

Core number N

Core Name X
Slog

Temp. 0.00
0.00

E-157

IODP Exp. 358 Cuttings Description Sheet (macroscopic)

NO. 1 Date: / /18

OBSERVER: Pauline Rina

Sample ID	Claystone						Siltstone						Sandstone						Wood/Lignite	Ash/Tuff	Fossils	Visual description
	(%)	Color	Consolidation	Structures	Shape	Texture	(%)	Color	Consolidation	Structures	Shape	Texture	(%)	Color	Consolidation	Structures	Shape	Texture				
30	ND		Loose Soft Semi Hard	Yes · No	Blocky/Angular Round Platy/Tabular Splinter Curved	Crumbly Sticky Fissile	16		Loose Soft Semi Hard	Yes · No	Blocky/Angular Round Platy/Tabular Splinter Curved	Crumbly Sticky Fissile	1	N-7	Loose Soft Semi Hard	Yes · No	Blocky/Angular Round Platy/Tabular Splinter Curved	Crumbly Sticky Fissile	N/R/ F/C/ A/D	N/R/ F/C/ A/D	N/R/ F/C/ A/D	Wood & lignite are drilled out.
32	2		Loose Soft Semi Hard	Yes · No	Blocky/Angular Round Platy/Tabular Splinter Curved	Crumbly Sticky Fissile	24		Loose Soft Semi Hard	Yes · No	Blocky/Angular Round Platy/Tabular Splinter Curved	Crumbly Sticky Fissile	2		Loose Soft Semi Hard	Yes · No	Blocky/Angular Round Platy/Tabular Splinter Curved	Crumbly Sticky Fissile	N/R/ F/C/ A/D	N/R/ F/C/ A/D	N/R/ F/C/ A/D	
36	7		Loose Soft Semi Hard	Yes · No	Blocky/Angular Round Platy/Tabular Splinter Curved	Crumbly Sticky Fissile	44	75% (5%)	Loose Soft Semi Hard	Yes · No	Blocky/Angular Round Platy/Tabular Splinter Curved	Crumbly Sticky Fissile	11	25% 6/1 5% 6/1	Loose Soft Semi Hard	Yes · No	Blocky/Angular Round Platy/Tabular Splinter Curved	Crumbly Sticky Fissile	N/R/ F/C/ A/D	N/R/ F/C/ A/D	N/R/ F/C/ A/D	
38	51		Loose Soft Semi Hard	Yes · No	Blocky/Angular Round Platy/Tabular Splinter Curved	Crumbly Sticky Fissile	36		Loose Soft Semi Hard	Yes · No	Blocky/Angular Round Platy/Tabular Splinter Curved	Crumbly Sticky Fissile	13		Loose Soft Semi Hard	Yes · No	Blocky/Angular Round Platy/Tabular Splinter Curved	Crumbly Sticky Fissile	N/R/ F/C/ A/D	N/R/ F/C/ A/D	N/R/ F/C/ A/D	
