Gulf Pittsburg-Midway Strat Well PM-8

HOLE NO.

DEPARTMENT OF THE ARMY

DRILLING LOG

1. PROJECT — SHEET OF

2. LOCATION (Coordinates or Station) NE NE NE Sec. 5 T32S R23E

3. DRILLING AGENCY P+M (Gulf Minerals)

4. HOLE NO. (As shown on drawing title and file No.) P+M # 8

5. NAME OF DRILLER

6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED — DEGREES WITH VERTICAL

7. THICKNESS OF OVERBURDEN

8. DEPTH DRILLED INTO ROCK

9. TOTAL DEPTH OF HOLE

10. SIZE AND TYPE OF BIT

11. DATUM FOR ELEVATION SHOWN (TBM or MSL)

12. MANUFACTURER'S DESIGNATION OF DRILL

13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN — DISTURBED — UNDISTURBED

14. TOTAL NO. CORE BOXES

15. ELEV. GROUND WATER

16. DATE HOLE STARTED — COMPLETED

17. ELEV. TOP OF HOLE 905

18. TOTAL CORE RECOVERY FOR BORING (%)

19. SIGNATURE OF INSPECTOR

| ELEVATION | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS (description) | % CORE RECOVERY | BOX OR SAMPLE NO. | REMARKS (drilling time, water loss, depth of weathering, etc., if significant) |
|---|---|---|---|---|---|---|
| | | | | | #4 | (logged by John Harris) |

5-32-23c

All core in top 4 boxes is not in the correct stratigraphic order.

Good Scammon coal @ 78'-80'

unnamed L.S. development

good Mineral Coal at ≈ 50'-51.9'

Box #31 missing

Found & replaced 8-83

pull point 80 — mudstone, same unit as below.

HOLE NO. _____

DEPARTMENT OF THE ARMY

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INSTALLATION _____

DRILLING LOG

| | | |
|---|---|---|
| 1. PROJECT | | SHEET OF |
| 2. LOCATION (Coordinates or Station) | | |
| 3. DRILLING AGENCY | | |
| 4. HOLE NO. (As shown on drawing title and file No.) | 5. NAME OF DRILLER | |
| 6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL | 7. THICKNESS OF OVER-BURDEN | 8. DEPTH DRILLED INTO ROCK / 9. TOTAL DEPTH OF HOLE |
| 10. SIZE AND TYPE OF BIT | 11. DATUM FOR ELEVATION SHOWN (TBM or MSL) | 12. MANUFACTURER'S DESIGNATION OF DRILL |
| 13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED / UNDISTURBED | 14. TOTAL NO. CORE BOXES | 15. ELEV. GROUND WATER / 16. DATE HOLE: STARTED / COMPLETED |
| 17. ELEV. TOP OF HOLE | 18. TOTAL CORE RECOVERY FOR BORING (%) | 19. SIGNATURE OF INSPECTOR |

| ELEVATION | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS (Description) | % CORE RECOVERY | BOX OR SAMPLE NO. | REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) |
|---|---|---|---|---|---|---|
| | 80 | | Mudstone, lt gy (N7) at base to med gy (N5) at top, silty, soft, blocky fracture, abundant plant fragments, no evidence of bedding, gradational lower contact. | | #5 | |
| | 81 | | | 3.2' | | |
| | 82 | | | | | |
| | 83 | | Sandstone - lt gy (N7) with brown staining, very fine grained, poorly sorted, abundant mud matrix, qtz, micaceous comp., few muddy lenses, ripple cross laminated, few small plant frags, few authigenic siderite crystals and clay ironstone nodules to 0.5" in diameter. gradational lower contact with shale. | | | Chelsea S.S. |
| | 84 | | | | | |
| | 85 | | | 10.4' | | |
| | 86 | | | | | |
| | 87 | | | | | |
| | 88 | | | | | |
| | 89 | | | | | |
| | 90 | | | | | |

Core re-arranged in this interval!

ENG FORM 1836 (TRANSLUCENT) 1 JUN 57 PREVIOUS EDITIONS ARE OBSOLETE (EM 1110-2-1801)

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY
DIVISION _____
INSTALLATION _____

DRILLING LOG

1. PROJECT | SHEET OF

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3. DRILLING AGENCY

4. HOLE NO. (As shown on drawing title and file No.)

5. NAME OF DRILLER

| 6. DIRECTION OF HOLE | | | 7. THICKNESS OF OVER-BURDEN | 8. DEPTH DRILLED INTO ROCK | 9. TOTAL DEPTH OF HOLE |
|---|---|---|---|---|---|
| ☐ VERTICAL | ☐ INCLINED | DEGREES WITH VERTICAL | | | |

| 10. SIZE AND TYPE OF BIT | 11. DATUM FOR ELEVATION SHOWN (TBM or MSL) | 12. MANUFACTURER'S DESIGNATION OF DRILL |
|---|---|---|

| 13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN | | 14. TOTAL NO. CORE BOXES | 15. ELEV. GROUND WATER | 16. DATE HOLE | |
|---|---|---|---|---|---|
| DISTURBED | UNDISTURBED | | | STARTED | COMPLETED |

| 17. ELEV. TOP OF HOLE | 18. TOTAL CORE RECOVERY FOR BORING (%) | 19. SIGNATURE OF INSPECTOR |
|---|---|---|

| ELEVATION | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS (description) | % CORE RECOVERY | BOX OR SAMPLE NO. | REMARKS (drilling time, water loss, depth of weathering, etc., if significant) |
|---|---|---|---|---|---|---|
| | 90 | | Sandstone, same unit as above. | | 6 | |
| | 91 | | | 10.4' | | |
| | 92 | | Shale, med. brownish gy (5YR 5/1), with lt gy (N7) silty laminae up to 0.3" thick. thin horizontal lam., non-fossiliferous, silty zones ripple cross laminated, abundant soft sediment deformation near silty zones due to differential compaction, abundant brown staining, gradational lower contact, | | | |
| | 93 | | | | | |
| | 94 | | | 4.5' | | |
| | 95 | | | | | |
| | 96 | | | | | |
| | 97 | | 5' core loss 96.5' - 101.5' probably shale. | | | |
| | 98 | | | 5' | | |
| | 99 | | | | | |
| | 100 | | | | | |

Core re-arranged in this interval!

