

SSGF WELL ELMORE 101

EL-101



Well Elmore-101, Lithology & Mineralogy Recalc. to 60-ft intervals

Interval	SPYL	S <sub>1</sub> /G <sub>1</sub> MS	MDS # (SPS)	NOD R/W 91P	GS JUST	VMS	CP/MS	CV/G	EP	RC	PY	HIM	SP	GN	CPY
90-150'		99	1				VS	VS							
150-210'			100				VS	VS							
210-270'		4	92	4/Tr			VS	VS							
270-330'		23	77	Tr			VS	VS							
330-390'	Tr	17	82	1			VS	VS							
390-450'	1	3	94	2			VS	VS							
450-510'		13	86	1			VS	VS							
510-570'		7	92	1			VS	VS							
570-630'		4	93	3			VS	VS							
630-690'		2	97	1			VS	VS							
690-750'		36	11	3			VS	VS							
750-810'		100		Tr <sub>cvd</sub>			NO MDS	W							
810-870'		90	2				VS	W							
870-930'		95	5				M	W-M							
930-990'		96	4				S	W							
990-1050'		98	2	Tr <sub>ind</sub>			S	VW							
1050-1110'		27	73				S	W							
1110-1170'		45	55				VS	VS							
1170-1230'		46	54				VS	VS							
1230-1290'		46	54				VS	VS							
1290-1350'	Ⓡ	80	20				VS	VS							
1350-1410'	Ⓡ	83	17				VS	VS							
1410-1470'	Ⓡ	90	10				VS	VS							
1470-1530'		86	14				VS	VS							
1530-1590'		94	6				VS	VS							
1590-1640'		54	46				VS	VS							
1640-1700'		55	45				VS	VS							
1700-1760'		36	64				VS	VS							

50

Ⓢ

50-ft sample

# Well Elmore-101, Lithology & Mineralogy to 60-ft. intervals Recalc.

GRV/L	SP/CH/SP	MDS #SITS	NOV RMT	SP/SP	VN	CP/MDS	CH/SP	EP	RC	PT	HM	GR	GN	CPY			(CY)	(CMT)
1760-1820	31	69				VS	VS											
1820-1880	51	6				VS	M-S											43
1880-1940	83	13				VS	M-S											4
1940-2000	92	8				VS	W					(TR)	(TR)					
2000-2060	60	40				VS	VS				(TR)							
2060-2120	82	18				VS	VS				Tr							
2120-2180	88	12			(TR) <sub>sp</sub>	W-M	VS					Tr						
2180-2240	55	45			Tr <sub>sp</sub>	M	M-S					Tr						
2240-2300	73	27				S	VS					Tr						
2300-2360	42	58				VS	VS			(TR)								
2360-2420	43	57				VS	VS											
2420-2480	53	47				VS	VS			Tr								
2480-2540	75	25				S	VS											
2540-2600	75	25				S	VS											
2600-2660	52	48				VS	VS											
2660-2720	50	50				VS	VS			Tr								
2720-2780	34	66				VS	VS			0.2								
2780-2840	7.5	90	0.5			VS	M-S			0.1			(TR)	(2)RHY TF				
2840-2900	2.5 <sub>vw</sub>	25		2.5 <sub>▲</sub>		W-M	W-M			0.9			Tr	(70)RHY TF				
2900-2960	49 <sub>w</sub>	4				W-M	W			0.1			Tr	(47)RHY TF				
2960-3020	93	2				M	S			Tr			Tr	(5)RHY TF				
3020-3080	74	21				M	M	(TR)		0.2			0.1	(5)RHY TF			(CV)	
3080-3140	75	24				S	M			Tr			Tr	(1)RHY TF				
3140-3200	72	28				S	S			Tr				Tr				
3200-3260	83	17				S	S											
3260-3320	63	37			(TR) <sub>ca</sub>	S	S			0.1		(TR)	Tr					
3320-3380	78	21.5			(0.5) <sub>ca</sub>	M	W-M			0.6		0.8	0.2					

JH 01/21/07

Well Elmore-101, Lithology & Mineralogy Recal. to 60-ft intervals

GRV	SP/CL (%)	MDS # (S/LTS)	NO2 PANK	GS & JBSL	VMLTS	CR	CP	EP	ACT	PT	HM	SR	GN	CP	CMT	CV
3380-3440	72.5	27			0.5 <sub>ca</sub>	M	M			0.2		0.5		TR		
3440-3500	86	14				S	M-S			0.1		TR				
3500-3560	53	47			Tr <sub>ca</sub>	S	S			0.1		TR		TR		CV
3560-3620	68	12				S	S			Tr		TR			20	
3620-3680	43	54				S	S			0.1		TR			3	
3680-3740	41	59				S	S			Tr						
3740-3800	71	29				S	S			Tr						
3800-3860	66	34			Tr <sub>ca</sub>	S	M-S			Tr						
3860-3920	40	60			Tr <sub>ca</sub>	S	S			Tr						
3920-3980	69	31				S	S			0.3				TR		
3980-4040	67	33				M-S	M-S			0.1						
4040-4100	47 <sub>w</sub>	53				M	M			Tr						
4100-4160	27	73			Tr <sub>ca</sub>	M-S	M-S			0.1						
4160-4220	31	69				S	S			0.2						
4220-4280	35	65				S	S			Tr						
4280-4340	53	47				S	S			Tr						
4340-4400	59	41				S	S			Tr						
4400-4460	79	21				M-S	S			0.1				TR		
4460-4520	59	41				S	S			Tr				TR		
4520-4580	62	38				S	S			0.1						
4580-4640	68	32			Tr <sub>py</sub>	S	S			0.1						
4640-4700	78	22			Tr <sub>ca</sub>	S	S			Tr						
4700-4760	64	36			Tr <sub>ca</sub>	S	S									
4760-4820	82	18				S	S									
4820-4880	88	12				S	M			Tr						
4880-4940	92	8				S	S			0.1						
4940-5000	73	27				S	S			0.1						

WELL ELMORE-101, LITH. & MIN. RECALC. TO 60-FT INTERVALS  
 JH 01/21/05

GRV	SH	MDS (SITS)	MOD RHY	SS USR	IN	CO MDS	CO SH	EP	AC	RY TO	HM	SP	SN	CPY		(CV)
5000-5060	38	62				M	S			Tr						
5060-5120	60	8				W-M	M			0.1/0.2						(32) RHY
5120-5180		43			Tr <sub>ca</sub>	W-M	no ss			0.2						(47) RHY
5180-5240	45.5	37			0.5 <sub>ca</sub>	W-M	M			Tr						(40) DBS
5240-5300	21	78			Tr <sub>ca</sub>	M-S	S			0.1/Tr						(17) DBS
5300-5360	38	62		Tr	Tr <sub>ca</sub>	S	S			Tr						(1) DBS
5360-5420	4.5	10			0.5 <sub>ca</sub>	M	M-S			0.2						(85) DBS
5420-5480	48.5	9			0.5 <sub>ca</sub>	S	S			Tr						(42) DBS
5480-5540	63	37				S	S			0.1				(Tr)		
5540-5600	51	49				S	S									
5600-5660	60	40				M-S	S									
5660-5720	64	36				M-S	S									
5720-5780	56	44				M-S	S			Tr/Tr				Tr		
5780-5840	61	39			Tr <sub>ca</sub>	M-S	S							Tr		
5840-5900	69	31			Tr <sub>ca</sub>	S	S			Tr				Tr		
5900-5960	90	10				S	S			0.1						
5960-6020	31	69				S	S			0.2/Tr				Tr		
6020-6080	69	31				S	S			0.1				Tr		
6080-6140	85	15				W-M	M	(0.2)		0.1/Tr						
6140-6200	62	38				M-S	M	Tr		Tr						
6200-6260	66	34				M	M	Tr		0.2						
6260-6320	78	22				M	M	0.2		0.1/0.1				Tr		
6320-6380	66	34			Tr <sub>ca</sub>	M	M			0.3/Tr						
6380-6440	44	56			(1) <sub>ca</sub>	W-M	M			0.1						
6440-6500	55	45				M-S	S			Tr						
6500-6560	46	54			Tr <sub>ca</sub>	M	M	Tr		Tr						
6560-6620	27	73			Tr <sub>ca</sub>	M	M			0.1						

WELL ELMORE-101, LITH. & MINERALOGY RECALC. TO 60-FT INTERVALS

GRVZ	SP/CH/SH	MDS/ST/S	NDD RNH	GS JDT	WN	CA/ MDS	CA/ SH	EP	AC	P/PO	HM	S	GN	CPY	(CY)
VA 6620- 6680	55 W	44.5			0.5 ca	W-M	W-M	Tr	(Tr)	0.3					
VA 6680- 6740	67 W-M	31 15		(2)	(2) ca	W	W	Tr	(2.5)	0.4				Tr	(50) DBS
6740- 6800	75 W	25 20			Tr ca	W-M	W-M			Tr				Tr	(21) DBS
VA 6800- 6860	51 W	49 18		(2)	(1) ca	W-M	W			Tr				Tr	(60) DBS
6860- 6920	30 W	64 61			(0.5) ca	W-M	W-M			Tr / Tr				Tr	(4) DBS
6920- 6980	64 W	36			Tr ca	W-M	M	Tr		Tr / 0.1				Tr	
6980- 7040	35 W	65			Tr ca	W-M	M	Tr	0.2	Tr / Tr				Tr	
7040- 7100	26 W	74 9			(1) ca	W-M	M	0.1		Tr					(80) DBS
7100- 7160	40 WV	60 58			Tr	W-M	M-S	Tr	Tr	Tr / Tr					(3) DBS
7160- 7220	43	57			Tr ca	W-M	S	Tr		Tr / Tr					
7220- 7280	81	19				W-M	S			Tr / Tr					
7280- 7340	64	36			Tr ca	W-M	S			0.1					
7340- 7400	23	77				M	S	Tr		Tr					

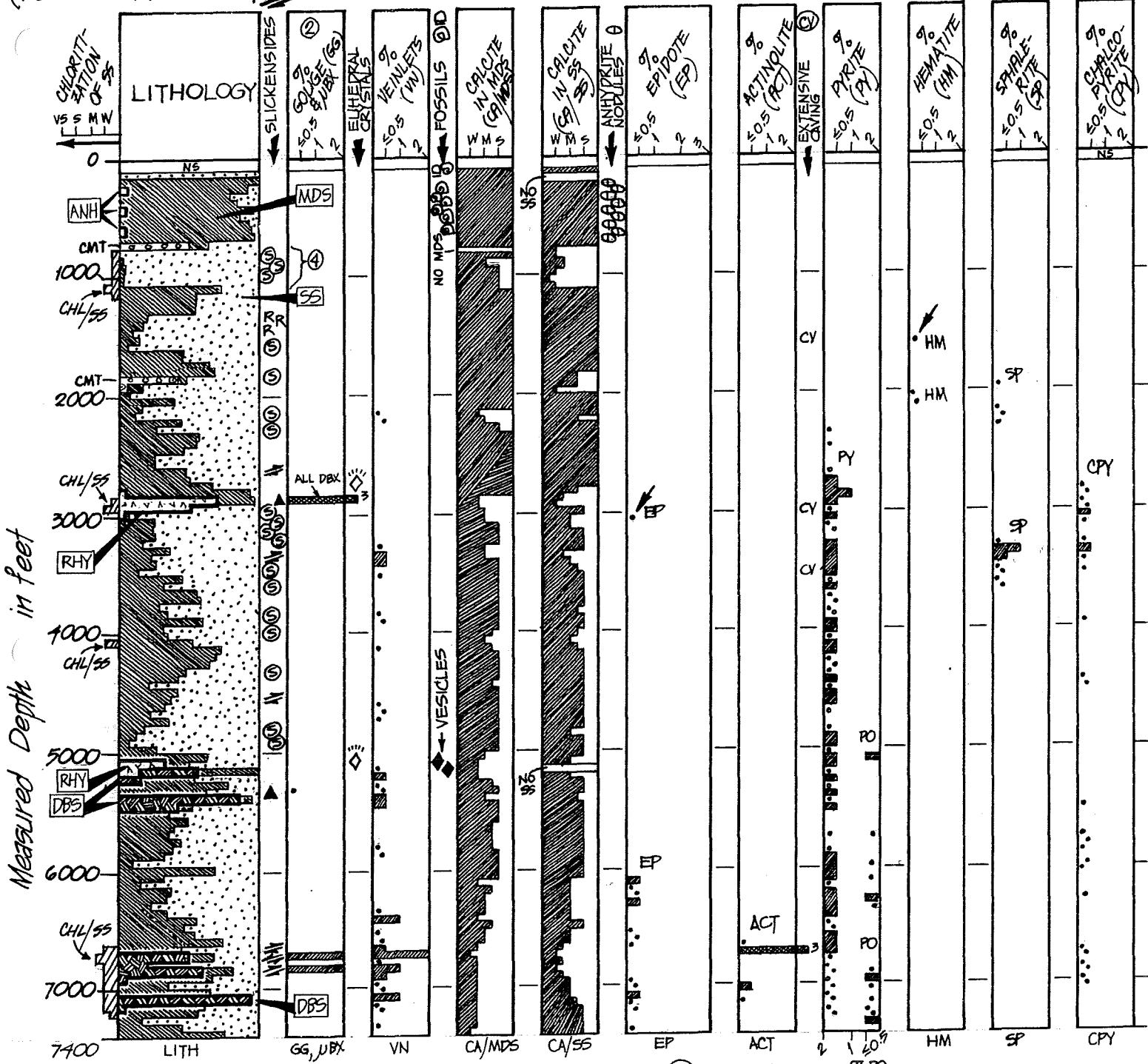
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# WELL ELMORE-101, SUMMARY GEOLOGIC LOG

(DRAFT)

Vertical scale 1:14,400  
(1 cm = 144 m ; 1" = 1200 ft)

J. Hulien 01/21/07



### Symbols

- TRACE
- ⊙ GASTROPODS
- ⊖ OSTRACODS
- ⊕ ANHYDRITE NODULES
- ◇ EUHEDRAL HYDROTHERMAL CRYSTALS
- ≡ SLICKENSIDES
- > GREATER THAN
- ≤ LESS THAN OR EQUAL TO
- ′ AND INCHES
- ′ FEET
- R "REDBEDS" IN PART
- ⊕ LOOSE SAND IN PART
- ▲ DILATIONAL MICROBRECCIA
- ◆ VUGS & VESICLES

### Abbreviations

- ANH - ANHYDRITE
- CM - CENTIMETER
- CHL/SS - CHLORITIZATION OF SANDSTONE
- ft - FEET
- GN - GALENA
- M - METERS
- M - MODERATE
- MDS - MUDSTONE & ARGILLACEOUS SILTSTONE UNDIVIDED.
- MIDSTONE/SILTSTONE TYPICALLY > 5/1.
- UBX - MICROBRECCIA
- S - STRONG
- SS - SANDSTONE
- VS - VERY STRONG
- VN - VEINLETS
- W - WEAK
- DBX - DIABASE
- RHY - RHYOLITE
- PO - PYRRHOTITE

⊕ - EXTENSIVE CAVING. OBVIOUS CAVED CHIPS EXCLUDED FROM ANALYSIS.

### Notes

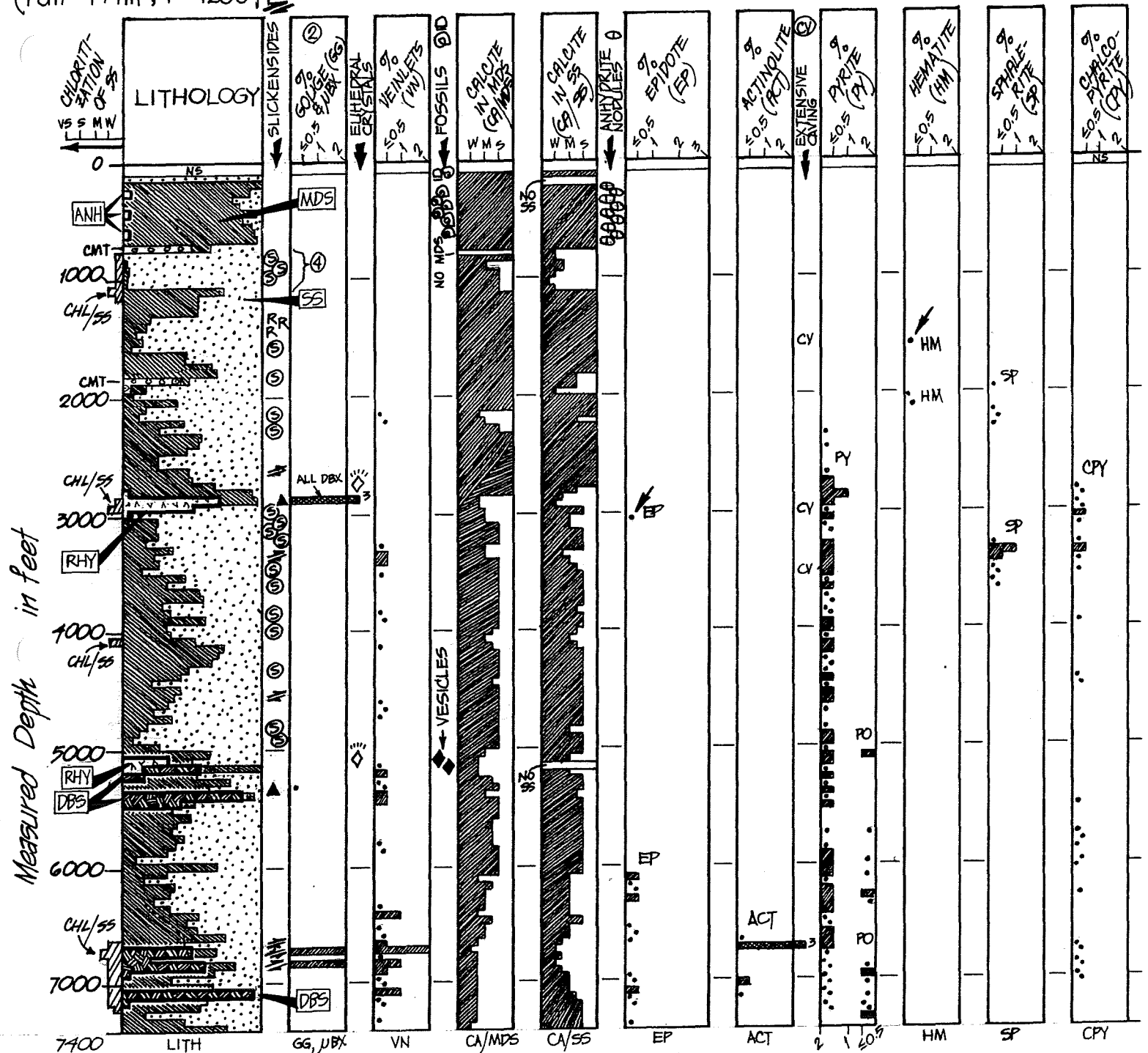
- ① CUTTINGS LOGGED 04/23-04/30 2003
- ② READILY DISTINGUISHED FROM DRILLING-PRODUCED BIT GOUGE
- ③ COMPOSITE-SAMPLE INTERVAL FOR THIS LOG TYPICALLY 60 ft (18.3m)
- ④ SAND/SANDSTONE DOMINANTLY MEDIUM- TO COARSE-GRAINED; OTHERWISE VERY FINE- TO FINE-GRAINED (COARSER MATERIAL LIKELY HIGHER ENERGY DISTRIBUTARY CHANNEL(S) DEPOSIT - AKIN TO DEPOSITS OF THE MODERN NEW & ALAMO RIVERS)

Vertical scale 1:14,400  
(1 cm = 144 m; 1" = 1200 ft)

**WELL ELMORE-101, SUMMARY GEOLOGIC LOG**

(DRAFT)

J. Hulen 01/21/07



Measured Depth in feet

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- ④ SAND/SANDSTONE DOMINANTLY MEDIUM- TO COARSE-GRAINED; OTHERWISE VERY FINE- TO FINE-GRAINED (COARSER MATERIAL LIKELY HIGHER ENERGY DISTRIBUTARY-CHANNEL(S) DEPOSIT - AKIN TO DEPOSITS OF THE MODERN NEW & ALAMO RIVERS)

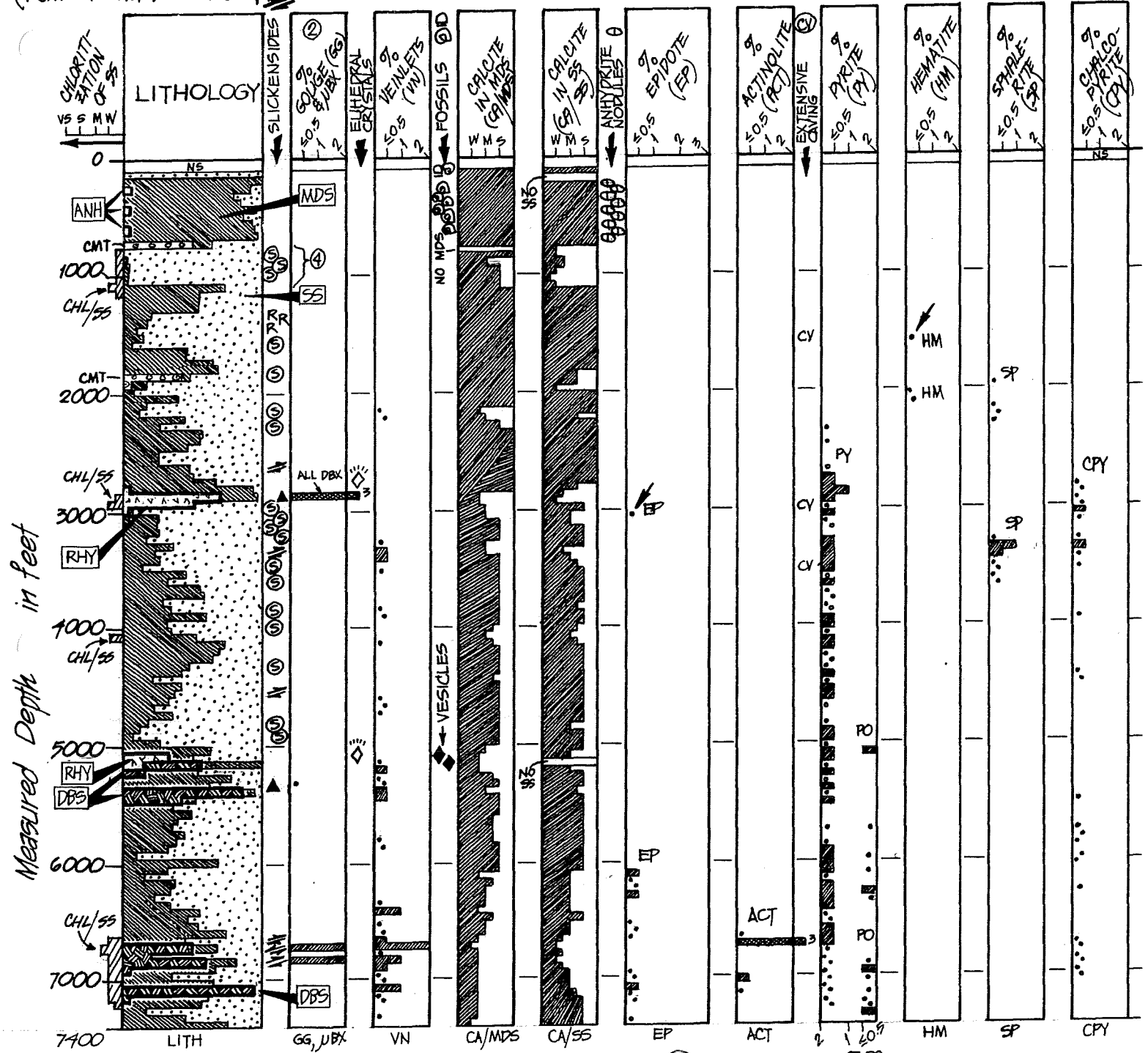


# WELL ELMORE-101, SUMMARY GEOLOGIC LOG

(DRAFT)

Vertical scale 1:14,400  
(1 cm = 144 m ; 1" = 1200 ft)

