BLM

Analyses of Natural Gases, 2005–2007

D.L. Driskill

December 2008

Technical Note 427

U.S. Department of the Interior
Bureau of Land Management

BLM/NM/ST-08/007+3700

This document is also available on the Amarillo Field Office Web site at
http://www.blm.gov/nm/st/en/prog/energy/helium.html

Production services provided by the NOC Information and Publishing Services Section

Analyses of Natural Gases, 2005–2007

December 2008

D.L. Driskill
Geologist
Bureau of Land Management
Amarillo Field Office
Amarillo, Texas

Technical Note 427

U.S. Department of the Interior
Bureau of Land Management

Suggested citation:

Driskill, D.L. 2008. Analyses of Natural Gases, 2005–2007, Technical Note 427.
Bureau of Land Management. Denver, Colorado. BLM/NM/ST-08/007+3700. 199 pp.

Contents

Abstract

Technical Note 427 contains analyses and related source data for 361 natural gas samples from 11 States. Of the total samples, 231 were collected during calendar years 2005 through 2007.
The analyses were done using gas chromatography. None of the analyses have been published previously in other analyses reports. All samples were obtained and analyzed as part of the United States Department of the Interior's Bureau of Land Management investigations of the occurrences of helium in natural gases of countries with free-market economies. The results of these investigations are published periodically to make the information available to members of the helium and petroleum industries and to the general public.

Introduction

Bureau of Land Management Technical Note 427, Analyses of Natural Gases, 2005–2007, contains analyses and related source data for 361 natural gas samples from 11 States. Of the total samples, 231 were collected during calendar years 2005 through 2007. The remaining 130 were collected earlier or later, but releases granting permission to publish them were received during preparation of this document. None of these analyses have been published previously in other analyses reports.

The analyses were done using gas chromatography. All samples were obtained and analyzed as part of the Bureau of Land Management investigations of the occurrences of helium in natural gases of countries with free-market economies. This helium survey program has been conducted since 1917. The results are published periodically to make the information available to members of the helium and petroleum industries and to the general public.

Forty-four publications have presented the results of 16,820 gas analyses performed through 2004. These publications are referenced at the end of this report in the section "Previous Publications in the Helium Survey Series."

The first three bulletins (1–3)[1] contain analyses and related source data on 5,218 gas samples collected from 1917 through 1960. These bulletins have been supplemented periodically by information circulars and technical notes (4–17, 19–24, 26–30, 32–36, 38–44) containing 11,602 analyses of samples collected since 1960.

In 1976, a compilation of the analyses made prior to 1975 was prepared by the United States Bureau of Mines (USBM) and published by the National Technical Information Service of the United States Department of Commerce (18). The 1976 compilation contains 10,562 analyses of gas samples from gas and oil wells and natural gas pipelines in 37 States and 23 foreign countries.

Three other compilations of analyses have been published (25, 31, 37) by the USBM. The first of these was published in 1982 and contained analyses performed prior to 1981. The 1982 publication contains 12,554 analyses of gas samples from gas and oil wells and natural gas pipelines in 39 States and 24 foreign countries and includes the analyses from the 1976 publication (25). The second of these compilations was published in 1987 and contains 14,242 analyses performed prior to 1986. The samples were taken from gas and oil wells and natural gas pipelines in 40 States and 24 foreign countries (31). In 1991, a compilation of analyses was completed as a supplement to the 1987 publication and contains

[1]The numbers in parentheses refer to items in the list of previous publications at the end of this report.

all analyses published from 1986 through 1990. The 1991 publication contains 920 samples from gas and oil wells and natural gas pipelines in 26 States and 2 foreign countries (37).

In addition to appearing in the publications, all analyses and related information published through 2004 are available on CD-ROM from the National Technical Information Service (NTIS) in Springfield, Virginia (1-800-553-NTIS). Orders should refer to Bureau of Land Management CD-ROM PB2006-500037. The update to this CD-ROM, which will include the 2005–2007 analyses, should be available for purchase around the time this report is published.

The helium survey program is conducted by soliciting natural gas samples from throughout the United States and other countries with free-market economies. The helium survey, in its present scope, would not be possible without the assistance of the helium and petroleum industries, State and Federal agencies, and the many individuals engaged in oil and gas exploration and production.

Tables 1 and 2—the main focus of this technical note—include the results of analyses and related source data for the gas samples. This information is divided into two groups. Table 1 contains information on samples from gas and oil wells in the United States. Table 2 contains information on samples from natural gas pipelines in the United States. The following chart indicates the sources of the samples listed in these tables. All components of the analyses in the tables are reported to the nearest 0.1 percent, except helium, which is reported to the nearest 0.01 percent. The word "trace" is used to denote quantities of helium of less than 0.005 percent and quantities of other components of less than 0.05 percent.