HOLE NO. _____

DEPARTMENT OF THE ARMY

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INSTALLATION _____

DRILLING LOG

| | | |
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| 3. DRILLING AGENCY | | |
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| 10. SIZE AND TYPE OF BIT | 11. DATUM FOR ELEVATION SHOWN (TBM or MSL) | 12. MANUFACTURER'S DESIGNATION OF DRILL |
| 13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED / UNDISTURBED | 14. TOTAL NO. CORE BOXES | 15. ELEV. GROUND WATER / 16. DATE HOLE: STARTED / COMPLETED |
| 17. ELEV. TOP OF HOLE | 18. TOTAL CORE RECOVERY FOR BORING (%) | 19. SIGNATURE OF INSPECTOR |

| ELEVATION | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS (Description) | % CORE RECOVERY | BOX OR SAMPLE NO. | REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) |
|---|---|---|---|---|---|---|
| | 100 | | 5' core loss 96.5' - 101.5' | 5' | 6 | |
| | 101 | | | | | |
| | 102 | | Shale med. brownish gy (5YR 5/1), same unit as above, | | | |
| | 103 | | | | | |
| | 104 | | | 5' | Box 6 104' | |
| | 105 | | | | Box 7 | |
| | 106 | | | | | |
| | 107 | | 6' of core lost 106.5' - 112.5' | 6' | | |
| | 108 | | | | | |
| | 109 | | | | | |
| | 110 | | | | | |

Core re-arranged in this interval!

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DRILLING LOG

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2. LOCATION (Coordinates or Station)

3. DRILLING AGENCY

4. HOLE NO. (As shown on drawing title and file No.)

5. NAME OF DRILLER

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7. THICKNESS OF OVERBURDEN

8. DEPTH DRILLED INTO ROCK

9. TOTAL DEPTH OF HOLE

10. SIZE AND TYPE OF BIT

11. DATUM FOR ELEVATION SHOWN (TBM or MSL)

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14. TOTAL NO. CORE BOXES

15. ELEV. GROUND WATER

16. DATE HOLE: STARTED | COMPLETED

17. ELEV. TOP OF HOLE

18. TOTAL CORE RECOVERY FOR BORING (%)

19. SIGNATURE OF INSPECTOR

| ELEVATION | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS (Description) | % CORE RECOVERY | BOX OR SAMPLE NO. | REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) |
|---|---|---|---|---|---|---|
| | 110 | | 106.5' - 112.5' | | 1 | |
| | 111 | | 6' of core lost | 6' | | |
| | 112 | | | | | |
| | 113 | | Shale, med gy (N5), at base to med lt gy (N6) at top, claystone, micaceous, hard, thin horizontal laminae, few pyritized plant remains, clay ironstone bands and pyrite nodules to 0.5" thick. gradational lower contact. | | | |
| | 114 | | | | | |
| | 115 | | | | | |
| | 116 | | | 7.5' | | |
| | 117 | | | | | |
| | 118 | | | | | |
| | 119 | | | | Box 1 120' | |
| | 120 | | | | | |

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| 3. DRILLING AGENCY | | |
| 4. HOLE NO. (As shown on drawing title and file No.) | 5. NAME OF DRILLER | |

| 6. DIRECTION OF HOLE | | | 7. THICKNESS OF OVER-BURDEN | 8. DEPTH DRILLED INTO ROCK | 9. TOTAL DEPTH OF HOLE |
|---|---|---|---|---|---|
| ☐ VERTICAL | ☐ INCLINED | DEGREES WITH VERTICAL | | | |
| 10. SIZE AND TYPE OF BIT | 11. DATUM FOR ELEVATION SHOWN (TBM or MSL) | | 12. MANUFACTURER'S DESIGNATION OF DRILL | | |

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|---|---|---|---|---|---|
| DISTURBED | UNDISTURBED | | | STARTED | COMPLETED |
| 17. ELEV. TOP OF HOLE | 18. TOTAL CORE RECOVERY FOR BORING (%) | | 19. SIGNATURE OF INSPECTOR | | |

| ELEVATION | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS (Description) | % CORE RECOVERY | BOX OR SAMPLE NO. | REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) |
|---|---|---|---|---|---|---|
| | 120 | | Shale, dk gy (N3), claystone, hard, micaceous, thin horizontal laminae, non-fossiliferous, clay ironstone bands up to 0.3' thick, sharp lower contact with coal. | 4.8' | Box 8 | |
| | 121 | | | | | |
| | 122 | | | | | |
| | 123 | | | | | |
| | 124 | | | | | |
| | 125 | | Coal, blk (N1), hard, brittle, banded mod bright, sulfate bloom, sharp contacts. | 0.8' | | Tebo "B" coal ~~Weir Pittsburg~~ |
| | 126 | | Mudstone, lt gy (N7), slightly silty, hard, blocky fracture, no evidence of bedding, abundant plant fragments, few irregular clay ironstone nodules, gradational lower contact. | 2.4' | | |
| | 127 | | | | | |
| | 128 | | | | | |
| | 129 | | Shale, lt gy (N7), mudstone, silty, micaceous, moderately hard, thin horizontal laminae, clay ironstone nodules and authigenic siderite crystals, few small plant frags, grad. lower contact. | 16.5' | 130' | |
| | 130 | | | | | |

Core re-arranged in this interval!

Pull point →

HOLE NO. _____

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| | | |
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| 17. ELEV. TOP OF HOLE | 18. TOTAL CORE RECOVERY FOR BORING (%) | 19. SIGNATURE OF INSPECTOR |

| ELEVATION | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS (description) | % CORE RECOVERY | BOX OR SAMPLE NO. | REMARKS (drilling time, water loss, depth of weathering, etc., if significant) |
|---|---|---|---|---|---|---|
| | 130 | | Shale, lt gy (N7), same unit as described above. | | 9 | |
| | 131 | | Wavy bedded w/ convolute bedding | | | |
| | 132 | | | | | |
| | 133 | | | | | |
| | 134 | | | | | |
| | 135 | | | 16.5' | | |
| | 136 | | | | | |
| | 137 | | | | | |
| | 138 | | | | | |
| | 139 | | | | | |
| | 140 | | | | | |

Core re-arranged in this interval!

HOLE NO. _____

DEPARTMENT OF THE ARMY
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| ELEVATION | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS (Description) | % CORE RECOVERY | BOX OR SAMPLE NO. | REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) |
|---|---|---|---|---|---|---|
| | 140 | | Shale - lt gy (N7), same unit as above. | | 10 | |
| | 141 | | | | | |
| | 142 | | | 16.5' | | |
| | 143 | | | | | |
| | 144 | | | | | |
| | 145 | | Shale, med lt gy (N6), mudstone, soft, few thin lt gy (N7) silty laminae, thin horizontal laminae non-fossiliferous, small amount of soft sediment deformation, clay ironstone bands to 0.2' thick, brown staining, lower contact not observed. | | | |
| | 146 | | | 3.6' | | |
| | 147 | | | | | |
| | 148 | | | | | |
| | 149 | | 15' of core lost 148' - 163' | 15' | | |
| | 150 | | | | | |

Core re-arranged in this interval!