J. Hulen 01/21/07



Measured Depth in feet

### Symbols

- TRACE
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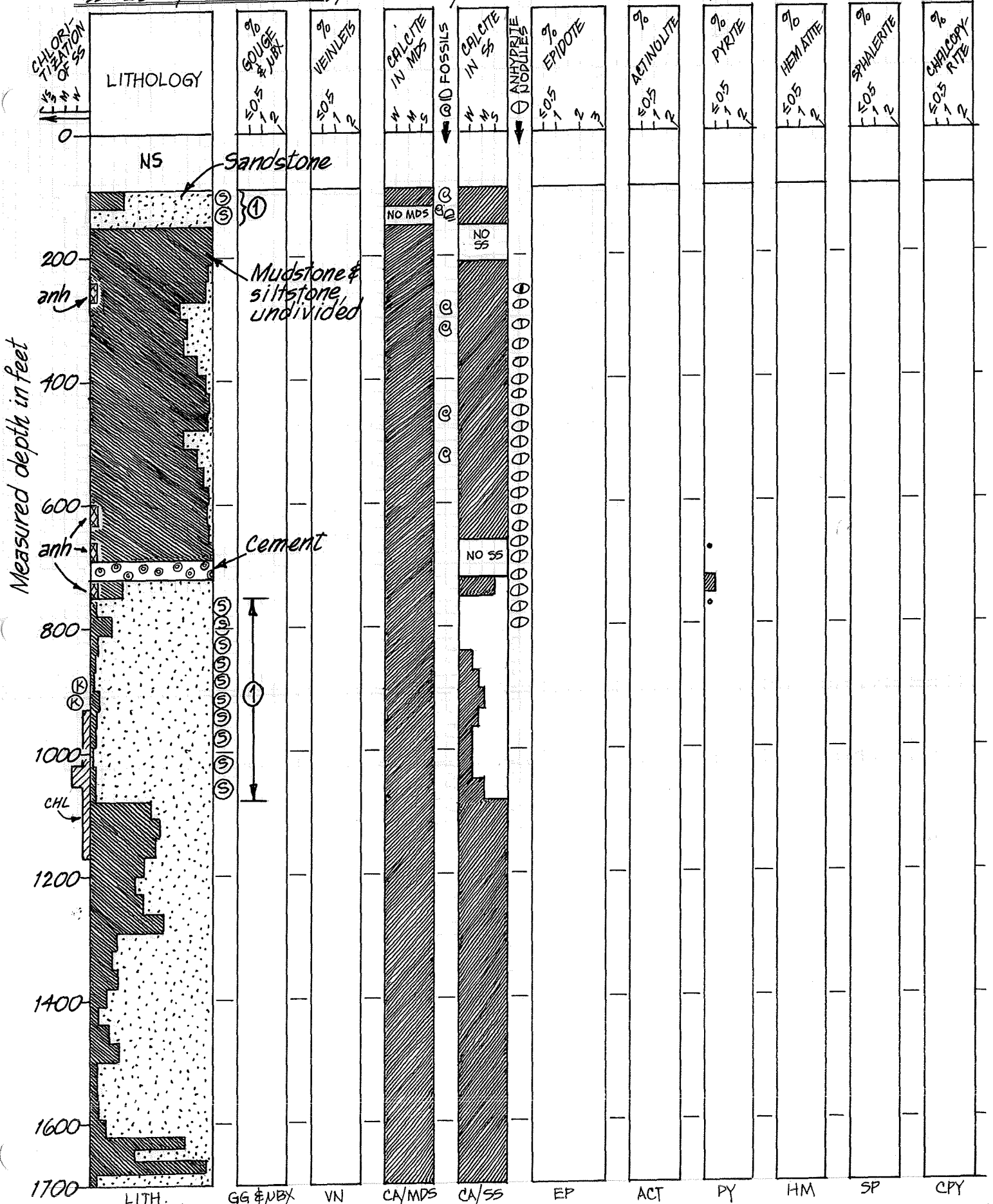
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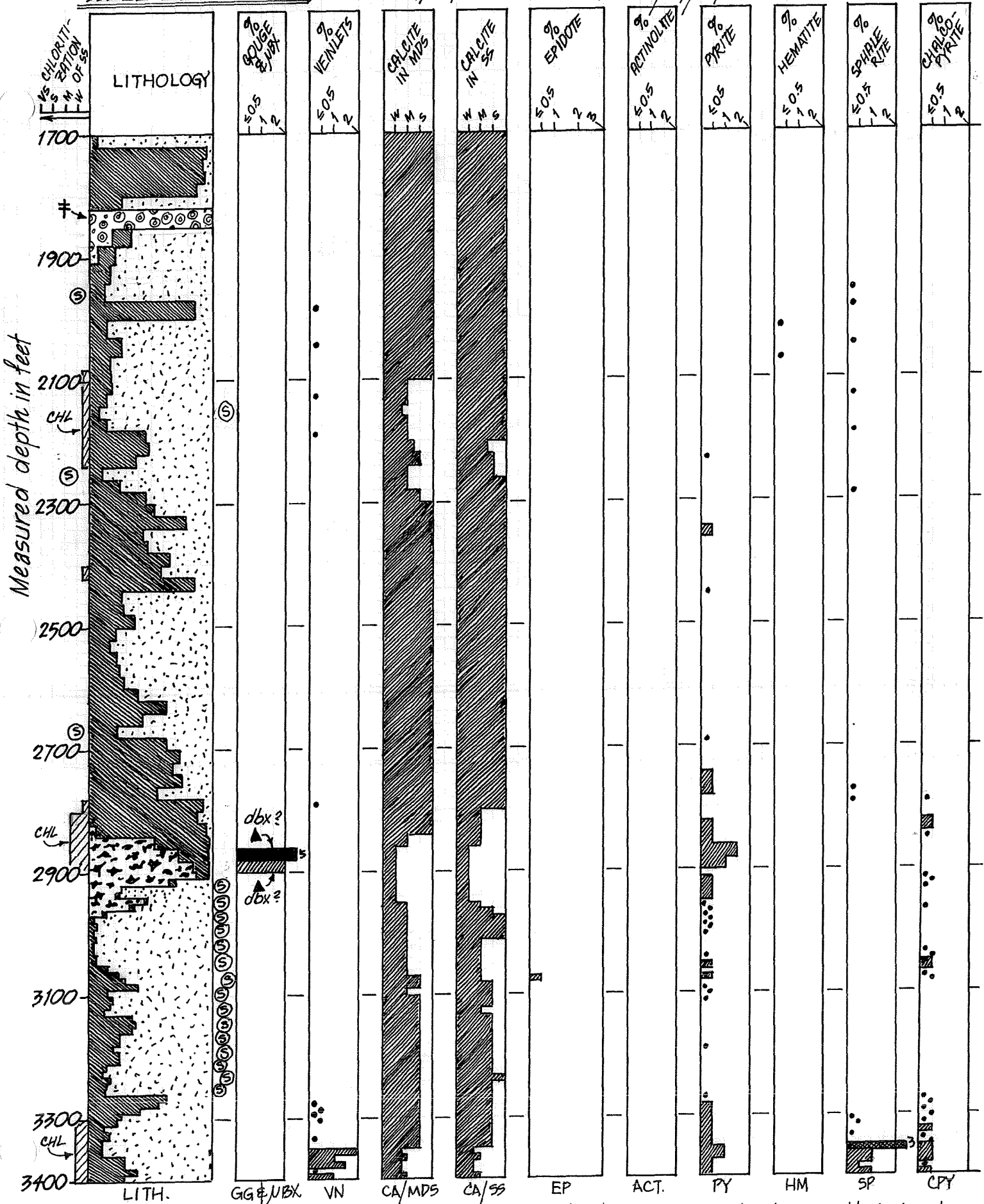
\* Explanation on page 5

\*\* Logged by JH 04/23/03 - 04/30/03

① Sand or sandstone dominant-ly med.-crs.-gr.; otherwise (elsewhere) vt-gr to f-gr.

WELL ELMORE-101, SUMMARY GEOLOGIC LOG

J. Hulen  
08/07/04



\* Explanation on page 5

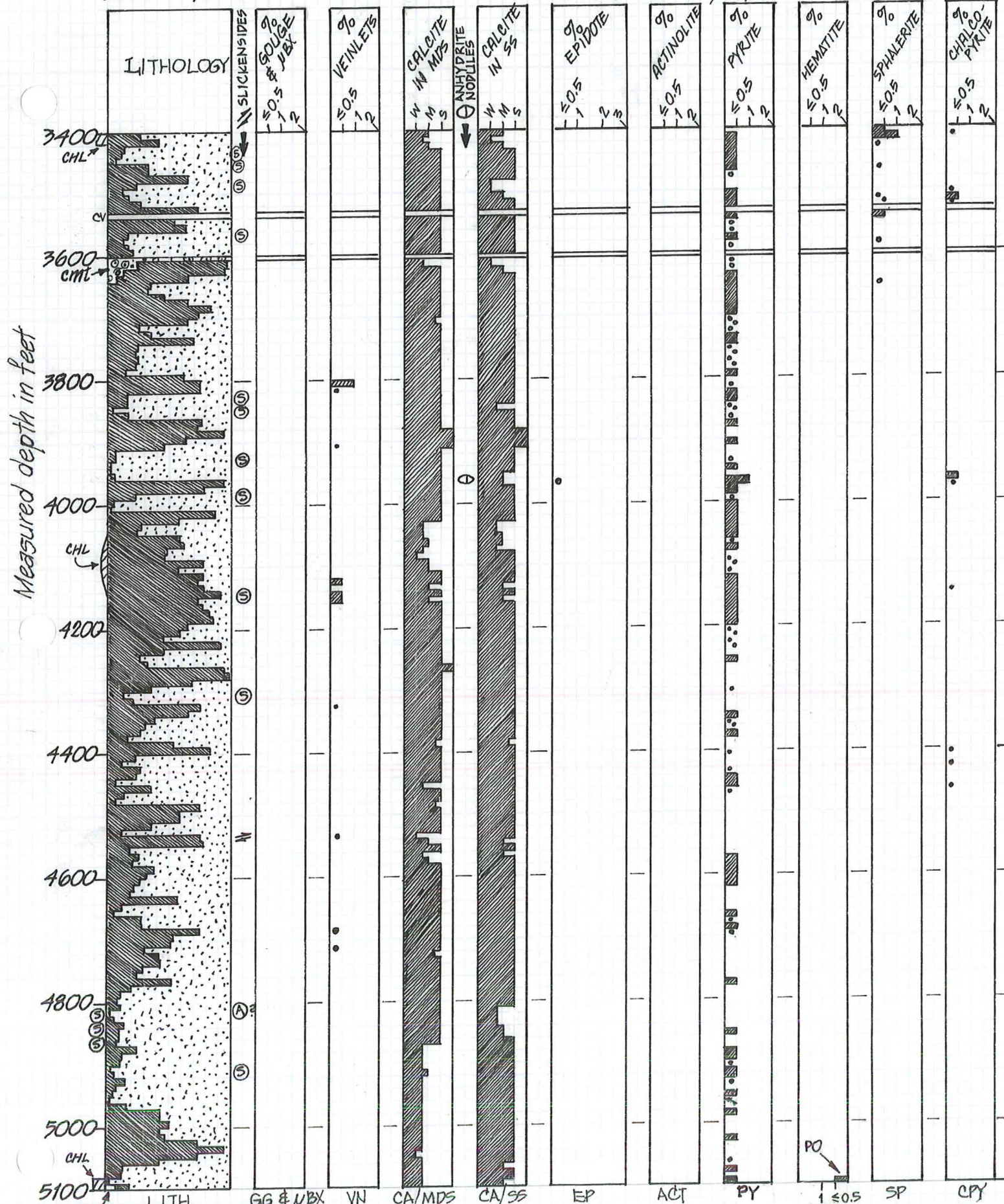
\*\* Logged by JH 04/23/04 - 04/30/04  
▲ - Dilational microbreccia (dbx) present.

‡ sample dominantly but not entirely borehole cement

**WELL ELMORE-101, SUMMARY GEOLOGIC LOG**

**J. Hulen**  
08/07/04

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of 5 **DRAFT**



\* Explanation on page 5

\*\* Logged by JH 04/23/03 - 04/30/03

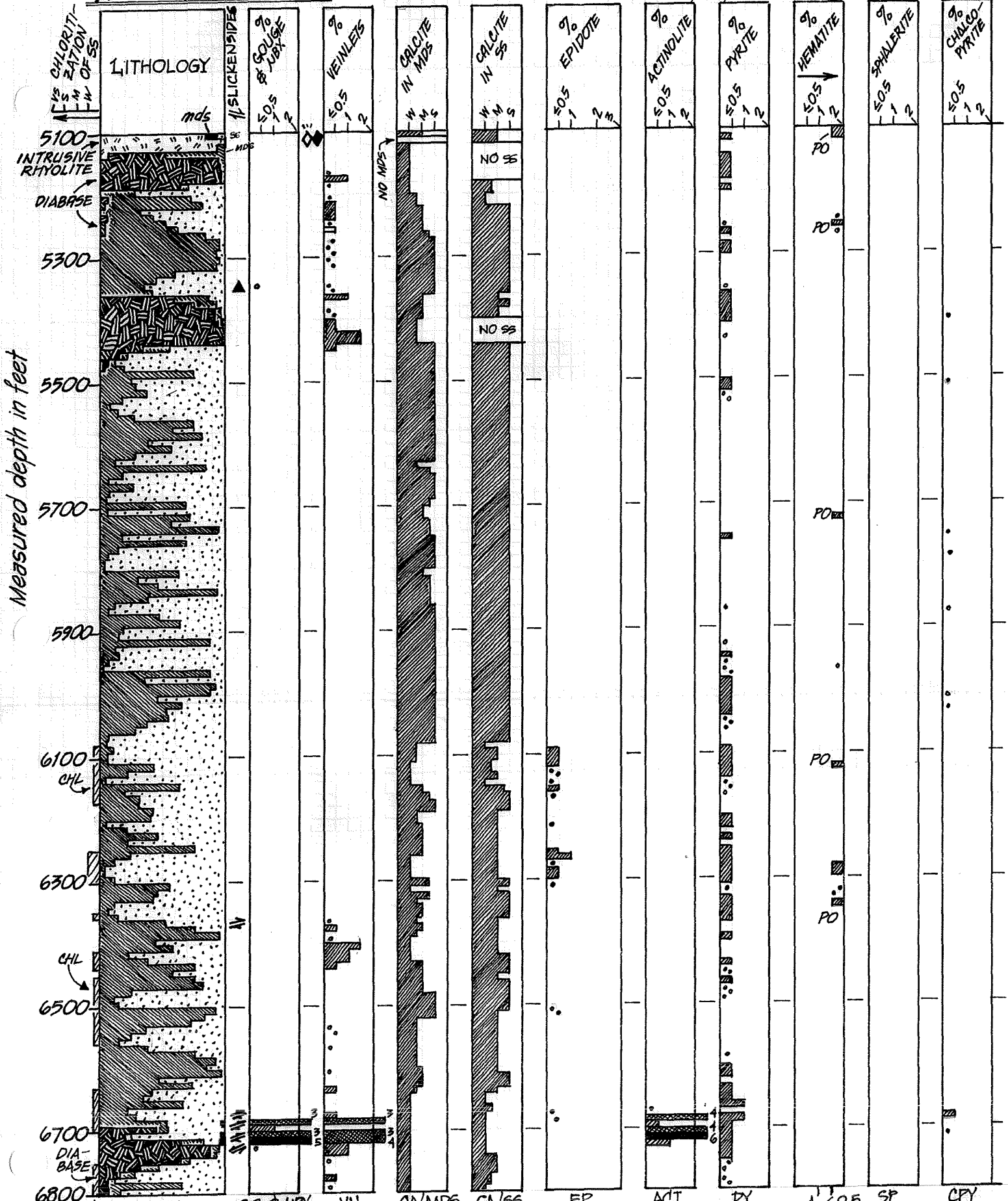
PO  
← 1 ≤ 0.5  
% PO (PYRRHOTITE)

**WELL ELMORE-101 SUMMARY GEOLOGIC LOG**

J. Hulien  
08/08/04

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DRAFT

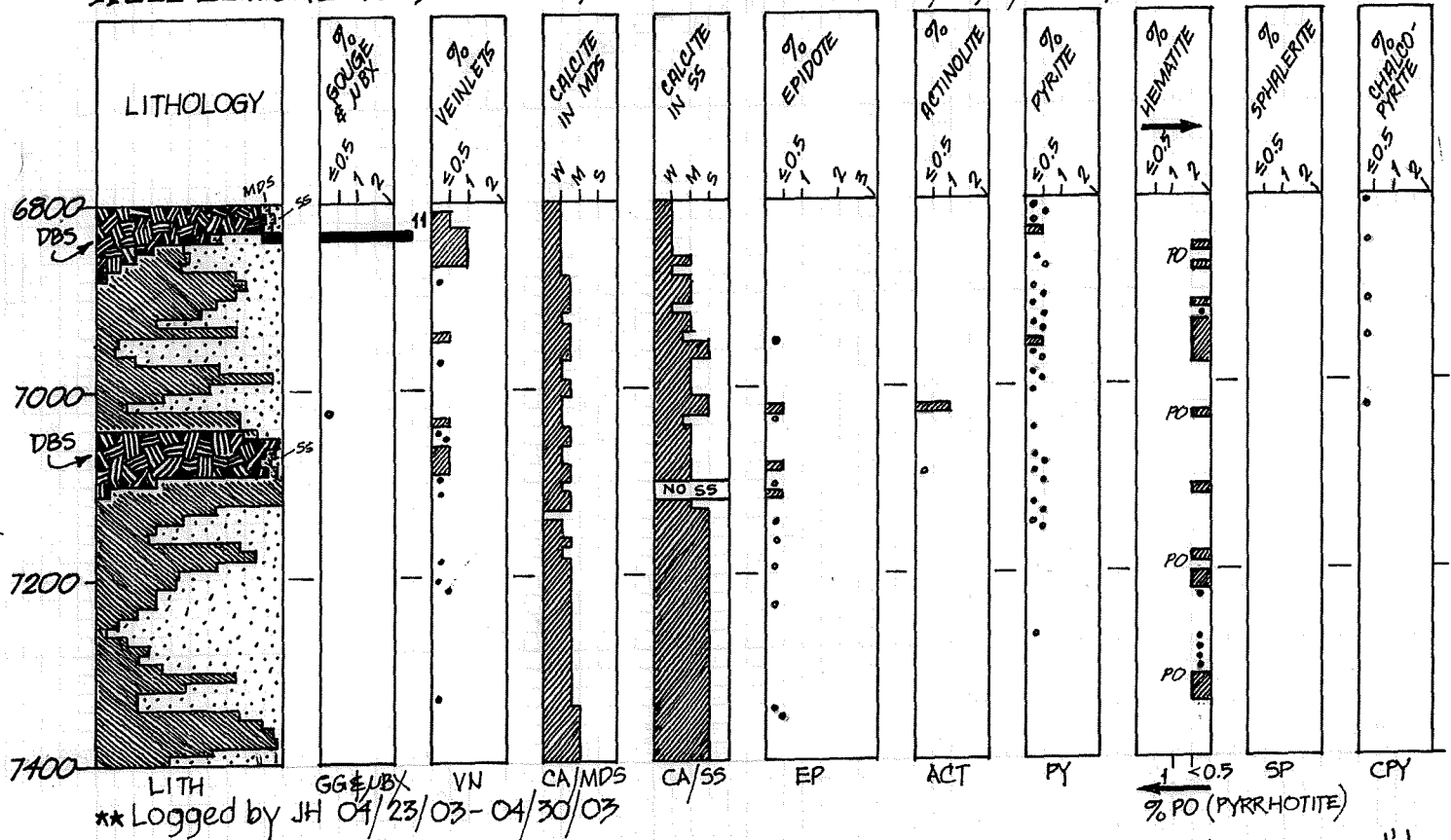


\* Explanation on page 5

\*\* Logged by JH 04/23/03 - 04/30/04

▲ - Dilational microbreccia present

Measured depth in feet



Logged by JH 04/23/03 - 04/30/03

Abbreviations

- AC, ACT - ACTINOLITE
- AN, ANH - ANHYDRITE
- CA - CALCITE
- CHL - CHLORITIZATION (OF SANDSTONE)
- CMT - CEMENT
- CPY - CHALCOPYRITE
- CRS - COARSE
- CV - CAVING, SLOUGHING
- DBX - DILATIONAL MICROBRECCIA
- EP - EPIDOTE
- FGR - FINE-GRAINED
- GG - GOLIGE
- GR - [GRAINED]
- HM - HEMATITE
- LCM - LOST-CIRCULATION MATERIAL
- LITH - LITHOLOGY
- M - MEDIUM
- MED - MEDIUM
- UBX - MICROBRECCIA
- UBD, UDBS - MICRODIABASE
- NS - NO SAMPLE
- PY - PYRITE
- S - STRONG
- SP - SPHALERITE
- VN - VEINLETS
- VS - VERY STRONG
- VF - VERY FINE
- W - WEAK
- W/ - WITH
- DBS - DIABASE
- M - MODERATE (ON INTENSITY SCALE)
- PO - PYRRHOTITE
- SS - SANDSTONE

Symbols

- ◊ - Euhedral crystals
- ▨ - Slickensides
- % - Per cent (volume)
- ⊙ - Anhydrite nodules
- @ - Gastropod fossils
- ⊠ - Ostracod fossils
- - Trace
- ▲ - Dilational microbreccia
- |||| - Lost-circulation material
- ⊕ - "Sanded"; disaggregated\* to constituent grains
- Ⓚ - Conspicuous kaolin present
- Ⓐ - Probable aeolian origin \* >50% to 100%

Patterns (lithology)

- Intrusive rhyolite, (apparently) vitreous to porcellaneous; mottled pinkish-white & translucent gray
- Diabase and microdiabase; medium-dark olive gray; fresh plagioclase present

Patterns, cont'd.

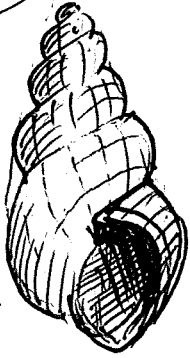
- Sandstone; mostly lithic arkose to subarkose; Below 1080 ft, entirely very-fine- to fine-grained; moderately to well-sorted
- Lacustrine and fluvial mudstone and muddy siltstone, undivided
- Nodular anhydrite
- Pebble gravel, possibly introduced (with cement?)
- Borehole cement

ELMORE 101

04/24/03

J. Hulen

90-120'



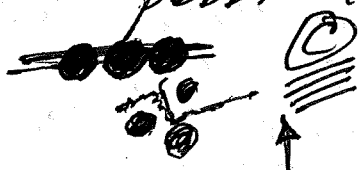
2 mm L.

② grsh-brng mats

could be rip-up clasts in the ss

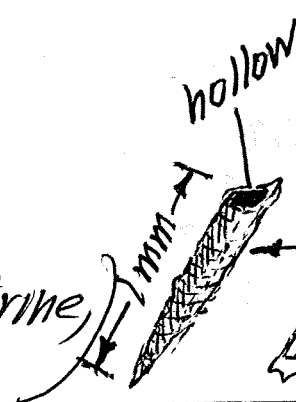
②7 "sandstone" med. grayish-orange, only loosely consolidated, med. gr. rare crs. grns & rare 2mm pebble fragments

⑦1 SAND clearly disaggregated from med.-gr. quartz-rich, mostly subround to subequant



1.5% rel. crs. biotite & muscovite

2% gastropods & pcs. thereof (mostly whole unlikely to be remobilized i.e. lived in river/stream (could be sublacustrine) though



0.5% worm "castings" tubes

120-150'

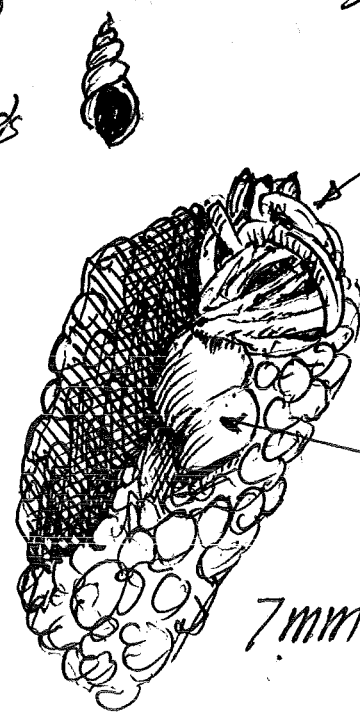
30% "sandstone" mgr. AA

70% SAND AA, mgr

2% gastropods AA - up to 3mm long

0.5% worm tubes

Tr. transl. ostracod shells 2.7-1m



7mm L.

