

21-25^S-SE

COMPANY CITIES SERVICE OIL COMPANY
WELL CHESNEY-HEGGERG NO. 224

FOR THE INTERVAL 80. TO 725.

SDEP=	80.00	EDEP=	725.00	GMIN=	57.00	GMAX=	110.00
DSH =	2.65	NSH =	30.00	A =	0.62	M =	2.15
RW =	0.11	RSH =	5.00	SIRR=	40.00	BFT =	80.00
CALD=	9.00	GCUR=	2.00	DF =	1.00	DG =	2.65
NF =	100.00	LCOR=	-4.00	TF =	189.00	TM =	55.50
TSH =	100.00	CP =	1.00	SHCT=	40.00	SHDF=	0.
SSP =	22.00	PRNT=	1.00	PMAX=	30.00	SRHM=	0.50
N =	2.00	RMF =	0.15	GRAD=	1.00	SWOP=	3.00
CALM=	15.00	BITS=	7.87				

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CITIES SERVICE OIL COMPANY
 CHESNEY HEGBERG UNIT MP NO. 224

DEPTH	PERM. INDEX MD	WATER SAT. %	POROSITY %	DENSITY HYDROCARBON GM/CC	CLAY %	CUM. POR. FEET	CUM. HYCARB FEET
80.0	0	100	1.7	1.0	43	.01	0.00
81.0	0	100	.1	1.0	39	.01	0.00
82.0	0	100	.1	1.0	46	.01	0.00
84.0	0	100	.1	1.0	44	.01	0.00
85.0	0	100	.1	1.0	49	.02	0.00
99.0	0	100	.8	1.0	46	.10	0.00
100.0	0	100	.1	1.0	26	.10	0.00
101.0	0	100	.1	1.0	24	.10	0.00
102.0	0	100	.1	1.0	28	.10	0.00
103.0	0	100	.1	1.0	34	.10	0.00
104.0	0	100	.1	1.0	41	.10	0.00
118.0	0	100	.1	1.0	49	.14	0.00
119.0	0	100	.1	1.0	46	.14	0.00
120.0	0	100	.1	1.0	46	.14	0.00
130.0	0	100	1.1	1.0	47	.69	0.00
133.0	0	100	1.8	1.0	43	.78	0.00
134.0	0	100	.1	1.0	34	.79	0.00
135.0	0	100	.1	1.0	28	.79	0.00
136.0	0	100	.6	1.0	44	.79	0.00
139.0	0	100	6.8	1.0	28	.87	0.00
140.0	1	100	7.3	1.0	25	.94	0.00
141.0	0	100	5.8	1.0	24	1.01	0.00
142.0	0	100	4.7	1.0	26	1.05	0.00
143.0	0	100	2.8	1.0	38	1.09	0.00
144.0	0	100	.5	1.0	49	1.10	0.00
145.0	0	100	.1	1.0	47	1.10	0.00
146.0	0	100	.1	1.0	38	1.10	0.00
147.0	0	100	.1	1.0	38	1.10	0.00
148.0	0	100	.1	1.0	45	1.10	0.00
149.0	0	100	.1	1.0	47	1.10	0.00
150.0	0	100	.7	1.0	42	1.11	0.00
153.0	2	100	9.9	1.0	45	1.24	0.00
154.0	6	100	12.8	1.0	32	1.37	0.00
155.0	5	100	12.3	1.0	26	1.49	0.00
156.0	5	100	12.3	1.0	25	1.62	0.00
157.0	5	100	12.3	1.0	23	1.74	0.00
158.0	6	100	12.5	1.0	23	1.86	0.00
159.0	10	100	14.1	1.0	21	2.00	0.00
160.0	14	100	15.3	1.0	21	2.15	0.00
161.0	20	100	16.6	1.0	20	2.31	0.00
162.0	23	100	17.2	1.0	20	2.48	0.00
163.0	0	100	7.0	1.0	22	2.59	0.00
164.0	0	100	1.5	1.0	23	2.62	0.00