40	24		Loose Soft Semi Hard	Yes · No	Blocky/Angular Round Platy/Tabular Splinter Curved	Crumbly Sticky Fissile	59		Loose Soft Semi Hard	Yes · No	Blocky/Angular Round Platy/Tabular Splinter Curved	Crumbly Sticky Fissile	17		Loose Soft Semi Hard	Yes · No	Blocky/Angular Round Platy/Tabular Splinter Curved	Crumbly Sticky Fissile	N/R/ F/C/ A/D	N/R/ F/C/ A/D	N/R/ F/C/ A/D	
43	19		Loose Soft Semi Hard	Yes · No	Blocky/Angular Round Platy/Tabular Splinter Curved	Crumbly Sticky Fissile	52		Loose Soft Semi Hard	Yes · No	Blocky/Angular Round Platy/Tabular Splinter Curved	Crumbly Sticky Fissile	22		Loose Soft Semi Hard	Yes · No	Blocky/Angular Round Platy/Tabular Splinter Curved	Crumbly Sticky Fissile	N/R/ F/C/ A/D	N/R/ F/C/ A/D	N/R/ F/C/ A/D	
45	42		Loose Soft Semi Hard	Yes · No	Blocky/Angular Round Platy/Tabular Splinter Curved	Crumbly Sticky Fissile	82		Loose Soft Semi Hard	Yes · No	Blocky/Angular Round Platy/Tabular Splinter Curved	Crumbly Sticky Fissile	20		Loose Soft Semi Hard	Yes · No	Blocky/Angular Round Platy/Tabular Splinter Curved	Crumbly Sticky Fissile	N/R/ F/C/ A/D	N/R/ F/C/ A/D	N/R/ F/C/ A/D	
47	23		Loose Soft Semi Hard	Yes · No	Blocky/Angular Round Platy/Tabular Splinter Curved	Crumbly Sticky Fissile	62		Loose Soft Semi Hard	Yes · No	Blocky/Angular Round Platy/Tabular Splinter Curved	Crumbly Sticky Fissile	4		Loose Soft Semi Hard	Yes · No	Blocky/Angular Round Platy/Tabular Splinter Curved	Crumbly Sticky Fissile	N/R/ F/C/ A/D	N/R/ F/C/ A/D	N/R/ F/C/ A/D	
51	32		Loose Soft Semi Hard	Yes · No	Blocky/Angular Round Platy/Tabular Splinter Curved	Crumbly Sticky Fissile	53		Loose Soft Semi Hard	Yes · No	Blocky/Angular Round Platy/Tabular Splinter Curved	Crumbly Sticky Fissile	15		Loose Soft Semi Hard	Yes · No	Blocky/Angular Round Platy/Tabular Splinter Curved	Crumbly Sticky Fissile	N/R/ F/C/ A/D	N/R/ F/C/ A/D	N/R/ F/C/ A/D	
53	21		Loose Soft Semi Hard	Yes · No	Blocky/Angular Round Platy/Tabular Splinter Curved	Crumbly Sticky Fissile	69		Loose Soft Semi Hard	Yes · No	Blocky/Angular Round Platy/Tabular Splinter Curved	Crumbly Sticky Fissile	9		Loose Soft Semi Hard	Yes · No	Blocky/Angular Round Platy/Tabular Splinter Curved	Crumbly Sticky Fissile	N/R/ F/C/ A/D	N/R/ F/C/ A/D	N/R/ F/C/ A/D	