"Desert Rose" type sulfate crystal cluster - could be anhydrite or barite.

Gastropod fragment.



150-180'

disagree  
get it

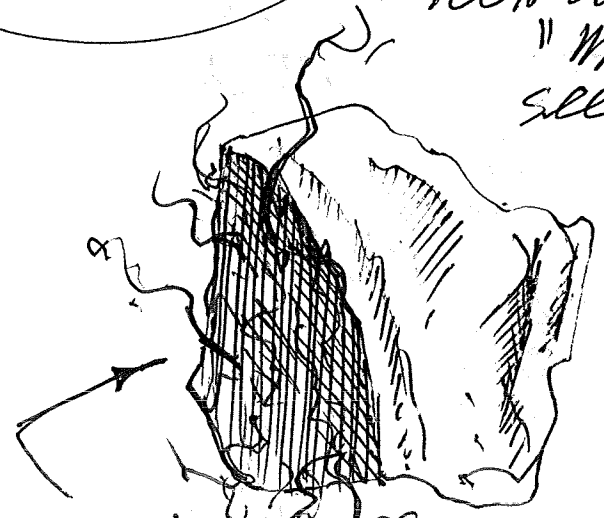
100% "Mudstone" probably  
a plastic semi-consol.  
wet mud deposit, when  
drilled, then dried to  
as reconstituted "muds.  
breccia" — contains  
rusted steel & other  
cultural debris. —  
also minor silt, sand,  
shell fragments, and  
pebble fragments

at any rate → matte  
grayish-orange, earthy  
to waxy texture  
©

180-210'

100% artificial  
"mudstone breccia"  
see explanation above

"mudstone"  
slightly more  
silty than  
above



Absolutely  
flat surface  
to which bag fibers  
are clinging.



ELMORE 101

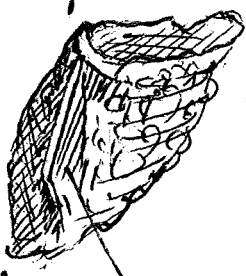
04/24/03 J. Hulen

210-240'

lt. gray  
ish-orange

98 "mudstone  
breccia"  
(drilling &  
sampling  
artifact)

semi-consol.  
2 muddy  
ss, med  
H. grsh-orange  
⊙  
≡



crudely  
cylindrical  
mass of  
calcite-empl  
sandstone  
3 mm L. gypsum  
crystal  
embedded

→ interp. plastic mud/ mds  
disagg. by drilling, recombined  
& dried in sample bags.

240-270'

white-speckled appearance

7% nodular  
anhydrite

88 mds,  
lt. grayish-  
orange +  
more gray  
(duller) than  
above  
sparsely  
silty to  
sandy  
⊙  
≡

5 muddy  
f. gr. ss  
lt. grsh-  
orange  
⊙  
≡

→ pure white,  
microf. n.  
nods are crudely  
ovoid to slightly  
amoeboid  
avg. w 0.5 mm,  
up to 2 mm

note: much of the  
mds is also 5-20?  
mottled w/ vague-bordered  
0.1-0.7 mm subequant  
carbonate concretions.

270-300'

Tr.  
nod  
AA  
AA

73% mds  
AA  
but  
sparse  
AA

27% muddy  
f. gr. H.  
grsh-orng.  
semi-consol.  
ss. AA  
⊙  
≡

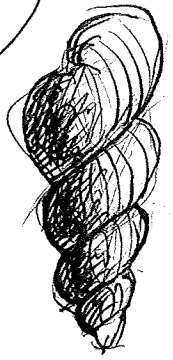


Tr gastropod

sand

3

300-330



1mm L  
(diff. species?)

0.5 Gastropods  
Tr. Ann. nod

~80 mds  
& " mds by"  
(artifact)  
grayish-  
orange  
matte,  
waxy to  
earth, sparse-  
ly silty to  
sandy  
some chips

~20 muddy  
frag.  
lt. grish-orange  
sem-consol.  
SS, AA  
☉  
≡

330-360

19 nod  
AN

Tr gastr.  
AA  
above #

76 mds  
~1/6 matte lt. gray  
~5/6 matte lt. grayish-ornq.  
both waxy to  
earthy  
☉  
≡

~23%  
SS AA  
☉  
≡

360-390

Tr. pbbles & frags  
< 3mm

1 nod  
AN

88 mds  
AA but  
~1/10 gray  
~9/10 ornq.  
☉  
≡

~11%  
SS AA  
☉  
≡

390-420

~0.5 pbbles  
AA

1.5 nod  
AN

93 mds  
AA but  
all  
matte  
grayish-  
orange  
☉  
≡

~5%  
SS AA  
☉  
≡

④

420-450'  
Tr. gastr.

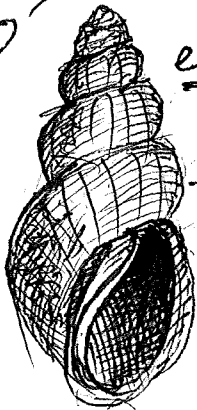
2 crs. sand & pbbis (prob. cvd)

2 nod AN < 1mm vxn white

96 mds, matte lt. graysh. orange, waxy to earthy sparsely silty



450-480'



exmpl. 2mm L ribbed  
~~15~~ pbbis & frags.

0.5 nod ANA ≤ 2mm

95 mds. graysh-oring. AN

3 muddy sandst



1% gastropods 1-25mm

480-510'

1% gastro pods as above

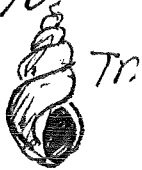
1 nod AN ≤ 3mm arg < 1mm

76 mds sparsely sandy to silty, matte lt. - med. grayish-orange

23% muddy ss for, lt. grayish-orange



510-540'



Tr. nod AN

89 mds 1/25 matte lt. yell. gray 1/20 matte lt. graysh-oring. waxy to earthy

11% muddy sand AN



(5)

color change - gray

570-  
/600'

1.5 nod AN  
 both white  
 vxn &  
 transl. gray  
 fxln (rexted)

0.5  
sfts

95  
mds

~~5~~ 3  
55

vfg  
 lt. org-gray

u 50/50 lt-med. grsh-orange  
 & lt. sl. orange to yellowish-gray  
 both earthy to waxy-textured &

600-  
630

4 nod  
 AN "  
 w frothy-  
 textured  
 porous  
 rexted.  
 up to at  
 least 5  
 mm in dia.

91 mds  
 AA  
 gray & orange  
 drilling-  
 disaggregated  
 & recombined/  
 dried to  
 form

5# sandstone  
 vfg, grsh-  
 orange

an  
 artificial  
 "mds bx"  
 waxy to earthy

630-660'



97 mds AA  
 u 1/5 grsh-org.  
 u 1/5 org. gray  
 u 3/5 lt. yell &  
 gray  
 all

355  
 fg crumbly  
 AA

ELMORE-101

04/24/03

J. Hulen

660-690"

2 nod AN

just a few nod, but one is 10 mm in diameter

98 mds sparsely salty (some frags.)

1/5 lt. yel.-gray  
2/5 lt. grsh-oring both matte both

Tr. vxn py on ANH

690-720'

Mostly CMT do not trust for lith.

720-750'

2 basalt, fresh (in cement?)  
5 CMT potential for caving

5 nod AN ovoids flattened ovoids ≤ 5 mm vxn white rounded during drilling (smooth not warty)

23 mds mostly matte lt. yel-gray

12 sandstone 1/5 mar argill, semi consol., v. lt. grsh-oring to gray-buff 2/5 vfg to fq, arg. same color AN

0.1 py cmt in ss

CHANGE

750-780'

Tr. nod AN (CVD?)

5 ss mgr, arg. loosely consol., v. lt. gray buff

95 SAND very clean-looking, m-cgr, quartz-rich, grains sub to subrndd., transl. white st v. lt orange

Tr. py

[no cement left]

7

780-810

Tr. nod. AN  
(CVD?)

19 ss, AA  
mgr, arg.  
v. lt.  
gray-buff  
⊙  
≡

81 sand  
m-crs gr.  
AA  
⊙  
○○○

810-840

5 ss AA  
⊙  
≡

95 sand m-cg  
exactly AA  
○○○  
⊙

840-870

4 mds  
matte  
light  
yell.-  
gray  
⊙  
≡

13 ss  
exactly AA  
⊙  
≡  
← some  
mds rip-up  
clasts up  
to 3 mm dia.  
or length

83 sand  
exactly AA  
○○○  
⊙ -  
some CO<sub>3</sub><sup>2-</sup>  
cement  
chinking

870-900


2 mds  
AA  
⊙  
≡

VERY WHITE MATRIX  
~~13~~ 17 ss  
mgr, loosely  
consolidated,  
argill. v. lt.  
gray-buff  
⊙  
≡  
← to buff  
white  
(kaolinitic)  
?

81 sand,  
m-crs. gr.  
buff-white to  
v. lt. transl.  
gray-buff  
kaolinitic (?)  
matrix chinking  
to many  
grains.

900-  
920-

⑨  
3 mds  
matte lt.  
yel.-gray

⑩ ss  
med.  
rarely  
crs-grnd.  
overall v. ft.  
gray-buff to   
yel. gray,  
but many  
chips have  
an almost pure  
white matrix  
prob. kaolinite  
("fluffy")


→ ⑪ sand  
med-gr to  
rarely crs-gr.  
(≤ 1.5 mm)


quartz-rich  
subt to subrndd.  
grains, some  
what frosted.

→ many grains have the "fluffy"  
white material (kaolin?) clinging.

SOME GREENISH TINT

930-  
960-

5 mds / ⑫ 30 ss  
far - mgr  
lt. gray-buff  
to grnsh-  
gray & grnsh  
white  
 ⑬ ≠

65  
SAND  
AA  
mgr - cgr.  


965-  
990'

2 mds  
AA ⊙  
≡

30 ss  
fgx-mgr  
v. lt. grnsh-  
gray to  
grnsh-white

68 sand  
med-crs gr  
AA  
⊙

990-  
1020'

1 mds  
AA ⊙  
≡

25 ss  
AA  
⊙

74 sand  
med-crs gr.  
AA  
⊙

1020-  
1050'

2 mds  
AA ⊙  
≡

GREENER

15 ss  
mgr-fgx,  
lt. gray-  
buff ⊙ to  
lt. grnsh-  
gray ⊙

83 sand  
aa, ⊙  
greenish matrix  
clinging to many  
of the free grains

Tr. indigenous  
nod LAN  
in  
qm. ss.

1050-  
1080'

4 mds  
AA ⊙  
≡

49 ss  
mgr-fgx  
loosely  
consol.  
lt. gray-buff  
to grnsh-gray  
⊙

57 sand  
mgr similar  
to above  
v. lt. gray-buff  
to sl. grnsh-gray  
to lt. transl.  
gray ⊙

0.2 py  
clusters  
in  
grnsh.  
ss

1080-  
~~1100~~  
1110'

15 mds  
silty

35  
arg.  
sfs  
crumbly

50 ss  
fgx  
rare mgr  
crumbly  
⊙

all  
⊙  
≡

Tr. py

mottled lt.  
grnsh-gray &  
lt. grnsh-red to grsh orange.

(10)



1110-1140'

~~17~~ 17 arg. sfts / 40 sfts / 43 ss  
 mds / vfg, crumbly  
 crumbly

all dominantly lt. grayish-green, with minor lt. grayish-orange.

sample is an artificial "breccia" created by disagg. during drilling, recombination & drying in bags.

1140-1170'

36 arg sfts / 17 mds / 47 ss  
 vfg - fgr

all just semi-consolidated, crumbly (v.) same colors as above all © III

1170-1200'

25 sfts / 19 mds / 52 ss  
 arg.  
 vfg - fg  
 crumbly  
 semi-consol.  
 ranging from  
 lt. grayish-  
 gray to lt.  
 grayish-red,  
 minor v. lt.  
 gray-buff

(17)

1200-  
1230



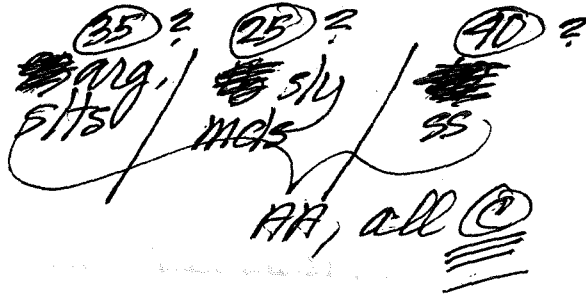
difficult to assess %s

1230-  
1260



colors range from lt. greenish-gray through lt. grayish-buff to sl. orange-gray mostly crumbly all ©

1260-  
1290



1290-  
1320

COLOR CHANGE:  
SOME "REDBEDS!"



← ranges from lt. greenish-gray to lt. grayish-pink to grayish-red ©

← mostly matte yellowish to slightly greenish-gray earthy ©

→ vfq, lt grayish-pink to grayish-red ©

ELMORE 101

04/24/03 J. Hullen

SOME "REDBEDS" Present

1320-1350'

13 s/s / 5 mds  
arg. / st. gray  
©

82 ss

similar to ss, finer-grained  
©

fg - vfg, argill., ranges from v. lt. grayish-gray to lt. grayish-pink & grayish-red  
©

some "redbeds"

1350-1380'

7 s/s / 15 mds  
AA  
©

matte lt. grayish-grn to lt. grayish-red.  
©

78 ss  
aa vfg  
same colors  
©

"RED" diminishing

1380-1400-1410'

5 s/s / 7 mds  
AA  
©

88 ss  
mostly v. lt. grayish-buff to grayish-pink.  
fine-grained.  
©

Tr SP  
intergranular in ss  
(yellow clear)

Minor caving

2 s/s / 4 mds  
AA  
©

94 ss\*  
fg (rare mgr)  
v. lt. grayish-pink to grayish-buff  
©

Tr. GN

\*also abund. white intergranular clay

1440-  
1470'

5 sfts / 9 mds / 86 ss

AA  
⊙  
≡

fgr, argill.  
mostly v. lt. grayish-  
pink to grayish-  
buff; some v. lt.  
grayish-gray; only  
semi-consolidated,  
very crumbly  
⊙  
≡

1470-  
1500'

9 sfts / 13 mds

AA ⊙  
≡

76 ss AA same  
fgr ⊙ color  
≡

1500-  
1530'

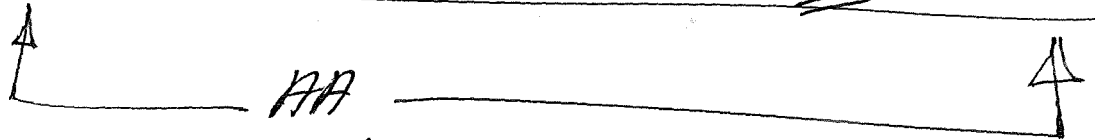
1 sfts / 4 mds

AA ⊙  
≡  
(cvd?)

95 SAND

almost uniformly fgr  
transl. v. lt. st. orange-  
gray overall  
●●● ⊙  
≡

~~1500~~  
1530'-  
1560'-  
EXTENSIVE  
CAVING



mds & sfts chips > 30x the  
size of the sand grains

CVNG

1560-  
1590'

3 slts / 7 mds / 93 SAND

Tr. SP

lmgr, overall  
v. lt. translucent  
sl. orange-gray,  
"clean"  
grains subequant  
& sub~~q~~ to sub~~r~~ndd.  
possibly aeolian



1590-

very fine ("dust-like") cuttings.

~~1600~~  
1620'

10  
slts

3 mds

~~7 SAND~~ 87

almost  
silt

v. lg  
ss and  
sand

"fluffy", largely  
disaggregated



response to Hcl ss



1620-1640  
~~1650~~

7 arg  
slts

CONTIN

5 mds

2 ss

AA

matte v. lt.  
gray



1640-1660'

19 slts / 18 mds / 63 ss

19

18

63

v. lt gray to  
buff-gray



fg, arg,  
crumbly  
lt. gray-buff  
to buff-gray



15

1660-  
1680'

arg.  
7 slts / 86 mds

7 ss  
fg  
AA ©  
≡

→ semi-consolidated,  
matte lt. gray,  
©  
≡

1680-  
1700'

5 mds / 95 ss,

vfg, semi-consolidated,  
φs, v. lt. gray buff  
©  
≡

1700-  
1720'

AA ————— almost a siltstone

1720-  
1740'

95  
mds & sily  
mds, semi-  
consol., matte  
buff-gray  
©  
≡

5 ss  
fg  
©  
≡

1740-  
1760'

91  
mds & sily  
mds, AA  
semi-consol.  
buff-gray  
©  
≡

95 ss  
fg.  
lt. yell-gray  
to gray buff  
©  
≡

1760-  
1780'

⊙  
≡≡≡

93 mds &  
silty mds,  
semi-  
consol.,  
matte  
buff-gray

7ss, fgr  
v. lt. gray  
buff

⊙  
≡≡≡

The two rock types appear to have been disaggregated & recombined during the drilling and sampling process.

1780-  
1800'

87 mds  
& silty mds  
AA ⊙  
≡≡≡

13 ss  
fgr, v. lt.  
gray  
buff

⊙  
≡≡≡

1800-  
1820'

27 mds  
& silty  
mds.  
AA ⊙  
≡≡≡

73 ss  
vtg-fgr,  
semi-consol.  
argill., v. lt.  
gray buff

⊙  
≡≡≡

1820-  
~~1840~~ 1850'

~~CHANGE~~ - REDDERS

NO CEMENT

Investigate  
cause

↳ Indigenous:

5 mds  
⊙  
≡≡≡

95 ss vtg  
mostly  
v. lt. gray-buff

⊙  
≡≡≡

⑪

1850-  
1885'  
15%  
pink  
borehole  
cement

15 mds +  
sfts  
⊙  
≡

85 ss &  
sand, fgr,  
v. lt. gray-buff  
⊙  
≡

1880-  
1910'  
7%  
CMT  
1 Rust  
& steel [R&S]

13 mds  
sfts  
matte lt gray  
⊙  
≡

87 ss, fgr,  
lt. grayish-  
pink to  
grayish-  
buff  
⊙  
≡

1910-  
1940'  
3 R&S

17 mds AA  
⊙  
≡

83 SAND AA  
& ss, fgr,  
⊙  
≡

1940-  
1970'

13 mds AA  
⊙  
≡

87 SAND &  
ss, fgr, AA  
⊙  
≡

Tr. SP  
Tr. gn

1970-  
2000'  
great  
simple

85 mds,  
uniformly  
matte  
light  
gray  
⊙  
≡

15 ss  
AA  
fgr,  
⊙  
≡

Tr. VWF  
-sp

Tr. Sp.

very fresh



SPEC. HEM APPEARS

2000-2030'

2 slts. / 12 mds / 86 ss,  
 (do) / uniformly / fgr, buff-white  
 ← to lt. gray buff / matte / to v. lt. gray-buff  
 lt. gray / © / ☉, ☉  
 ☉  
 ☉

Tr. HM  
 intergranular

spec. Hem. is intergranular, in sandstone

2030-2060'

Minor caving

4 slts / 23 mds / 73 ss / Tr VVF  
 aa / aa / vfg to lmg  
 buff-white to v. lt. buff gray / ☉  
 ☉

Tr. SP

2060-2080'

3 slts / 14 mds / 83 ss /  
 vfg, AA /  
 all AA, all ☉  
 ☉

Tr HM

2080-2100'

3 slts / 15 mds / 82 ss,  
 vfg, buff-white to v. lt. gray-buff,  
 the latter with tinges of green (minor chlorite)  
 AA, ☉  
 ← exc. some mds v. sl. greenish-gray  
 ☉, ☉

2100-2120'  
 Minor caving  
 1 rust

2 slts / 17 mds / 81 ss  
 vfg AA / ☉  
 ← matte lt. gray ☉ &  
 matte lt. gray ☉

~~2100~~  
2120-  
2140'  
Minor  
caving

3 slts / 11 mds  
some  
cav? ?  
vary from  
lt. gray through  
lt. grayish-  
red through  
lt. grnsh-gray  
vfg-fg,  
v. lt. gray-buff  
grayish-pink  
& v. lt. grnsh-gray  
crumbly

Tr. sp

2140-  
2160'

1 slts / 8 mds / 91 SAND &  
SS, fine-gr,  
v. lt. grayish-pink  
to (rarely) v. lt. sl.  
grnsh-gray

2160-  
2180'

3 slts / 11 mds / 86 SS  
vfg to fg,  
otherwise AA

2180-  
2200'

CHANGE

15 slts / 32 mds / 53 SS / Tr. VVF - sp

AA (vfg)

v. lt. gray  
to sl. grnsh-  
gray



2280-  
2300'

FRESH

Tr. SP

5 slts / 41 mds /  
(ass)

54 ss

v. for,  
v. lt. grayish-buff  
to grayish-pink  
crumbly

matte lt.  
gray to  
greenish-gray



2300-  
2320'

6 slts / 47 mds / 47 ss

all aa,

2320-  
2340'

3 slts / 76 mds / 21 ss

all aa,

2340-  
2360'

2 slts / 41 mds / 57 ss

all aa,

o.c. py.  
dist.

2360-  
2380'

4 slts / 44 mds / 52 ss

all AA,

2380-  
2400'

3 slts / ~~47~~ 62 mds / 35 ss

all aa,

2400-  
2415'  
2420'

5 slts / 54 mds / 41 ss

matte lt. gray to lt. sl. greenish-gray  
©  
≡

vfg - fg  
v. lt. gray-buff to v. lt. ~~sl.~~ grish-gray (sl.)  
©  
≡

2420-  
2440'

3 slts / 82 mds / 1555 vfg **FRESH**

all AA, all ©  
≡

2440-  
2460'

2 slts / 25 mds / 73 ss vfg

all AA, ©  
≡

Tr. py (diss.)

2460-  
2480'

3 slts / 25 mds / 72 ss vfg

all AA, all ©  
≡

2480-  
2500'

6 slts / 31 mds / 1355 vfg ©

AA ©  
≡

abund. white interstitial clay (illite?)

\*

2500-  
2520

2 slts. / 19 mds / 79 ss vfg  
AA, all ©

2520-  
2540

1 slts / 16 mds / 83 ss vfg  
aa ©

2540-  
2560

3 slts. / 19 mds. / 78 ss, vfg  
v. lt. grayish-pink  
to v. lt. grayish-gray  
aa ©

2560-  
2580

2 slts / 22 mds / 76 ss vfg  
all AA, all ©

2580-  
2600

4 slts / 25 mds / 71 ss vfg  
all AA, all ©

2600-  
2620

5 slts / 35 mds / 60 ss vfg  
all AA, all ©

2620-  
2640

5 slts / 57 mds / 38 ss  
all AA, all ©

fresh  
monotonous

↑  
↑  
↑

ELMDRE 101 04/25/03 J. Hullen

2640-2660' Tr.   
 Some caving rind chips   
 7 slts / 35 mds / 58 ss   
 matte lt-med. gray   
 matte v. lt. sl. brownish to buff-gray   
 v. far, buff-white to v. lt. gray buff

2660-2680'   
 3 slts / 11 mds / 7 ss / 79 SAND   
 aa,   
 far, overall v. lt. gray-buff (translucent)

2680-2700'   
 2 slts / 61 mds / 37 ss   
 aa,   
 Tr. Py (diss)

2700-2720'   
 3 slts / 70 mds / 27 ss   
 all AA,   
 FRESH

2720-2740'   
 4 slts / 64 mds / 32 ss   
 aa

2740-  
2760'

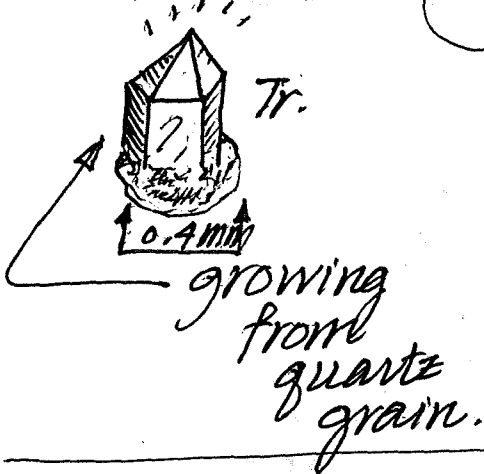
6 slts / 69 mds / 25 ss  
for  
all AA,

~~0.13~~  
py  
(syng. in mds.)  
also diss.  
in ss

2760-  
2780'

4 slts / 51 mds / 45 ss  
for, rare  
mgr

Tr. SP  
0.3 py



otherwise  
same AA

2780-  
2800'

1 nod  
AN  
(rexted)  
< 1 mm

CHANGE

95  
mds

9  
ss  
for  
AA

Tr. ~~VF~~  
VVF  
(AN)  
~~0.12 cpy!~~  
< 0.3  
mm

Tr. SP

~~Acpy~~  
~~0.1~~

matte  
gray to  
brownish-  
gray

2800-  
2820'

0.5 nod  
AN  
AA

89 mds  
AA

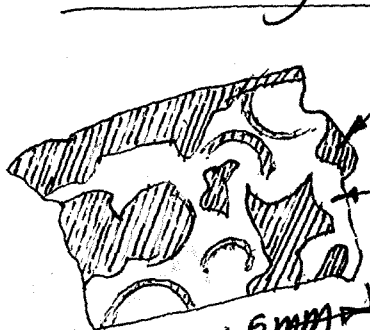
10.5  
ss  
AA,   
exc.  
1/10 ~~ss~~ & silicfd.



