

CONFIDENTIAL

ORIGINAL

SCIENTIFIC DRILLING

OKLAHOMA CITY OK

KCC

FEB 26

CONFIDENTIAL

Well Name : YOUNGGREN H-2H
 Location : STEVENS CO. KANSAS
 SHL :
 BHL :
 ACTUAL BHL : 12/04/97
 : ~~OCTOBER 19 1997~~
 : 34H997362
 Survey Performed By : MIKE McSPERITT AND JOE NORRIS

RELEASED

MAR 28 2001

FROM CONFIDENTIAL

34H997362

This survey is correct to the best of my knowledge and is supported by actual field data.

Boyd Darlington

BOYD DARLINGTON / DRILLING ENGR
 COMPANY REPRESENTATIVE

CONFIDENTIAL
ORIGINAL

15-189-22261-0100

SCIENTIFIC DRILLING

:
Well Name : YOUNGGREN H-2H
Location : STEVENS CO. KANSAS
SHL :
BHL :
ACTUAL BHL :
Height Of WELLSITE Datum Above Field Datum 0.00 ft

Date OCTOBER 19 1997
Filename : YOUNG

No Interpolation

Plane of Vertical Section : 180.0°
Latitude & Departure relate to : SLOT CENTRE
Vertical Section Originates at : SLOT CENTRE
Slot Coordinates : Lat 0.000ft
: Dep 0.000ft
Directions Referenced To : GRID NORTH
Depth at Drill Floor : 0.00 ft

Calculation Method : MINIMUM CURVATURE

Points of Interest
NO DATA

Magnetic Declination : +0.00°
WELLSITE North : +0° 0' 0" (T)
Grid convergence : +0.0000°

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FEB 27 1997

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SCIENTIFIC DRILLING

Well Name : YOUNGGREN H-2H
 Location : STEVENS CO. KANSAS
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Page 1 of 1
 Date OCTOBER 19 1997
 Filename : YOUNG

No Interpolation

MD	INC	DIR	TVD	LAT	DEP	VS	D'LEG	BUILD	TURN	TOOL	C/L
ft	deg	deg	ft	ft	ft	ft	*/100	*/100	*/100		ft
2051	1.0	304.2	2050	5	-22	-5	0.0	0.0	0.0		0
2185	0.5	18.0	2185	6	-23	-6	0.7	-0.4	54.8		135
2217	5.0	183.0	2217	5	-23	-5	17.1	14.1	99.0		32
2248	10.4	183.0	2247	1	-23	-1	17.4	17.4	0.0		31
2280	15.8	183.0	2279	-6	-24	6	16.9	16.9	0.0		32
2310	21.0	182.0	2307	-16	-24	16	17.4	17.3	-3.3		30
2342	26.8	181.0	2336	-29	-24	29	18.2	18.1	-3.1		32
2373	32.7	179.0	2363	-44	-24	44	19.3	19.0	-6.5		31
2404	38.1	179.0	2388	-62	-24	62	17.4	17.4	0.0		31
2436	41.5	179.0	2413	-82	-24	82	10.6	10.6	0.0		32
2467	46.0	179.0	2435	-104	-23	104	14.5	14.5	0.0		31
2497	49.0	180.0	2456	-126	-23	126	10.3	10.0	3.3		30
2528	50.0	180.0	2476	-149	-23	149	3.2	3.2	0.0		31
2560	50.2	180.0	2496	-174	-23	174	0.6	0.6	0.0		32
2590	51.0	180.0	2515	-197	-23	197	2.7	2.7	0.0		30
2623	55.0	179.5	2535	-224	-23	224	12.2	12.1	-1.5		33
2655	57.0	179.4	2553	-250	-23	250	6.3	6.2	-0.3		32
2702	65.2	180.0	2576	-291	-23	291	17.5	17.4	1.3		47
2732	71.3	179.0	2587	-319	-22	319	20.6	20.3	-3.3		30
2763	74.4	178.0	2596	-349	-21	349	10.5	10.0	-3.2		31
2793	74.7	178.0	2604	-378	-20	378	1.0	1.0	0.0		30
2824	77.3	178.0	2612	-408	-19	408	8.4	8.4	0.0		31
2854	83.0	177.0	2617	-437	-18	437	19.3	19.0	-3.3		30
2911	90.1	176.2	2620	-494	-15	494	12.5	12.5	-1.4		57
2942	89.0	176.3	2620	-525	-13	525	3.6	-3.5	0.3		31
2974	88.4	176.0	2621	-557	-11	557	2.1	-1.9	-0.9		32
3006	87.9	176.5	2622	-589	-8	589	2.2	-1.6	1.6		32
3038	88.0	177.5	2623	-621	-7	621	3.1	0.3	3.1		32
3070	88.2	177.0	2624	-653	-5	653	1.7	0.6	-1.6		32
3101	88.2	176.8	2625	-683	-4	683	0.6	0.0	-0.6		31
3135	88.6	176.6	2626	-717	-2	717	1.3	1.2	-0.6		34
3167	88.7	178.0	2627	-749	-0	749	4.4	0.3	4.4		32
3199	89.2	177.0	2628	-781	1	781	3.5	1.6	-3.1		32
3231	89.5	177.0	2628	-813	3	813	0.9	0.9	0.0		32
3262	89.5	177.0	2628	-844	5	844	0.0	0.0	0.0		31