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CITIES SERVICE OIL COMPANY
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DEPTH	PERM. INDEX MD	WATER SAT. %	POROSITY %	DENSITY HYDROCARBON GM/CC	CLAY %	CUM. POR. FEET	CUM. HYCARB FEET
165.0	0	100	3.3	1.0	22	2.65	0.00
166.0	0	100	1.3	1.0	32	2.67	0.00
167.0	0	100	.3	1.0	31	2.67	0.00
168.0	0	100	.1	1.0	26	2.67	0.00
169.0	0	100	.1	1.0	30	2.67	0.00
170.0	0	100	.1	1.0	37	2.67	0.00
171.0	0	100	.1	1.0	48	2.67	0.00
178.0	0	100	5.2	1.0	49	2.83	0.00
179.0	0	100	6.2	1.0	47	2.89	0.00
180.0	0	100	5.7	1.0	49	2.95	0.00
181.0	0	100	6.2	1.0	50	3.01	0.00
182.0	1	100	8.0	1.0	46	3.09	0.00
183.0	1	100	9.1	1.0	48	3.17	0.00
184.0	2	100	9.4	1.0	44	3.27	0.00
185.0	2	100	10.2	1.0	38	3.37	0.00
186.0	0	100	6.8	1.0	28	3.45	0.00
187.0	0	100	.1	1.0	24	3.46	0.00
188.0	0	100	.1	1.0	25	3.46	0.00
189.0	0	100	.1	1.0	26	3.46	0.00
190.0	0	100	.1	1.0	26	3.46	0.00
191.0	0	100	.1	1.0	29	3.46	0.00
192.0	0	100	.1	1.0	34	3.46	0.00
199.0	0	100	.1	1.0	41	3.52	0.00
200.0	0	100	.1	1.0	36	3.53	0.00
201.0	0	100	.1	1.0	33	3.53	0.00
202.0	0	100	.1	1.0	31	3.53	0.00
203.0	0	100	.1	1.0	29	3.53	0.00
204.0	0	100	.1	1.0	29	3.53	0.00
205.0	0	100	.1	1.0	25	3.53	0.00
206.0	0	100	.1	1.0	26	3.53	0.00
207.0	0	100	.1	1.0	39	3.53	0.00
217.0	0	100	3.6	1.0	49	3.74	0.00
218.0	0	100	5.2	1.0	45	3.78	0.00
219.0	0	100	6.4	1.0	39	3.84	0.00
220.0	1	100	7.7	1.0	34	3.92	0.00
221.0	1	100	7.6	1.0	33	4.00	0.00
222.0	0	100	1.9	1.0	33	4.03	0.00
223.0	0	100	.1	1.0	44	4.03	0.00
224.0	0	100	.1	1.0	50	4.03	0.00
225.0	0	100	.1	1.0	47	4.03	0.00
226.0	0	100	.1	1.0	43	4.04	0.00
227.0	0	100	.1	1.0	49	4.04	0.00
237.0	0	100	.1	1.0	40	4.06	0.00
238.0	0	100	.1	1.0	31	4.06	0.00
239.0	0	100	.1	1.0	31	4.06	0.00
240.0	0	100	.1	1.0	33	4.06	0.00

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DEPTH	PERM. INDEX MD	WATER SAT. %	POROSITY %	DENSITY HYDROCARBON GM/CC	CLAY %	CUM. POR. FEET	CUM. HYCARB FEET
241.0	0	100	.1	1.0	44	4.06	0.00
242.0	0	100	2.8	1.0	47	4.08	0.00
257.0	0	100	.1	1.0	39	4.27	0.00
258.0	0	100	.1	1.0	39	4.27	0.00
268.0	0	100	.6	1.0	39	4.31	0.00
269.0	0	100	4.6	1.0	26	4.34	0.00
270.0	9	100	13.9	1.0	14	4.45	0.00
271.0	0	100	4.9	1.0	47	4.53	0.00
278.0	0	100	.1	1.0	47	4.54	0.00
279.0	0	100	.1	1.0	41	4.54	0.00
280.0	0	100	.1	1.0	42	4.54	0.00
281.0	0	100	.1	1.0	46	4.54	0.00
285.0	0	100	.1	1.0	47	4.57	0.00
286.0	0	100	.1	1.0	37	4.57	0.00
287.0	0	100	.1	1.0	29	4.57	0.00
288.0	0	100	.1	1.0	21	4.57	0.00
289.0	0	100	.1	1.0	24	4.57	0.00
290.0	0	100	.1	1.0	33	4.57	0.00
300.0	0	100	.1	1.0	50	4.58	0.00
301.0	0	100	.1	1.0	48	4.58	0.00
302.0	0	100	.1	1.0	46	4.58	0.00
303.0	0	100	.1	1.0	41	4.59	0.00
304.0	0	100	.1	1.0	35	4.59	0.00
305.0	0	100	.1	1.0	29	4.59	0.00
306.0	0	100	.6	1.0	28	4.59	0.00
307.0	0	100	1.5	1.0	32	4.60	0.00
308.0	0	100	2.0	1.0	34	4.62	0.00
309.0	0	100	1.4	1.0	33	4.64	0.00
310.0	0	100	1.1	1.0	34	4.65	0.00
311.0	0	100	1.5	1.0	47	4.67	0.00
329.0	0	100	4.8	1.0	40	4.89	0.00
330.0	0	100	1.4	1.0	35	4.92	0.00
331.0	0	100	.1	1.0	45	4.92	0.00
332.0	0	100	.1	1.0	49	4.92	0.00
333.0	0	100	.1	1.0	47	4.92	0.00
334.0	0	100	.1	1.0	32	4.92	0.00
335.0	0	100	.1	1.0	31	4.93	0.00
336.0	0	100	.1	1.0	35	4.93	0.00
337.0	0	100	.1	1.0	49	4.93	0.00
338.0	0	100	.1	1.0	33	4.93	0.00
339.0	0	100	.1	1.0	34	4.93	0.00
340.0	0	100	.1	1.0	33	4.93	0.00
341.0	0	100	.1	1.0	27	4.93	0.00
342.0	0	100	.1	1.0	28	4.93	0.00