Source	Number of Samples	Table(s)	Source	Number of Samples	Table(s)
California	12	1	New Mexico	74	1,2
Colorado	58	1	Oklahoma	69	1
Kansas	77	1	Texas	23	1
Louisiana	2	1	Utah	11	1
Montana	9	1	Wyoming	20	1
Nebraska	6	1			

Geologic Provinces of the United States

Tables 1 and 2 also include geologic province codes so each sample source can be located within a specific geologic province as defined by the Committee on Statistics of Drilling of the American Association of Petroleum Geologists. The provinces and their associated codes are provided in the list that follows and are also illustrated in Figure 1.[2] They are delineated by political boundaries for convenience and for accommodation of the data processing equipment. Because not all of the provinces shown are gas-producing areas, many of the codes are not used in this publication. In addition, since State or Federal ownership is not always known in offshore areas, only one code is used for each State. Due to the lack of information on the location of wells in Alaska, only one code (972) is used for all wells.

[2]The list and Figure 1 are taken from the article cited as: Meyer, R.F. 1970. Geologic provinces code map for computer use: American Association of Petroleum Geologists Bulletin, v. 54, n. 7, p.1301-1305.

Code	Province
100	New England Province
110	Adirondack Uplift
120	Atlantic Coast Basin
130	South Georgia-North Florida Sedimentary Province
140	South Florida Province
150	Piedmont-Blue Ridge Province
160	Appalachian Basin
200	Black Warrior Basin
210	Mid-Gulf Coast Basin
220	Gulf Coast Basin
230	Arkla Basin
240	Desha Basin
250	Upper Mississippi Embayment
260	East Texas Basin
300	Cincinnati Arch
305	Michigan Basin
310	Wisconsin Arch
315	Illinois Basin
320	Sioux Uplift
325	Iowa Shelf
330	Lincoln Anticline
335	Forest City Basin
340	Ozark Uplift
345	Arkoma Basin
350	South Oklahoma Folded Belt Province
355	Chautauqua Platform
360	Anadarko Basin
365	Cherokee Basin
370	Nemaha Anticline
375	Sedgwick Basin
380	Salina Basin
385	Central Kansas Uplift
390	Chadron Arch
395	Williston Basin
400	Ouachita Tectonic Belt Province
405	Kerr Basin
410	Llano Uplift
415	Strawn Basin

Code	Province
420	Fort Worth Syncline
425	Bend Arch
430	Permian Basin
435	Palo Duro Basin
440	Amarillo Arch
445	Sierra Grande Uplift
450	Las Animas Arch
455	Las Vegas-Raton Basin
460	Estancia Basin
465	Orogrande Basin
470	Pedregosa Basin
475	Basin-and-Range Province
500	Sweetgrass Arch
505	Montana Folded Belt Province
510	Central Montana Uplift
515	Powder River Basin
520	Big Horn Basin
525	Yellowstone Province
530	Wind River Basin
535	Green River Basin
540	Denver Basin
545	North Park Basin
550	South Park Basin
555	Eagle Basin
560	San Luis Basin
565	San Juan Mountain Province
570	Uinta Uplift
575	Uinta Basin
580	San Juan Basin
585	Paradox Basin
590	Black Mesa Basin
595	Piceance Basin
600	Northern Cascade Range-Okanagan Province
605	Eastern Columbia Basin
610	Idaho Mountains Province
615	Snake River Basin
620	Southern Oregon Basin
625	Great Basin Province

Code	Province
630	Wasatch Uplift
635	Plateau Sedimentary Province
640	Mojave Basin
645	Salton Basin
650	Sierra Nevada Province
700	Bellingham Basin
705	Puget Sound Province
710	Western Columbia Basin
715	Klamath Mountains Province
720	Eel River Basin
725	Northern Coast Range Province
730	Sacramento Basin
735	Santa Cruz Basin
740	Coastal Basins
745	San Joaquin Basin
750	Santa Maria Basin
755	Ventura Basin
760	Los Angeles Basin
765	Capistrano Basin
800	Heceta Island Area
805	Keku Islands Area
810	Gulf of Alaska Basin
815	Copper River Basin
820	Cook Inlet Basin
830	Kandik Province
835	Kobuk Province
840	Koyukuk Province
845	Bristol Bay Basin
850	Bethel Basin
855	Norton Basin
860	Selawik Basin
863	Yukon Flats Basin
865	Lower Tanana Basin
867	Middle Tanana Basin
870	Upper Tanana Basin
873	Galena Basin
875	Innoko Basin
877	Minchumina Basin

