

THE SHELL COMPANY OF AUSTRALIA LTD.

BOREHOLE LITHOLOGICAL DESCRIPTION

GRAY

GY 103

| | |
|---------------------------------------|--|
| HOLE TYPE | CORE |
| EASTING | 598,827 M AM GRID |
| NORTHING | 5,375,219 M AM GRID |
| ELEVATION | 287.60 M |
| TOTAL DEPTH DRILLED | 238.12 M |
| DRILLING STARTED | 16/12/81 |
| DRILLING TIME | 10 DAYS |
| CORE SIZE | 61.1 MM |
| HOLE SIZE | 96.1 MM |
| LENGTH CASED | |
| INITIAL WATER LEVEL | |
| WATER LEVEL AT GEOPHYSICAL LOGGING | |
| DRILLING FLUID | |
| DRILLING CONTRACTOR | |
| GEOPHYSICAL LOGGING CONTRACTOR | |
| LITHOLOGICAL DESCRIPTION BY | |
| INFORMATION AVAILABLE : | SAMPLES TAKEN ANALYTICAL DATA LITHOLOGICAL DESCRIPTION |
| PETROPHYSICAL WIRELINE LOGS RUN : | |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|--|--|
| 26.00 | 26.00 | 5 | | 100X DOLERITE | SCREE, GREY-BROWN, HIGHLY WEATHERED, VERY WEAK ROCK, HIGH PERMIABILITY. |
| 29.30 | 3.30 | 75 | | 100X DOLERITE | SCREE, GREY, SLIGHTLY WEATHERED, VERY STRONG ROCK, MODERATE PERMIABILITY. |
| 30.51 | 1.21 | 50 | | 100X MUDSTONE | BAKED, GREY, SLIGHTLY WEATHERED, STRONG ROCK, MODERATE PERMIABILITY. |
| 32.00 | 1.49 | 100 | | 100X MUDSTONE | GREY, MODERATELY WEATHERED, WEAK ROCK, MODERATE PERMIABILITY. |
| 32.10 | 0.10 | 90 | | 100X COAL, HEAVY DULL | BLACK, UNWEATHERED, WEAK ROCK, MODERATE PERMIABILITY. |
| 32.40 | 0.30 | 90 | | 100X COAL, DULL WITH NUMEROUS BRIGHT BANDS | BLACK, UNWEATHERED, WEAK ROCK, MODERATE PERMIABILITY. |
| 32.48 | 0.08 | 90 | | 100X COAL, BRIGHT WITH NUMEROUS DULL BANDS | BLACK, UNWEATHERED, WEAK ROCK, MODERATE PERMIABILITY. |
| 32.66 | 0.18 | 90 | | 100X MUDSTONE | GREY, UNWEATHERED, WEAK ROCK, MODERATELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, MODERATE PERMIABILITY. |
| 32.81 | 0.15 | 90 | | 75% CARBONACEOUS MUDSTONE 15% COAL 10% MUDSTONE | BLACK. BRIGHT COAL, BANDS, BLACK. DARK GREY. UNWEATHERED, WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, MODERATE PERMIABILITY. |
| 32.85 | 0.04 | 90 | | 100X TONSTEIN | BRIGHT COAL, BANDS, BROWN, UNWEATHERED, WEAK ROCK, MODERATE PERMIABILITY. |
| 32.96 | 0.11 | 100 | | 75% CARBONACEOUS MUDSTONE 25% MUDSTONE | BLACK. DARK GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 32.98 | 0.02 | 100 | | 100X MUDSTONE | BROWN, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 33.03 | 0.05 | 100 | | 60% CARBONACEOUS MUDSTONE 40% COAL, HEAVY DULL | BLACK. BRIGHT COAL, BANDS, BLACK. UNWEATHERED, WEAK ROCK, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 33.06 | 0.03 | 100 | | 100X CARBONACEOUS MUDSTONE | BLACK, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 33.48 | 0.42 | 100 | | 100X SANDSTONE, MEDIUM GRAINED | CARBONACEOUS, DARK GREY, UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 33.58 | 0.10 | 100 | | 60% CARBONACEOUS MUDSTONE 30% MUDSTONE 10% SANDSTONE, MEDIUM GRAINED | BLACK. CARBONACEOUS, DARK GREY. COALY, FRAGMENTS, GREY. UNWEATHERED, VERY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 33.99 | 0.41 | 100 | | 100X MUDSTONE | CREAM, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|--|---|
| 34.02 | 0.03 | 100 | | 100% MUDSTONE | COALY, BANDS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 34.14 | 0.12 | 100 | | 75% CARBONACEOUS MUDSTONE 25% COAL, HEAVY DULL | BLACK. BLACK. UNWEATHERED, WEAK ROCK, JOINTS DIP 80 DEG., INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 34.60 | 0.46 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 75 DEG., TIGHT NON PLANAR, SLIGHT PERMIABILITY. |
| 34.80 | 0.20 | 100 | | 75% MUDSTONE 25% CARBONACEOUS MUDSTONE | GREY. COALY, STREAKS, DARK GREY. UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 35.46 | 0.66 | 100 | | 75% MUDSTONE 25% SILTSTONE | GREY. GREY. UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, VERY CLOSELY SPACED JOINTS, JOINTS DIP 65 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 36.27 | 0.81 | 100 | | 50% MUDSTONE 25% SANDSTONE, FINE GRAINED 25% SILTSTONE | SANDSTONE, LENSES, GREY. LIGHT GREY. LENSES, GREY. UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 36.30 | 0.03 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | GREY-BROWN, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 36.67 | 0.37 | 100 | | 90% SANDSTONE, FINE GRAINED 10% SILTSTONE | GREY. GREY. UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 36.81 | 0.14 | 100 | | 70% MUDSTONE 30% CARBONACEOUS MUDSTONE | GREY. LENSES, DARK GREY. UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, WIDELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 40 DEG. TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 37.20 | 0.39 | 100 | | 60% SANDSTONE, MEDIUM GRAINED 40% SANDSTONE, FINE GRAINED | LENSES, LIGHT GREY. LIGHT GREY. UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 37.89 | 0.69 | 100 | | 90% SANDSTONE 10% MUDSTONE | MED.-FINE GRAINED, LIGHT GREY. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, MEDIUM BEDDED, BASAL CONTACT EROSIONAL, BEDS DIP 5 DEG., WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 38.04 | 0.15 | 100 | | 100% MUDSTONE | LENSES, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC % | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|--|---|
| 41.95 | 3.91 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, WIDELY SPACED JOINTS, JOINTS DIP 85 DEG., OPEN, NON-PLANAR DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 42.21 | 0.26 | 100 | | 75% SANDSTONE, MEDIUM GRAINED 25% COAL | MASSIVE, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 42.58 | 0.37 | 100 | | 95% SANDSTONE, MEDIUM GRAINED 5% COAL | MASSIVE, LIGHT GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 42.75 | 0.17 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, SLIGHT PERMIABILITY. |
| 42.77 | 0.02 | 100 | | 100% COAL, INTERBANDED DULL AND BRIGHT | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 42.78 | 0.01 | 100 | | 100% CARBONACEOUS MUDSTONE | BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 42.86 | 0.08 | 100 | | 100% COAL, BRIGHT WITH FEW DULL BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 42.93 | 0.07 | 100 | | 100% COAL, DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 42.96 | 0.03 | 100 | | 100% COAL, INTERBANDED DULL AND BRIGHT | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 42.98 | 0.02 | 100 | | 100% COAL, BRIGHT WITH FEW DULL BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 43.00 | 0.02 | 100 | | 100% COAL, DULL WITH FEW BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 43.03 | 0.03 | 100 | | 100% COAL, INTERBANDED DULL AND BRIGHT | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 43.09 | 0.06 | 100 | | 100% COAL, BRIGHT WITH NUMEROUS DULL BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 43.53 | 0.44 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 44.75 | 1.22 | 100 | | 60% MUDSTONE 40% SILTSTONE | INTERCALATIONS, SILTSTONE, GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 2 DEG., SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|--------------------------|----------------|----------|------------------|---|--|
| *** CORE DESCRIPTION *** | | | | | |
| 45.40 | 0.65 | 100 | | 75% SILTSTONE 25% MUDSTONE | LIGHT GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 45.47 | 0.07 | 100 | | 75% SILTSTONE 25% MUDSTONE | LIGHT GREY. GREY. UNWEATHERED, VERY WEAK ROCK, WITH SLICKENSIDES, JOINTS DIP 45 DEG., SLIGHT PERMIABILITY. |
| 45.89 | 0.42 | 100 | | 100% MUDSTONE | CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 50 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 46.06 | 0.17 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 46.27 | 0.21 | 100 | | 100% MUDSTONE | CALCAREOUS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 60 DEG., TIGHT NON PLANAR, SLIGHT PERMIABILITY. |
| 46.85 | 0.58 | 100 | | 100% MUDSTONE | LIGHT GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 46.93 | 0.08 | 100 | | 85% CARBONACEOUS MUDSTONE 15% COAL | BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 47.03 | 0.10 | 100 | | 100% COAL, DULL WITH FEW BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 47.12 | 0.09 | 100 | | 95% CARBONACEOUS MUDSTONE 5% COAL | COALY, BLACK. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 47.63 | 0.51 | 100 | | 100% MUDSTONE | CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 48.02 | 0.59 | 100 | | 100% MUDSTONE | LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 48.20 | 0.18 | 100 | | 80% MUDSTONE 20% CARBONACEOUS MUDSTONE | CARBONACEOUS, DARK GREY. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, BEDS DIP 2 DEG., SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|--------------------------|----------------|----------|------------------|--|---|
| *** CORE DESCRIPTION *** | | | | | |
| 48.87 | 0.67 | 100 | | 80% MUDSTONE 20% SILTSTONE | GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 49.15 | 0.28 | 100 | | 50% MUDSTONE 50% SILTSTONE | GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 50.47 | 1.32 | 100 | | 50% SANDSTONE, FINE GRAINED 40% SILTSTONE 10% MUDSTONE | INTERCALATIONS, SILTSTONE, LIGHT GREY. GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, BASAL CONTACT ABRUPT, BEDS DIP 2 DEG., SLIGHT PERMIABILITY. |
| 50.63 | 0.16 | 100 | | 100% SANDSTONE | MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 50.80 | 0.17 | 100 | | 100% SANDSTONE, FINE GRAINED | SILTSTONE, LAMINAE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, BEDS DIP 7 DEG., WITH CROSS LAMINATION, SLIGHT PERMIABILITY. |
| 51.67 | 0.87 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 51.88 | 0.21 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | CARBONACEOUS, LAMINAE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 3 DEG., WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 51.99 | 0.11 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 52.13 | 0.14 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | CARBONACEOUS, LAMINAE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 52.25 | 0.12 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 52.57 | 0.32 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | CARBONACEOUS, LAMINAE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 5 DEG., SLIGHT PERMIABILITY. |
| 53.37 | 0.80 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., DISCONTINUITIES INFILLED WITH SOIL (<1, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 54.09 | 0.72 | 100 | | 75% SANDSTONE, MEDIUM GRAINED 25% COAL | LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|--------------------------|----------------|----------|------------------|--|--|