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|---|---|---|---|---|---|
| ☐ VERTICAL | ☐ INCLINED | DEGREES WITH VERTICAL | | | |

| 10. SIZE AND TYPE OF BIT | 11. DATUM FOR ELEVATION SHOWN (TBM or MSL) | 12. MANUFACTURER'S DESIGNATION OF DRILL |
|---|---|---|
| | | |

| 13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN | | 14. TOTAL NO. CORE BOXES | 15. ELEV. GROUND WATER | 16. DATE HOLE | |
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| | | |

| ELEVATION | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS (Description) | % CORE RECOVERY | BOX OR SAMPLE NO. | REMARKS (drilling time, water loss, depth of weathering, etc., if significant) |
|---|---|---|---|---|---|---|
| | 150 | | | | 10 | |
| | 151 | | 15' of core lost | | | |
| | 152 | | 148'-163' | | | |
| | 153 | | | | | |
| | 154 | | | | | |
| | 155 | | | 15' | | |
| | 156 | | | | | |
| | 157 | | | | | |
| | 158 | | | | | |
| | 159 | | | | | |
| | 160 | | | | | |

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17. ELEV. TOP OF HOLE

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|---|---|---|---|---|---|---|
| | 160 | | 15' of core lost 148'-163' | 15' | 10 | |
| | 161 | | | | | |
| | 162 | | | | | |
| | 163 | | | | Box 10 163.6' | |
| | | | Shale, med gy (N5), mudstone, slightly silty, micaceous, mod. hard, thin horizontal laminae, non-fossiliferous, clay ironstone bands to 0.1' thick, yellowish brown stains common, some localized calcareous cement, sharp lower contact with coal. | 8.3' | Box 11 | |
| | 164 | | | | | |
| | 165 | T | | | | |
| | pull pt. | | | | | |
| | 166 | T | | | | |
| | 167 | | | | | |
| | 168 | T | | | | |
| | 169 | T | | | | |
| | 170 | | | | | |

Core re-arranged in this interval!!

ENG FORM 1836 (TRANSLUCENT) 1 JUN 57 (EM 1110-2-1801) PREVIOUS EDITIONS ARE OBSOLETE

PROJECT _____ HOLE NO. _____

HOLE NO. _____

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|---|---|---|---|---|---|---|
| | 170 | | (Pull point 170') Shale, same as above. | 8.3' | | |
| | 171 | | Coal, blk (N1), banded, mod. bright, hard, brittle, sulfate bloom sharp contacts, | 0.3' | | "A" Bluejacket coal |
| | 172 | | Mudstone, med ltgy (N6), silty, soft, blocky fracture, no evidence of bedding, abundant plant frags., few small clay ironstone nodules, gradational lower contact. | 2.1' | Box 11 173 | |
| | 173 | | | | | |
| | 174 | | Shale, med H gy (N6), at base grading to med dk gy (N4) at top. mudstone, slightly silty, micaceous, moderately hard, thin horizontal laminae, thin lt gy silty lenses, non-fossiliferous, clay ironstone bands and nodules to 0.1' thick, few sandsized authigenic siderite crystals, gradational lower contact. | 6.8' | Box 12 | |
| | 175 | | | | | |
| | 176 | | | | | |
| | 177 | | | | | |
| | 178 | | | | | |
| | 179 | | | | | |
| | 180 | | | | | |

Core re-arranged in this interval!

HOLE NO. _____

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|---|---|---|---|---|---|
| ☐ VERTICAL | ☐ INCLINED | DEGREES WITH VERTICAL | | | |

| 10. SIZE AND TYPE OF BIT | 11. DATUM FOR ELEVATION SHOWN (TBM or MSL) | 12. MANUFACTURER'S DESIGNATION OF DRILL |
|---|---|---|

| 13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN | | 14. TOTAL NO. CORE BOXES | 15. ELEV. GROUND WATER | 16. DATE HOLE | |
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| DISTURBED | UNDISTURBED | | | STARTED | COMPLETED |

| 17. ELEV. TOP OF HOLE | 18. TOTAL CORE RECOVERY FOR BORING (%) | 19. SIGNATURE OF INSPECTOR |
|---|---|---|

| ELEVATION | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS (Description) | % CORE RECOVERY | BOX OR SAMPLE NO. | REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) |
|---|---|---|---|---|---|---|
| | 180 | | Shale, dk gy(N3), claystone, hard, thin horizontal lams, non-fossiliferous, clay ironstone nodules to 0.1' diameter, sharp lower contact with coal, | 4.4' | Box 12 183 | |
| | 181 | | | | | |
| | 182 | | | | | |
| | 183 | | | | Box 13 | |
| | 184 | | Coal, blk(N1), hard, brittle, banded, mod. bright, sulfate bloom and calc. cement in fracs, sharp contacts. | 0.6' | | "B" Bluejacket coal |
| | 185 | | Mudstone - lt gy(N7), at base to medgy(N5) at top, slightly silty, soft, blocky fracture, abundant plant fragments, no evidence of bedding, authigenic siderite crystals and small clay ironstone nodules, gradational lower contact. | 4' | | "Underclay" |
| | 186 | | | | | |
| | 187 | | | | | |
| | 188 | | | | | |
| | 189 | | Siltstone - same unit as below, described on next page. | 3.5' | | |
| | 190 | | | | | |

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1. PROJECT | SHEET OF
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|---|---|---|---|---|---|
| ☐ VERTICAL | ☐ INCLINED | DEGREES WITH VERTICAL | | | |

| 10. SIZE AND TYPE OF BIT | 11. DATUM FOR ELEVATION SHOWN (TBM or MSL) | 12. MANUFACTURER'S DESIGNATION OF DRILL |
|---|---|---|

| 13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN | | 14. TOTAL NO. CORE BOXES | 15. ELEV. GROUND WATER | 16. DATE HOLE | |
|---|---|---|---|---|---|
| DISTURBED | UNDISTURBED | | | STARTED | COMPLETED |

| 17. ELEV. TOP OF HOLE | 18. TOTAL CORE RECOVERY FOR BORING (%) | 19. SIGNATURE OF INSPECTOR |
|---|---|---|

| ELEVATION | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS (Description) | % CORE RECOVERY | BOX OR SAMPLE NO. | REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) |
|---|---|---|---|---|---|---|
| | 190 | | Siltstone – lt gy (N7), hard, qtz, micaceous comp., thinly laminated with ripple cross laminae, few very small plant fragments, authigenic siderite crystals and clay ironstone nodules, gradational lower contact. | 3.5' | | |
| | 191 | | | | | |
| | 192 | | | | Box 13 | |
| | | | | | 193 | |
| | 193 | | Sandstone – lt brownish gy (5YR 7/1), very fine grained, poorly sorted, abundant mud matrix, thin bedded, multi-directional ripple cross lamination, few small plant fragments, few authigenic siderite crystals, some brown oil stains, gradational lower contact. | | Box 14 | Upper Bluejacket S.S. |
| | 194 | | | | | |
| | 195 | | | 6.7' | | |
| | 196 | | lg. scale ripples up to 6 cm Sets. | | | |
| | 197 | | | | | |
| | 198 | | | | | |
| | 199 | | | | | |
| | | | Siltstone, same as below, described on next page. | 6' | | |
| | 200 | | | | | |

Core re-arranged in this interval.

