31-156 (8-71)

CITIES SERVICE OIL COMPANY

DRILLING TIME LOG

COMPANY Helberg oil Co. (Contractor) C.S.O. NO. _____ FARM Hillmann

LOCATION NE SE NW 24-11S-22W COUNTY Trego STATE Kans.

WEIGHT ON DRILL PIPE _____ MUD WEIGHT _____ R.P.M. _____ MUD VISCOSITY _____

DEPTH From	DEPTH To	DRILLING TIME Began	DRILLING TIME Ended	Actual Time	REMARKS
2600	1	9:05	8	3	
	2		11	2	
	3		14	3	
	4		17	3	
21-	5		20	3	
	6		24	4	
	7		27	3	
	8	2:31	31	4	
	9		35	4	
21-	10		38	3	Comm
	11	44	49	5	
	12		55	6	
	13		3:00	5	
	14		6	6	
21-	15		11	5	
	16		16	5	
	17		22	6	
	18		26	4	
	19		29	3	
16	20		32	3	
	21		36	4	
	22		40	4	
	23		44	4	
	24		51	7	
	25		55	4	
	26		401	6	
	27		6	6	
	28		11	5	
	29		16	5	
36	30		23	7	
	31		28	5	
	32		33	5	
	33		40	6	
	34		47	6	
	35		53	6	
	36		500	7	
	37		5	5	
	38		12	7	
	39		17	5	
36	40		21	4	
	41	5:30	34	4	CONN
	42		38	4	
	43		42	4	
	44		48	6	
	45		52	4	

Actual time is spent in drilling. Shut down time, round trips, changing bits, repairs, etc., also condition and type of bit, should be noted under "REMARKS."

31-156 (8-71)

CITIES SERVICE OIL COMPANY
DRILLING TIME LOG

COMPANY Helbing Oil Co NO. A-1 FARM Hillman

LOCATION _____ COUNTY Treaps STATE Tex

WEIGHT ON DRILL PIPE _____ MUD WEIGHT _____ R.P.M. _____ MUD VISCOSITY _____

DEPTH From	DEPTH To	DRILLING TIME Began	DRILLING TIME Ended	Actual Time	REMARKS
1645	46	552	57		
	47	57	601		
	48	602	6		
	49	17	9		
26	50	20	3		
	51	24	4		
	52	28	4		
	53	33	5		
	54	37	4		
	55	42	5		
	56	47	5		
	57	52	5		
	58	58	6		
	59	701	3		
24	60	4	3		
	61	6	2		
	62	10	4		
	63	13	3		
	64	16	3		
	65	19	3		
	66	23	4		
	67	28	5		
	68	34	6		
	69	39	5		
21	70	44	5		
	71	47	3		
	72	805	9	4	CONN
	73		14	5	
	74		21	7	
	75		28	7	
	76		33	5	
	77		38	5	
	78		43	5	
	79		48	5	
26	80		54	6	
	81		900	6	
	82		7	7	
	83		14	7	
	84		21	7	
	85		28	7	
	86		35	7	
	87		41	6	
	88		47	6	
	89		54	7	
26	90		1001	7	

Actual time is spent in drilling. Shut down time, round trips, changing bits, repairs, etc., also condition and type of bit, should be noted under "REMARKS."

31-156 (8-71)

CITIES SERVICE OIL COMPANY
DRILLING TIME LOG

COMPANY Helberg oil Co NO. A-1 FARM Hildman

LOCATION _____ COUNTY Trego STATE Ks

WEIGHT ON DRILL PIPE _____ MUD WEIGHT _____ R.P.M. _____ MUD VISCOSITY _____

DEPTH From	DEPTH To	DRILLING TIME Began	DRILLING TIME Ended	Actual Time	REMARKS
26 90	91	10 01	8	7	
	92		15	7	
	93		22	7	
	94		37	10	
	95		38	6	
	96		43	5	
	97		51	8	
	98		59	8	
	99		11.04	5	
27	00		8	4	
	1		13	5	
	2		18	5	Conn
	3	11 23.	28	5	
	4		31	3	
	5		35	4	
	6		39	4	
	7		44	5	
	8		48	4	
	9		51	3	
27	10		54	3	
	11		59	5	
	12		12'03	4	
	13		7	4	
	14		9	2	
	15		16	7	
	16		22	6	
	17		29	7	
	18		34	5	
	19		38	4	
27	20		40	2	
	21		43	3	
	22		46	3	
	23		49	3	
	24		54	5	
	25		100	6	
	26		5	5	
	27		10	5	
	28		15	5	
	29		20	5	
27	30		25	5	
	31		31	6	
	32		37	6	
	33	1:42.	46	4	Conn
	34		51	5	
	35		55	4	
	36		58	3	
	37		2:02	4	

Actual time is spent in drilling. Shut down time, round trips, changing bits, repairs, etc., also condition and type of bit, should be noted under "REMARKS."

31-156 (8-71)

CITIES SERVICE OIL COMPANY
DRILLING TIME LOG

COMPANY Helberg oil Co NO. A-1 FARM Hillman

LOCATION _____ COUNTY Grayson STATE Texas

WEIGHT ON DRILL PIPE _____ MUD WEIGHT _____ R.P.M. _____ MUD VISCOSITY _____

DEPTH From	DEPTH To	DRILLING TIME Began	DRILLING TIME Ended	Actual Time	REMARKS
2737	38	2:02	5	3	
	39		10	5	
27	40		15	5	
	41		23	8	
	42		31	8	
	43		39	8	
	44		45	6	
	45		50	5	
	46		55	5	
	47		3:00	5	
	48		4	4	
	49		8	4	
27	50		13	5	
	51		16	3	
	52		18	2	
	53		19	1	
	54		21	2	
	55		24	3	
	56		27	3	
	57		31	4	
	58		33	2	
	59		35	2	
27	60		38	3	Circ F.S.
	61	4:27	31	4	
	62		34	3	
	63		38	4	
	64	4:44	46	2	Conn
	65		50	4	
	66		54	4	
	67		57	3	
	68		5:00	3	
	69		5	5	
27	70		12	7	
	71		20	8	
	72		27	7	
	73		34	7	
	74		39	5	
	75		45	6	
	76		51	6	
	77		57	6	Vis 42 Wt. 10.1
	78		6:04	7	
	79		11	7	
27	80		17	6	
	81		24	7	
	82		31	7	
	83		37	6	
	84		42	5	

Actual time is spent in drilling. Shut down time, round trips, changing bits, repairs, etc., also condition and type of bit, should be noted under "REMARKS."

31-156 (8-71)

CITIES SERVICE OIL COMPANY
DRILLING TIME LOG

COMPANY Kilbourn Oil Co. NO. #1 FARM Hillmans.

