

KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

1108343

Form ACO-1 June 2009 Form Must Be Typed Form must be Signed All blanks must be Filled

WELL COMPLETION FORM

WELL HISTORY - DESCRIPTION OF WELL & LEASE

| OPERATOR: License # | | API No. 15 |
|-------------------------------------|---|---|
| Name: | | Spot Description: |
| Address 1: | | |
| Address 2: | | Feet from North / South Line of Section |
| City: | State: Zip:+ | Feet from East / West Line of Section |
| | | Footages Calculated from Nearest Outside Section Corner: |
| | | |
| | | County: |
| | | Lease Name: Well #: |
| | | Field Name: |
| 5 | | |
| | | Producing Formation: |
| Designate Type of Completion: | _ | Elevation: Ground: Kelly Bushing: |
| New Well | e-Entry Workover | Total Depth: Plug Back Total Depth: |
| Oil WSW | SWD SIOW | Amount of Surface Pipe Set and Cemented at: Fee |
| Gas D&A | ENHR SIGW | Multiple Stage Cementing Collar Used? Yes No |
| OG | GSW Temp. Abd. | If yes, show depth set: Feel |
| CM (Coal Bed Methane) | | If Alternate II completion, cement circulated from: |
| Cathodic Other (Co | re, Expl., etc.): | feet depth to:w/sx cmt |
| If Workover/Re-entry: Old Well In | nfo as follows: | |
| Operator: | | |
| Well Name: | | Drilling Fluid Management Plan (Data must be collected from the Reserve Pit) |
| Original Comp. Date: | Original Total Depth: | |
| Deepening Re-per | | Chloride content: ppm Fluid volume: bbls |
| | Conv. to GSW | Dewatering method used: |
| Plug Back: | Plug Back Total Depth | Location of fluid disposal if hauled offsite: |
| | Permit #: | Operator Name: |
| Dual Completion | Permit #: | Operator Name: |
| SWD | Permit #: | Lease Name: License #: |
| | Permit #: | Quarter Sec TwpS. R East Wes |
| GSW | Permit #: | County: Permit #: |
| Spud Date or Date Recompletion Date | eached TD Completion Date or Recompletion Date | |

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

| KCC Office Use ONLY | | | | | | |
|------------------------------------|--|--|--|--|--|--|
| Letter of Confidentiality Received | | | | | | |
| Date: | | | | | | |
| Confidential Release Date: | | | | | | |
| Wireline Log Received | | | | | | |
| Geologist Report Received | | | | | | |
| UIC Distribution | | | | | | |
| ALT I II III Approved by: Date: | | | | | | |

| | Side Two | 1108343 |
|-------------------------|-------------|---------|
| Operator Name: | Lease Name: | Well #: |
| Sec TwpS. R East _ West | County: | |
| | | |

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

| Drill Stem Tests Taken (Attach Additional She | eets) | Yes No | | d Datum | | | |
|--|--|---------------------------------------|----------------------------|--------------------|-------------------|-----------------|-------------------------------|
| Samples Sent to Geological Survey | | Yes No | Nan | ie | | Тор | Datum |
| Cores Taken Electric Log Run Electric Log Submitted Electronically (If no, Submit Copy) | | <pre>Yes □ No Yes □ No Yes □ No</pre> | | | | | |
| List All E. Logs Run: | | | | | | | |
| | | CASIN | G RECORD | ew Used | | | |
| | | Report all strings se | et-conductor, surface, int | ermediate, product | ion, etc. | | |
| Purpose of String | Purpose of String Size Hole Drilled | | Weight Lbs. / Ft. | Setting Depth | Type of Cement | # Sacks Used | Type and Percent Additives |
| | | | | | | | |

ADDITIONAL CEMENTING / SQUEEZE RECORD

| Purpose: Perforate | Depth Top Bottom | Type of Cement | # Sacks Used | Type and Percent Additives |
|-----------------------------|---------------------|----------------|--------------|----------------------------|
| Protect Casing Plug Back TD | | | | |
| Plug Off Zone | | | | |

| Shots Per Foot | PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated | | | | | e | | | ement Squeeze Record of Material Used) | Depth |
|--|---|---------------|-------------|-----------------|-------|---------------------|-----------------|------------------------------|---|---------|
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| TUBING RECORD: | RECORD: Size: Set A | | | | Packe | r At: | Liner R | un: | No | |
| Date of First, Resumed Production, SWD or ENHR | | ł. | Producing M | lethod: | ping | Gas Lift | Other (Explain) | | | |
| Estimated Production Per 24 Hours | | Oil Bb | s. | Gas | Mcf | Wate | er | Bbls. | Gas-Oil Ratio | Gravity |
| | | | | | | | | | | |
| DISPOSITION OF GAS: | | | METHOD | OF COMPLE | TION: | | PRODUCTION INT | ERVAL: | | |
| Vented Sold | | Jsed on Lease | | Open Hole | Perf. | Uually (Submit / | Comp. ACO-5) | Commingled (Submit ACO-4) | | |
| (If vented, Sul | bmit ACC |)-18.) | | Other (Specify) | | | | | | <u></u> |

| ROGER L. MARTIN INDEPENDENT PETROLEUM GEOLOGIST 316-250-6970 | | | | | |
|--|--|---|---|--|--|
| | | GIST'S REI | | | |
| COMPANY VESS OIL C LEASE WILSON 'A' #4 FIELD EL DORADO LOCATION 1500' FNL & SECTION 9 TOWNS COUNTY BUTLER | 445 & 2310' FWL GHIP <u>255</u> STATE | KS | ELEVATIONS KB <u>1363' GL 1357'</u> Measurements Are All From <u>KB</u> API <u>15-015-23959</u> | | |
| CONTRACTOR <u>C&G D</u> SPUD <u>11/03/2012</u> RTD <u>2495'</u> <u>ELECTE</u> <u>Pioneer Energy Services: E</u> CNL/CDL, ML | CASING SURFACE <u>6 jts 8&5/8" set @ 261'</u> | | | | |
| FORMATION TOPS | LOG | SAMPLES | CHRONOLOGY | | |
| Admire 550' Admire 650' | NP NP | NP 660' (+703) | 11/02/2012- MIRU; Drill rathole in the afternoon. 11/03/2012- SPUD 12&1/4" hole @8 AM. Kelly pin twisted off with bit @ 158'. Fish & put new Kelly on; To 14/1/1" hole @ 254/1" hole @ 254/1" | | |
| Burlingame White Cloud Lm White Cloud Sd Topeka | 834' (+529) 924' (+439) 934' (+429) 1087' (+276) 4494(-29) | 833' (+530) 925' (+438) 935' (+428) 1089' (+274) 4494! (-280) | TD 12&1/4" hole @264' @ 11 PM. Run 6 jts 8&5/8" 23#/ft csg @253'. Set @261' KB. Consolidated Cement w/150 sx Class A, 3%cc, Circ, good cement. Plug down @2:20 AM 11/04/2012. | | |
| Oread Heebner Douglas Douglas Sd | 1401' (-38) 1437' (-74) 1466' (-103) NP | 1401' (-38) 1438' (-75) 1469' (-106) NP | 11/04/2012- WOC @ 264'. Drillout @ 10:30 AM. 11/05/2012- Drig @ 1762'. Mud up @ 1600'. Run | | |
| Lansing Kansas City B/Kansas City Checkerboard | 1717' (-354) 1991' (-628) 2156' (-793) 2231' (-868) | 1718' (-355) 1991' (-628) 2157' (-794) 2232' (-869) | PDC bit to 2200'. SHS @ 1617 - 1/4 degree. 11/06/2012- Drlg @ 2370'. Bit trip @ 2206'. Switched to conventional bit. | | |
| Hepler Sd Altamont Pawnee Cherokee | NP 2277' (-914) 2315' (-952) 2354' (-991) | NP 2280' (-917) 2317' (-954) 2356' (-993) | 11/07/2012- DTD 2495'. Preparing to run DST #1, MW 9.4, VIS 52, WL 8.2, LCM 2 | | |
| Ardmore Viola RTD/LTD | 2417' (-1054) 2490' (-1127) 2494' (-1131) | 2417' (-1054) 2491' (-1128) 2495' (-1132) | 11/08/2012- RTD 2495'. Ran open hole logs: neutron-density porosity, dual induction, and microlog. CASING JOB: Ran 60 jts 5&1/2" 14# & 15.5# | | |
| | | | J-55 ST&C Casing, Tally = 2496.44', plus float shoe = 1.00', Total = 2497.44'. Tagged TD @ 2495', Set @ 2494; Put on 6 centralizers and 2 baskets. Consolidated Services pump 500 collected dut/05 for Thidated | | |
| | | | gal mud flush. Cemented w/125 sx Thickset Cement. Caught pressure @ 33 bbls, Good circ of mud. Lift pressure to 650#, Rotated casing. Land plug @ 1100# @ 9:30 AM. | | |
| REMARKS: | 4 F | | Releases, it held. Set slips @ out off casing. | | |
| | .Ramondetta, Geologist, Y | | | | |
| | Respe Roger | ctfully submitted. L. Martin, Geologist (Wellsite) | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| DRILLING TIME | 23.9.56644 | | | | |
| LITH MIN/FT DST | 00 1 | E DESCRIPTION | REMARKS | | |
| | gy-bk. | m≪-fn×ln,sm fos,Pr-NVP.Pr &LS:AA.AbndtSH:bkk&dk-I | | | |
| | Longy an or bigin o | | | | |
| | LS: cm-gy, sm fos SH: AA. | Pkstw/Pr-Fr Por, NS.sm chl | ry. NS. & | | |
| | LS: tn-bn, m× Vfn | LS: tn-bn, mx-Vfnxln, dn-hd, sm dolomo, VPr- NVP, NS. | | | |
| | SH-SILTS: gy-tt g | y, micac. | | | |
| | 50 | | | | |
| | | | | | |
| | | DCLUST: gy-transl, Vfn-fn Gi I, Pr-FrPor, NS.sm. calc. | 'd, rnd'd- | | |
| | | | | | |
| | LS:cm-bf mx-Vfr | ıxln, sm. grn Ir& fos Pk st, sm. c | bky Pr- | | |
| | NVP, NS. | | | | |
| | | | | | |
| | | | | | |
| | SH: pred dk-md g | y. | | | |
| | 10 17 | | | | |
| | LS: tn-gy-cm, mx- SH: AA & SILTS: I | fn×, Pred dn, VPr-NVP, NS. tt-dkgy. | | | |
| | | | | | |
| | w/brt FLR & Fr SF |): It gy & It tn-bf-STN, ∾10% S O, Vfn Gr'd, silty, micac, VPr- | Prvisbl (FrSFO) | | |
| | Por:mIGRPor,~5 S⊦FrCut. | 5% w/ltSTN & FLR in dryspl, | SI Odor, | | |
| | | gil, sm fos- Wkst-Pkst, Pr-NV 'd, Tro FLR- SFO & Cut, AA. | c, \$m | | |
| | SILTS-SH-dk-#- | y&gn-gy,sm micac(VRrSd | Clust: AA | | |
| | w/FLR-SFO-STN | | | | |
| | | | | | |
| | LS: on-to on to | m×- fn×, sm argil, Pr- NVP, N | s. | | |
| | SILTS:ht-dk/gy,sn | n micac, sm sndy, Vfn Gr'd, sr | | | |
| | | w/Por-FLR-SFÓ-STN). | | | |
| | LS: cm-bf-tn, dn-r | n×, Rr gmlr Pkst, sm argil Mds | t. | | |
| - 7 | 7.65 | | | | |
| | | | | | |
| | | 1 dp. m | Pkst | | |
| | | d dn- mx- Vfnx, sm grnir & fos NS. Rr wh-chiky. NS. sm argil SH. | | | |
| | | | | | |
| | 00 | | | | |
| | LS: cm-tn & gy-wh Por: pp Por, IX Po | n, Predidn-chlky&innx-fnxw.∆ r,NS. | /Pr- Pr | | |