| *** CORE DESCRIPTION *** | | | | | |
| 54.67 | 0.58 | 100 | | 95% SANDSTONE, MEDIUM GRAINED 5% COAL | LIGHT GREY. FRAGMENTS, STREAKS. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 55.03 | 0.36 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, BEDS DIP 15 DEG., SLIGHT PERMIABILITY. |
| 55.05 | 0.02 | 100 | | 100% COAL, DULL WITH NUMEROUS BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 55.09 | 0.04 | 100 | | 100% COAL, DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 55.17 | 0.08 | 100 | | 100% CARBONACEOUS MUDSTONE | SANDSTONE, LAMINAE, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 55.20 | 0.03 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 55.23 | 0.03 | 100 | | 100% COAL, HEAVY DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 55.52 | 0.29 | 100 | | 100% COAL, HEAVY DULL | GRADING TO, COARSE GRAINED, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 55.54 | 0.02 | 100 | | 100% MUDSTONE | GREY-BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 55.62 | 0.08 | 100 | | 100% COAL, HEAVY DULL | GRADING TO, COARSE GRAINED, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 55.64 | 0.02 | 100 | | 100% TONSTEIN | COALY, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 55.73 | 0.09 | 100 | | 100% COAL, HEAVY DULL | GRADING TO, COARSE GRAINED, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 55.82 | 0.09 | 100 | | 100% SILTSTONE | BROWN, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 56.01 | 0.19 | 100 | | 75% COAL, HEAVY DULL 25% COAL, BRIGHT | GRADING TO, COARSE GRAINED, BLACK. BANDS, LENSES, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 56.33 | 0.32 | 100 | | 85% MUDSTONE 15% CARBONACEOUS MUDSTONE | COALY, STREAKS, GREY. COALY, FRAGMENTS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, SHEARING AT BEDDING SEPARATION SURFACE, BEDS DIP 7 DEG. WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 56.36 | 0.03 | 100 | | 100% CARBONACEOUS MUDSTONE | BLACK, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY. |
| 58.80 | 2.44 | 100 | | 80% MUDSTONE 20% SILTSTONE | SANDSTONE, LENSES, GREY. GREY. UNWEATHERED, WEAK ROCK, THICKLY LAMINATED, BEDS DIP 4 DEG., WITH PLANT REMAINS, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC % | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|--------------------------|----------------|----------|------------------|--|---|
| *** CORE DESCRIPTION *** | | | | | |
| 59.60 | 0.80 | 100 | | 60% MUDSTONE 40% SANDSTONE, FINE GRAINED | INTERCALATIONS, FINE GRAINED SANDSTONE, GREY. SILTSTONE, LENSES, GREY. UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 3 DEG., WITH MUD PELLETS, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 59.97 | 0.37 | 100 | | 100% SANDSTONE | MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 66.87 | 6.90 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, MEDIUM BEDDED, SEPARATION ALONG SOME BEDDING SURFACES, BEDS DIP 5 DEG., WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 67.02 | 0.15 | 100 | | 95% SANDSTONE, MEDIUM GRAINED 5% COAL | LIGHT GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 67.94 | 0.92 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 69.23 | 1.29 | 100 | | 85% SANDSTONE 15% COAL | MED.-FINE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 70.18 | 0.95 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 70.81 | 0.63 | 100 | | 60% SANDSTONE 40% SANDSTONE, MEDIUM GRAINED | MED.-FINE GRAINED, LIGHT GREY. LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 71.21 | 0.40 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 71.56 | 0.35 | 100 | | 100% SANDSTONE | MED.-FINE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, BEDS DIP 2 DEG., WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 72.70 | 1.14 | 100 | | 100% SANDSTONE, FINE GRAINED | LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, THINLY BEDDED, BEDS DIP 5 DEG., SLIGHT PERMIABILITY. |
| 73.48 | 0.78 | 100 | | 85% SANDSTONE 15% COAL | MED.-COARSE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 73.98 | 0.50 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 74.12 | 0.14 | 100 | | 100% COAL, DULL WITH FEW BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|--|---|
| 74.22 | 0.10 | 100 | | 95% MUDSTONE 5% COAL | GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 74.24 | 0.02 | 100 | | 100% COAL, DULL WITH FEW BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 74.30 | 0.06 | 100 | | 95% MUDSTONE 5% COAL | GREY. LENSES, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 74.33 | 0.03 | 100 | | 100% COAL, DULL WITH NUMEROUS BRIGHT BANDS | BLACK, WITH CALCITE ON CLEAT, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 74.62 | 0.29 | 100 | | 95% MUDSTONE 5% COAL | CARBONACEOUS, DARK GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 35 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 75.27 | 0.65 | 100 | | 100% MUDSTONE | MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 75.90 | 0.63 | 100 | | 90% MUDSTONE 10% MUDSTONE | COALY, STREAKS, GREY. CARBONACEOUS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 75.93 | 0.03 | 100 | | 95% COAL, DULL 5% MUDSTONE | BRIGHT COAL, STREAKS, BLACK. LENSES, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 76.66 | 0.73 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 50 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 77.00 | 0.34 | 100 | | 100% MUDSTONE | COALY, STREAKS, GREY, UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 50 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 77.63 | 0.63 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, WEAK ROCK, MODERATELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 55 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 78.20 | 0.57 | 100 | | 60% SILTSTONE 40% MUDSTONE | MASSIVE, GREY. MASSIVE, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 78.56 | 0.36 | 100 | | 85% SANDSTONE, FINE GRAINED 15% SILTSTONE | CARBONACEOUS, LAMINAE, LIGHT GREY. LENSES, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|--------------------------|----------------|----------|------------------|--|---|
| *** CORE DESCRIPTION *** | | | | | |
| 78.90 | 0.34 | 100 | | 80% MUDSTONE 20% MUDSTONE | MASSIVE, GREY. CARBONACEOUS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 78.98 | 0.08 | 100 | | 100% COAL, DULL WITH NUMEROUS BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 80.47 | 1.49 | 100 | | 100% MUDSTONE | MASSIVE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 81.00 | 0.53 | 100 | | 75% SILTSTONE 25% MUDSTONE | MASSIVE, GREY. MASSIVE, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 81.39 | 0.39 | 100 | | 85% MUDSTONE 15% MUDSTONE | CARBONACEOUS, DARK GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT NON PLANAR, SLIGHT PERMIABILITY. |
| 81.41 | 0.02 | 100 | | 100% COAL, HEAVY DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 81.70 | 0.29 | 100 | | 90% CARBONACEOUS MUDSTONE 10% SANDSTONE, FINE GRAINED | COALY, BLACK. LAMINAE, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 81.98 | 0.28 | 100 | | 75% CARBONACEOUS MUDSTONE 25% MUDSTONE | COALY, BLACK. LENSES, PELLETAL, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 82.12 | 0.14 | 100 | | 100% CARBONACEOUS MUDSTONE | DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 82.19 | 0.07 | 100 | | 100% MUDSTONE | COALY, FRAGMENTS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 82.23 | 0.04 | 100 | | 100% CARBONACEOUS MUDSTONE | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 82.25 | 0.02 | 100 | | 100% MUDSTONE | CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 82.32 | 0.07 | 100 | | 100% MUDSTONE | COALY, FRAGMENTS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 82.39 | 0.07 | 100 | | 100% SANDSTONE, FINE GRAINED | SILTSTONE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 82.52 | 0.13 | 100 | | 100% MUDSTONE | SILTSTONE, LAMINAE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|--|--|
| 82.68 | 0.16 | 100 | | 100% CARBONACEOUS MUDSTONE | COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 82.92 | 0.24 | 100 | | 80% MUDSTONE 20% SILTSTONE | CALCAREOUS, GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 82.93 | 0.01 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY. |
| 82.98 | 0.05 | 100 | | 100% CARBONACEOUS MUDSTONE | COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 83.05 | 0.07 | 100 | | 100% COAL, HEAVY DULL | GRADING TO, COARSE GRAINED, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 83.22 | 0.17 | 100 | | 90% COAL, HEAVY DULL 10% COAL, DULL WITH FEW BRIGHT BANDS | BLACK. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 83.27 | 0.05 | 100 | | 100% CARBONACEOUS MUDSTONE | GRADING TO, HEAVY DULL COAL, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 83.29 | 0.02 | 100 | | 100% MUDSTONE | LIGHT GREY, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY. |
| 83.35 | 0.06 | 100 | | 100% CARBONACEOUS MUDSTONE | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 83.40 | 0.05 | 100 | | 90% MUDSTONE 10% COAL | CARBONACEOUS, GREY-BROWN. LAMINAE, LENSES, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 83.44 | 0.04 | 100 | | 95% CARBONACEOUS MUDSTONE 5% MUDSTONE | BLACK. LENSES, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 83.60 | 0.16 | 100 | | 100% COAL, DULL WITH FEW BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 85 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 83.66 | 0.06 | 100 | | 100% COAL, INTERBANDED DULL AND BRIGHT | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 83.74 | 0.08 | 100 | | 90% COAL, DULL 10% COAL, BRIGHT | BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|--|---|