RHYOLITE PRESENT

2820-2840'

⑥ RHY, mottled white & trans. gray, spherulitic obviously devitrified glass



lt. gray clear vitreous qtz. porcell. white (KF?)

TYPICAL RHYOLITE CHIP

AGE DATE?

⑤ ss AA

0.1 cpy / 0.2 py

↳ exc. w/ 1/2 is grayish-green & chltz. w/ diss. cpy.

rest is ⑥

⑧ mds matte brownish-gray ⑥

2840-2860'

⑤3 TUFF RHYOLITE spherulitic mottled, AA

① 5/13 ⑥

44 mds 30 ⑥

② 55 ⑥

0.3 py / Tr. cpy

2860-2880'

⑦2 TUFF RHYOLITE AS ABOVE

① mds ⑥ OF matte gray brown

③ 55 AA ⑥

③ spongy w/ silica & chlt chips could be part of the rhyolite

PUMICE

⑤ ~~DRX~~ silicified, w/ rhyolitic frags.

also chltz. mds. clasts in dark gray silica-pyrite matrix

1.5 py

2880-  
2900'

(Tuff)

85 rhyo  
lit

later: now suspect:  
VITRIC-LITHIC RHYOLITE  
TUFF & TUFF BX 1 py

11 mds  
©F

2 ss

2 DBX  
silicfd.  
pumice  
rhy. clasts

→ mottled gray, white & light grayish-green (chltc). — some chips clearly pyroclastic — others appear to be flow foliated [even] — these could be derived from lithic clasts in a tuff.

2900- to 2910'

~~2920~~

(28)  
RHYOLITE TUFF  
& TUFF BX, mottled

translucent gray,  
white & gray-green (chltc)

Rx contains sand grains,  
silicfd. shards, pumice,  
glass & rhy. (devtr. spherulitic)  
lithic fragments (& drift-  
produced fragments of  
those fragments

9 mds  
RHA  
©F

3 ss  
(lithic  
clasts?)  
©F

ELMORE 101

2910-2920 (67) RHY TUFF & TUFF EX as above  
 see expl. for 2900-2910  
 3 mds | 3 ss  
 mottled gray  
 buff gray  
 (27) SAND  
 fine-grained, qtz-rich, subequant, subgl. & subrndd, frosted grains  
 0.1 py  
 Tr. cpy  
 (C) (C) (C) (C)

2920-2930 (25) TUFF & TUFF EX as above  
 cvd.  
 2 mds AA  
 2 ss AA  
 71 SAND  
 fgy. AA  
 0.1 py  
 Tr. cpy  
 (C) (C)

2930-2940 (21) TUFF & TUFF EX AA  
 5 mds AA  
 15 ss AA  
 59 SAND  
 fgy. AA  
 Tr. cpy  
 0.2 py  
 (C) (C)

2945-2950 (45) RHY TUFF & TUFF EX  
~~incl.~~ 3/5 of which is a brownish-gray var. appearing for the first time that is, not caused  
 3 mds | 3 ss  
 49 SAND  
 fgy. AA  
 0.1 py  
 (C) (C)

2950-  
2960

33 RHY TUFF  
& TUFF BX  
aa

5 mds / 11 ss

51 sand  
fgr. AA

Tr. py

2960-  
2970

11 RHY TUFF  
& TUFF BX  
aa

9 mds

15 ss  
fgr.  
⊙  
≡

70 sand  
fgr.  
AA ⊙  
≡

Tr. py  
Tr. cpy

2970-  
2980

5 "  
(prob. carved)

2 mds

93 SAND  
fgr. ⊙  
≡

Tr. py

2980-  
2990

5 "  
(prob. carved)

2 mds

93 SAND  
fgr. ⊙  
≡

Tr. py

2990-  
3000

3 "  
(prob. carved)

1 mds

96 SAND  
⊙ fgr.  
≡

Tr. py

overall transl.  
slightly orange-  
gray. (St.)

3000-  
3010

5 "  
(cnd)

2 mds

3 ss

90 SAND  
fgr. ⊙  
≡

Tr. py

3010-3020' some caving 3 RHY TUFF aa - prob. caved 2 mds 3 ss 92 SAND fgr, overall transl., sl. prng-gray, quartz-rich

→ © because  $CO_3$  cement (natural) still clinging to grains

3020-3030' some caving 3 RHY TUFF (CVD) 2 mds 3 ss 92 SAND aa © essentially no matrix aeolian?

3030-3040' caving 2 RHY TF (CVD) 4 mds 5 ss 89 SAND aa fgr. © Tr. cpy

3040-3050' caving 1 RHY TF (CVD) 5 mds 2 ss 92 SAND fgr, AA © Tr. py Tr. cpy

3050-3060' caving 9 RHY TF aa 7 mds 5 ss 77 SAND fgr, AA © 0.2 cpy 0.5 py

3060-3070' caving 7 RHY TF aa 13 mds 5 ss 0.2 cpy

EPIDOTE APPEARS

3070-3085'  
some caving  
2

9 RHY TF  
caved  
?

21 mds  
⊙  
≡

15 ss  
⊙  
≡  
●●

55 SAND  
⊙ 22  
fgv ●●●

0.2 EA  
0.3 py  
Tr.  
cpy

3085-3090'

3 RHY  
TF  
cvd?

37 mds  
⊙  
≡

60 SAND  
& ss.  
fgv. ⚡ to ●●●  
⊙  
≡

Tr. cpy

3090-3100'

Tr. Rhy  
TF  
(cvd)

15 mds / 5 ss  
⊙ / fgv

80 SAND  
fgv. ●●●

Tr. py  
Tr cpy

3100-3110'

1 RHY  
(CVD)

19 mds / 80 ss  
⊙

fgv. ⚡ to ●●●  
v. lt. gray-buff  
to grayish-pink.  
⊙  
≡

Tr. py

3110-3120'

2 RHY  
(CVD)

16 mds  
⊙  
≡

82 ss and SAND  
vfg. ⚡ to ●●●

Tr. py  
Tr. cpy

3120-3130'

Tr. RHY  
(CVD)

13 mds  
⊙  
≡

87 ss and SAND  
vfg. ⚡ to ●●●

3130-  
3140

Tr. RHY TF  
(caved)

2 silts / 43 mds / 55 ss and sand

matte lt-med. gray, v. fresh-looking  
vfg, v. H. gray-buff  
© 10% to 100%

3140-  
3150

2 silts / 87 mds / 61 sand and ss

all AA, ©

3150-  
3160

1 RHY TF  
(caved)

25 mds / 65 sand and ss

3160-  
3170

Tr. garish blue paint.

1 RHY TF  
(caved)

25 mds / 75 ss & sand, ©

3170-  
3180

1 RHY TF  
(caved)

25 mds / 75 ss & sand for AA  
AA monotonous

monotonous

3180-  
3190'  
Tr.  
RHY TF  
Cvd

20 mds / 80 ss & sand  
for HA  
extensively disaggregated  
by the drilling process  
u. 50/50

3190-  
3200'

25 mds / 75 ss and sand  
vfg

Tr. P1

3200-  
3210'  
2 RHY  
Cvd

2 slts / 23 mds / 75 ss and sand HA  
vfg

3210-  
3220'  
2 RHY  
Cvd

2 slts / 13 mds / 85 SAND & ss  
vfg

3220-  
3230'  
1 rhy th  
(Cvd)

12 mds / 88 SAND & ss  
vfg HA

33



3230-  
3240'

2 slts / 17 mds / 81 ss & sand  
vfg-fgr,  
v. lt. grayish-buff  
uniformly  
matte gray  
©  
©

3240-  
3250'

1 slts / 15 mds / 84 ss & sand  
vfg, AA ©  
©

3250-  
3260'

3 slts / 13 mds / 85 ss & sand  
vfg, AA ©  
©

3260-  
3270'

CVD-  
2% rhy  
tfr.

CHANGE  
2 slts / 61 mds / 87 ss AA  
vfg-fgr,  
AA, ©  
matte  
v. lt. gray  
to med. gray  
©

3270-  
3280'

11 arg  
slts / 46  
mds / 43  
ss  
vfg / Tr. VWF  
-cal  
Tr. copy  
Tr. P  
buff-white  
to v. lt. gray-buff  
vfg to ●●●● to ●●●●  
©

3280  
3290

3 sfts / 30 mas / 59 ss  
matte lt. med gray  
vfg, buff white to v. lt. gray buff  
AA, ©

Tr. VVF  
~~Tr. VVF~~  
- v. lt. Qtz

0.12 py  
Tr. cpy

Tr. silicified

CORSE SANDSTONE

3290-  
3300

5 arg. sfts / 22 mas / 79 ss  
AA, ©  
v. lt. gray-buff to ○○○○

Tr VVF  
- cal

0.1 py  
Tr. cpy

to very slightly grnsh gray buff

ALTN. SLIGHTLY INCR.

3300-  
3310

5 arg. sfts.  
v. lt. matte gray buff to matte lt. gray  
AA, ©

19 mas / 76 ss  
AA  
mostly v. lt. sl. grnsh-buff, pearlescent  
AA, ©

Tr. VVF  
- Qtz  
- cal

0.3 py  
~~Tr. cpy~~  
Tr. SP

3310-  
~~3320~~  
3320

2 sfts / 11 mas / 87 ss  
AA, ©  
otherwise AA  
©

Tr. SP  
0.2 py  
Tr. cpy

ELMORE 101 04/26/03

J. Hulen

3320-3330: (3) arg. sfts / (14) sity mds / (88) ss  
 matte, et-med. gray / fgr, v. lt. sl. greenish buff,  $\frac{1}{100}$  to  $\frac{1}{1000}$  pearlescent  
 0.15 py / 0.1 cpy

3330-3340: 3 sfts / 9 mds / 88 ss  
 all AA, ©  
 Tr. VVF / - Sp. cpy / Tr. SP / 0.3 py / Tr. cpy

3340-3350: 2 sfts / 11 mds / 87 ss  
 all AA, ©  
 0.12 py / Tr. cpy

3350-3360: \* CHANGE - MINERALIZED \*  
 Obvious sphalerite and chalcopyrite  
 also  $\frac{3}{4}$  larger cuttings than above (1.5 mm vs. 0.5 mm).  
 LESS CALC.  
 1/4 (Tr.)

(15) mds / 77 ss AA but u fgr & ©  
 (2) VVF / - Sp - Cal - Qtz - Sp. cpy / (2.5) SP / 0.3 cpy / 1 py

nearly opaque resinous luster, rich, dark, slightly reddish-brown euhedra up to 0.7 mm; fragments up to 1.3 mm. (37)

3360-  
3370

(5) slts / (24) mds / 70 ss  
vfg-fg,  
v. H. sl.  
greenish-  
buff  
60 to 000  
AA

1 VVF  
- cal  
- sp

1 sp  
0.3 cpy  
0.7 py

3370-  
3380

(6.5) slts / 25 mds / 68 ss  
all AA  
AA

1.5 VVF  
- cal  
- sp  
- sp · cpy · py

1 sp  
0.2 cpy  
0.7 py

3380-  
3390

11 slts / 29 mds / 60 ss  
aa

Tr VVF  
- sp

0.3 sp  
0.2 py  
Tr. cpy

3390-  
3400

8 slts / 21 mds / 70 ss  
all AA  
AA

1 VVF  
- sp  
- cpy  
- py  
- cal

1 sp  
0.2 cpy  
0.5 py

3400-  
3410

6 slts / 21 mds / 70 ss  
AA

0.5 VVF  
- cal · py · cpy  
- sp

0.5 sp

(28)

**ELMORE 101** 04/26/03 J. Hulien

3410- 3420 Tr. LCM	(15) 13 sfts / matte gray ©	(25) mds lt. ©	(59) ss ©	1 VVF - sp - sp. cal. py	1 sp 0.3 py Tr. cpy
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← for - vfor,  
v. lt. gray-buff  
to sl. grnsh-buff  
●●●

3420- 3430 3 LCM	3 sfts / aa, but ©	11 mds ©	CHANGE 86 SAND & ss ← for (no. 15 mm) v. lt. grayish-pink to gray-buff mostly ●●●, rest ●●●	(Preshner) 0.2 py Tr. sp
------------------------	--------------------------	-------------	---	--------------------------------

3430- 3440	2 sfts / AA ©	9 mds ©	89 SAND & ss vfor (0.15-0.2 mm)	0.1 py
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3440- 3450	1 sfts / all AA, ©	6 mds ©	93 SAND & ss	0.1 py
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3450- 3460 2 LCM 4 R&S	5 sfts / all AA, ©	28 mds ©	67 ss fgr	0.1 py  ③
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3460-  
3470  
7 LCM  
5 R&S

9 slts / 24 mds / 67 ss  
vfg-fg  
AA, ©

0.1 py  
Tr. Sp

4 LCM  
3 R&S  
3470-  
3480

12 arg. slts / 53 mds / 35 ss  
vfg-fg  
AA, ©

Tr. Py

3480-  
3490  
3 LCM  
+ 2 R&S

4 slts / 19 mds / 77 ss & SAND  
vfg, overall  
v. ft. transl.  
gray-buff  
© F ●●●

(Aeolian?)

Tr. Py

3490-  
3500

1 slts / 11 mds / 88 SAND  
v. ft. transl.  
grayish-pink.  
ufgr-lmgr (Aeolian?)  
© F ●●●

3500-  
3510  
5 R&S

3 slts / 14 mds / 83  
vfg-fg  
©

0.1 py  
Tr. Sp

3510-  
3520

4 slts / 23 mds / 73 ss  
vfg, otherwise  
AA ©

0.1 cpy  
0.3 py  
Tr. Sp  
(Cvd.)

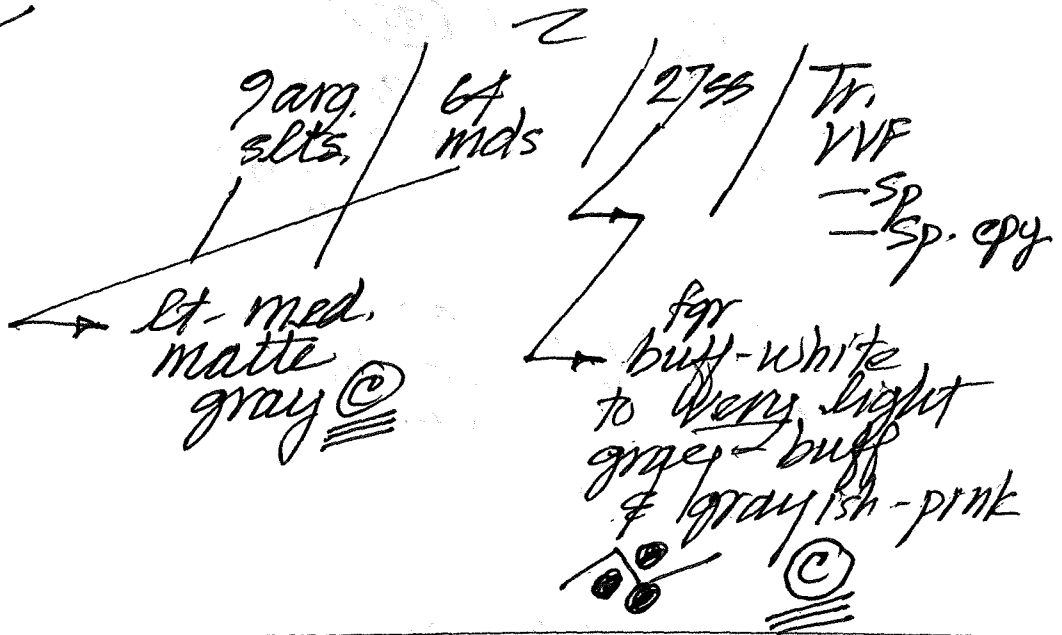
④

ELMORE 101 04/26/03 J. Hulden

3520-  
3530-  
ALCM  
3 RPS

cuttings coarser  
than above

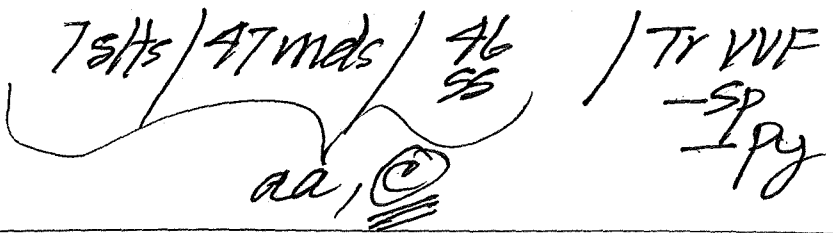
0.1 py  
Tr sp  
Tr. py



3530-  
3540-  
MAJOR  
AA OF  
Caving  
2

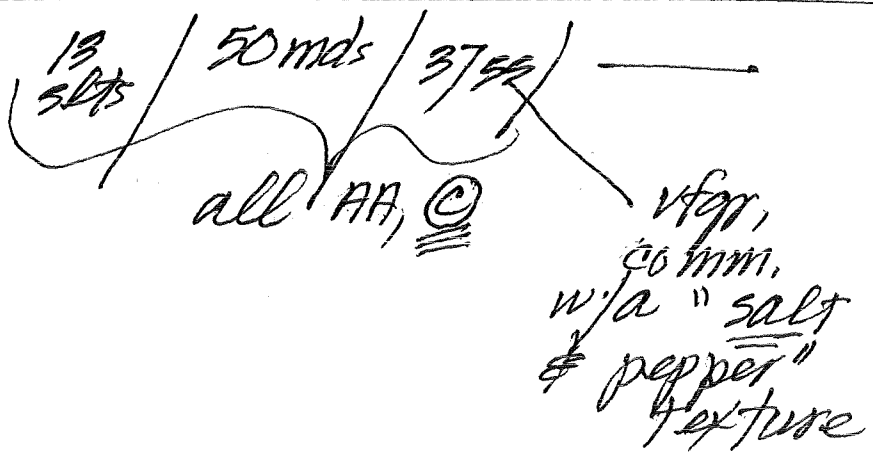
do not use

3540-  
3550-



0.2 sp  
0.3 py

3550-  
3560-



3565-  
3570

4 slts | 13 mds | 88 SAND \$  
aa  
③  
vfg, v. lt.  
grayish-pink  
③

Tr. py

3570-  
3580

3 slts | 9 mds | 88  
AA | AA | ss AA  
vfg  
③

0.2 py  
disc

3580-  
3590

5 slts | 12 AA | 83 ss  
AA | mds | AA vfg.  
③

Tr SP  
(evd?)

3590-  
3600  
2 LMS  
2 RAS  
2 1/2

2 slts | 18 mds | 80 ss  
aa | mostly  
③ | vfg  
buff white  
to v. lt.  
gray-buff  
③

Tr. py

3600-  
3610

ABUNDANT GRAYISH-  
PINK CEMENT

do not use

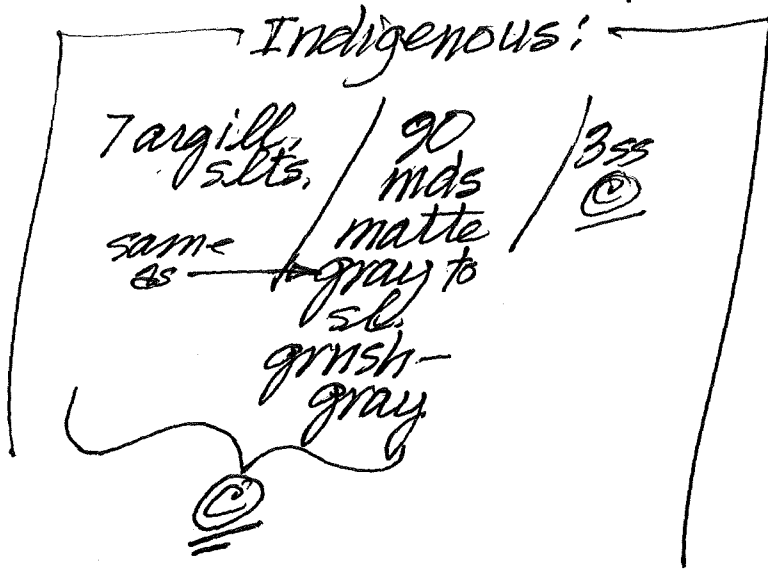


ELMORE 101 04/26/03

Tr. py

3610-3620'

22 CMT  
5 R & S  
Unknown Fibers  
1 ALUMINUM



3620-3630'

12 CMT  
1.5 R & S

7 slts / 89 mds  
aa, Ⓢ

Ass  
v. for buff-white to v. lt. gray-buff  
Ⓢ

Tr. py

3630-3640'

5 CMT  
2 R & S

5 slts / 60 mds  
aa, but Ⓢ

o.1 py

3640-3650'

2 slts / 33 mds  
aa  
Ⓢ

65s  
fg, v. lt. grayish-pink  
Ⓢ

o.2 py  
diss

Ⓢ

3650-  
3660

avg.  
3 slts / 20 mds / 67 ss  
ufgr

0.1 py  
Tr. Sp

AA, Ⓢ

3660-  
3670

Ⓢ  
5 slts / 29 mds / 53 ss  
avg. fg

0.12 py

all AA  
all Ⓢ

Fresh-  
looking

3670-  
3680

avg  
9 slts / 55 mds / 36 ss  
vfg-fg

"

0.1 py

all AA, all Ⓢ

3680-  
3690

avg  
11 slts / 72 mds / 17 ss

0.1 py

all AA, all Ⓢ

1 CNT  
3 R&S  
1/2

3690-  
3700

AA  
15 avg. / 58 mds / 27 ss  
slts

0.1 py

Ⓢ

vfg-fg  
v. lt. grayish-buff  
to grayish-pink  
mostly ~~ss~~, but Tr. ~~ss~~ sil.

Ⓢ

Ⓢ

ELMORE 101 04/27/03 J. Hullen

3700-  
3710'

13 slts / 52 mds / 35 ss

but becoming more indurated than above

matte lt. gray to matte lt. gray buff

matte lt. gray to lt. grnsh. gray

fgs buff-white to v. lt. gray-buff

Tr. py

3710-  
3720'  
5 R & S

3 slts / 23 mds / AA

74 ss  
AA but  
ufgr - lmgr

Tr. py

3720-  
3730'  
4 R & S  
Tr. CNT

5 slts / 30 mds / AA

65 ss  
ufgr - lmgr

Tr py

3730-  
3740'

9 slts / 61 mds / AA

30 ss  
fgs

0.2 py  
diss

3740-  
3750'

5 slts / 19 mds / AA (f-mgr)

76 ss

0.1 py

3750-  
3760

5 slts / 17 mds

78 ss, fgr, buff-white to v. lt. gray-buff

Tr. py

AA  
⊙  
≡

⊙

⊙

3765-  
3770  
Minor  
Cvng.