STOCK FORM NO. 61411-20

OWLL

CITIES SERVICE OIL COMPANY
 CHESNEY HEGBERG UNIT MP NO. 224

DEPTH	PERK. INDEX MD	WATER SAT. %	POROSITY %	DENSITY HYDROCARBON GM/CC	CLAY %	CUM. POR. FEET	CUM. HYCARB FEET
343.0	0	100	.1	1.0	24	4.93	0.00
344.0	0	100	.1	1.0	34	4.93	0.00
345.0	0	100	.1	1.0	39	4.94	0.00
346.0	0	100	.1	1.0	35	4.94	0.00
347.0	0	100	.1	1.0	30	4.94	0.00
348.0	0	100	.1	1.0	31	4.94	0.00
349.0	0	100	.1	1.0	42	4.94	0.00
350.0	0	100	.1	1.0	48	4.94	0.00
358.0	0	100	3.1	1.0	38	5.10	0.00
359.0	0	100	1.9	1.0	34	5.12	0.00
360.0	0	100	1.7	1.0	31	5.14	0.00
361.0	0	100	4.3	1.0	34	5.18	0.00
362.0	0	100	6.3	1.0	31	5.24	0.00
363.0	0	100	4.3	1.0	29	5.29	0.00
364.0	0	100	.1	1.0	30	5.30	0.00
365.0	0	100	.1	1.0	28	5.30	0.00
366.0	0	100	.1	1.0	22	5.30	0.00
367.0	0	100	.1	1.0	29	5.30	0.00
368.0	0	100	.1	1.0	44	5.30	0.00
379.0	0	100	.1	1.0	45	5.36	0.00
380.0	0	100	.1	1.0	37	5.36	0.00
381.0	0	100	.1	1.0	39	5.36	0.00
382.0	0	100	.1	1.0	38	5.37	0.00
383.0	0	100	.1	1.0	38	5.37	0.00
384.0	0	100	.1	1.0	46	5.37	0.00
394.0	0	100	7.0	1.0	44	5.51	0.00
395.0	0	100	6.4	1.0	33	5.58	0.00
396.0	0	100	5.1	1.0	38	5.63	0.00
397.0	0	100	4.8	1.0	49	5.68	0.00
398.0	0	100	3.5	1.0	50	5.72	0.00
399.0	0	100	.5	1.0	31	5.73	0.00
400.0	0	100	.1	1.0	21	5.74	0.00
401.0	0	100	.1	1.0	25	5.74	0.00
402.0	0	100	.1	1.0	35	5.74	0.00
403.0	0	100	.1	1.0	31	5.74	0.00
404.0	0	100	.1	1.0	28	5.74	0.00
405.0	0	100	.1	1.0	30	5.74	0.00
406.0	0	100	.1	1.0	35	5.74	0.00
407.0	0	100	.1	1.0	39	5.74	0.00
408.0	0	100	.1	1.0	37	5.74	0.00
409.0	0	100	.1	1.0	44	5.74	0.00
410.0	0	100	.1	1.0	33	5.75	0.00
411.0	0	100	.1	1.0	27	5.75	0.00
412.0	0	100	.1	1.0	26	5.75	0.00
413.0	0	100	.1	1.0	27	5.75	0.00
414.0	0	100	.1	1.0	29	5.75	0.00
415.0	0	100	.1	1.0	36	5.75	0.00

STOCK FORM NO. 61411-20

O W L L

CITIES SERVICE OIL COMPANY
 CHESNEY HEGBERG UNIT MP NO. 224

DEPTH	PERM. INDEX MD	WATER SAT. %	POROSITY %	DENSITY HYDROCARBON GM/CC	CLAY %	CUM. POR. FEET	CUM. HYCARB FEET
418.0	0	100	4.9	1.0	50	5.79	0.00
419.0	1	100	9.2	1.0	41	5.87	0.00
420.0	2	100	9.2	1.0	37	5.96	0.00
421.0	0	100	1.0	1.0	44	5.99	0.00
422.0	0	100	.1	1.0	48	6.00	0.00
424.0	0	100	.1	1.0	47	6.00	0.00
425.0	0	100	.1	1.0	48	6.00	0.00
426.0	0	100	.1	1.0	44	6.00	0.00
427.0	0	100	.1	1.0	46	6.00	0.00
428.0	0	100	.1	1.0	45	6.00	0.00
429.0	0	100	.1	1.0	38	6.00	0.00
430.0	0	100	.1	1.0	39	6.00	0.00
431.0	0	100	.1	1.0	42	6.00	0.00
432.0	0	100	.1	1.0	38	6.01	0.00
433.0	0	100	.1	1.0	36	6.01	0.00
434.0	0	100	.1	1.0	33	6.01	0.00
435.0	0	100	.1	1.0	36	6.01	0.00
436.0	0	100	.1	1.0	44	6.01	0.00
437.0	0	100	.1	1.0	48	6.01	0.00
438.0	0	100	.1	1.0	47	6.01	0.00
439.0	0	100	.1	1.0	49	6.01	0.00
440.0	0	100	.1	1.0	46	6.01	0.00
441.0	0	100	.1	1.0	35	6.01	0.00
442.0	0	100	.1	1.0	29	6.02	0.00
443.0	0	100	3.1	1.0	28	6.03	0.00
444.0	4	100	11.3	1.0	27	6.13	0.00
445.0	14	100	15.3	1.0	28	6.27	0.00
446.0	13	100	15.1	1.0	30	6.43	0.00
447.0	8	100	13.6	1.0	32	6.57	0.00
448.0	0	100	1.2	1.0	40	6.63	0.00
449.0	0	100	.1	1.0	46	6.63	0.00
450.0	0	100	.1	1.0	49	6.63	0.00
452.0	0	100	.1	1.0	43	6.64	0.00
453.0	0	100	.1	1.0	43	6.64	0.00
454.0	0	100	.1	1.0	47	6.64	0.00
455.0	0	100	.1	1.0	44	6.64	0.00
456.0	0	100	.1	1.0	43	6.64	0.00
457.0	0	100	.1	1.0	41	6.64	0.00
458.0	0	100	.1	1.0	38	6.64	0.00
459.0	0	100	.1	1.0	38	6.64	0.00
460.0	0	100	.1	1.0	33	6.64	0.00
461.0	0	100	.1	1.0	29	6.64	0.00
462.0	0	100	.1	1.0	25	6.65	0.00
468.0	0	100	.1	1.0	44	6.65	0.00
469.0	0	100	.5	1.0	40	6.65	0.00
470.0	0	100	.9	1.0	41	6.65	0.00
471.0	0	100	1.1	1.0	42	6.67	0.00