LOCATION _____ COUNTY Treg. STATE Kans.

WEIGHT ON DRILL PIPE _____ MUD WEIGHT _____ R.P.M. _____ MUD VISCOSITY _____

DEPTH From	DEPTH To	DRILLING TIME Began	DRILLING TIME Ended	Actual Time	REMARKS
2784	85	~~42~~ ~~50~~	50	8	
	86		56	6	
	87	7:02	02	6	
	88		08	6	
	89		14	6	
27	90		19	5	
	91		27	8	
	92		32	5	
	93		36	4	
	94		41	5	
	95		~~47~~ 56	3	Conn.
	96		54	4	
	97		59	5	
	98	8:05	09	4	Dual 5 Min T. Time set
	99		15	6	
2800	2800		21	6	
	1		28	7	
	2		32	4	
	3		35	3	
	4		38	3	
28-	5		~~39½~~	~~½~~	
	6		89	½	
	7		~~39½~~	~~½~~	
	8		40	½	
	9		~~40½~~	~~½~~	
29-	10		41	½	
	11	8:42	42	1	Circ. 8:42
	12	10-01	~~01~~ 02	1	
2	13		03	1	
	14		03½	½	
28-	15	11:06	06	2½	
	16		10	4	
	17		15	5	
	18		20	5	
	19		23	3	
28-	20		30	7	
	21		36	6	
	22		42	6	
	23		48	6	
	24	11:58	53	5	Conn.
29-	25	12:03	~~58~~ 03	5	
	26		10	7	
	27		17	7	
	28		22	5	
	29		26	4	
28-	30		31	5	

Actual time is spent in drilling. Shut down time, round trips, changing bits, repairs, etc., also condition and type of bit, should be noted under "REMARKS."

31-156 (8-71)

CITIES SERVICE OIL COMPANY

DRILLING TIME LOG

COMPANY Helbing oil co. NO. #1 FARM Hilman,

LOCATION _____ COUNTY Tonga. STATE Kan.

WEIGHT ON DRILL PIPE _____ MUD WEIGHT _____ R.P.M. _____ MUD VISCOSITY _____

DEPTH From	DEPTH To	DRILLING TIME Began	DRILLING TIME Ended	Actual Time	REMARKS
2830	31	12-31	31 42	5	
	32		44	8	
	33		50	6	
	34		56	6	
28-	35	1:01	01	5	
	36		08	7	
	37		13	5	
	38		17	4	
	39		23	6	
28-	40		28	5	
	41		34	6	
	42		43	9	
	43	1:51	51	8	
	44		58	7	
28-	45	2:05	05	7	
	46		12	7	
	47		18	6	
	48		26	8	
	49		35	9	
28-	50		43	8	
	51		47	4	
	52		51	4	
	53		55	4	
	54		59	4	
28-	55	3:05	313	8	CONN
	56		20	7	
	57		27	7	
	58		35	8	
	59		43	8	
28-	60		49	7	
	61	5:19	20	3	CFS
	62		27	7	
	63		31	3	
	64		34	4	
	65		37	3	
	66		42	5	
	67		50	8	
	68		58	8	
	69		605	7	
28	70		12	7	
	71		19	7	
	72		27	8	
	73		33	6	
	74		40	7	
28	75		45	5	

Actual time is spent in drilling. Shut down time, round trips, changing bits, repairs, etc., also condition and type of bit, should be noted under "REMARKS."

31-156 (8-71)

CITIES SERVICE OIL COMPANY
DRILLING TIME LOG

COMPANY Helberg Oil Co NO. A-1 FARM Wilson

LOCATION _____ COUNTY Trego STATE Kan

WEIGHT ON DRILL PIPE _____ MUD WEIGHT _____ R.P.M. _____ MUD VISCOSITY _____

DEPTH From	DEPTH To	DRILLING TIME Began	DRILLING TIME Ended	Actual Time	REMARKS
2875	76	645	50	5	
	77		56	6	
	78		702	6	
	79		10	8	
28	80		21	11	
	81		30	9	
	82		37	7	
	83		45	8	
	84		53	8	
	85	807	16	9	Conn
	86		26	10	
	87		37	10	
	88		46	9	
	89		55	9	
28	90		901	6	
	91		7	6	
	92		13	6	
	93		19	6	
	94		26	7	
	95		35	9	
	96		47	12	
	97		55	8	
	98		1003	8	
	99		10	7	
29	00		17	7	
	1		24	7	
	2		31	7	
	3		38	7	
	4		46	8	
	5		53	7	
	6		11.00	7	
	7		8	8	
	8		17	9	
	9		25	8	
29	10		37	12	
	11		50	13	
	12		12.00	10	
	13		9	9	
	14		16	7	
	15	12:23	34	12	Conn
	16		42	8	
	17		47	5	
	18		53	6	
	19		58	5	
29	20		1.04	6	
	21		9	5	
	22		13	4	

Actual time is spent in drilling. Shut down time, round trips, changing bits, repairs, etc., also condition and type of bit, should be noted under "REMARKS."

31-156 (8-71)

CITIES SERVICE OIL COMPANY
DRILLING TIME LOG

COMPANY Helbery oil Co NO. 1-1 FARM Hillman

LOCATION _____ COUNTY Trego STATE Kansas.

WEIGHT ON DRILL PIPE _____ MUD WEIGHT _____ R.P.M. _____ MUD VISCOSITY _____

DEPTH From	DEPTH To	DRILLING TIME Began	DRILLING TIME Ended	Actual Time	REMARKS
2922	23	1:13.	18	5	
	24		27	9	
	25		33	6	
	26		39	6	
	27		48	9	
	28		2:01	13	
	29		9	8	
29	30		16	7	
	31		25	9	
	32		33	8	
	33		42	9	
	34		51	9	
	35		3:02	11	
	36		12	10	
	37		20	8	
	38		28	8	
	39		36	8	
29	40		45	9	
	41		52	7	
	42		59	7	
	43		4:06	7	
	44		15	9	
	45		22	7	
	46	4:28	36	8	conn
	47		45	9	
	48		52	7	
	49		58	6	
29	50		5:08	10	
	51		20	12	
	52		32	12	
	53		44	12	
	54		57	13	
	55		6:08	11	
	56	6:20	20	12	Clutch trouble
	57	12:32	~~32~~ 37	5	Dump Circ 1 hr on Bottom
	58		41	9	11:40 Drill at 1232.
	59		58	12	
29	60	1:07	07	9	
	61		19	12	
	62		33	14	
	63	1:48.	~~48~~ 55	7	Pump Belts & Roll Bushing
	64	2:03	03	8	15 Min on Belts & Bushing.
	65		12	9	
	66		20	8	
	67		30	10	
	68		41	11	
	69		51	10	

Actual time is spent in drilling. Shut down time, round trips, changing bits, repairs, etc., also condition and type of bit, should be noted under "REMARKS."