6 slts / 18 mds

76 ss fgr

Tr py

AA, ⊙  
≡

3770-  
3780

4 slts / 18 mds

78 ss fgr

Tr. py

AA, ⊙  
≡

3780-  
3790

3 slts / 12 mds

85 ss fgr

Tr py

AA, ⊙  
≡

3790-  
3800  
5 R&S

16 slts / 46 mds

88 ss fgr.

Oil Py

AA, ⊙  
≡

3800-  
3810

21 slts / 53 mds

25 ss fgr

① VVF  
- 97% Cal

AA, ⊙  
≡

← up to at least 0.7 mm wide.

ⓐ

ELMORE 101 04/27/03 J. Hulien

3810-3820  
 2 CNT CVD.  
 11 slts / 6 mds / 25 ss / Tr VVF / -cal / Tr. Py  
 matte lt. sl. buff grey / matte lt. gray / fgr, buff-white to v. lt gray-buff & gray-pink  
 all very fresh-looking

3820-3830 / 2 slts / 15 mds / 83 ss & SAND / 0.1 py  
 AA / fgr, otherwise AA  
 all AA

3830-3840 / 2 CNT CVD / all AA / 0.1 py

3840-3850 / 4 R&S / 4 mds & 5 slts / 96 SAND & SS / Tr. py  
 AA / fgr - lmg

3850-3860 / 3 R&S / 7 slts / 11 mds / 82 ss fgr / Tr. py  
 AA

3860-  
3870'  
poor  
wash

7 slts / 70 mds / 23 ss  
for  
AA, ©

Tr. Py

3870-  
3880'

10 slts / 62 mds / 28 ss  
ufgr - lmgr  
AA, ©

0.1 Py

3880-  
3890'

11 slts / 84 mds / 5 ss  
for  
AA, ©  
very fresh-  
appearing

3890-  
~~4000~~  
3900'

14 slts / 50 mds / 36 ss  
for  
AA, ©

3900-  
3910'

5 slts / 38 mds / 53 ss  
for  
AA, ©  
Tr. VVF  
- cal

0.1 Py

3910-  
3920'  
R&S  
6 1/2

1 slts / 6 mds / 93 ss  
for,  
extensively  
disaggregated,  
but probably  
by the drilling  
process

●●● / ●●●

10

**ELMORE 101** 04/27/03 J. Hulen

3920-3930' 5 R&S  
 2 slts / 5 mds matte gray  
 98 ss, fgr, v. lt. gray-buff  
 rare mgr  
 Ⓞ

3930-3940' 2 mds + slts, AA  
 98 SAND & ss Tr. Py  
 mgr rare fgr.  
 avg  $\approx 0.35$  mm  
 Ⓞ

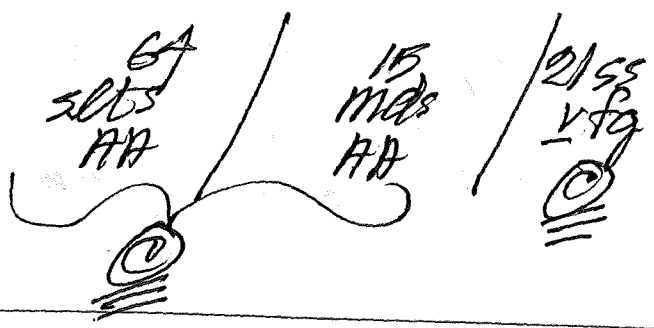
also 0.5% diss. gray submetallic, < 0.3 mm grains, lightly frosted speckled w/ dull green (poss. chalcocite)

3940-3950' AA  
 also 0.3 unknown gray submetallic. 0.3 py

3950-3960' 6 R&S  
 4 mds slts / 96 ss fgr  
 v. lt. gray-buff w/ hint of gray-green  
 Ⓞ

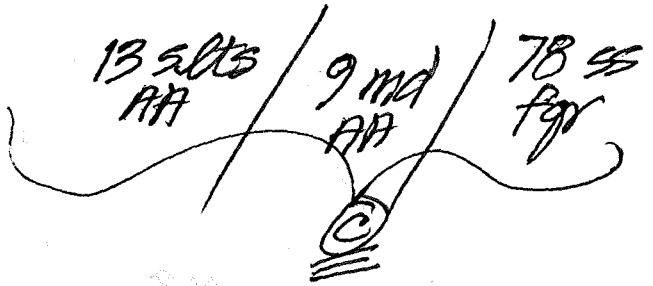
3960-3970' SILTSTONE-RICH & PYRITIC  
 ALSO TRACE EPIDOTE 1 Py Tr. EP  
 0.1 CPY  
 88 slts / 7 mds slty / 5 ss AA  
 lt. sl. brushy matte gray to green  
 Ⓞ  
 (Tr) Ep, PtZ Ⓞ

3970-  
3980'



0.3 py  
Tr. py

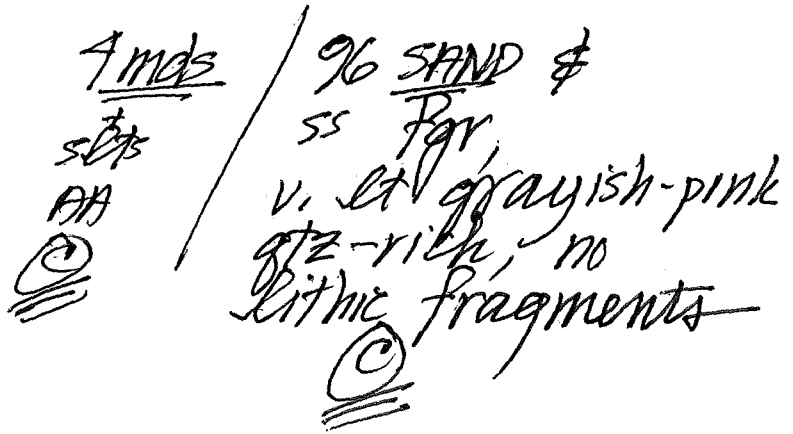
3980-  
3990'



0.2 py

3990-  
4000'

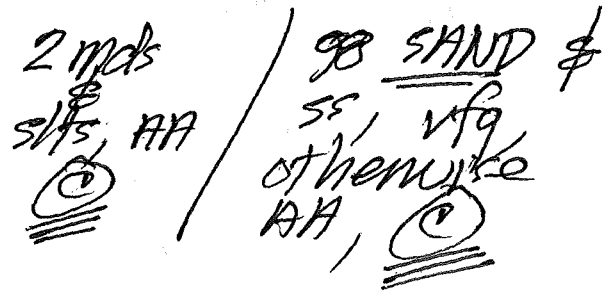
some  
caving  
2 CMT  
3 R & S



Tr. py

4000-  
4010'

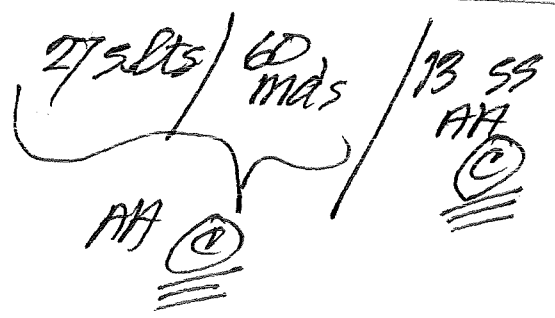
15 R & S  
Hard  
Drilling  
22



0.2 py

4010-  
4020'

7 R & S



0.1 py

(50)



ELMORE 101

04/27/03

J. Hulen

4020-  
4030

13 slts / 45 mds

42 ss



0.12 py

matte  
lt-med  
sl. brnsh  
gray

matte  
gray

fg, v. lt.  
grayish-pink

to sl. greenish-gray

4040-  
4050

6 R&S

Looking more altered.

0.1 py

5 slts

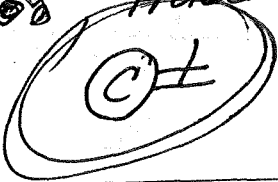
21 mds

74 ss

fg, mix of  
v. lt. grayish-pink  
to grayish-buff  
& greenish-gray  
trace (silicified)

LESS  
CALCAREOUS

some greenish-gray



4040-  
4050

3 slts / 20 mds

77 ss

0.12 py

AA

4050-  
4060

7 R&S

5 slts

54 mds

71 ss  
fg

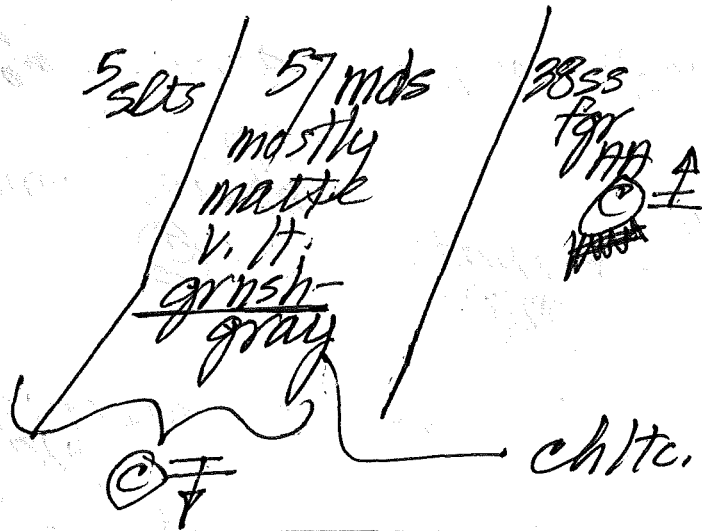
0.1 py

AA

Altered (+ chl.)

Tr. py

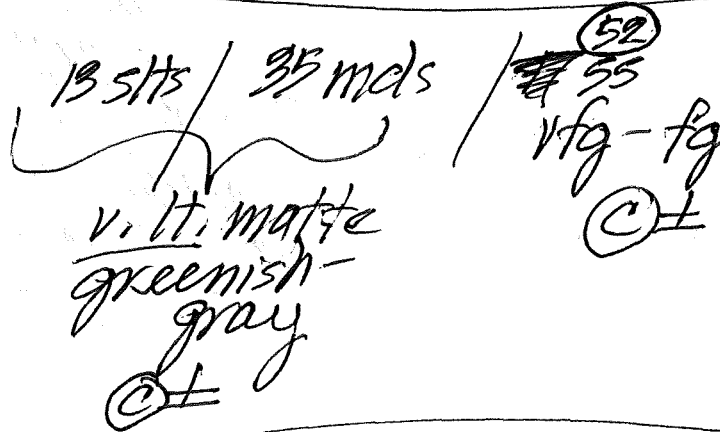
4060-4070  
10 R&S



4070-4080  
6 R&S

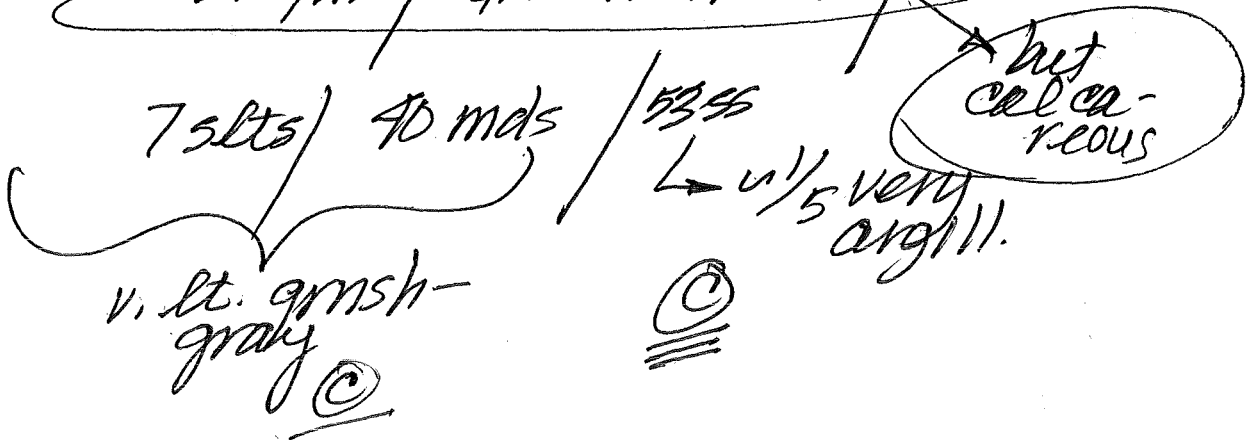
Bleached-appearing

0.3 py



4080-4090

DISTINCT GREENISH CAST



(92)

ELMORE-101

04/27/03

J. Hulon

4090-  
4100'

Tr. Py

19 slts / 58 mds  
matte lt gray to sl. grnsh-gray  
Ⓢ

23 ss  
f. gr,  
2 types  
① lt. grayish-pink  
② v. lt. grnsh-gray & argill.

this has some sharply & clasts & might be tuffaceous  
Ⓢ

4100-  
4110'

15 slts / 41 mds.  
AA  
Ⓢ

44 ss  
fgr  
AA ①  
Ⓢ

Tr. Py

4110-  
4120'

35 slts / 42 mds  
AA  
Ⓢ

23 ss  
fgr

Tr. Py

4120-  
4130'

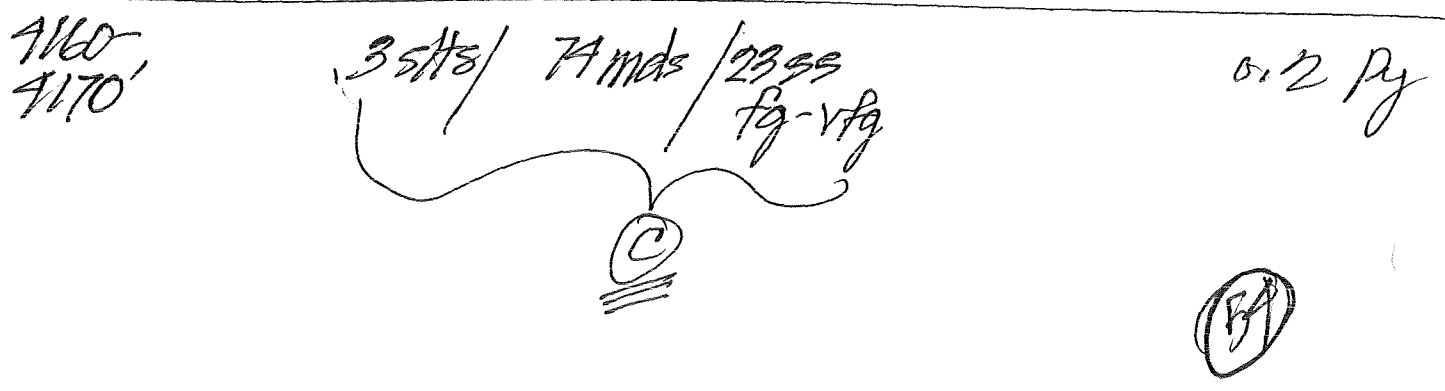
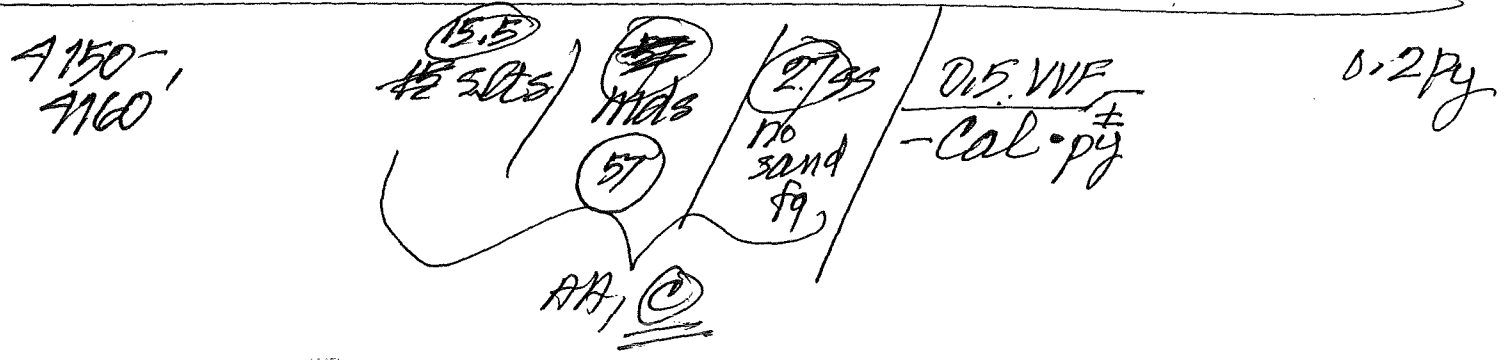
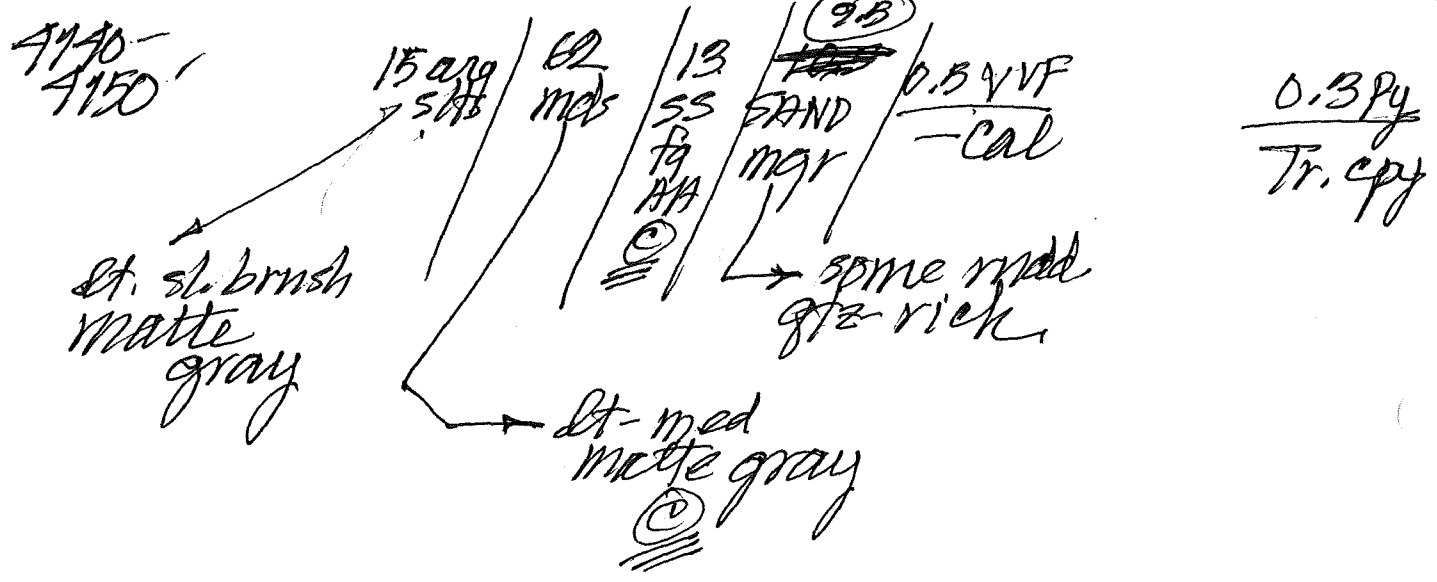
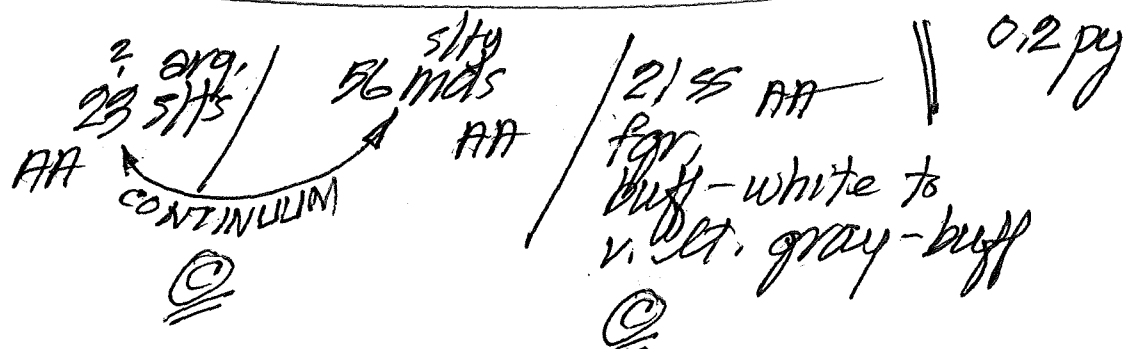
120 and 5175  
v. lt. matte gray  
CONTINUOUS  
Ⓢ

27 ss  
fgr  
⑤  
VVF - cal  
Ⓢ

0.3 Py

53

4130-4140' Quite Fresh-Appearing; Only a hint of green (chl.)