| 83.77 | 0.03 | 100 | | 50% TONSTEIN 50% COAL, DULL WITH FEW BRIGHT BANDS | GREY. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 83.81 | 0.04 | 100 | | 60% COAL, DULL WITH FEW BRIGHT BANDS 40% COAL, DULL | BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 83.86 | 0.05 | 100 | | 75% COAL, DULL 25% TONSTEIN | BLACK. COALY, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 83.89 | 0.03 | 100 | | 100% COAL, BRIGHT | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 84.01 | 0.12 | 100 | | 95% MUDSTONE 5% COAL | CREAM. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 84.05 | 0.04 | 100 | | 100% CHERT | BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 84.09 | 0.04 | 100 | | 50% CARBONACEOUS MUDSTONE 30% MUDSTONE 20% COAL | BLACK. CREAM. LENSES, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 84.13 | 0.04 | 100 | | 100% COAL, DULL WITH NUMEROUS BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 84.17 | 0.04 | 100 | | 100% COAL, DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 84.19 | 0.02 | 100 | | 100% COAL, BRIGHT WITH FEW DULL BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 84.21 | 0.02 | 100 | | 100% COAL, DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 84.24 | 0.03 | 100 | | 100% MUDSTONE | COALY, STREAKS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 84.30 | 0.06 | 100 | | 95% CARBONACEOUS MUDSTONE 5% MUDSTONE | COALY. BANDS, CREAM. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 84.36 | 0.06 | 100 | | 50% MUDSTONE 50% MUDSTONE | COALY, STREAKS, CREAM. CALCAREOUS, CREAM. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC % | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|--------------------------|----------------|----------|------------------|---|--|
| *** CORE DESCRIPTION *** | | | | | |
| 84.38 | 0.02 | 100 | | 100% COAL, BRIGHT WITH FEW DULL BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 84.42 | 0.04 | 100 | | 100% CARBONACEOUS MUDSTONE | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 84.49 | 0.07 | 100 | | 100% COAL, INTERBANDED DULL AND BRIGHT | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EXTREMELY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 84.63 | 0.14 | 100 | | 85% MUDSTONE 15% COAL | CARBONACEOUS, DARK GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 84.94 | 0.31 | 100 | | 100% MUDSTONE | COALY, FRAGMENTS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 85.48 | 0.54 | 100 | | 100% MUDSTONE | CALCAREOUS, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 85.56 | 0.08 | 100 | | 100% CARBONACEOUS MUDSTONE | COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 85.59 | 0.03 | 100 | | 100% MUDSTONE | CREAM, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 85.82 | 0.23 | 100 | | 100% CARBONACEOUS MUDSTONE | COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 85.92 | 0.10 | 100 | | 100% COAL, DULL WITH FEW BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 85.95 | 0.03 | 100 | | 100% COAL, INTERBANDED DULL AND BRIGHT | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 85.96 | 0.01 | 100 | | 100% CARBONACEOUS MUDSTONE | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 85.97 | 0.01 | 100 | | 100% COAL, INTERBANDED DULL AND BRIGHT | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 86.04 | 0.07 | 100 | | 95% CARBONACEOUS MUDSTONE 5% COAL | BLACK. STREAKS, FRAGMENTS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 86.19 | 0.15 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 86.34 | 0.15 | 100 | | 75% CARBONACEOUS MUDSTONE 25% MUDSTONE | COALY, BLACK. LENSES, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 86.36 | 0.02 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|---|---|
| 86.46 | 0.10 | 100 | | 90% CARBONACEOUS MUDSTONE 10% MUDSTONE | BLACK. GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 87.02 | 0.56 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 87.14 | 0.12 | 100 | | 100% CARBONACEOUS MUDSTONE | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 87.29 | 0.15 | 100 | | 100% MUDSTONE | CARBONACEOUS, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 87.31 | 0.02 | 100 | | 100% MUDSTONE | CREAM, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 87.58 | 0.27 | 100 | | 100% CARBONACEOUS MUDSTONE | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 87.65 | 0.07 | 100 | | 100% COAL, DULL | GRADING TO, HEAVY DULL COAL, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 87.80 | 0.15 | 100 | | 100% CARBONACEOUS MUDSTONE | GRADING TO, HEAVY DULL COAL, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 88.12 | 0.32 | 100 | | 100% CARBONACEOUS MUDSTONE | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 88.36 | 0.24 | 100 | | 95% MUDSTONE 5% COAL | SILTSTONE, GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, SLIGHT PERMIABILITY. |
| 89.54 | 1.18 | 100 | | 50% MUDSTONE 50% SILTSTONE | INTERCALATIONS, SILTSTONE, GREY. LENSES, BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 3 DEG., SLIGHT PERMIABILITY. |
| 89.83 | 0.29 | 100 | | 75% SANDSTONE, FINE GRAINED 25% SILTSTONE | INTERCALATIONS, SILTSTONE, LIGHT GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 90.64 | 0.81 | 100 | | 80% MUDSTONE 20% SILTSTONE | INTERCALATIONS, SILTSTONE, GREY. LENSES, BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 90.87 | 0.23 | 100 | | 90% MUDSTONE 10% SANDSTONE, MEDIUM GRAINED | MASSIVE, GREY. LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 91.14 | 0.27 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 91.32 | 0.18 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | CALCAREOUS, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|---|---|
| 93.28 | 1.96 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, THINLY BEDDED, BEDS DIP 2 DEG., SLIGHT PERMIABILITY. |
| 93.53 | 0.25 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 93.71 | 0.18 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | CALCAREOUS, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, JOINTS DIP 70 DEG., TIGHT NON PLANAR, SLIGHT PERMIABILITY. |
| 94.20 | 0.49 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 70 DEG., TIGHT NON PLANAR, SLIGHT PERMIABILITY. |
| 94.60 | 0.40 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 75 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 96.10 | 1.50 | 100 | | 95% SANDSTONE, MEDIUM GRAINED 5% SANDSTONE | MASSIVE, LIGHT GREY. MED.-FINE GRAINED, SILTSTONE, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 96.51 | 0.41 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, CALCAREOUS, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 97.13 | 0.62 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 97.30 | 0.17 | 100 | | 100% SANDSTONE | MED.-COARSE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, BEDS DIP 7 DEG., SLIGHT PERMIABILITY. |

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|-------|------|-----|--|---|--|
| 97.37 | 0.07 | 100 | | 90% CARBONACEOUS MUDSTONE 10% COAL, BRIGHT | BLACK. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 97.39 | 0.02 | 100 | | 100% COAL, BRIGHT | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 97.47 | 0.08 | 100 | | 100% COAL, DULL WITH FEW BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 97.62 | 0.15 | 100 | | 60% CARBONACEOUS MUDSTONE 40% COAL, DULL | BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 97.68 | 0.06 | 100 | | 70% CARBONACEOUS MUDSTONE 20% COAL 10% MUDSTONE | BLACK. STREAKS, BLACK. LENSES, BROWN. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, WITH DISTURBED BEDDING, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|---|--|
| 97.75 | 0.07 | 100 | | 95% MUDSTONE 5% COAL | LIGHT BROWN. STREAKS, BLACK. UNWEATHERED, WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 97.77 | 0.02 | 100 | | 100% CARBONACEOUS MUDSTONE | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 97.82 | 0.05 | 100 | | 100% MUDSTONE | CARBONACEOUS, BROWN-BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 97.90 | 0.08 | 100 | | 100% MUDSTONE | CALCAREOUS, GREY-BROWN, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 97.95 | 0.05 | 100 | | 90% COAL, DULL 10% CARBONACEOUS MUDSTONE | BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 98.00 | 0.05 | 100 | | 95% MUDSTONE 5% COAL | GREY-BROWN. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 98.10 | 0.10 | 100 | | 85% CARBONACEOUS MUDSTONE 15% COAL, DULL | BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 98.15 | 0.05 | 100 | | 100% COAL, DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 98.16 | 0.01 | 100 | | 100% CARBONACEOUS MUDSTONE | COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 98.13 | 0.02 | 100 | | 100% CARBONACEOUS MUDSTONE | BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 98.36 | 0.18 | 100 | | 80% CARBONACEOUS MUDSTONE 10% TONSTEIN 10% COAL, DULL | BLACK. BANDS, CREAM. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 98.56 | 0.20 | 100 | | 80% MUDSTONE 20% MUDSTONE | CARBONACEOUS, BROWN-BLACK. COALY, STREAKS, BROWN-BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 98.59 | 0.03 | 100 | | 100% CARBONACEOUS MUDSTONE | COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 98.66 | 0.07 | 100 | | 95% CARBONACEOUS MUDSTONE 5% MUDSTONE | BLACK. PELLETAL, BROWN. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE *** CORE DESCRIPTION *** | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|---|---|
| 98.72 | 0.06 | 100 | | 85% COAL, DULL WITH FEW BRIGHT BANDS 15% CARBONACEOUS MUDSTONE | BLACK. BROWN-BLACK. WITH STREAKS OF CALCITE, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 98.76 | 0.04 | 100 | | 95% COAL, DULL WITH HUMEROUS BRIGHT BANDS 5% MUDSTONE | BLACK. STREAKS, BROWN. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 98.86 | 0.10 | 100 | | 95% CARBONACEOUS MUDSTONE 5% TONSTEIN | COALY, BROWN-BLACK. BANDS, CREAM. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 35 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 98.89 | 0.03 | 100 | | 100% MUDSTONE | LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 99.02 | 0.13 | 100 | | 85% COAL, DULL WITH FEW BRIGHT BANDS 15% CARBONACEOUS MUDSTONE | BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 99.14 | 0.12 | 100 | | 90% SANDSTONE 10% COAL, BRIGHT | CARBONACEOUS, GREY-BROWN. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 99.37 | 0.23 | 100 | | 75% SANDSTONE 25% CARBONACEOUS MUDSTONE | CARBONACEOUS, GREY-BROWN. LENSES, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, CLOSELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 99.42 | 0.05 | 100 | | 100% CARBONACEOUS MUDSTONE | COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 99.58 | 0.16 | 100 | | 60% SILTSTONE 40% CARBONACEOUS MUDSTONE | CARBONACEOUS, BROWN-BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 99.72 | 0.14 | 100 | | 30% SILTSTONE 20% TONSTEIN | LIGHT GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 99.75 | 0.03 | 100 | | 100% COAL, DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 99.95 | 0.20 | 100 | | 50% MUDSTONE 50% SILTSTONE | CARBONACEOUS, BROWN-BLACK. CARBONACEOUS, BROWN-BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 100.02 | 0.07 | 100 | | 100% CARBONACEOUS MUDSTONE | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 100.06 | 0.04 | 100 | | 100% MUDSTONE | CARBONACEOUS, BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC % | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|--------------------------|----------------|----------|------------------|--|---|