HOLE NO. _____

DEPARTMENT OF THE ARMY

DIVISION _____

INSTALLATION _____

DRILLING LOG

| | | |
|---|---|---|
| 1. PROJECT | | SHEET OF |
| 2. LOCATION (Coordinates or Station) | | |
| 3. DRILLING AGENCY | | |
| 4. HOLE NO. (As shown on drawing title and file No.) | 5. NAME OF DRILLER | |
| 6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL | 7. THICKNESS OF OVERBURDEN | 8. DEPTH DRILLED INTO ROCK / 9. TOTAL DEPTH OF HOLE |
| 10. SIZE AND TYPE OF BIT | 11. DATUM FOR ELEVATION SHOWN (TBM or MSL) | 12. MANUFACTURER'S DESIGNATION OF DRILL |
| 13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED / UNDISTURBED | 14. TOTAL NO. CORE BOXES | 15. ELEV. GROUND WATER / 16. DATE HOLE: STARTED / COMPLETED |
| 17. ELEV. TOP OF HOLE | 18. TOTAL CORE RECOVERY FOR BORING (%) | 19. SIGNATURE OF INSPECTOR |

| ELEVATION | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS (description) | % CORE RECOVERY | BOX OR SAMPLE NO. | REMARKS (drilling time, water loss, depth of weathering, etc., if significant) |
|---|---|---|---|---|---|---|
| | 200 | | Siltstone, alternating v lt gy (N8) and med H gy (N6) laminae, hard, qtz, micaceous comp., wavy bedded, silty zones show ripple cross laminae, few, small plant fragments, small irregular clay ironstone nodules, sharp, ~~erosional~~ lower contact. not scoured, rapid prograd. | 6' | Box 14 203 Box 15 | |
| | 205 | | Shale, dk gy (N3), claystone, micaceous, soft, thin horizontal laminae, clay ironstone bands 0.5" thick, sharp lower contact. | 1.3' | | |
| | 206 | | Shale, med lt gy (N6), mudstone, hard, calcareous cement, brachs and marine fossils, sharp lower contact | 0.8' | | Limestone possibly "Seville" |
| | 207 | | Coal, blk (N1), hard, banded, mod. bright sulfate bloom, sharp contacts, | 0.3' | | "C" Blue Jacket coal |
| | 208 | | Mudstone, med lt gy (N6), slightly silty, soft, blocky – conchoidal fracture, no evidence of bedding, few plant fragments, sand sized authigenic siderite crystals and clay ironstone nodules, gradational lower contact. | 4.2' | | "Underclay" |
| | 209 | | | | | |
| | 210 | | | | | |

core re-arranged in this interval!

HOLE NO. _____

DEPARTMENT OF THE ARMY

DIVISION _____

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DRILLING LOG

| | | |
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| 4. HOLE NO. (As shown on drawing title and file No.) | 5. NAME OF DRILLER | |
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| 10. SIZE AND TYPE OF BIT | 11. DATUM FOR ELEVATION SHOWN (TBM or MSL) | 12. MANUFACTURER'S DESIGNATION OF DRILL |
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| 17. ELEV. TOP OF HOLE | 18. TOTAL CORE RECOVERY FOR BORING (%) | 19. SIGNATURE OF INSPECTOR |

| ELEVATION | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS (Description) | % CORE RECOVERY | BOX OR SAMPLE NO. | REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) |
|---|---|---|---|---|---|---|
| | 210 | | Mudstone, same unit as above. | 4.2' | | |
| | 211 | | | | | |
| | 212 | | Shale, med dk gy (N4), mudstone, few very thin lt gy silty laminae, micaceous, hard, thin horizontal laminae, some portions bioturbated, few clay ironstone bands 0.2" thick brown staining, sharp lower contact. | | Box 15 212.7 | |
| | 213 | | | | Box 16 | |
| | 214 | | | | | |
| | 215 | | | 12.5' | | |
| | 216 | | | | | |
| | 217 | | | | | |
| | 218 | | | | | |
| | 219 | | | | | |
| | 220 | | | | | |

Core re-arranged in this interval.

HOLE NO. _____

DEPARTMENT OF THE ARMY
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INSTALLATION _____
DRILLING LOG

1. PROJECT | SHEET OF
2. LOCATION (Coordinates or Station)
3. DRILLING AGENCY
4. HOLE NO. (As shown on drawing title and file No.)
5. NAME OF DRILLER
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED | DEGREES WITH VERTICAL
7. THICKNESS OF OVER-BURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE
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15. ELEV. GROUND WATER
16. DATE HOLE: STARTED | COMPLETED
17. ELEV. TOP OF HOLE
18. TOTAL CORE RECOVERY FOR BORING (%)
19. SIGNATURE OF INSPECTOR

| ELEVATION | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS (description) | % CORE RECOVERY | BOX OR SAMPLE NO. | REMARKS (drilling time, water loss, depth of weathering, etc., if significant) |
|---|---|---|---|---|---|---|
| | 220 | | Shale, same unit as above! | | | |
| | 221 | | | | | |
| | 222 | | | 12.5' | Box 16 | |
| | | | | | 222.5 | |
| | 223 | | | | Box 17 | |
| | 224 | | Coal, blk(N1), hard, banded, mod. bright, sulfate bloom, sharp contacts. | 0.3' | | Bluejacket D coal |
| | | | Mudstone, same unit as below. | 0.4' | | "Underclay" |
| | 225 | | 1.0' Core loss 225' - 226' | 1.0' | | |
| | 226 | | Mudstone - med gy(N5), soft, blocky fracture, slightly silty, no evidence of bedding, abundant plant frags, white spots at base may be weathered marine fossils, but are unrecognizable, few small clay ironstone nodules, sharp upper and lower contacts with coal. | 3.3' | | possible split may be Bluejacket "D" & "E" coals? |
| | 227 | | | | | |
| | 228 | | | | | |
| | 229 | | | | | |
| | pull pt. 230 | | Coal - blk(N1), hard, banded, mod. bright, sulfate bloom, sharp contacts | 1.0' | | Unnamed coal |

core re-arranged in this interval!

HOLE NO. _____

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15. ELEV. GROUND WATER
16. DATE HOLE: STARTED | COMPLETED
17. ELEV. TOP OF HOLE
18. TOTAL CORE RECOVERY FOR BORING (%)
19. SIGNATURE OF INSPECTOR

| ELEVATION | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS (Description) | % CORE RECOVERY | BOX OR SAMPLE NO. | REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) |
|---|---|---|---|---|---|---|
| | 230 | | Coal, same as above | 1.0' | | Unnamed coal "Underclay" |
| | 231 | | Mudstone, med lt gy (N6) at base to med gy (N5) just below coal, soft, blocky-parallel fracture, slightly silty, no evidence of bedding, abundant plant fragments, few sand sized authigenic siderite crystals, gradational lower contact. | 3.4' | Box 17 233.3 | |
| | 232 | | | | | |
| | 233 | | | | | |
| | 234 | | Shale, med lt gy (N6), mudstone, slightly silty, with few very thin silty lenses, soft, thin horizontal laminae, few authigenic siderite crystals and brown stains near base, gradational upper and lower contacts. | 4.5' | Box 18 | |
| | 235 | | | | | |
| | 236 | | | | | |
| | 237 | | | | | |
| | 238 | | | | | |
| | 239 | | Mudstone, med lt gy (N6) slightly silty, micaceous, soft, blocky fracture, thin horizontal lams, non-fossiliferous, authigenic siderite crystals, gradational lower contact. | 3' | | D.W. horizon |
| | 240 | | | | | |

Core re-arranged in this interval!