31-156 (8-71)

CITIES SERVICE OIL COMPANY
DRILLING TIME LOG

COMPANY Helbert oil Co NO. A-1 FARM Hillman

LOCATION _____ COUNTY Trego STATE Kansas.

WEIGHT ON DRILL PIPE _____ MUD WEIGHT _____ R.P.M. _____ MUD VISCOSITY _____

DEPTH From	DEPTH To	DRILLING TIME Began	DRILLING TIME Ended	Actual Time	REMARKS
2922	23	1:13.	18	5	
	24		27	9	
	25		33	6	
	26		39	6	
	27		48	9	
	28		2:01	13	
	29		9	8	
29	30		16	7	
	31		25	9	
	32		33	8	
	33		42	9	
	34		51	9	
	35		3:02	11	
	36		12	10	
	37		20	8	
	38		28	8	
	39		36	8	
29	40		45	9	
	41		52	7	
	42		59	7	
	43		4:06	7	
	44		15	9	
	45		22	7	
	46	4:28	36	8	Conn
	47		45	9	
	48		52	7	
	49		58	6	
29	50		5:08	10	
	51		20	12	
	52		32	12	
	53		44	12	
	54		57	13	
	55		6:03	11	
	56	6:20	20	12	Clutch Trouble.
	57	12:32	~~32~~ 37	5	Pump Cir 1 hr on Bottom
	58		46	9	11:40 A Drilled 1232
	59		58	12	
29	60	1:07	07	9	
	61		19	12	
	62		33	14	
	63	1:48	~~48~~ 54	7	Pump 28 Stds & Ream 15 Stands & Cts & Ream
	64	2:03	03	8	
	65		12	9	
	66		20	8	
	67		30	10	
	68		41	11	
	69		51	10	

Actual time is spent in drilling. Shut down time, round trips, changing bits, repairs, etc., also condition and type of bit, should be noted under "REMARKS."

31-156 (8-71)

CITIES SERVICE OIL COMPANY
DRILLING TIME LOG

COMPANY _____ NO. _____ FARM _____

LOCATION _____ COUNTY _____ STATE _____

WEIGHT ON DRILL PIPE _____ MUD WEIGHT _____ R.P.M. _____ MUD VISCOSITY _____

DEPTH From	DEPTH To	DRILLING TIME Began	DRILLING TIME Ended	Actual Time	REMARKS
2969	70	2 51	3:00	9	
	71		9	9	
	72		17	8	
	73		27	10	
	74		33	6	
	75		40	7	
	76	342	52	10	CONN
	77		410	X	
	78		5	5	
	79		14	9	
	80		23	9	
	81		31	8	
	82		39	8	
	83		46	7	
	84		51	5	
	85		56	5	
	86		501	5	
	87		07	6	
	88		13	6	
	89		21	8	
29	90		30	9	
	91		38	8	
	92		47	9	
	93		55	8	
	94		604	9	
	95		12	8	
	96		21	9	
	97		31	10	
	98		41	10	
	99		51	10	
30	00		701	10	
	1		12	11	
	2		20	8	
	3		23	3	
	4		29	6	
	5		35	7	
	6		43	8	
	7	747	55	7	CONN
	8	800	10	10	
	9		15	5	
30	10		20	5	
	11		28	8	
	12		37	9	
	13		48	11	
	14		59	11	
	15		9.09	10	

Actual time is spent in drilling. Shut down time, round trips, changing bits, repairs, etc., also condition and type of bit, should be noted under "REMARKS."

31-156 (8-71)

CITIES SERVICE OIL COMPANY
DRILLING TIME LOG

COMPANY Helberg oil Co. NO. A-1 FARM Hillman

LOCATION _____ COUNTY Meade STATE SD

WEIGHT ON DRILL PIPE _____ MUD WEIGHT _____ R.P.M. _____ MUD VISCOSITY _____

DEPTH From	DEPTH To	DRILLING TIME Began	DRILLING TIME Ended	Actual Time	REMARKS
3015	16	9:09	19	10	
	17		29	10	
	18		38	9	
	19		47	9	
30	20		56	9	
	21		10:01	5	
	22		5	4	
	23		9	3	
	24		13	4	
	25		21	9	
	26		31	10	
	27		40	9	
	28		48	8	
	29		53	5	
30	30		57	4	
	31		11:01	4	
	32		4	3	
	33		12	8	
	34		16	4	
	35		20	4	
	36		24	4	
	37	11:30	37	7	Conn
	38		45	8	
	39		57	12	
30	40		12:04	7	
	41		12	8	
	42		21	9	
	43		30	9	
	44		40	10	
	45		50	10	
	46		59	9	
	47		1:09	10	
	48		21	12	
	49		32	11	
30	50		40	8	
	51		47	7	
	52		58	11	
	53		2:10	12	
	54		25	15	
	55		34	9	
	56		46	12	
	57		3:03	17	
	58		11	8	
	59		18	7	
30	60		25	7	
	61		30	5	
	62		36	6	

Actual time is spent in drilling. Shut down time, round trips, changing bits, repairs, etc., also condition and type of bit, should be noted under "REMARKS."

31-156 (8-71)

CITIES SERVICE OIL COMPANY
DRILLING TIME LOG

COMPANY Helbig oil Co. NO. #1 FARM Hillman.

LOCATION _____ COUNTY Trigo. STATE Kans.

WEIGHT ON DRILL PIPE _____ MUD WEIGHT _____ R.P.M. _____ MUD VISCOSITY _____

DEPTH From	DEPTH To	DRILLING TIME Began	DRILLING TIME Ended	Actual Time	REMARKS
3062	63	3:36	42	6	
	64		45	3	
	65		48	3	
	66	3:54	59	5	Conn
	67		4:08	9	
	68		15	7	
	69		20	5	
30	70		25	5	
	71		31	6	
	72		38	7	
	73		46	8	
	74		53	7	
	75		59	6	
	76		5:12	13	
	77		22	10	
	78		28	6	worked on pump
	79		35	7	
30	80		42	7	on Bottom
	81	7:54	8:09	5	
	82		14	5	
	83		20	6	
	84		23	3	
	85		26	3	
	86		30	4	
	87		34	4	
	88		39	5	
	89		42	3	
30	90		45	3	
	91		48	3	
	92		52	4	
	93		55	3	(1 hr. 5 min.) Circ. Mixed mud
	94	9:12	12	5	
	95		20	3	Conn
	96	9:25	34	9	
	97		41	7	
	98		46	5	
	99		51	5	
31	00		54	3	
	1		58	4	
	2	10:01	01	3	
	3		05	4	
	4		09	4	
	5		11	3	
	6		14	3	
	7		18	4	
	8		22	4	
	9		26	4	

Actual time is spent in drilling. Shut down time, round trips, changing bits, repairs, etc., also condition and type of bit, should be noted under "REMARKS."

31-156 (8-71)

CITIES SERVICE OIL COMPANY
DRILLING TIME LOG

COMPANY Kelly oil Co. NO. 1 FARM Kellum.

LOCATION _____ COUNTY Trego. STATE Kans.

WEIGHT ON DRILL PIPE _____ MUD WEIGHT _____ R.P.M. _____ MUD VISCOSITY _____

DEPTH From	DEPTH To	DRILLING TIME Began	DRILLING TIME Ended	Actual Time	REMARKS
3108	~~3110~~	10:26	~~2hr 30~~	4	
	11		34	4	
	12		38	4	
	13		40	2	
	14		44	4	
31-	15		47	3	
	16		50	3	
	17		55	5	
	18		59	4.	
	19	11:03	03	4	
31-	20		06	3	
	21		10	4	
	22		13	3	
	23		15	2	
	24		17	2	
31-	25		20	3	Conn.
	26		~~25~~ 24	4.	
	27		32	3	
	28		35	3	
	29		38	3	
31-	30		42	4	
	31		51	9	
	32		58	7	
	33	12:04	04	6	
	34		13	9	
31-	35		21	8	
	36		29	8	
	37		38	9	
	38		47	9	
	39		55	8	
31-	40	1:00	1:00	6	
	41		07	7	
	42		14	7	
	43		21	7	
	44		27	6	
31-	45		32	5	
	46		39	7	
	47		47	8	
	48		53	6	
	49		59	6	
31-	50	2:04	04	5	
	51		09	5	
	52		14	5	
	53		19	5	
	54		25	6	
31-	55		30	5	Conn.

Actual time is spent in drilling. Shut down time, round trips, changing bits, repairs, etc., also condition and type of bit, should be noted under "REMARKS."

31-156 (8-71)

CITIES SERVICE OIL COMPANY
DRILLING TIME LOG

COMPANY Helbig oil Co. NO. # 1 FARM Hilman

LOCATION _____ COUNTY Fargo STATE Kans.

WEIGHT ON DRILL PIPE _____ MUD WEIGHT _____ R.P.M. 55 MUD VISCOSITY 40.

DEPTH From	DEPTH To	DRILLING TIME Began	DRILLING TIME Ended	Actual Time	REMARKS
3155.	59	1:36	36	8	
	57		49	5	
	58		53	4	
	59		58	5	
31—	60		301	3	
	61		5	4	
	62		9	4	
	63		15	6	
	64		24	9	
	65		36	12	
	66		46	10	
	67		52	6	
	68		59	7	
	69		506	7	
31	70		14	8	
	71		18	9	
	72		26	8	
	73		34	8	
	74		44	10	
	75		53	9	
	76		59	6	
	77		505	6	
	78		11	6	
	79		17	8	
31	80		26	9	
	81		31	5	
	82		36	5	
	83		44	8	
	84		54	10	
	85		601	7	
	86	607	18	11	CONN
	87		26	8	
	88		34	8	
	89		42	8	
31	90		52	10	
	91		702	10	
	92		11	9	
	93		21	10	
	94		30	9	
	95		38	8	
	96		47	9	
	97		55	8	
	98	800	8	5	
	99		15	7	
32	06		25	10	

Actual time is spent in drilling. Shut down time, round trips, changing bits, repairs, etc., also condition and type of bit, should be noted under "REMARKS."

31-156 (8-71)

CITIES SERVICE OIL COMPANY
DRILLING TIME LOG

COMPANY Helberg oil Co NO. A-1 FARM Hillman

LOCATION _____ COUNTY Trego STATE Kan

WEIGHT ON DRILL PIPE _____ MUD WEIGHT _____ R.P.M. _____ MUD VISCOSITY _____

DEPTH From	DEPTH To	DRILLING TIME Began	DRILLING TIME Ended	Actual Time	REMARKS
3200	1	9:25	9:31	6	
	2		37	6	
	3		44	7	
	4		51	7	
	5		56	5	
	6		9:02	6	
	7		10	8	
	8		17	7	
	9		26	9	
32	10		37	11	
	11		47	10	
	12		57	10	
	13		10:06	9	
	14		16	10	
	15		23	9	
	16	10:29	42	13	CONN
	17		51	9	
	18		11:00	9	
	19		11	11	
32	20		21	10	
	21		27	6	
	22		36	9	
	23		47	9	
	24		57	10	
	25		12:04	7	
	26		12	8	
	27		21	9	
	28		30	9	
	29		35	5	
32	30		40	5	
	31		51	11	
	32	1:00	1:12	12	Pump
	33		22	10	
	34		27	5	
	35		31	4	
	36		37	6	
	37		42	5	
	38		48	6	
	39		55	7	
32	40		2:06	11	
	41		16	10	
	42		25	9	
	43		33	8	
	44	2:41	51	10	Conn
	45		3:03	12	
	46		11	8	
	47		18	7	

Actual time is spent in drilling. Shut down time, round trips, changing bits, repairs, etc., also condition and type of bit, should be noted under "REMARKS."

31-156 (8-71)

CITIES SERVICE OIL COMPANY
DRILLING TIME LOG

COMPANY Helberg Oil Co. NO. A-1 FARM Hellman

LOCATION _____ COUNTY Trego STATE Kansas

WEIGHT ON DRILL PIPE _____ MUD WEIGHT _____ R.P.M. _____ MUD VISCOSITY _____

DEPTH From	DEPTH To	DRILLING TIME Began	DRILLING TIME Ended	Actual Time	REMARKS
3247	48	3:18	24	6	
	49		32	8	
32	50		41	9	
	51		51	10	
	52		4:00	9	
	53		8	8	
	54		14	6	
	55		20	6	
	56		27	7	
	57		36	9	
	58		43	7	
	59		51	8	
32	60		5:00	9	
	61		10	10	
	62		19	9	
	63		25	6	
	64		28	3	
	65		33	5	
	66		40	7	
	67		48	8	
	68		54	6	
	69		58	4	
32	70		6:03	5	
	71		9	6	
	72		14	5	
	73		18	4	
	74		23	5	
	75	1:29	29 34	5	Conn. DTS-38 Mt 10.2
	76		45	11	
	77		52	7	
	78		57	5	
	79	7:02	02	5	
32	80		08	6	
	81		14	6	
	82		21	7	
	83		28	7	
	84		35	7	
	85		44	9	
	86		51	7	
	87	7:58	58	7	
	88	8:04	04	6	Dual Lat.
	89		06	2	
32	90		10	4	
	91		14	4	
	92		18	4	
	93		21	3	
	94		28	7	

Actual time is spent in drilling. Shut down time, round trips, changing bits, repairs, etc., also condition and type of bit, should be noted under "REMARKS."