ELMORE 101 04/27/03 J. Hulen

MUDSTONE DARKER

9170-  
9180

0.2 py

Tr. nod. AN	3 slts	80 mds - compact, indurated, med. matte, sl. brnsh- gray Ⓢ	17 ss fgr, buff-white to v. lt. gray buff mostly Ⓢ, but w/ 20% <del>AA</del> , silicified Ⓢ
-------------------	--------	--	--

9180-  
9190

"BLACK & WHITE"

0.1 py

<del>med.</del> lt. sl. brnsh gray Ⓢ	6 slts	79 mds med-dk. v. sl. brnsh- gray Ⓢ	15 ss vfg Ⓢ Ⓢ
---	--------	---	---------------------

9190-  
9200

7 slts / 57 mds / 36 ss "B&W"

0.2 py

AA, Ⓢ

9200-  
9210

7 slts / 52 mds / 41 ss "B&W"

Tr. py

AA, Ⓢ

9210-  
9220

5 slts / 40 mds / 55 ss "B&W"

Tr. py

AA, Ⓢ

55

4220-4230  
33 slts / 58 mds / 9 ss  
Tr. Py  
AA, ©

4230-4240  
22 slts / 25 mds / 53 ss  
"B&W"  
Tr. Py  
AA, ©  
FRESH

4240-4250  
50  
9 slts / 17 mds / 74 ss  
vfg - fg white to  
buff - white to  
v. slt. gray buff  
AA, ©

~~4260-4270~~  
4250-4260  
17 slts / 17 mds / 68 ss  
0.1 Py  
AA, ©

4260-4270  
CHANGE  
5 slts / 89 mds / 6 ss  
dark  
med. sl. brownish  
matte gray  
AA, ©

50

ELMORE 101 | 04/27/08 J. Hulen

4270-  
4280'

3 slts / 95 mds / 2 ss  
lt-med. gray / med. sl. / fgr  
matte gray / brnsh matte gray  
©

4285-  
4290'

8 slts / 61 mds / 31 ss  
AA, © / vfg buff white to v. lt. gray buff  
©

4290-  
4300'

3 slts / 32 mds / 65 ss  
all AA, ©

4300-  
4310'

2 slts / 11 mds / 87 SAND Tr. Py  
AA, © / mgr, v. lt. grayish-pink to grayish-buff  
©

4310-  
4320'

4 slts / 17 mds / 79 ss  
AA, © / mgr, AA, buff  
©

4320-  
4330'  
6 RFS

CHANGE  
7 slts / 68 mds / 25 ss / Tr. WE - Cal  
AA, © / AA, but fgr.  
57

4220-  
4340'

11 slts / 55 mds / 34 ss  
AA ©

4340-  
4350'

19 slts / 25 mds / 61 ss  
aa ©  
buff white  
to v. lt  
gray-buff

0.1 py  
□

matte lt.  
v. sl. brnsh-  
gray ©

4350-  
4360'

14 slts / 16 mds / 70 ss  
aa ©

Tr. Py

4360-  
4370'

12 slts / 15 mds / 73 ss  
AA ©  
qtz-rich  
buff-white  
to v. lt  
gray-buff &  
gray pink ©

FRESH

Tr Py

4370-  
4380'

3 slts / 13 mds / 87 ss  
aa  
aa but  
UFG ©

0.2 py

58



4380-4390' 5 R#s  
 9 slts  
 matte lt med. sl. brownish gray  
 44 mds lt.-med. matte gray  
 47 ss fgr buff-white to v. lt. gray buff & grayish-pink  
 (Tr. ~~Py~~)  
 all very fresh-appearing

4390-4400' 13 slts / 70 mds / 17 ss  
 all HA, all @

4400-4410' 7 slts / 15 mds / 78 ss  
 CHANGE  
 all HA, all @ Tr. Py Tr. cpy

4410-4420' 6 R#s  
 9 slts / 7 mds / 89 ss  
 v. fgr  
 all HA, all @

4420-4430' 5 slts / 22 mds / 73 ss  
 v. slight greenish-tinge  
 all HA, all @ Tr. cpy

4430-  
4440' 5 slts / 17 mds / 7855 vfg-fgr  
⊙ / ⊙± / ⊙ Tr py

4440-  
4450' 1 slts / 6 mds / 8555 0.3 py  
5 R\$ fgr.  
all AA, all ⊙

SMPL. BLEACHED-APPEARING

4450-  
4460' 18 slts. / 17 mds / 6555 0.3 py  
v. lt. sl. buff  
matte gray ⊙±  
vfg-fgr

Minor  
avg 2 4460-  
4470' ? 5 slts / 8 mds / 8755 Tr. cpj  
AA, ⊙ Tr py

Rusty  
4470-  
4480' 2 slts / 7 mds / 9455  
11 R\$ fgr  
aa, ⊙

⊙

ELMORE 101 04/27/03 J. Hulen

4480-  
4490'

7 slts  
matte  
lt. gray  
Ⓢ

66 mds  
med. sl  
brnsh  
matte  
gray  
Ⓢ

27 ss  
fgr,  
buff - white  
to lt. lt. gray buff  
Ⓢ

4490-  
4500'

8 slts / 51 mds / 41 ss  
fgr  
aa, Ⓢ

4500-  
4510'

all AA

4510-  
4520'

10 slts / 25 mds / 65 ss  
fgr  
all AA Ⓢ

4520-  
4530'

3 slts / 8 mds / 89 ss  
vtg-fg  
AA, Ⓢ

4530-  
4540'

1 (Tr)

CHANGE  
5 slts / 70 mds / 25 ss / Tr. VVF  
matte  
lt. gray  
transl.  
on edges  
Ⓢ  
- Py. Col

4540-4550'

4 slts / 7 mds / 22 ss  
fgv  
AA ©

4550-4560'

CHANGE  
2 slts / 17 mds / 81 ss  
fgv -  
(rarely) mgr  
AA, ©

4560-4570'  
~~4560~~

3 slts / 22 mds / 75 ss  
poorly-sorted, argillaceous -  
seemingly matrix-supported. 0.1 py  
ranging from v. fgr to lcgr. © buff white to v. lt gray buff  
avg. ~~fgv~~ fgr. ♪

4570-4580'

3 slts / 17 mds / 80 ss 0.2 py  
1/2 AA  
1/2 fgr, med. sorted  
♪, ©

4580-4590'

"BLACK & WHITE" 0.2 py  
5 slts / 33 mds / 62 ss  
vfg-fgr → Tr. ~~fgv~~ silicified.  
AA, ©

②

4590-  
4600'

(4) slts  
matte v. lt.  
to lt. gray  
sparsely  
speckled  
with dk.  
gray (C)

(28) mds  
matte  
lt-med  
gray (C)

(69) ss  
vfg-fgr,  
buff white  
to v. lt.  
gray buff,  
qtz-rich  
(no thin frags.) (C)

4600-  
~~4600~~  
4610'

2 slts / 25 mds / 73 ss

0.1 py

AA, (C)

4610-  
4620'

2 slts / 19 mds / 79 ss  
fgr-ufgr

IV VVF  
- py  
(in mds)

0.2 py

AA, (C)

4620-  
4630'

1 slts / 15 mds / 81 ss fgr

AA, (C)

4630-  
4640'

(C) 7 slts / 50 mds / 43 ss fgr (C)

med-dark,  
sl. brnsh-gray, highly  
indurated (C)

4640-  
4650'

3 slts / 9 mds / 88 ss fgr

4650-  
4660

1 slts / 6 mds / 93 ss  
aa, ©

4660-  
4670

5 slts / 23 mds / 72 ss  
aa, ©

0.2 py

4670-  
4680

4 slts / 25 mds / 71 ss  
aa ©

Tr. Py

"CHANGE"

4680-  
4690

10 slts / 65 mds / 25 ss  
Tr VVF  
- Cal

0.2 py

4690-  
4700

23 slts / 30 mds / 47 ss  
aa, ©

Tr. Py

4700-  
4710

21 slts / 30 mds / 49 ss  
aa, ©

"CHANGE"

4710-  
4720

9 slts / 21 mds / 70 ss  
Tr. VVF  
- Cal  
aa ©

6

4720-4730' 5 slts / 36 mds / 59 ss  
 matte lt, sl. brnsh gray ©  
 matte med. gray ©  
 vfg - fg buff - white to very light gray buff ©

4730-4740' 5 slts / 37 mds / 58 ss  
 vfg - fg  
 aa, ©

4740-4750' 3 slts / 26 mds / 71 ss  
 fg to ©©©  
 aa, ©

4750-4760' 11 slts / 13 mds / 76 ss  
 fg  
 aa, ©

4760-4770' 10 slts / 42 mds / 48 ss  
 vfg - fg } all ©  
 & AA

Abund. Rgs 1/2

0.2 py

4770-4780' 7 slts / 13 mds / 80 ss  
 vfg - fg  
 © aa

4780-  
4790'

5 slts | 6 mds | 89 ss  
vfgr  
aa, @

"RUSTY"

4790-  
4800'  
15 R#s

4 slts | 5 mds | 91 ss  
vfgr fgr  
aa, @

UNCHANGING

4800-  
4810'  
8 R#s

5 slts | 6 mds | 89 ss  
vfgr-fgr,  
buff-white  
to v. lt. graysh-buff  
& graysh. pink.  
@

4810-  
4820'

1 slts | 2 mds | 97 SAND  
aeolian?  
vfgr-lmgr,  
subf to submd,  
v. lt. trans. grayish-  
pink @ ●●●, Tr. ●●

4820-  
4830'

1 slts | 4 mds | 95 SAND  
vfgr-lmgr  
●●● AA  
@



ELMORE 101 09/28/08

J. Hulen

4830-  
4840'  
very  
poor  
wash

<sup>?</sup> 9 slts / <sup>?</sup> 5 mds / <sup>?</sup> 06 ss  
AA?

Some LCM &  
Rust

4840-  
4850'

v. Fine Cuttings.

3 slts / 7 mds / 90 SAND  
AA  
Ⓢ  
ufgr - lmgx,  
buff - white to  
v. lt. gray buff  
●●● Trit ●●  
Ⓢ

4850-  
4860'

2 slts / 8 mds / 90 SAND  
AA, Ⓢ  
ufgr - lmgx  
mostly v. lt.,  
sl. grash.  
translucent gray  
Ⓢ

Oil Py

4860-  
4870'

2 slts / 5 mds / 93 SAND  
ufgr - lmgx  
AA, Ⓢ

4870-  
4880'

4 slts / 20 mds / 76 ss  
Ⓢ   Ⓢ   Ⓢ

4880-4890

3 slts / 8 mds / 89 ss & SAND  
med brnsh-gray  
ufgr-lmgr  
○○○ to ○○○

0.2 Py

4890-4900

4 slts / 6 mds / 90 ss  
AA

0.1 Py

4900-4910

Tr slts / 3 mds / 97 SAND  
fss fg, vv. lt. transl. gray

Tr. Py

4910-4920

~~7 slts~~ 1 slt / 4 mds / 95 SAND  
fg, sl. pinker than above  
○○○ to ○○○  
AA

0.1 Py

4920-4930  
9 R&S discolored

"RUSTY"

2 slts / 12 mds / 86 sandstone - def. different than above  
vfg, lt. grayish-bluff to grayish-pink  
○○○

0.4 Py (diss in ss.)

4930-4940' (2) slts / (6) mds / (92) ss  
 lt. sl. brnsh gray, sparsely speckled w/ dk. gray (orig.?)  
 med-dk matte gray  
 vfg-fg, v. lt. grayish-pink  
 (qtz-rich)  
 Tr. py

4940-4950' (1) slts / (4) mds / 95 ss  
 L+ (C) / (C) ±  
 AA v. sl. gmsh cast  
 diff. than above = minimal caving  
 (C) ||

4950-4960' (1) slts / (2) mds / (97) ss, v. lt. grayish-pink  
 (C) / (C)  
 sparsely speckled with dark gray ("salt & pepper")  
 0.2 py  
 (C) ||

4960-4970' (2) slts / 14 mds / 84 ss vfg. ("s&p")  
 (C) / (C) / (C) ||

4970-4980' (4) slts / 39 mds / 57 ss vfg.  
 (C) || / (C) / (C) || ||  
 AA  
 Tr. py

4980-4990' 8 slts / 35 mds / 57 ss vfg.  
 (C) || / (C) / (C) || ||  
 0.3 py

4990-  
5000'  
6R45

AA "BLACK & WHITE"  
7 slts / 42 mds / 50 ss

matte dk. gray  
to brownish-gray  
rarely

vfg  
AA

conspic.  
change  
in mds.  
value;  
becomes  
dark gray

← & apparently  
more melted  
rated

5000-  
5010'

5 slts / 37 mds / 58 ss  
vfg, lt. gray-buff

5010-  
5020'

5 slts / 42 mds / 53 ss vfg  
AA

5020-  
5030'

4 slts / 69 mds / 27 ss  
vfg AA

oil py

Mudstone definitely less calcareous  
Sandstone still vigorously calcareous

5030-  
5040'

12 slts / 95 mds / 53 ss  
vfg, AA

5040-  
5050'

AA 3 slts / 70 mds AA / 27 ss  
v. dk. matte gray  
AA

5050-5060' 2 slts / (4) mds / 57 ss  
 lt. matte gray, sparse "5 & P" (circled) / dark matte, sl. brownish gray (circled) / v. lt. grayish-pink (circled)

5060-5070' (1) slts AA (circled) / (13) mds dk. gray (circled) AA / 86 ss fgr. otherwise AA (circled) / Tr. Py (circled)

5070-5080' 2 slts AA (circled) / 11 mds AA (circled) / 87 ss & AA fgr (circled) / 0.3 Py

5080-5090' (4) R & S (circled) / Tr. slts / 3 mds (circled) / 97 ss / fgr, v. lt. grayish-pink, gtz-rich - no lithics or dk. fragments (circled) to (circled) / PYRRHOTITE (boxed) ↓

5090-5100' **FINALLY!** CHANGE: **Rhyolite** present (circled)

(6) R & S (circled) (9) RHYOLITE  
 vitreous to porcellaneous  
 irreg. mottled sl. pinkish-white & v. lt. transl. gray to sl. grnsh-gray  
 some chips "polka dot" white in light gray - possibly spherulites.

(4) slts (circled) / (6) mds (circled) / (8) ss (circled) fgr v. lt. pinkish gray to sl. grnsh-gray (chete.) mostly but w/ 1/10 fgr & sl. these

0.5 PO diss in rhy. irreg. v. xln clots < 0.1 - 1 mm / 0.1 Py in elastics (71)

5100  
5110

(83)  
RH4  
22

(2)alts / (3)mds / (1)ss

0.3 PO



< 0.5 mm

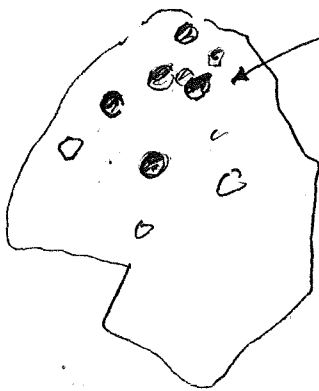
opaque, vxn  
pinkish-white (KF?)

transl. - transp.  
gray (DTZ?)

1.5 mm L

vxn, qtz-chl.  
et. pearlescent  
gray-green.

\* Scattered, irreg., < 0.5 mm VUGS in  
RH4 - these commonly lined w/ < 0.2 mm L  
quartz prisms.



spherical elements  
some hollow (vesicles)  
some solid vxn,  
white (spherulite)  
or amygdulose

1.5 mm

(72)

ELMORE 101 04/20/03

J. Hulen

5110-5120

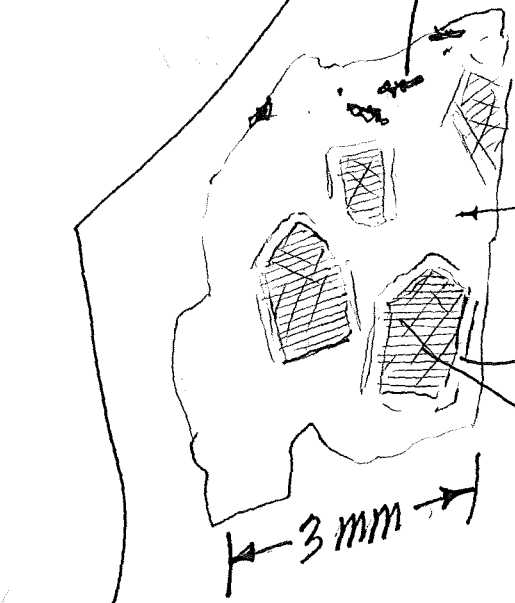
(97) RHYOLITE

① mds  
② ss for AA

0.4 po  
0.1 py

diss. po

poss evd

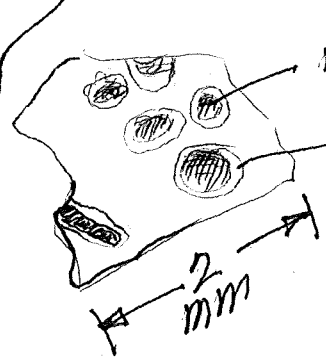


Transl. gray & greenish-gray w/in matrix

opaque white porcellaneous halo. (reaction rim)

Transl. grayish-pink apparent feldspar phenocrysts

3 mm



vesicles

opaque white w/in rims

2 mm

actually more like loosely saccharoidal.

RHYOLITE is w/in, porcellaneous to vitreous to "spongy" (vps), mottled pinkish-white (dominant), transl. gray to greenish-gray, & lt. gray-green pearlescent. Latter is w/in. chl, poss. after mafics. At least 0.5%

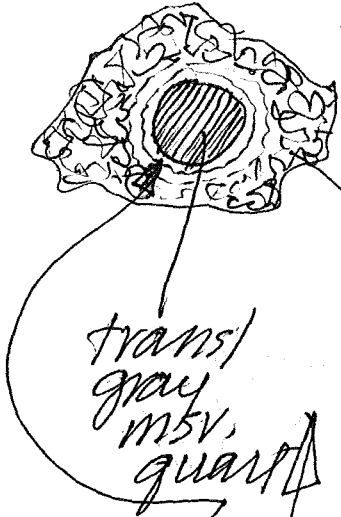
(fsp) phenocrysts, blocky,  $\leq 0.17 \times 0.15 \times 0.15$  mm. (some of these appear to be nearly fresh)

5128-5130

93 RHY / 6 mds / 1 ss  
AA

(3-4%)

but common gtz-filled amygdules up to at least 0.7 mm (avg < 0.5 mm)



sugary trans gray matrix

DIKE OR SILL (see below)

transl gray msv. quartz

opaque rxn. white band.

5130-5140

DIABASE APPEARS

7 RHY AA

5 sts

43 mds

45 DBS (actually micro-diabase)

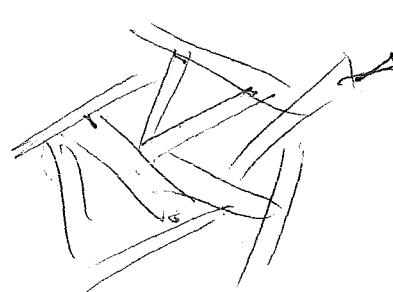
vfg ( < 0.3 mm) decussate texture,

overall color med-dk, brownish

olive-gray - quite fresh

shiny ptaq. cleavages apparent

∴ with this texture, probably a dike or sill



AA



5140-  
5150'

Tr. Pth

5 mds / 95  
MICRODIABASE

0.3  
~~Tr. py~~  
Tr. Cpy

CF → wk. <sup>aa</sup> chltzn,  
but rx appears  
quite fresh

5150-  
5160'

3 mds  
transl.  
gray  
v. ind.  
& indurated

97 NDBS, aa

CF  
quite fresh

0.5 py

5160-  
5170'

3 mds / 97 NDBS  
<sup>aa</sup>  
CF  
quite fresh

Tr. VVF  
- Cal  
- Qtz  
- Ch

0.2 py

5170-  
5180'

1 mds / 98 NDBS  
<sup>aa</sup>  
CF

1 VVF  
- Cal  
- Qtz  
- chl.

0.3 py

**CHANGE**

5180-  
5190'

2 slts / 4 mds / 30 ss  
CF

69 NDBS / Tr. VVF  
CF

Tr. py

5190-  
5200'

2 slts / 5 mds  
CF

72 ss / 21 nds  
vfg -  
buff-white to  
very light  
CF  
CF  
gray-buff

0.1 py

(75)

5200-  
5210

5 slts / 59 mds / 29 ss / 7 dbs / Tr VVF  
⊕ / ⊕ / ⊕

→ matte dk. gray to sl. brownish-gray.

vfg. buff-white to vlt. gray buff

5210-  
5220

4 slts / 61 mds / 18 ss / 4 dbs / 0.5 VVF  
⊕ / ⊕ / ⊕ / (2.5) / -cal)

5220-  
5230

(11.5) 5 slts / 19 mds / 69 ss / Tr. dbs / 0.5 VVF  
⊕ / ⊕ / ⊕ / -cal

5230-  
5240

2 slts / 28 mds / 58 ss / 4.5 dbs / 0.5 VVF  
⊕ / ⊕ / vfg / -cal

5240-  
5250

v. fine / 48 mds + 5 slts / 49 vfg / 3 dbs / Tr. VVF / Tr. po  
ctng. / ⊕ / ⊕ / -cal

5250-  
5260

5 slts / 53 mds / 37 vfg / 2.5 dbs / 0.5 VVF / 0.2 po  
⊕ / ⊕ / ⊕ / -qtz / Tr. py  
-cal

5260-  
5270

1 slts / 87 mds / 16 vfg / 1 dbs / 0.3 py  
⊕ / ⊕ / ⊕ / TR. po

→ uniformly med-dk. matte gray to slightly brownish-gray

FRESH

(76)

ELMORE 101

04/29/03

J. Hulen

"Black & White" (B & W)

5270-  
5280

94 mds  
dorm. med-dk.  
matt gray to  
slight brash-  
gray; some  
pcs. translucent  
at edges

655  
vfg  
duff-white

Tr. DBS / Tr VVF  
- Cal

5280-  
5290

94 mds AA  
more translu-  
cent & indurated

655  
AA  
vfg

Tr VVF  
- Cal  
- Py

Tr DBS

Oil Py

5290-  
5300

Tr DBS  
exp

93 mds  
AA

755  
AA  
vfg

Tr. VVF  
- Cal · Py

Oil Py

5300-  
5310

95 mds  
dark,  
sl. brash-  
gray -  
semi-  
opaque

555  
vfgg  
AA

Tr  
VVF  
- Cal

Tr. DBS

5310-  
5320

93 mds  
aa

755

Tr VVF

Tr DBS

5320-  
5330'

60 mds  
dk. matte  
gray, AA

40 ss  
vfg.

very light  
sl. greenish-gray  
to grayish-white  
to ●●●

⊙  
≡

5330-  
5340'

45 mds

55 ss  
vfg-fg

AA ⊙  
≡

5340-  
5350'



35 mds

65 ss  
vfg

AA ⊙  
≡

Tr. VVF  
-cal

▲ Tr. DBX  
cal-entel.  
mds.  
elasts (u)

5350-5360'

5 slts

37 mds

58 ss  
vfg

Tr. VVF

Tr. Py

AA, ⊙  
≡

5360-  
5370'

CHANGE

0.3 Py

⑤ MICRO-  
DIABASE,  
SAME  
AS 5140-  
5180'

② mds  
dk  
gray

③ ss  
vfg-fg

① VVF  
-cal

FRESH

78

ELMORE 101 04/29/03

5370-  
5380

(76) MICRO-  
DIABASE

overall  
med.-dk.  
sl. brownish  
gray-green  
probably partially  
chloritized but  
otherwise quite fresh  
(PXN & PLAC. FRESH)

17 mds  
med-  
dk gray

755  
buff-  
white  
v. tr.  
gray  
buff  
vfg

0.2 py

5380-  
5390

(92) NDBS

aa  
fresh

(5)  
mds

(3)  
ss

Tr. VVF  
-cal

0.5 py  
(diss)

5390-  
5400

(91) NDBS  
aa

7 R&S

6 mds

355

Tr. VVF  
-cal

0.3 py

5400-  
5410

VERY CLEAN SAMPLE

(95) NDBS  
aa  
fresh

otherwise  
fresh

3 mds

1.555

0.5 VVF  
-cal  
-DTZ  
-CH1

0.3 py  
Tr. py

5410-  
5420

98 N DBS  
aa ©  
FRESH

1.5  
mcs

Tr.  
SS

0.5 VVF

- cal  
(could also  
be amygdale-  
filling)

5420-  
5430

97 N DBS  
aa, ©  
FRESH

1.5  
mcs

1.5 VVF

- cal  
- DTZ  
(amyg.?)

5430-  
5440

98 N DBS  
aa  
FRESH

0.5  
mcs

1.5 VVF

- cal  
- DTZ  
(amyg.?)

