

GASOLINE GC PEAK AREA DATA (Table 4)

Well Name	Nation	Sample Name	Lower depth	Sample Type	Sample Type	1C3-DMCP uVs	IT3-DMCP uVs	IT2-DMCP uVs	n_C7 uVs	MCH/C12DMCP uVs	ECP uVs	TOLUENE uVs	M-XYLENE uVs	P-XYLENE uVs
7119/12-3	NOR	98023-1	DST1A	Oil	DST1A	8477	8329	16641	109990	170558	6145	463200	476523	153034
7120/1-2	NOR	98023-2	DST3A	Oil	DST3A	18342	17255	42548	144832	178576	31258	151582	153906	38153
7120/1-2	NOR	98023-3	DST3B	Oil	DST3B	15211	14233	33472	118770	170496	13517	135349	145474	34026
7120/1-2	NOR	98023-4	RFT	Oil	RFT	51872	47931	111694	195340	223671	47649	177076	131896	30814
7120/2-1	NOR	98023-5	PT1	Oil	PT1	21135	20102	35842	147576	232252	8977	180261	220491	56380
7120/2-2	NOR	98023-6	RFT	Oil	RFT	65192	61551	110723	200119	487124	26027	199375	186544	43350
7120/6-1	NOR	98023-7	DST2	Oil	DST2	11418	11366	21491	81652	154802	10607	172733	140518	36623
7120/6-1	NOR	98023-8	DST4	Oil	DST4	63895	59272	123630	501848	733110	48681	570049	373494	105748
7120/7-1	NOR	98023-9	DST2	Oil	DST2	35557	34618	61359	343925	658544	26991	723664	754623	190054
7120/7-2	NOR	98023-10	DST1	Oil	DST1	46251	43569	82068	422990	791026	33526	769233	720470	188478
7120/8-1	NOR	98023-11	DST1	Oil	DST1	41979	39516	76398	400029	684703	31155	890095	770044	211579
7120/8-1	NOR	98023-12	DST2	Oil	DST2	42335	39841	76548	432523	705312	31451	851243	637518	199178
7120/8-1	NOR	98023-13	DST3	Oil	DST3	21501	20514	41035	224901	388914	17458	486800	555413	103050
7120/8-2	NOR	98023-14	DST1	Oil	DST1	35950	33915	64796	365369	637705	30668	785945	664701	172672
7120/9-1	NOR	98023-15	DST2A	Oil	DST2A	56626	52396	104461	495378	707194	46440	639563	564482	162818
7120/12-2	NOR	98023-16	DST2	Oil	DST2	77961	70539	141096	606927	939590	51025	306926	311335	69519
7121/4-1	NOR	98023-17	DST2	Oil	DST2	46702	43661	92965	350367	560351	37127	325635	329473	76816
7121/4-1	NOR	98023-18	DST3	Oil	DST3	13367	12508	26074	98202	173358	11432	183900	189167	18881
7121/4-1	NOR	98023-19	DST4	Oil	DST4	63790	59493	122628	505028	737515	48451	617353	587267	84941
7121/4-2	NOR	98023-20	DST1	Oil	DST1	48583	45808	90117	410804	665260	33943	558025	555834	69089
7121/5-1	NOR	98023-21	DST1	Oil	DST1	9533	9027	18344	67256	135507	8041	158169	169785	12857
7121/5-2	NOR	98023-22	FMT3	Oil	FMT3	12392	11735	23102	89011	174200	8985	176657	190690	19662
7121/7-1	NOR	98023-23	DST2	Oil	DST2	44167	40876	82438	385814	575462	38114	522479	678109	93198
7121/7-2	NOR	98023-24	DST1	Oil	DST1	51389	47736	95162	475114	684746	54546	665675	872527	114234
7122/6-1	NOR	98023-25	DST2	Oil	DST2	38889	36811	78602	245544	714576	24734	124792	250570	70655
7122/6-1	NOR	98023-26	RFT?	Oil	RFT?	40625	38112	85608	190675	721399	22412	78019	191396	70218
7124/3-1	NOR	98023-27	RFT3B	Oil	RFT3B	34189	32241	63469	245317	443565	26103	191681	251652	44867
7125/1-1	NOR	98023-28	RFT?	Oil	RFT?	58954	54588	112142	311605	442253	36314	74478	122030	63190
7128/4-1	NOR	98023-29	DST1.1-1.2	Oil	DST1.1-1.2	31711	29911	56243	335960	539426	23108	28124	392916	30673
7128/4-1	NOR	98023-30	DST1-1.1	Oil	DST1-1.1	34729	32541	59930	347451	553931	17323	20318	326322	25183
7128/4-1	NOR	98023-31	DST2	Oil	DST2	30536	28673	53128	322323	517258	26871	36950	366619	24969

