

SEDIMENT SMEAR SLIDE & THIN SECTION WORKSHEET

| Leg | Site  | Hole | Core | Type | Sec | Interval (cm) |        |
|-----|-------|------|------|------|-----|---------------|--------|
|     |       |      |      |      |     | Top           | Bottom |
| 317 | 41351 | B    | 45   | X    | 2   | 60            |        |

|                    |                  |          |            |
|--------------------|------------------|----------|------------|
| Sediment/Rock Name | <i>Alkyd Mud</i> | Observer | <i>Kmm</i> |
|--------------------|------------------|----------|------------|

|          |           |
|----------|-----------|
| SMEAR    | Thin Sect |
| <i>X</i> |           |

|          |       |
|----------|-------|
| Dominant | Minor |
| <i>X</i> |       |

| Percent Texture |             |           |
|-----------------|-------------|-----------|
| Sand            | Silt        | Clay      |
| <i>5</i>        | <i>96.5</i> | <i>30</i> |

| Percent                             | Component                              |
|-------------------------------------|--|
| <b>SILICICLASTIC GRAINS/MINERAL</b> |  |
|                                     | Framework minerals                     |
| <i>20</i>                           | Quartz                                 |
| <i>20</i>                           | Feldspar (undifferentiated)            |
|                                     | K-feldspar (Orthoclase, Microcline...) |
|                                     | Plagioclase                            |
| <i>5</i>                            | Rock fragments                         |
|                                     | Volcanic glass                         |
|                                     | Accessory/trace minerals               |
|                                     | Micas                                  |
|                                     | Biotite                                |
| <i>1/5</i>                          | Muscovite                              |
|                                     | Chlorite                               |
| <i>30</i>                           | Clay Minerals                          |
|                                     | Glauconite                             |
| <i>1</i>                            | Ferromagnesian minerals                |
| <i>15</i>                           | <i>other dense</i>                     |
|                                     | Authigenic minerals                    |
|                                     | Zeolite                                |
|                                     | Pyrite                                 |
|                                     | Opaque minerals (undifferentiated)     |
|                                     | Fe-oxide                               |
| <i>tr</i>                           | Carbonate                              |
|                                     | Micrite                                |
|                                     | Others                                 |

| Percent                | Component                           |
|------------------------|-------------------------------------|
| <b>BIOGENIC GRAINS</b> |                                     |
|                        | Calcareous                          |
| <i>1</i>               | Foraminifera                        |
| <i>1</i>               | Nannofossils                        |
|                        | Pteropods                           |
|                        | Ostracodes                          |
| <i>#1</i>              | Bioclast (undifferentiated)         |
|                        | <i>Calc. Sponge</i>                 |
|                        | <i>tunicate spicules</i>            |
|                        | Siliceous                           |
|                        | Radiolarians                        |
|                        | Diatoms                             |
|                        | Silicoflagellates                   |
|                        | Sponge spicules                     |
|                        | Siliceous debris (undifferentiated) |
|                        | Others                              |
|                        | Dinoflagellates                     |
|                        | Pollen                              |
|                        | Organic debris                      |
|                        | Plant debris                        |
|                        | Bryozoans                           |
|                        | Echinoderm                          |
|                        | Fish remains (teeth, bones, scales) |
|                        | Bivalves                            |
|                        | Others                              |

Comments:

SEDIMENT SMEAR SLIDE & THIN SECTION WORKSHEET

| Leg | Site  | Hole | Core | Type | Sec | Interval (cm) |        |
|-----|-------|------|------|------|-----|---------------|--------|
|     |       |      |      |      |     | Top           | Bottom |
| 317 | 41351 | B    | 47   | X    | 1   | 57            |        |

|                    |     |          |       |
|--------------------|-----|----------|-------|
| Sediment/Rock Name | Mud | Observer | Kumar |
|--------------------|-----|----------|-------|

| SMEAR | Thin Sect |
|-------|-----------|
| X     |           |

| Dominant | Minor |
|----------|-------|
| K        |       |

| Percent Texture |      |      |
|-----------------|------|------|
| Sand            | Silt | Clay |
| 5               | 65   | 30   |