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DEPTH	PERM. INDEX MD	WATER SAT. %	POROSITY %	DENSITY HYDROCARBON GM/CC	CLAY %	CUM. POR. FEET	CUM. HYCARB FEET
472.0	0	100	.8	1.0	46	6.68	0.00
473.0	0	100	.1	1.0	47	6.68	0.00
474.0	0	100	.1	1.0	47	6.68	0.00
475.0	0	100	.1	1.0	47	6.68	0.00
476.0	0	100	.1	1.0	38	6.69	0.00
477.0	0	100	.1	1.0	30	6.69	0.00
478.0	0	100	.1	1.0	25	6.69	0.00
479.0	0	100	.1	1.0	44	6.69	0.00
482.0	0	100	4.4	1.0	45	6.72	0.00
483.0	0	100	.1	1.0	47	6.72	0.00
484.0	0	100	.1	1.0	45	6.72	0.00
485.0	0	100	.1	1.0	30	6.73	0.00
486.0	0	100	.1	1.0	18	6.73	0.00
487.0	0	100	.1	1.0	48	6.73	0.00
491.0	0	100	.1	1.0	47	6.73	0.00
492.0	0	100	.1	1.0	43	6.74	0.00
493.0	0	100	.1	1.0	38	6.74	0.00
494.0	0	100	.1	1.0	35	6.74	0.00
495.0	0	100	.1	1.0	42	6.74	0.00
500.0	3	100	11.1	1.0	41	6.85	0.00
501.0	0	100	.4	1.0	48	6.87	0.00
510.0	0	100	.1	1.0	48	6.90	0.00
511.0	0	100	.1	1.0	47	6.90	0.00
568.0	0	100	.3	1.0	31	7.09	0.00
569.0	0	100	.1	1.0	23	7.09	0.00
579.0	0	100	.1	1.0	46	7.09	0.00
580.0	0	100	.1	1.0	40	7.09	0.00
581.0	0	100	.1	1.0	46	7.09	0.00
582.0	0	100	.1	1.0	48	7.10	0.00
583.0	0	100	.1	1.0	45	7.10	0.00
584.0	0	100	.1	1.0	49	7.10	0.00
600.0	1	100	7.9	1.0	32	7.44	0.00
601.0	7	100	13.0	1.0	6	7.56	0.00
602.0	0	100	.9	1.0	35	7.59	0.00
603.0	0	100	.1	1.0	46	7.59	0.00
615.0	0	100	.1	1.0	32	7.59	0.00
649.0	1	100	7.8	1.0	30	7.64	0.00
650.0	0	100	5.7	1.0	9	7.71	0.00
651.0	1	100	7.2	1.0	31	7.77	0.00
654.0	1	100	8.5	1.0	39	7.97	0.00

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DEPTH	PERM. INDEX MD	WATER SAT. %	POROSITY %	DENSITY HYDROCARBON GM/CC	CLAY %	CUM. POR. FEET	CUM. HYCARB FEET
655.0	2	100	9.6	1.0	25	8.07	0.00
656.0	1	100	9.0	1.0	18	8.16	0.00
657.0	2	100	10.2	1.0	11	8.26	0.00
658.0	33	70	18.7	1.0	14	8.41	.03
659.0	111	54	24.5	1.0	13	8.66	.14
660.0	113	55	24.7	1.0	13	8.90	.25
661.0	115	56	24.7	1.0	27	9.15	.36
662.0	101	53	24.0	1.0	13	9.39	.47
663.0	114	51	24.7	.9	8	9.64	.59
664.0	129	49	25.4	.9	8	9.89	.72
665.0	127	48	25.3	1.0	15	10.14	.85
666.0	125	49	25.2	1.0	21	10.40	.98
667.0	125	49	25.2	1.0	23	10.65	1.11
668.0	125	49	25.2	1.0	17	10.90	1.24
669.0	123	49	25.1	1.0	14	11.15	1.37
670.0	117	51	24.8	1.0	17	11.40	1.49
671.0	91	54	23.5	1.0	26	11.64	1.61
672.0	102	53	24.1	1.0	19	11.88	1.72
673.0	103	52	24.1	1.0	13	12.12	1.84
674.0	138	50	25.8	.9	11	12.38	1.96
675.0	171	50	27.1	.9	20	12.65	2.10
676.0	24	86	17.3	1.0	43	12.85	2.15
677.0	5	100	12.2	1.0	44	12.98	2.15
678.0	7	100	13.2	1.0	40	13.10	2.15
698.0	1	100	7.9	1.0	17	13.41	2.15
700.0	1	100	7.9	1.0	17	13.53	2.15
701.0	1	100	8.0	1.0	7	13.60	2.15
702.0	1	100	8.3	1.0	40	13.69	2.15
725.0	110	52	5.6	1.0	9	9.52	.53