| | -14 | Por: pp Por, IX Por, NS. | |
|-----|--------------------|---|-------------------------------|
| | | SH: gy & bk carb. LS: cm-tn, sm dn, sm grnir Pkst-Wkstw/VPr- Pr Por, NS. | |
| | <u>1</u> 1 | sm wh-chky & dn Mdst, Pr-NVP, NS. sm argil LS. | |
| | -11 1 | | 833' (+530) BURLING AME |
| | 1.1 | {BURLINGAME}LS:wh-tn,chky&dn-mx-fnx,smgrnlr Pkst&fosPkst-Wkst,smPr-FrPor:IGrPor,lfosPor, pp-vugPor,NS.VSICherty.NS. | |
| | 850 | | |
| | | | |
| | -14 - | LS: gy-tn-cm, pred dn & argil. | |
| | 1.1 | SH- SILTS: gy, sm micao. | |
| | 2.5 | LS: gy-bf, mx & Vfnly grnlr & argil, sm cm-wh, sm chlky, Pr-NVP, NS. | |
| | - 12 | SH- SILTS: dk-md gy, pred micac. | |
| | | | |
| | 900 | 4 | {VSI- SI SFO) |
| | 2.S | SILTS & SILTY SS: <5% w/subsat- sat bit FLR & VSF SI SFO. | (val-araro) |
| | -14 | SH- SILTS: AA. | |
| | | {WHITE CLOUD} LS: gy-tn, dn- m×, sm argil. | 925' (+438) WHITE CLOUD LM |
| C C | 1.24 | SH- SILTS: It-dk gy, micac. {WHITE CLOUD} VRrSS: It-md gy w/Tn STN, Vfn Grd, | 935' (+428) WHITE CLOUD SD |
| | 10 | silty, fribl w/Pr-FrlGr Por, subsat-sat FLR & STN, VSI-SI SFO & Cut & VRr Sndy Silts w/ VPr-Prvisbl Por, brt FLR & VSI SFO & Cut. >95% SH-SILTS: AA. | |
| | 950 | SH: dk-lt gy. | |
| | -14 | | |
| | - 12 | | |
| | | {HOWARD} LS: tn-gy-wh, dn-mx, sm chlky, VPr-NVP, | |
| | 2.5 | NS; sm argil LS. | |
| | -34 | LS: tn-gy-wh, sm mot Pkst Wkst& mx-fnx, VP+ NVP, sm argil, NS. | |
| | 1000 | SILTS: dk-lt gy, micac, sm sndy & SH: lt dk gy, sm micac. | |
| | 14 | | |
| 3 | | | |
| | 75 | LS: tn-gy-wh, dn- m×- fn×, sm SI fos, sm chlky, sm argil, VPr- NVP, NS. | |
| | 2,5 | VPr-NVP, NS. SILTS: It-dk gy & gn-gy, sm sndy: Vfn Gr'd & micac. | |
| 2 | -34 | | |
| | 1050 | a a start a st | |
| | | | |
| | - 14 - | LS: tn-gy-wh, Pred dn- mx & subchlky w/VPr- NVP, NS. | |
| | 1.5 | SH- SILTS: dk-tt gy, micac & SI pyrtc. | |
| | 1.0 | SH:gn-gy&blk. | |
| | -14 | {TOPEKA} LS: cm-tn, m× fn×, VR r md× 2nd ReX, prt wh- | 1089' (+274) ТОРЕКА |
| | | chiky, fos-fusul'ds, sm grnir Pkst, Pr-Fr Por: IX Por, IGr Por, IFos Por, NS. SI Cherty: dk blu-gy, sm fos, shrp, | |
| | 1100 | 2 | |
| | <u>.</u> | | |
| | -14 | LS: AA, sm wh-ch ky, NS. | |
| | - M | SH: gy-blk, semi carb, micac. | |
| | | SH: AA. | |
| | 5.54 | | |
| | 1150 | LS: tn-gy-bn, dn-mx-fnx, VRr Md-VCrsX's, sm argi∔ shly, VPr-NVP, NS. | |
| | -14 | SH: gy & gn-gy, Rr pyrtc, sm blk carb SH. | |
| | 2.5 | | |
| | - 11 | | |
| | | LS: whtn-gy, mx-fnx, VRr Md-VCrsX's- 2nd ReX, sm grnir Pkst, prt chky, sm Pr-Fr Por, NS. | |
| | 7.S | | |
| | | SH: bik carb- Vcarb. | |
| | 1200 | SH: blk carb-Vcarb. LS: AA & dn Mdst & LS: AA w/Pr-Fr Por: IX Por, IGr Por, NS. | |
| | 1200 | LS: AA & dn Mdst & LS: AA w/Pr-FrPor: IX Por, IG rPor, NS. | |
| | 1200 - | LS: AA & dn Mdst & LS: AA w/Pr-FrPor: IX Por, IG rPor, | |
| | 1200 - - | LS: AA & dn Mdst & LS: AA w/Pr-FrPor: IX Por, IG rPor, NS. SH: gy-blk & gn-gy. | |
| | 1200 - - | LS: AA & dn Mdst & LS: AA w/Pr-FrPor: IX Por, IG rPor, NS. SH: gy-blk & gn-gy. LS: tn-gy-wh, dn-mx-fnx, sm fos, Pr-NVP, NS, sm argil. | |
| | 1200 | LS: AA & dn Mdst & LS: AA w/Pr-FrPor: IX Por, IG rPor, NS. SH: gy-blk & gn-gy. LS: tn-gy-wh, dn-mx-fnx, sm fos, Pr-NVP, NS, sm argil. | |
| | 1200 - - | LS: AA & dn Mdst & LS: AA w/Pr-Fr Por: IX Por, IGr Por, NS. SH: gy-blk & gn-gy. LS: tn-gy-wh, dn-mx-fnx, sm fos, Pr-NVP, NS, sm argil. SH: AA. LS: tn-gy-wh, dn-mx-fnx, prt ch ky, sm grnIr Pkst, VPr- | |
| | | LS: AA & dn Mdst & LS: AA w/Pr- Fr Por: IX Por, IGr Por, NS. SH: gy-blk & gn-gy. LS: tn-gy-wh, dn- mx- fnx, sm fos, Pr- NVP, NS, sm argil. SH: AA. LS: tn-gy-wh, dn- mx- fnx, prt chky, sm grnIr Pkst, VPr- NVP, NS. SH: gy & gn-gy & bk carb. | |
| | | LS: AA & dn Mdst & LS: AA w/Pr-Fr Por: IX Por, IGr Por, NS. SH: gy-blk & gn-gy. LS: tn-gy-wh, dn-mx-fnx, sm fos, Pr-NVP, NS, sm argil. SH: AA. LS: tn-gy-wh, dn-mx-fnx, prt ch ky, sm gmlr Pkst, VPr- NVP, NS. | |
| | | LS: AA & dn Mdst & LS: AA w/Pr- Fr Por: IX Por, IGr Por, NS. SH: gy-blk & gn-gy. LS: tn-gy-wh, dn- mx- fnx, sm fos, Pr- NVP, NS, sm argil. SH: AA. LS: tn-gy-wh, dn- mx- fnx, prt ch ky, sm grnIr Pkst, VPr- NVP, NS. SH: gy & gn-gy & bk carb. LS: tn-gy-wh, dn- mx & argil, VPr- NVP. | |
| | | LS: AA & dn Mdst & LS: AA w/Pr- Fr Por: IX Por, IGr Por, NS. SH: gy-blk & gn-gy. LS: tn-gy-wh, dn- mx- fnx, sm fos, Pr- NVP, NS, sm argil. SH: AA. LS: tn-gy-wh, dn- mx- fnx, prt ch ky, sm grnIr Pkst, VPr- NVP, NS. SH: gy & gn-gy & bk carb. LS: tn-gy-wh, dn- mx & argil, VPr- NVP. | |
| | | LS: AA & dn Mdst & LS: AA w/Pr- Fr Por: IX Por, IGr Por, NS. SH: gy-blk & gn-gy. LS: tn-gy-wh, dn- mx- fnx, sm fos, Pr- NVP, NS, sm argil. SH: AA. LS: tn-gy-wh, dn- mx- fnx, prt ch ky, sm grnIr Pkst, VPr- NVP, NS. SH: gy & gn-gy & bk carb. LS: tn-gy-wh, dn- mx & argil, VPr- NVP. SH: AA. | |
| | | LS: AA & dn Mdst & LS: AA w/Pr- Fr Por: IX Por, IGr Por, NS. SH: gy-blk & gn-gy. LS: tn-gy-wh, dn- mx- fnx, sm fos, Pr-NVP, NS, sm argil. SH: AA. LS: tn-gy-wh, dn- mx- fnx, prt ch ky, sm gmlr Pkst, VPr- NVP, NS. SH: gy & gn-gy & bk carb. LS: tn-gy-wh, dn- mx & argil, VPr-NVP. SH: AA. LS: wh-gy-tn, prt chlky & mx- fnx, sm fos, VPr-NVP. | |
| | 1250 | LS: AA & dn Mdst & LS: AA w/Pr- Fr Por: IX Por, IGr Por, NS. SH: gy-blk & gn-gy. LS: tn-gy-wh, dn- mx- fnx, sm fos, Pr- NVP, NS, sm argil. SH: AA. LS: tn-gy-wh, dn- mx- fnx, prt ohky, sm gmlr Pkst, VPr- NVP, NS. SH: gy & gn-gy & bk carb. LS: tn-gy-wh, dn- mx & argil, VPr- NVP. SH: AA. LS: wh-gy-tn, prt ohlky & mx- fnx, sm fos, VPr- NVP. SH: bk carb- Vcarb. | |
| | 1250 | LS: AA & dn Mdst & LS: AA w/Pr- Fr Por: IX Por, IG r Por, NS. SH: gy-blk & gn-gy. LS: tn-gy-wh, dn- m× fnx, sm fos, P r- NVP, NS, sm argil. SH: AA. LS: tn-gy-wh, dn- m× fnx, prtohky, sm gmlr Pkst, VPr- NVP, NS. SH: gy & gn-gy & bk carb. LS: tn-gy-wh, dn- mx & argil, VPr- NVP. SH: AA. LS: wh-gy-tn, prt chlky & m×- fnx, sm fos, VPr- NVP. SH: bk carb- Vcarb. LS: gy, dn- argil & gn-gy SH. LS: wh-tn, prt chky, & m×- fnxh, VR r prt MdxIn- Crs 2nd ReX: Pr- Fr Por: IX Por, pp- vug Por, I Gr Por, NSFO, VRr | |
| | 1250 | LS: AA & dn Mdst & LS: AA w/Pr- Fr Por: IX Por, IG r Por, NS. SH: gy-blk & gn-gy. LS: tn-gy-wh, dn- m× fnx, sm fos, P r- NVP, NS, sm argil. SH: AA. LS: tn-gy-wh, dn- m× fnx, prtohky, sm gmlr Pkst, VPr- NVP, NS. SH: gy & gn-gy & bk carb. LS: tn-gy-wh, dn- mx & argil, VPr- NVP. SH: AA. LS: wh-gy-tn, prt chlky & m×- fnx, sm fos, VPr- NVP. SH: bk carb- Vcarb. LS: gy, dn- argil & gn-gy SH. LS: wh-tn, prt chky, & m×- fnxh, VR r prt MdxIn- Crs 2nd ReX: Pr- Fr Por: IX Por, pp- vug Por, I Gr Por, NSFO, VRr | |
| | 1250 | LS: AA & dn Mdst & LS: AA w/Pr- Fr Por: IX Por, IG r Por, NS. SH: gy-blk & gn-gy. LS: tn-gy-wh, dn- m× fnx, sm fos, P r- NVP, NS, sm argil. SH: AA. LS: tn-gy-wh, dn- m× fnx, prtohky, sm gmlr Pkst, VPr- NVP, NS. SH: gy & gn-gy & bk carb. LS: tn-gy-wh, dn- mx & argil, VPr- NVP. SH: AA. LS: wh-gy-tn, prt chlky & m×- fnx, sm fos, VPr- NVP. SH: bk carb- Vcarb. LS: gy, dn- argil & gn-gy SH. LS: wh-tn, prt chky, & m×- fnxh, VR r prt MdxIn- Crs 2nd ReX: Pr- Fr Por: IX Por, pp- vug Por, I Gr Por, NSFO, VRr | |
| | 1250 | LS: AA & dn Mdst & LS: AA w/Pr- Fr Por: IX Por, IG r Por, NS. SH: gy-blk & gn-gy. LS: th-gy-wh, dn- mx-fnx, sm fos, Pr-NVP, NS, sm argil. SH: AA. LS: th-gy-wh, dn- mx-fnx, prt ohky, sm grnIr Pkst, VPr- NVP, NS. SH: gy & gn-gy & bk carb. LS: th-gy-wh, dn- mx & argil, VP+ NVP. SH: AA. LS: wh-gy-tn, prt ohlky & mx-fnx, sm fos, VPr- NVP. SH: AA. LS: wh-gy-tn, prt ohlky & mx-fnx, sm fos, VPr- NVP. SH: bk carb- Vcarb. LS: gy, dn- argil & gn-gy SH. LS: wh-tn, prt ohlky, & mx-fnxln, VRr prt MdxIn- Crs 2nd ReX: Pr-Fr Por: IX Por, pp- vug Por, I Gr Por, NSFO, VRr FLR, NC. | |
| | 1250 | LS: AA & dn Mdst & LS: AA w/Pr- Fr Por: IX Por, IG r Por, NS. SH: gy-blk & gn-gy. LS: tn-gy-wh, dn- mx- fnx, sm fos, Pr- NVP, NS, sm argil. SH: AA. LS: tn-gy-wh, dn- mx- fnx, prt ohky, sm gmlr Pkst, VPr- NVP, NS. SH: gy & gn-gy & bk oarb. LS: tn-gy-wh, dn- mx & argil, VPr- NVP. SH: AA. LS: wh-gy-tn, prt ohlky & mx- fnx, sm fos, VPr- NVP. SH: AA. LS: wh-gy-tn, prt ohlky & mx- fnx, sm fos, VPr- NVP. SH: bk oarb- Voarb. LS: gy, dn- argil & gn-gy SH. LS: wh-tn, prt ohlky, & mx- fnxin, VRr prt Mdxin- Crs 2nd ReX: Pr Fr Por: IX Por, pp- vug Por, I Gr Por, NSFO, VRr FLR, NC. | |
| | 1250 | LS: AA & dn Mdst & LS: AA w/Pr- Fr Por: IX Por, IG r Por, NS. SH: gy-blk & gn-gy. LS: th-gy-wh, dn- mx-fnx, sm fos, Pr-NVP, NS, sm argil. SH: AA. LS: th-gy-wh, dn- mx-fnx, prt ohky, sm grnIr Pkst, VPr- NVP, NS. SH: gy & gn-gy & bk carb. LS: th-gy-wh, dn- mx & argil, VP+ NVP. SH: AA. LS: wh-gy-tn, prt ohlky & mx-fnx, sm fos, VPr- NVP. SH: AA. LS: wh-gy-tn, prt ohlky & mx-fnx, sm fos, VPr- NVP. SH: bk carb- Vcarb. LS: gy, dn- argil & gn-gy SH. LS: wh-tn, prt ohlky, & mx-fnxln, VRr prt MdxIn- Crs 2nd ReX: Pr-Fr Por: IX Por, pp- vug Por, I Gr Por, NSFO, VRr FLR, NC. | |
| | 1250 | LS: AA & dn Mdst & LS: AA w/Pr- Fr Por: IX Por, IG r Por, NS. SH: gy-blk & gn-gy. LS: th-gy-wh, dn- mx-fnx, sm fos, Pr-NVP, NS, sm argil. SH: AA. LS: th-gy-wh, dn- mx-fnx, prt ohky, sm grnIr Pkst, VPr- NVP, NS. SH: gy & gn-gy & bk carb. LS: th-gy-wh, dn- mx & argil, VP+ NVP. SH: AA. LS: wh-gy-tn, prt ohlky & mx-fnx, sm fos, VPr- NVP. SH: AA. LS: wh-gy-tn, prt ohlky & mx-fnx, sm fos, VPr- NVP. SH: bk carb- Vcarb. LS: gy, dn- argil & gn-gy SH. LS: wh-tn, prt ohlky, & mx-fnxln, VRr prt MdxIn- Crs 2nd ReX: Pr-Fr Por: IX Por, pp- vug Por, I Gr Por, NSFO, VRr FLR, NC. | |
| | 1250 | LS: AA & dn Mdst & LS: AA w/Pr- Fr Por: IX Por, IG r Por, NS. SH: gy-blk & gn-gy. LS: th-gy-wh, dn- mx-fnx, sm fos, Pr-NVP, NS, sm argil. SH: AA. LS: th-gy-wh, dn- mx-fnx, prt ohky, sm grnIr Pkst, VPr- NVP, NS. SH: gy & gn-gy & bk carb. LS: th-gy-wh, dn- mx & argil, VP+ NVP. SH: AA. LS: wh-gy-tn, prt ohlky & mx-fnx, sm fos, VPr- NVP. SH: AA. LS: wh-gy-tn, prt ohlky & mx-fnx, sm fos, VPr- NVP. SH: bk carb- Vcarb. LS: gy, dn- argil & gn-gy SH. LS: wh-tn, prt ohlky, & mx-fnxln, VRr prt MdxIn- Crs 2nd ReX: Pr-Fr Por: IX Por, pp- vug Por, I Gr Por, NSFO, VRr FLR, NC. | |
| | 1250 | LS: AA & dn Mdst & LS: AA w/Pr- Fr Por: IX Por, I&r Por, NS. SH: gy-blk & gn-gy. LS: tn-gy-wh, dn- mx- fnx, sm fos, Pr- NVP, NS, sm argil. SH: AA. LS: tn-gy-wh, dn- mx- fnx, prt chky, sm gmlr Pkst, VPr- NVP, NS. SH: gy & gn-gy & bk oarb. LS: tn-gy-wh, dn- mx & argil, VPr- NVP. SH: AA. LS: wh-gy-tn, prt chlky & mx- fnx, sm fos, VPr- NVP. SH: AA. LS: wh-gy-tn, prt chlky & mx- fnx, sm fos, VPr- NVP. SH: bk carb- Vearb. LS: gy, dn- argil & gn-gy SH. LS: wh-tn, pt chlky, & mx- fnxln, VR r prt Mdxln- Crs 2nd ReX: Pr- Fr Por: IX Por, pp- vug Por, I Gr Por, NSFO, VRr FLR, NC. LS: tn-wh, mx- fnxln, Rr prt Mdxln- CrsX's- 2nd ReX, sm chlky, Pr- Fr Por, Tre & d Por, NS. | |
| | 1250 | LS: AA & dn Mdst & LS: AA w/Pr- Fr Por: IX Por, I&r Por, NS. SH: gy-blk & gn-gy. LS: tn-gy-wh, dn- mx-fnx, sm fos, Pr- NVP, NS, sm argil. SH: AA. LS: tn-gy-wh, dn- mx-fnx, prtchky, sm gmlr Pkst, VPr- NVP, NS. SH: gy & gn-gy & bk oarb. LS: tn-gy-wh, dn- mx & argil, VPr- NVP. SH: AA. LS: wh-gy-tn, prt ohlky & mx- fnx, sm fos, VPr- NVP. SH: AA. LS: wh-gy-tn, prt ohlky & mx- fnx, sm fos, VPr- NVP. SH: bk oarb- Voarb. LS: gy, dn- argil & gn-gy SH. LS: wh-tn, pt ohlky, & mx- fnxln, VR r prt Mdxln- Crs 2nd ReX: Pr- Fr Por: IX Por, pp- vug Por, I Gr Por, NSFO, VRr FLR, NC. LS: tn-wh, mx- fnxln, Rr prt Mdxln- CrsX's- 2nd ReX, sm ohlky, Pr- Fr Por, Tro & d Por, NS. | |