RL/MEMO/98/668

Page 39 of 144

Saturate GC Peak Height Data (Table 6)

Well Name	Nation	Sample Name	Upper Depth	Lower Depth	Sample Type	n_C10 mV	n_C17 mV	n_C18 mV	n_C22 mV	n_C27 mV	n_C32 mV	i_C18 mV	Pristane mV	Phytane mV	CP11 mV	CP12 mV
7119/12-3	NOR	98023-1	DST1A	DST1A	Oil		250305	234447	152785	83341	25884	56249	81695	43638	1.06	1.03
7120/1-2	NOR	98023-2	DST3A	DST3A	Oil		90011	83033	60456	30337	11473	44405	79561	47768	1.00	1.05
7120/1-2	NOR	98023-3	DST3B	DST3B	Oil		153494	137201	72206	22604	8116	65629	107214	77522	1.00	1.11
7120/1-2	NOR	98023-4	RFT	RFT	Oil		157953	152146	146138	105944	29415	131849	268444	168331	1.20	1.43
7120/2-1	NOR	98023-5	PT1	PT1	Oil		96401	86527	61579	27380	7879	52283	81887	55549	1.06	1.04
7120/2-2	NOR	98023-6	RFT	RFT	Oil		108779	103055	99022	67584	24226	52811	128509	59841	1.08	1.16
7120/6-1	NOR	98023-7	DST2	DST2	Oil		82306	84950	92035	86725	27316	37166	68746	46337	1.09	1.16
7120/6-1	NOR	98023-8	DST4	DST4	Oil		235991	199221	78109	15989	1082	133039	228129	121190	1.12	1.03
7120/7-1	NOR	98023-9	DST2	DST2	Oil		253654	226089	89325	16681	1098	87063	161531	66784	1.17	1.02
7120/7-2	NOR	98023-10	DST1	DST1	Oil		234725	195564	64037	9861	521	87227	173112	69835	1.17	0.95
7120/8-1	NOR	98023-11	DST1	DST1	Oil		231843	185530	48150	5393	174	90130	162513	65946	1.21	0.96
7120/8-1	NOR	98023-12	DST2	DST2	Oil		256782	199957	43646	2676		101793	184082	73970		0.80
7120/8-1	NOR	98023-13	DST3	DST3	Oil		260849	204299	48124	3516		102917	182287	74773		0.83
7120/8-2	NOR	98023-14	DST1	DST1	Oil		303392	250881	67974	6750	117	116177	221125	84613	1.23	0.94
7120/9-1	NOR	98023-15	DST2A	DST2A	Oil	-	288399	232087	53507	1805		139019	251610	116626		0.81
7120/12-2	NOR	98023-16	DST2	DST2	Oil	-	227371	195459	36162	3241	262	114645	200441	98166	1.24	0.98
7121/4-1	NOR	98023-17	DST2	DST2	Oil	-	101620	83111	35275	7854	411	56413	98856	52816	1.14	0.99
7121/4-1	NOR	98023-18	DST3	DST3	Oil	-	58274	60127	64297	57165	16270	26035	47246	33178	1.08	1.12
7121/4-1	NOR	98023-19	DST4	DST4	Oil	-	254497	215437	87020	20567	1388	141173	244862	135013	1.13	0.98
7121/4-2	NOR	98023-20	DST1	DST1	Oil	-	240620	203607	64849	8439	401	120003	200334	113908	1.16	0.97
7121/5-1	NOR	98023-21	DST1	DST1	Oil	-	68281	68825	74181	66090	14499	29318	53713	39480	1.09	1.14
7121/5-2	NOR	98023-22	FMT3	FMT3	Oil	-	86299	83280	71802	37947	11136	35767	64705	45323	1.06	1.07
7121/7-1	NOR	98023-23	DST2	DST2	Oil	-	221314	169655	31477	1533	71	107147	188249	80426	1.30	0.83
7121/7-2	NOR	98023-24	DST1	DST1	Oil	-	161792	123003	25322	1780		72879	133352	53529		0.86
7122/6-1	NOR	98023-25	DST2	DST2	Oil	-	170187	129955	29107	2424		101650	156503	76373		0.90
7122/6-1	NOR	98023-26	RFT?	RFT?	Oil	-	146068	108922	22915	1757		89659	132892	66686		0.92
7124/3-1	NOR	98023-27	RFT3B	RFT3B	Oil	-	107861	98725	69746	32796	7296	58615	98541	72329	1.05	1.12
7125/1-1	NOR	98023-28	RFT?	RFT?	Oil	-	124364	96748	21530	2724	817	89329	142115	75523	1.06	1.09
7128/4-1	NOR	98023-29	DST1.1-1.2	DST1.1-1.2	Oil	-	127997	133869	159224	85799	9773	28262	51332	24068	1.10	1.02
7128/4-1	NOR	98023-30	DST1-1.1	DST1-1.1	Oil	-	111042	119322	134859	76275	8274	25634	45211	20898	1.10	1.02
7128/4-1	NOR	98023-31	DST2	DST2	Oil	-	119080	128388	144118	78051	8861	26274	48257	22886	1.09	0.99