HOLE NO. _____

DEPARTMENT OF THE ARMY
DIVISION _____
INSTALLATION _____

**DRILLING LOG**

| | | |
|---|---|---|
| 1. PROJECT | | SHEET OF |
| 2. LOCATION (Coordinates or Station) | | |
| 3. DRILLING AGENCY | | |
| 4. HOLE NO. (As shown on drawing title and file No.) | 5. NAME OF DRILLER | |
| 6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL | 7. THICKNESS OF OVER-BURDEN | 8. DEPTH DRILLED INTO ROCK / 9. TOTAL DEPTH OF HOLE |
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| 17. ELEV. TOP OF HOLE | 18. TOTAL CORE RECOVERY FOR BORING (%) | 19. SIGNATURE OF INSPECTOR |

| ELEVATION | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS (Description) | % CORE RECOVERY | BOX OR SAMPLE NO. | REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) |
|---|---|---|---|---|---|---|
| | 240 | | Mudstone, same unit as above. | 3' | | |
| | 241 | | | | | |
| | | | 1.4' core loss 241.2' - 242.6' | 1.4' | | |
| | 242 | | | | | |
| | | | Mudstone, same unit as above. | 1.8' | | |
| | 243 | | | | | |
| | 244 | | | | Box 18 244.4' | |
| | | | 1.4' core loss 244.4' - 245.8' | 1.4' | Box 19 | |
| | 245 | | | | | |
| | 246 | | Mudstone, same unit as above. | 3' | | |
| | 247 | | | | | |
| | 248 | | | | | |
| | 249 | | Shale, same unit as below, described on next page. | 5.5' | | |
| | 250 | | | | | |

Core re-arranged in this interval!

ENG FORM 1836 1 JUN 57 (TRANSLUCENT) PREVIOUS EDITIONS ARE OBSOLETE (EM 1110-2-1801)

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY
DIVISION _____
INSTALLATION _____
DRILLING LOG

1. PROJECT | SHEET OF
2. LOCATION (Coordinates or Station)
3. DRILLING AGENCY
4. HOLE NO. (As shown on drawing title and file No.)
5. NAME OF DRILLER
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL
7. THICKNESS OF OVER-BURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE
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14. TOTAL NO. CORE BOXES
15. ELEV. GROUND WATER
16. DATE HOLE: STARTED | COMPLETED
17. ELEV. TOP OF HOLE
18. TOTAL CORE RECOVERY FOR BORING (%)
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| ELEVATION | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS (Description) | % CORE RECOVERY | BOX OR SAMPLE NO. | REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) |
|---|---|---|---|---|---|---|
| | 250 | | Shale, dk gy (N3), claystone, hard, thin horizontal laminae, micaceous, few small pyritized plant fragments, clay ironstone bands to 0.1' thick, and irregular clay ironstone nodules to 0.2' dia. sharp lower contact with coal, | 5.5' | Box 19 | |
| | 251 | | | | | |
| | 252 | | | | | |
| | 253 | | | | | |
| | 254 | | | | | |
| | 255 | | Coal, blk (N1), hard, banded, mod. bright, whited yellow sulfate bloom, sharp contacts. | 0.9' | 255.7 Box 20 | Rowe coal ~~Neutral~~ ? ~~Lower~~ "Underclay" |
| | 256 | | Mudstone - med lt gy (N6), slightly silty, soft, blocky fracture, no evidence of bedding, abundant plant fragments, few clay ironstone nodules near base, 0.5" dia., gradational lower contact, | 3.4' | | |
| | 257 | | | | | |
| | 258 | | | | | |
| | 259 | | Shale, same as below, described on next page. | 7' | | |
| | 260 | | | | | |

core re-arranged in this interval!

HOLE NO. _____

DEPARTMENT OF THE ARMY

DIVISION _____

INSTALLATION _____

DRILLING LOG

| | | |
|---|---|---|
| 1. PROJECT | | SHEET OF |
| 2. LOCATION (Coordinates or Station) | | |
| 3. DRILLING AGENCY | | |
| 4. HOLE NO. (As shown on drawing title and file No.) | 5. NAME OF DRILLER | |
| 6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL | 7. THICKNESS OF OVER-BURDEN | 8. DEPTH DRILLED INTO ROCK / 9. TOTAL DEPTH OF HOLE |
| 10. SIZE AND TYPE OF BIT | 11. DATUM FOR ELEVATION SHOWN (TBM or MSL) | 12. MANUFACTURER'S DESIGNATION OF DRILL |
| 13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED / UNDISTURBED | 14. TOTAL NO. CORE BOXES | 15. ELEV. GROUND WATER / 16. DATE HOLE: STARTED / COMPLETED |
| 17. ELEV. TOP OF HOLE | 18. TOTAL CORE RECOVERY FOR BORING (%) | 19. SIGNATURE OF INSPECTOR |

| ELEVATION | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS (Description) | % CORE RECOVERY | BOX OR SAMPLE NO. | REMARKS (drilling time, water loss, depth of weathering, etc., if significant) |
|---|---|---|---|---|---|---|
| | 260 | | Shale, med lt gy, (N6), mudstone, hard, few thin silty laminae, lenticular bedded, non-fossiliferous, few small clay iron stone nodules and sand sized authigenic siderite crystals. sharp lower contact marked by clay iron stone band. | 7' | Box 20 265.6 | |
| | 261 | | | | | |
| | 262 | | | | | |
| | 263 | | | | | |
| | 264 | | | | | |
| | 265 | | | | | |
| | 266 | XXX | Shale, dk gy (N3), clay stone, soft, micaceous, thin horizontal laminae, non-fossiliferous, brown staining, 0.3' clay ironstone band at top of unit, sharp lower contact, uniform color and composition | 10.5' | Box 21 | |
| | 267 | | | | | |
| | 268 | | | | | |
| | 269 | | | | | |
| | 270 | | | | | |

core re-arranged in this interval!