59/60 7% carb

| Percent                             | Component                              |
|-------------------------------------|--|
| <b>SILICICLASTIC GRAINS/MINERAL</b> |  |
|                                     | Framework minerals                     |
| 20                                  | Quartz                                 |
| 20                                  | Feldspar (undifferentiated)            |
|                                     | K-feldspar (Orthoclase, Microcline...) |
|                                     | Plagioclase                            |
| 58                                  | Rock fragments                         |
|                                     | Volcanic glass                         |
|                                     | Accessory/trace minerals               |
|                                     | Micas                                  |
|                                     | Biotite                                |
| 5                                   | Muscovite                              |
| 5                                   | Chlorite                               |
| 30                                  | Clay Minerals                          |
| tr                                  | Glauconite                             |
| tr                                  | Ferromagnesian minerals                |
| 13                                  | other dense                            |
|                                     | Authigenic minerals                    |
|                                     | Zeolite                                |
|                                     | Pyrite                                 |
|                                     | Opaque minerals (undifferentiated)     |
|                                     | Fe-oxide                               |
| tr                                  | Carbonate                              |
|                                     | Micrite                                |
|                                     | Others                                 |

| Percent                | Component                           |
|------------------------|-------------------------------------|
| <b>BIOGENIC GRAINS</b> |                                     |
|                        | Calcareous                          |
|                        | Foraminifera                        |
| 2                      | Nannofossils                        |
|                        | Pteropods                           |
|                        | Ostracodes                          |
| tr                     | Bioclast (undifferentiated)         |
| tr                     | Calc. Sponge tunicate spicules      |
|                        | Siliceous                           |
|                        | Radiolarians                        |
|                        | Diatoms                             |
|                        | Silicoflagellates                   |
|                        | Sponge spicules                     |
|                        | Siliceous debris (undifferentiated) |
|                        | Others                              |
|                        | Dinoflagellates                     |
|                        | Pollen                              |
|                        | Organic debris                      |
|                        | Plant debris                        |
|                        | Bryozoans                           |
|                        | Echinoderm                          |
|                        | Fish remains (teeth, bones, scales) |
|                        | Bivalves                            |
|                        | Others                              |

Evidence for uphole Condemnites

Comments:

SEDIMENT SMEAR SLIDE & THIN SECTION WORKSHEET

| Leg | Site   | Hole | Core | Type | Sec | Interval (cm) |        |
|-----|--------|------|------|------|-----|---------------|--------|
|     |        |      |      |      |     | Top           | Bottom |
| 317 | 410351 | B    | 48   | X    | 1   | 110           |        |

|                    |                              |          |            |
|--------------------|------------------------------|----------|------------|
| Sediment/Rock Name | <i>Silty<br/>Bluish Sand</i> | Observer | <i>KMN</i> |
|--------------------|------------------------------|----------|------------|

|          |           |
|----------|-----------|
| SMEAR    | Thin Sect |
| <i>X</i> |           |

|          |       |
|----------|-------|
| Dominant | Minor |
| <i>X</i> |       |

| Percent Texture |           |           |
|-----------------|-----------|-----------|
| Sand            | Silt      | Clay      |
| <i>605</i>      | <i>20</i> | <i>15</i> |

*111/112 5%*

| Percent                             | Component                              |
|-------------------------------------|--|
| <b>SILICICLASTIC GRAINS/MINERAL</b> |  |
|                                     | Framework minerals                     |
| <i>25 30</i>                        | Quartz                                 |
| <i>20 30</i>                        | Feldspar (undifferentiated)            |
|                                     | K-feldspar (Orthoclase, Microcline...) |
|                                     | Plagioclase                            |
| <i>10</i>                           | Rock fragments                         |
|                                     | Volcanic glass                         |
|                                     | Accessory/trace minerals               |
|                                     | Micas                                  |
| <i>tr</i>                           | Biotite                                |
| <i>2</i>                            | Muscovite                              |
| <i>5</i>                            | Chlorite                               |
| <i>15</i>                           | Clay Minerals                          |
|                                     | Glauconite                             |
| <i>2</i>                            | Ferromagnesian minerals                |
| <i>20</i>                           | <i>other dense lots of epidote</i>     |
|                                     | Authigenic minerals                    |
|                                     | Zeolite                                |
|                                     | Pyrite                                 |
|                                     | Opaque minerals (undifferentiated)     |
|                                     | Fe-oxide                               |
|                                     | Carbonate                              |
|                                     | Micrite                                |
|                                     | Others                                 |

| Percent                | Component                             |
|------------------------|---------------------------------------|
| <b>BIOGENIC GRAINS</b> |                                       |
|                        | Calcareous                            |
|                        | Foraminifera                          |
| <i>1</i>               | Nannofossils                          |
|                        | Pteropods                             |
|                        | Ostracodes                            |
| <i>tr</i>              | Bioclast (undifferentiated)           |
| <i>tr</i>              | <i>Calc. Sponge tunicate spicules</i> |
|                        | Siliceous                             |
|                        | Radiolarians                          |
|                        | Diatoms                               |
|                        | Silicoflagellates                     |
|                        | Sponge spicules                       |
|                        | Siliceous debris (undifferentiated)   |
|                        | Others                                |
|                        | Dinoflagellates                       |
|                        | Pollen                                |
|                        | Organic debris                        |
|                        | Plant debris                          |
|                        | Bryozoans                             |
|                        | Echinoderm                            |
|                        | Fish remains (teeth, bones, scales)   |
|                        | Bivalves                              |
|                        | Others                                |

