-Pad,<br>112,457# 20/40 A<br>Acidized w/ 500g<br>X-Link Pre-Pad,<br>25,343# 20/40 Ar          | gals 10% Formic Ac<br>w/ 29,988 gals 25# I<br>Arizona Sand. N2:1,<br>gals 10% Formic Ac<br>w/ 16,338 gals 25# I<br>rizona Sand. N2:54  | id. Pump 4000gals 25#<br>Linear 75% N2 foam w/<br>337,300SCF.<br>Id. Pump 2,304gals 25#<br>Linear 75% N2 foam w/   |
| 11/2" 2668 5#, K-55  PERFORATION RECCORT BASIN Fruitlan PF @ 2379' - 2397 PF @ 2292' - 2358 PF @ 2256' - 2258 PF @ 2440' - 2452  itland Coal Total FIRST PRODUCTION N/A  | D) BOTTOM (MD)  5159  FORD (Interval, size and num and Coal W / .40" dia  1 = 36 holes 3 = 38 holes 3 = 6 holes and Coal W / .40" dia 2 = 24 holes  Holes = 104  | 325sx 436cf aber) m.  CTION METHOD (FA   | 32. 2256" - 2440' - 2440' -   | ACI 2397'  2452'  CODUCTION 25 and type of pum.                              | D, SHOT, FRACTUF Acidized w/ 5000 X-Link Pre-Pad, 112,457# 20/40 A Acidized w/ 5000 X-Link Pre-Pad, 25,343# 20/40 A                             | gals 10% Formic Ac<br>w/ 29,988 gals 25# l<br>Arizona Sand. N2:1,<br>gals 10% Formic Ac<br>w/ 16,338 gals 25# l<br>rizona Sand. N2:54:   | id. Pump 4000gals 25# Linear 75% N2 foam w/ 337,300SCF.  Id. Pump 2,304gals 25# Linear 75% N2 foam w/ 2,500SCF.  S (Producing or shut-in)                                      |
| SIZE TOP (M 4 1/2" 2668 5#, K-55 PERFORATION RECO PER @ 2379' - 2397 PF @ 2292' - 2356 PF @ 2256' - 2256 Wer Basin Fruitla PF @ 2440' - 2452 uitland Coal Total E FIRST PRODUCTION N/A   | D) BOTTOM (MD)  ' 5159'  ORD (Interval, size and nun and Coal w/ .40" dia " = 36 holes 8' = 38 holes 8' = 6 holes and Coal w/ .40" dia 2' = 24 holes Holes = 104   | 325sx 436cf aber) m.  CTION METHOD (FIGURE)  | 32. 2256' - 2440' - 2440' - PROWING, gas lift, pumping-si.                                    | ACI 2397'  2452'  CODUCTION 25 and type of pum.                              | D, SHOT, FRACTUP<br>Acidized w/ 500g<br>X-Link Pre-Pad,<br>112,457# 20/40 A<br>Acidized w/ 500g<br>X-Link Pre-Pad,<br>25,343# 20/40 Ar          | gals 10% Formic Ac<br>w/ 29,988 gals 25# I<br>Arizona Sand. N2:1,<br>gals 10% Formic Ac<br>w/ 16,338 gals 25# I<br>rizona Sand. N2:54:   | id. Pump 4000gals 25#<br>Linear 75% N2 foam w/<br>337,300SCF.<br>Id. Pump 2,304gals 25#<br>Linear 75% N2 foam w/<br>2,500SCF.  |
| SIZE TOP (M 4 1/2" 2668 5#, K-55 PERFORATION RECC PER @ 2379' - 2397 PF @ 2292' - 2358 PF @ 2256' - 2256 wer Basin Fruitla PF @ 2440' - 2452 sittland Coal Total E FIRST PRODUCTION N/A  | D) BOTTOM (MD)  5159  FORD (Interval, size and num and Coal W / .40" dia  1 = 36 holes 3 = 38 holes 3 = 6 holes and Coal W / .40" dia 2 = 24 holes  Holes = 104  | 325sx 436cf aber) m.  CTION METHOD (FA   | 32. 2256" - 2440' - 2440' -   | ACI 2397'  2452'  CODUCTION 25 and type of pum.                              | D, SHOT, FRACTUF Acidized w/ 5000 X-Link Pre-Pad, 112,457# 20/40 A Acidized w/ 5000 X-Link Pre-Pad, 25,343# 20/40 A                             | gals 10% Formic Ac<br>w/ 29,988 gals 25# l<br>Arizona Sand. N2:1,<br>gals 10% Formic Ac<br>w/ 16,338 gals 25# l<br>rizona Sand. N2:54:   | id. Pump 4000gals 25# Linear 75% N2 foam w/ 337,300SCF.  Id. Pump 2,304gals 25# Linear 75% N2 foam w/ 2,500SCF.  3 (Producing or shut-in)                                      |