HOLE NO. _____

DEPARTMENT OF THE ARMY

DIVISION _____

INSTALLATION _____

DRILLING LOG

1. PROJECT | SHEET OF

2. LOCATION (Coordinates or Station)

3. DRILLING AGENCY

4. HOLE NO. (As shown on drawing title and file No.)

5. NAME OF DRILLER

| 6. DIRECTION OF HOLE | | | 7. THICKNESS OF OVER-BURDEN | 8. DEPTH DRILLED INTO ROCK | 9. TOTAL DEPTH OF HOLE |
|---|---|---|---|---|---|
| ☐ VERTICAL | ☐ INCLINED | DEGREES WITH VERTICAL | | | |

| 10. SIZE AND TYPE OF BIT | 11. DATUM FOR ELEVATION SHOWN (TBM or MSL) | 12. MANUFACTURER'S DESIGNATION OF DRILL |
|---|---|---|

| 13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN | | 14. TOTAL NO. CORE BOXES | 15. ELEV. GROUND WATER | 16. DATE HOLE | |
|---|---|---|---|---|---|
| DISTURBED | UNDISTURBED | | | STARTED | COMPLETED |

| 17. ELEV. TOP OF HOLE | 18. TOTAL CORE RECOVERY FOR BORING (%) | 19. SIGNATURE OF INSPECTOR |
|---|---|---|

| ELEVATION | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS (Description) | % CORE RECOVERY | BOX OR SAMPLE NO. | REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) |
|---|---|---|---|---|---|---|
| | 270 | | Shale, same unit as above. | | | |
| | 271 | | | | | |
| | 272 | | | | | |
| | 273 | | | 10.5' | | |
| | 274 | | | | Box 21 | |
| | 275 | X | 0.5' core loss 275'-275.5 | 0.5' | 275.5 | |
| | | | Shale, same unit as above. | 0.5' | Box 22 | Neutral horizon? resembles an "underclay" |
| | 276 | | Mudstone, med gy(N5) at base to lt gy(N7) at top. slightly silty, thin horizontal laminae at base becoming less evident near top, abundant plant fragments, clay ironstone nodules to 0.1' dia, sand sized authigenic siderite crystals, gradational lower contact, lighter color than surrounding units. | | | |
| | 277 | | | | | |
| | 278 | | | 5' | | |
| | 279 | | | | | |
| | 280 | | | | | |

core re-arranged in this interval!

ENG FORM 1836 (TRANSLUCENT) 1 JUN 57 PREVIOUS EDITIONS ARE OBSOLETE (EM 1110-2-1801) PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY
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INSTALLATION _____

DRILLING LOG

| | | |
|---|---|---|
| | 1. PROJECT | SHEET OF |
| | 2. LOCATION (Coordinates or Station) | |
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| 4. HOLE NO. (As shown on drawing title and file No.) | 5. NAME OF DRILLER | |

| 6. DIRECTION OF HOLE | | | 7. THICKNESS OF OVER-BURDEN | 8. DEPTH DRILLED INTO ROCK | 9. TOTAL DEPTH OF HOLE |
|---|---|---|---|---|---|
| ☐ VERTICAL | ☐ INCLINED | DEGREES WITH VERTICAL | | | |
| 10. SIZE AND TYPE OF BIT | 11. DATUM FOR ELEVATION SHOWN (TBM or MSL) | 12. MANUFACTURER'S DESIGNATION OF DRILL | | | |

| 13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN | | 14. TOTAL NO. CORE BOXES | 15. ELEV. GROUND WATER | 16. DATE HOLE | |
|---|---|---|---|---|---|
| DISTURBED | UNDISTURBED | | | STARTED | COMPLETED |
| 17. ELEV. TOP OF HOLE | 18. TOTAL CORE RECOVERY FOR BORING (%) | 19. SIGNATURE OF INSPECTOR | | | |

| ELEVATION | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS (Description) | % CORE RECOVERY | BOX OR SAMPLE NO. | REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) |
|---|---|---|---|---|---|---|
| | 280 | | Mudstone, same unit as above. | 5' | | |
| | 281 | | Shale, same unit as below, described on next two pages. | | | |
| | 282 | | | | | |
| | 283 | | | 22.7' | | |
| | 284 | | | | Box 22 | |
| | 285 | | | | 285 | |
| | 286 | | Go to Sheet #23 | | Box 23 | |
| | 287 | | | | | |
| | 288 | | | | | |
| | 289 | | | | | |
| | 290 | | | | | |

Core re-arranged in this interval

HOLE NO. _____

DEPARTMENT OF THE ARMY
DIVISION _____
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DRILLING LOG

1. PROJECT | SHEET OF
2. LOCATION (Coordinates or Station)
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18. TOTAL CORE RECOVERY FOR BORING (%)
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| ELEVATION | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS (Description) | % CORE RECOVERY | BOX OR SAMPLE NO. | REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) |
|---|---|---|---|---|---|---|
| | 285 | | Shale, same unit as below, described on next page. | 22.7' | 23 | This and all subsequent boxes were not in the right order and had to be re-arranged before being described! |
| | 290 | | slight increase in silty lams. thru this zone. | | | |
| | | | few burrows in this zone | | | |
| | 295 | | | | | |

This box was not in right order

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# DRILLING LOG

| | | |
|---|---|---|
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| 4. HOLE NO. (As shown on drawing title and file No.) | 5. NAME OF DRILLER | |

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|---|---|---|---|---|---|
| ☐ VERTICAL | ☐ INCLINED | DEGREES WITH VERTICAL | | | |

| 10. SIZE AND TYPE OF BIT | 11. DATUM FOR ELEVATION SHOWN (TBM or MSL) | 12. MANUFACTURER'S DESIGNATION OF DRILL |
|---|---|---|

| 13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN | | 14. TOTAL NO. CORE BOXES | 15. ELEV. GROUND WATER | 16. DATE HOLE | |
|---|---|---|---|---|---|
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| ELEVATION | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS (Description) | % CORE RECOVERY | BOX OR SAMPLE NO. | REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) |
|---|---|---|---|---|---|---|
| | 295 | | Shale, med gy (N5), mudstone, silty, few very thin light gy silty lenses, thin horizontal laminae, non-foss., few thin clay ironstone bands up to 0.1' thick, some brown stains, sharp lower contact w/ coal. | 22.7' | 24 | |
| | 300 | | few small horizontal burrows | | | |
| | 305 | | Coal blk (N1), hard banded, mod. bright, yellow & white sulfate bloom, sharp contacts. | 1.5' | | "A" coal |

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7. THICKNESS OF OVERBURDEN
8. DEPTH DRILLED INTO ROCK
9. TOTAL DEPTH OF HOLE
10. SIZE AND TYPE OF BIT
11. DATUM FOR ELEVATION SHOWN (TBM or MSL)
12. MANUFACTURER'S DESIGNATION OF DRILL
13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED | UNDISTURBED
14. TOTAL NO. CORE BOXES
15. ELEV. GROUND WATER
16. DATE HOLE: STARTED | COMPLETED
17. ELEV. TOP OF HOLE
18. TOTAL CORE RECOVERY FOR BORING (%)
19. SIGNATURE OF INSPECTOR

| ELEVATION | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS (Description) | % CORE RECOVERY | BOX OR SAMPLE NO. | REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) |
|---|---|---|---|---|---|---|
| | | | Coal, same as above | | 26 | |
| | 305 | | Mudstone, med lt gy (N6), slightly silty, no evidence of bedding, soft, blocky fracture, abundant plant frags, sharp lower contact. | 2.8' | | "Underclay" |
| | 310 | | Shale, dk gy (N3) at base to med gy (N5) near top. mudstone, few very thin lt gy silty lenses, few fossil frags at base in clay ironstone band, clay ironstone concretions up to 2" dia., few authigenic siderite crystals, sharp lower contact w/ coal. | 4.3' | | |
| | | | Coal, blk (N1), banded, mod bright, sulfate bloom, sharp contacts. | 0.9' | | "B" coal |
| | 315 | | Mudstone, lt gy (N7), soft, slightly silty, blocky fracture, few plant fragments, few authigenic siderite crystals. gradational lower contact. | 2.5' | | "Underclays" |