Aromatic GC Peak Height Data (Table 7)

Well Name	Nation	Sample Name	Upper Depth	Lower Depth	Sample Type	2MN	1MN	BiPh	2EN	1EN	2,6+2,7 DMN	1,5 DMN	1,3,7 TMN	2,3,6 TMN	1,3,6 TMN	1,3,5 + 1,4,6 TM	P	3MP	2MP	9MP	1MP
7119/12-3	NOR	98023-1	DST1A	DST1A	Oil	35323	18479	38523	6982	2948	40137	18782	18416	19606	26350	18307	48177	22335	28072	14693	14096
7120/1-2	NOR	98023-2	DST3A	DST3A	Oil	1979	2228	826	923	737	3649	1980	1846	1613	2423	2782	2165	1252	227	1516	972
7120/1-2	NOR	98023-3	DST3B	DST3B	Oil	5318	5897	2618	3287	3898	14103	6618	8361	7226	12041	12559	8975	5073	3150	6422	5289
7120/1-2	NOR	98023-4	RFT	RFT	Oil	15110	16044	3260	8836	9361	18380	10529	9280	8330	10961	12339	5935	4578	1482	4667	2957
7120/2-1	NOR	98023-5	PT1	PT1	Oil	7076	5764	3898	2490	3273	17049	5908	12292	11681	16992	13385	7295	4443	4011	5933	5412
7120/2-2	NOR	98023-6	RFT	RFT	Oil	39484	37227	7086	15649	15815	52799	26083	21741	24045	34981	28185	20145	9787	8510	13283	13202
7120/6-1	NOR	98023-7	DST2	DST2	Oil	3191	2590	799	1318	1118	6434	2181	3094	3117	4172	4230	3985	3004	2588	3972	3457
7120/6-1	NOR	98023-8	DST4	DST4	Oil	5488	4837	2947	4589	4027	21199	8103	12937	13540	19347	16962	12604	6762	5636	8852	7304
7120/7-1	NOR	98023-9	DST2	DST2	Oil	6046	4028	3824	2181	1952	13366	4013	7342	5942	8709	7082	4796	2949	2839	2955	2431
7120/7-2	NOR	98023-10	DST1	DST1	Oil	11814	8362	5932	4432	4174	21414	7239	11462	14991	12603	10292	5687	3080	2759	3510	2989
7120/8-1	NOR	98023-11	DST1	DST1	Oil	7493	5093	3475	2341	2198	12655	3711	6775	5189	7864	6813	3166	1704	1508	2046	1683
7120/8-1	NOR	98023-12	DST2	DST2	Oil	9213	6035	4023	2597	2547	14205	4205	6904	5813	8574	7193	2808	1545	1250	1828	1512
7120/8-1	NOR	98023-13	DST3	DST3	Oil	5005	3424	3385	2339	2420	14333	4307	8093	6949	10186	8310	3155	1682	1280	1802	1440
7120/8-2	NOR	98023-14	DST1	DST1	Oil	2584	2152	2317	1936	2324	12769	4099	8272	6477	10189	8723	3190	1811	1337	2084	1663
7120/9-1	NOR	98023-15	DST2A	DST2A	Oil	11	31	151	229	290	1958	834	1955	1767	2550	2425	918	636	346	689	529
7120/12-2	NOR	98023-16	DST2	DST2	Oil				61	27	250	250	587	355	701	822	667	427	231	497	414
7121/4-1	NOR	98023-17	DST2	DST2	Oil	3252	3178	1526	2675	2455	12960	5282	7421	7231	11276	10237	5530	3547	2520	4089	3265
7121/4-1	NOR	98023-18	DST3	DST3	Oil	421	466	198	390	395	2197	846	1302	1068	1677	1709	1121	823	486	963	804
7121/4-1	NOR	98023-19	DST4	DST4	Oil	451	503	431	736	763	4453	1727	3158	2966	4349	4249	2150	1492	961	1650	1291
7121/4-2	NOR	98023-20	DST1	DST1	Oil	1451	1477	987	1378	1300	8225	3161	4862	4455	6445	6558	2363	1386	897	1672	1304
7121/5-1	NOR	98023-21	DST1	DST1	Oil	51	107	51	149	180	1090	433	771	659	1017	1030	1038	903	628	1114	955
7121/5-2	NOR	98023-22	FMT3	FMT3	Oil	785	857	387	586	602	4152	1471	2239	2009	2945	3132	1946	1571	1023	1946	1552
7121/7-1	NOR	98023-23	DST2	DST2	Oil	2349	1929	1339	1622	1737	8639	3104	4711	4120	6195	6029	1655	950	559	1011	820
7121/7-2	NOR	98023-24	DST1	DST1	Oil	1779	1506	1136	1262	1468	7369	2507	3589	2942	4571	4466	1060	566	323	658	515
7122/6-1	NOR	98023-25	DST2	DST2	Oil	2227	1993	1733	1587	3480	8957	3911	5032	3330	6162	5804	1866	922	361	1129	742
7122/6-1	NOR	98023-26	RFT?	RFT?	Oil	3495	2961	2766	2480	4931	12269	5419	6886	4574	8096	7853	2374	1185	512	1442	941
7124/3-1	NOR	98023-27	RFT3B	RFT3B	Oil	1499	1398	464	1212	1045	4192	1730	2046	1637	2539	2882	1159	834	331	951	645
7125/1-1	NOR	98023-28	RFT?	RFT?	Oil	2494	2281	439	1438	1463	4148	1734	2062	1155	2349	2576	1652	556	212	1041	613
7128/4-1	NOR	98023-29	DST1.1-1.2	DST1.1-1.2	Oil	868	855	1839	674	720	4263	1744	2922	2483	3633	3109	2664	1936	1122	1976	1496
7128/4-1	NOR	98023-30	DST1-1.1	DST1-1.1	Oil	667	734	1637	637	691	4200	1661	2788	2235	3369	2871	2413	1480	949	1609	1158
7128/4-1	NOR	98023-31	DST2	DST2	Oil	1279	1141	2285	841	903	5225	2058	3494	2851	4090	3734	3106	2046	1296	2145	1634