Comments:





SEDIMENT SMEAR SLIDE & THIN SECTION WORKSHEET

| Leg | Site  | Hole | Core | Type | Sec | Interval (cm) |        |
|-----|-------|------|------|------|-----|---------------|--------|
|     |       |      |      |      |     | Top           | Bottom |
| 317 | U1351 | B    | S3   | X    | CC  | 29            |        |

|                    |                  |          |            |
|--------------------|------------------|----------|------------|
| Sediment/Rock Name | <i>Sandy mud</i> | Observer | <i>Kmm</i> |
|--------------------|------------------|----------|------------|

|                                     |                          |
|-------------------------------------|--------------------------|
| SMEAR                               | Thin Sect                |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> |

|                                     |                          |
|-------------------------------------|--------------------------|
| Dominant                            | Minor                    |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> |

| Percent Texture |           |           |
|-----------------|-----------|-----------|
| Sand            | Silt      | Clay      |
| <i>20</i>       | <i>50</i> | <i>20</i> |

| Percent                             | Component                              |
|-------------------------------------|--|
| <b>SILICICLASTIC GRAINS/MINERAL</b> |  |
|                                     | Framework minerals                     |
| <i>20</i>                           | Quartz                                 |
| <i>20</i>                           | Feldspar (undifferentiated)            |
|                                     | K-feldspar (Orthoclase, Microcline...) |
|                                     | Plagioclase                            |
|                                     | Rock fragments                         |
| <i>10</i>                           | Volcanic glass                         |
|                                     | Accessory/trace minerals               |
|                                     | Micas                                  |
|                                     | Biotite                                |
| <i>5</i>                            | Muscovite                              |
| <i>5</i>                            | Chlorite                               |
| <i>29</i>                           | Clay Minerals                          |
| <i>tr</i>                           | Glauconite                             |
| <i>20</i>                           | Ferromagnesian minerals                |
|                                     | <i>other dense</i>                     |
|                                     | Authigenic minerals                    |
|                                     | Zeolite                                |
|                                     | Pyrite                                 |
|                                     | Opaque minerals (undifferentiated)     |
|                                     | Fe-oxide                               |
|                                     | Carbonate                              |
|                                     | Micrite                                |
|                                     | Others                                 |

| Percent                | Component                           |
|------------------------|-------------------------------------|
| <b>BIOGENIC GRAINS</b> |                                     |
|                        | Calcareous                          |
| <i>tr</i>              | Foraminifera                        |
| <i>tr</i>              | Nannofossils                        |
|                        | Pteropods                           |
|                        | Ostracodes                          |
|                        | Bioclast (undifferentiated)         |
|                        | <i>Calc. Sponge</i>                 |
|                        | <i>tunicate spicules</i>            |
|                        | Siliceous                           |
|                        | Radiolarians                        |
|                        | Diatoms                             |
|                        | Silicoflagellates                   |
|                        | Sponge spicules                     |
|                        | Siliceous debris (undifferentiated) |
|                        | Others                              |
|                        | Dinoflagellates                     |
|                        | Pollen                              |
| <i>tr</i>              | Organic debris                      |
|                        | Plant debris                        |
|                        | Bryozoans                           |
|                        | Echinoderm                          |
|                        | Fish remains (teeth, bones, scales) |
|                        | Bivalves                            |
|                        | Others                              |

Comments:

SEDIMENT SMEAR SLIDE & THIN SECTION WORKSHEET

| Leg | Site  | Hole | Core | Type | Sec | Interval (cm) |        |
|-----|-------|------|------|------|-----|---------------|--------|
|     |       |      |      |      |     | Top           | Bottom |
| 317 | 41351 | B    | 54   | x    | CC  | 22            |        |

|                    |                   |          |            |
|--------------------|-------------------|----------|------------|
| Sediment/Rock Name | <i>Silty Sand</i> | Observer | <i>KMM</i> |
|--------------------|-------------------|----------|------------|

|                                     |                          |
|-------------------------------------|--------------------------|
| SMEAR                               | Thin Sect                |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> |

|                                     |                          |
|-------------------------------------|--------------------------|
| Dominant                            | Minor                    |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> |

| Percent Texture |           |          |
|-----------------|-----------|----------|
| Sand            | Silt      | Clay     |
| <i>50</i>       | <i>45</i> | <i>5</i> |