STOCK FORM NO. 61411-20

OWLL

CITIES SERVICE OIL COMPANY
 CHESNEY HECBERG UNIT MP NO. 224

DEPTH	GR	POR	RT	R XO	SXO	ROS	SW
600.0	73.1	7.9	5.2	6.0	100.0	0.0	100.0
600.5	66.7	10.9	5.9	3.7	100.0	0.0	100.0
601.0	62.2	13.0	6.9	10.6	100.0	0.0	100.0
601.5	55.9	3.4	8.3	12.1	100.0	0.0	100.0
602.0	57.3	.9	8.8	8.2	100.0	0.0	100.0
602.5	62.0	.1	9.0	7.0	100.0	0.0	100.0
603.0	64.1	.1	9.2	6.4	100.0	0.0	100.0
603.5	64.4	.1	8.7	7.1	100.0	0.0	100.0
604.0	65.0	.1	7.7	7.9	100.0	0.0	100.0
604.5	65.9	.1	7.0	7.3	100.0	0.0	100.0
605.0	68.9	.1	6.4	6.7	100.0	0.0	100.0
605.5	72.0	.1	5.9	6.0	100.0	0.0	100.0
606.0	75.0	.1	5.4	5.5	100.0	0.0	100.0
606.5	78.7	.1	5.0	5.3	100.0	0.0	100.0
607.0	82.6	.1	4.7	5.3	100.0	0.0	100.0
607.5	86.5	.1	4.4	5.1	100.0	0.0	100.0
608.0	90.4	0.0	4.1	4.9	100.0	0.0	100.0
608.5	95.2	0.0	3.9	4.6	100.0	0.0	100.0
609.0	98.7	0.0	3.7	4.3	100.0	0.0	100.0
609.5	100.4	0.0	3.5	4.1	100.0	0.0	100.0
610.0	101.7	0.0	3.5	3.9	100.0	0.0	100.0
610.5	102.9	0.0	3.4	3.8	100.0	0.0	100.0
611.0	104.4	0.0	3.3	3.7	100.0	0.0	100.0
611.5	106.2	0.0	3.2	3.9	100.0	0.0	100.0
612.0	107.5	0.0	3.2	3.9	100.0	0.0	100.0
612.5	105.9	0.0	3.7	3.9	100.0	0.0	100.0
613.0	103.0	0.0	4.2	3.9	100.0	0.0	100.0
613.5	100.6	0.0	4.8	4.1	100.0	0.0	100.0
614.0	94.7	0.0	5.3	5.1	100.0	0.0	100.0
614.5	82.3	.1	5.1	7.9	100.0	0.0	100.0
615.0	77.8	.1	5.0	9.9	100.0	0.0	100.0
615.5	73.7	.1	4.8	15.3	100.0	0.0	100.0
616.0	68.7	.1	4.5	20.6	100.0	0.0	100.0
616.5	65.9	.1	4.1	13.0	100.0	0.0	100.0
617.0	87.5	.1	3.7	4.3	100.0	0.0	100.0
617.5	100.6	0.0	3.3	3.2	100.0	0.0	100.0
618.0	105.2	0.0	3.0	3.0	100.0	0.0	100.0
618.5	108.6	0.0	2.7	2.9	100.0	0.0	100.0
619.0	111.8	0.0	2.3	3.1	100.0	0.0	100.0
619.5	113.3	0.0	2.1	3.3	100.0	0.0	100.0
620.0	114.3	0.0	2.0	3.4	100.0	0.0	100.0
620.5	113.6	0.0	2.0	3.5	100.0	0.0	100.0
621.0	111.2	0.0	2.0	3.4	100.0	0.0	100.0
621.5	109.4	0.0	1.9	3.3	100.0	0.0	100.0
622.0	109.6	0.0	1.9	3.1	100.0	0.0	100.0
622.5	109.1	0.0	1.9	3.1	100.0	0.0	100.0
623.0	108.2	0.0	1.9	3.0	100.0	0.0	100.0
623.5	106.9	0.0	1.9	3.0	100.0	0.0	100.0
624.0	105.2	0.0	1.9	3.1	100.0	0.0	100.0
624.5	103.4	0.0	1.8	3.1	100.0	0.0	100.0