| 三 3 | | •••••••••• | | | SH: gy-blk & gn-gy. LS: tn-gy-wh, dn-mx-fnx, sm fos, Pr-NVP, NS, sm argil. | |
|----------|---|---|----|--|--|--|
| | | | | | | |
| | | | | + | SH: AA. | |
| ☴Ӻ | | | | - | LS: tn-gy-wh, dn- m×- fn×, prt chky, sm gmlr Pkst, VPr- | |
| | | - C | | -1250 | NVP, NS. | |
| | | | 10 | | SH: gy & gn-gy & bk carb. | |
| | | | | - | LS: tn-gy-wh, dn- m×& argil, VPr- NVP. | |
| | | | | + | SH: AA. | |
| 三 | | .c | | 1 | | |
| | | | | | LS:wh-gy-tn, prt chlky & mx-fnx,sm fos, VPr-NVP. | |
| | | | | + | SH: blk carb- Vcarb. | |
| 国3 | | | | | LS: gy, dn- argil & gn-gy SH. | |
| | | -C | 10 | - | LS: wh-tn, prt chky, & mx-fn×ln, VRr prt MdxIn-Crs 2nd ReX: Pr-Fr Por: IX Por, pp-vug Por, I Gr Por, NSFO, VRr FLR, NC. | |
| | | | | | | |
| | | | | | | |
| | | | | - | LS: tn-wh, mx-fnxln, Rrprt Mdxln-CrsX's-2nd ReX, sm chlky, Pr-FrPor, TrcGd Por, NS. | |
| | | C | | - | | |
| | | | | -1350 | {KANW/AKA}SH:gy-bk,micac. | |
| 国 | - | | 10 | | | |
| Ē | | | | - | | |
| | | -C- | | - | SH:md-dk gy & bk, micac. | |
| | | | | - | | |
| | | | | | SH: AA & gn-gy. | |
| | | | | | | |
| | | -C | | -1400 | {OREAD} LS: wh-tn, prt chky, mx-fn×ln, VRr prt MdX- | 1401' (-38) OREAD |
| | | | 10 | - | 2nd ReX, Pred Pr- NVP w/NS. | |
| | | | | _ | LS: bf-tn-wh, sm dn, prt chky, sm mx-Mdx, Pred Pr- | |
| | | | | X 30 J 40 6 6 6 6 7 7 10 10 10 10 10 10 10 10 10 10 10 10 10 | NVP, NS, sm dn Mdst. | |
| | | -C- | | T | | 1438' (-75) |
| | | | | + | {HEEBNER{ SH: blk carb- Vcarb. LS: AA & gy dn Mdst | HEEBNER SH |
| E | | | | 1450 | SH: gy-blk & gn. LS: gy-tn & wh, Pred dn to chky, sm gmlr Pkst & m×- | |
| | | | 10 | L | LS: gy-tn & wh, Pred dn to chky, sm grnir Pkst & mx- Vfnx w/Pr- VPr Por, NS. | |
| | | -C- | | | | 1469' (-106) |
| | | | | 1 | {DOUGLAS} SH-SILTS: dk-ht gy, micac, sm sndy Silts & silty Sd Clust: gy, Vfn Gr'd, micac, sm calc, Vwell cmt'd, VPr-Pr Por, NS. | DOUGLAS SH |
| | | | | + | | |
| | | | | | LS: gy, argil Mdst & Wkst & Pkstw/VPr NVP. | |
| | | -C | | 1500 | SH: gy-blk, micac. | |
| | | | 10 | 00.1- | SILTS: dk-lt gy, micac, sm sndy. | |
| 5 | | | | + | 32470 St. 194 | |
| } | | - C | | - | SILTS & SILTY SS: H-dk, gy, Vfn, Gr'd, micac, sm, calc, Pr- NVP. | |
| } | | | | - | SS-SD CLUST: It gy-wh, bf-gy, Vfn-fn Gr'd, md'd-anglr Gr's, well sont'd, well cmt'd to Rr friblw/Pr-Fr IGr Por w/NS, NF, NC. sm VSitty & shly. | |
| <u> </u> | | | | | www.s,wr,wc.sm vontyesniy. | |
| - { | | | | | | |
| | | -C+ | | -1550 | SS-SD CLUST: AA, well cmt"d to VR r fribl, Pr-Fr Por w/NS, NF, NC. sm Vs itty & shly Sd Clust & Silts, AA. | |
| - 3 | 5 | | 10 | - | | |
| ={ | | | | | SH:gy-blk subcarb & SILTS:bt-dk gy,sm Sndy:Vfn-fn Gr'd. | |
| { | | | | | 940-907240 | |
| | | -C. | | | Pred SH: gy-bk, sm SILTS: AA, VRr Sd Clust: AA, NS. | |
| | | | | - | | |
| | | | | | | |
| \$ | | | | -1600 | 2 | |
| | | | 10 | -1600 | SH- SILTS: AA & SH: gn-gy. | |
| | | - C - | 10 | | SH-SILTS:AA & SH:gn-gy. LS:bf-tn,gy-wh,m≫ fn×ln,Pr-NVP,NS,sm.chkkyw/NS. | |
| | | - C | 10 | 1600 | LS: b f-tn, gy-wh, m x-fn x ln, Pr-N VP, N S, sm-ch kiyw/NS. SH-SILTS: ht-dk-gy&-b lk, sm-SdySints & Sinty SS: AA | |
| | | - C | 10 | 1600 | LS:bf-tn,gy-wh,mx-fnxln,Pr-NVP,NS,sm-chkyw/NS. | |
| | | - C | 10 | 1600 | LS: b f-tn, gy-wh, m x-fn x ln, Pr-N VP, N S, sm-ch kiyw/NS. SH-SILTS: ht-dk-gy&-b lk, sm-SdySints & Sinty SS: AA | |
| | | -C+ | 10 | | LS: bf-tn, gy-wh, m x-fn xln, Pr-NVP, NS, sm. chokyw/NS. SH-SILTS: bt-dk.gy & blk, sm. Sdy Sibts & Sibty SS: AA w/NS. | |
| | | | | 1600 | LS: bf-tn, gy-wh, m× fn×ln, Pr-NVP, NS, sm chlky w/NS. SH-SILTS: lt-dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: lt gy-wh, Vfn-fn Gr'd, well cmt'd, rnd'd-anglr, Pr Por, NS. | |
| | | | 10 | | LS: bf-tn, gy-wh, mx-fnxln, Pr-NVP, NS, sm chlky w/NS. SH-SILTS: It-dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn-fn Gr'd, well cmt'd, rnd'd-anglr, Pr Por, | |
| | | | | | LS: bf-tn, gy-wh, m× fn×ln, Pr-NVP, NS, sm chiky w/NS. SH- SILTS: It-dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn Grd, well cmtd, rnd'd- angir, Pr Por, NS. LS: gy-tn, dn- m× Vfn×ln, VPr-NVP, sm argil- silty & sndy. | |
| | | | | | LS: bf-tn, gy-wh, m× fn×ln, Pr-NVP, NS, sm chiky w/NS. SH- SILTS: It-dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn Grd, well cmtd, rnd'd- angir, Pr Por, NS. LS: gy-tn, dn- m× Vfn×ln, VPr-NVP, sm argil- silty & sndy. | |
| | | C | | | LS: bf-tn, gy-wh, m× fn×ln, Pr-NVP, NS, sm chiky w/NS. SH- SILTS: It-dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn Grd, well cmtd, rnd'd- angir, Pr Por, NS. LS: gy-tn, dn- m× Vfn×ln, VPr-NVP, sm argil- silty & sndy. | |
| | | C | | | LS: bf-tn, gy-wh, m× fn×ln, Pr-NVP, NS, sm chky w/NS. SH- SILTS: It-dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn Gr'd, well cmt'd, rnd'd- anglr, Pr Por, NS. LS: gy-tn, dn-m× Vfn×ln, VPr-NVP, sm argil- silty & sndy. SH: gy-blk, sm carb. & SILTS: AA. | |
| | | C | | | LS: bf-tn, gy-wh, m× fn×ln, Pr-NVP, NS, sm chky w/NS. SH- SILTS: It-dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn Gr'd, well cmt'd, rnd'd- anglr, Pr Por, NS. LS: gy-tn, dn-m× Vfn×ln, VPr-NVP, sm argil- silty & sndy. SH: gy-blk, sm carb. & SILTS: AA. | |
| | | C | | | LS: bf-tn, gy-wh, m× fn×ln, Pr- NVP, NS, sm chky w/NS. SH- SILTS: It-dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn Gr'd, well cmt'd, rnd'd- angir, Pr Por, NS. LS: gy-tn, dn- m× Vfn×ln, VPr- NVP, sm argil- silty & sndy. SH: gy-blk, sm carb. & SILTS: AA. SH- SILTS: AA. | |
| | | -C | | | LS: bf+tn, gy-wh, mx-fnxln, Pr-NVP, NS, sm chky w/NS. SH- SILTS: It-dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn Gr'd, well omt d, rnd'd- angir, Pr Por, NS. LS: gy-tn, dn-mx-Vfnxln, VPr-NVP, sm argil- silty & sndy. SH: gy-blk, sm carb. & SILTS: AA. SH- SILTS: AA. SH: gy-blk, AA. | 1718' (-355) LANSING |
| | | -C | | | LS: bf-tn, gy-wh, mx-fnxln, Pr-NVP, NS, sm chky w/NS. SH- SILTS: It-dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn Gr'd, well cmt d, rnd'd- angir, Pr Por, NS. LS: gy-tn, dn-mx- Vfnxln, VPr-NVP, sm argil- silty & sndy. SH: gy-blk, sm carb. & SILTS: AA. SH- SILTS: AA. | 1718' (-355) LANSING |
| | | -C | | | LS: bf+tn, gy-wh, mx-fnxln, Pr-NVP, NS, sm chky w/NS. SH- SILTS: It-dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn Gr'd, well omt d, rnd'd- angir, Pr Por, NS. LS: gy-tn, dn-mx-Vfnxln, VPr-NVP, sm argil- silty & sndy. SH: gy-blk, sm carb. & SILTS: AA. SH- SILTS: AA. SH: gy-blk, AA. | 1718' (-355) LANSING |
| | | -C | | | LS: bf-fn, gy-wh, mx-fnxln, Pr-NVP, NS, sm chky w/NS. SH-SILTS: It-dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn Gr'd, well omt d, rnd'd- anglr, Pr Por, NS. LS: gy-tn, dn-mx-Vfnxln, VPr-NVP, sm argil- silty & sndy. SH: gy-blk, sm carb. & SILTS: AA. SH- SILTS: AA. SH- SILTS: AA. | 1718' (-355) LANSING |
| | | -C | | | LS: bftn, gy-wh, m× fn×ln, Pr-NVP, NS, sm chky w/NS. SH- SILTS: It dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn Gr'd, well omt d, rnd'd- anglr, Pr Por, NS. LS: gy-tn, dn- m× Vfn×ln, VPr-NVP, sm argil- silty & sndy. SH: gy-blk, sm carb. & SILTS: AA. SH- SILTS: AA. SH: gy-blk, AA. {LANSING} LS: wh-tn, m× fn×ln, VR r prt Md×ln- 2ReX, prt chlky, sm dn hd. SH: gy- blk. LS: tn-gy-wh, sm mot Pkst, m×-fn×ln, ptt chlky, Pr- NVP. | 1718' (-355) LANSING |
| | | -C | | | LS: bittn, gy-wh, mxc fnxln, Pi- NVP, NS, sm ohky w/NS. SH- SILTS: It dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn Grid, well omtid, rnd'd- angir, Pr Por, NS. LS: gy-tn, dn- mxc Vfnxln, VPr- NVP, sm argil- silty & sndy. SH: gy-blk, sm carb. & SILTS: AA. SH- SILTS: AA. SH- SILTS: AA. SH: gy-blk, AA. {LANSING} LS: wh-tn, mxc fnxln, VRr prt Mdxln- 2ReX, prt chlky, sm dn hd. SH: gy- blk. LS: tn-gy-wh, sm mot Pkst, mx- fnxln, prt chlky, Pr- NVP, NS. | 1718' (-355) LANSING |
| | | -C | | | LS: bi-tn, gy-wh, mx- fnxln, Pi- NVP, NS, sm ohky w/NS. SH- SILTS: It dk gy & bik, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn Gr'd, well omt d, rnd'd- anglr, Pr Por, NS. LS: gy-tn, dn- mx- Vfnxln, VPr- NVP, sm argil- silty & sndy. SH: gy-bik, sm carb. & SILTS: AA. SH: gy-bik, sm carb. & SILTS: AA. SH- SILTS: AA. SH: gy-bik, AA. (LANSING) LS: wh-tn, mx- fnxln, VR r prt Mdxln- 2ReX, prt chlky, sm dn hd. SH: gy- bik. LS: tn-gy-wh, sm mot Pkst, mx- fnxln, pt chlky, Pr- NVP. NS. | 1718' (-355) LANSING |
| | | -C | | | LS: bFtn, gy-wh, mx-fnxin, PF-NVP, NS, sm ohky w/NS. SH- SILTS: It-dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn Grd, well omt d, rnd'd- angir, Pr Por, NS. LS: gy-th, dr-mx-Vfnxin, VPr-NVP, sm argil- silty & sndy. SH: gy-blk, sm oarb. & SILTS: AA. SH- SILTS: AA. SH- SILTS: AA. SH: gy-blk, AA. {LANSING} LS: wh-tn, mx- fnxin, VR r prt Mdxin- 2ReX, prt ohlky, sm dn hd. SH: gy-blk. LS: tn-gy-wh, sm mot Pkst, mx- fnxin, prt ohlky, Pr-NVP, NS. LS: wh-tn, ohlky to dn & mxin- Vfnxin, miX Por, IGr Por, pp Por, <5% w/FLR, Tro STN & Cut, NFO, Cherty: om-gy- tn, shrp. LS: wh-tn, prt ohlky sm mx- Vfnxin, sm prt oomldo w/Fr Gd Por, sm gnilt, Pr- FrIGr Por & IX Por, Tro STN-FLR- | 1718' (-355) LANSING |
| | | | | | LS: bFtn, gy-wh, mx-fnxln, Pr- NVP, NS, sm chky w/NS. SH- SILTS: It dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn Grd, well omt d, rnd'd- anglr, Pr Por, NS. LS: gy-tn, dn-mx- Vfnxln, VPr- NVP, sm argil- silty & sndy. SH: gy-blk, sm oarb. & SILTS: AA. SH- SILTS: AA. SH- SILTS: AA. SH: gy-blk, AA. {LANSING} LS: wh-tn, mx- fnxln, VR r prt Mdxln- 2ReX, prt chlky, sm dn hd. SH: gy-blk. LS: tn-gy-wh, sm mot Pkst, mx- fnxln, pt chlky, Pr- NVP, NS. LS: wh-tn, ohlky to dn & mxln- Vfnxln, mIX Por, IGr Por, pp Por, <5% w/FLR, Tro STN & Cut, NFD, Cherty: om-gy- n, shrp. LS: AA, ohlky & sm gmlr Pkst, Pr- NVP, Tro FLR- Cut. LS: wh-tn, pt ohlky sm mx- Vfnxln, sm prt oomldow/Fr | 1718' (-355) LANSING |
| | | | | | LS: bFtn, gy-wh, mx-fnxin, PF-NVP, NS, sm ohky w/NS. SH- SILTS: It-dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn Grd, well omt d, rnd'd- angir, Pr Por, NS. LS: gy-th, dr-mx-Vfnxin, VPr-NVP, sm argil- silty & sndy. SH: gy-blk, sm oarb. & SILTS: AA. SH- SILTS: AA. SH- SILTS: AA. SH: gy-blk, AA. {LANSING} LS: wh-tn, mx- fnxin, VR r prt Mdxin- 2ReX, prt ohlky, sm dn hd. SH: gy-blk. LS: tn-gy-wh, sm mot Pkst, mx- fnxin, prt ohlky, Pr-NVP, NS. LS: wh-tn, ohlky to dn & mxin- Vfnxin, miX Por, IGr Por, pp Por, <5% w/FLR, Tro STN & Cut, NFO, Cherty: om-gy- tn, shrp. LS: wh-tn, prt ohlky sm mx- Vfnxin, sm prt oomldo w/Fr Gd Por, sm gnilt, Pr- FrIGr Por & IX Por, Tro STN-FLR- | 1718' (-355) LANSING |
| | | -C | | | LS: bFtn, gy-wh, mx-fnxin, PF-NVP, NS, sm ohky w/NS. SH- SILTS: It-dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn Grd, well omt d, rnd'd- angir, Pr Por, NS. LS: gy-th, dr-mx-Vfnxin, VPr-NVP, sm argil- silty & sndy. SH: gy-blk, sm oarb. & SILTS: AA. SH- SILTS: AA. SH- SILTS: AA. SH: gy-blk, AA. {LANSING} LS: wh-tn, mx- fnxin, VR r prt Mdxin- 2ReX, prt ohlky, sm dn hd. SH: gy-blk. LS: tn-gy-wh, sm mot Pkst, mx- fnxin, prt ohlky, Pr-NVP, NS. LS: wh-tn, ohlky to dn & mxin- Vfnxin, miX Por, IGr Por, pp Por, <5% w/FLR, Tro STN & Cut, NFO, Cherty: om-gy- tn, shrp. LS: wh-tn, prt ohlky sm mx- Vfnxin, sm prt oomldo w/Fr Gd Por, sm gnilt, Pr- FrIGr Por & IX Por, Tro STN-FLR- | 1718' (-355) LANSING |