*Quick one!*

| Percent                             | Component                              |
|-------------------------------------|--|
| <b>SILICICLASTIC GRAINS/MINERAL</b> |  |
|                                     | Framework minerals                     |
| <i>20</i>                           | Quartz                                 |
| <i>10-20 20</i>                     | Feldspar (undifferentiated)            |
|                                     | K-feldspar (Orthoclase, Microcline...) |
|                                     | Plagioclase                            |
| <i>20</i>                           | Rock fragments <i>Schist</i>           |
|                                     | Volcanic glass                         |
|                                     | Accessory/trace minerals               |
|                                     | Micas                                  |
|                                     | Biotite                                |
| <i>5</i>                            | Muscovite                              |
| <i>5</i>                            | Chlorite                               |
| <i>5</i>                            | Clay Minerals                          |
| <i>tr</i>                           | Glauconite                             |
| <i>tr</i>                           | Ferromagnesian minerals                |
| <i>20</i>                           | <i>other dense</i>                     |
|                                     | Authigenic minerals                    |
|                                     | Zeolite                                |
| <i>1</i>                            | Pyrite                                 |
|                                     | Opaque minerals (undifferentiated)     |
|                                     | Fe-oxide                               |
|                                     | Carbonate                              |
|                                     | Micrite                                |
|                                     | Others                                 |

| Percent                | Component                           |
|------------------------|-------------------------------------|
| <b>BIOGENIC GRAINS</b> |                                     |
|                        | Calcareous                          |
| <i>1</i>               | Foraminifera                        |
|                        | Nannofossils                        |
|                        | Pteropods                           |
|                        | Ostracodes                          |
| <i>tr</i>              | Bioclast (undifferentiated)         |
|                        | <i>Calc. Sponge</i>                 |
|                        | <i>tunicate spicules</i>            |
|                        | Siliceous                           |
|                        | Radiolarians                        |
|                        | Diatoms                             |
|                        | Silicoflagellates                   |
|                        | Sponge spicules                     |
|                        | Siliceous debris (undifferentiated) |
|                        | Others                              |
|                        | Dinoflagellates                     |
|                        | Pollen                              |
|                        | Organic debris                      |
|                        | Plant debris                        |
|                        | Bryozoans                           |
|                        | Echinoderm                          |
|                        | Fish remains (teeth, bones, scales) |
|                        | Bivalves                            |
|                        | Others                              |

Comments:

SEDIMENT SMEAR SLIDE & THIN SECTION WORKSHEET

| Leg | Site | Hole | Core | Type | Sec | Interval (cm) |        |
|-----|------|------|------|------|-----|---------------|--------|
|     |      |      |      |      |     | Top           | Bottom |
| 317 | 1351 | B    | S7   | H    | 1   | 50            |        |

|                    |      |          |    |
|--------------------|------|----------|----|
| Sediment/Rock Name | Sand | Observer | Km |
|--------------------|------|----------|----|

|       |           |
|-------|-----------|
| SMEAR | Thin Sect |
| ✓     |           |

|          |       |
|----------|-------|
| Dominant | Minor |
| ✓        | •     |

| Percent Texture |      |      |
|-----------------|------|------|
| Sand            | Silt | Clay |
| 80              | 10   | 10   |

1?

| Percent                             | Component                              |
|-------------------------------------|--|
| <b>SILICICLASTIC GRAINS/MINERAL</b> |  |
|                                     | Framework minerals                     |
| 30                                  | Quartz                                 |
| 10                                  | Feldspar (undifferentiated)            |
|                                     | K-feldspar (Orthoclase, Microcline...) |
|                                     | Plagioclase                            |
| 25                                  | Rock fragments <i>Schist</i>           |
|                                     | Volcanic glass                         |
|                                     | Accessory/trace minerals               |
|                                     | Micas                                  |
|                                     | Biotite                                |
| 10                                  | Muscovite                              |
| 10                                  | Chlorite                               |
| 5                                   | Clay Minerals                          |
|                                     | Glauconite                             |
| tr                                  | Ferromagnesian minerals                |
| 10 <del>10</del>                    | <i>other dense opulote etc</i>         |
|                                     | <i>gypsum</i>                          |
|                                     | Authigenic minerals                    |
|                                     | Zeolite                                |
| tr                                  | Pyrite                                 |
| tr                                  | Opaque minerals (undifferentiated)     |
|                                     | Fe-oxide                               |
|                                     | Carbonate                              |
|                                     | Micrite                                |
|                                     | Others                                 |