31-156 (8-71)

CITIES SERVICE OIL COMPANY
DRILLING TIME LOG

COMPANY Helberg oil Co. NO. A.#1 FARM Hilman.

LOCATION _____ COUNTY Trego. STATE Kans.

WEIGHT ON DRILL PIPE _____ MUD WEIGHT _____ R.P.M. _____ MUD VISCOSITY _____

DEPTH From	DEPTH To	DRILLING TIME Began	DRILLING TIME Ended	Actual Time	REMARKS
9#	9#~~15~~	8:28	~~28~~ 36	8	circ 1 hr 15 min)
	9:	9:50	~~54~~ 1000	(	
	97	10:00	10	10	
	98		17	7	
	99		25	8	
3360	3300		33	8	
	01		42	9	
	02		50	8	
	3	11:00	11	10	Conn.
	4	12:09	~~08~~ 15	6	
3305	5		23	8	
	6		30	7	
	7		36	6	
	8		44	8	
	9		51	7	
3310	10	12:02	02	11	Mix Mud.
	11		07	5	
	12		12	5	
	13		18	6	pump pressured up.
	14		~~23~~ 27	4	
3315	15		36	9	
	16		46	10	
	17	1:00	1:00	14	
	18		04	6	
	19		13	7	
3320	20		18	5	
	21		21	3	
	22		24	3	
	23		28	4	
	24		32	4	
3325	25		36	3	
	26		39	4	pump 16 min pump.
	27	1:57	~~57~~ 1:01	4	
	28		03	2	
	29		05	2	
3330	30		10	5	
	31		15	5	
	32		20	5	
	33		25	5	Conn.
	34		~~30~~ 37	7	
3335	35		46	9	
	36		56	10	
	37		2 30	6	
	38		13	11	
	39		24	11	
3340	40		34	10	

Actual time is spent in drilling. Shut down time, round trips, changing bits, repairs, etc., also condition and type of bit, should be noted under "REMARKS."

31-156 (8-71)

CITIES SERVICE OIL COMPANY
DRILLING TIME LOG

COMPANY _____ NO. _____ FARM _____

LOCATION _____ COUNTY _____ STATE _____

WEIGHT ON DRILL PIPE _____ MUD WEIGHT _____ R.P.M. _____ MUD VISCOSITY _____

DEPTH From	DEPTH To	DRILLING TIME Began	DRILLING TIME Ended	Actual Time	REMARKS
3340	41	334	42	8	
	42		49	7	
	43		56	7	
	44		505	9	
	45		13	8	
	46		20	7	
	47		30	10	
	48		38	8	
	49		45	7	
33	50		54	9	
	51		58	4	
	52		604	6	
	53		12	6	
	54		21	9	
	55		32	11	
	56		43	11	
	57		52	9	
	58		601	9	
	59		8	7	
	60		15	7	
	61		19	4	
	62		23	4	
	63		28	5	
	64		34	6	
	65	638	45	7	COMM
	66		54	9	
	67		704	10	
	68		15	11	
	69		25	10	
	70		36	11	
	71		44	8	
	72		50	6	
	73		54	4	
	74		59	5	
	75	800	6	6	
	76		12	6	
	77		21	9	
	78		27	6	
	79		32	5	
	80		38	6	
	81		44	6	
	82		47	3	
	83		51	4	
	84		554		
	85		9:09	5	

Actual time is spent in drilling. Shut down time, round trips, changing bits, repairs, etc., also condition and type of bit, should be noted under "REMARKS."

Geol. 84 -

CITIES SERVICE OIL COMPANY

DRILLING TIME LOG

COMPANY Helberg oil Co NO. A-1 FARM Hillman

LOCATION _____ COUNTY Trego STATE Kansas

WEIGHT ON DRILL PIPE _____ MUD WEIGHT _____ R.P.M. _____ MUD VISCOSITY _____

DEPTH From	DEPTH To	DRILLING TIME Began	DRILLING TIME Ended	Actual Time	REMARKS
3385	86	9:00	2	2	
	87		5	3	
	88		10	5	
	89		21	11	
	90		34	13	C & S
	91	10:28	36	8	
	92		45	9	
	93		53	8	
	94	11:00	10	10	Conn
	95		19	9	
	96		29	10	
	97		37	8	
	98		45	8	
	99		53	8	
34	00		1200	7	
	1		7	7	
	2		15	8	
	3		25	10	
	4		32	7	
	5		39	7	
	6		50	11	
	7		1:01	11	
	8		10	9	
	9		20	10	
34	10		28	8	
	11		34	6	
	12		41	7	
	13		50	9	
	14		56	6	
	15		2:05	9	
	16		11	6	
	17		13	2	
	18		19	6	
	19		24	5	
34	20		30	6	
	21		39	9	
	22		43	4	
	23		48	5	
	24		55	7	
	25	3:01	14	13	Conn
	26		24	10	
	27		35	11	
	28		45	10	
	29		54	9	
34	30		4:03	9	
	31		11	8	
	32		18	9	

Actual time is spent in drilling. Shut down time, round trips, changing bits, repairs, etc., also condition and type of bit, should be noted under "REMARKS."

Geol. 84 -

CITIES SERVICE OIL COMPANY

DRILLING TIME LOG

COMPANY Helberg and Co NO. A-1 FARM Hillman

LOCATION _____ COUNTY Trego STATE Kansas

WEIGHT ON DRILL PIPE _____ MUD WEIGHT _____ R.P.M. _____ MUD VISCOSITY _____

DEPTH From	DEPTH To	DRILLING TIME Began	DRILLING TIME Ended	Actual Time	REMARKS
3432	33	4:18	25	7	
	34		33	8	
	35		41	8	
	36		50	9	
	37		59	9	
	38		5:08	9	
	39		18	10	
34	40		27	9	
	41		36	9	
	42		46	10	
	43		55	9	
	44		6:03	8	
	45		13	10	
	46		25	12	
	47		35	10	
	48		45	10	
	49		56	11	
34	50	7:05	65	9	Rig 39 mud 10-2
	51		13	8	
	52		19	6	
	53		26	7	
	54		34	8	Comm
	55	7:42	~~42~~ 45	3	
	56		50	5	
	57		52	2	
	58		55	3	
	59		58	3	
34	60	8:03	03	5	Dual Chuck
	61		11	7	
	62		17	6	
	63		25	8	
	64		34	9	
	65		40	6	
	66		50	10	
	67	8:57	57	7	
	68	9:04	04	7	
	69		10	6	
34	70		18	8	
	71		25	7	
	72		34	9	
	73		40	6	
	74		47	7	
	75	10:05	15	8	
	76		59	8	
	77	10:64	11:04	15	
	78		11	7	
	79		18	7	

Actual time is spent in drilling. Shut down time, round trips, changing bits, repairs, etc., also condition and type of bit, should be noted under "REMARKS."