| *** CORE DESCRIPTION *** | | | | | |
| 100.11 | 0.05 | 100 | | 100% COAL, HEAVY DULL | GRADING TO, COARSE GRAINED, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 100.20 | 0.09 | 100 | | 80% CARBONACEOUS MUDSTONE 20% COAL, DULL WITH FEW BRIGHT BANDS | BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 100.23 | 0.03 | 100 | | 100% COAL, DULL WITH NUMEROUS BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 100.24 | 0.01 | 100 | | 100% COAL, BRIGHT | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 100.39 | 0.15 | 100 | | 60% CARBONACEOUS MUDSTONE 40% COAL, DULL WITH FEW BRIGHT BANDS | BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 100.69 | 0.30 | 100 | | 100% MUDSTONE | COALY, STREAKS, LIGHT GREY, UNWEATHERED, WEAK ROCK, JOINTS DIP 35 DEG., SLIGHT PERMIABILITY. |
| 100.85 | 0.16 | 100 | | 85% COAL, DULL WITH FEW BRIGHT BANDS 10% CARBONACEOUS MUDSTONE 5% MUDSTONE | BLACK. BLACK. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 100.86 | 0.01 | 100 | | 100% CARBONACEOUS MUDSTONE | BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 100.87 | 0.01 | 100 | | 100% TONSTEIN | GREY-BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 100.91 | 0.04 | 100 | | 95% MUDSTONE 5% COAL | LIGHT BROWN. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 100.97 | 0.06 | 100 | | 95% CARBONACEOUS MUDSTONE 5% MUDSTONE | BLACK. PELLETAL, CREAM. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 101.07 | 0.10 | 100 | | 100% COAL, DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 101.13 | 0.06 | 100 | | 95% CARBONACEOUS MUDSTONE 5% MUDSTONE | COALY, BLACK. PELLETAL, CREAM. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 101.23 | 0.10 | 100 | | 95% MUDSTONE 5% COAL | CREAM. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 101.25 | 0.02 | 100 | | 100% CARBONACEOUS MUDSTONE | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC % | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|---|---|
| 101.48 | 0.23 | 100 | | 95% SILTSTONE 5% COAL | CALCAREOUS, CREAM. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 101.63 | 0.15 | 100 | | 60% COAL, DULL 30% CARBONACEOUS MUDSTONE 10% MUDSTONE | SILTSTONE, LENSES, BLACK. BLACK. PELLETAL, CREAM. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 101.66 | 0.03 | 100 | | 60% MUDSTONE 40% CARBONACEOUS MUDSTONE | CREAM. STREAKS, LENSES, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 101.74 | 0.08 | 100 | | 90% CARBONACEOUS MUDSTONE 10% COAL, DULL | COALY, BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 101.76 | 0.02 | 100 | | 100% CARBONACEOUS MUDSTONE | GREY-BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 102.08 | 0.32 | 100 | | 100% MUDSTONE | COALY, FRAGMENTS, LIGHT BROWN, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, CLOSELY SPACED JOINTS, JOINTS DIP 25 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 102.11 | 0.03 | 100 | | 100% CARBONACEOUS MUDSTONE | COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 102.20 | 0.09 | 100 | | 95% MUDSTONE 5% CARBONACEOUS MUDSTONE | GREY-BROWN. STREAKS, LENSES, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 102.23 | 0.03 | 100 | | 100% CARBONACEOUS MUDSTONE | COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 102.29 | 0.06 | 100 | | 100% CARBONACEOUS MUDSTONE | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 102.48 | 0.19 | 100 | | 80% COAL, DULL 20% CARBONACEOUS MUDSTONE | BLACK. MUDSTONE, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 30 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 102.58 | 0.10 | 100 | | 100% COAL, DULL WITH NUMEROUS BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 102.59 | 0.01 | 100 | | 50% COAL, BRIGHT WITH NUMEROUS DULL BANDS 50% MUDSTONE | BLACK. BANDS, CREAM. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 102.66 | 0.07 | 100 | | 100% COAL, BRIGHT WITH FEW DULL BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|---|----------------|----------|------------------|--|--|
| *** CORE DESCRIPTION *** | | | | | |
| 102.67 | 0.01 | 100 | | 50% COAL, BRIGHT WITH FEW DULL BANDS 50% MUDSTONE | BLACK. BANDS, CREAM. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 102.71 | 0.04 | 100 | | 100% COAL, BRIGHT WITH NUMEROUS DULL BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 102.74 | 0.03 | 100 | | 100% COAL, DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 102.81 | 0.07 | 100 | | 100% COAL, BRIGHT WITH FEW DULL BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 102.92 | 0.11 | 100 | | 90% COAL, DULL WITH NUMEROUS BRIGHT BANDS 10% MUDSTONE | BLACK. BANDS, CREAM. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| BASE OF DALMAYNE B : THICKNESS= 5.62 M; SAMPLED THICKNESS= 0.00 M | | | | | |
| 103.12 | 0.20 | 0 | | CORE LOSS | |
| 103.31 | 0.19 | 100 | | 100% MUDSTONE | SILTSTONE, CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 103.50 | 0.19 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, JOINTS DIP 50 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 103.80 | 0.30 | 100 | | 90% MUDSTONE 10% SILTSTONE | GREY. BANDS, LENSES, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 104.67 | 0.87 | 100 | | 50% MUDSTONE 25% SILTSTONE 25% SANDSTONE, FINE GRAINED | INTERCALATIONS, SILTSTONE, GREY. LAMINAE, STREAKS, GREY. BANDS, LENSES, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, BEDS DIP 4 DEG., SLIGHT PERMIABILITY. |
| 105.45 | 0.78 | 100 | | 100% SILTSTONE | CARBONACEOUS, LAMINAE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 5 DEG., SLIGHT PERMIABILITY. |
| 105.65 | 0.20 | 100 | | 50% SANDSTONE, MEDIUM GRAINED 50% SILTSTONE | LIGHT GREY. LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 5 DEG., SLIGHT PERMIABILITY. |
| 105.87 | 0.22 | 100 | | 100% SILTSTONE | SANDSTONE, LAMINAE, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 106.07 | 0.20 | 100 | | 100% SANDSTONE | MED.-FINE GRAINED, GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 106.12 | 0.05 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 106.20 | 0.08 | 100 | | 100% MUDSTONE | CREAM, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|--|---|
| 106.49 | 0.29 | 100 | | 75% SILTSTONE 25% SILTSTONE | CARBONACEOUS, DARK GREY. BANDS, CARBONACEOUS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 106.65 | 0.16 | 100 | | 85% SANDSTONE 15% CARBONACEOUS MUDSTONE | MED.-FINE GRAINED, LIGHT GREY. BANDS, LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 106.76 | 0.11 | 100 | | 90% SANDSTONE 10% COAL | MED.-COARSE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 107.35 | 0.59 | 100 | | 90% SANDSTONE, FINE GRAINED 10% COAL | CALCAREOUS, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, MODERATELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 107.56 | 0.21 | 100 | | 60% SANDSTONE, FINE GRAINED 40% SANDSTONE, FINE GRAINED | CARBONACEOUS, BANDS, LIGHT GREY. LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 108.37 | 0.81 | 100 | | 85% SANDSTONE 10% COAL 5% CARBONACEOUS MUDSTONE | MED.-FINE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, SEPARATION ALONG SOME BEDDING SURFACES, BEDS DIP 7 DEG., WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 108.96 | 0.59 | 100 | | 100% SANDSTONE, FINE GRAINED | CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 109.32 | 0.36 | 100 | | 90% SANDSTONE 10% COAL | MED.-FINE GRAINED, GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 109.42 | 0.10 | 100 | | 75% SANDSTONE, FINE GRAINED 25% MUDSTONE | COALY, STREAKS, DARK GREY. CARBONACEOUS, LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SEPARATION ALONG SOME BEDDING SURFACES, WITH CARBONACEOUS WISPS, CLOSELY SPACED JOINTS, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 109.80 | 0.38 | 100 | | 90% MUDSTONE 10% COAL | CARBONACEOUS, DARK GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 110.01 | 0.21 | 100 | | 100% MUDSTONE | CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC % | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|--------------------------|----------------|----------|------------------|--|---|
| *** CORE DESCRIPTION *** | | | | | |
| 110.40 | 0.39 | 100 | | 100% SILTSTONE | CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 110.99 | 0.59 | 100 | | 60% SANDSTONE, FINE GRAINED 40% SILTSTONE | CARBONACEOUS, LIGHT GREY. CARBONACEOUS, BANDS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 111.17 | 0.18 | 100 | | 95% SANDSTONE 5% CARBONACEOUS MUDSTONE | MED.-FINE GRAINED, LIGHT GREY. SILTSTONE, LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 111.32 | 0.15 | 100 | | 80% SANDSTONE 15% SILTSTONE 5% MUDSTONE | MED.-FINE GRAINED, LIGHT GREY. BANDS, LENSES, DARK GREY. PELLETAL, CREAM. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 111.72 | 0.40 | 100 | | 80% SANDSTONE, FINE GRAINED 20% SILTSTONE | CARBONACEOUS, DARK GREY. BANDS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 112.01 | 0.29 | 100 | | 90% SANDSTONE, MEDIUM GRAINED 10% SILTSTONE | COALY, STREAKS, LIGHT GREY. LENSES, BANDS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 112.11 | 0.10 | 100 | | 95% MUDSTONE 5% COAL | GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SEPARATION ALONG SOME BEDDING SURFACES, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 113.33 | 1.22 | 100 | | 60% SANDSTONE, FINE GRAINED 40% SILTSTONE | INTERCALATIONS, SILTSTONE, GREY. LAMINAE, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CROSS LAMINATION, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 113.98 | 0.65 | 100 | | 90% SANDSTONE, MEDIUM GRAINED 5% COAL 5% SANDSTONE, FINE GRAINED | LIGHT GREY. FRAGMENTS, STREAKS, BLACK. LENSES, BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 114.14 | 0.16 | 100 | | 60% SANDSTONE, FINE GRAINED 40% SILTSTONE | LIGHT GREY. LENSES, BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 115.43 | 1.29 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 116.02 | 0.59 | 100 | | 90% SANDSTONE, MEDIUM GRAINED 5% COAL 5% SANDSTONE, COARSE GRAINED | MASSIVE, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. LENSES, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, SEPARATION ALONG SOME BEDDING SURFACES, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC % | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|---|---|