Wood/Lignite Fossils abundances:
N = Not observed, R = Rare, F = Few, C = Common, A = Abundant, D = Dominant

IODP Exp. 358 Cuttings Description Sheet (macroscopic)

NO. > Date: / /18

OBSERVER:

Sample ID	Claystone						Siltstone						Sandstone						Wood/lignite	Ash/Tuff	Fossils	Visual description
	(%)	Color	Consolidation	Structures	Shape	Texture	(%)	Color	Consolidation	Structures	Shape	Texture	(%)	Color	Consolidation	Structures	Shape	Texture				
55			Loose Soft Semi Hard	Yes . No	Blocky /Angular Round Platy /Tabular Splinter Curved	Crumbly Sticky Fissile			Loose Soft Semi Hard	Yes . No	Blocky /Angular Round Platy /Tabular Splinter Curved	Crumbly Sticky Fissile			Loose Soft Semi Hard	Yes . No	Blocky /Angular Round Platy /Tabular Splinter Curved	Crumbly Sticky Fissile	N/ R/ F/ C/ A/ D	N/ R/ F/ C/ A/ D	N/ R/ F/ C/ A/ D	
57			Loose Soft Semi Hard	Yes . No	Blocky /Angular Round Platy /Tabular Splinter Curved	Crumbly Sticky Fissile			Loose Soft Semi Hard	Yes . No	Blocky /Angular Round Platy /Tabular Splinter Curved	Crumbly Sticky Fissile			Loose Soft Semi Hard	Yes . No	Blocky /Angular Round Platy /Tabular Splinter Curved	Crumbly Sticky Fissile	N/ R/ F/ C/ A/ D	N/ R/ F/ C/ A/ D	N/ R/ F/ C/ A/ D	
			Loose Soft Semi Hard	Yes . No	Blocky /Angular Round Platy /Tabular Splinter Curved	Crumbly Sticky Fissile			Loose Soft Semi Hard	Yes . No	Blocky /Angular Round Platy /Tabular Splinter Curved	Crumbly Sticky Fissile			Loose Soft Semi Hard	Yes . No	Blocky /Angular Round Platy /Tabular Splinter Curved	Crumbly Sticky Fissile	N/ R/ F/ C/ A/ D	N/ R/ F/ C/ A/ D	N/ R/ F/ C/ A/ D	
			Loose Soft Semi Hard	Yes . No	Blocky /Angular Round Platy /Tabular Splinter Curved	Crumbly Sticky Fissile			Loose Soft Semi Hard	Yes . No	Blocky /Angular Round Platy /Tabular Splinter Curved	Crumbly Sticky Fissile			Loose Soft Semi Hard	Yes . No	Blocky /Angular Round Platy /Tabular Splinter Curved	Crumbly Sticky Fissile	N/ R/ F/ C/ A/ D	N/ R/ F/ C/ A/ D	N/ R/ F/ C/ A/ D	
			Loose Soft Semi Hard	Yes . No	Blocky /Angular Round Platy /Tabular Splinter Curved	Crumbly Sticky Fissile			Loose Soft Semi Hard	Yes . No	Blocky /Angular Round Platy /Tabular Splinter Curved	Crumbly Sticky Fissile			Loose Soft Semi Hard	Yes . No	Blocky /Angular Round Platy /Tabular Splinter Curved	Crumbly Sticky Fissile	N/ R/ F/ C/ A/ D	N/ R/ F/ C/ A/ D	N/ R/ F/ C/ A/ D	
			Loose Soft Semi Hard	Yes . No	Blocky /Angular Round Platy /Tabular Splinter Curved	Crumbly Sticky Fissile			Loose Soft Semi Hard	Yes . No	Blocky /Angular Round Platy /Tabular Splinter Curved	Crumbly Sticky Fissile			Loose Soft Semi Hard	Yes . No	Blocky /Angular Round Platy /Tabular Splinter Curved	Crumbly Sticky Fissile	N/ R/ F/ C/ A/ D	N/ R/ F/ C/ A/ D	N/ R/ F/ C/ A/ D	
			Loose Soft Semi Hard	Yes . No	Blocky /Angular Round Platy /Tabular Splinter Curved	Crumbly Sticky Fissile			Loose Soft Semi Hard	Yes . No	Blocky /Angular Round Platy /Tabular Splinter Curved	Crumbly Sticky Fissile			Loose Soft Semi Hard	Yes . No	Blocky /Angular Round Platy /Tabular Splinter Curved	Crumbly Sticky Fissile	N/ R/ F/ C/ A/ D	N/ R/ F/ C/ A/ D	N/ R/ F/ C/ A/ D	
			Loose Soft Semi Hard	Yes . No	Blocky /Angular Round Platy /Tabular Splinter Curved	Crumbly Sticky Fissile			Loose Soft Semi Hard	Yes . No	Blocky /Angular Round Platy /Tabular Splinter Curved	Crumbly Sticky Fissile			Loose Soft Semi Hard	Yes . No	Blocky /Angular Round Platy /Tabular Splinter Curved	Crumbly Sticky Fissile	N/ R/ F/ C/ A/ D	N/ R/ F/ C/ A/ D	N/ R/ F/ C/ A/ D	
			Loose Soft Semi Hard	Yes . No	Blocky /Angular Round Platy /Tabular Splinter Curved	Crumbly Sticky Fissile			Loose Soft Semi Hard	Yes . No	Blocky /Angular Round Platy /Tabular Splinter Curved	Crumbly Sticky Fissile			Loose Soft Semi Hard	Yes . No	Blocky /Angular Round Platy /Tabular Splinter Curved	Crumbly Sticky Fissile	N/ R/ F/ C/ A/ D	N/ R/ F/ C/ A/ D	N/ R/ F/ C/ A/ D	