| SIZE TOP (M 4 1/2" 2668 .5#, K-55  PERFORATION RECCUPER BASIN Fruitlan PF @ 2379' - 2356 PF @ 2292' - 2356 PF @ 2256' - 2256 WER BASIN Fruitla PF @ 2440' - 2452  Littland Coal Total E FIRST PRODUCTION N/A E OF TEST  11/9/11  | D) BOTTOM (MD)  5159'  PRO (Interval, size and num and Coal w/ .40" dia  1' = 36 holes 3' = 6 holes and Coal w/ .40" dia  2' = 24 holes  Holes = 104  PRODU FLO  | 325sx 436cf  aber) m.  CTION METHOD (FIGURE SIZE  1/2"  CALCULATED                                     | 32. 2256' - 2440' - 2440' - PROWING, gas lift, pumping-si.                                    | ACI 2397'  2452'  CODUCTION 26 and type of pum. Bit.                         | D, SHOT, FRACTUE Acidized w/ 500g X-Link Pre-Pad, 112,457# 20/40 A Acidized w/ 500g X-Link Pre-Pad, 25,343# 20/40 A                             | gals 10% Formic Ac w/ 29,988gals 25# I Arizona Sand. N2:1, gals 10% Formic Ac w/ 16,338gals 25# I rizona Sand. N2:54:  WATER-BBL  "BURNEY TO THE TO T | id. Pump 4000gals 25# Linear 75% N2 foam w/ 337,300SCF.  Id. Pump 2,304gals 25# Linear 75% N2 foam w/ 2,500SCF.  3 (Producing or shut-in)                                      |
| SIZE TOP (M 4 1/2" 2668 .5#, K-55 PERFORATION RECO PERFOR | D) BOTTOM (MD)  5159'  PRO (Interval, size and nun and Coal w/ .40" dia  1" = 36 holes 3" = 38 holes 3" = 6 holes and Coal w/ .40" dia 2" = 24 holes Holes = 104  PRODU FLC HOURS TESTED  1 hr. CASING PRESSURE  | 325sx 436cf  aber) m.  CTION METHOD (FIGURE SIZE   | 32.  2256" -  2440" -  PRODIN FOR OIL-BTEST PERIOD  OIL-BBL                                   | ACI 2397'  2452'  RODUCTION 25 and type of pum BIL 0 GAS-MCF                 | D, SHOT, FRACTUP  Acidized w/ 500g X-Link Pre-Pad, 112,457# 20/40 A  Acidized w/ 500g X-Link Pre-Pad, 25,343# 20/40 Ar  GAS-MCF  8 mcf/h WATER- | gals 10% Formic Ac w/ 29,988gals 25# I Arizona Sand. N2:1, gals 10% Formic Ac w/ 16,338gals 25# I rizona Sand. N2:54:    WELL STATU-   SI   WATER-BBL   1 bwp/h   BBL  | id. Pump 4000gals 25# Linear 75% N2 foam w/ 337,300SCF.  Id. Pump 2,304gals 25# Linear 75% N2 foam w/ 2,500SCF.  S (Producing or shut-in)                                      |
| SIZE TOP (M 4 1/2" 2668 5.5#, K-55  PERFORATION RECC PER @ 2379' - 2397 PF @ 2292' - 2356 PF @ 2256' - 2256 WEY BASIN Fruitla PF @ 2440' - 2452  Littland Coal Total  E FIRST PRODUCTION N/A E OF TEST  11/9/11 W. TUBING PRESS.  SI - 205psi  | D) BOTTOM (MD)  1 5159  PRO (Interval, size and num nd Coal w/ .40" dia  1 = 36 holes  3 = 6 holes  1 = 24 holes  Holes = 104  PRODU FLC HOURS TESTED  1 hr.   | 325sx 436cf  aber) m.  CTION METHOD (FA  DWING  CHOKE SIZE  1/2"  CALCULATED  24-HOUR RATE             | 32. 