BA 97-1551-1
23 SEPT. 1997
REGISTRERT
OLJEDIREKTORATET

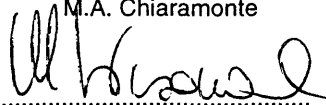
**Geochemical characterization of several oil and
condensate samples from Barents Sea area.
A Migration Study**

By: A. RIVA and R. GALIMBERTI

OLJEDIREKTORATET
24 MARS 1997
Sak/Dok.nr. 96/2733-3

S. Donato Milanese, FEBRUARY 1997

MANAGER
GEOCHEMISTRY
M.A. Chiamonte



1 INTRODUCTION

Upon Norsk Agip request, twenty samples, six oils and fourteen condensates, originating from Hammerfest Basin have been geochemically analysed at AGIP SpA GEOC laboratories in San Donato Milanese, in order to identify possible migration trends and entry points. The results obtained are discussed hereunder, while numerical tables and graphs are collected in the Appendix.

2 EXPERIMENTAL

The six crude oil samples have been separated by means of HPLC (High Performance Liquid Chromatography) in three different fractions: saturated hydrocarbons, aromatic hydrocarbons and polar compounds (NSO fraction). Both saturated and aromatic hydrocarbons have then been analyzed with GC (Gas Chromatography) and GC-MS (Gas Chromatography - Mass Spectrometry) in order to identify their molecular composition, in particular the biomarkers. All three fractions (saturates, aromatics and polars) have also been analysed for their carbon isotopes to determine their $^{13}\text{C}/^{12}\text{C}$ ratio.

The fourteen condensate samples have been analysed only with GC-MS, as whole oil samples (no fraction separation) to identify their biomarker composition and consequently genetic relationship with the crude oils.

Finally, on all crude oil and selected samples of condensate samples, phenol analysis has been performed in order to determine their migration index values.