Wood/Lignite Fossils abundances:
N = Not observed, R = Rare, F = Few, C = Common, A = Abundant, D = Dominant

> 4 mm RTGT samp

IODP Exp. 358 Cuttings Description Sheet (macroscopic)

NO. 1-11 Date: 12/7/18

OBSERVER: RINA

course?
soft

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> 4mm

| Sample ID  | Claystone |                            |                               |                |                                                                |                              | Siltstone |       |                               |                |                                                                |                              | Sandstone |       |                               |                |                                                                |                              | Wood/lignite      | Ash/Tuff          | Fossils           | Visual description                                                |
|------------|-----------|----------------------------|-------------------------------|----------------|----------------------------------------------------------------|------------------------------|-----------|-------|-------------------------------|----------------|----------------------------------------------------------------|------------------------------|-----------|-------|-------------------------------|----------------|----------------------------------------------------------------|------------------------------|-------------------|-------------------|-------------------|-------------------------------------------------------------------|
|            | N         | Color                      | Consolidation                 | Structures     | Shape                                                          | Texture                      | N         | Color | Consolidation                 | Structures     | Shape                                                          | Texture                      | N         | Color | Consolidation                 | Structures     | Shape                                                          | Texture                      |                   |                   |                   |                                                                   |
| 199<br>SMW | 3         |                            | Loose<br>Soft<br>Semi<br>Hard | Yes<br>·<br>No | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile | 125       |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>·<br>No | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile | 41        |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>·<br>No | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | washed out!!                                                      |
|            |           |                            | Loose<br>Soft<br>Semi<br>Hard | Yes<br>·<br>No | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile |           |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>·<br>No | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile |           |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>·<br>No | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D |                                                                   |
|            |           |                            | Loose<br>Soft<br>Semi<br>Hard | Yes<br>·<br>No | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile |           |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>·<br>No | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile |           |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>·<br>No | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D |                                                                   |
| 633        | 22        | 7.5Y<br>5/1<br>4/1<br>gray | Loose<br>Soft<br>Semi<br>Hard | Yes<br>·<br>No | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile | 120       |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>·<br>No | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile | 17        |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>·<br>No | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | loose, the soft material<br>wet condition color<br>color is gray. |
|            |           |                            | Loose<br>Soft<br>Semi<br>Hard | Yes<br>·<br>No | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile |           |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>·<br>No | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile |           |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>·<br>No | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D |                                                                   |
|            |           |                            | Loose<br>Soft<br>Semi<br>Hard | Yes<br>·<br>No | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile |           |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>·<br>No | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile |           |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>·<br>No | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D |                                                                   |
|            |           |                            | Loose<br>Soft<br>Semi<br>Hard | Yes<br>·<br>No | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile |           |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>·<br>No | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile |           |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>·<br>No | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D |                                                                   |
|            |           |                            | Loose<br>Soft<br>Semi<br>Hard | Yes<br>·<br>No | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile |           |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>·<br>No | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile |           |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>·<br>No | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D |                                                                   |

IODP Exp. 358 Cuttings Description Sheet (macroscopic)