| 116.13 | 0.11 | 100 | | 100% SANDSTONE, FINE GRAINED | LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WIDELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 116.31 | 0.18 | 100 | | 100% SANDSTONE | MED.-COARSE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WIDELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT PLANAR, ROUGH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 116.49 | 0.18 | 100 | | 100% SANDSTONE | MED.-COARSE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 117.20 | 0.71 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, MEDIUM BEDDED, BEDS DIP 7 DEG., WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 117.56 | 0.36 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 117.67 | 0.11 | 100 | | 100% SANDSTONE, FINE GRAINED | LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 117.84 | 0.17 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 117.96 | 0.12 | 100 | | 100% SANDSTONE, FINE GRAINED | CALCAREOUS, LIGHT GREY, WITH BANDS OF CALCITE, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 118.74 | 0.78 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 119.44 | 0.70 | 100 | | 95% SANDSTONE, MEDIUM GRAINED 5% SILTSTONE | MASSIVE, LIGHT GREY. BANDS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 121.70 | 2.26 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 123.00 | 1.30 | 100 | | 95% SANDSTONE 5% COAL | MED.-COARSE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 123.80 | 0.80 | 100 | | 100% SANDSTONE | MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 123.96 | 0.16 | 100 | | 90% SANDSTONE, MEDIUM GRAINED 10% COAL | LIGHT GREY. FRAGMENTS, STREAKS. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 124.50 | 0.54 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|---|--|
| 124.67 | 0.17 | 100 | | 80% SANDSTONE, MEDIUM GRAINED 20% MUDSTONE | LIGHT GREY. SILTSTONE, PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 125.94 | 1 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 126.21 | 0.77 | | | 60% SANDSTONE, FINE GRAINED 40% SANDSTONE, MEDIUM GRAINED | COALY, STREAKS, LIGHT GREY. COALY, FRAGMENTS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, SEPARATION ALONG SOME BEDDING SURFACES, BEDS DIP 7 DEG., WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 126.66 | 0.45 | 100 | | 75% MUDSTONE 25% MUDSTONE | GREY. CARBONACEOUS, LAMINAE, DARK GREY. UNWEATHERED, WEAK ROCK, THICKLY LAMINATED, BEDS DIP 3 DEG., WITH PLANT REMAINS, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 55 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 126.85 | 0.19 | 100 | | 75% MUDSTONE 20% MUDSTONE 5% SANDSTONE, FINE GRAINED | GREY. CARBONACEOUS, LAMINAE, DARK GREY. BANDS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 30 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 127.13 | 0.28 | 100 | | 75% MUDSTONE 25% MUDSTONE | GREY. CARBONACEOUS, LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 127.18 | 0.05 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 127.34 | 0.16 | 100 | | 85% SANDSTONE, MEDIUM GRAINED 10% MUDSTONE 5% COAL | LIGHT GREY. PELLETAL, GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 127.54 | 0.20 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 128.52 | 0.98 | 100 | | 80% SANDSTONE, FINE GRAINED 10% SANDSTONE, MEDIUM GRAINED 10% SILTSTONE | COALY, STREAKS, LIGHT GREY. BANDS, LIGHT GREY. LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, BASAL CONTACT ABRUPT, BEDS DIP 10 DEG., WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------------------|----------------|----------|------------------|--|--|
| 128.75 | 0.23 | 100 | | 90% SANDSTONE 10% MUDSTONE | MED.-COARSE GRAINED, LIGHT GREY. PELLETAL, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 130.22 | 1.47 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 130.94 | 0.72 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, CALCAREOUS, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 131.94 | 1.00 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 132.48 | 0.54 | 100 | | 90% SANDSTONE, MEDIUM GRAINED 10% COAL | MASSIVE, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 132.71 | 0.23 | 100 | | 60% SANDSTONE 30% SILTSTONE 10% MUDSTONE | MED.-FINE GRAINED, LIGHT GREY. BANDS, LENSES, DARK GREY. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, BEDS DIP 15 DEG., WITH MUD PELLETS, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 133.10 | 0.39 | 100 | | 60% SANDSTONE 30% MUDSTONE 10% COAL | MED.-FINE GRAINED, LIGHT GREY. PELLETAL, GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 133.27 | 0.17 | 100 | | 70% SANDSTONE 15% MUDSTONE 15% COAL | MED.-COARSE GRAINED, LIGHT GREY. PELLETAL, GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 134.04 | 0.77 | 100 | | 75% SANDSTONE 20% MUDSTONE 5% COAL | MED.-FINE GRAINED, LIGHT GREY. PELLETAL. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 134.11 | 0.07 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 20 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| TOP OF DALHAYNE C : 153.49 M R.L. | | | | | |
| 134.15 | 0.04 | 100 | | 100% SANDSTONE, FINE GRAINED | CARBONACEOUS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 134.22 | 0.07 | 100 | | 100% CARBONACEOUS MUDSTONE | SANDSTONE, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|--|---|
| 134.49 | 0.27 | 100 | | 95% MUDSTONE 5% CARBONACEOUS MUDSTONE | TUFFACEOUS, LIGHT BROWN. STREAKS, LENSES, BLACK. UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 134.59 | 0.10 | 100 | | 100% COAL, DULL WITH NUMEROUS BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 134.67 | 0.08 | 100 | | 100% CARBONACEOUS MUDSTONE | GRADING TO, HEAVY DULL COAL, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 134.68 | 0.01 | 100 | | 50% COAL, HEAVY DULL 50% COAL, BRIGHT | BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 134.72 | 0.04 | 100 | | 100% CARBONACEOUS MUDSTONE | GRADING TO, HEAVY DULL COAL, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 134.89 | 0.17 | 100 | | 75% COAL, DULL 20% CARBONACEOUS MUDSTONE 5% COAL, BRIGHT | BLACK. BLACK. STREAKS, BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 134.98 | 0.09 | 100 | | 95% MUDSTONE 5% COAL | TUFFACEOUS, LIGHT BROWN. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 135.07 | 0.09 | 100 | | 100% CARBONACEOUS MUDSTONE | COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 50 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 135.18 | 0.11 | 100 | | 60% CARBONACEOUS MUDSTONE 40% MUDSTONE | BLACK. GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 135.33 | 0.15 | 100 | | 100% COAL, DULL | BRIGHT COAL, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 135.36 | 0.03 | 100 | | 95% SANDSTONE, FINE GRAINED 5% SANDSTONE, FINE GRAINED | CREAM. CARBONACEOUS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 135.42 | 0.06 | 100 | | 90% COAL, DULL 5% COAL, BRIGHT 5% CARBONACEOUS MUDSTONE | BLACK. BANDS, BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 135.43 | 0.01 | 100 | | 50% COAL, DULL 50% MUDSTONE | BLACK. BRIGHT COAL, STREAKS, LIGHT BROWN. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC % | SAMPLE NUMBER | ROCK TYPE *** CORE DESCRIPTION *** | GEOLOGICAL DESCRIPTION |
|---|----------------|----------|------------------|---|---|
| 135.47 | 0.04 | 100 | | 95% COAL, DULL 5% CARBONACEOUS MUDSTONE | BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 135.48 | 0.01 | 100 | | 100% CARBONACEOUS MUDSTONE | BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 135.64 | 0.16 | 100 | | 90% COAL, DULL 5% CARBONACEOUS MUDSTONE 5% COAL, BRIGHT | BLACK. BLACK. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 135.69 | 0.05 | 100 | | 60% CARBONACEOUS MUDSTONE 40% SANDSTONE, FINE GRAINED | COALY, BANDS, BLACK. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 135.90 | 0.21 | 100 | | 100% CARBONACEOUS MUDSTONE | COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 135.94 | 0.04 | 100 | | 90% MUDSTONE 10% CARBONACEOUS MUDSTONE | GREY. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 135.98 | 0.04 | 100 | | 60% CARBONACEOUS MUDSTONE 40% COAL, BRIGHT | BLACK. STREAKS, LENSES, BLACK. WITH LENSES OF PYRITE, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 136.12 | 0.14 | 100 | | 80% MUDSTONE 15% CARBONACEOUS MUDSTONE 5% COAL | GREY. BLACK. STREAKS, LENSES, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 25 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 136.72 | 0.60 | 100 | | 85% MUDSTONE 10% COAL 5% CARBONACEOUS MUDSTONE | GREY. FRAGMENTS, STREAKS, BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE. |
| BASE OF DALMAYNE C : THICKNESS= 2.61 M; SAMPLED THICKNESS= 0.00 M | | | | | |
| 137.00 | 0.28 | 100 | | 50% SANDSTONE 45% CARBONACEOUS MUDSTONE 5% COAL | MED.-FINE GRAINED, LIGHT GREY. FRAGMENTS, LENSES, BLACK. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE. |
| 137.18 | 0.18 | 100 | | 95% SANDSTONE 5% COAL | MED.-FINE GRAINED, LIGHT GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE. |

| DEPTH- TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|--------------------------|----------------|----------|------------------|---|--|
| *** CORE DESCRIPTION *** | | | | | |
| 137.85 | 0.67 | 100 | | 85% MUDSTONE 15% SANDSTONE, MEDIUM GRAINED | LENSES, PELLETAL, GREY. LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE. |
| 139.27 | 1.42 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE. |
| 145.22 | 5.95 | 100 | | 75% SANDSTONE, MEDIUM GRAINED 15% SANDSTONE 10% SILTSTONE | LIGHT GREY. MED.-COARSE GRAINED, BANDS, LIGHT GREY. LAMINAE, BANDS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, THINLY BEDDED, BEDS DIP 4 DEG., WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE. |
| 145.70 | 0.48 | 100 | | 85% SANDSTONE, MEDIUM GRAINED 15% COAL | LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE. |
| 145.89 | 0.19 | 100 | | 95% SANDSTONE, FINE GRAINED 5% COAL | SILTSTONE, BANDS, GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE. |
| 146.10 | 0.21 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, BEDS DIP 3 DEG., EFFECTIVELY IMPERMIABLE. |
| 147.57 | 1.47 | 100 | | 75% SANDSTONE 25% SILTSTONE | MED.-FINE GRAINED, LIGHT GREY. CARBONACEOUS, LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 20 DEG., WITH CARBONACEOUS WISPS, WITH CROSS LAMINATION, EFFECTIVELY IMPERMIABLE. |
| 148.16 | 0.59 | 98 | | 75% SANDSTONE 20% MUDSTONE 5% COAL | MED.-COARSE GRAINED, LIGHT GREY. FRAGMENTS, LENSES, GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE. |
| 148.41 | 0.25 | 100 | | 90% SANDSTONE 10% COAL | MED.-FINE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE. |
