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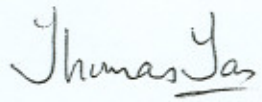
Attn: Mr. Paul Morris

Dear Paul,

Further to your query, the 3.1A-1900 and 3.1B-600 data files when run with the current version of Exotherm will inject at the target steam rate (100 m3/d). When run with the Dr Ali version of 2003, the model injects at a rate (~70 m3/d), less than target. This is a result of a specific roundoff error in the 2003 version occurring when the Injectivity well index is set exactly at a value of 10000. With an II/PI set using the theoretical Peaceman calculation, both current and Dr Ali's version will inject at the same target rates. This specific roundoff problem was corrected in January, 2004

New versions of Exotherm have been downward compatible with earlier data sets. Thus data sets created in a 2003 version can be read in a 2005 version.

Yours truly,



Thomas Tan, Ph.D., P.Eng.

Run 3.1B600PM2July17														
Uses internal well indices														
Date	Current OIL RATE M3/D	Current WATER RATE M3/D	Current GAS RATE E3M3/D	INJ STEAM RATE M3/D	INJ SOR RATE M3/M3	WOR M3/M3	OIL REC %	CUM OIL PROD E3M3	CUM SOR INJ M3/M3	CUM WATER PROD E3M3	CUM GAS PROD E3M3	CUM STEAM INJ E3M3		
2-Sep-07	5.43	27.99	9.318	100	18.422	5.157	40.659	64.062	4.066	103.092	26766.93	260.49		
2-Oct-07	4.32	22.98	9.38	100	23.171	5.323	40.747	64.201	4.104	103.822	27047.62	263.49		
2-Nov-07	4.6	25.33	9.393	100	21.744	5.508	40.839	64.347	4.143	104.613	27338.81	266.59		
2-Dec-07	4.16	23.88	9.319	100	24.028	5.738	40.923	64.478	4.181	105.354	27619.43	269.59		
2-Jan-08	4.26	25.54	9.27	100	23.45	5.99	41.005	64.608	4.221	106.117	27907.31	272.69		
2-Feb-08	3.64	22.77	9.257	100	27.471	6.256	41.082	64.728	4.261	106.857	28194.39	275.79		
2-Mar-08	3.09	20.08	9.251	100	32.385	6.504	41.143	64.825	4.299	107.472	28462.75	278.69		
2-Apr-08	2.93	19.82	9.264	100	34.137	6.768	41.205	64.924	4.34	108.13	28749.69	281.79		
2-May-08	3.33	23.33	9.33	100	30.009	7.002	41.269	65.024	4.38	108.82	29028.54	284.79		
2-Jun-08	3.07	22.27	9.488	100	32.56	7.252	41.331	65.121	4.421	109.518	29320.47	287.89		
2-Jul-08	3.23	24.17	9.647	100	30.994	7.49	41.384	65.205	4.461	110.139	29607.94	290.89		
2-Aug-08	3.07	23.74	9.771	100	32.617	7.744	41.441	65.295	4.503	110.826	29909.37	293.99		
2-Sep-08	2.82	22.49	9.854	100	35.509	7.987	41.497	65.383	4.544	111.525	30213.86	297.09		
2-Oct-08	2.8	22.99	9.91	100	35.728	8.215	41.551	65.469	4.584	112.216	30510.52	300.09		

Run 3.1A-1900PM2July17																								
Uses internal well indices																								
Date	Current OIL RATE M3/D	Current WATER RATE M3/D	Current GAS RATE E3M3/D	INJ STEAM RATE M3/D	INJ SOR RATE M3/M3	WOR M3/M3	OIL REC %	CUM OIL PROD E3M3	CUM SOR INJ M3/M3	CUM WATER PROD E3M3	CUM GAS PROD E3M3	CUM STEAM INJ E3M3												
2-Aug-08	1.91	37.49	40.279	100	52.229	19.578	46.503	73.319	4.078	200.9	66225.7	299												
2-Sep-08	1.93	39.65	40.37	100	51.798	20.537	46.541	73.379	4.117	202.096	67475.84	302.1												
2-Oct-08	1.57	32.85	40.462	100	63.543	20.876	46.579	73.438	4.15	203.332	68688.47	305.1												
2-Nov-08	1.93	40.31	40.555	100	51.745	20.856	46.617	73.498	4.19	204.597	69944.34	308.2												
2-Dec-08	1.47	31.21	40.65	100	67.954	21.212	46.651	73.552	4.23	205.727	71162.45	311.2												
2-Jan-09	1.88	41.57	40.743	100	53.218	22.124	46.686	73.607	4.27	206.921	72424.17	314.3												
2-Feb-09	1.82	41.31	40.828	100	54.865	22.666	46.723	73.666	4.31	208.245	73688.72	317.4												
2-Mar-09	1.66	38	40.895	100	60.142	22.851	46.756	73.718	4.34	209.427	74833	320.2												
2-Apr-09	2.46	57.6	40.961	100	40.606	23.39	46.788	73.769	4.38	210.603	76101.9	323.3												
2-May-09	1.59	37.43	41.009	100	62.97	23.567	46.819	73.818	4.42	211.747	77331.49	326.3												
2-Jun-09	1.6	38.81	41.054	100	62.491	24.251	46.85	73.866	4.46	212.913	78603.55	329.4												
2-Jul-09	1.52	37.33	41.091	100	65.877	24.593	46.878	73.91	4.50	213.988	79835.82	332.4												
2-Aug-09	1.45	36.18	41.126	100	68.769	24.88	46.908	73.958	4.54	215.165	81110.27	335.5												
2-Sep-09	1.58	39.53	41.182	100	63.49	25.1	46.939	74.006	4.58	216.373	82386.03	338.6												