NO. 3 Date: 12/13/18

OBSERVER: Pauline Arino  
Including organic matter such as carbonate materials

| Sample ID | Claystone |            |                      |            |                                                             |                        | Siltstone |             |                      |            |                                                             |                        | Sandstone |       |                      |            |                                                             |                        | Wood/Lignite      | Ash/Tuff          | Fossils           | Visual description                                     |
|-----------|-----------|------------|----------------------|------------|-------------------------------------------------------------|------------------------|-----------|-------------|----------------------|------------|-------------------------------------------------------------|------------------------|-----------|-------|----------------------|------------|-------------------------------------------------------------|------------------------|-------------------|-------------------|-------------------|--------------------------------------------------------|
|           | N         | Color      | Consolidation        | Structures | Shape                                                       | Texture                | N         | Color       | Consolidation        | Structures | Shape                                                       | Texture                | N         | Color | Consolidation        | Structures | Shape                                                       | Texture                |                   |                   |                   |                                                        |
| 365       | 24<br>20% | Light Gray | Loose Soft Semi Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter Curved | Crumbly Sticky Fissile | 58<br>49% | Dark        | Loose Soft Semi Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter Curved | Crumbly Sticky Fissile | 26<br>31% | Gray  | Loose Soft Semi Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter Curved | Crumbly Sticky Fissile | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | Some nodules filled by fine pyrite                     |
| 381       | 27<br>21% | light gray | Loose Soft Semi Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter Curved | Crumbly Sticky Fissile | 75<br>59% | olive black | Loose Soft Semi Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter Curved | Crumbly Sticky Fissile | 24<br>19% | gray  | Loose Soft Semi Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter Curved | Crumbly Sticky Fissile | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | 2.3% of cements included<br>wavy bedding               |
| 388       | 22<br>18% | light gray | Loose Soft Semi Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter Curved | Crumbly Sticky Fissile | 76<br>60% |             | Loose Soft Semi Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter Curved | Crumbly Sticky Fissile | 28<br>22% |       | Loose Soft Semi Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter Curved | Crumbly Sticky Fissile | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | Residual with 10% of cement.                           |
| 402       | 18<br>15% |            | Loose Soft Semi Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter Curved | Crumbly Sticky Fissile | 71<br>60% |             | Loose Soft Semi Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter Curved | Crumbly Sticky Fissile | 28<br>24% |       | Loose Soft Semi Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter Curved | Crumbly Sticky Fissile | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | 2% of cement<br>numbers of<br>beams with<br>beams with |
| 404       | 24<br>18% | light gray | Loose Soft Semi Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter Curved | Crumbly Sticky Fissile | 61<br>59% | olive black | Loose Soft Semi Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter Curved | Crumbly Sticky Fissile | 19<br>18% | gray  | Loose Soft Semi Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter Curved | Crumbly Sticky Fissile | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | Cement 4-1.                                            |
| 422       | 25<br>20% |            | Loose Soft Semi Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter Curved | Crumbly Sticky Fissile | 53<br>52% |             | Loose Soft Semi Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter Curved | Crumbly Sticky Fissile | 23<br>23% |       | Loose Soft Semi Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter Curved | Crumbly Sticky Fissile | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | 3% of cement<br>numbers of<br>plates                   |
| 436       | 40<br>31% |            | Loose Soft Semi Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter Curved | Crumbly Sticky Fissile | 54<br>50% |             | Loose Soft Semi Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter Curved | Crumbly Sticky Fissile | 15<br>14% |       | Loose Soft Semi Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter Curved | Crumbly Sticky Fissile | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | 60% of cement<br>decrease in<br>of carbonate           |
| 449       | 60<br>53% |            | Loose Soft Semi Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter Curved | Crumbly Sticky Fissile | 41<br>36% |             | Loose Soft Semi Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter Curved | Crumbly Sticky Fissile | 12<br>11% |       | Loose Soft Semi Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter Curved | Crumbly Sticky Fissile | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | 10% of cement<br>the clay claystone<br>cement.         |
| 466       | 47<br>42% |            | Loose Soft Semi Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter Curved | Crumbly Sticky Fissile | 49<br>45% |             | Loose Soft Semi Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter Curved | Crumbly Sticky Fissile | 14<br>13% |       | Loose Soft Semi Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter Curved | Crumbly Sticky Fissile | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D |                                                        |
| 480       | 45<br>44% | light gray | Loose Soft Semi Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter Curved | Crumbly Sticky Fissile | 34<br>33% | gray        | Loose Soft Semi Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter Curved | Crumbly Sticky Fissile | 23<br>22% | gray  | Loose Soft Semi Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter Curved | Crumbly Sticky Fissile | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | Cement 0                                               |

Wood/Lignite Fossils abundances:  
N = Not observed, R = Rare, F = Few, C = Common, A = Abundant, D = Dominant