| 149.35 | 0.94 | 100 | | 85% SANDSTONE 15% COAL | MED.-COARSE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE. |
| 150.02 | 0.67 | 100 | | 100% SANDSTONE | MED.-COARSE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |

| DEPTH TO BASE M | THICKNESS M | REC % | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|--------------------------|----------------|----------|------------------|--|---|
| *** CORE DESCRIPTION *** | | | | | |
| 150.92 | 0.90 | 100 | | 85% SANDSTONE 15% COAL | MED.-COARSE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE. |
| 151.67 | 0.75 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 152.01 | 0.34 | 100 | | 90% SANDSTONE 10% COAL | MED.-COARSE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE. |
| 152.99 | 0.98 | 100 | | 80% SANDSTONE 20% SANDSTONE, MEDIUM GRAINED | MED.-FINE GRAINED, LIGHT GREY. CARBONACEOUS, LAMINAE, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE. |
| 153.46 | 0.47 | 100 | | 80% SANDSTONE 20% COAL | MED.-COARSE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE. |
| 154.25 | 0.79 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 154.80 | 0.55 | 100 | | 95% SANDSTONE 5% SILTSTONE | MED.-FINE GRAINED, LIGHT GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 156.05 | 1.25 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, MEDIUM BEDDED, BEDS DIP 3 DEG., WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE. |
| 156.72 | 0.67 | 100 | | 75% SANDSTONE, MEDIUM GRAINED 25% SANDSTONE, FINE GRAINED | SILTSTONE, BANDS, LIGHT GREY. CARBONACEOUS, LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, THINLY BEDDED, BEDS DIP 5 DEG., WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE. |
| 157.20 | 0.48 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 157.55 | 0.35 | 100 | | 80% SANDSTONE 15% MUDSTONE 5% COAL | MED.-FINE GRAINED, BANDS, LIGHT GREY. PELLETAL, LENSES, DARK GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE. |
| 157.91 | 0.36 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 158.18 | 0.27 | 100 | | 50% SANDSTONE 45% SANDSTONE, FINE GRAINED 5% COAL | MED.-COARSE GRAINED, LIGHT GREY. CARBONACEOUS, GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|--------------------------|----------------|----------|------------------|--|--|
| *** CORE DESCRIPTION *** | | | | | |
| 158.58 | 0.40 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 158.79 | 0.21 | 100 | | 80% SANDSTONE, MEDIUM GRAINED 20% MUDSTONE | LIGHT GREY. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE. |
| 160.75 | 1.96 | 100 | | 60% SANDSTONE 40% SANDSTONE, MEDIUM GRAINED | MED.-FINE GRAINED, MASSIVE, LIGHT GREY. CALCAREOUS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 161.32 | 0.57 | 100 | | 70% MUDSTONE 30% SANDSTONE | PELLETAL, FRAGMENTS, GREY. MED.-COARSE GRAINED, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE. |
| 163.54 | 2.22 | 100 | | 100% SANDSTONE | MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT EROSIONAL, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE. |
| 163.66 | 0.12 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, EFFECTIVELY IMPERMIABLE. |
| 163.75 | 0.09 | 100 | | 100% CARBONACEOUS MUDSTONE | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 164.24 | 0.49 | 100 | | 75% SANDSTONE, FINE GRAINED 25% COAL | LIGHT GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 3 DEG., WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE. |
| 165.24 | 1.00 | 100 | | 100% SANDSTONE, FINE GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 165.93 | 0.69 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 166.49 | 0.56 | 98 | | 85% SANDSTONE, MEDIUM GRAINED 15% MUDSTONE | COALY, STREAKS, LIGHT GREY. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 166.67 | 0.18 | 100 | | 100% MUDSTONE | CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 30 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 169.61 | 2.94 | 100 | | 100% SANDSTONE | MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC % | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|--|---|
| 170.16 | 0.55 | 100 | | 70% SANDSTONE, MEDIUM GRAINED 25% MUDSTONE 5% COAL | MUDSTONE, LENSES, LIGHT GREY. PELLETAL, FRAGMENTS, GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, WITH CARBONACEOUS WISPS, MODERATELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 172.20 | 2.04 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 172.36 | 0.16 | 100 | | 95% SANDSTONE, MEDIUM GRAINED 5% COAL | LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 173.92 | 1.56 | 100 | | 100% SANDSTONE | MED.-COARSE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 174.28 | 0.36 | 100 | | 90% SANDSTONE 5% MUDSTONE 5% COAL | MED.-FINE GRAINED, LIGHT GREY. PELLETAL, FRAGMENTS, GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT EROSIONAL, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 174.43 | 0.15 | 100 | | 100% MUDSTONE | SILTSTONE, LENSES, GREY, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 20 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 175.46 | 1.03 | 100 | | 100% SANDSTONE | MED.-COARSE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, SLIGHT PERMIABILITY. |
| 176.40 | 0.94 | 100 | | 90% SANDSTONE, FINE GRAINED 10% COAL | COALY, STREAKS, LIGHT GREY. FRAGMENTS, LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BASAL CONTACT TRANSITIONAL, BEDS DIP 3 DEG., WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 177.32 | 0.92 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 177.54 | 0.22 | 100 | | 90% SANDSTONE, MEDIUM GRAINED 10% COAL | LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 178.70 | 1.16 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 178.87 | 0.17 | 100 | | 80% SANDSTONE 10% COAL 10% MUDSTONE | MED.-COARSE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. PELLETAL, FRAGMENTS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|--|---|
| 180.80 | 1.93 | 100 | | 95% SANDSTONE, MEDIUM GRAINED 5% COAL | MASSIVE, LIGHT GREY. STREAKS, FRAGMENTS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE. |
| 181.25 | 0.45 | 100 | | 100% SANDSTONE, FINE GRAINED | LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 184.32 | 3.07 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, EFFECTIVELY IMPERMIABLE. |
| 184.72 | 0.40 | 100 | | 60% SANDSTONE, FINE GRAINED 40% SILTSTONE | LIGHT GREY. CARBONACEOUS, LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, THINLY LAMINATED, BASAL CONTACT ABRUPT, BEDS DIP 4 DEG., EFFECTIVELY IMPERMIABLE. |
| 185.30 | 0.58 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 185.38 | 0.08 | 100 | | 80% SANDSTONE, FINE GRAINED 20% SILTSTONE | LIGHT GREY. LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 186.93 | 1.55 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT EROSIONAL, EFFECTIVELY IMPERMIABLE. |
| 187.02 | 0.09 | 100 | | 100% SILTSTONE | DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE. |
| 187.15 | 0.13 | 100 | | 90% SANDSTONE, FINE GRAINED 10% COAL | LIGHT GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE. |
| 187.25 | 0.10 | 100 | | 70% SILTSTONE 30% COAL, BRIGHT | GREY. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 187.39 | 0.14 | 100 | | 100% SANDSTONE, FINE GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 188.42 | 1.03 | 100 | | 95% SANDSTONE 5% COAL | MED.-COARSE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, THINLY BEDDED, BEDS DIP 15 DEG., WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE. |
| 188.66 | 0.24 | 100 | | 85% SANDSTONE, MEDIUM GRAINED 15% COAL | CALCAREOUS, WHITE. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY STRONG ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|--|--|
| 188.95 | 0.29 | 100 | | 80% SANDSTONE, MEDIUM GRAINED 15% COAL 5% MUDSTONE | LIGHT GREY. FRAGMENTS, STREAKS, BLACK. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE. |
| 189.13 | 0.18 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE. |
| 189.35 | 0.22 | 100 | | 100% SANDSTONE, FINE GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT TRANSITIONAL, EFFECTIVELY IMPERMIABLE. |
| 190.04 | 0.69 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 190.27 | 0.23 | 100 | | 95% MUDSTONE 5% COAL | SILTSTONE, GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE. |
| 190.51 | 0.24 | 100 | | 80% MUDSTONE 20% SILTSTONE | GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 35 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 191.00 | 0.49 | 100 | | 50% MUDSTONE 50% SILTSTONE | INTERCALATIONS, SILTSTONE, GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 70 DEG., TIGHT NON PLANAR, SLIGHT PERMIABILITY. |
| 191.50 | 0.50 | 100 | | 60% MUDSTONE 40% SILTSTONE | INTERCALATIONS, SILTSTONE, GREY. COALY, STREAKS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 25 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 191.76 | 0.26 | 100 | | 70% MUDSTONE 30% SILTSTONE | INTERCALATIONS, SILTSTONE, GREY. COALY, STREAKS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 191.77 | 0.01 | 100 | | 100% MUDSTONE | COALY, STREAKS, CREAM, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 191.92 | 0.15 | 100 | | 80% MUDSTONE 20% COAL | GREY. FRAGMENTS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 25 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 192.30 | 0.38 | 100 | | 80% SILTSTONE 20% MUDSTONE | INTERCALATIONS, MUDSTONE, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|---|----------------|----------|------------------|---|--|
| *** CORE DESCRIPTION *** | | | | | |
| TOP OF DALMAYNE D UPPER : 95.30 M R.L. | | | | | |
| 192.48 | 0.18 | 100 | | 100% COAL, DULL WITH FEW BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 192.67 | 0.19 | 100 | | 90% COAL, DULL 10% CARBONACEOUS MUDSTONE | GRADING TO, HEAVY DULL COAL, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 45 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 192.74 | 0.07 | 100 | | 70% COAL, HEAVY DULL 30% MUDSTONE | GRADING TO, COARSE GRAINED, BLACK. GREY. UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 25 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| BASE OF DALMAYNE D UPPER : THICKNESS= 0.44 M; SAMPLED THICKNESS= 0.00 M | | | | | |