| | | | | | LS: bith, gy-wh, mx fnxh, Pr NVP, NS, sm ohky w/NS. SH- SILTS: It dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn G f d, well omf d, rnd'd- anglr, Pr Por, NS. LS: gy-th, dn- mx- Vfnxh, VPr NVP, sm argil- silty & sndy. SH: gy-blk, sm oarb. & SILTS: AA. SH- SILTS: AA. SH- SILTS: AA. (LANSING) LS: wh-th, mx- fnxh, VR r prt Mdxh- 2ReX, prt ohlky, sm dn hd. SH: gy-blk. LS: th-gy-wh, sm mot Pkst mx- fnxh, ptt ohlky, Pr- NVP, NS. LS: wh-th, ohlky to dh & mxh- Vfnxh, mlX Por, IGr Por, pp Por, <5% w/FLR, Tro STN & Cut, NFO. Cherty: om-gy- n, shrp. LS: wh-th, pt ohlky sm mx- Vfnxh, sm pt oomlde w/Fr Gd Por, sm gmlr Pkst, Pr- NVP, Tro FLR- Cut. LS: wh-gy-th, ptt ohlky, Pred dh, Tro Por & STN, sm argil- shly. | 1718' (-355) LANSING |
| | | -C | | | LS: bf-th, gy-wh, mx-fnxln, Pr-NVP, NS, sm ohky w/NS. SH- SILTS: It-dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfm- fn Grd, well omt d, rnd'd- anglr, Pr Por, NS. LS: gy-th, dn-mx-Vfnxln, VPr-NVP, sm argil- silty & sndy. SH: gy-blk, sm oarb. & SILTS: AA. SH- SILTS: AA. SH: gy-blk, AA. [LANSING] LS: wh-th, mx- fnxln, VR r prt Mdxln- 2ReX, prt chlky, sm dn hd. SH: gy-blk. LS: th-gy-wh, sm mot Pkst, mx- fnxln, prt ohlky, Pr-NVP, NS. LS: wh-th, ohlky to dn & mxln- Vfmxln, mtX Por, IGr Por, pp Por, <5% w/FLR, Tro STN & Cut, NFO. Cherty: om-gy- In, shrp. LS: wh-th, pt ohlky sm mx- Vfmxln, sm pt oomlde w/Fr Gd Por, sm gmir, Pr-Fr IGr Por & IX Por, Tro STN-FLR- Cut, NFO, >99% Barren. | 1718' (-355) LANSING |
| | | -C | | | LS: bith, gy-wh, morifixin, Pr. NVP, NS, smithky w/NS. SH: SILTS: It dk gy & bik, smiSdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn Grid, well omtid, rnd'd- angir, Pr Por, NS. LS: gy-th, dn- mori Vfnxin, VPr. NVP, smiargil- silty & sndy. SH: gy-bik, smicarb. & SILTS: AA. SH: SILTS: AA. SH: gy-bik, AA. (LANSING) LS: wh-th, morifixing view fixing v | 1718' (-355) LANSING |
| | | | | | LS: bith, gy-wh, mx fnxh, Pr NVP, NS, sm ohky w/NS. SH- SILTS: It dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn G f d, well omf d, rnd'd- anglr, Pr Por, NS. LS: gy-th, dn- mx- Vfnxh, VPr NVP, sm argil- silty & sndy. SH: gy-blk, sm oarb. & SILTS: AA. SH- SILTS: AA. SH- SILTS: AA. (LANSING) LS: wh-th, mx- fnxh, VR r prt Mdxh- 2ReX, prt ohlky, sm dn hd. SH: gy-blk. LS: th-gy-wh, sm mot Pkst mx- fnxh, ptt ohlky, Pr- NVP, NS. LS: wh-th, ohlky to dh & mxh- Vfnxh, mlX Por, IGr Por, pp Por, <5% w/FLR, Tro STN & Cut, NFO. Cherty: om-gy- n, shrp. LS: wh-th, pt ohlky sm mx- Vfnxh, sm pt oomlde w/Fr Gd Por, sm gmlr Pkst, Pr- NVP, Tro FLR- Cut. LS: wh-gy-th, ptt ohlky, Pred dh, Tro Por & STN, sm argil- shly. | 1718' (.355) LANSING |
| | | -C | | | LS: bf-th, gy-wh, moe fnxth, Pr- NVP, NS, sm ohky w/NS. SH- SILTS: It-dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn G fd, well omt d, rnd'd- anglr, Pr Por, NS. LS: gy-th, dr- moe Vfnxdh, VPr- NVP, sm argil- silty & sndy. SH: gy-blk, sm oarb. & SILTS: AA. SH- SILTS: AA. SH: gy-blk, AA. [LANSING] LS: wh-th, moe fnxdh, VR r prt Mdxhn- 2ReX, prt chlky, sm dh hd. SH: gy-blk. LS: th-gy-wh, sm mot Pkst, moe fnxdh, pt chlky, Pr- NVP, NS. LS: wh-th, chlky to dh & mxhn- Vfnxdh, mLX Por, IGr Por, pp Por, <6% wuFLR, Tro STN & Cut, NFO, Cherty: om-gy-th, shrp. LS: AA, ohlky & sm gmir Pkst, Pr- NVP, Tro FLR- Cut. LS: wh-th, prt ohlky, Pred dh, Tro Por & STN, sm argil-shly. LS: wh-oh, sm gmir Pkst w/Pr- Fr Portw/NFP, Tro FLR-STN- Cut, ~90% barren. | 1718' (.355) LANSING |
| | | | | | LS: bHn, gy-wh, mor fnxin, Pr. NVP, NS, sm ohky w/NS. SH- SILTS: H- dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn O'fd, well omfd, rnd'd- anglr, Pr Por, NS. LS: gy-th, dn- mor Vfnxin, VPr- NVP, sm argil- silty & sndy. SH: gy-blk, sm oarb. & SILTS: AA. SH- SILTS: AA. SH- SILTS: AA. SH: gy-blk, AA. (LANSING) LS: wh-fn, mor fnxin, VRr prt Mdxin- 2Rex, prt ohky, sm dn hd. SH: gy-blk. LS: th-gy-wh, sm mot Pkst, mor fnxin, pt ohlky, Pr- NVP, NS. LS: wh-fn, ohky to dn & mxin, vfnxin, pt ohlky, Pr- NVP, NS. LS: wh-fn, ohky to dn & mxin. Yfnxin, pt ohlky, Pr- NVP, NS. LS: AA, ohky & sm gmir Pkst, Pr- NVP, Tro FLR- Cut. LS: wh-fn, pt ohky sm mor Vfnxin, sm pt oomid ow/Fr of Por, sm gmir, Pr. Fr I Gr Por & X Por, Tro STN-FLR- Cut, NFO, >09% Barren. LS: wh-ohky, sm gmir Pkst w/Pr- Fr Por w/NFP, Tro FLR- STN- Cut, =00% barren. LS: wh-ohky, sm gmir Pkst w/Pr- Fr Por w/NFP, Tro FLR- STN- Cut, =00% barren. | 1718' (.355) LANSING |
| | | | | | LS: bith, gy-wh, mo fnxin, Pr. NVP, NS, sm ohky w/NS. SH- SILTS: Is dik gy & bik, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn Ofd, well omfd, rnd'd- angir, Pr Por, NS. LS: gy-th, dn- mo- Vfnodh, VP+ NVP, sm argil- silty & sndy. SH: gy-bik, sm oarb. & SILTS: AA. SH- SILTS: AA. SH- SILTS: AA. (LANSINO) LS: wh-tn, mo- fnxin, VR r prt Mdxin- 2ReX, prt ohky, sm dn hd. SH: gy-bik, LS: LS: th-gy-wh, sm mot Pkst, mo- fnxin, pt ohky, Pr- NVP, NS. LS: wh-tn, ohky to dn & modro- Vfnxin, ptt ohky, Pr- NVP, NS. LS: wh-tn, ohky to dn & modro- Vfnxin, miX Por, 16r Por, pp Por, <5% w/FLR. Tro STN & Cut, NFO. Cherly: om-gy- th, shtp. LS: wh-tn, pt ohky, Pred dn, Tro Por & STN, sm argil- shty. LS: wh-ogy-tn, ptt ohiky, Pred dn, Tro Por & STN, sm argil- shty. LS: wh-ogy-tn, ptt ohiky, Pred dn, Tro Por & STN, sm argil- shty. LS: wh-ohky, sm gmir Pkst, Pr- Por w/NFP, Tro FLR- Cut, NFO, >99% Barren. LS: gy-th-wh, pred dn Mdst, sm argil- shly, sm ohiky, VPr- NVP, NS. | 1718 ⁻ (-355) LANSING |
| | | | | | LS: bHn, gy-wh, mor fnxin, Pr. NVP, NS, sm ohky w/NS. SH- SILTS: H- dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn O'fd, well omfd, rnd'd- anglr, Pr Por, NS. LS: gy-th, dn- mor Vfnxin, VPr- NVP, sm argil- silty & sndy. SH: gy-blk, sm oarb. & SILTS: AA. SH- SILTS: AA. SH- SILTS: AA. SH: gy-blk, AA. (LANSING) LS: wh-fn, mor fnxin, VRr prt Mdxin- 2Rex, prt ohky, sm dn hd. SH: gy-blk. LS: th-gy-wh, sm mot Pkst, mor fnxin, pt ohlky, Pr- NVP, NS. LS: wh-fn, ohky to dn & mxin, vfnxin, pt ohlky, Pr- NVP, NS. LS: wh-fn, ohky to dn & mxin. Yfnxin, pt ohlky, Pr- NVP, NS. LS: AA, ohky & sm gmir Pkst, Pr- NVP, Tro FLR- Cut. LS: wh-fn, pt ohky sm mor Vfnxin, sm pt oomid ow/Fr of Por, sm gmir, Pr. Fr I Gr Por & X Por, Tro STN-FLR- Cut, NFO, >09% Barren. LS: wh-ohky, sm gmir Pkst w/Pr- Fr Por w/NFP, Tro FLR- STN- Cut, =00% barren. LS: wh-ohky, sm gmir Pkst w/Pr- Fr Por w/NFP, Tro FLR- STN- Cut, =00% barren. | 1718' (.355) LANSING |
| | | | | | LS: bHtn, gy-wh, mor fnxin, Pr- NVP, NS, sm ohky w/NS. SH- SILTS: H-dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn Ofd, well omfd, rnd'd- anglr, Pr Por, NS. LS: gy-th, dn- mor Vfnodh, VPr- NVP, sm argil- silty & sndy. SH: gy-blk, sm oarb. & SILTS: AA. SH- SILTS: AA. SH- SILTS: AA. (LANSING) LS: wh-tn, mor fnxin, VR r prt Mdxin- 2ReX, prt ohky, sm dn hd. SH: gy-blk, LS: LS: th-gy-wh, sm mot Pkst, mor fnxin, pt ohlky, Pr- NVP, NS. LS: wh-tn, ohlky to dn & modn- Vfnxin, miX Por, 10r Por, pp Por, c5% w/FLR, Tro STN & Cut, NFO. Cherly: om-gy- th, ship. LS: wh-tn, pt ohlky, Sm mor Vfnxin, sm prt oomido w/Fr od Por, sm gnir, Pr- Fr 10F or & IX Por, Tro STN-FLR- Cut, NFO, >09% Barren. LS: wh-tn, pt ohlky, Pred dn, Tro Por & STN, sm argil- shly. LS: wh-tn, pt ohlky, Pred dn, Tro Por & STN, sm argil- shly. LS: wh-tn, pt ohlky, Pred dn, Tro Por & STN, sm argil- shly. LS: wh-tn, pt ohlky, Pred dn, Tro Por & STN, sm argil- shly. LS: wh-tn, pt ohlky, Sm gnir Pkst, Pr- Por w/NFP, Tro FLR- STN- Cut, =00% barren. (BASE/LANSING) SH- SILTS: gy & gn-gy, calo. LS: gy, Vargil- shly- silly. SILTS: gy & gn-gy, Voalo & Imy. | 1718' (.355) LANSING |
| | | | | | LS: bHtn, gy-wh, mor fnxin, Pr- NVP, NS, sm ohky w/NS. SH- SILTS: H-dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn Ofd, well omfd, rnd'd- anglr, Pr Por, NS. LS: gy-th, dn- mor Vfnodh, VPr- NVP, sm argil- silty & sndy. SH: gy-blk, sm oarb. & SILTS: AA. SH- SILTS: AA. SH- SILTS: AA. (LANSING) LS: wh-tn, mor fnxin, VR r prt Mdxin- 2ReX, prt ohky, sm dn hd. SH: gy-blk, LS: LS: th-gy-wh, sm mot Pkst, mor fnxin, pt ohlky, Pr- NVP, NS. LS: wh-tn, ohlky to dn & modn- Vfnxin, miX Por, 10r Por, pp Por, c5% w/FLR, Tro STN & Cut, NFO. Cherly: om-gy- th, ship. LS: wh-tn, pt ohlky, Sm mor Vfnxin, sm prt oomido w/Fr od Por, sm gnir, Pr- Fr 10F or & IX Por, Tro STN-FLR- Cut, NFO, >09% Barren. LS: wh-tn, pt ohlky, Pred dn, Tro Por & STN, sm argil- shly. LS: wh-tn, pt ohlky, Pred dn, Tro Por & STN, sm argil- shly. LS: wh-tn, pt ohlky, Pred dn, Tro Por & STN, sm argil- shly. LS: wh-tn, pt ohlky, Pred dn, Tro Por & STN, sm argil- shly. LS: wh-tn, pt ohlky, Sm gnir Pkst, Pr- Por w/NFP, Tro FLR- STN- Cut, =00% barren. (BASE/LANSING) SH- SILTS: gy & gn-gy, calo. LS: gy, Vargil- shly- silly. SILTS: gy & gn-gy, Voalo & Imy. | 1718' (.325) LANSING |
| | | | | | LS: bHtn, gy-wh, mor fnxin, Pr- NVP, NS, sm ohky w/NS. SH- SILTS: H-dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn Ofd, well omfd, rnd'd- anglr, Pr Por, NS. LS: gy-th, dn- mor Vfnodh, VPr- NVP, sm argil- silty & sndy. SH: gy-blk, sm oarb. & SILTS: AA. SH- SILTS: AA. SH- SILTS: AA. (LANSING) LS: wh-tn, mor fnxin, VR r prt Mdxin- 2ReX, prt ohky, sm dn hd. SH: gy-blk, LS: LS: th-gy-wh, sm mot Pkst, mor fnxin, pt ohlky, Pr- NVP, NS. LS: wh-tn, ohlky to dn & modn- Vfnxin, miX Por, 10r Por, pp Por, c5% w/FLR, Tro STN & Cut, NFO. Cherly: om-gy- th, ship. LS: wh-tn, pt ohlky, Sm mor Vfnxin, sm prt oomido w/Fr od Por, sm gnir, Pr- Fr 10F or & IX Por, Tro STN-FLR- Cut, NFO, >09% Barren. LS: wh-tn, pt ohlky, Pred dn, Tro Por & STN, sm argil- shly. LS: wh-tn, pt ohlky, Pred dn, Tro Por & STN, sm argil- shly. LS: wh-tn, pt ohlky, Pred dn, Tro Por & STN, sm argil- shly. LS: wh-tn, pt ohlky, Pred dn, Tro Por & STN, sm argil- shly. LS: wh-tn, pt ohlky, Sm gnir Pkst, Pr- Por w/NFP, Tro FLR- STN- Cut, =00% barren. (BASE/LANSING) SH- SILTS: gy & gn-gy, calo. LS: gy, Vargil- shly- silly. SILTS: gy & gn-gy, Voalo & Imy. | 1718' (-355) LANSING |
| | | | | | LS: bitn, gy-wh, mo foch, PE NVP, NS, sm ohky w/NS. SH- SILTS: It dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn O'd, well omt d, rnd'd- anglr, PF Por, NS. LS: gy-th, dn-mo- Vfndn, VP+ NVP, sm argil- silty & sndy. SH: gy-blk, sm oarb. & SILTS: AA. SH- SILTS: AA. SH- SILTS: AA. (LANSING) LS: wh-fn, mo- foxin, VR r prt Mdxin- 2ReX, prt ohky, sm dn hd. SH: gy-blk, LS: wh-fn, mo- foxin, VR r prt Mdxin- 2ReX, prt ohky, sm dn hd. SH: gy-blk. LS: wh-fn, chiky to dn & mxin- Vfnxin, mtX Por, IOF Por, pp Por, c5% w/FLR, Tro STN & Cut, NFO. Cherty: om-gy- th, shrp. LS: wh-fn, pt ohky sm mo- Vfnxin, sm prt onildow/Fr od Por, sm gmir Pkst, PF- NVP, Tro FLR- Cut. LS: wh-gy-in, pt ohky, Pred dn, Tro Por & STN, sm argil- shly. LS: wh-in, prt ohky. Pred dn, Tro Por & STN, sm argil- shly. LS: wh-sh, pred dn Mdst, sm argil-shly, sm ohlky, VP- NVP, NS. (BASE/LANSINO) SH- SILTS: gy & gn-gy, calo. LS: gy, Vargil-shly- silty. SILTS: gr & gn-gy, Voale & Imy. SH- SILTS: gr & gn-gy, sm micao. | 1718' (-355) LANSING |