Table 6. SPG model study results

Case	Description	Bitumen zone thickness (m)	Overlying zone thickness (m)		Gas zone pressure (kPa)	Recovery (%)	CDOR (m ³ /d)	Cum SOR	Operating time (years)
			Gas	Water					
M1P5	Gas zone pressure set at 500 kPa	52.5	3	10.5	500	28.6	73.4	2.44	10
M2P5		52.5	3	3	500	78.9	81.0	2.18	25
M3P5		28.0	3	3	500	79.1	46.3	2.59	24
M2GAS	No top water	52.5	6	0	1340	78.6	125.6	2.52	16
M1P20R	Repressuring with water	52.5	0.2	13.3	2000	36.2	156.8	1.66	6
M1P13R		52.5	0.2	13.3	1340	34.2	126.1	1.75	7
M2P13R		52.5	0.2	5.8	1340	77.1	124.3	2.53	16
IHSP13	Use of simplified IHS layer rather than discontinuous shale layers	52.5	3	3	1340	85.3	137.4	2.04	16
IHSP2		52.5	3	3	200	80.7	68.7	1.82	30
IHSP20R	Use of simplified IHS layer rather than discontinuous shale layers and repressuring with water	52.5	0.2	5.8	2000	86.9	150.1	2.26	15
IHSP13R		52.5	0.2	5.8	1340	83.1	133.8	1.57	16

Run 3.1B600PM2July17													
Uses internal well indices													
Date	Current OIL RATE M3/D to	Current WATER RATE M3/D to	Current GAS RATE E3M3/D to	INJ STEAM RATE M3/D	INJ SOR RATE M3/M3	WOR M3/M3	OIL REC %	CUM OIL PROD E3M3	CUM SOR INJ M3/M3	CUM WATER PROD E3M3	CUM GAS PROD E3M3	CUM STEAM INJ E3M3	
2-Jun-01	19.18	28.46	10.019	100	5.214	1.484	7.888	12.428	2.59	17.612	3773.135	32.19	
2-Jul-01	20.03	29	10.032	100	4.992	1.448	8.257	13.01	2.705	18.467	4073.914	35.19	
2-Aug-01	20.96	30.53	10.043	100	4.77	1.456	8.66	13.645	2.806	19.385	4385.082	38.29	
2-Sep-01	21.45	31.91	10.055	100	4.661	1.488	9.076	14.3	2.895	20.351	4696.604	41.39	
2-Oct-01	21.5	30.09	10.07	100	4.652	1.4	9.475	14.929	2.974	21.265	4998.48	44.39	
2-Nov-01	22.69	28.27	10.088	100	4.407	1.246	9.909	15.613	3.042	22.164	5310.937	47.49	
2-Dec-01	23.5	26.79	10.104	100	4.255	1.14	10.35	16.307	3.096	22.985	5613.853	50.49	
2-Jan-02	24.04	26.74	10.118	100	4.16	1.112	10.806	17.026	3.148	23.788	5927.324	53.59	
2-Feb-02	25.31	27.86	10.128	100	3.95	1.101	11.292	17.792	3.187	24.634	6241.157	56.69	
2-Mar-02	25.9	28.71	10.136	100	3.86	1.109	11.749	18.511	3.214	25.428	6524.863	59.49	
2-Apr-02	26.49	30.16	10.144	100	3.775	1.139	12.266	19.326	3.239	26.344	6839.199	62.59	
2-May-02	26.91	31.79	10.15	100	3.716	1.182	12.778	20.133	3.258	27.279	7143.612	65.59	
2-Jun-02	26.81	33.45	10.156	100	3.73	1.248	13.308	20.968	3.276	28.294	7458.366	68.69	
2-Jul-02	26.83	35.42	10.16	100	3.727	1.32	13.821	21.777	3.292	29.332	7763.113	71.69	