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CITIES SERVICE OIL COMPANY
CHESNEY HEGBERG UNIT NP NO. 224

DEPTH	GR	POR	RT	RXD	SXD	RDS	SW
625.0	101.4	0.0	1.9	3.1	100.0	0.0	100.0
625.5	99.6	0.0	1.9	3.2	100.0	0.0	100.0
626.0	100.1	0.0	2.0	3.1	100.0	0.0	100.0
626.5	100.4	0.0	2.0	3.1	100.0	0.0	100.0
627.0	96.9	0.0	2.1	3.1	100.0	0.0	100.0
627.5	93.5	0.0	2.2	3.1	100.0	0.0	100.0
628.0	92.5	0.0	2.4	3.3	100.0	0.0	100.0
628.5	85.9	.1	2.6	3.9	100.0	0.0	100.0
629.0	79.4	.1	2.8	4.8	100.0	0.0	100.0
629.5	73.3	.1	3.0	5.6	100.0	0.0	100.0
630.0	69.4	.1	3.1	6.1	100.0	0.0	100.0
630.5	67.2	.1	3.3	6.6	100.0	0.0	100.0
631.0	71.4	.1	3.4	4.7	100.0	0.0	100.0
631.5	75.3	.1	3.5	3.9	100.0	0.0	100.0
632.0	76.3	.1	3.7	3.6	100.0	0.0	100.0
632.5	77.4	.1	3.8	3.5	100.0	0.0	100.0
633.0	77.6	.1	3.9	3.5	100.0	0.0	100.0
633.5	75.6	.1	4.1	3.9	100.0	0.0	100.0
634.0	71.4	.1	4.3	4.6	100.0	0.0	100.0
634.5	67.6	.1	4.5	6.6	100.0	0.0	100.0
635.0	65.7	.1	4.7	7.7	100.0	0.0	100.0
635.5	73.1	.1	4.9	8.0	100.0	0.0	100.0
636.0	78.4	.1	4.9	7.4	100.0	0.0	100.0
636.5	85.6	.1	4.9	6.6	100.0	0.0	100.0
637.0	91.2	0.0	4.9	5.6	100.0	0.0	100.0
637.5	96.0	0.0	4.7	5.1	100.0	0.0	100.0
638.0	97.4	0.0	4.4	4.6	100.0	0.0	100.0
638.5	97.8	0.0	4.2	4.4	100.0	0.0	100.0
639.0	98.2	0.0	4.1	4.2	100.0	0.0	100.0
639.5	98.0	0.0	4.1	4.1	100.0	0.0	100.0
640.0	96.1	0.0	4.0	4.1	100.0	0.0	100.0
640.5	96.6	0.0	3.8	4.1	100.0	0.0	100.0
641.0	98.6	0.0	3.7	4.1	100.0	0.0	100.0
641.5	100.1	0.0	3.6	4.1	100.0	0.0	100.0
642.0	101.6	0.0	3.6	4.0	100.0	0.0	100.0
642.5	104.0	0.0	3.5	3.9	100.0	0.0	100.0
643.0	106.7	0.0	3.3	3.8	100.0	0.0	100.0
643.5	108.6	0.0	3.1	3.7	100.0	0.0	100.0
644.0	109.1	0.0	3.0	3.5	100.0	0.0	100.0
644.5	109.5	0.0	2.9	3.4	100.0	0.0	100.0
645.0	109.8	0.0	2.8	3.3	100.0	0.0	100.0
645.5	111.0	0.0	2.7	3.3	100.0	0.0	100.0
646.0	113.0	0.0	2.7	3.2	100.0	0.0	100.0
646.5	116.4	0.0	2.7	3.1	100.0	0.0	100.0
647.0	117.4	0.0	2.7	3.1	100.0	0.0	100.0
647.5	116.9	0.0	2.8	3.1	100.0	0.0	100.0
648.0	111.6	0.0	3.1	3.4	100.0	0.0	100.0
648.5	102.8	0.0	3.3	3.9	100.0	0.0	100.0
649.0	88.0	7.8	3.6	5.3	100.0	0.0	100.0
649.5	76.0	6.9	3.7	6.2	100.0	0.0	100.0

OWLL

CITIES SERVICE OIL COMPANY
CHESNEY HEGBERG UNIT MP NO. 224

DEPTH	GR	POR	RT	RXO	SXO	RDS	SW
650.0	70.6	5.7	3.9	10.1	100.0	0.0	100.0
650.5	72.0	6.6	4.0	9.3	100.0	0.0	100.0
651.0	91.8	7.2	4.1	7.0	100.0	0.0	100.0
651.5	97.1	6.7	4.0	4.2	100.0	0.0	100.0
652.0	101.0	5.2	3.9	3.4	100.0	0.0	100.0
652.5	100.3	5.3	3.8	3.6	100.0	0.0	100.0
653.0	96.3	6.7	3.6	3.7	100.0	0.0	100.0
653.5	93.2	7.6	3.5	3.4	100.0	0.0	100.0
654.0	90.0	8.5	3.4	3.4	100.0	0.0	100.0
654.5	86.6	9.3	3.6	3.7	100.0	0.0	100.0
655.0	82.6	9.6	4.0	4.1	100.0	0.0	100.0
655.5	78.9	9.2	4.4	4.7	100.0	0.0	100.0
656.0	76.0	9.0	4.6	5.5	100.0	0.0	100.0
656.5	73.0	9.1	4.8	6.9	100.0	0.0	100.0
657.0	70.9	10.2	4.8	8.2	100.0	0.0	100.0
657.5	73.7	12.8	4.9	8.2	100.0	0.0	100.0
658.0	76.2	18.7	5.0	7.2	70.0	30.0	70.0
658.5	75.1	24.3	4.8	4.9	56.6	43.4	53.6
659.0	72.8	24.5	4.5	4.6	57.6	42.4	54.4
659.5	72.0	24.5	4.4	4.3	59.5	40.5	55.2
660.0	76.0	24.7	4.4	4.3	59.8	40.2	55.3
660.5	80.5	24.8	4.3	4.2	59.7	40.3	55.3
661.0	84.0	24.7	4.3	4.2	59.9	40.1	55.6
661.5	76.9	24.3	4.9	4.6	58.5	41.5	53.0
662.0	75.5	24.0	5.0	5.2	55.5	44.5	52.9
662.5	74.3	24.5	5.1	6.0	51.5	48.5	51.5
663.0	73.8	24.7	5.1	6.6	50.9	49.1	50.9
663.5	73.6	25.0	5.2	6.4	49.8	50.2	49.8
664.0	73.2	25.4	5.3	6.6	48.6	51.4	48.6
664.5	74.0	25.4	5.3	5.8	49.6	50.4	48.3
665.0	75.3	25.3	5.4	4.5	56.5	43.5	48.5
665.5	76.9	25.2	5.4	4.3	58.1	41.9	48.6
666.0	78.7	25.2	5.4	4.6	56.3	43.7	48.7
666.5	78.9	25.2	5.3	5.1	53.2	46.8	48.8
667.0	78.5	25.2	5.3	5.4	52.0	48.0	48.8
667.5	78.4	25.2	5.3	5.5	51.3	48.7	48.9
668.0	78.1	25.2	5.3	5.8	49.8	50.2	48.9
668.5	77.8	25.2	5.4	6.1	48.9	51.1	48.7
669.0	77.1	25.1	5.3	6.3	49.0	51.0	49.0
669.5	79.1	25.0	5.2	5.4	52.1	47.9	49.8
670.0	78.9	24.8	5.1	5.0	54.8	45.2	50.6
670.5	81.9	24.6	5.1	4.6	57.7	42.3	51.3
671.0	85.7	23.5	5.1	4.5	61.6	38.4	54.1
671.5	83.1	24.1	5.1	5.1	55.8	44.2	52.6
672.0	79.8	24.1	5.1	5.3	54.7	45.3	52.6
672.5	78.6	24.0	5.1	4.9	57.3	42.7	52.3
673.0	77.6	24.1	5.1	5.1	56.0	44.0	52.1
673.5	77.1	24.7	5.0	5.5	52.6	47.4	51.2
674.0	77.4	25.8	4.8	5.5	50.1	49.9	50.1
674.5	78.3	26.9	4.6	5.3	49.2	50.8	49.2