HOLE NO. _____

DEPARTMENT OF THE ARMY
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DRILLING LOG

| | | |
|---|---|---|
| 1. PROJECT | | SHEET OF |
| 2. LOCATION (Coordinates or Station) | | |
| 3. DRILLING AGENCY | | |
| 4. HOLE NO. (As shown on drawing title and file No.) | 5. NAME OF DRILLER | |
| 6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL | 7. THICKNESS OF OVER-BURDEN | 8. DEPTH DRILLED INTO ROCK / 9. TOTAL DEPTH OF HOLE |
| 10. SIZE AND TYPE OF BIT | 11. DATUM FOR ELEVATION SHOWN (TBM or MSL) | 12. MANUFACTURER'S DESIGNATION OF DRILL |
| 13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED / UNDISTURBED | 14. TOTAL NO. CORE BOXES | 15. ELEV. GROUND WATER / 16. DATE HOLE: STARTED / COMPLETED |
| 17. ELEV. TOP OF HOLE | 18. TOTAL CORE RECOVERY FOR BORING (%) | 19. SIGNATURE OF INSPECTOR |

| ELEVATION | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS (Description) | % CORE RECOVERY | BOX OR SAMPLE NO. | REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) |
|---|---|---|---|---|---|---|
| | 314 | | Mudstone, same unit as above. | 2.5' | 26 | |
| | | | Shale, med dkgy(N4) at base to med ltgy (N6) at top, mudstone, silty, lenticular bedded, non-foss., few small clay ironstone nodules and authigenic siderite crystals, sharp lower contact. | 3.4' | | |
| | 316 | | | | | |
| | 318 | | Shale, same unit as below, desc. on next page. | 13' | | |
| | 320 | | | | | |
| | 322 | | | | | |
| | 324 | | | | | |

HOLE NO. _____

DEPARTMENT OF THE ARMY
DIVISION _____
INSTALLATION _____

DRILLING LOG

1. PROJECT | SHEET OF

2. LOCATION (Coordinates or Station)

3. DRILLING AGENCY

4. HOLE NO. (As shown on drawing title and file No.)

5. NAME OF DRILLER

6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL

7. THICKNESS OF OVER-BURDEN

8. DEPTH DRILLED INTO ROCK

9. TOTAL DEPTH OF HOLE

10. SIZE AND TYPE OF BIT

11. DATUM FOR ELEVATION SHOWN (TBM or MSL)

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13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED | UNDISTURBED

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15. ELEV. GROUND WATER

16. DATE HOLE: STARTED | COMPLETED

17. ELEV. TOP OF HOLE

18. TOTAL CORE RECOVERY FOR BORING (%)

19. SIGNATURE OF INSPECTOR

| ELEVATION | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS (Description) | % CORE RECOVERY | BOX OR SAMPLE NO. | REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) |
|---|---|---|---|---|---|---|
| | 324 | | Shale, med dk gy (N4) claystone, micaceous, mod. hard, thinly laminated, non-fossiliferous, few thin clay ironstone bands, 0.1' thick, sharp lower contact w/ coal, uniform color & comp. throughout. | 13' | 27 | |
| | 326 | | | | | |
| | 328 | | | | | |
| | 330 | | | | | |
| | | | Coal, blk (N1), hard, banded, mod. bright, sharp contacts. | 0.2' | | "C" coal |
| | 332 | | Mudstone, lt gy (N7) at base to med gy (N5) at top, slightly silty, no bedding evident, abundant woody plant frags, clay ironstone conc., authigenic siderite crystals, gradational lower contact. | 5' | | Underclay |
| | 334 | | | | | |

ENG FORM 1836 (TRANSLUCENT) 1 JUN 57 (EM 1110-2-1803) PREVIOUS EDITIONS ARE OBSOLETE

PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY
DIVISION _____
INSTALLATION _____

DRILLING LOG

| | | |
|---|---|---|
| 1. PROJECT | | SHEET OF |
| 2. LOCATION (Coordinates or Station) | | |
| 3. DRILLING AGENCY | | |
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| 17. ELEV. TOP OF HOLE | 18. TOTAL CORE RECOVERY FOR BORING (%) | 19. SIGNATURE OF INSPECTOR |

| ELEVATION | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS (Description) | % CORE RECOVERY | BOX OR SAMPLE NO. | REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) |
|---|---|---|---|---|---|---|
| | 334 | | Mudstone, same unit as above. | 5' | 28 | |
| | 336 | | Shale, med dk gy (N4), mudstone, abundant brachs and fossil frags, calcareous cement, sharp lower contact w/ coal. | 1.5' | | |
| | | | Coal blk (N1), hard, banded, mod. bright, sulfate bloom, sharp cont. | 0.2' | | "D" coal |
| | 338 | | Mudstone, med dk gy (N4) calcareous, brachs & other fossil frags, gradational lower cont. | 0.8' | | "Underclay" |
| | 340 | | Shale, med gy (N5), mudstone, slightly silty, micaceous, soft, thinly laminated, non-fossiliferous, no apparent diagenetic features, gradational lower contact. | 3.7' | | |
| | 342 | | Mudstone, same unit as below, described on next page. oxidation | 4' | | Resembles underclay but no coal, probably not gradational contacts. |
| | 344 | | | | | |

HOLE NO. _____

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INSTALLATION _____

DRILLING LOG

1· PROJECT | SHEET OF

2· LOCATION (Coordinates or Station)

3· DRILLING AGENCY

4· HOLE NO. (As shown on drawing title and file No.)