| | | | | | LS: bitn, gy-wh, mo foch, PE NVP, NS, sm ohky w/NS. SH- SILTS: It dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn O'd, well omt d, rnd'd- anglr, PF Por, NS. LS: gy-th, dn-mo- Vfndn, VP+ NVP, sm argil- silty & sndy. SH: gy-blk, sm oarb. & SILTS: AA. SH- SILTS: AA. SH- SILTS: AA. (LANSING) LS: wh-fn, mo- foxin, VR r prt Mdxin- 2ReX, prt ohky, sm dn hd. SH: gy-blk, LS: wh-fn, mo- foxin, VR r prt Mdxin- 2ReX, prt ohky, sm dn hd. SH: gy-blk. LS: wh-fn, chiky to dn & mxin- Vfnxin, mtX Por, IOF Por, pp Por, c5% w/FLR, Tro STN & Cut, NFO. Cherty: om-gy- th, shrp. LS: wh-fn, pt ohky sm mo- Vfnxin, sm prt onildow/Fr od Por, sm gmir Pkst, PF- NVP, Tro FLR- Cut. LS: wh-gy-in, pt ohky, Pred dn, Tro Por & STN, sm argil- shly. LS: wh-in, prt ohky. Pred dn, Tro Por & STN, sm argil- shly. LS: wh-sh, pred dn Mdst, sm argil-shly, sm ohlky, VP- NVP, NS. (BASE/LANSINO) SH- SILTS: gy & gn-gy, calo. LS: gy, Vargil-shly- silty. SILTS: gr & gn-gy, Voale & Imy. SH- SILTS: gr & gn-gy, sm micao. | 1718' (-355) LANSING |
| | | | | | LS: bitn, gy-wh, mo foch, PE NVP, NS, sm ohky w/NS. SH- SILTS: It dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn O'd, well omt d, rnd'd- anglr, PF Por, NS. LS: gy-th, dn-mo- Vfndn, VP+ NVP, sm argil- silty & sndy. SH: gy-blk, sm oarb. & SILTS: AA. SH- SILTS: AA. SH- SILTS: AA. (LANSING) LS: wh-fn, mo- foxin, VR r prt Mdxin- 2ReX, prt ohky, sm dn hd. SH: gy-blk, LS: wh-fn, mo- foxin, VR r prt Mdxin- 2ReX, prt ohky, sm dn hd. SH: gy-blk. LS: wh-fn, chiky to dn & mxin- Vfnxin, mtX Por, IOF Por, pp Por, c5% w/FLR, Tro STN & Cut, NFO. Cherty: om-gy- th, shrp. LS: wh-fn, pt ohky sm mo- Vfnxin, sm prt onildow/Fr od Por, sm gmir Pkst, PF- NVP, Tro FLR- Cut. LS: wh-gy-in, pt ohky, Pred dn, Tro Por & STN, sm argil- shly. LS: wh-in, prt ohky. Pred dn, Tro Por & STN, sm argil- shly. LS: wh-sh, pred dn Mdst, sm argil-shly, sm ohlky, VP- NVP, NS. (BASE/LANSINO) SH- SILTS: gy & gn-gy, calo. LS: gy, Vargil-shly- silty. SILTS: gr & gn-gy, Voale & Imy. SH- SILTS: gr & gn-gy, sm micao. | 1718" (-355) LANSING |
| | | | | | LS: bitn, gy-wh, mo foch, PE NVP, NS, sm ohky w/NS. SH- SILTS: It dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn O'd, well omt d, rnd'd- anglr, PF Por, NS. LS: gy-th, dn-mo- Vfndn, VP+ NVP, sm argil- silty & sndy. SH: gy-blk, sm oarb. & SILTS: AA. SH- SILTS: AA. SH- SILTS: AA. (LANSING) LS: wh-fn, mo- foxin, VR r prt Mdxin- 2ReX, prt ohky, sm dn hd. SH: gy-blk, LS: wh-fn, mo- foxin, VR r prt Mdxin- 2ReX, prt ohky, sm dn hd. SH: gy-blk. LS: wh-fn, chiky to dn & mxin- Vfnxin, mtX Por, IOF Por, pp Por, c5% w/FLR, Tro STN & Cut, NFO. Cherty: om-gy- th, shrp. LS: wh-fn, pt ohky sm mo- Vfnxin, sm prt onildow/Fr od Por, sm gmir Pkst, PF- NVP, Tro FLR- Cut. LS: wh-gy-in, pt ohky, Pred dn, Tro Por & STN, sm argil- shly. LS: wh-in, prt ohky. Pred dn, Tro Por & STN, sm argil- shly. LS: wh-sh, pred dn Mdst, sm argil-shly, sm ohlky, VP- NVP, NS. (BASE/LANSINO) SH- SILTS: gy & gn-gy, calo. LS: gy, Vargil-shly- silty. SILTS: gr & gn-gy, Voale & Imy. SH- SILTS: gr & gn-gy, sm micao. | 1718" (-355) LANSING |
| | | | | | LS: bitn, gy-wh, mo foch, PE NVP, NS, sm ohky w/NS. SH- SILTS: It dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn O'd, well omt d, rnd'd- anglr, PF Por, NS. LS: gy-th, dn-mo- Vfndn, VP+ NVP, sm argil- silty & sndy. SH: gy-blk, sm oarb. & SILTS: AA. SH- SILTS: AA. SH- SILTS: AA. (LANSING) LS: wh-fn, mo- foxin, VR r prt Mdxin- 2ReX, prt ohky, sm dn hd. SH: gy-blk, LS: wh-fn, mo- foxin, VR r prt Mdxin- 2ReX, prt ohky, sm dn hd. SH: gy-blk. LS: wh-fn, chiky to dn & mxin- Vfnxin, mtX Por, IOF Por, pp Por, c5% w/FLR, Tro STN & Cut, NFO. Cherty: om-gy- th, shrp. LS: wh-fn, pt ohky sm mo- Vfnxin, sm prt onildow/Fr od Por, sm gmir Pkst, PF- NVP, Tro FLR- Cut. LS: wh-gy-in, pt ohky, Pred dn, Tro Por & STN, sm argil- shly. LS: wh-in, prt ohky. Pred dn, Tro Por & STN, sm argil- shly. LS: wh-sh, pred dn Mdst, sm argil-shly, sm ohlky, VP- NVP, NS. (BASE/LANSINO) SH- SILTS: gy & gn-gy, calo. LS: gy, Vargil-shly- silty. SILTS: gr & gn-gy, Voale & Imy. SH- SILTS: gr & gn-gy, sm micao. | 1718" (335) LANSING |
| | | | | | LS: bitn, gy-wh, mo foch, PE NVP, NS, sm ohky w/NS. SH- SILTS: It dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn O'd, well omt d, rnd'd- anglr, PF Por, NS. LS: gy-th, dn-mo- Vfndn, VP+ NVP, sm argil- silty & sndy. SH: gy-blk, sm oarb. & SILTS: AA. SH- SILTS: AA. SH- SILTS: AA. (LANSING) LS: wh-fn, mo- foxin, VR r prt Mdxin- 2ReX, prt ohky, sm dn hd. SH: gy-blk, LS: wh-fn, mo- foxin, VR r prt Mdxin- 2ReX, prt ohky, sm dn hd. SH: gy-blk. LS: wh-fn, chiky to dn & mxin- Vfnxin, mtX Por, IOF Por, pp Por, c5% w/FLR, Tro STN & Cut, NFO. Cherty: om-gy- th, shrp. LS: wh-fn, pt ohky sm mo- Vfnxin, sm prt onildow/Fr od Por, sm gmir Pkst, PF- NVP, Tro FLR- Cut. LS: wh-gy-in, pt ohky, Pred dn, Tro Por & STN, sm argil- shly. LS: wh-in, prt ohky. Pred dn, Tro Por & STN, sm argil- shly. LS: wh-sh, pred dn Mdst, sm argil-shly, sm ohlky, VP- NVP, NS. (BASE/LANSINO) SH- SILTS: gy & gn-gy, calo. LS: gy, Vargil-shly- silty. SILTS: gr & gn-gy, Voale & Imy. SH- SILTS: gr & gn-gy, sm micao. | 1718' (355) LANSING |
| | | | | | LS: bitn, gy-wh, mo fnch, Pr. NVP, NS, sm chky w/NS. SH- SILTS: It dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn O'fd, well omf d, rnd'd- angh, Pr Por, NS. LS: gy-fn, dn- mo: Vfnodn, VPr- NVP, sm argit silty & sdy. SH: gy-blk, sm oarb. & SILTS: AA. SH- SILTS: AA. (LANSING) LS: wh-fn, mo: fnodn, VRr prt Mdoh- 2ReX, prt ohky, sm dn hd. SH: gy-blk, LS: thr- gy-blk, AA. LS: thr-gy-wh, sm mot Pkst mo: fnodn, pt chlky, Pr- NVP, NS. LS: wh-fn, chlky to dn & mole. Vfnodn, mKX Por, Iof Por, pp Por, cf% w/FLR, Tro STN & Cut, NFO. Cherty: om-gy- fn, shrp. LS: AA, chlky & sm gmir Pkst, Pr- NVP, Tro FLR- Cut. LS: wh-fn, pt chlky, Pred dn, Tro Por & STN, sm argit shly. LS: wh-ohky, sm gmir Pkst w/Pr- Fr Por w/NFP, Tro FLR- Cut, NFO, >90% Barren. LS: wh-ohky, sm gmir Pkst sm argit shly, sm chlky, VPr- NVP, NS. (BASE/LANSING) SH- SILTS: gy & gn-gy, calo. LS: gy, Vargit shly, silty. SH- SILTS: gn-gy, sm calo. | 1718' (-355) LANSING LANSING |
| | | | | | LS: bitn, gy-wh, mo fnch, Pr. NVP, NS, sm chky w/NS. SH- SILTS: It dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn O'fd, well omf d, rnd'd- angh, Pr Por, NS. LS: gy-fn, dn- mo: Vfnodn, VPr- NVP, sm argit silty & sdy. SH: gy-blk, sm oarb. & SILTS: AA. SH- SILTS: AA. (LANSING) LS: wh-fn, mo: fnodn, VRr prt Mdoh- 2ReX, prt ohky, sm dn hd. SH: gy-blk, LS: thr- gy-blk, AA. LS: thr-gy-wh, sm mot Pkst mo: fnodn, pt chlky, Pr- NVP, NS. LS: wh-fn, chlky to dn & mole. Vfnodn, mKX Por, Iof Por, pp Por, cf% w/FLR, Tro STN & Cut, NFO. Cherty: om-gy- fn, shrp. LS: AA, chlky & sm gmir Pkst, Pr- NVP, Tro FLR- Cut. LS: wh-fn, pt chlky, Pred dn, Tro Por & STN, sm argit shly. LS: wh-ohky, sm gmir Pkst w/Pr- Fr Por w/NFP, Tro FLR- Cut, NFO, >90% Barren. LS: wh-ohky, sm gmir Pkst sm argit shly, sm chlky, VPr- NVP, NS. (BASE/LANSING) SH- SILTS: gy & gn-gy, calo. LS: gy, Vargit shly, silty. SH- SILTS: gn-gy, sm calo. | 1748: (.325) 1748: (.325) |
| | | | | | LS: bitn, gy-wh, mo fnch, Pr. NVP, NS, sm chky w/NS. SH- SILTS: It dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn O'fd, well omf d, rnd'd- angh, Pr Por, NS. LS: gy-fn, dn- mo: Vfnodn, VPr- NVP, sm argit silty & sdy. SH: gy-blk, sm oarb. & SILTS: AA. SH- SILTS: AA. (LANSING) LS: wh-fn, mo: fnodn, VRr prt Mdoh- 2ReX, prt ohky, sm dn hd. SH: gy-blk, LS: thr- gy-blk, AA. LS: thr-gy-wh, sm mot Pkst mo: fnodn, pt chlky, Pr- NVP, NS. LS: wh-fn, chlky to dn & mole. Vfnodn, mKX Por, Iof Por, pp Por, cf% w/FLR, Tro STN & Cut, NFO. Cherty: om-gy- fn, shrp. LS: AA, chlky & sm gmir Pkst, Pr- NVP, Tro FLR- Cut. LS: wh-fn, pt chlky, Pred dn, Tro Por & STN, sm argit shly. LS: wh-ohky, sm gmir Pkst w/Pr- Fr Por w/NFP, Tro FLR- Cut, NFO, >90% Barren. LS: wh-ohky, sm gmir Pkst sm argit shly, sm chlky, VPr- NVP, NS. (BASE/LANSING) SH- SILTS: gy & gn-gy, calo. LS: gy, Vargit shly, silty. SH- SILTS: gn-gy, sm calo. | 1748' (.355) |
| | | -C -C -C -C -C -C -C -C -C -C -C -C -C - | | | LS: bitn, gy-wh, mo fnch, Pr. NVP, NS, sm chky w/NS. SH- SILTS: It dk gy & blk, sm Sdy Silts & Silty SS: AA w/NS. SS: It gy-wh, Vfn- fn O'fd, well omf d, rnd'd- angh, Pr Por, NS. LS: gy-fn, dn- mo: Vfnodn, VPr- NVP, sm argit silty & sdy. SH: gy-blk, sm oarb. & SILTS: AA. SH- SILTS: AA. (LANSING) LS: wh-fn, mo: fnodn, VRr prt Mdoh- 2ReX, prt ohky, sm dn hd. SH: gy-blk, LS: thr- gy-blk, AA. LS: thr-gy-wh, sm mot Pkst mo: fnodn, pt chlky, Pr- NVP, NS. LS: wh-fn, chlky to dn & mole. Vfnodn, mKX Por, Iof Por, pp Por, cf% w/FLR, Tro STN & Cut, NFO. Cherty: om-gy- fn, shrp. LS: AA, chlky & sm gmir Pkst, Pr- NVP, Tro FLR- Cut. LS: wh-fn, pt chlky, Pred dn, Tro Por & STN, sm argit shly. LS: wh-ohky, sm gmir Pkst w/Pr- Fr Por w/NFP, Tro FLR- Cut, NFO, >90% Barren. LS: wh-ohky, sm gmir Pkst sm argit shly, sm chlky, VPr- NVP, NS. (BASE/LANSING) SH- SILTS: gy & gn-gy, calo. LS: gy, Vargit shly, silty. SH- SILTS: gn-gy, sm calo. | 1718' (.355) LANSING LANSING LANSING |
| | | -C -C -C -C -C -C -C -C -C -C -C -C -C - | | | LS: bfin, gy-wh, mor moin, Pr. NVP, NS, sm ohky w/NS. SH- SILTS: h-dk-gy & blk, sm Sdy Silte & Silty SS: AA w/NS. LS: gy-uh, dn-mor Vfmdn, VPr. NVP, sm argit silty & shdy. SH: gy-blk, aA. SH: SILTS: AA. [LANGING] LS: wh-th, mor fixdh, VRr prt Mdxh: 2ReX, prt chiky, sm dn hd. SH: gy-blk, AA. [LANGING] LS: wh-th, mor fixdh, VRr prt Mdxh: 2ReX, prt chiky, sm dn hd. SH: gy-blk, AA. LS: wh-th, ohky to dn & modn: Vfmdn, mtX Por, IGF Por, pro, c5% whER, Tro STN & Cut, NFO. Cherty: om gy- th, shrp. LS: wh-th, ohky to dn & modn: Vfmdn, mtX Por, IGF Por, pro, c5% whER, Tro STN & Cut, NFO. Cherty: om gy- th, shrp. LS: wh-th, prt ohky, Pred dn, Tro Por & STN, sm argit shly. LS: wh ohky, sm gmlr Pkst, Pr. NVP, Tro FLR- Cut. LS: who, spt. prt ohky, Pred dn, Tro Por & STN, sm argit shly. LS: wh ohky, sm gmlr Pkst w/Pr. Pr Porw/NFP, Tro FLR- STH: Cut, PG9% Barren. LS: who, shy, pred dn Mdst, sm argit shly, sm ohky, VPr- NVP, NS. ILTS: gy-gy, sm mizac. SH- SiLTS: gn-gy, sm mizac. SH- SiLTS: gn-gy, sm calk. | 1718' (355) (ANSING LANSING LANSING |
| | | -C -C -C -C -C -C -C -C -C -C -C -C -C - | | | LS: bfin, gy-wh, mor moin, Pr. NVP, NS, sm ohky w/NS. SH- SILTS: h-dk-gy & blk, sm Sdy Silte & Silty SS: AA w/NS. LS: gy-uh, dn-mor Vfmdn, VPr. NVP, sm argit silty & shdy. SH: gy-blk, aA. SH: SILTS: AA. [LANGING] LS: wh-th, mor fixdh, VRr prt Mdxh: 2ReX, prt chiky, sm dn hd. SH: gy-blk, AA. [LANGING] LS: wh-th, mor fixdh, VRr prt Mdxh: 2ReX, prt chiky, sm dn hd. SH: gy-blk, AA. LS: wh-th, ohky to dn & modn: Vfmdn, mtX Por, IGF Por, pro, c5% whER, Tro STN & Cut, NFO. Cherty: om gy- th, shrp. LS: wh-th, ohky to dn & modn: Vfmdn, mtX Por, IGF Por, pro, c5% whER, Tro STN & Cut, NFO. Cherty: om gy- th, shrp. LS: wh-th, prt ohky, Pred dn, Tro Por & STN, sm argit shly. LS: wh ohky, sm gmlr Pkst, Pr. NVP, Tro FLR- Cut. LS: who, spt. prt ohky, Pred dn, Tro Por & STN, sm argit shly. LS: wh ohky, sm gmlr Pkst w/Pr. Pr Porw/NFP, Tro FLR- STH: Cut, PG9% Barren. LS: who, shy, pred dn Mdst, sm argit shly, sm ohky, VPr- NVP, NS. ILTS: gy-gy, sm mizac. SH- SiLTS: gn-gy, sm mizac. SH- SiLTS: gn-gy, sm calk. | 1718' (.325) 1718' (.325) 1718' (.325) 1718' (.325) 1 |