SUMMARY AND CONCLUSIONS

Oil and condensate samples were kindly provided by NPD and the AEN Group in order to carry out a geochemical special study ("Phenol Study") at Agip SpA, Milan. Twenty samples, six oils and fourteen condensates were received for analysis. The objective was to investigate the oil migration patterns in the Hammerfest Basin.

The oil samples have been fractionated by means of HPLC into saturates, aromatics and polar compounds. Saturate and aromatic fractions were analysed both by GC and GC-MS. Carbon isotopes were also determined for all the three fractions. Condensates have not been fractionated and were analysed as whole oil only by GC-MS. Phenols were investigated on all the oil samples and on selected condensate samples.

TAB.1

Samples List

Well	Depth (m)	Type
7128/4-1	1592 1610 DST 1A+1B	OIL
7121/4-1	2419.5 2434.5 DST3	OIL
7120/6-1	2432 2436 DST2	OIL
7121/5-1	2802 2825 DST1	OIL
7120/1-2	1944 1971 DST3B	OIL
7120/2-1	1943.7 2030.7 DST4	OIL
7120/6-1	2386.4 2401.4 DST4	OIL/COND
7120/8-1	2092 2110 DST3	OIL/COND
7120/8-1	2165 2172 DST1	OIL/COND
7120/8-2	2092 2097 DST1	OIL/COND
7121/4-1	2354 2385 DST4	OIL/COND
7121/4-1	2465 2471 DST2	OIL/COND
7120/7-2	2153 2180 DST1	OIL/COND
7122/6-1	2424 2434 DST2	OIL/COND
7120/7-1	2415 2435 DST2	OIL/COND
7120/7-1	2415 2435 DST2	OIL/COND
7120/8-1	2133 2150 DST2	OIL/COND
7120/9-1	1869 1877 DST2A	OIL/COND
7119/12-3	3184 3195 DST1	OIL/COND
7120/12-2	1985 1991 DST2	OIL/COND

**TAB.2
BULK DATA
BARENTS SEA OILS**

Well	DEPTH(m)	°API	%SAT	%ARO	%NSO
7120/1-2	1944 - 1971	31-35	60	29	11
7120/2-1	1943.7 - 2030.7	37	72	22	6
7128/4-1	1592 - 1610		84	14	2
7120/6-1	2432 - 2436	32	59	27	14
7121/4-1	2419.5 - 2434.5	34	65	22	13
7121/5-1	2802 - 2825	c.ca 32	58	25	17

LEGEND**GC-MS PARAMETERS****Terpanes (m/z 191.2)**

1	Tri	C23-Tricyclic Terpene / Hopane
2	Tet	C24-Tetracyclic Terpene / Hopane
3	TriT	C23-Tricyclic Terpene / C24-Tetracyclic Terpene
4	TsTm	18 α ,22,29,30-Trisnorhopane / 17 α ,22,29,30- Trisnorhopane
5	TNH	25,28,30-Trisnorhopane / Hopane
6	29/30	C29-Norhopane / Hopane
7	29Ts	18 α (H)-30-Norhopane / Hopane
8	C30*	17 α (H)-Diahopane / Hopane
9	29Ts/C30*	18 α (H)-30-Norhopane / 17 α (H)-Diahopane
10	Gam	Gammacerane / Hopane
11	S/S+R	C31-22(S)-Hopanes / C31-22(S+R)-Hopanes
12	31/30	C31-22(S+R)-Hopanes / Hopane

Steranes (m/z 217.2 and 218.2)

1	Dia	C27-Diasteranes / C27-Diasteranes + C27-Steranes
2	S/S+R	C29- $\alpha\alpha\alpha$ -20(S)-Sterane / C29- $\alpha\alpha\alpha$ -20(S+R)-Steranes
3	BB/aa	C29- $\alpha\beta\beta$ -20(S+R)-Steranes / C29- $\alpha\beta\beta$ -20(S+R)-Steranes + C29- $\alpha\alpha\alpha$ -20(S+R)-Steranes
4	%27	C27- $\alpha\beta\beta$ -20(S+R)-Steranes / (C27+C28+C29) $\alpha\beta\beta$ -20(S+R)-Steranes
5	%28	C28- $\alpha\beta\beta$ -20(S+R)-Steranes / (C27+C28+C29) $\alpha\beta\beta$ -20(S+R)-Steranes
6	%29	C29- $\alpha\beta\beta$ -20(S+R)-Steranes / (C27+C28+C29) $\alpha\beta\beta$ -20(S+R)-Steranes
7	27/29	C27- $\alpha\beta\beta$ -20(S+R)-Steranes / C29- $\alpha\beta\beta$ -20(S+R)-Steranes