Tr. Py

5440-  
5450

CHANGE

5 s/ls.  
matte lt.  
gray ©

17 mcs  
matte  
med  
gray ©

45 SS  
buff-  
white to  
v. lt.  
gray-  
buff

33 N DBS  
aa  
©  
FRESH

0.5  
VVF  
- cal

5450-  
5460

15. lts  
aa

8  
mcs  
aa

78 SS  
bright buff-  
white to  
very light  
gray buff

Vf9-  
f9

13 N DBS  
©  
FRESH

©

80

5460-  
5470

① vds  
aa prob.  
CVD  
Ⓢ

② slts  
matte  
light  
gray  
≡≡≡  
Ⓢ

④ mds  
matte  
et-med  
gray  
Ⓢ

88 ss  
vfg-fg  
bright buff-white  
to very light  
gray-buff  
Ⓢ

5470-  
5480

② vds  
aa  
Ⓢ

⑤ slts  
aa  
Ⓢ

⑬ mds  
aa  
Ⓢ

⑨ ss  
vfg-fg  
aa  
Ⓢ

5480-  
5490

② vds  
aa  
Ⓢ

⑤ slts  
aa  
Ⓢ

⑭ mds  
(A)

⑨ ss ②b  
fg, v.l.t.  
gray-buff  
some "≡≡≡"  
Ⓢ

+ darker  
: matte  
med. gray  
Ⓢ

5490-  
5500

① vds  
aa  
(CVD)

⑤ slts  
AA, Ⓢ

⑱ mds  
AA, Ⓢ

⑦ ss  
vfg-fgr,  
v.l.t. gray-buff  
to green-pink  
Ⓢ

5500-  
5510

Tr. vds  
aa

④ slts  
aa, Ⓢ

⑭ mds  
Ⓢ  
+ aa  
Ⓢ

⑦ ss  
vfg-fg  
aa, Ⓢ

0.3 pg

5510-  
5520-

Tr. NDBS  
aa (CVD)

(3) slts  
aa

(35) mds  
matte  
lt. - med.  
gray

(2) ss  
vfg-fgr  
v. lt. gray-buff  
minor s & p  
Tr. silica

0.3 Py  
Tr. Py

5520-  
5530-

Tr.  
NDBS  
aa

(6) slts  
aa

(13) mds  
aa

(8) ss  
aa

vfg-fg

Tr. Py

5530-  
5540-

(2) slts  
aa

(7) mds  
aa

(9) ss  
aa

vfg-fg

Tr. Py

FRESH

5540-  
5550-

(5) slts  
aa

(9) mds  
aa

(8) ss  
aa

vfg-fg

5550-  
5560-

Tr.  
NDBS

(6) slts  
aa

(23) mds  
aa

(11) ss  
fgr, buff-white  
to v. lt. gray-buff  
& grayish-pink

5560-  
5570-

"BLACK & WHITE"  
(mudstone much darker)

Tr.  
NDBS

(2) slts  
aa

(7) mds  
med-ek.  
matte  
gray -  
many  
chips w/  
translucent  
edges

(25) ss  
fgr  
aa

(32)



5570-  
5580

⑥ slts  
matte lt. gray, "s&p"  
Ⓞ  
≡

⑤ mds  
med-dk matte gray  
Ⓞ  
≡

④ ss  
vfg-fg  
v. lt. grayish-buff to grayish-pink  
Ⓞ  
≡

FRESH

5580-  
5590

⑦ slts  
aa Ⓞ  
≡

⑦ mds  
aa, Ⓞ  
≡

② ss  
vfg-fg  
aa Ⓞ  
≡

5590-  
5600  
⑥ R<sup>45</sup>

④ slts  
aa Ⓞ  
≡

"Rusty"  
③ mds  
aa, Ⓞ  
≡

⑥ ss  
vfg-fgr.  
aa, Ⓞ  
≡

FRESH

5600-  
5610  
⑤ R<sup>45</sup>

⑨ slts

"Rusty"  
④ mds  
aa, Ⓞ  
≡

④ ss  
v. fg

5610-  
5620

⑩ slts

⑧ mds  
aa, Ⓞ  
≡

⑦ ss

5620-  
5630  
⑥ R<sup>45</sup>

③ slts

"Rusty" & ss coarser-gr.  
⑨ mds  
fg - l mqr  
aa Ⓞ  
≡

⑧ ss  
fg - l mqr

FRESH

5630-  
5640-

CHANGE

5 mds  
med-dk  
matte gray to  
sl. brnsh. gray  
Ⓢ

15 ss  
fg  
aa  
Ⓢ

5640-  
5650-

CHANGE BACK

7 slts  
aa  
Ⓢ

12 mds  
matte  
med-dk.  
gray  
Ⓢ

8 ss  
vtg, v. lt. grayish-  
buff to grayish-pink  
Ⓢ

5650-  
5660-

2 slts  
aa  
Ⓢ

4 mds  
aa, Ⓢ

9 ss fg  
aa Ⓢ

5660-  
5670-

~~12~~ slts  
aa  
13 Ⓢ

12 mds  
aa, Ⓢ

13 ss vtg-fg  
aa Ⓢ  
FRESH

5670-  
5680-

3 slts  
aa Ⓢ

5 mds  
aa Ⓢ

12 ss  
vtg-fg  
aa, Ⓢ

5680-  
5690-

Tr. DES  
(cnd)

2 slts / 3 mds  
aa Ⓢ

9 ss  
vtg-fg

5690-  
5700-

CHANGE

2 slts  
aa  
Ⓢ  
67 mds  
matte med-  
dk sl. brnsh.  
gray Ⓢ

31 ss  
vtg-fg  
aa  
Ⓢ

5700-  
5710  
R#5

"Rusty" - CHANGE BACK

1 slts, lt. matte gray, "sep" minor texture	4 mds matte med-dk gray to sl. brnht gray	95 ss vfg <del>100</del> overall v. lt. grayish-buff to grayish-pink 100%
--	---	--

5710-  
5720

3 slts aa aa	<del>60</del> mds aa	29 ss vfg aa aa	FRESH
--------------------	----------------------------	-----------------------	-------

5720-  
5730

R#5

CONTINUUM			0.2 diss PO
8 slts aa aa	49 mds aa	43 ss vfg aa	"

5730-  
5740

CHANGE - DARK MDS

1 slts aa aa	9 mds 4 matte dark gray aa	5 ss vfg aa
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5740-  
5750

CHANGE BACK - White ss

17 slts aa	9 mds aa	80 ss, vfg, buff-white to v. lt. gray-buff
---------------	-------------	---

85

5750-  
5760'

Tr.  
nabs  
C170

9 slts  
aa, (C)

60 mds  
matte  
dark gray  
(C)

31 ss  
vfg  
buff-white  
to v.lt. gray-buff  
(C)

0.1 Py  
Tr. copy

5760-  
5770'

Fluctuating back & forth  
abruptly, between mds - rich  
& ss - rich samples  
≡ distributary / overbank?

6 slts

8 mds

86 ss  
vfg

aa, (C)

5770-  
5780'

2 slts

5 mds

93 ss  
vfg

"B & W"  
brilliant  
white

aa, (C)

5780-  
5790'

(C) mds  
aa  
(C)

(C) ss

fg,  
v.v. lt. buff-gray,  
\* only a tr. of  
dark lithic frags.  
108, (C), qtz & fsp-rich.

Tr. copy

"Rusty"

5790-  
5800'  
(B) R & S

Tr. slts | 2 mds

98 ss. fg.  
mix of lt. buff-gray,  
grayish-pink  
& greenish-gray  
w/ argill. matrix - sup.  
& poorly sorted

aa (C)

(86)

5800-  
5810

(63) mds / (37) ss / Tr. VVF  
-cal

matte lt. gray, transl. toward chip edges; compact, highly-indurated  
Ⓢ

vfg - fg, lt. gray - buff to grayish-pink  
Ⓢ, Ⓢ

5810-  
5820

(15) slts  
lt. matte gray, sparse "s & p" texture  
Ⓢ

(15) mds  
aa  
Ⓢ

(20) ss  
vfg - fg  
Ⓢ

Tr. VVF  
-cal

v. lt. gray - buff to buff - gray  
Ⓢ, Ⓢ

MDS DARKER

5820-  
5830

(13) slts  
aa  
Ⓢ

(33) mds  
matte med-dk gray  
Ⓢ

(54) ss  
vfg - fg  
aa  
Ⓢ

~~Tr. VVF~~  
Tr. VVF  
-cal

CHANGE

5830-  
5840

(1) slts  
aa  
Ⓢ

(2) mds -  
med-dk sl. brnsh-gray, transl. toward chip edges  
Ⓢ

(7) ss  
vfg  
aa  
Ⓢ

5840-  
5850'

3 slts  
aa  
Ⓞ  
≡

36 mds  
med-dk  
sl. brnsh-  
gray, transl  
toward chip  
edges

61 ss  
v. fg,  
v. lt. gray-buff  
to  
grnsh-  
pink  
Ⓞ  
≡

5850-  
5860'

5 slts  
aa  
Ⓞ  
≡

6 mds  
aa  
Ⓞ  
≡

89 ss  
vfg aa  
Ⓞ  
≡

5860-  
5870'

1 slts  
aa  
Ⓞ  
≡

5 mds  
aa  
Ⓞ  
≡

91 ss  
fg, v. lt., sl. grayish pink  
to grnsh-buff  
Ⓞ  
≡

CLEAR  
FRESH Tr. pg

5870-  
5880'

7 slts  
aa  
Ⓞ  
≡

41 mds  
aa  
Ⓞ  
≡

52 ss  
vfg  
aa  
Ⓞ  
≡

TR. VVF Tr. cpy  
- cal  
- cal. cpy

5880-  
5890'

6 slts

58 mds

36 ss  
vfg

Ⓞ aa  
≡

5890-  
5900'

4 slts

15 mds

81 ss  
vfg

all aa, Ⓞ  
≡

5900-  
5910'

5 slts

9 mds

86 ss  
vfg

all AA, Ⓞ  
≡

ELMORE 101

09/29/03

J. Hulen

5910-5920' Tr. VDBS aa (CVD.?) | Tr slts | 88 mds | 12 ss  
 vfg., vlt. gray-buff to gray-pink  
~~aa~~ ~~wire~~  
 @  
 ↗ matte med-dk. sl. brnsh-gray transl. toward chp edges, hard, indurated @

5920-5930' 2 slts aa, @ | 9 mds aa, @ | 89 ss fgr., aa | Tr. py (diss.)  
 @

5930-5940' 2 slts aa @ | 13 mds aa @ | 85 ss fgr. ~~aa~~ to ~~aa~~ (minor)  
 @

5940-5950' 1 slts | 5 mds | 94 ss fgr | 0.3 py  
 aa, @

5950-5960' Tr slts | 2 mds | 98 ss fgr | Tr. py  
 aa, @  
 aa, @

5960-5970' CHANGE "B & W" | Tr. py  
 "Black Shale" | Tr. PO

89 mds | 19 ss  
 matte dark sl. brownish-gray  
 @  
 @

89

5970-  
5980

2 slts | 34 "black"  
mds

655  
v. fgr fgr  
v. th gray buff  
to lt. graysh-pink

Tr. py

aa, ©

S = INCREASE

5980-  
5990

Tr slts | 63 "black"  
mds

vfg

0.12 py

all aa, all ©

5990-  
6000

Tr slts | 89 "black"  
mds, AA

77 SS  
vfg

0.13 py

AA © III

6000-  
6010

9 slts | 37 "black"  
mds

54 SS  
vfg

0.12 py

aa, ©

6010-  
6020

5 slts | 59 "blk"  
mds

36 SS  
vfg

0.15 py  
Tr. copy

aa, ©

6020-  
6030

8 slts | 45 "blk"  
mds

47 SS  
vfg

0.13 py

aa, ©

6030-  
6040 Tr  
mds (evd)

6 slts | 48 "blk"  
mds

46 SS  
vfg

0.1 py  
Tr. copy

AA, ©



6040-6050

3 slts  
↑  
↓

29 mds  
↑  
↓

65 ss  
vfg  
↑  
↓

Tr. Py

6055-6060

6 slts  
matte lt gray, sparkle  
s & p  
↑  
↓

23 mds  
matte med-dk gray  
↑  
↓

71 ss  
vfg, buff-white to very lt. gray-buff  
↑  
↓

Tr. Py

6060-6070

3 slts / 4 mds  
aa, ↑  
↓

93 ss, sl. v. lt. grnsh buff  
vfg, ↑  
↓

Tr. Py

6070-6080

1 slts / 4 mds / 95 ss vfg  
aa, ↑  
↓

6080-6090

1 r & s

"Rusty"  
3 slts / 7 mds  
↑  
↓  
matte lt-med. grnsh-gray hard translucent

ALTN. INCREASES  
90 ss  
vfg ↑  
↓

LESS CALCA-REOUS

v. 60/40  
v. lt. grnsh-pink & v. lt. grnsh-gray  
mostly ~~ss~~, but ~~ss~~ & silicified.

EPIDOTE APPEARS

6090-  
6100'

④ slts / ③ mds

⑨<sup>3</sup> ss  
vfg, mottled  
v. lt. grayish-pink  
& v. lt. greenish-gray  
tr, tr (silicified)

0.3 EP  
(diss.)  
0.1 Py

6100-  
6110'

"Rusty"

⑤ R<sup>45</sup>

③ slts / ② mds

95 ss  
aa  
v<sup>9/10</sup> tr, v<sup>1/10</sup> tr silicified

~~0.3 EP~~  
0.1 Py

6110-  
6120'

Less Alteration

① slts  
① F

① 35% mds  
① F

① 50% ss  
vfg  
(rarely) mgr (<2%)  
some poorly sorted  
mostly v. lt. buff-gray  
minor lt. greenish-gray  
tr, tr ① ±

0.1 EP  
0.1 Py

matte lt. transl. gray  
& sl. greenish-gray

6120-  
6130

① 17 slts

① 15 mds  
① F

① 18 ss  
vvfg - fg.

Tr. EP  
0.1 po  
0.1 Py

matte v. lt. sl. greenish gray  
① ±

matte v. lt. sl. greenish-gray  
① ±

⑨<sup>2</sup>

"BLK. SHALE" GONE

6130-6140

① slts / ③ mds / ② ss  
vfg - fgr.  
overall lt.  
slightly grnsh - buff  
⊙ ±

Tr. Ep  
0.1 Py

"GRAY SHALE" BACK

6140-6150

③ slts / ⑤ mds / ③ ss  
med. dk. gray to sl. brnsh-gray (matte) transl. toward chip edges.  
vfg.  
v. lt. grayish-buff to greenish-buff  
⊙ F

Tr. Ep  
Tr Py

1 uves  
poss. cvd.

not very calcareous

CONTINUUM

6150-6160

⑧ slts / ⑫ mds / ⑧ ss  
same color as ss  
aa  
⊙ F  
vfg - fgr (rare mgr)  
med - poorly sorted mottled v. lt. grayish-pink & v. lt. grnsh-gray  
⊙

0.1 Ep  
Tr Py

CONT'M.

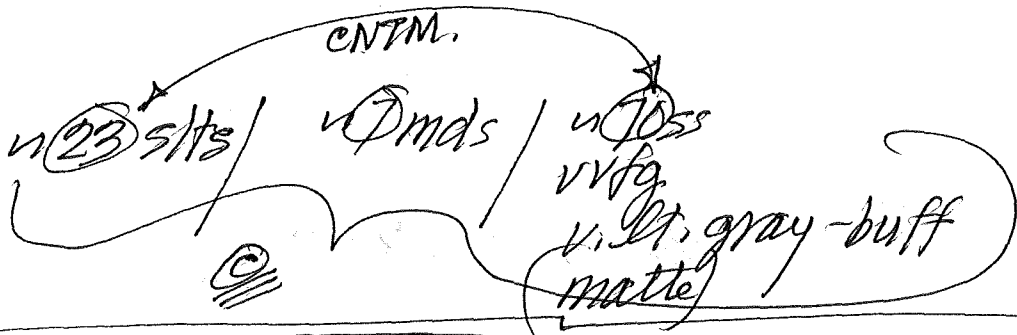
6160-6170

④ slts / ④ mds / ⑥ ss  
same color as ss  
vfg - vfg  
v. lt. gray-buff  
⊙

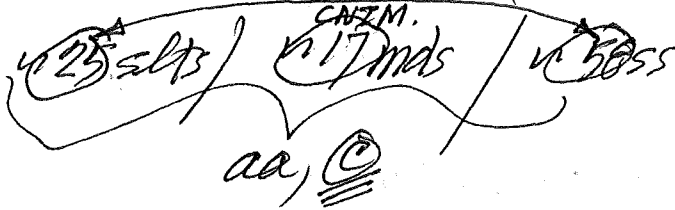
Tr. Ep  
Tr Py

⑨ B

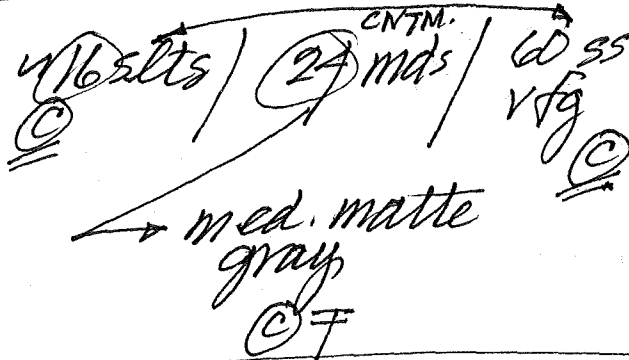
6170-  
6180'



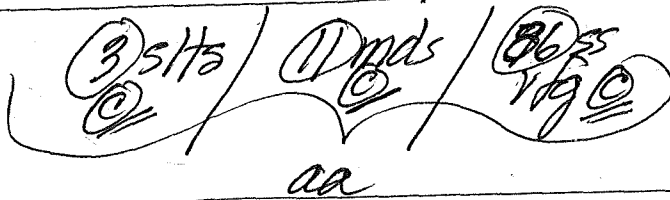
6185-  
6190'



6195-  
6200'

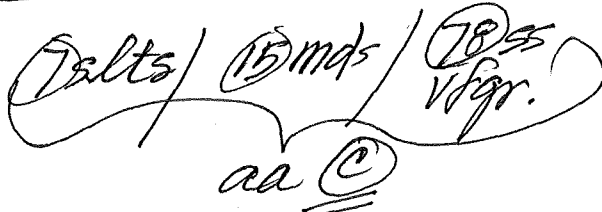


6200-  
6210'



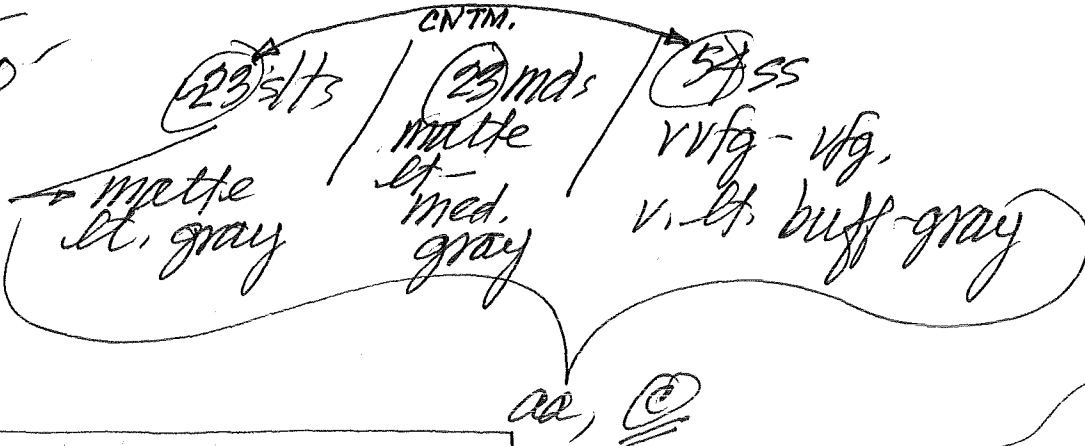
0.2 py

6210-  
6220'



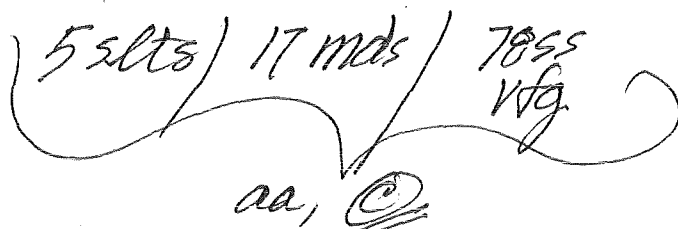
0.14 py  
Tr. EP

6220-  
6230'



Tr. Py

6235-  
6240'



0.12 py

C

ELMORE 101 01/29/03 J. Hulen

6240-6250

Very "rusty"

7 slts / 6 mds

25 ss vfg

v. lt. gray buff

1/3 matte dk gray  
1/3 matte lt. gray  
translucent

R#5

Ⓢ

6250-6260

9 slts / 15 mds

76 ss vfg  
v. lt. greenish-buff  
to greenish-gray

0.1 EP  
0.3 py

aa, Ⓢ

Ⓢ rare

6260-6270

DRAMATIC INCREASE  
IN EPIDOTE

0.7 EP  
0.4 py

5 slts / 7 mds

88 ss

vfg, v. lt.  
grayish-green to  
greenish-gray  
sparsely speckled  
with greenish-yellow.  
pearlescent

Ⓢ, Ⓢ

6270-6280

Tr. slts / 2 mds

85 ss vfg.  
aa, but  
less EP

Tr EP  
0.2 py

Ⓢ

95

6280-  
6290

Tr slts / 3 mds / 9755  
vfg vlt.  
slt greenish-gray  
all  
Ⓞ

0.2 EP  
0.2 PO  
0.2 py  
TR. cpy

6290-  
6300

Ⓞ mds  
v 1/2 lt.  
transl. gray &  
greenish-gray  
v 1/2 matte  
med-ak. gray  
Ⓞ

Ⓞ 55  
vfg-fg  
aa  
Ⓞ

0.4 PO  
0.5 EP  
0.1 py

6300-  
~~6320~~  
6310

Ⓞ RFS  
Ⓞ small  
insect

"Rusty" CONTINUUM  
Ⓞ vdds  
(prob. cvd)  
v 35 slts  
v 1/2  
buff-gray  
Ⓞ

v 19  
mds  
aa  
Ⓞ

Ⓞ 55  
vfg  
v. lt.  
gray-  
buff  
Ⓞ

Tr. Ep  
0.1 py

altn. decreases

6310-  
6320

Tr. vdds / v 17 slts / v 39 mds / v 54  
vfg.  
v. lt.  
gray-  
buff  
Ⓞ

Tr. py

Ⓞ 96

6320-  
6330'

"BLACK & WHITE"

Tr. PD

(2) slts  
matte  
lt. gray  
Ⓞ

(39) mds  
uniform  
matte  
med.-dk  
gray  
Ⓞ

(39) ss  
fg, v. H. gray buff  
Ⓞ

6340-  
6340'

(11) mds  
Ⓞ

(8) ss  
fg  
aa  
Ⓞ

0.12 py  
Tr. PD

6340-  
6350'

(8) mds  
aa  
Ⓞ

(2) ss  
fg  
aa  
Ⓞ

0.15 py  
0.1 PD

Tr. CID  
NOLOS

6350-  
6360'

(2) slts  
aa  
Ⓞ

(13) mds  
aa  
Ⓞ

(8) ss  
vfg, overall  
lt. grnsh-  
buff  
Ⓞ

0.12 py

6360-  
6370'

More Altered

Tr VVE  
- Cal

0.3 py

VA (Tr)

(11) slts  
aa  
Ⓞ

(12) mds  
Ⓞ

(17) ss  
Ⓞ

fg, v. 1/5  
v. 1/5 silicified  
mostly lt.  
grayish-  
pink

(97)

1/5 matte  
med.-dk. gray  
v. 1/5 matte  
to translucent  
lt. gray

6370-  
6380

(7.5) slts aa Ⓢ	(68) mds	(24) ss aa sp Ⓢ	(0.15) VVF -py -cal
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dom. matte lt. gray  
minor matte med. gray  
Ⓢ

6380-  
6390

2 slts Ⓢ	(94) mds	4 ss aa Ⓢ
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matte to  
transl. lt. gray  
Ⓢ

6390-  
6400

(7) slts aa Ⓢ	(37) mds aa Ⓢ	(56) ss v. lt. gray buff Ⓢ	(Tr. VVF) 0.2 py -cal
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6400-  
6410

(21.5) slts Ⓢ	37 mds	(41) ss BRIGHT white to v. lt. sl. grayish- pink Ⓢ	(1.5) VVF -cal -py
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matte lt-med sl. grnsh-gray  
matte lt. sl. grnsh-gray

(98)



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6410-6420' (10) slts / (12) mds / (77) ss / (1) VVE  
 matte lt. gray / matte lt-med gray / vfg / -cal  
 v. lt. gray - buff to v. lt. sl. greenish-gray  
 (C) F

6420-6430' (5) slts / (3) mds / (6) ss / (7) VVE  
 aa / v 2/5 matte med-dk. gray / vfg / -cal  
 v 3/5 matte lt gray  
 (C)

6430-6440' (3.5) slts / (73) mds / (23) ss / (0.5) VVE  
 aa / (RX FRESHER than above) / vfg / -cal  
 dominantly matte med dark gray  
 (0.2 py diss.)  
 (C)

6440-6450' (6) slts / (53) mds / (41) ss / (1) VVE  
 aa / aa / vfg / buff-white to v. lt. gray buff  
 (C)

6450-6460' ~~alts~~ (20) alts / (57) mds / (23) ss vfg aa © Tr. Py

6460-6470' (25) alts matte lt. gray © / (56) mds / (19) ss vfg © aa © o.1 py  
matte lt. to med. gray ©

6470-6480' (11) alts © / (15) mds © / (7) ss vfg, lt. sl. grnsh-gray © Tr. Py

6480-6490' (4) alts / (7) mds / (8) ss vfg-fg aa © Tr. Py

6490-6500' (5) alts / (9) mds / (6) ss vfg-fg aa © Tr. Py

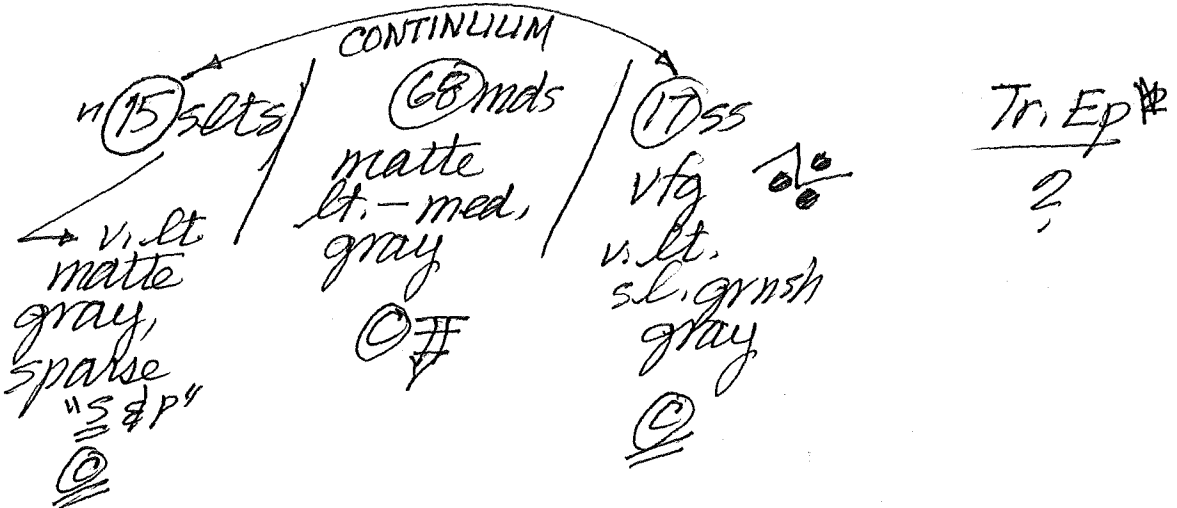
6500-6510' (35) alts / (56) mds / (9) ss aa ©

ELMORE 100

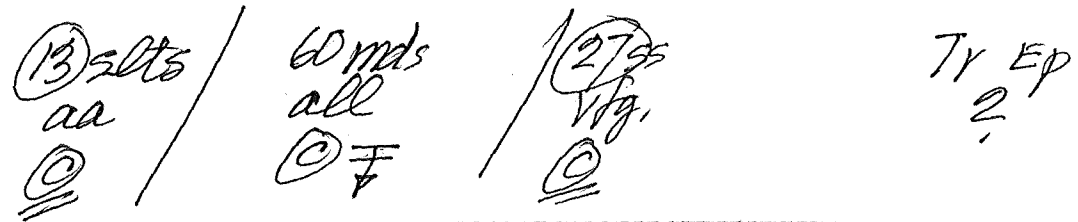
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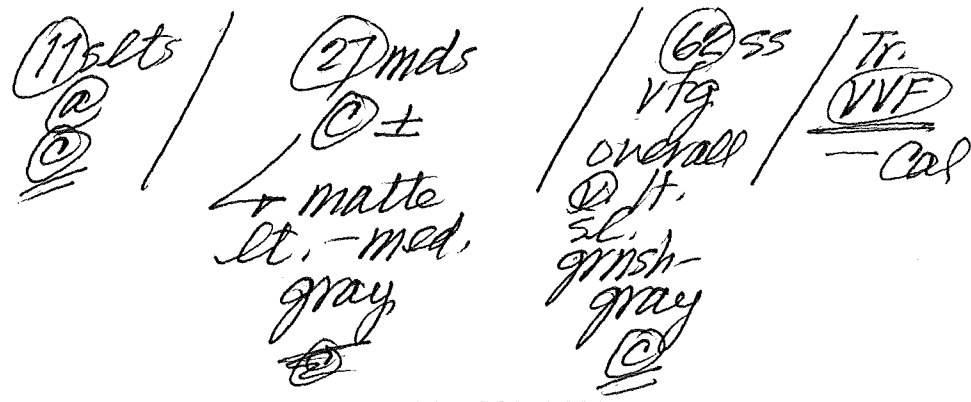
6510-  
6520



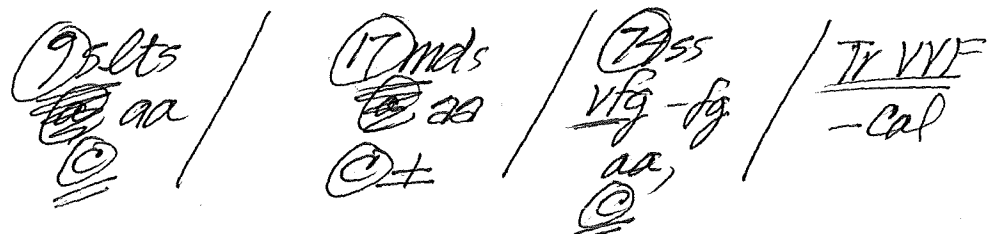
6520-  
6530



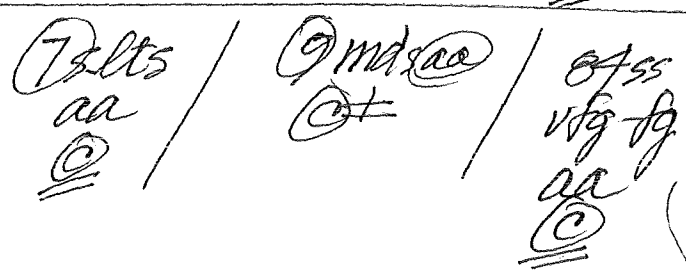
6540-  
6540



6540-  
6550



6550-  
6560



6560-6570'    ⑧ salts aa    ③0 mds aa    ⑥2 ss vfg    Tr VVF - cal

6570-6580'    ⑦ salts

③ nodbs "fresh" AA: brnsh gray-green

matte lt. gray; sparse "S & P"

⑥6 mds

2455 vfg

matte lt-med. gray to sl. greenish-gray

⑦ many pcs micro-speckled (<0.05 mm) w/ lt. yell.-gray (suspect leucoxene)

6580-6590'    ① nodbs    ⑤ salts aa,    ⑧5 mds    ⑨55 vfg aa    Tr. Py

mostly matte med-dk. gray

6590-6600'    ⑨ salts    ⑩ mds    ⑮55

all AA

6600-  
6610

② vds

maxin, dk.  
med sl. brnsh  
gray green  
some  
fresh plug.  
& pxn  
Ⓢ

① slts  
aa  
Ⓢ

②5  
mcs

②  
55  
vfg.  
Ⓢ

Tr. VVF  
- Cal. Py

0.3 py

matte  
med. - dk.  
gray, sl.  
translucent  
toward  
edges.  
Ⓢ

"B & W"

More  
Calcareous

6610-  
6620

Tr. vds

② slts  
aa  
Ⓢ

④ mcs  
aa  
Ⓢ

⑤255

f. gr.  
bright;  
buff - white to  
v. lt. grayish-buff  
& grayish-pink

0.3 py

"B & W"

6620-  
6630

① vds  
Ⓢ  
+++

② slts  
aa  
Ⓢ

⑩ mcs  
dk. gray

②755  
aa, Ⓢ

Tr. Py

6630-  
~~6640~~  
6640

⑤.5 slts  
aa  
Ⓢ

③5 mcs  
lt-dk gray  
Ⓢ

③9  
55  
vfg-sg.  
mostly  
v. lt.  
sl. greenish-  
gray  
Ⓢ

0.5  
VVF  
- Cal  
- Py

0.4 py

6640  
6650

① vds.

⑤ slts

②9 mds

⑥5 ss

0.15 py

aa  
~~aa~~  
⊙

⊙±  
lt-dk  
mott  
gray

vfg-  
fg,  
v. lt. grnsh-gray to  
grnsh-pink  
⊙

less calcareous

6650-  
6660

⑫ slts

55 mds

③3 ss

0.2 py

aa  
⊙

aa  
⊙±

vfg  
aa  
⊙

6660-  
6670

⑦ slts

⑮ mds

⑦8 ss vfg

0.7 py

aa  
⊙±

aa

buff-white  
to very  
lt. greenish  
gray  
⊙±

6670-  
6680

⑨ slts

②2 mds

⑩ ss

0.5  
VVF  
= cal

Tr. EP  
Tr. Ac

1/4 (Tr)

aa  
⊙±

⊙±

vfg  
fg  
lt. grnsh  
gray  
some  
chl.  
clots  
⊙±

104

6680-  
6690

*★* Much of the rock distinctly more chloritic — could be approaching a fault zone / thermal-fluid conduit

OR IN ONE

~~(45) vds~~  
(fresh)  
" "  
brownish  
gray-green

3 GG	1 alt	<del>13</del> mds	45 ss	3 VVF
lt. gray-green pearlescent, v. fibrous — mostly ACTINOLITE — lesser chl & ptz				— q-act — chl — act — cal

4AC
TR EP
0.17R
0.17
94

4/11

A. mds → ranges from matte, v. lt. gray-green & grnsh-gray to dark gray-green, somewhat waxy  
cataclastic site?

B. ss → buff-white through very lt. gray-buff to greenish-gray.

6690-  
6700

(45) vds  
fresh  
brownish  
gray-green  
uniform

1  
~~45~~ GG  
(act)  
lt. gray-green

6 mds  
aa  
2 alts  
aa  
CF

46  
~~45~~ ss  
vfg —  
bright  
buff-white  
through  
v. lt. gray buff  
CF

0.3
py
0.1 AC

705

6700-6710 / ③ SS (AC) / ②0 vds / ③ mds / ⑦ SS fgr. bright white, buff, white & v.v. lt. gray-buff w/ 50/10 to 100 (SIL.) (rare @) / ③ VVF -cal -Act. qtz -Act. chl. / 0.4 Py 9 AC

silky fibrous lt. (green-gray) to nearly white [tremolite]

6710-6720

"Rusty" Abundant "wooly" Fibrous Tremolite Actinolite

6 R45 / ⑤ GG aa / ⑥3 vds aa, but chltzd. actinolite altered / ⑬ mds / ⑮ SS vfg / ④ VVF -cal -Act-Trem -cal. Py -Act. chl. / 6 AC-ch 0.2 Py Tr. epy

crushed & sheared

AA (Trem/Act) also med. gray green, v. crush-rock heavily chltzd. vds protolith

FAULT ZONE w/ MICRODIABASE

6720-6730 / Tr. GG aa / ⑧ vds / ⑦ mds / ⑤ SS vfg / ① VVF -cal -Act ± ch / 1 AC 0.3 Py

AA but fresher



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6730-  
6740'

① (Tr) 87 MICRO DIABASE / ⑤ mds / ⑦ ss vfg / ① VVF  
 - Cal  
 - Cal-ch  
 - Qtz.  
 wkly-mod. chltzn.

0.2 py

6740-  
6750'

① (67) NDBS / ② mds / ② 27 ss / Tr VVF  
 aa, but less chltzn.

0.1 py

6750-  
6760'

③ NDBS / ② slts / ② mds / ⑤ ss vfg  
 aa / matte lt. grnsh-gray speckled w/ gray-green chlorite  
 lt. gray-green (chltzn.)

Tr. py

6760-  
6770'

ndbs EVNG ⚡

① NDBS / ② slts / ⑤ mds / ⑦ ss  
 aa / some chltzn  
 v. lt. grnsh-gray  
 1/2 ⚡, 1/2 ⚡

Tr. py

6770-  
6780'

① NDBS / ③ slts / ③.5 mds / ⑧ ss / ①.5 VVF  
 aa / some ⚡ / - Cal - ch

→ for "clean"-appearance; mix of buff-white, v. lt. buff-gray, v. lt. grnsh buff to grnsh-gray.

107

6780-6790'

④ vds  
aa  
(ovd?)  
Ⓞ  
F

② slts  
aa  
Ⓞ  
F

⑤ mds  
matte  
med gray  
Ⓞ  
F

③ ss  
aa  
Ⓞ  
F

Tr. Py

6790-6800'

⑦ vds  
aa  
Ⓞ  
F

② slts  
aa  
Ⓞ

⑨ mds  
aa  
Ⓞ  
F

⑧ ss  
aa  
some  
Ⓞ

Tr.  
VVF  
-cal

Tr. Py

→ speckled, lightly w/ gray-green chlorite. (intergranular)

6800-6810'

⑧ vds  
aa, med. chkd. med. gray green overall  
Ⓞ  
F

⑤ mds  
aa  
Ⓞ  
F

⑦ ss  
aa  
Ⓞ

Tr.  
VVF  
-cal

Tr. Cpy  
Tr. Py

6810-6820'

⑨ vds  
aa - some fresh plag. & pxl.  
Ⓞ  
F

③ mds  
Ⓞ  
F

⑤.5 ss  
Ⓞ  
F

①.5 VVF  
-cal

Tr. Py

6820-6830'

⑩ vds  
aa  
Ⓞ  
F

③.5 mds  
aa  
Ⓞ  
F

⑥ ss  
Ⓞ  
F

①.5 VVF  
-cal  
-chl  
-cal.ch

Tr. Py  
Tr. Cpy

vds slightly coarser & fresher

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0.1 py

6830-6840

~~1/1~~ (m)  
chltc.

④

~~vfg~~ Gg  
lt. gray-green  
silky lustre  
contains actinolite  
sheared  
↔

⑦

CRUSH MICROBX  
(CATACLASITE)  
lt. gray-green  
minor act.

⑥

~~vfg~~  
vabs  
chltcd  
DBS

① mds  
aa  
①

② vfg-fg

① VVF  
- cal  
- ch/act

6840-6850

~~1/1~~

③  
v DBS  
aa

⑨ slts  
lt gray-green  
①

① mds  
matte  
lt-med gray to  
greenish gray

⑤ vfg-fg  
v. lt. grnsh-gray  
aa ①

① VVF  
- cal  
- ch

6850-6860

② CRUSH  
v BX  
aa

②  
v DBS  
aa  
chltcd.

① 7 slts  
aa  
①

⑨ mds  
aa  
①

⑤  
v. vfg  
(almost slts)  
aa

① VVF  
cal

0.1 PO  
Tr. cpy

6860-6870

③  
v DBS  
①

⑨ slts  
①

② 3 mds  
①

⑤  
aa  
v. fg  
①

① VVF  
- cal

Tr py

6870-  
6880

(6) DBS  
aa  
⊙

(5) arg.  
slts  
aa  
⊙

(4) mds  
⊙

(25) ss  
vfg  
aa  
⊙

oil po  
Tr. py

→ mostly lt. grayish-gray  
to lt. grayish-green

6880-  
6890

(2) vdb's

(36) arg.  
slts  
aa  
⊙

CONTINUUM

42 mds  
⊙

(12) vfg  
aa  
⊙

Tr. VWF  
- Py  
- Cal.

6890-  
6900

TR, dbs

(20) ~~arg.~~ slts.  
aa  
⊙

(45) ~~mds~~ ?

(25) ~~ss~~ ?  
⊙

Tr. py

6900-  
6910

(2) vdb's  
aa  
(cvd. ?)

(~~36~~) slts  
(38)  
⊙ ±

(~~42~~) mds  
(25) mds  
⊙ ±

(35) ss  
⊙

Tr. py

6910-  
6920

(1) vdb's  
aa  
(cvd. ?)

(~~36~~) slts  
(18)

(38) mds

(~~35~~) ss  
(43)

oil po  
Tr. epy  
Tr. py



aa  
⊙ ± to ⊙

6920-6930'	2 nubs (ord?)	5 slts	25 mds	68 ss	Tr. Py	Tr. Po
		← matte lt-med. grnsh to sl. olive gray	← lt. matte gray to greenish-gray	fgs mix of v. lt. grayish-pink & grayish-green		
			⊙ F	⊙		
				some what pearlescent		

6930-6940'	2 nubs (covered)	6 slts	69 mds	23 ss aa	Tr. Py	0.1 Po
			lt-med. greenish gray to gray-minor dark gray			
			⊙ ±	⊙		

6940-6950'	Tr. nubs (CVD)	3 slts	0.5 mds aa	0.5 ss	Tr. VVF	0.1 Po
			aa		- Cal	Tr Py
			⊙ ±	⊙	- Po-cal	
			aa	⊙ ±		

6950-6960'	2 slts	8 mds	90 ss	Tr. EP?
		aa	fgs - mgs, v. lt. sl. greenish transl. gray vitreous to pearlescent	0.1 py
		⊙ F	⊙	0.1 po
				Tr. epy

slightly coarser than typical sandstone

v. fine cuttings (avg ~0.4 mm)

6960-6970' ① vdb / ⑤ sfts / ①5 mds / ⑦9 ss / ① / Tr. py / 0.1 ps

6970-6980' ① vdb / ①1 slts aa, ① / 54 mds / ③7 ss / Tr. / YVF / chl / 0.1 ps / Tr. py

6980-6990' ③ slts / ② mds / ⑤ ss / — / Tr. Py

① ±  
lt. matte gray

① ±  
vfgr

6990-7000' 1 slts aa / 60 mds lt. matte gray / 39 ss / Tr. Py

① ±

7000-7010' 2 slts / 35 mds / 63 ss / Tr. Py

① ±

fg to

7010-7020' 2 slts / 15 mds / 83 ss / Tr. Py

① ±

fg "clean"  
v. lt. sl. grnsh-gray.

7020-7030' ③ vdb / ⑤ slts / ⑦1 mds / ②7 ss / 0.1 EP / Tr. py / 1 ACT.

① ±

lt-med (v. dark) gray to grnsh-gray.

act/trem. replacing calcite cement in ss

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7030-7040' Tr ndbs / (2) alts / 57 mds / (2) ss / 0.5 VVF / 0.1 PO / Tr. EP

matte lt. - med. grnsh-gray rarely dark grayish-green © F

matte lt. sl. greenish-gray © ±

vfgr - fg, v. lt. grnsh-pink and (grnsh-grn) mostly, some © ±

-ch. -cal

7040-7050' Tr. py

(7) ndbs / (3) alts / (5) mds / (3) ss / Tr. VVF / -cal

aa / vfgr / © ±

visually identical to ndbs intervals higher in the well; rel. fresh, but some chloritization; some fresh plagioclase & pxn. — med-dk brownish-gray-green

7050-7060' (9) ndbs / (2) mds / (2) ss / Tr VVF

aa / © F / ©

7060-7070' MUCH FRESHER

(2) ndbs / (3) mds / (3) ss / 0.5 VVF / -cal / -qtz

aa / © F / ©

7070-7080

(89)

DIABASE (0.5-1.2 mm)

fxln, notably coarser than above (above = chilled?)

(4.5 mds)  
aa  
⊙ ±

(6 ss)  
aa  
⊙

(0.5 VVF)  
- Col  
- Qtz

Tr Py

7080-

7090

⚡ (Ep)

(92)  
DBS  
aa

(4.5 mds)  
Tr slts

(3 ss)

(0.5 VVF)

0.5 Ep  
Tr Py

7090-  
7100

(31)  
DBS  
VDBS

aa  
⊙

(69 mds)  
matte  
lt-med.  
gray to  
greenish-  
gray.  
⊙ ±

Tr ss  
⊙

Tr. VVF  
(Act.)

fibrous  
sl. grnsh-white  
(Trem.)

Tr AC  
Tr Py

7100-  
7110

(8 vobs)  
aa  
⊙

(92 mds)

1/10 matte v. lt. grnsh-gray  
9/10 matte gray  
⊙ ±

Tr. Py  
Tr Ep

7110-  
7120

(5 vobs)

(slts)

(94 mds)  
⊙ ±  
matte  
lt.  
gray

Tr.  
VVF  
(PO)  
→ Qtz

0.1 EP  
0.3 PO



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7120-7130'

Tr. ndbs

(63) mds  
matte  
med-dk  
gray

(37) ss  
vfg,  
v. lt. gray-buff  
to grayish-pink  
⊙, ⊙

Tr. py

7130-7140'

Tr. ndbs

(1) slts

(45) mds  
aa, ⊙  
F

(54) ss  
vfg  
aa, ⊙

Tr. py

7140-7150'

Tr. ndbs

(1) slts

(31) mds  
aa, ⊙  
F

(68) ss  
vfg, ⊙  
⊙  
v. lt. sl. grnsh-buff

Tr. EP  
Tr. py

7150-7160'

Tr. ndbs

18 mds  
aa  
⊙  
F

72 ss  
vfg  
v. lt. grnsh-buff  
to grnsh-gray  
⊙

Tr. py

7160-7170'

Tr. ndbs

(77) mds  
mostly  
dark  
matte  
gray  
⊙

(23) ss vfg  
⊙  
aa

Tr. EP

7170-7180'

Tr. ndbs

85 mds  
dk.  
gray  
⊙

(15) ss  
aa vfg  
⊙

7180-7190 1 udbs | 9 slts | 55 mds | 35 ss | Tr VVF - Po  
 (circled symbols) vfg. 0.1 P

7190-7200 2 udbs | 7 slts | 35 mds | 56 vfg | Tr EP  
 (circled symbols)

7200-7210 Tr udbs | 11 slts | 31 mds | 58 ss | Tr VVF - Po  
 (circled symbols) 0.1 P

7210-7220 Tr udbs | 5 slts | 26 mds | 69 ss | Tr VVF - Cal: Po  
 (circled symbols) 0.1 P

7220-7230 9 slts | 22 mds | 69 ss → v. lt. gray buff  
 (circled symbols)

7230-7240 7 slts | 14 mds | 79 ss Tr EP  
 → v. lt. matte sl. grnsh-gray to sl. olive-gray  
 → matte lt.-med. gray  
 Per. v. lt. gray-buff to v. lt. sl. grnsh-gray.  
 (circled symbols)

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7240-7250

(A) slts ← matte lt. sl. olive to yellowish- gray Ⓞ	(8) mds ← matte lt-med gray Ⓞ±	(88) ss vfg-fg. mix of <u>very</u> light grayish-pink and <u>very</u> light greenish-gray (both nearly white) quartz-rich (has dark lithics) Ⓞ, Ⓞ	Tr. Po
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7250-7260

(Tr) slts	(5) mds aa Ⓞ±	(95) ss vfg-fg very light grayish-pink aa, Ⓞ	
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7260-7270  
Minor  
caving

(3) vabs (likely cvd)	(2) slts aa Ⓞ	(11) mds aa Ⓞ±	(8) ss vfg v. lt. fg Transl. gray Ⓞ	Tr. Py
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7270-7280

Tr vabs	(3) slts aa Ⓞ	(26) mds all matte lt. gray Ⓞ±	(71) ss vfg mix of lt. grayish-pink & lt. greenish-gray Ⓞ	Tr. Po
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7280-  
7290 Tr. nodds / (1) slts / (22) mds / (7) ss Tr. Po  
aa (C) # vfg,  
aa (C)

7290-  
7300 Tr. nodds / (1) slts / (23) mds / (6) ss Tr. Po  
aa (C) # vfg  
aa (C)

7300-  
7310 Tr. nodds / (5) slts / 70 mds. / (25) ss Tr. Po  
aa (C) mostly  
matte vfg  
med. gray; aa (C)  
minor  
matte lt. gray  
(C)

7310-  
7320 (2) slts / (36) mds / (62) ss 0.1 Po  
aa (C) # vfg,  
aa (C)  
dom. 10%, Tr. ~~ss~~

7320-  
7330 (3) slts / (18) mds / (19) ss 0.2 Po  
aa (C) # vfg  
aa but (C) F  
Tr. silicified

7340-  
7340 (4) slts / (17) mds / (19) ss Tr. VVF  
aa (C) # vfg cal  
mostly  
v. lt. sl.  
grayish-green  
(C)

118

7340-7350  
Tr. v. obs  
(likely carried)

3 slts / 74 mds / 23 ss  
vfg, v. lt. grayish-gray  
●, ●, ●, ●, ●

Tr. EP  
0.2 PO

matte  
lt-med.  
gray

7350-7360

2 slts / 87 mds / 17 ss vfg  
v. lt. gray-buff

Tr. EP

matte to slightly  
translucent  
light gray

becoming  
more  
calcareous

7360-7370

1 slts / 94 mds  
aa

5 vfg  
ss aa

7370-7380

98 mds / 25 aa

matte  
to sl.  
translucent  
med. gray

CONTINUUM

7380-  
7390

(5) slts

same  
color  
as  
ss  
⊙

(5) mds  
ar

⊙

(3) ss

vfg  
v. lt. sl.  
greenish-gray  
to greenish  
white  
⊙

7390-  
7400

(11) slts

v. lt.  
gray  
buff  
⊙

(28) mds

matte  
to sl.  
translu-  
cent med  
gray  
⊙

(6) ss

vfg,  
overall  
v. lt.  
gray-buff  
⊙

FIN

120