5· NAME OF DRILLER

| 6· DIRECTION OF HOLE | | | 7· THICKNESS OF OVER-BURDEN | 8· DEPTH DRILLED INTO ROCK | 9· TOTAL DEPTH OF HOLE |
|---|---|---|---|---|---|
| ☐ VERTICAL | ☐ INCLINED | DEGREES WITH VERTICAL | | | |

| 10· SIZE AND TYPE OF BIT | 11· DATUM FOR ELEVATION SHOWN (TBM or MSL) | 12· MANUFACTURER'S DESIGNATION OF DRILL |
|---|---|---|

| 13· TOTAL NO. OF OVERBURDEN SAMPLES TAKEN | | 14· TOTAL NO. CORE BOXES | 15· ELEV. GROUND WATER | 16· DATE HOLE | |
|---|---|---|---|---|---|
| DISTURBED | UNDISTURBED | | | STARTED | COMPLETED |

| 17· ELEV. TOP OF HOLE | 18· TOTAL CORE RECOVERY FOR BORING (%) | 19· SIGNATURE OF INSPECTOR |
|---|---|---|

| ELEVATION | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS (Description) | % CORE RECOVERY | BOX OR SAMPLE NO. | REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) |
|---|---|---|---|---|---|---|
| | 344 | | Mudstone, med lt gy (N6), soft, blocky fracture, some zones silty, thinly bedded, few woody plant fragments, authigenic siderite crystals, gradational lower contact. | 4' | 29 | |
| | 346 | | Shale, med dk gy (N4), mudstone, slightly silty, micaceous, mod. hard, thin horizontal laminae, few woody plant fragments, clay ironstone bands and nodules up to 0.5" thick. Sharp lower contact, becoming slightly lighter in color near top to med gy (N5). | 10.7' | | |
| | 348 | | | | | |
| | 350 | | | | | |
| | 352 | | | | | |
| | 354 | | | | | |

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PROJECT _____ HOLE NO. _____

HOLE NO. _____

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DIVISION _____
INSTALLATION _____
DRILLING LOG

1. PROJECT | SHEET OF
2. LOCATION (Coordinates or Station)
3. DRILLING AGENCY
4. HOLE NO. (As shown on drawing title and file No.)
5. NAME OF DRILLER
6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED; DEGREES WITH VERTICAL
7. THICKNESS OF OVER-BURDEN
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16. DATE HOLE: STARTED | COMPLETED
17. ELEV. TOP OF HOLE
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19. SIGNATURE OF INSPECTOR

| ELEVATION | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS (description) | % CORE RECOVERY | BOX OR SAMPLE NO. | REMARKS (drilling time, water loss, depth of weathering, etc., if significant) |
|---|---|---|---|---|---|---|
| | 354 | | Shale, same unit as above | | 30 | |
| | 355 | | | 10.7' | | |
| | 356 | | | | | |
| | 357 | | Shale, med gy (N5), mudstone, silty, qtz, micaceous comp, hard, original bedding destroyed by bioturbation, sharp lower contact, | | | burrowed zones contain up to 50% silt |
| | 358 | | | 2.3' | | |
| | 359 | | Shale, same unit as below, described on next page, | | | |
| | 360 | | | | | |
| | 361 | | | | | |
| | 362 | | | 11.2' | | |
| | 363 | | | | | |
| | 364 | | | | | |

HOLE NO. _____

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DIVISION _____

INSTALLATION _____

DRILLING LOG

1. PROJECT | SHEET OF

2. LOCATION (Coordinates or Station)

3. DRILLING AGENCY

4. HOLE NO. (As shown on drawing title and file No.)

5. NAME OF DRILLER

6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED | DEGREES WITH VERTICAL

7. THICKNESS OF OVER-BURDEN

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13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED | UNDISTURBED

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17. ELEV. TOP OF HOLE

18. TOTAL CORE RECOVERY FOR BORING (%)

19. SIGNATURE OF INSPECTOR

| ELEVATION | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS (Description) | % CORE RECOVERY | BOX OR SAMPLE NO. | REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) |
|---|---|---|---|---|---|---|
| | 364 | | Shale, dk gy (N3), claystone, micaceous, hard, thin horizontal laminae, non-fossiliferous, few clay ironstone bands 0.1' thick, gradational lower contact. gradual lightening of color upwards to med dk gy (N4). | | 31 | |
| | 365 | | | | | |
| | 366 | | | | | |
| | 367 | | | 11.2' | | |
| | 368 | | | | | |
| | 369 | | | | | |
| | 370 | | | | | probably a storm deposit. oolites were carried on shore by storm waves. |
| | 371 | | Sandstone, med gy (N5), thin bedded, graded upwards, contains qtz, mica, coal and shale clasts, oolites, small marine fossils, bryozoans etc, authigenic siderite, calc. cement sharp lower contact. | | | a Tidal channel deposit? No! also contains clay ironstone bands to 0.3' thick, Lower Warner S.S. |
| | 372 | | | 2.1' | | |
| | 373 | | Shale, med dk gy (N4), mudstone, few silty lams at base, non-fossiliferous, clay ironstone band 0.4' thick, sharp lower contact. | 1.3' | | |
| | 374 | | | | | |

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PROJECT _____ HOLE NO. _____

HOLE NO. _____

DEPARTMENT OF THE ARMY

DIVISION _____

INSTALLATION _____

DRILLING LOG

1. PROJECT | SHEET OF

2. LOCATION (Coordinates or Station)

3. DRILLING AGENCY

4. HOLE NO. (As shown on drawing title and file No.) P & M #8

5. NAME OF DRILLER

6. DIRECTION OF HOLE: ☐ VERTICAL ☐ INCLINED | DEGREES WITH VERTICAL

7. THICKNESS OF OVER-BURDEN

8. DEPTH DRILLED INTO ROCK

9. TOTAL DEPTH OF HOLE

10. SIZE AND TYPE OF BIT

11. DATUM FOR ELEVATION SHOWN (TBM or MSL)

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13. TOTAL NO. OF OVERBURDEN SAMPLES TAKEN: DISTURBED | UNDISTURBED

14. TOTAL NO. CORE BOXES

15. ELEV. GROUND WATER

16. DATE HOLE: STARTED | COMPLETED

17. ELEV. TOP OF HOLE

18. TOTAL CORE RECOVERY FOR BORING (%)

19. SIGNATURE OF INSPECTOR

| ELEVATION | DEPTH | LEGEND | CLASSIFICATION OF MATERIALS (Description) | % CORE RECOVERY | BOX OR SAMPLE NO. | REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) |
|---|---|---|---|---|---|---|
| | 374 | | Siltstone, lt gy(N7) hard, qtz, micaceous compl, few v. thin muddy lams, gradational lower contact. | 1' | 32 | |
| | 375 | | Shale, med dk gy(N4) mudstone, silty, with lt. gy silty lenses increasing upwards, hard, micaceous, non-fossiliferous, lenticular bedded, some soft sed. deformation, lower portion bioturbated. | 3.3' | | |
| | 376 | | | | | |
| | 377 | | | | | |
| | 378 | | Sharp lower contact with coal. | | | |
| | 379 | | Coal, blk(N1), hard, banded, mod. bright, abundant calcite and sulfate bloom, sharp contacts. | 1.2' | | Riverton Coal |
| | 380 | | Shale, med dk gy(N4), mudstone, slightly silty, micaceous, thinly laminated, clay ironstone bands, erosional lower cont. | 1' | | |
| | 381 | | Limestone, v lt gy(N8), mudstone, massive, hard, no fossils found, upper portion fractured, lower contact not observed. | 3.5' | | Mississippian Limestone |
| | 382 | | | | | |
| | 383 | | | | | |
| | 384 | | | | | |

ENG FORM 1836 1 JUN 57 (TRANSLUCENT) PREVIOUS EDITIONS ARE OBSOLETE (EM 1110-2-1801)

PROJECT _____ HOLE NO. _____