| 193.04 | 0.30 | 100 | | 90% MUDSTONE 10% SILTSTONE | GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 35 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 193.13 | 0.09 | 100 | | 100% CARBONACEOUS MUDSTONE | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, MODERATELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 40 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 193.47 | 0.34 | 100 | | 90% MUDSTONE 5% COAL 5% SILTSTONE | CARBONACEOUS, DARK GREY. FRAGMENTS, STREAKS, BLACK. CARBONACEOUS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 193.60 | 0.13 | 100 | | 100% COAL, DULL WITH FEW BRIGHT BANDS | BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 193.66 | 0.06 | 100 | | 95% MUDSTONE 5% COAL | GREY. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 30 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 193.95 | 0.29 | 100 | | 100% MUDSTONE | CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, CLOSELY SPACED JOINTS, WITH SLICKENSIDES, JOINTS DIP 25 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC % | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|---|--|
| 194.48 | 0.53 | 100 | | 60% SANDSTONE, FINE GRAINED 40% SILTSTONE | INTERCALATIONS, SILTSTONE, LIGHT GREY. BANDS, LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 2 DEG., SLIGHT PERMIABILITY. |
| 194.95 | 0.47 | 100 | | 75% SILTSTONE 25% SANDSTONE, FINE GRAINED | GREY. LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 196.10 | 1.15 | 100 | | 80% SANDSTONE, FINE GRAINED 20% SILTSTONE | SILTSTONE, LENSES, LIGHT GREY. BANDS, LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, SLIGHT PERMIABILITY. |
| 196.18 | 0.08 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 196.25 | 0.07 | 100 | | 60% SANDSTONE, MEDIUM GRAINED 40% SANDSTONE, FINE GRAINED | COALY, STREAKS, LIGHT GREY. LENSES, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE. |
| 197.64 | 1.39 | 100 | | 95% SANDSTONE 5% SANDSTONE, FINE GRAINED | MED.-COARSE GRAINED, LIGHT GREY. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE. |
| 198.49 | 0.85 | 100 | | 85% SANDSTONE 15% COAL | MED.-FINE GRAINED, LIGHT GREY. LAMINAE, BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, THINLY BEDDED, BEDS DIP 3 DEG., EFFECTIVELY IMPERMIABLE. |
| 203.28 | 4.79 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 203.57 | 0.29 | 100 | | 80% SANDSTONE, MEDIUM GRAINED 15% CARBONACEOUS MUDSTONE 5% COAL | LIGHT GREY. STREAKS, FRAGMENTS, BLACK. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 205.12 | 1.55 | 100 | | 95% SANDSTONE 5% COAL | MED.-COARSE GRAINED, LIGHT GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, MEDIUM BEDDED, SEPARATION ALONG SOME BEDDING SURFACES, BEDS DIP 7 DEG., EFFECTIVELY IMPERMIABLE. |
| 205.42 | 0.30 | 100 | | 80% SANDSTONE 20% COAL | MED.-COARSE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE. |
| 207.00 | 1.58 | 100 | | 45% SANDSTONE, COARSE GRAINED 45% SANDSTONE 10% COAL | BANDS, LIGHT GREY. MED.-FINE GRAINED, BANDS, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, BEDS DIP 5 DEG., WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE. |

| DEPTH TO BASE M | THICKNESS N | REC % | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|--|---|
| 207.82 | 0.82 | 100 | | 100% SANDSTONE | MED.-COARSE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 208.10 | 0.28 | 100 | | 85% SANDSTONE 15% COAL | MED.-COARSE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, SEPARATION ALONG SOME BEDDING SURFACES, BEDS DIP 10 DEG., EFFECTIVELY IMPERMIABLE. |
| 208.81 | 0.71 | 100 | | 95% SANDSTONE 5% COAL | MED.-FINE GRAINED, LIGHT GREY. STREAKS, LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE. |
| 209.19 | 0.38 | 100 | | 100% SANDSTONE, COARSE GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 209.52 | 0.33 | 100 | | 95% SANDSTONE, FINE GRAINED 5% COAL | LIGHT GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, THICKLY LAMINATED, BEDS DIP 2 DEG., EFFECTIVELY IMPERMIABLE. |
| 209.73 | 0.21 | 100 | | 60% SANDSTONE, FINE GRAINED 30% SANDSTONE 10% COAL | LIGHT GREY. MED.-COARSE GRAINED, BANDS, LIGHT GREY. LAMINAE, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE. |
| 210.01 | 0.28 | 100 | | 95% SANDSTONE 5% COAL | MED.-COARSE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE. |
| 210.32 | 0.31 | 100 | | 60% SANDSTONE 40% MUDSTONE | MED.-FINE GRAINED, LIGHT GREY. PELLETAL, FRAGMENTS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE. |
| 210.73 | 0.41 | 100 | | 85% SANDSTONE, MEDIUM GRAINED 15% COAL | LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE. |
| 211.30 | 0.57 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 211.71 | 0.41 | 100 | | 85% SANDSTONE, MEDIUM GRAINED 15% COAL | LIGHT GREY. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, BEDS DIP 4 DEG., EFFECTIVELY IMPERMIABLE. |
| 211.95 | 0.24 | 100 | | 95% SANDSTONE, FINE GRAINED 5% COAL | LIGHT GREY. FRAGMENTS, LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|-----------------------|----------------|----------|------------------|--|--|
| 212.39 | 0.44 | 100 | | 90% SANDSTONE, MEDIUM GRAINED 10% COAL | COALY, STREAKS, LIGHT GREY. STREAKS, LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE. |
| 213.50 | 1.11 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 213.65 | 0.15 | 100 | | 80% SANDSTONE, MEDIUM GRAINED 20% COAL | LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 215.17 | 1.52 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 215.50 | 0.33 | 100 | | 100% SANDSTONE | MED.-COARSE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE. |
| 215.80 | 0.30 | 100 | | 85% SANDSTONE 10% COAL 5% MUDSTONE | MED.-COARSE GRAINED, LIGHT GREY. FRAGMENTS, STREAKS, BLACK. PELLETAL, STREAKS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 220.36 | 4.56 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 221.21 | 0.85 | 100 | | 90% SANDSTONE, FINE GRAINED 10% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 221.72 | 0.51 | 100 | | 85% SANDSTONE 15% MUDSTONE | MED.-COARSE GRAINED, LIGHT GREY. PELLETAL, FRAGMENTS, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE. |
| 222.75 | 1.03 | 100 | | 100% SANDSTONE | MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 223.10 | 0.35 | 100 | | 100% SANDSTONE | MED.-COARSE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 223.33 | 0.23 | 100 | 103T1 | 100% SANDSTONE | MED.-COARSE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 223.40 | 0.07 | 100 | | 100% SANDSTONE | MED.-COARSE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 223.60 | 0.20 | 100 | | 95% SANDSTONE 5% MUDSTONE | MED.-COARSE GRAINED, LIGHT GREY. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE. |
| 223.67 | 0.07 | 100 | | 100% SANDSTONE | MED.-COARSE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |

| DEPTH TO BASE M | THICKNESS M | REC % | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|--|----------------|----------|------------------|---|---|
| *** CORE DESCRIPTION *** | | | | | |
| 223.81 | 0.14 | 100 | 103T2 | 100% SANDSTONE | MED.-COARSE GRAINED, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 223.97 | 0.16 | 100 | 103T2 | 100% SANDSTONE | MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT ABRUPT, BEDS DIP 3 DEG., EFFECTIVELY IMPERMIABLE. |
| TOP OF DALMAYNE D LOWER : 63.63 M R.L. | | | | | |
| 223.99 | 0.02 | 100 | 103A1 | 100% COAL, DULL WITH FEW BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 224.07 | 0.08 | 100 | 103A1 | 100% COAL, MID LUSTROUS | BRIGHT COAL, LAMINAE, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 224.11 | 0.04 | 100 | 103A1 | 100% COAL, DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, CLOSELY SPACED JOINTS, JOINTS DIP 80 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, SLIGHT PERMIABILITY. |
| 224.12 | 0.01 | 100 | 103A1 | 50% COAL, DULL 50% COAL, BRIGHT | BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 224.16 | 0.04 | 100 | 103A1 | 100% COAL, DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 224.20 | 0.04 | 100 | 103A1 | 100% COAL, MID LUSTROUS - BRIGHT | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 224.22 | 0.02 | 100 | 103A1 | 100% COAL, DULL WITH FEW BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 224.24 | 0.02 | 100 | 103A1 | 100% COAL, DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 224.26 | 0.02 | 100 | 103A1 | 75% COAL, BRIGHT 25% COAL, MID LUSTROUS - BRIGHT | BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 224.29 | 0.03 | 100 | 103A1 | 90% COAL, MID LUSTROUS 10% COAL, BRIGHT | BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 224.37 | 0.08 | 100 | 103A1 | 100% COAL, MID LUSTROUS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 224.38 | 0.01 | 100 | 103A1 | 100% COAL, BRIGHT | BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSE JOINT SPACING, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 224.40 | 0.02 | 100 | 103A1 | 100% COAL, DULL WITH FEW BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 224.41 | 0.01 | 100 | 103A1 | 100% COAL, INTERBANDED DULL AND BRIGHT | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|--------------------------|----------------|----------|------------------|---|---|
| *** CORE DESCRIPTION *** | | | | | |
| 224.43 | 0.02 | 100 | 103A1 | 100% TONSTEIN | BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 224.45 | 0.02 | 100 | 103A1 | 100% COAL, DULL WITH FEW BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 224.48 | 0.03 | 100 | 103A1 | 100% COAL, MID LUSTROUS - DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 224.49 | 0.01 | 100 | 103A1 | 100% COAL, MID LUSTROUS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 224.50 | 0.01 | 100 | 103A1 | 100% COAL, BRIGHT | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 224.54 | 0.04 | 100 | 103A2 | 100% CARBONACEOUS MUDSTONE | BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 224.61 | 0.07 | 100 | 103A2 | 100% MUDSTONE | CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 224.66 | 0.05 | 100 | 103A2 | 60% CARBONACEOUS MUDSTONE 40% COAL, BRIGHT | BROWN. LAMINAE, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 224.69 | 0.03 | 100 | 103A2 | 85% COAL, MID LUSTROUS 15% CARBONACEOUS MUDSTONE | BRIGHT COAL, STREAKS, BLACK. BROWN. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 224.72 | 0.03 | 100 | 103A2 | 100% CARBONACEOUS MUDSTONE | COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 224.75 | 0.03 | 100 | 103A2 | 100% COAL, DULL WITH FEW BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 224.90 | 0.15 | 100 | 103A2 | 100% COAL, MID LUSTROUS | BRIGHT COAL, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 225.01 | 0.11 | 100 | 103A2 | 100% COAL, DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 225.05 | 0.04 | 100 | 103A2 | 100% COAL, DULL WITH NUMEROUS BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 225.07 | 0.02 | 100 | 103A2 | 100% MUDSTONE | BRIGHT COAL, STREAKS, BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 225.08 | 0.01 | 100 | 103A2 | 50% COAL, BRIGHT 50% COAL, MID LUSTROUS | BLACK. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 225.11 | 0.03 | 100 | 103A2 | 100% COAL, MID LUSTROUS - DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|--------------------------|----------------|----------|------------------|---|--|
