

DAMON PETROLEUM COMPANY, INC.  
Hubbard Prospect  
Stauffer Farms #35-1 (Second Hole)  
NW¼ Sec 35, T 4S, R 1W  
Marion County

## DESCRIPTION OF DRILL CUTTINGS

- 0 - 25' Sandy Silt; bron color, soft, feldspathic composition, approximately 15% basalt frags.
- 25 - 60' Silt; tan color, soft, appears to have the same composition as the above sample.
- 60 - 70' Silt; as above described.
- 70 - 85' Very Fine Sandy Silt; gray color, soft, feldspathic composition, approximately 40% basalt fragments.
- 85 - 90' Very Fine Sandy Silt; as above described.
- 90 - 110' Fine Silty Sand; black color, soft, with fine-med. size grains of subangular basalt. Some interbeds of greenish gray, sticky clay.
- 110 - 120' Sand; med. gray color, soft, med.-coarse grains of basalt, subangular, and fragments of light colored volcanic tuff.
- 120 - 135' Sand; med. - dark gray, loose, consisting of angular grains of basalt in a silty matrix.
- 135 - 160' Sand; as above described, some interbedded greenish gray clay, a few scattered fine size fragments of light gray, hard volcanic tuff.
- 160 - 165' Clay; dark greenish gray, very sticky.
- 165 - 185' Sand; grayish black, loose, consisting of sub-rounded, fine - med. size grains of basalt and some fine - med. size fragments of med. - light gray colored volcanic tuff. Probably a water zone.
- 185 - 190' Sand; as above described.

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- 190 - 210' Sand; dark gray, consisting of med. size grains, angular - subangular, in a clayey matrix. Prob a water bearing zone.
- 210 - 235' Gravel; dark gray, consisting of subangular pebbles of basalt, some fragments of volcanic tuff. Probably water bearing. Gravel loosely packed, hard to drill.
- 235 - 260' Sand and Gravel; dark gray color, loosely packed, consists of med. - coarse size grains of basalt and basalt pebbles. Basalt pebbles are subrounded to subangular, a med. gray silty matrix. Probably a water zone.
- 260 - 285' Gravel; consists of grayish black, subround to subangular pebbles of basalt in a clayey silt matrix. Clay bed near bottom. Probably a water bearing zone.
- 285 - 300' Gravel; as above described. Lost mud circulation when drilling through this zone.
- 300 - 306' Gravel; dark gray - black, consists of subround-subangular pebbles of basalt. Probably a water bearing zone.
- 306 - 335' Clay; med. - dark greenish gray, heavy, very sticky.

V. Newton  
Consulting Geologist

STATE ERMIT No. 358

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- 356 - 431' Clay; med-dk gray, sticky, losing mud.
- 431 - 456' Sand; dk gray, fine - medium grained, basaltic, some clay as above.
- 456 - 530' Clay; dk grn gray, soft, sticky, losing mud.
- 530 - 560' Mudstone; dk grn gray, soft - firm.
- 560 - 610' Shale and Mudstone; med - dk gray, firm, brittle shale, losing some mud.
- 610 - 675' Mudstone; dk gray, firm - med soft, and interbeds of dk brn gray, brittle shale, losing some mud.
- 675 - 690' Mudstone and Clay; dk grn gray, sticky, soft-firm.
- 690 - 700' Sand; basaltic, med grained, clayey matrix.
- 700 - 725' Mudstone; dk grn gray, firm, occasional piece of brown colored tuff.
- 725 - 800' Mudstone and Siltstone; med gray, firm, and dk gray, tuffac., clayey siltstone, soft-firm, one frag of brn black waxy substance (contamination?), one frag of white silic. material.
- 800 - 920' Mudstone; med-dk gray, firm, silty, argillac., some coal and blk organic matter, some white volc ash.
- 920 - 951' Siltstone; med gray, firm-soft, with some small coal frags.
- 951 - 976' Sandstone; med gray, fn-med grained, subround-subangular grains of quartz glass and volcanic material, some coal.
- 976 - 1015' Mudstone; dk grn gray, silty, argillac., firm.
- 1015 - 1020' Sandstone; med-dk gray, soft, silty, friable, fn grained, with clear quartz grains and volc. material, clayey matrix.

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- 1020 - 1040' Siltstone; med - dk gray, firm, argillaceous, with fine black particles of coal.
- 1040 - 1061' Mudstone; med gray, argillaceous, firm, with small fragments of coal probably representing thin coal seams.
- 1061 - 1116' Siltstone; med dk gray, soft argillaceous.
- 1116 - 1296' Mudstone; med dk grn gray, argillaceous, firm-very firm, some coal fragments.
- 1296 - 1313' Basalt; black, partially altered, some zeolite.
- 1313 - 1323' Sandstone; med gray, fine grained, firm - v firm, tuffaceous, consisting of angular grains of basalt and some feldspar, clayey matrix, Calcareous.
- 1323 - 1365' Basalt & Basaltic Tuff; black - brownish black, basalt partly altered, basaltic tuff with fine fragments of basalt and zeolite, zeolite probably as veinlets in tuff breccia.
- 1365 - 1440' Basalt, Basaltic Tuff & Volc Ash; blk - brn blk, with some gray-white volcanic ash containing v. small frags of black mineral.
- 1440 - 1466' Basalt; dk gray - black, hard, partly altered, some thin interbeds of med-dk gray shale and volc ash.
- 1466 - 1490' Tuff and Volc Ash; dk brn gray, hard tuff, and grayish white volcanic ash as before.
- 1490 - 1526' Basalt; dk gry-black, hard, partly altered, fracture surfaces covered with grayish white silica and zeolite.
- 1526 - 1541' Basalt & Basaltic Tuff; dk gray - black, with grayish white veinlets of quartz and zeolite.
- 1541 - 1561' Volcanic Ash; med gray, with minute black frags in a grayish white matrix of feldspathic material.
- 1561 - 1611' Basalt; dk gray - black, slightly altered, hard.