Code	Province
880	Holitna Basin
885	Arctic Foothills Province
890	Arctic Slope Basin
900	Maine Atlantic offshore–general
901	Maine Atlantic offshore–State
902	Maine Atlantic offshore–Federal
903	New Hampshire Atlantic offshore–general
904	New Hampshire Atlantic offshore–State
905	New Hampshire Atlantic offshore–Federal
906	Massachusetts Atlantic offshore–general
907	Massachusetts Atlantic offshore–State
908	Massachusetts Atlantic offshore–Federal
909	Rhode Island Atlantic offshore–general
910	Rhode Island Atlantic offshore–State
911	Rhode Island Atlantic offshore–Federal
912	Connecticut Atlantic off shore–general
913	Connecticut Atlantic offshore–State
914	Connecticut Atlantic offshore–Federal
915	New York Atlantic offshore–general
916	New York Atlantic offshore–State
917	New York Atlantic offshore–Federal
918	New Jersey Atlantic offshore–general
919	New Jersey Atlantic offshore–State
920	New Jersey Atlantic offshore–Federal
921	Delaware Atlantic offshore–general
922	Delaware Atlantic offshore–State
923	Delaware Atlantic offshore–Federal
924	Maryland Atlantic offshore–general
925	Maryland Atlantic offshore–State
926	Maryland Atlantic offshore–Federal
927	Virginia Atlantic offshore–general
928	Virginia Atlantic offshore–State
929	Virginia Atlantic offshore–Federal
930	North Carolina Atlantic offshore–general
931	North Carolina Atlantic offshore–State
932	North Carolina Atlantic offshore–Federal
933	South Carolina Atlantic offshore–general
934	South Carolina Atlantic offshore–State

Code	Province
935	South Carolina Atlantic offshore–Federal
936	Georgia Atlantic offshore–general
937	Georgia Atlantic offshore–State
938	Georgia Atlantic offshore–Federal
939	Florida Atlantic offshore–general
940	Florida Atlantic offshore–State
941	Florida Atlantic offshore–Federal
942	Florida Gulf of Mexico offshore–general
943	Florida Gulf of Mexico offshore–State
944	Florida Gulf of Mexico offshore–Federal
945	Alabama Gulf of Mexico offshore–general
946	Alabama Gulf of Mexico offshore–State
947	Alabama Gulf of Mexico offshore–Federal
948	Mississippi Gulf of Mexico offshore–general
949	Mississippi Gulf of Mexico offshore–State
950	Mississippi Gulf of Mexico offshore–Federal
951	Louisiana Gulf of Mexico offshore–general
952	Louisiana Gulf of Mexico offshore–State
953	Louisiana Gulf of Mexico offshore–Federal
954	Texas Gulf of Mexico offshore–general
955	Texas Gulf of Mexico offshore–State
956	Texas Gulf of Mexico offshore–Federal
957	California Pacific offshore–general
958	California Pacific offshore–State
959	California Pacific offshore–Federal
960	Oregon Pacific offshore–general
961	Oregon Pacific offshore–State
962	Oregon Pacific offshore–Federal
963	Washington Pacific offshore–general
964	Washington Pacific offshore–State
965	Washington Pacific offshore–Federal
972	Alaska Arctic offshore–general
973	Alaska Arctic offshore–State
974	Alaska Arctic offshore–Federal
975	Alaska Bering Sea offshore–general
976	Alaska Bering Sea offshore–State
977	Alaska Bering Sea offshore–Federal
978	Alaska Pacific offshore–general

Code	Province
979	Alaska Pacific offshore–State
980	Alaska Pacific offshore–Federal
987	Minnesota Lake Superior offshore
988	Wisconsin Lake Superior offshore
989	Michigan Lake Superior offshore
990	Indiana Lake Michigan offshore
991	Illinois Lake Michigan offshore
992	Wisconsin Lake Michigan offshore
993	Michigan Lake Michigan offshore
994	Michigan Lake Huron offshore
995	Michigan Lake Erie offshore
996	Ohio Lake Erie offshore
997	Pennsylvania Lake Erie offshore
998	New York Lake Erie offshore
999	New York Lake Ontario offshore