| Percent                | Component                            |
|------------------------|--------------------------------------|
| <b>BIOGENIC GRAINS</b> |                                      |
|                        | Calcareous                           |
| tr                     | Foraminifera <i>filled w/ pyrite</i> |
| 1 <del>tr</del>        | Nannofossils                         |
|                        | Pteropods                            |
|                        | Ostracodes                           |
| tr                     | Bioclast (undifferentiated)          |
|                        | <i>Calc. Sponge</i>                  |
|                        | <i>tunicate spicules</i>             |
|                        | Siliceous                            |
|                        | Radiolarians                         |
|                        | Diatoms                              |
|                        | Silicoflagellates                    |
|                        | Sponge spicules                      |
|                        | Siliceous debris (undifferentiated)  |
|                        | Others                               |
|                        | Dinoflagellates                      |
|                        | Pollen                               |
|                        | Organic debris                       |
|                        | Plant debris                         |
|                        | Bryozoans                            |
|                        | Echinoderm                           |
|                        | Fish remains (teeth, bones, scales)  |
|                        | Bivalves                             |
|                        | Others                               |

Comments:

SEDIMENT SMEAR SLIDE & THIN SECTION WORKSHEET

| Leg | Site  | Hole | Core | Type | Sec | Interval (cm) |        |
|-----|-------|------|------|------|-----|---------------|--------|
|     |       |      |      |      |     | Top           | Bottom |
| 317 | U1351 | B    | S9   | H    | 1   | 105           |        |

|                    |   |
|--------------------|---|
| Sediment/Rock Name | <del>Mud</del> <sup>Silt</sup> Silty sand |
|--------------------|---|

|          |     |
|----------|-----|
| Observer | KMM |
|----------|-----|

|       |           |
|-------|-----------|
| SMEAR | Thin Sect |
| ✓     |           |

|          |       |
|----------|-------|
| Dominant | Minor |
| ✓        |       |

| Percent Texture |      |      |
|-----------------|------|------|
| Sand            | Silt | Clay |
| 100             | 30   | 10   |

| Percent                             | Component                              |
|-------------------------------------|--|
| <b>SILICICLASTIC GRAINS/MINERAL</b> |  |
|                                     | Framework minerals                     |
| 25 <del>20</del>                    | Quartz                                 |
| 20                                  | Feldspar (undifferentiated)            |
|                                     | K-feldspar (Orthoclase, Microcline...) |
|                                     | Plagioclase                            |
| 20 <del>20</del>                    | Rock fragments                         |
| <del>10</del>                       | Volcanic glass                         |
|                                     | Accessory/trace minerals               |
|                                     | Micas                                  |
|                                     | Biotite                                |
| 5                                   | Muscovite                              |
| 5                                   | Chlorite                               |
| 10                                  | Clay Minerals                          |
|                                     | Glauconite                             |
| tr                                  | Ferromagnesian minerals                |
| 10                                  | other dense <i>zircon</i>              |
|                                     | Authigenic minerals                    |
|                                     | Zeolite                                |
| 1                                   | Pyrite                                 |
|                                     | Opaque minerals (undifferentiated)     |
|                                     | Fe-oxide                               |
|                                     | Carbonate                              |
|                                     | Micrite                                |
|                                     | Others                                 |

| Percent                | Component                           |
|------------------------|-------------------------------------|
| <b>BIOGENIC GRAINS</b> |                                     |
|                        | Calcareous                          |
|                        | Foraminifera                        |
| 1                      | Nannofossils                        |
|                        | Pteropods                           |
|                        | Ostracodes                          |
| 3                      | Bioclast (undifferentiated)         |
|                        | <i>Calc. Sponge</i>                 |
|                        | <i>truncate spicules</i>            |
|                        | Siliceous                           |
|                        | Radiolarians                        |
|                        | Diatoms                             |
|                        | Silicoflagellates                   |
|                        | Sponge spicules                     |
|                        | Siliceous debris (undifferentiated) |
|                        | Others                              |
|                        | Dinoflagellates                     |
|                        | Pollen                              |
|                        | Organic debris                      |
|                        | Plant debris                        |
|                        | Bryozoans                           |
|                        | Echinoderm                          |
|                        | Fish remains (teeth, bones, scales) |
|                        | Bivalves                            |
|                        | Others                              |

Comments: