

Cliffs Engineering, Cliff 6-1
CORE ID-u168.
5/15/91

T 10S,R 25E,Sec 31

SELECTED YIELD PARAMETERS FOR FISCHER ASSAY DATA

AVERAGE YIELD GALS/TON	=====LEAN ZONES===== REJECTION YIELD GAL/TON	REJECTION LENGTH (FT)
25.0	10.0	10.0

THE DATA BELOW ARE COMPUTED FOR AN AVERAGE OF 25.0 GALS/TON. THE
REPORTED ASSAYS DO NOT INCLUDE ZONES WHICH AVERAGE LESS
THAN 10.0 GALS/TON OVER MORE THAN 10.0 FEET IN LENGTH.

I N T E R V A L DEPTH TOP (FT)	DEPTH BASE (FT)	AVERAGE YIELD (GALS/TON)	TOTAL INTERVAL (FEET)	RESOURCE (BARRELS PER ACRE X 1000)
332.0	333.0	33.5	1.0	2.3
338.0	339.0	29.8	1.0	2.1
341.0	342.0	32.4	1.0	2.2
354.0	419.0	25.2	65.0	111.7
435.0	437.0	26.0	2.0	3.6
		TOTAL	70.0	121.9

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0.0	20.0	0.0B	0.0B	97.1	0.8	1.1	4.1	1.005
20.0	40.0	0.0B	0.0B	96.5	0.8	4.6	1.8	1.005
40.0	60.0	0.0B	0.0B	95.4	1.0	7.1	1.6	1.005
60.0	80.0	0.0B	0.0B	95.5	0.9	7.2	1.4	1.005
80.0	100.0	0.0B	0.0B	95.3	0.9	7.5	1.6	1.005
100.0	110.0	0.0B	0.0B	95.3	0.8	7.8	1.6	1.005
110.0	120.0	0.0B	0.0B	95.1	1.1	7.9	1.4	1.005
120.0	130.0	0.0B	0.0B	96.1	0.9	5.7	1.6	1.005
130.0	140.0	0.0B	0.0B	95.5	1.0	7.0	1.8	1.005
140.0	150.0	0.0B	0.0B	94.9	0.9	8.3	1.5	1.005
150.0	160.0	0.0B	0.0B	95.3	0.8	6.7	2.7	1.005
160.0	170.0	0.0B	0.0B	95.6	0.9	6.8	2.3	1.005
170.0	180.0	0.0B	0.0B	94.8	1.0	8.0	2.3	1.005
180.0	190.0	0.0B	0.0B	93.7	1.1	10.4	2.0	1.005
190.0	200.0	0.0B	0.0B	93.5	1.1	10.7	2.3	1.005
200.0	210.0	0.0B	0.0B	93.5	1.1	10.7	2.3	1.005
210.0	220.0	0.0B	0.0B	91.5	1.5	14.1	3.0	1.005
220.0	230.0	0.0B	0.0B	92.8	1.2	11.4	2.9	1.005
230.0	240.0	0.0B	0.0B	94.0	1.5	8.0	2.9	1.006
240.0	250.0	0.0B	0.0B	93.5	1.3	8.2	4.3	1.005
250.0	260.0	0.0B	0.0B	92.1	1.6	10.7	4.5	1.005
260.0	270.0	0.0B	0.0B	92.9	1.3	9.8	4.1	1.005
270.0	280.0	0.0B	0.0B	93.3	1.3	9.9	2.9	1.005
280.0	290.0	0.0B	0.0B	93.2	1.3	9.7	3.4	1.005
290.0	300.0	0.0B	0.0B	93.5	1.2	9.7	2.9	1.005
300.0	310.0	0.0B	0.0B	93.4	1.6	8.9	3.2	1.006
310.0	310.4	0.0B	0.0B	93.9	0.1	9.8	2.7	1.005
311.3	312.0	0.0B	0.0B	94.5	0.9	9.3	0.9	1.005
312.0	313.0	0.0B	0.0B	94.3	0.9	10.3	0.6	1.006
313.0	314.0	0.0B	0.0B	93.5	1.0	11.6	0.8	1.005
314.0	315.0	0.0B	0.0B	92.2	1.3	14.0	0.8	1.005
315.0	316.0	0.0B	0.0B	91.9	1.4	13.9	1.0	1.006
316.0	317.0	0.0B	0.0B	90.9	1.5	15.9	1.2	1.006
317.0	318.0	0.0B	0.0B	94.2	1.0	9.7	0.9	1.005
318.0	319.0	0.0B	0.0B	95.2	0.9	6.9	1.3	1.005
319.0	320.3	0.0B	0.0B	95.4	0.9	6.8	1.0	1.006
320.3	321.0	0.0B	0.0B	94.9	0.9	8.2	0.9	1.005
321.0	322.0	0.0B	0.0B	93.6	1.1	11.0	0.9	1.006
322.0	323.0	0.0B	0.0B	93.6	1.1	10.7	1.0	1.005
323.0	324.0	0.0B	0.0B	95.8	0.8	6.0	1.2	1.005
324.0	325.0	0.0B	0.0B	95.2	1.0	6.6	1.4	1.005
325.0	326.0	0.0B	0.0B	94.8	1.0	7.9	1.2	1.005
326.0	327.0	0.0B	0.0B	96.5	1.0	4.6	0.8	1.006
327.0	328.0	0.0B	0.0B	94.7	1.0	8.6	0.9	1.005
328.0	329.0	0.0B	0.0B	91.7	1.3	14.6	1.2	1.005
329.0	330.0	0.0B	0.0B	94.2	1.2	9.5	0.9	1.005
330.0	331.0	0.0B	0.0B	95.2	1.0	7.7	0.8	1.005
331.0	332.0	0.0B	0.0B	94.3	1.4	9.2	1.1	1.005
332.0	333.0	0.0B	0.0B	83.2	1.7	33.5	2.7	1.006
333.0	334.0	0.0B	0.0B	91.6	1.5	14.9	1.8	1.005
334.0	335.0	0.0B	0.0B	93.4	1.3	10.8	2.0	1.005
335.0	336.0	0.0B	0.0B	92.7	1.3	12.0	2.3	1.005
336.0	337.0	0.0B	0.0B	92.7	1.3	11.8	2.7	1.005
337.0	338.0	0.0B	0.0B	92.3	1.4	13.3	1.8	1.006

1.8

338.0	339.0	0.0B	0.0B	83.8	2.6	29.8	2.9	1.005
339.0	340.0	0.0B	0.0B	92.2	1.5	13.5	1.8	1.005
340.0	341.0	0.0B	0.0B	92.5	1.4	12.8	2.0	1.005
341.0	342.0	0.0B	0.0B	82.7	2.5	32.4	2.9	1.005
342.0	343.0	0.0B	0.0B	93.2	1.2	11.9	1.6	1.005
343.0	344.0	0.0B	0.0B	96.1	0.9	5.3	1.8	1.005
344.0	345.0	0.0B	0.0B	96.4	1.0	4.4	1.8	1.005
345.0	346.0	0.0B	0.0B	97.6	0.8	2.4	1.6	1.005
346.0	347.0	0.0B	0.0B	96.4	1.0	4.8	1.6	1.006
347.0	348.0	0.0B	0.0B	97.0	1.0	3.7	1.4	1.005
348.0	349.0	0.0B	0.0B	96.4	0.8	4.9	1.8	1.005
349.0	350.0	0.0B	0.0B	97.0	0.9	3.0	2.0	1.005
350.0	351.0	0.0B	0.0B	97.5	0.8	1.8	2.3	1.005
351.0	352.0	0.0B	0.0B	98.0	0.6	1.5	2.0	1.006
352.0	353.0	0.0B	0.0B	97.8	0.6	2.0	2.0	1.005
353.0	354.0	0.0B	0.0B	95.5	1.1	6.0	2.3	1.006
354.0	355.0	0.0B	0.0B	91.1	1.6	15.3	2.3	1.005
355.0	356.0	0.0B	0.0B	93.1	1.3	10.9	2.5	1.005
356.0	357.0	0.0B	0.0B	80.5	2.8	35.7	4.5	1.005
357.0	358.0	0.0B	0.0B	90.6	1.6	15.7	2.9	1.005
358.0	359.0	0.0B	0.0B	92.0	1.3	12.9	3.2	1.005
359.0	360.0	0.0B	0.0B	93.5	1.2	10.4	2.3	1.005
360.0	361.0	0.0B	0.0B	92.5	1.1	11.9	3.4	1.005
361.0	362.0	0.0B	0.0B	87.6	1.7	22.2	3.4	1.005
362.0	363.0	0.0B	0.0B	85.0	2.1	27.4	3.3	1.005
363.0	364.0	0.0B	0.0B	88.5	11.6	0.5	2.3	1.005
364.0	365.0	0.0B	0.0B	85.6	2.0	27.0	38.8	1.005
365.0	366.0	0.0B	0.0B	79.6	2.9	39.8	2.9	1.005
366.0	367.0	0.0B	0.0B	82.0	2.4	33.5	4.1	1.005
367.0	368.0	0.0B	0.0B	89.8	1.6	18.3	2.5	1.005
368.0	369.0	0.0B	0.0B	90.9	1.4	15.5	2.9	1.005
369.0	370.0	0.0B	0.0B	93.8	1.1	9.5	2.7	1.005
370.0	371.0	0.0B	0.0B	90.6	1.4	15.9	3.2	1.005
371.0	372.0	0.0B	0.0B	91.3	1.3	15.0	2.7	1.005
372.0	373.0	0.0B	0.0B	94.3	1.0	9.7	1.8	1.005
373.0	374.0	0.0B	0.0B	93.7	1.1	10.3	2.3	1.005
374.0	375.0	0.0B	0.0B	93.2	1.0	10.8	3.4	1.005
375.0	376.0	0.0B	0.0B	94.5	1.0	9.1	1.8	1.005
376.0	377.0	0.0B	0.0B	94.9	0.8	8.8	1.6	1.005
377.0	378.0	0.0B	0.0B	93.2	1.0	12.5	1.4	1.005
378.0	379.0	0.0B	0.0B	82.0	3.1	32.4	3.2	1.005
379.0	380.0	0.0B	0.0B	84.3	2.4	29.9	2.9	1.005
380.0	381.0	0.0B	0.0B	90.5	1.5	17.0	2.3	1.005
381.0	382.0	0.0B	0.0B	85.6	1.9	27.6	2.3	1.005
382.0	383.0	0.0B	0.0B	80.1	2.6	38.7	2.7	1.005
383.0	384.0	0.0B	0.0B	75.3	2.6	49.6	3.4	1.005
384.0	385.0	0.0B	0.0B	73.3	3.7	51.1	3.9	1.006
385.0	386.0	0.0B	0.0B	70.1	4.6	55.8	4.6	1.006
386.0	387.0	0.0B	0.0B	63.5	4.8	68.9	6.9	1.006
387.0	388.0	0.0B	0.0B	65.9	4.6	65.3	5.0	1.006
388.0	389.0	0.0B	0.0B	72.7	4.0	52.2	3.7	1.006
389.0	390.0	0.0B	0.0B	80.5	2.7	37.9	2.3	1.006
390.0	391.0	0.0B	0.0B	75.1	3.8	47.1	3.4	1.006
391.0	392.0	0.0B	0.0B	86.3	2.1	25.4	2.3	1.006
392.0	393.0	0.0B	0.0B	90.5	1.4	17.0	2.3	1.006

393.0	394.0	0.0B	0.0B	84.4	2.0	30.1	2.5	1.006
394.0	395.0	0.0B	0.0B	84.1	2.3	29.6	2.8	1.006
395.0	396.0	0.0B	0.0B	89.6	1.5	19.3	2.1	1.006
396.0	397.0	0.0B	0.0B	74.8	3.3	49.3	3.0	1.006
397.0	398.0	0.0B	0.0B	82.0	2.6	34.5	2.4	1.006
398.0	399.0	0.0B	0.0B	77.5	3.2	43.8	2.3	1.006
399.0	400.0	0.0B	0.0B	90.5	3.2	13.1	2.1	1.006
400.0	401.0	0.0B	0.0B	90.4	1.3	18.1	1.8	1.006
401.0	402.0	0.0B	0.0B	81.1	2.7	36.2	2.5	1.006
402.0	403.0	0.0B	0.0B	91.2	1.2	15.9	2.3	1.006
403.0	404.0	0.0B	0.0B	92.2	1.3	13.3	2.5	1.006
404.0	405.0	0.0B	0.0B	87.8	1.9	22.1	2.7	1.006
405.0	406.0	0.0B	0.0B	75.1	3.9	46.1	4.1	1.006
406.0	407.0	0.0B	0.0B	90.0	1.7	17.3	2.7	1.006
407.0	408.0	0.0B	0.0B	95.3	0.9	6.8	2.3	1.006
408.0	409.0	0.0B	0.0B	93.4	1.1	10.9	2.3	1.006
409.0	410.0	0.0B	0.0B	94.7	1.0	8.8	1.6	1.006
410.0	411.0	0.0B	0.0B	91.8	1.5	13.4	2.8	1.006
411.0	412.0	0.0B	0.0B	85.0	2.1	28.5	2.3	1.006
412.0	413.0	0.0B	0.0B	84.4	2.2	29.8	2.1	1.006
413.0	414.0	0.0B	0.0B	86.4	1.7	26.3	2.3	1.006
414.0	415.0	0.0B	0.0B	89.3	1.5	19.4	2.7	1.006
415.0	416.0	0.0B	0.0B	87.7	1.7	21.9	3.4	1.006
416.0	417.0	0.0B	0.0B	83.1	2.5	31.7	2.7	1.006
417.0	418.0	0.0B	0.0B	89.9	1.4	18.0	2.7	1.006
418.0	419.0	0.0B	0.0B	90.0	1.7	16.5	3.4	1.006
419.0	420.0	0.0B	0.0B	93.5	1.2	10.6	2.3	1.006
420.0	421.0	0.0B	0.0B	93.8	1.1	9.4	3.0	1.006
421.0	422.0	0.0B	0.0B	93.1	1.5	10.4	2.7	1.006
422.0	423.0	0.0B	0.0B	88.4	2.0	20.3	2.8	1.006
423.0	424.0	0.0B	0.0B	92.9	1.3	11.6	2.3	1.006
424.0	425.0	0.0B	0.0B	94.1	1.0	9.6	2.3	1.006
425.0	426.0	0.0B	0.0B	95.7	0.9	6.0	2.3	1.006
426.0	427.0	0.0B	0.0B	97.1	0.7	4.1	1.4	1.006
427.0	428.0	0.0B	0.0B	96.2	0.8	5.3	1.8	1.006
428.0	429.0	0.0B	0.0B	90.9	1.3	16.8	1.8	1.006
429.0	430.0	0.0B	0.0B	95.3	0.9	7.0	2.1	1.006
430.0	431.0	0.0B	0.0B	94.6	0.9	6.6	4.6	1.006
431.0	432.0	0.0B	0.0B	89.7	1.4	18.6	2.7	1.006
432.0	433.0	0.0B	0.0B	87.1	2.2	23.6	2.1	1.006
433.0	434.0	0.0B	0.0B	94.8	1.2	7.8	1.8	1.006
434.0	435.0	0.0B	0.0B	96.2	0.9	5.6	1.4	1.006
435.0	436.0	0.0B	0.0B	91.9	1.5	13.5	2.5	1.006
436.0	437.0	0.0B	0.0B	79.9	2.5	38.6	3.4	1.006
437.0	438.0	0.0B	0.0B	93.6	1.0	10.8	2.1	1.006
438.0	439.0	0.0B	0.0B	95.4	0.9	6.4	2.7	1.006
439.0	440.0	0.0B	0.0B	97.5	0.7	2.5	2.1	1.006
440.0	441.0	0.0B	0.0B	96.8	0.6	3.8	2.5	1.006
441.0	442.0	0.0B	0.0B	94.1	1.0	9.4	2.5	1.006
442.0	443.0	0.0B	0.0B	89.3	1.3	17.3	5.3	1.006
443.0	444.0	0.0B	0.0B	92.3	0.3	9.9	8.0	1.006
444.0	445.0	0.0B	0.0B	90.9	1.0	12.7	6.9	1.006
445.0	446.0	0.0B	0.0B	91.9	1.7	12.6	3.0	1.006
446.0	447.0	0.0B	0.0B	95.4	0.9	6.8	2.3	1.006
447.0	448.0	0.0B	0.0B	96.5	0.9	4.2	2.3	1.006
448.0	449.0	0.0B	0.0B	96.6	0.8	4.4	2.1	1.004
449.0	450.0	0.0B	0.0B	96.3	0.8	5.1	1.8	1.006

Cliffs Engineering, Cliff 6-1
CORE ID-U168.
3/21/91

T 10S,R 25E,Sec 31

THE DATA BELOW ARE COMPUTED FOR AN AVERAGE OF 25.0 GALS/TON. THE
REPORTED ASSAYS DO NOT INCLUDE ZONES WHICH AVERAGE LESS
THAN 10.0 GALS/TON OVER MORE THAN 10.0 FEET IN LENGTH.

I N T E R V A L	AVERAGE	TOTAL	RESOURCE
DEPTH DEPTH	YIELD	INTERVAL	(BARRELS
TOP BASE	(GALS/TON)	(FEET)	PER ACRE
(FT) (FT)			X 1000)
384.0 429.0	25.5	45.0	77.4
435.0 437.0	26.0	2.0	3.6
	TOTAL	47.0	81.0