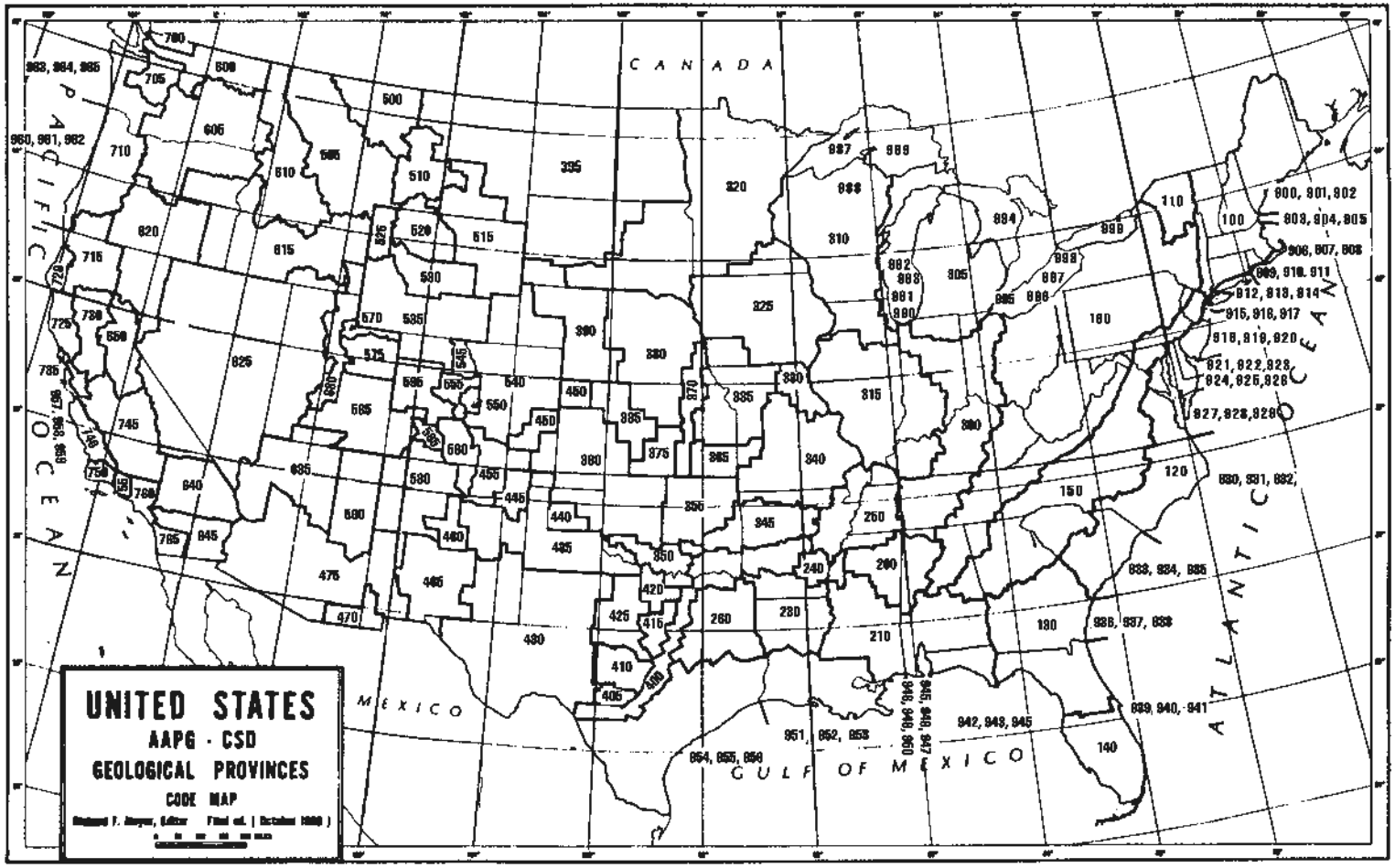

Figure 1. Geologic Provinces of the United States.

Table 1

Samples from Gas and Oil Wells in the United States

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21329	COMPONENT, MOLE PCT	
STATE	CALIFORNIA	METHANE	86.3
COUNTY	SOLANO	ETHANE	3.4
FIELD	BUNKER	PROPANE	1.4
WELL NAME	HORIGAN RAYN NO. 1	N-BUTANE	0.3
API	0409521166	ISOBUTANE	0.3
LOCATION	SEC 13, T6N, R1E	N-PENTANE	0.1
OWNER	ABA ENERGY CORP.	ISOPENTANE	0.1
COMPLETED	020712	CYCLOPENTANE	--
SAMPLED	040527	HEXANES PLUS	0.2
FORMATION	CRET-WINTERS	NITROGEN	7.5
GEOLOGIC PROVINCE CODE	730	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)		ARGON	0.1
MEASURED DEPTH	10260	ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	3200	HYDROGEN	0.0
OPEN FLOW, MCFD	1500	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.3
		HELIUM	0.00
		HEATING VALUE*	1,009
		SPECIFIC GRAVITY	0.637