Geol. 84 -

CITIES SERVICE OIL COMPANY

DRILLING TIME LOG

COMPANY Kelberg oil Co, NO. #1 FARM Killam,

LOCATION _____ COUNTY Trego, STATE Kan.

WEIGHT ON DRILL PIPE _____ MUD WEIGHT 10-2 R.P.M. 56 MUD VISCOSITY 39.

DEPTH From	DEPTH To	DRILLING TIME Began	DRILLING TIME Ended	Actual Time	REMARKS
3479	3480	10:25	1:25	7	
	81		31	4	
	82		36	5	
	83	10:31	43	7	
	84	11:58	2:54	11	Coring
	85	12:09	18	9	worked on pump 1 hr 20 min
	86		27	9	
	87		34	7	
	88		43	9	
	89		49	6	
34-	90		56	7	
	91	1:03	03	7	
	92		10	7	
	93		17	7	
	94		25	8	
34-	95		31	6	
	96		39	8	
	97		47	8	pump air locked
	98		50 54	6	
	99	2:03	03	7	
35.0	3500		10	7	
	01		15	5	
	2		23	8	
	3		28	5	
	4		35	7	
35	5		42	7	
	6		49	7	
	7		57	8	
	8		3:02	5	
	9		6	4	
35	10		9	3	
	11		16	7	
	12		24	8	
	13		31	7	
	14		38	7	
35-	15	3:43	51	9	
	16		4:01	10	
	17		9	8	
	18		14	5	
	19		22	6	
35-	20		29	7	
			37	8	

Actual time is spent in drilling. Shut down time, round trips, changing bits, repairs, etc., also condition and type of bit, should be noted under "REMARKS."

Geol. 84 -

CITIES SERVICE OIL COMPANY

DRILLING TIME LOG

COMPANY Helberg oil Co NO. A-1 FARM Hellman

LOCATION _____ COUNTY trego STATE Kansas

WEIGHT ON DRILL PIPE _____ MUD WEIGHT _____ R.P.M. _____ MUD VISCOSITY _____

DEPTH From	DEPTH To	DRILLING TIME Began	DRILLING TIME Ended	Actual Time	REMARKS
3520	21	9:29	37	8	
	22		45	8	
	23		52	7	
	24		500	8	
	25		8	8	
	26		16	8	
	27		24	8	
	28		32	8	
	29		38	6	
35	30		44	6	
	31		51	7	
	32		57	6	
	33		607	10	
	34		19	7	
	35		29	10	
	36		33	9	
	37		41	8	
	38		49	8	
	39		58	9	
35	40		709	11	
	41		19	10	
	42		27	8	
	43		35	8	
	44		41	6	
	45		50	9	
	46		56	6	
	47	805	12	7	CONN
	49		15	3	
	49		22	7	
35	50		29	7	
	51		38	9	
	52		47	9	
	53		57	10	
	54		908	11	
	55		17	9	
	56		27	10	
	57		35	8	
	58		44	9	
	59		52	8	
25	60		1002	10	
	61		12	10	
	62		22	10	
	63		30	8	
	64		39	9	
	65		45	6	

Actual time is spent in drilling. Shut down time, round trips, changing bits, repairs, etc., also condition and type of bit, should be noted under "REMARKS."

Geol. 84

CITIES SERVICE OIL COMPANY

DRILLING TIME LOG

COMPANY Hebberg oil Co NO. A-1 FARM Hillmon

LOCATION _____ COUNTY Trego STATE Kansas

WEIGHT ON DRILL PIPE _____ MUD WEIGHT _____ R.P.M. _____ MUD VISCOSITY _____

DEPTH From	DEPTH To	DRILLING TIME Began	DRILLING TIME Ended	Actual Time	REMARKS
3545	66	10:45	54	9	
	67		1103	9	
	68		14	11	
	69		24	10	
	70		35	10	
	71		45	10	
	72		54	9	
	73		12:04	10	
	74		15	11	
35	75		22	7	
	76		32	10	
	77		41	9	
	78		50	9	
	79	12:36	1:06	11	Conn
35	80		16	10	
	81		24	8	
	82		31	7	
	83		39	8	
	84		47	8	
	85		56	9	
	86		2:04	8	
	87		12	8	
	88		18	6	
	89		24	6	
35	90		32	8	
	91		41	9	CFS.
	92	3:32	36	4	
	93		45	9	
	94		54	9	
	95		4.06	12	
	96		16	10	
	97		24	8	
	98		34	10	
	99		42	8	
36	00		51	9	
	1		5:00	9	
	2		10	10	
	3		19	9	
	4		29	10	
	5		40	11	
	6		52	12.	
	7		6:02	10	
	8		10	8	
	9	6:16	28	12	Conn
36	10		39	11	No 38 Mud 102
	11		52	13	
	12		56	4	

Actual time is spent in drilling. Shut down time, round trips, changing bits, repairs, etc., also condition and type of bit, should be noted under "REMARKS."

Geol. 84 -

CITIES SERVICE OIL COMPANY

DRILLING TIME LOG

COMPANY Shellmont Co. NO. _____ FARM _____

LOCATION _____ COUNTY Tioga STATE Texas

WEIGHT ON DRILL PIPE _____ MUD WEIGHT _____ R.P.M. _____ MUD VISCOSITY _____

DEPTH From	DEPTH To	DRILLING TIME Began	DRILLING TIME Ended	Actual Time	REMARKS
3612	13	~~5:04~~	56	8	
	14	7:09	09	5	
	15	7:20	30	11	
	16		27	7	
	17		34	7	
	18		41	7	
	19	7:50	56	9	
36	20		55	6	
	21	8:02	02	7	
	22	09	09	7	
	23		22	23	
	24		33	11	
	25	2:15	~~15~~ 23	8	Bit Trip on Bottom 1.15
	26		30	7	Circ. Rec.
	27		36	6	Mixed Mud.
	28		46	10	
	29		57	11	
36	30		307	10	
	31		15	8	Coll. Wob.
	32		22	7	
	33		27	5	
	34		31	4	
36-	35		34	3	
	36		36	2	
	37		40	4	
	38		47	7	
	39	450	59	7	CONN.
36-	40		9	10	
	41		18	9	
	42		28	10	
	43		32	4	
	44		36	4	
	45		42	6	
	46		48	6	
	47		53	5	
	48		601	8	
	49		9	8	
36	50		17	8	CFS
	51	650	56	6	
	52		706	10	
	53		16	10	
	54		23	7	
36	55		32	9	

Actual time is spent in drilling. Shut down time, round trips, changing bits, repairs, etc., also condition and type of bit, should be noted under "REMARKS."