| *** CORE DESCRIPTION *** | | | | | |
| 225.12 | 0.01 | 100 | 103A2 | 50% COAL, BRIGHT 50% COAL, MID LUSTROUS | BLACK. BRIGHT COAL, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSE JOINT SPACING, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 225.14 | 0.02 | 100 | 103A2 | 100% COAL, MID LUSTROUS | BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 225.15 | 0.01 | 100 | 103A2 | 50% MUDSTONE 50% COAL, DULL | BANDS, BROWN. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 225.18 | 0.03 | 100 | 103A2 | 100% COAL, DULL WITH NUMEROUS BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 225.19 | 0.01 | 100 | 103A2 | 50% MUDSTONE 50% COAL, DULL WITH NUMEROUS BRIGHT BANDS | BROWN. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 225.21 | 0.02 | 100 | 103A2 | 100% COAL, BRIGHT | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 225.24 | 0.03 | 100 | 103A2 | 50% COAL, BRIGHT 50% CARBONACEOUS MUDSTONE | BLACK. BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 225.25 | 0.01 | 100 | 103A2 | 50% COAL, BRIGHT WITH NUMEROUS DULL BANDS 50% CLAY | BLACK. BLACK. UNWEATHERED, VERY WEAK ROCK, RAPID SLAKING, MODERATELY STICKY, SLIGHT PERMIABILITY. |
| 225.34 | 0.09 | 100 | 103A2 | 60% COAL, DULL WITH FEW BRIGHT BANDS 40% CARBONACEOUS MUDSTONE | BLACK. BRIGHT COAL, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 225.38 | 0.04 | 100 | 103A2 | 100% COAL, MID LUSTROUS - BRIGHT | BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 225.39 | 0.01 | 100 | 103A2 | 100% COAL, BRIGHT | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 225.40 | 0.01 | 100 | 103A2 | 100% CARBONACEOUS MUDSTONE | BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 225.56 | 0.16 | 100 | 103A2 | 100% COAL, MID LUSTROUS | BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 225.58 | 0.02 | 100 | 103A2 | 100% COAL, BRIGHT WITH NUMEROUS DULL BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 225.63 | 0.05 | 100 | 103A2 | 100% COAL, MID LUSTROUS | BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 225.64 | 0.01 | 100 | 103A2 | 100% CARBONACEOUS MUDSTONE | COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC % | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION *** |
|---|----------------|----------|------------------|---|--|
| 225.67 | 0.03 | 100 | 103A2 | 100% COAL, MID LUSTROUS | BRIGHT COAL, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 225.69 | 0.02 | 100 | 103A2 | 100% COAL, MID LUSTROUS - BRIGHT | BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSE JOINT SPACING, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 225.70 | 0.01 | 100 | 103A2 | 100% CARBONACEOUS MUDSTONE | BRIGHT COAL, STREAKS, GREY-BROWN, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 225.76 | 0.06 | 100 | 103A2 | 100% COAL, MID LUSTROUS | BRIGHT COAL, STREAKS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 225.80 | 0.04 | 100 | 103A2 | 100% COAL, MID LUSTROUS - BRIGHT | BRIGHT COAL, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 225.82 | 0.02 | 100 | 103A2 | 100% COAL, BRIGHT | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, VERY CLOSE JOINT SPACING, JOINTS DIP 90 DEG., TIGHT, PLANAR, SMOOTH DISCONTINUITIES, INFILLED WITH CALCITE, SLIGHT PERMIABILITY. |
| 225.83 | 0.01 | 100 | 103A2 | 100% COAL, MID LUSTROUS | BRIGHT COAL, BANDS, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 225.86 | 0.03 | 100 | 103A2 | 100% CARBONACEOUS MUDSTONE | COALY, BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| BASE OF DALMAYNE D LONER : THICKNESS= 1.89 M; SAMPLED THICKNESS= 1.89 M | | | | | |
| 225.91 | 0.05 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 226.06 | 0.15 | 100 | 103T4 | 100% MUDSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 226.10 | 0.04 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, NON SLAKING, SLIGHT PERMIABILITY. |
| 226.12 | 0.02 | 100 | | 60% MUDSTONE 40% CARBONACEOUS MUDSTONE | CARBONACEOUS, DARK GREY. BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 226.18 | 0.06 | 100 | | 80% MUDSTONE 20% SILTSTONE | GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, SLIGHT PERMIABILITY. |
| 226.32 | 0.14 | 100 | 103T5 | 75% MUDSTONE 25% SILTSTONE | GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, SLIGHT PERMIABILITY. |
| 226.42 | 0.10 | 100 | 103T6 | 100% MUDSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, SLIGHT PERMIABILITY. |
| 226.45 | 0.03 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, NON SLAKING, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC % | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION *** CORE DESCRIPTION *** |
|-----------------------|----------------|----------|------------------|---|---|
| 226.46 | 0.01 | 100 | | 50% MUDSTONE 50% COAL, BRIGHT | GREY. BRIGHT COAL, BANDS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 226.70 | 0.24 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH PLANT REMAINS, SLIGHT PERMIABILITY. |
| 226.74 | 0.04 | 100 | | 100% CARBONACEOUS MUDSTONE | DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 226.75 | 0.01 | 100 | | 50% MUDSTONE 50% CLAY | DARK GREY. GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 226.78 | 0.03 | 100 | | 100% MUDSTONE | CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 226.79 | 0.01 | 100 | | 50% CARBONACEOUS MUDSTONE 50% MUDSTONE | BLACK. GREY. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 226.80 | 0.01 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 226.82 | 0.02 | 100 | | 100% CLAY | GREY, UNWEATHERED, VERY WEAK ROCK, RAPID SLAKING, MODERATELY STICKY, SLIGHT PERMIABILITY. |
| 226.86 | 0.04 | 100 | | 95% MUDSTONE 5% COAL | GREY. FRAGMENTS, BLACK. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 226.90 | 0.04 | 100 | | 100% CLAY | GREY, UNWEATHERED, VERY WEAK ROCK, RAPID SLAKING, MODERATELY STICKY, SLIGHT PERMIABILITY. |
| 227.00 | 0.10 | 100 | | 100% MUDSTONE | MASSIVE, GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 227.06 | 0.06 | 100 | | 60% MUDSTONE 40% MUDSTONE | COALY, STREAKS, GREY. CARBONACEOUS, DARK GREY. UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 227.09 | 0.03 | 100 | | 50% MUDSTONE 50% CLAY | GREY. GREY. UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY. |
| 227.10 | 0.01 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, VERY WEAK ROCK, RAPID SLAKING, MODERATELY STICKY, SLIGHT PERMIABILITY. |
| 227.13 | 0.03 | 100 | | 100% CLAY | GREY, UNWEATHERED, VERY WEAK ROCK, SLIGHT PERMIABILITY. |
| 227.14 | 0.01 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, WEAK ROCK, SLIGHT PERMIABILITY. |
| 227.16 | 0.02 | 100 | | 100% CLAY | GREY, UNWEATHERED, VERY WEAK ROCK, RAPID SLAKING, MODERATELY STICKY, SLIGHT PERMIABILITY. |
| 227.17 | 0.01 | 100 | | 100% MUDSTONE | GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|--------------------------|----------------|----------|------------------|--|--|
| *** CORE DESCRIPTION *** | | | | | |
| 227.22 | 0.05 | 100 | | 100% CARBONACEOUS MUDSTONE | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 227.26 | 0.04 | 100 | | 100% MUDSTONE | CARBONACEOUS, DARK GREY, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 227.30 | 0.04 | 100 | | 100% COAL, DULL | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 227.35 | 0.05 | 100 | | 75% MUDSTONE 25% COAL, DULL | BANDS, LIGHT BROWN. STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 227.45 | 0.10 | 100 | | 100% COAL, DULL WITH FEW BRIGHT BANDS | BLACK, UNWEATHERED, MODERATELY WEAK ROCK, SLIGHT PERMIABILITY. |
| 227.76 | 0.31 | 100 | | 100% MUDSTONE | MASSIVE, SILTSTONE, GREY, UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT TRANSITIONAL, SLIGHT PERMIABILITY. |
| 228.47 | 0.71 | 100 | | 75% MUDSTONE 25% SILTSTONE | MASSIVE, GREY. BANDS, LAMINAE, GREY. UNWEATHERED, MODERATELY WEAK ROCK, BASAL CONTACT TRANSITIONAL, SLIGHT PERMIABILITY. |
| 228.87 | 0.40 | 100 | | 95% SANDSTONE, FINE GRAINED 5% SILTSTONE | LIGHT GREY. BANDS, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, BEDS DIP 3 DEG., EFFECTIVELY IMPERMIABLE. |
| 230.68 | 1.81 | 100 | | 100% SANDSTONE | MED.-FINE GRAINED, MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 231.50 | 0.82 | 100 | | 95% SANDSTONE, FINE GRAINED 5% SILTSTONE | LIGHT GREY. LAMINAE, DARK GREY. UNWEATHERED, MODERATELY WEAK ROCK, VERY THINLY BEDDED, BEDS DIP 5 DEG., EFFECTIVELY IMPERMIABLE. |
| 232.02 | 0.52 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 232.09 | 0.07 | 100 | | 100% SANDSTONE, FINE GRAINED | LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 232.86 | 0.77 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 233.07 | 0.21 | 100 | | 80% SANDSTONE, MEDIUM GRAINED 15% COAL 5% MUDSTONE | LIGHT GREY. FRAGMENTS, STREAKS, BLACK. PELLETAL, GREY. UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, WITH MUD PELLETS, EFFECTIVELY IMPERMIABLE. |
| 233.26 | 0.19 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |

| DEPTH TO BASE M | THICKNESS M | REC X | SAMPLE NUMBER | ROCK TYPE | GEOLOGICAL DESCRIPTION |
|--------------------------|----------------|----------|------------------|---|---|
| *** CORE DESCRIPTION *** | | | | | |
| 233.39 | 0.13 | 100 | | 85% SANDSTONE, MEDIUM GRAINED 15% COAL | LIGHT GREY. FRAGMENTS, STREAKS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 234.56 | 1.17 | 100 | | 95% SANDSTONE, MEDIUM GRAINED 5% SANDSTONE, FINE GRAINED | MASSIVE, LIGHT GREY. BANDS, LIGHT GREY. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 234.80 | 0.24 | 100 | | 100% SANDSTONE, FINE GRAINED | LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE. |
| 236.18 | 1.38 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 236.46 | 0.28 | 100 | | 95% SANDSTONE, MEDIUM GRAINED 5% COAL | LIGHT GREY. STREAKS, FRAGMENTS, BLACK. UNWEATHERED, MODERATELY WEAK ROCK, EFFECTIVELY IMPERMIABLE. |
| 238.12 | 1.66 | 100 | | 100% SANDSTONE, MEDIUM GRAINED | MASSIVE, LIGHT GREY, UNWEATHERED, MODERATELY WEAK ROCK, WITH CARBONACEOUS WISPS, EFFECTIVELY IMPERMIABLE. |