OWLL

CITIES SERVICE OIL COMPANY
CHESNEY HECBERG UNIT NP NO. 224

DEPTH	GR	POR	RT	RXD	SXD	ROS	SW
675.0	83.0	27.1	4.3	4.9	50.4	49.6	50.4
675.5	89.0	22.7	3.9	4.5	63.4	36.6	63.4
676.0	92.9	17.3	3.9	4.4	86.1	13.9	86.1
676.5	96.1	14.1	3.8	4.2	100.0	0.0	100.0
677.0	97.3	12.2	3.7	4.1	100.0	0.0	100.0
677.5	98.0	11.8	3.7	4.1	100.0	0.0	100.0
678.0	95.7	13.2	3.6	4.1	100.0	0.0	100.0
678.5	97.9	10.5	3.5	4.2	100.0	0.0	100.0
679.0	102.4	6.3	3.5	4.4	100.0	0.0	100.0
679.5	107.0	2.6	3.4	4.3	100.0	0.0	100.0
680.0	109.6	.3	3.4	4.2	100.0	0.0	100.0
680.5	109.9	.1	3.4	4.1	100.0	0.0	100.0
681.0	108.8	1.0	3.3	4.0	100.0	0.0	100.0
681.5	107.3	2.1	3.3	4.0	100.0	0.0	100.0
682.0	109.0	.7	3.2	4.0	100.0	0.0	100.0
682.5	109.1	.7	3.2	4.1	100.0	0.0	100.0
683.0	108.1	1.5	3.1	4.2	100.0	0.0	100.0
683.5	107.5	2.0	3.1	4.1	100.0	0.0	100.0
684.0	107.9	1.8	3.0	4.0	100.0	0.0	100.0
684.5	110.0	.1	3.0	3.9	100.0	0.0	100.0
685.0	109.1	.7	3.0	3.8	100.0	0.0	100.0
685.5	106.7	2.6	3.0	3.8	100.0	0.0	100.0
686.0	105.5	3.2	2.9	3.9	100.0	0.0	100.0
686.5	107.4	1.8	2.9	3.9	100.0	0.0	100.0
687.0	110.1	0.0	3.0	4.0	100.0	0.0	100.0
687.5	112.0	0.0	3.0	4.0	100.0	0.0	100.0
688.0	113.1	0.0	3.0	4.0	100.0	0.0	100.0
688.5	113.3	0.0	3.0	4.1	100.0	0.0	100.0
689.0	113.7	0.0	3.0	4.1	100.0	0.0	100.0
689.5	114.2	0.0	3.0	4.1	100.0	0.0	100.0
690.0	114.6	0.0	3.0	4.1	100.0	0.0	100.0
690.5	115.3	0.0	2.9	4.1	100.0	0.0	100.0
691.0	115.4	0.0	2.9	4.0	100.0	0.0	100.0
691.5	114.2	0.0	2.9	3.9	100.0	0.0	100.0
692.0	113.4	0.0	2.8	3.9	100.0	0.0	100.0
692.5	113.8	0.0	2.8	3.8	100.0	0.0	100.0
693.0	114.1	0.0	2.7	3.7	100.0	0.0	100.0
693.5	114.4	0.0	2.7	3.6	100.0	0.0	100.0
694.0	115.4	0.0	2.6	3.5	100.0	0.0	100.0
694.5	116.1	0.0	2.6	3.5	100.0	0.0	100.0
695.0	115.3	0.0	2.6	3.4	100.0	0.0	100.0
695.5	114.0	0.0	2.6	3.4	100.0	0.0	100.0
696.0	112.3	0.0	2.7	3.4	100.0	0.0	100.0
696.5	104.9	2.9	3.0	3.5	100.0	0.0	100.0
697.0	99.8	5.2	3.4	4.0	100.0	0.0	100.0
697.5	92.7	7.4	3.7	4.7	100.0	0.0	100.0
698.0	83.0	7.9	3.9	6.9	100.0	0.0	100.0
698.5	104.9	2.9	4.0	10.1	100.0	0.0	100.0
699.0	99.8	5.2	4.1	11.1	100.0	0.0	100.0
699.5	92.7	7.4	4.2	9.9	100.0	0.0	100.0