Geol. 84 -

CITIES SERVICE OIL COMPANY

DRILLING TIME LOG

COMPANY Helberg oil Co NO. A-1 FARM Hillman

LOCATION _____ COUNTY Trego STATE Ks

WEIGHT ON DRILL PIPE _____ MUD WEIGHT _____ R.P.M. _____ MUD VISCOSITY _____

DEPTH		DRILLING TIME		Actual	
From	To	Began	Ended	Time	REMARKS
3655	56	7:32	42	10	
	57		52	10	
	58		803	11	
	59	805	12	7	
36	60		23	11	
	61		33	10	
	62		46	13	
	63		57	11	
	64		907	10	
	65		19	12	
	66		29	10	
	67		40	11	
	68		49	9	
	69		56	7	
36	70	1010	22	12	CONN
	71		32	8	
	72		43	11	
	73		54	11	
	74		11:04	10	
	75		17	13	
	76		27	10	
	77		36	9	
	78		46	10	
	79		55	9	
36	80		12:05	10	
	81		17	12	
	82		32	15	
	83		39	7	
	84		46	7.	
	85		56	10	
	86		1:03	7	
	87		13	10	
	88		22	9	
	89		32	10	
36	90		42	10	
	91		51	9	
	92		2:02	11	
	93		13	11	
	94		24	11	
	95		35	11	
	96		46	11	
	97		56	10	
	98		3:07	11	
	99		18	11	
37	00	3:25	35	10	Conn.
	1		44	9	
	2		52	8	

Actual time is spent in drilling. Shut down time, round trips, changing bits, repairs, etc., also condition and type of bit, should be noted under "REMARKS."

Geol. 84 -

CITIES SERVICE OIL COMPANY

DRILLING TIME LOG

COMPANY Helberg oil Co. NO. A-1 FARM Hillman

LOCATION _____ COUNTY Trego STATE Kansas

WEIGHT ON DRILL PIPE _____ MUD WEIGHT 10-1 R.P.M. 55 MUD VISCOSITY 38-

DEPTH From	DEPTH To	DRILLING TIME Began	DRILLING TIME Ended	Actual Time	REMARKS
3702	3	3:52	4:01	9	
	4		10	9	
	5		19	9	
	6		27	8	
	7		36	9	
	8		45	9	
	9		54	9	
37	10	5:04	5:04	10	
	11		13	9	
	12		23	10	
	13		30	7	
	14		38	8	
	15		48	10	
	16		56	8	
	17	6:06	06	10	
	18		15	9	
	19		23	8	
37	20		32	9	
	21		40	8	
	22		51	11	
	23		59	8	
	24	7:06	06	7	
	25		17	11	
	26		24	7	
	27		31	7	
	28		39	8	Conn.
	29		~~45~~ 54	9	
37	30	8:00	~~8:00~~ 00	9	Drl Shut time 6 min.
	31		14	6	
	32		20	4	
	33		24	4	
	34		34	10	
	35		42	8	
	36		51	9	
	37	9:00	9:00	9	
	38		10	10	
	39		20	10	
37	40		30	10	
	41	10:05	~~58~~ 05	7	worked on air hose.
	42		18	13	
	43		27	9	
	44		38	11	
	45		47	9	
	46		56	9	
	47	11:07	07	9	
	48		13	6	
	49		22	9	

Actual time is spent in drilling. Shut down time, round trips, changing bits, repairs, etc., also condition and type of bit, should be noted under "REMARKS."

Geol. 84 -

CITIES SERVICE OIL COMPANY

DRILLING TIME LOG

COMPANY Kelly Oil Co. NO. _____ FARM Wilson

LOCATION _____ COUNTY Tioga STATE Penn.

WEIGHT ON DRILL PIPE _____ MUD WEIGHT 10:3 R.P.M. _____ MUD VISCOSITY 43

DEPTH From	DEPTH To	DRILLING TIME Began	DRILLING TIME Ended	Actual Time	REMARKS
3749	4750		2231	9	
	51		42	11	
	52		53	11	
	53	12:00	12:00	7	
	54		10	10	
37-	55		21	11	
	56		33	12	
	57		41	8	
	58		51	10	Comm.
	59	12:59	59 10	11	
37-	60	1:16	21	11	
	61		33	12	
	62		45	12	
	63		57	12	
	64	2:09	09	12	
37-	65	2:19	19	10	Stage. circ.
	66	6:03	9	6	
	67		17	8	
	68		24	7	
	69		34	10	
37-	70		44	10	
	71		52	8	
	72	7:00	7:00	8	Mud 43 - Wt 10-3
	73		07	7	
	74		15	8	
37-	75		21	6	
	76		29	8	
	77		40	11	
	78		48	8	
	79	7:48	48 80T.	9	Dead Time Last 15 min.
37-	80		16	9	
	81		25	9	
	82		33	8	
	83		43	10	
	84		54	11	
37-	85	9:01	01	7	
	86		05	4	
	87		10	5	
	88		15	5	
	89		22	7	
37-	90		27	5	Comm.
	91	9:35	95 41	6	
	92		48	7	
	93		55	7	
	94	10:01	10 01	6	
37-	95		07	6	
			13	6	

Actual time is spent in drilling. Shut down time, round trips, changing bits, repairs, etc., also condition and type of bit, should be noted under "REMARKS."

Geol. 84 -

CITIES SERVICE OIL COMPANY

DRILLING TIME LOG

COMPANY Kilberg oil Co. NO. _____ FARM Hellman.

LOCATION _____ COUNTY Trego STATE Kans.

WEIGHT ON DRILL PIPE _____ MUD WEIGHT 10-3 R.P.M. _____ MUD VISCOSITY 43

DEPTH From	DEPTH To	DRILLING TIME Began	DRILLING TIME Ended	Actual Time	REMARKS
3795	96 97	10 13	13 20	7	
	98		28	8	
	99		36	8	
38.00	3800		45	9	
	1		55	10	
	2	11:05	05	10	
	3		13	8	
	4		22	9	
38-	5		32	10	
	6		43	11	
	7		51	8	
	8		59	8	
	9	12:07	07	8	
38-	10		15	8	
	11		20	5	
	12		25	5	
	13		28	3	
	14		33	5	
38-	15		38	5	
	16		45	6	
	17		51	6	
	18		58	7	
	19	1:05	05	7	
38-	20		11	6	Comm.
	21		17 17	10	
	22		35	8	Mis MZ- Wt. 10-2.
	23		44	9	
	24		54	10	
38-	25	2:04	04	10	
	26		14	10	
	27		23	9	
	28		31	8	
	29		38	7	
39-	30		47	10	
	31		58	11	
	32		3:11	13	
	33		24	13	
	34		35	11	
38-	35		47	12	
	36		59	12	
	37		4 10	11	
	38		20	10	
	39		29	9	
38-	40		38	9	

Actual time is spent in drilling. Shut down time, round trips, changing bits, repairs, etc., also condition and type of bit, should be noted under "REMARKS."