Aromatics Biomarkers

1	MPI	Methylphenanthrene Index ₁ = 1.5(2-MP + 3-MP) / P+1-MP+9-MP
2	T/TM	Sterane Aromatization = 20R Triaromatic / 20R Triaromatic + 20R Monoaromatic

BULK AND GC PARAMETERS

1	%SAT	Percent composition
2	%ARO	Percent composition
3	%NSO	Percent composition
4	PrC17	Pristane / n-C17
5	PhC18	Phytane / n-C18
6	PrPh	Pristane / Phytane

TAB. 3
BIOMARKERS DATA
BARENTS SEA OILS

Well	Depth (m)	PrC17	PhC18	PrPh	Terpanes												Steranes						Aromatics		
					Tri	Tet	Trit	TsTm	TNH	29/30	29Ts	C30*	29Ts/C30*	Gam	S/S+R	31/30	Dia	S/S+R	BB/aa	%27	%28	%29	27/29	MPI	T/TM
7128/4-1		0.64	0.30	1.97	0.44	0.22	2.00	0.97	-	0.72	0.32	0.22	1.45	0.00	0.56	0.80	0.86	0.52	0.53	37	24	39	0.96	0.87	0.76
7121/4-1	2419.5 - 2434.5	0.98	0.65	1.40	0.03	0.04	0.80	1.00	+	0.51	0.18	0.09	2.00	0.00	0.57	0.62	0.66	0.54	0.63	29	26	45	0.65	0.78	0.67
7120/6-1	2432 - 2436	0.93	0.63	1.40	0.03	0.06	0.57	0.96	+	0.54	0.18	0.10	1.75	0.00	0.56	0.62	0.69	0.56	0.64	29	27	44	0.65	0.82	0.66
7121/5-1	2802 - 2825	0.98	0.66	1.36	0.04	0.06	0.71	0.92	+	0.53	0.19	0.09	2.09	0.00	0.59	0.64	0.69	0.56	0.65	30	27	43	0.71	0.79	0.67
7120/1-2	1944 - 1971	0.98	0.75	1.34	0.14	0.11	1.27	0.75	+++	0.67	0.46	0.17	2.71	0.09	0.53	0.78	0.67	0.54	0.57	29	31	40	0.72	0.48	0.73
7120/2-1	1943.7 - 2030.7	1.14	0.81	1.31	0.23	0.05	4.80	3.14	-	0.38	0.36	0.29	1.27	0.07	0.51	0.70	0.74	0.57	0.65	35	24	41	0.85	0.87	0.67

Tab. 4 Barents Sea - Oils

Stable Isotopes Data

Well	HCS	HCA	NSO	ASPH
7120/6-1	-30.06	-28.30	-29.12	-28.68
7121/4-1	-29.27	-28.40	-27.41	-28.83
7121/5-1	-29.53	-28.33	-28.56	-28.94
7120/1-2	-30.06	-29.27	-28.75	*
7120/2-1	-30.75	-30.27	-30.16	
7128/4-1	-26.76	-26.38	*	*

TAB.5
PHENOLS DATA
BARENTS SEA - OILS AND CONDENSATES

O-CRESOL
PHENOL



	Well	DST	Type	Depth	Phenol	
		n°		(ft)	ppm	
1	7120\1-2	3B	oil	1944-1971	3.79	3.45
2	7120\2-1	4	oil	1943.7-2030.7	2.17	1.00
3	7120\6-1	4	cond.	2386.4-2401.4	5.45	2.01
4	7120\6-1	2	oil	2432-2436	5.48	3.07
5	7120\7-2	1	cond.	2153-2180	10.44	2.63
6	7120\8-1	3	cond.	2092-2110	5.14	3.56
7	7120\8-2	1	cond.	2092-2097	5.33	2.61
8	7121\4-1	4	cond.	2354-2385	7.14	2.42
9	7121\4-1	3	oil	2419.5-2434.5	5.07	2.93
10	7121\4-1	2	cond.	2465-2471	1.22	7.39
11	7121\5-1	1	oil	2802-2825	9.53	1.69
12	7122\6-1	2	cond.	2424-2434	0.94	3.20
13	7128\4-1	1A+1B	oil	1592-1610	11.79	2.29