2256' - 2440' - 2440' - PROD'N FOR OIL-B  | ACI 2397'  2452'  200UCTION 26 and type of pum. BL.                          | D, SHOT, FRACTUP  Acidized w/ 500g X-Link Pre-Pad, 112,457# 20/40 A  Acidized w/ 500g X-Link Pre-Pad, 25,343# 20/40 Ar  GAS-MCF  8 mcf/h WATER- | gals 10% Formic Ac w/ 29,988gals 25# I Arizona Sand. N2:1, gals 10% Formic Ac w/ 16,338gals 25# I rizona Sand. N2:54:  WATER-BBL  "BURNEY TO THE TO T | id. Pump 4000gals 25# Linear 75% N2 foam w/ 337,300SCF.  Id. Pump 2,304gals 25# Linear 75% N2 foam w/ 2,500SCF.  G(Producing or shut-in)  GAS-OIL RATIO OIL GRAVITY-API (CORR) |
| SIZE TOP (M 4 1/2" 2668 .5#, K-55  PERFORATION RECO per Basin Fruitia PF @ 2379' - 2397 PF @ 2292' - 2358 PF @ 2256' - 2258  WER Basin Fruitia PF @ 2440' - 2452  uitland Coal Total S TE FIRST PRODUCTION N/A TE OF TEST  11/9/11  W. TUBING PRESS.  SI - 205psi DISPOSITION OF GAS   | D) BOTTOM (MD)  1 5159  PRO (Interval, size and num and Coal w/ .40" dia  2 = 38 holes 3 = 6 holes  and Coal w/ .40" dia  2 = 24 holes  Holes = 104  PRODU FLC  HOURS TESTED  1 hr.  CASING PRESSURE  SI -205psi  S (Sold, used for tuer, vent To be sold  | 325sx 436cf  aber) m.  CTION METHOD (FA  DWING  CHOKE SIZE  1/2"  CALCULATED  24-HOUR RATE             | 32.  2256" -  2440" -  PRODIN FOR OIL-BTEST PERIOD  OIL-BBL                                   | ACI 2397'  2452'  RODUCTION 25 and type of pum BIL 0 GAS-MCF                 | D, SHOT, FRACTUP  Acidized w/ 500g X-Link Pre-Pad, 112,457# 20/40 A  Acidized w/ 500g X-Link Pre-Pad, 25,343# 20/40 Ar  GAS-MCF  8 mcf/h WATER- | gals 10% Formic Ac w/ 29,988gals 25# I Arizona Sand. N2:1, gals 10% Formic Ac w/ 16,338gals 25# I rizona Sand. N2:54:    WELL STATU   SI   WATER-BBL   1 bwp/h   BBL   24 bwpd   | id. Pump 4000gals 25# Linear 75% N2 foam w/ 337,300SCF.  Id. Pump 2,304gals 25# Linear 75% N2 foam w/ 2,500SCF.  G(Producing or shut-in)  GAS-OIL RATIO OIL GRAVITY-API (CORR) |
| SIZE TOP (M 4 1/2" 2668 5#, K-55 5#, K-55 PERFORATION RECC per Basin Fruitla PF @ 2379' - 2397 PF @ 2292' - 2358 PF @ 2256' - 2258 wer Basin Fruitla PF @ 2440' - 2452 uitland Coal Total E FIRST PRODUCTION N/A E OF TEST  11/9/11 W. TUBING PRESS. SI - 205psi DISPOSITION OF GAS  | D) BOTTOM (MD)  1 5159  DRD (Interval, size and nun and Coal w! .40" dia  1 = 36 holes 3 = 38 holes 3 = 6 holes  Holes = 104  PRODU FLC  HOURS TESTED  1 hr.  CASING PRESSURE SI -205psi S (Sold, used for tuel, venit To be sold  | 325sx 436cf  aber) m.  CTION METHOD (Fit  DWING  CHOKE SIZE  1/2"  CALCULATED  24-HOUR RATE  ed, etc.) | 2256' -  2440' -  2440' -  PROWING, gas lift, pumping-si.  PROD'N FOR TEST PERIOD  OIL-BBL  0 | ACI 2397'  2452'  2452'  200UCTION 26 and type of pum BL  9 GAS-MCF  194 mcf | D, SHOT, FRACTUP  Acidized w/ 500g X-Link Pre-Pad, 112,457# 20/40 A  Acidized w/ 500g X-Link Pre-Pad, 25,343# 20/40 Ar  GAS-MCF  8 mcf/h WATER- | gals 10% Formic Ac w/ 29,988gals 25# I Arizona Sand. N2:1, gals 10% Formic Ac w/ 16,338gals 25# I rizona Sand. N2:54:    WELL STATU   SI   WATER-BBL   1 bwp/h   BBL   24 bwpd   | id. Pump 4000gals 25# Linear 75% N2 foam w/ 337,300SCF.  Eld. Pump 2,304gals 25# Linear 75% N2 foam w/ 2,500SCF.  GAS-OIL RATIO OIL GRAVITY-API (CORR)                         |
| SIZE TOP (M 4 1/2" 2668 5#, K-55 PERFORATION RECC PERFORATION RECC PF @ 2379' - 2397 PF @ 2292' - 2358 PF @ 2256' - 2258 WER BASIN FRUITIA PF @ 2440' - 2452 UITIAN COAL TOTAL E FIRST PRODUCTION N/A E OF TEST  11/9/11 W. TUBING PRESS. SI - 205psi DISPOSITION OF GAS UIST OF ATTACHMENTS IS NOW A FC/CH  | D) BOTTOM (MD)  1 5159  DRD (Interval, size and nun and Coal W/ .40" dia  2 = 36 holes 3 = 38 holes 3 = 6 holes 4 Holes  Holes = 104  PRODU FLC  HOURS TESTED  1 hr. CASING PRESSURE SI - 205psi SI (Sold, used for tuer, ventations) To be sold  ITS  H/MV well being co  | 325sx 436cf  am.  CTION METHOD (FIGURE SIZE  1/2"  CALCULATED  24-HOUR RATE  ed, etc.)                 | 32.  2256" -  2440" -  PRODIN FOR OIL-BTEST PERIOD  OIL-BBL                                   | ACI 2397'  2452'  2000CTION 26 and type of pure BL  0 GAS-MCF 194 mcf        | D, SHOT, FRACTUF Acidized w/ 500g X-Link Pre-Pad, 112,457# 20/40 / Acidized w/ 500g X-Link Pre-Pad, 25,343# 20/40 Au  GAS-MCF 8 mcf/h WATER-/d  | gals 10% Formic Ac w/ 29,988gals 25# I Arizona Sand. N2:1, gals 10% Formic Ac w/ 16,338gals 25# I rizona Sand. N2:54:    WELL STATU   SI   WATER-BBL   1 bwp/h   BBL   24 bwpd   | id. Pump 4000gals 25# Linear 75% N2 foam w/ 337,300SCF.  Eld. Pump 2,304gals 25# Linear 75% N2 foam w/ 2,500SCF.  GAS-OIL RATIO OIL GRAVITY-API (CORR)                         |

\*(See Instructions and Spaces for Additional Data on Reverse Side)

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department of agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

PAGAMATON FIREDAFFICE

| API # 30-045-26384 | 1     |       | Hancock 4A (Recomplete)  |                 |       |
|--------------------|-------|-------|--|-----------------|-------|
| Ojo Alamo          | 1420' | 2234' | White, cr-gr ss.   | Ojo Alamo       | 1420' |
| Fruitland          | 2234' | 2440' | Dk gry-gry carb sh, coal, grn silts, light-med gry, tight, fine gr ss.         | Fruitland       | 2234' |
| Pictured Cliffs    |       |       | Bn-Gry, fine grn, tight ss.  | Pic.Cliffs      | 2440' |
| Lewis              | 2620' | 4145' | Shale w/siltstone stringers  | Lewis           | 2620' |
| Cliffhouse         | 4145' | 4172' | Light gry, med-fine gr ss, carb sh & coal                                      | Mesa Verde      | 4145' |
| Menefee            | 4172' | 4730' | Med-dark gry, fine gr ss, carb sh & coal                                       | Menefee Menefee | 4172' |
| Point Lookout      | 4730! | 5149' | Med-light gry, very fine gr ss w/frequent sh breaks in lower part of formation | Point Lookout   | 5149' |

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