Geol. 84 -

CITIES SERVICE OIL COMPANY

DRILLING TIME LOG

COMPANY Helberg oil Co. NO. _____ FARM Kilmer

LOCATION _____ COUNTY Treyo STATE Kans

WEIGHT ON DRILL PIPE _____ MUD WEIGHT _____ R.P.M. _____ MUD VISCOSITY _____

DEPTH From	DEPTH To	DRILLING TIME Began	DRILLING TIME Ended	Actual Time	REMARKS
3840	41	438	49	11	
	42		502	12	
	43		12	10	
	44		20	8	
	45		30	10	
	46		40	10	
	47		50	10	
	48		54	9	
	49		607	8	
38	50	614	24	10	Conn
	51		36	12	
	52		43	9	
	53		51	8	
	54		702	11	
	55		14	12	
	56		24	10	
	57		36	12	
	58		48	12	
	59	8:00	8	8	
38	60		22	14	
	61		35	13	
	62		42	7	
	63		53	11	
	64		902	9	
	65		13	11	
	66		21	8	
	67		29	8	
	68		40	11	
	69		52	12	
38-	70		1002	10	
	71	10-13	13	11	
	72	1240	~~40~~ 44	4	On Bottom 1140 Circ 1 hr.
	73		52	8	
	74	1:02	02	10	
38-	75		10	8	
	76		19	9	
	77		27	8	
	78		36	9	
	79		43	7	Conn.
38-	80	2:00	~~50~~ 2:00	10	
	81		12	12	
	82		21	9	
	83		30	9	
	84		42	12	
38-	85		53	13	
	86		307	14	
	87		20	13	

Actual time is spent in drilling. Shut down time, round trips, changing bits, repairs, etc., also condition and type of bit, should be noted under "REMARKS."

Geol. 84 -

CITIES SERVICE OIL COMPANY

DRILLING TIME LOG

COMPANY Helberg Oil Co NO. A-1 FARM Hillman

LOCATION _____ COUNTY Trego STATE Ks

WEIGHT ON DRILL PIPE _____ MUD WEIGHT _____ R.P.M. _____ MUD VISCOSITY _____

DEPTH From	DEPTH To	DRILLING TIME Began	DRILLING TIME Ended	Actual Time	REMARKS
3887	88	320	334	14	
	89		46	12	
	90		59	13	
	91		11	12	
	92		22	11	
	93		36	14	
	94		48	12	
	95		500	12	
	96		13	13	
	97		25	12	
	98		35	10	
	99		45	10	
39	00		56	11	
	1		608	14	
	2		19	11	
	3		30	11	
	4		42	12	
	5		55	13	
	6		709	14	
	7		18	9	
	8		27	9	
	9		36	9	CONN
39	10	242	52	10	
	11	724	32	8	Pump
	12		47	15	
	13		902	15	
	14		10	8	
	15		27	17	
	16		47	20	
	17		1003	16	
	18		20	17	
	19		25	5	
39	20		31	6	
	21		38	7	
	22		44	6	
	23		51	7	
	24		58	7	
	25		1104	6	
	26		10	6	
	27		16	6	
	28		24	8	
	29		32	8	
39	30		40	8	
	31		47	7	
	32		55	8	
	33		1201	6	
	34		7	6	3940 coll

Actual time is spent in drilling. Shut down time, round trips, changing bits, repairs, etc., also condition and type of bit, should be noted under "REMARKS."

Geol. 84 -

CITIES SERVICE OIL COMPANY

DRILLING TIME LOG

COMPANY _____ NO. _____ FARM _____

LOCATION _____ COUNTY _____ STATE _____

WEIGHT ON DRILL PIPE _____ MUD WEIGHT _____ R.P.M. _____ MUD VISCOSITY _____

DEPTH From	DEPTH To	DRILLING TIME Began	DRILLING TIME Ended	Actual Time	REMARKS
3934	35	12:07	12	5	
	36		17	5	
	37		22	5	
	38		27	5	
	39		32	5	
39	40	12:39	49	10	Conn
	41		59	10	
	42		1:05	6	
	43		14	9	
	44		29	15	
	45		45	16	
	46		53	8	
	47		2:06	13	
	48		15	9	
	49		24	9	
39	50		32	8	
	51		44	12	
	52		3:00	16	
	53		17	17	
	54		29	12	
	55		52	23	
	56		4:11	19	
	57		29	18	
	58		47	18	
	59		5:06	19	
39	60		22	16	CFS.
	61	6:02	20	18	
	62		38	18	
	63		53	15	
	64	12:48	~~48~~ 58	10	Bit Trip, 1 hr Circ.
	65	109	09	11	
	66		24	15	
	67		37	13	
	68		45	8	
	69		58	13	
39	70	2:07	~~07~~ 17	10	Conn.
	71		30	13	
	72		47	17	
	73		12	24	
	74		26	14	
39-	75		40	14	Bit Trip
	76	9 35	49	14	
	77		1602	13	
	78		15	13	
	79		25	10	
39-	80		37	12	

Actual time is spent in drilling. Shut down time, round trips, changing bits, repairs, etc., also condition and type of bit, should be noted under "REMARKS."

Geol. 84 -

CITIES SERVICE OIL COMPANY

DRILLING TIME LOG

COMPANY Helbig oil Co NO. 41-1 FARM Hellmann

LOCATION _____ COUNTY Trego STATE Kansas

WEIGHT ON DRILL PIPE _____ MUD WEIGHT _____ R.P.M. _____ MUD VISCOSITY _____

DEPTH From	DEPTH To	DRILLING TIME Began	DRILLING TIME Ended	Actual Time	REMARKS
3980	81	1037	47	10	
	82		55	8	
	83		11:04	9	
	84		8	4	
	85		19	11	
	86		30	11	
	87		36	6	
	88		51	15	
	89		56	5	
	90		12:00	4	
	91		10	10	
	92		18	8	
	93		25	7	
	94		32	7	
	95		40	8	
	96		44	4	
	97		49	5	
	98		59	10	
	99		1:04	5	
40	00	1:14	25	11	Conn.
	1		39	14	
	2		50	11	
	3		57	7	
	4		2:01	4	
	5		9	8	stop
	6		19	10	
	7		28	9	
	8		34	6	
	9		41	7	
40	10		52	11	
					4054

Actual time is spent in drilling. Shut down time, round trips, changing bits, repairs, etc., also condition and type of bit, should be noted under "REMARKS."