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- 1611 - 1641' Shale and Siltstone; med gray, fn sandy, firm, and basaltic siltstone.
- 1641 - 1765' Basalt and Volcanic Ash; black, partly altered, with veinlets of zeolite and quartz, some pieces of calcite, also some grayish white volcanic ash containing minute black fragments, not calc.
- 1765 - 1780' Shale; med grn gray, silty, slightly tuffaceous, some fn sandy shale.
- 1780 - 1815' Basalt and Volc Ash; dk gry-black, micro-xstalline, slightly altered,, hard, some brownish black tuff and grayish white volcanic ash.
- 1815 - 1844' Basaltic Tuff & Volc Ash; brownish black, fn grained basaltic tuff, hard, and grayish white volcanic ash, containing minute black frags and laminae of black organic matter in a feldspathic matrix.
- 1844 - 1890' Basalt and Basaltic Tuff; dk gry-black, partly altered, hard basalt, and brownish black basaltic tuff (some resinous brown walnut hulls used for controlling lost circulation).
- 1890 - 1924' Shale; med grn gray, soft-firm, slightly tuffac.
- 1924 - 1945' Basalt and Basaltic Tuff; black and brownish black, basalt micro-crystalline-aphanitic, tuff fine grained, firm-hard. This rock could be described as a flow breccia.
- 1945 - 1975' Volcanic Ash; med gray, firm, with minute black fragments in a grayish white feldspathic matrix.
- 1975 - 1994' Shale; med gray, slightly tuffaceous, firm - soft, some med-dk gray siltstone.
- 1994 - 2094' Basalt (flow breccia); black, hard, partly altered, aphanitic-microcrystalline with occas. veinlets of milky white quartz and zeolite, some brown-blk basaltic tuff, few pieces of turquoise green glauconite?
- 2094 - 2159' Volcanic Ash; lt-med gray, fine, feldspathic matrix with numerous small black frags, some pieces of shale, claystone and red cinders.

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CUTTINGS DESCRIPTIONS

- 2159 - 2180' Shale and Siltstone; med grn gray, fairly soft, argillaceous.
- 2180 - 2220' Sandstone; lt-med gray, v. fine grained, feldspathic, silty, slightly tuffaceous and fn sandy siltstone.
- 2220 - 2300' Sandstone; loose grains, fine-med size, subangl. grains of quartz and feldspar, some tuffac. material, some glauconite, fairly calcareous.
- 2300 - 2330' Shale; black, firm, some pyrite, some coal, prob as thin seams, some med-dk gray silty shale, abundant white shell fragments.
- 2330 - 2380' Sandstone; loose grains, fine size, arkosic-feldspathic, some glauconite.
- 2380 - 2430' Shale; dull brownish black, silty, abundant white shell fragments, firm-v. firm, some med. grn gray silty shale, some glauconite, some coal.
- 2430 - 2445' Siltstone; med gray, firm, slightly tuffaceous, feldspathic-arkosic, rare mica flakes, some sandy siltstone, not calcareous.
- 2445 - 2460' Shale; black, firm, with abundant white shell fragments, some coal fragments.
- 2460 - 2490' Sandstone; loose grains, fine -med size, angl-subangular grains of clear quartz, feldspar and occasional piece of coal. Some pieces of med-dk gray shale and siltstone. No hydrocarbon fluorescence.
- 2490 - 2510' Sandstone; light gray, v. fine grained, arkosic-feldspathic, partly cemented with lime, some fine size pieces of black organic material, abundant pyrite.
- 2510 - 2525' Shale and Siltstone; as interbedded strata, abundant shell fragments. Specs of dull gold fluorescence and faint pale blue fluorescence.
- 2525 - 2550' Sandstone; lt gray, fine, silty, consisting of angl grains of feldspar and quartz, some pieces of coal.

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CUTTINGS DESCRIPTIONS

- 2550 - 2570' Shale; med gray, firm, argillaceous, and dk gry-black, firm-v. firm, abundant shell fragments, some lt gray and dk gray, firm siltstone.
- 2570 - 2580' Sandstone; loose grains, fn-med size, silty, angl-subangl quartz and feldspar, abundant pyrite, calcareous.
- 2580 - 2595' Sandstone; lt gray, fn-med, silty, composition as above, some coal frags, calcareous. Some specs of dull gold fluorescence, some faint pale blue fluorescence.
- 2595 - 2607' Shale; med-dk gray, firm, occasional shell frags, some coal frags. Faint pale blue fluorescence in cuttings.
- 2607 - 2620' Sandstone; loose grains and frags of fine silty sandstone, arkosic composition, fine - medium size loose grains, slightly calcareous.
- 2620 - 2640' Shale; med-dk gray, and dull black, some brn gray, silty, slightly tuffaceous, some glauconite, some coal.
- 2640 - 2660' Sandstone; loose grains, med size, of feldspar and quartz, subangular, some glauconite, some calcite.
- 2660 - 2690' Sandstone; lt-med gray, fn-med grained, silty, consisting of feldspar and quartz, some volc. frags, some coal.
- 2690 - 2707' Shale; med-dk gray and dull black, firm - v firm.
- 2707 - 2727' Sandstone; lt-med gray, med grained, firm, consisting of feldspar and quartz, argillac., some coal, abundant glauconite.
- 2727 - 2752' Shale; black, v. firm, occasional shell frags.
- 2752' Total Depth

V.C. Newton Jr  
Final Typing 1/19/87