| Mt 9.3+ | 14 | | | |
|---------------------------------------|--------------|---|--|---|
| | | | 1991' (-628) | |
| | | {KANSAS CITY} LS: gy-tn-bn, sm mot, pred dn, sm argil. | KANSAS CITY | |
| | 2000 | SH: gy-blk. LS: wh-tn-gy, sm mot, mx-Mdx- sm 2nd ReX, prt chlky, VPr- Pr visbl Por: pp- vug Por, IX Por, ~5% w/spt"d- sat | (VSI SF 0) | |
| | - 14 A | FLR-STN, VSISFO & VSImilky Cut, VSIOdor. | | |
| s c.jęt | | LS: wh-gy-tn, sm mot Pkst, prt chky, Pred VPr- Prvisbl | (VSI SF 0) | |
| | 2.14 | Por: pp- vug Por, IGr Por, Trolt STN & Cut, <5% w/spt*d- sat FLR, VSI SFO, >99% barren w/Pr- NVP. Abndt dn Mdst. | | |
| | | | | |
| | 24.94 (1) | LS:wh-gy-tn, prt chlky & mot-ool & fos Pk st w/Pr-Fr Por: | (Trc SFO) | |
| | - 2050 | mIGr Por, lool Por, fos Por, Tre FLR, Tre SFO- STN- Cut, ~99% barren; sm dn Mdst- WkstwVPr- NVP. | | |
| M 9.3+ LCM 2# | | | | |
| | 2.5 | LS:wh-tn, mx-fnxln, prt.chky, sm.fosPkst, VPr-PrIGr Por, IfosPor, IX Por, TrcSFO-FLR-STN-Cut, >99% barren, sm.2ndReX.Cherty:wh-bf-gy, shrp. | (Trc SFO) | |
| | 24 | banen, sin zita nere onergi one ogy, sinp. | | |
| | | | | |
| | 14224 | {STARK} SH: blk carb- VC arb. | - | |
| | 2100 | LS: wh-th-gy, mx-fnxln, VRr Md-VCrsX's-sm 2nd ReX, VRr Fr-Gd Por: IX Por, vug Por, Trc SFO, <5% w/spt'd- sat FLR & Tn OSTN, sm PriGr & IX Por w/Trc STN, Trc | {Trc SF0) | |
| | | SFO-FLR-STN & Cut. | | |
| | -14 1 | {HUSHPUCKNEY}SH:bok carb-Vcarb. LS:wh-gy-TN (STN), mx-fnxln, sm. grn Ir, Pr-FrlX Por& | | |
| | 2.5 | IGr Por, <5% w/spt"d-satFLR & STN, Trc SFO, Pr-Fr Cut, Pred dn to chky LS, sm argil-shly. SI Cherty: cm- blu-gy, shrp. | | |
| см2# | | SH: gn-gy & blk carb & bn. | (Trc SFO) | |
| | 10010 | LS: to-ov-link con not Plet my Meyle More Departure | | |
| | 2150 | LS: th-gy-wh, sm mot Pkst, mx- Vfnxln, VPr- Pr Por, NS. | 2157' (-794) | |
| | - | {BASE/ KANSAS CITY} SH: dk gy-bk subcarb & gy micac Silty SH. | BASE/KANSAS CITY | |
| 2 | | | | |
| | 14 | SILTY SH- SILTS: It-md gy, micac. | | |
| | 14 | | | |
| | - 2200 | SILTS-SH: AA & sm calc & Imy. | | |
| 0 | 2200 | | | |
| wis 37 wis 37 cm 19.3* | | SH∶gy-blk, sm. calc& lmy. | | |
| | - | LS: gy-bk, Vargil-shly & SI fos, VPr- NVP. | | |
| | 2.5 | SH:blk.carb.&gn-gy. | 2232' (-869) CHECKERBOARD | |
| | -9-54 | {CHECKERBOARD} LS: tn-wh-gy, sm mot- ool & fos Pkst, sm dn & argil Mdst- Wkst, sm shly, VPr- NVP, NS. | Checkerbonito | |
| | 2250 | SH: gn & mrn-rd & gn-gy, VC & SILTS: gy, micac, sm Sndy: Vfn Gr'd. | | |
| | | SH: gn-gy & mrn-rd. | | |
| | | SH: Gy, sm calc, SI micac. | | |
| | | SH: AA. | | |
| | 2.5 | {ALTAMONT} LS: tn-gy-om, Pred dn Mdst- Wkst, sm argil. | 2280' (-917) Altamont | |
| | | SH:bk.carb & VCarb. LS:gy-tn-cm,ool & fosPkstowPr-NVP,NS. | | |
| | - 2300 | SH: AA & gn-gy & dk gy, sm pyrtc. | | |
| | 2.5 | SH: bik subcarb-carb, sm lmy & calc. LS: wh-tn & gy-bik, Vargil & shly. | | |
| | 2.5 | {PAWNEE}LS:wh-gy-tn,sm.mot-ool&fosPkst&mx- fnxw/VPr-PrPor,NS,prtchkyw/NS. | 2317' (-954) PAWNEE | |
| | 14 | LS: dk-lt gy-tn, dn & argil Mdst-Wkst, sm arg∔shly. | | |
| | - 2 | | | |
| | | SH: bk carb- Vcarb (VAbndt in 2350' spl). LS: tn-gy-wh, Pred dn Mdst- Wkst & Rr Pkst, sm chky, VPr- NVP, NS. | | |
| → → → → → → → → → → → → → → → → → → → | 2350 | | 2356' (-993) CHEROKEE | |
| | 25 | {CHEROKEE} SH: bk carb. & LS: gy-tn-wh, Mdst- Wkst, VRr Pkst, VPr- NVP. | | |
| | 25 | SH: blk subcarb- Vcarb & gn-gy. SILTY SH: gyy & gn-gy, micac. | | |
| | 15 | SH- SILTS: It gy, micac. | | |
| | 215 | SH: gy- blk. | | |
| 2 | -2400 | SH-SILTS: It dk gy, micac, SILTS: It dk gy, micac, calc. | | |
| | | SH: gy-blk, micac. | | |
| | 125 | | 2417' (-1054) ARDMORE | |
| -c jet | 25 | {ARD MORE} LS: tn-wh, Pred dn hd & mx- frx, sm prt chlky, sm argil-shly. SH: blk carb. | | |
| | 25 | SH: bik carb. LS: gy-bik & tn dn & argi⊦ shly Mdst. | | |
| <u>}</u> | 25 | SH: It-dk gy & aqu-turq-tn, sm wxy, sm olv-gn SH. | | |
| | 2450 | SH: Pred dk gy & gn-gy. | | DST #1 |
| CES 1091 | 1 2 | SH: gn-gy. | | VIOLA 2420'-2495' 30-45-45-60 |
| CFS 1102 | | SH: gn-gy, sm pyrtc. SH: Pred dk gn-gy. | | 1st Op: BOB in 4 min, No BB 2nd Op: BOB in |
| -CFS 1112 CFS 1115 | | SH: It gn-gy & It-dk gy-bn (Trc LS AA) SH: gy-bn-bk, subcarb, Rr pyrtc. | | 6.5 min, No BB Rec: 108' VSIWHOCM |
| | 2.5 | SH: AA, Incrs pyrtc. LS: dk-It gy, bf-tn, mx-Vfn×In, argi∔ dolmc & pyrtc. SH:gy-bn-bk, subcarb-Rr carb, pyrtc, phos SH: AA, sm hydrocarb O dor. | | (20% O, 1% W, 79% M) 496' G WHOCM (2% O 11% G |
| | 25 1 | SH: AA {VIOLA} DOLO: (2493' 20 min}~60% Viola, Pred CHERT: >90% wh-gy, cm-bf, sm domome, subshrp, sm mot, SI- | 2491' (-1128) VIOLA {Fr-Gd SGsy Oil) | (23% O, 11% G, 14% W, 52% M) DC 178' GOCMW (10% O 8% G |
| | 2500 | Vwthr'd w/lGr Por, pp Por, Vug Por, Trc VGd vug Por, spt"d-subsat brt FLR, Tn OSTN, SF Fr SFO; <5% DOLO: bf-tn, mx- Vfn×ln, silic Cherty & VR rsucro w/Pr- Fr visbl | 2495' (-1132) RTD | (10% 0,8% G, 51% W,31% M) TF: 782' TOOL SPL: |
| 0 10 | - | Por: mIX Por-IX Por, subsatbrt FLR-STN, SI-Fr SFO & SI-Frmilky Cut, Fr Odor. (45 min} >30% <40% CHERT: AA, SI wthr'd w/sm 2nd ReX, drusy qtz X's-aprnt Fro Edgs & wthr'd Edgs w/FLR-SFO & STN; sm dolomo | VESS OIL CORP WILSON 'A' #445 1500'FNL I 2310' FW Sec 9 255 055 | 11% O, 76% W, |
| | | Chertw/FLR-SFÖ & STN. ~5% DOLO (VSI Incrs): bf-tn- STN, mx-Vfn×In, Pred cherty & silic, VR r sucrow/Fr IX Por, Pred Pr vis bl Por & mIX Por, spt"d to sat rich Tn | Sec 9-25S-05E BUTLER CO., KS API#15-015-23959 | THP: 1182 IFP: 17-244 ISIP: 576 FFP: 229-368 |
| | | OSTN, brt FLR, SI-Fr SFO-Gsy & SI-Fr Cut, Fr Odor. (2495' 20 min} (~40% Viola) Pred DOLO: (~80% DOLO) Rich Tn OSTN-pred sat, Vfn×In-ssucro w/Fr Por: IX Por & mIX Por w/s at brt FLR & rich tn STN, Fr-Gd SFO-Gasy; | | FFP: 229-308 FSIP: 578 FHP: 1181 BHT: 103.8 F |
| | | Fr-Gd String Cut & miky Cut, String Odor. Cherty: wh-gy, semi-wthr'd w/FLR-SFO (~20% Chert). (45min} Pred DOLO: (~70% DOLO) Rich Tn-sat OSTN, Pred Vfnxln & | | |
| | - | mxIn, sucrow/Fr-Gd IX Por w/s at brt FLR & STN & Fr- Gd SFO-Gsy & Fr-Gd Strmg & milky Cut, Strong Odor. VCherty: (~30% Chert) wh-gy-bf, sm semishrp-wthr'd & sm triplc & dolomc, sm Pr-Fr Por, spt'd-subsat FLR-STN- | | |
| | | SFO & Cut in Chert. | U | |
| | | | | |