1008

3294	89.7	178.6	2628	-876	6	876	5.0	0.6	5.0	32
3325	90.1	178.0	2629	-907	7	907	2.3	1.3	-1.9	31
3357	90.4	177.0	2628	-939	8	939	3.3	0.9	-3.1	32
3389	90.4	177.0	2628	-971	10	971	0.0	0.0	0.0	32
3420	90.1	177.0	2628	-1002	11	1002	1.0	-1.0	0.0	31
3447	90.2	177.0	2628	-1029	13	1029	0.4	0.4	0.0	27
3479	90.6	177.0	2628	-1061	14	1061	1.3	1.3	0.0	32
3511	91.1	177.0	2627	-1093	16	1093	1.6	1.6	0.0	32
3542	91.9	177.0	2626	-1124	18	1124	2.6	2.6	0.0	31
3574	92.6	178.0	2625	-1156	19	1156	3.8	2.2	3.1	32
3606	92.7	177.0	2624	-1188	21	1188	3.1	0.3	-3.1	32
3638	92.5	178.0	2622	-1220	22	1220	3.2	-0.6	3.1	32
3675	92.5	178.0	2621	-1257	23	1257	0.0	0.0	0.0	37
3706	92.5	178.0	2619	-1288	24	1288	0.0	0.0	0.0	31
3738	92.5	177.0	2618	-1320	26	1320	3.1	0.0	-3.1	32
3767	91.8	178.0	2617	-1349	27	1349	4.2	-2.4	3.4	29
3796	90.5	178.0	2616	-1377	28	1377	4.5	-4.5	0.0	29
3829	88.9	177.0	2616	-1410	29	1410	5.6	-4.7	-3.0	33
3866	89.6	178.0	2617	-1447	31	1447	3.2	1.8	2.7	37
3897	88.4	179.0	2617	-1478	32	1478	5.0	-3.9	3.2	31
3929	88.3	178.0	2618	-1510	33	1510	3.1	-0.3	-3.1	32
3961	89.9	178.0	2619	-1542	34	1542	5.0	5.0	0.0	32
3992	90.1	179.0	2619	-1573	35	1573	3.3	0.6	3.2	31
4023	88.6	179.0	2619	-1604	35	1604	4.8	-4.8	0.0	31
4055	89.5	179.0	2620	-1636	36	1636	2.8	2.8	0.0	32
4087	88.6	178.0	2620	-1668	37	1668	4.2	-2.8	-3.1	32
4119	87.7	178.0	2621	-1700	38	1700	2.8	-2.8	0.0	32
4151	87.5	178.0	2623	-1732	39	1732	0.6	-0.6	0.0	32
4183	87.8	179.0	2624	-1764	40	1764	3.3	0.9	3.1	32
4283	89.0	177.0	2627	-1864	43	1864	2.3	1.2	-2.0	100
4387	87.0	179.0	2630	-1968	47	1968	2.7	-1.9	1.9	104
4514	87.0	179.0	2637	-2095	49	2095	0.0	0.0	0.0	127
			TVD	N/-S	E/-W	VS				

Origin of Bottom Hole Closure SLOT
 Bottom Hole Closure 2095 ft 178.7°

THANK YOU FOR THE WORK ,MIKE

	1250	1040
	2095 S	-49 E
	3345	991
	FNL	FEL
<u>OR</u>	1935	991
	FSL	FEL

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MAR 28 2001

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