1-4 min

weight be change

IODP Exp. 358 Cuttings Description Sheet (macroscopic)

NO. 4 Date: 12/5/18

OBSERVER: Pauline & Rina

| Sample ID | Claystone |                     |                      |            |                      |                        | Siltstone |           |                      |            |                      |                        | Sandstone |           |                      |            |                      |                        | Wood/Lignite | Ash/Tuff | Fossils | Visual description                                                            |
|-----------|-----------|---------------------|----------------------|------------|----------------------|------------------------|-----------|-----------|----------------------|------------|----------------------|------------------------|-----------|-----------|----------------------|------------|----------------------|------------------------|--------------|----------|---------|-------------------------------------------------------------------------------|
|           | N         | Color               | Consolidation        | Structures | Shape                | Texture                | N         | Color     | Consolidation        | Structures | Shape                | Texture                | N         | Color     | Consolidation        | Structures | Shape                | Texture                |              |          |         |                                                                               |
| 482       | 52        |                     | Loose Soft Semi Hard | Yes        | Blocky/Angular Round | Crumbly Sticky Fissile | 40        |           | Loose Soft Semi Hard | Yes        | Blocky/Angular Round | Crumbly Sticky Fissile | 8         |           | Loose Soft Semi Hard | Yes        | Blocky/Angular Round | Crumbly Sticky Fissile | N/R          | N/R      | N/R     |                                                                               |
| 492       | 64        |                     | Loose Soft Semi Hard | Yes        | Blocky/Angular Round | Crumbly Sticky Fissile | 44        |           | Loose Soft Semi Hard | Yes        | Blocky/Angular Round | Crumbly Sticky Fissile | 64        |           | Loose Soft Semi Hard | Yes        | Blocky/Angular Round | Crumbly Sticky Fissile | N/R          | N/R      | N/R     | Cement                                                                        |
| 501       | 59        | light grey 10x 7/10 | Loose Soft Semi Hard | Yes        | Blocky/Angular Round | Crumbly Sticky Fissile | 34        | gray (N4) | Loose Soft Semi Hard | Yes        | Blocky/Angular Round | Crumbly Sticky Fissile | 21        | gray (N4) | Loose Soft Semi Hard | Yes        | Blocky/Angular Round | Crumbly Sticky Fissile | N/R          | N/R      | N/R     | Cement                                                                        |
| 503       | 125       |                     | Loose Soft Semi Hard | Yes        | Blocky/Angular Round | Crumbly Sticky Fissile | 38        |           | Loose Soft Semi Hard | Yes        | Blocky/Angular Round | Crumbly Sticky Fissile | 6         |           | Loose Soft Semi Hard | Yes        | Blocky/Angular Round | Crumbly Sticky Fissile | N/R          | N/R      | N/R     | 10% of cement fine silty claystone show laminar.                              |
| 507       | 52        |                     | Loose Soft Semi Hard | Yes        | Blocky/Angular Round | Crumbly Sticky Fissile | 54        |           | Loose Soft Semi Hard | Yes        | Blocky/Angular Round | Crumbly Sticky Fissile | 24        |           | Loose Soft Semi Hard | Yes        | Blocky/Angular Round | Crumbly Sticky Fissile | N/R          | N/R      | N/R     | calcite? white 2 cement:3 ?(cement vol.)                                      |
| 539       | 50        |                     | Loose Soft Semi Hard | Yes        | Blocky/Angular Round | Crumbly Sticky Fissile | 61        |           | Loose Soft Semi Hard | Yes        | Blocky/Angular Round | Crumbly Sticky Fissile | 14        |           | Loose Soft Semi Hard | Yes        | Blocky/Angular Round | Crumbly Sticky Fissile | N/R          | N/R      | N/R     | Cement (N=1) Calcite (N=3)                                                    |
| 541       | 70        |                     | Loose Soft Semi Hard | Yes        | Blocky/Angular Round | Crumbly Sticky Fissile | 46        |           | Loose Soft Semi Hard | Yes        | Blocky/Angular Round | Crumbly Sticky Fissile | 8         |           | Loose Soft Semi Hard | Yes        | Blocky/Angular Round | Crumbly Sticky Fissile | N/R          | N/R      | N/R     | Cement N=1 Calcite N=2                                                        |
| 568       | 65        |                     | Loose Soft Semi Hard | Yes        | Blocky/Angular Round | Crumbly Sticky Fissile | 39        |           | Loose Soft Semi Hard | Yes        | Blocky/Angular Round | Crumbly Sticky Fissile | 2         |           | Loose Soft Semi Hard | Yes        | Blocky/Angular Round | Crumbly Sticky Fissile | N/R          | N/R      | N/R     | Presence of very light soft fine silty claystone siltstone is coarse and dark |
| 570       | 15        |                     | Loose Soft Semi Hard | Yes        | Blocky/Angular Round | Crumbly Sticky Fissile | 91        |           | Loose Soft Semi Hard | Yes        | Blocky/Angular Round | Crumbly Sticky Fissile | 7         |           | Loose Soft Semi Hard | Yes        | Blocky/Angular Round | Crumbly Sticky Fissile | N/R          | N/R      | N/R     | Some white on the surface of SC large amount in mud content cement            |
| 577       | 17        |                     | Loose Soft Semi Hard | Yes        | Blocky/Angular Round | Crumbly Sticky Fissile | 93        |           | Loose Soft Semi Hard | Yes        | Blocky/Angular Round | Crumbly Sticky Fissile | 9         |           | Loose Soft Semi Hard | Yes        | Blocky/Angular Round | Crumbly Sticky Fissile | N/R          | N/R      | N/R     | Some borax on the silty claystone.                                            |