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CITIES SERVICE OIL COMPANY
CHESNEY HEGBERG UNIT MP NO. 224

DEPTH	GR	POR	RT	RXD	SXD	ROS	SW
700.0	83.0	7.9	4.0	8.4	100.0	0.0	100.0
700.5	73.1	7.1	3.8	4.4	100.0	0.0	100.0
701.0	70.1	8.0	3.5	3.6	100.0	0.0	100.0
701.5	87.3	8.6	3.2	3.4	100.0	0.0	100.0
702.0	94.5	8.3	2.8	3.2	100.0	0.0	100.0
702.5	98.3	7.7	2.6	3.0	100.0	0.0	100.0
703.0	101.4	6.2	2.6	2.9	100.0	0.0	100.0
703.5	103.8	4.6	2.6	2.8	100.0	0.0	100.0
704.0	104.5	4.0	2.6	3.2	100.0	0.0	100.0
704.5	103.0	4.9	2.6	3.7	100.0	0.0	100.0
705.0	102.1	5.2	2.7	4.1	100.0	0.0	100.0
705.5	102.1	5.1	2.7	3.9	100.0	0.0	100.0
706.0	101.9	5.0	2.7	3.6	100.0	0.0	100.0
706.5	101.5	5.1	2.8	3.3	100.0	0.0	100.0
707.0	102.0	4.7	2.8	3.1	100.0	0.0	100.0
707.5	103.1	4.0	2.8	3.0	100.0	0.0	100.0
708.0	104.5	3.2	2.8	3.2	100.0	0.0	100.0
708.5	104.4	3.3	2.8	3.4	100.0	0.0	100.0
709.0	103.6	3.6	2.8	3.4	100.0	0.0	100.0
709.5	103.0	3.8	2.8	3.4	100.0	0.0	100.0
710.0	103.4	3.6	2.8	3.4	100.0	0.0	100.0
710.5	104.9	2.8	2.8	3.4	100.0	0.0	100.0
711.0	106.1	2.1	2.8	3.3	100.0	0.0	100.0
711.5	108.6	.8	2.8	3.3	100.0	0.0	100.0
712.0	112.0	0.0	2.8	3.3	100.0	0.0	100.0
712.5	114.9	0.0	2.8	3.4	100.0	0.0	100.0
713.0	117.3	0.0	2.8	3.4	100.0	0.0	100.0
713.5	118.8	0.0	2.7	3.5	100.0	0.0	100.0
714.0	114.3	0.0	2.7	3.5	100.0	0.0	100.0
714.5	109.0	.9	2.8	3.6	100.0	0.0	100.0
715.0	105.6	3.7	2.8	3.8	100.0	0.0	100.0
715.5	104.6	4.6	2.8	3.8	100.0	0.0	100.0
716.0	105.3	4.0	2.8	3.6	100.0	0.0	100.0
716.5	105.8	3.4	2.8	3.4	100.0	0.0	100.0
717.0	107.2	2.1	2.9	3.3	100.0	0.0	100.0
717.5	107.6	1.7	2.9	3.3	100.0	0.0	100.0
718.0	109.1	.6	2.9	3.4	100.0	0.0	100.0
718.5	111.1	0.0	2.8	3.4	100.0	0.0	100.0
719.0	112.7	0.0	2.8	3.4	100.0	0.0	100.0
719.5	112.4	0.0	2.8	3.4	100.0	0.0	100.0
720.0	111.4	0.0	2.8	3.4	100.0	0.0	100.0
720.5	109.8	.1	2.8	3.4	100.0	0.0	100.0
721.0	109.4	.4	2.7	3.4	100.0	0.0	100.0
721.5	110.0	0.0	2.7	3.4	100.0	0.0	100.0
722.0	111.4	0.0	2.7	3.6	100.0	0.0	100.0
722.5	112.6	0.0	2.8	4.2	100.0	0.0	100.0
723.0	113.3	0.0	2.8	5.1	100.0	0.0	100.0
723.5	111.8	0.0	2.8	6.1	100.0	0.0	100.0
724.0	110.9	0.0	2.8	9.2	100.0	0.0	100.0
724.5	110.1	0.0	2.8	7.8	100.0	0.0	100.0

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CITIES SERVICE OIL COMPANY
CHESNEY HEGBERG UNIT MP NO. 224

DEPTH	GR	POR	RT	RXO	SXO	ROS	SW
725.0	58.1	5.6	110.1	8.2	102.0	2.5	51.5

STOCK FORM NO. 61411-20

OWLL