ATTACHMENT TO ACO-1

API #15-015-23959-0000 WILSON A-445 1500'FNL, 2310'FWL

Sec. 9-25S-05E

Butler County, KS

| Butler County, KS | | |
|-------------------|----------------|----------------|
| | Geo Samples | Log Tops |
| | KB 1363 | <u>KB 1363</u> |
| Admire 650 | 660 +703 fsfo | NONE |
| Burlingame | 833 +530 | 834 +529 |
| White Cloud Lm | 925 +438 | 924 +439 |
| White Cloud Sd | 935 +428 vsso | 934 +429 |
| Topeka | 1089 +274 | 1087 +276 |
| Oread | 1401 -38 | 1401 -38 |
| Heebner | 1438 -75 | 1437 -74 |
| Douglas | 1469 -106 | 1466 -103 |
| Douglas Sand | | 1525 -162 |
| Lansing | 1718 -355 | 1717 -354 |
| Lansing Base | | 1842 -479 |
| Kansas City | 1991 -628 SISO | 1991 -628 |
| Stark | | 2092 -729 |
| B/KC | 2157 -794 | 2156 -793 |
| Checkerboard | 2232 -869 | 2231 -868 |
| Altamont | 2280 -917 | 2277 -914 |
| Pawnee | 2317 -954 | 2315 -952 |
| Cherokee | 2356 -993 | 2354 -991 |
| Ardmore Lm | 2417 -1054 | 2417 -1054 |
| Viola | 2491 -1128 GSO | 2490 -1127 |
| PTD | 2495 -1132 | 2494 -1131 |
| | | |

| DST #1 2420-2495 | Zone: Viola |
|------------------------------------|---|
| Times: 30-45-45- | -60 |
| 1 st open: Btm bkt in 4 | min |
| NO BB | |
| 2^{nd} open Btm bkt in 6 | ¹ / ₂ min |
| NO BB | |
| Rec.: 782' TF: 108' VS | 1WHOCM, 20% oil, 1% water, 79% mud + |
| 496' GW | /HOCM, 23% oil, 11% gas, 14% water, 52% mud + |
| DC 178' GC | CMW 10% oil, 8% gas, 51% water, 31% mud. |
| Tool Sample: 11 % oil | , 76% water, 13% mud. |
| IHP: 1182 F. | HP: 1181 |
| IFP: 17-224 F | FFP: 229-368 |
| ISIP: 576 F | SIP: 578 TEMP: 103.8 degrees F |

| CONSOLIDATED Oil Well Bervices, LLC | <i>REMIT TO</i> Consolidated Oil Well Servi Dept. 970 P.O. Box 4346 Houston, TX 77210-43 | | MAIN OFFICE P.O. Box 884 Chanute, KS 66720 620/431-9210 • 1-800/467-8676 Fax 620/431-0012 NOV 1 \$ 2012 | | |
|--|--|----------------------------------|--|--------------------------------------|--|
| INVOICE | | | Invoice # | 254472 | |
| Invoice Date: 11/14/2012 | | | eeeeeeeeeee Pa | ge 1 | |
| 1700 WATER FRONT PKWAY H WICHITA KS 67206 (316)682-1537 | BLD 500 35385 9-258 11-04 KS | -5E | | - | |
| | A" CEMENT (SALE) CHLORIDE (50#) | Qty 150.00 400.00 75.00 | .7400 | Total 2242.50 296.00 176.25 | |
| Description 446 CEMENT PUMP (SURFACE) 446 EQUIPMENT MILEAGE (ONE 502 MIN. BULK DELIVERY | WAY) | Hours 1.00 5.00 1.00 | 4.00 | Total 825.00 20.00 350.00 | |

| Parts: Labor: Sublt: | .00 | Freight: Misc: Supplies: | .00 | Tax: Total: Change: | 177.81 4087.56 .00 | AR | 4087.56 |
|----------------------------|---------------------|--------------------------------|-----|---------------------------|--------------------------|----|---------|
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Date Signed OTTAWA, KS 785/242-4044 THAYER, KS 620/839-5269 PONCA CITY, OK 580/762-2303 OAKLEY, KS 785/672-2227 BARTLESVILLE, OK 918/338-0808 EL DORADO, KS 316/322-7022 EUREKA, KS 620/583-7664

GILLETTE, WY 307/686-4914

| | | | Alterna . | | | | · 25 | 385 | | |
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| 1 C | ONSOLIDA | TED | SNV | <u>ខ្លែ</u> ខ្លា | 5 | TICKET NUME | | 303 | | |
| OH West Services, LLC | | | | LOCATION /8 | | | | | | |
| | | | | FOREMAN | | | | orn | | |
| | hanute, KS 6672 or 800-467-8676 | ₀ FIEL | _D TICKET | CEMEN | TMENT REP | | ~15-239 <i>5</i> | 9-00-00- | | |
| DATE | CUSTOMER # | WELL | NAME & NUME | | SECTION | TOWNSHIP | RANGE | COUNTY | | |
| | 851) | Wilson / | | | 9 | 255 | SE | Butler | | |
| 11-4-12 CUSTOMER | | Wilson / | <u>4 # 44</u> | Saft | · · · | | | DCTICT AND AND A | | |
| Vess | <u>م</u> | | | Manky | TRUCK # | DRIVER | TRUCK# | DRIVER | | |
| MAILING ADDRI | ESS · | 1 | | | 446 . | Josh | | | | |
| 1700 | meter frog | <u>t Parkm</u> STATE | xy <i>Bl <u>S</u>ev</i> ZIP CODE | 19 | 502 | Steve | | | | |
| CITY | r İ | | G7226 | de ig sd | \$11 | Jacob | | | | |
| Wichit | | ks | 121/4 |] _HOLE DEPTI | 1.2/3 | CASING SIZE & V | NELOUT OS/A | | | |
| JOB TYPE | | | 12/4 | | 1 | CASING SIZE & V | OTHER | | | |
| | | DRILL PIPE | | | sk | CEMENT LEFT in | | 4 | | |
| SLURRY WEIGH | 11 <u>1763</u> | SLURRY VOL DISPLACEMENT | | | | RATE 4 4 | | · | | |
| | | | | | tion, Mix | | lass A 3 | Y.c. Velb | | |
| | | acie v | ~ifh 14.5 | LII | , , | curcula | | rec 100 | | |
| Poly-Flat | ec disple | acter v | ~17.5 | 06 | Water (| in culci | ting ce | marg 10 | | |
| Surface | Sheet | 1141 | | | | | | | | |
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| ACCOUNT | QUANITY | or IINITS | DE | SCRIPTION O | f SERVICES or PF | | UNIT PRICE | TOTAL | | |
| CODE | | | | | | | | 026.00 | | |
| 54015 | ļ | | PUMP CHARG | ξ | | | 825,00 | <u>825,00</u> 20.00 | | |
| 5406 | 5 | | MILEAGE | 11 | 1 15 | | | | | |
| 5407 | | | min bu | IK I | delivery_ | | 350.00 | 350.00 | | |
| 11045 | 150 | | class | 4 | 1 | <u></u> | 14.95 | 5 | | |
| 1102 | 400 | | calcium poly - | <u>chler</u> | de | | .74 | 296.00 | | |
| 1107 | 75 | | poly - | Flake | | w | 2.35 | 176.25 | | |
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| | | | 1 | ··· <u>··</u> ···· | | <u></u> | Subtotal | 3909.79 | | |
| | 1 | | 1 | | | · · · · · · · · · · · · · · · · · · · | | | | |
| | | | | | _ | | SALES TAX | IR MI | | |
| Ravin 3737 | · · · · · · · · · · · · · · · · · · · | | | TARA | なって | | ESTIMATED | | | |
| | \sim | | | | | | TOTAL | 4087.61 | | |
| AUTHORIZTIO | N Cor | top | | TITLE | | | DATE | <u> </u> | | |

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form

| CONSOLIDATED Oil Well Services, LLC | Consolidated Oil Dep P.O. B | fIIT TO Well Services, LLC t. 970 ox 4346 | MAIN OFFICE P.O. Box 884 Chanute, KS 66720 620/431-9210 • 1-800/467-8676 Fax 620/431-0012 | | |
|---|-----------------------------------|---|---|--|--|
| | Houston, T> | (77210-4346 | NOV 1 6 2012 Invoice # | | |
| INVOICE | | | | | |
| Invoice Date: 11/14/2012 | Cerms: 0/0/30,r | 1/30 | Pag | ge <u>1</u> | |
| VESS OIL CORPORATION 1700 WATER FRONT PKWAY H WICHITA KS 67206 (316)682-1537 | 3LD 500 | WILSON A 445 35339 9-255-5E 11-08-12 KS | | · · | |
| Part Number Descript | | | Unit Price | Total | |
| | L CEMENT L (50# BAG) | 125.00 750.00 | | 2350.00 345.00 | |
| | BASKET 5 1/2" | 2.00 | 229.0000 | 458.00 | |
| | IZER 5 1/2" | | 48.0000 | 化化学 化化学学 化环境 经保证 化氨基苯乙基氨基 法法法法 化合物 化合物 | |
| | HOE AFU 5 1/2" | | | | |
| | LATCH DOWN PLU(SH (SALE) | 500.00 | | 525.00 | |
| Description | | Hours | Unit Price | Total | |
| 502 MIN. BULK DELIVERY | | 1.00 | | 350.00 | |
| 603 CEMENT PUMP | | 1.00 | | 1030.00 | |
| 603 EQUIPMENT MILEAGE (ONE | WAY) | 7.00 | 4.00 | 28.00 | |
| | · · · | | | | |
| | · | • : | | | |
| | | | | 6270.95 | |
| Parts:4564.00 Freight:Labor:.00 Misc:Sublt:.00 Supplies: | | otal: 6270. | 95 AR 95 00 | 04/0.95 | |

Signed

BARTLESVILLE, OK E 918/338-0808

EL DORADO, KS EUREKA, KS 316/322-7022 620/583-7664 PONCA CITY, OK 580/762-2303

19,0K 0 2303 78

OAKLEY, KS 785/672-2227 OTTAWA, KS 785/242-4044 THAYER, KS 620/839-5269

Date

GILLETTE, WY 307/686-4914

| | CONBOLIDATED |
|--|------------------------|
| | Oli Well Services, LLC |

CUSTOMER #



WELL NAME & NUMBER

TICKET NUMBER 35339 LOCATION # 180 FOREMAN Jacob Storm FIELD TICKET & TREATMENT REPORT 401 15-015-23959-00-00 SECTION TOWNSHIP RANGE COUNTY

| PO | Box | 884, | Cha | nute, | KS | 66720 |
|-----|------|-------|-----|-------|------|-------|
| 620 | -431 | -9210 | or | 800- | 467- | 8676 |

DATE

| · | <u> </u> | | | | <u> </u> | | | 4 1 |
|---------------|------------------|----------------|----------------|------------|------------|-----------------|---------------------------------------|--------------|
| 11-8-12 | 8511 | wilson | A 44 | 5 | 9 | 255 | SĒ | Butler |
| CUSTOMER | <u> </u> | | | Safty | | 的时间,这些时间 | | |
| | 0.1 | | | Acating | TRUCK # | DRIVER | TRUCK # | DRIVER |
| MAILING ADDRE | ESS | | | LES | 603 | Jeff | | |
| 1700 W | aterfront | Parkway | BI 0 500 | J.S | 502 | Sterre | | |
| CITY | | STATE Z | IP CODE | 82 | SII | Jacob | | |
| wichit | <u>مر</u> | KS a | 67206 | | • | | | |
| JOB TYPE | ugstring B | HOLE SIZE | 77/8 | HOLE DEPTH | 12495 | CASING SIZE & W | EIGHT 51/2 | |
| CASING DEPTH | 2497 | DRILL PIPE | | TUBING | - <u> </u> | | OTHER | |
| SLURRY WEIGH | | SLURRY VOL | | | k | CEMENT LEFT in | CASING 21 - | L shoe |
| DISPLACEMENT | 60.39 | DISPLACEMENT F | rsi <u>200</u> | MIX PSI 2 | 00 | RATE 6.8 1 | Spm | |
| REMARKS: | | | | | | p Sbbly | | 00001 |
| PU 1100 | <u>, 5 661 m</u> | ater mix | 125 : | sky thi | claset 5 | 1/ Kol-sa | el disp | leccel |
| with 60 | 139 bb | landing | Pluc | at 1 | 250 psi | Checked | floot | -, float hel |
| Jab C | omplete. | J | J | | | | | |
| | V | | | | | ····· | | <u> </u> |
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ACCOUNT QUANITY or UNITS **DESCRIPTION of SERVICES or PRODUCT** UNIT PRICE TOTAL CODE 5401 PUMP CHARGE 1030.00 1030,00 5406 7 MILEAGE 4.00 28,00 bulk delivery 5407 min 350.00 3.50.00 1 1126 125 Thick Set F1.20 2400.00 750 Kol-Seal 1110 À 0.46 345.00 4104 51/2 Basket 229,00 458,00 51/2 4130 Centralizer 48.00 288,00 SVr. AFU Shoe 4159 344.00 344.a 4454 51/2 Latch down 254.00 254,00 5 11446 500 525.00 PV 1100 1.05 Sub total 6022.00 SALES TAX Ravin 3737 ESTIMATED TOTAL baser borto AUTHORIZTION TITLE DATE

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form