Wood/Lignite Fossils abundances: N = Not observed, R = Rare, F = Few, C = Common, A = Abundant, D = Dominant

IODP Exp. 358 Cuttings Description Sheet (macroscopic)

NO. 5 Date: 12/7/18

OBSERVER:

| Sample ID | Claystone |       |                               |            |                                                                |                              | Siltstone |       |                               |            |                                                                |                              | Sandstone |       |                               |            |                                                                |                              | Wood/Lignite      | Ash/Tuff          | Fossils           | Visual description                           |
|-----------|-----------|-------|-------------------------------|------------|----------------------------------------------------------------|------------------------------|-----------|-------|-------------------------------|------------|----------------------------------------------------------------|------------------------------|-----------|-------|-------------------------------|------------|----------------------------------------------------------------|------------------------------|-------------------|-------------------|-------------------|----------------------------------------------|
|           | N         | Color | Consolidation                 | Structures | Shape                                                          | Texture                      | N         | Color | Consolidation                 | Structures | Shape                                                          | Texture                      | N         | Color | Consolidation                 | Structures | Shape                                                          | Texture                      |                   |                   |                   |                                              |
| 61b       | 18        |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile | 92        |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile | 13        |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | soft siltstone (only 3) some white sandstone |
| 622       | 12        |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile | 84        |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile | 10        |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | Only 1 white sandstone                       |
| 631       | 21        |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile | 76        |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile | 32        |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | cement 1                                     |
| 633       | 65        |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile | 54        |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile | 17        |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | No cement. 1 white sandstone.                |
|           |           |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile |           |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile |           |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D |                                              |
|           |           |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile |           |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile |           |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D |                                              |
|           |           |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile |           |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile |           |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D |                                              |
|           |           |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile |           |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile |           |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D |                                              |
|           |           |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile |           |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile |           |       | Loose<br>Soft<br>Semi<br>Hard | Yes<br>No  | Blocky/Angular<br>Round<br>Platy/Tabular<br>Splinter<br>Curved | Crumbly<br>Sticky<br>Fissile | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D | N/R<br>F/C<br>A/D |                                              |

Wood/Lignite Fossils abundances:  
N = Not observed, R = Rare, F = Few, C = Common, A = Abundant, D = Dominant