SAMPLE	21554	COMPONENT, MOLE PCT	
STATE	CALIFORNIA	METHANE	76.3
COUNTY	KERN	ETHANE	9.8
FIELD	CAL CANAL	PROPANE	5.0
WELL NAME	CHEVRON-USTAN-U.S.LA 13X-4	N-BUTANE	1.8
API	0402958507	ISOBUTANE	0.9
LOCATION	SEC 4, T29S, R22E	N-PENTANE	0.5
OWNER	SAN JOAQUIN FACILITIES MANAGEMENT, INC.	ISOPENTANE	0.5
COMPLETED	790217	CYCLOPENTANE	--
SAMPLED	060630	HEXANES PLUS	0.6
FORMATION	MIOC-STEVENS	NITROGEN	0.1
GEOLOGIC PROVINCE CODE	745	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	11897	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	2500	HYDROGEN	0.0
OPEN FLOW, MCFD	30	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	4.5
		HELIUM	0.00
		HEATING VALUE*	1,225
		SPECIFIC GRAVITY	0.766

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21562	COMPONENT, MOLE PCT	
STATE	CALIFORNIA	METHANE	71.1
COUNTY	KERN	ETHANE	11.0
FIELD	CANAL	PROPANE	9.0
WELL NAME	PIONEER CANAL 18R-3	N-BUTANE	3.1
API	0402984059	ISOBUTANE	1.4
LOCATION	SEC 3, T30S, R25E	N-PENTANE	0.7
OWNER	SAN JOAQUIN FACILITIES MANAGEMENT, INC.	ISOPENTANE	0.7
COMPLETED	890421	CYCLOPENTANE	--
SAMPLED	060700	HEXANES PLUS	1.0
FORMATION	MIOC-FRUITVALE	NITROGEN	0.8
GEOLOGIC PROVINCE CODE	745	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	8966	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG	2200	HYDROGEN	0.0
OPEN FLOW, MCFD	10	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.0
		HELIUM	0.00
		HEATING VALUE*	1,395
		SPECIFIC GRAVITY	0.827

SAMPLE	21567	COMPONENT, MOLE PCT	
STATE	CALIFORNIA	METHANE	67.0
COUNTY	KERN	ETHANE	10.1
FIELD	CARNEROS CREEK	PROPANE	8.8
WELL NAME	SANTA FE 11	N-BUTANE	3.3
API	0403001479	ISOBUTANE	1.5
LOCATION	SEC 30, T28S, R20E	N-PENTANE	0.9
OWNER	PYRAMID OIL CO.	ISOPENTANE	1.1
COMPLETED	931015	CYCLOPENTANE	--
SAMPLED	060831	HEXANES PLUS	1.6
FORMATION	EOCE-POINT OF ROCKS, MIOC-PHACOIDES	NITROGEN	4.7
GEOLOGIC PROVINCE CODE	745	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	3300	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.5
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	18	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.6
		HELIUM	0.00
		HEATING VALUE*	1,389
		SPECIFIC GRAVITY	0.862

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21400	COMPONENT, MOLE PCT	
STATE	CALIFORNIA	METHANE	75.4
COUNTY	KERN	ETHANE	2.0
FIELD	CYMRIC	PROPANE	0.9
WELL NAME	MCKITTRICK DEEP 104	N-BUTANE	0.3
API	0403003951	ISOBUTANE	0.1
LOCATION	SEC 6, T30S, R22E	N-PENTANE	0.1
OWNER	PLAINS EXPLORATION & PRODUCTION CO.	ISOPENTANE	0.1
COMPLETED	950706	CYCLOPENTANE	--
SAMPLED	041117	HEXANES PLUS	0.3
FORMATION	MIOC-ANTELOPE	NITROGEN	2.1
GEOLOGIC PROVINCE CODE	745	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	4740	ARGON	TRACE
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	220	HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	18.7
		HELIUM	0.01
		HEATING VALUE*	856
		SPECIFIC GRAVITY	0.779

SAMPLE	21401	COMPONENT, MOLE PCT	
STATE	CALIFORNIA	METHANE	82.7
COUNTY	KERN	ETHANE	5.1
FIELD	CYMRIC	PROPANE	2.0
WELL NAME	R.H. ANDERSON TWO 100H	N-BUTANE	0.3
API	0403004641	ISOBUTANE	0.3
LOCATION	SEC 20, T29S, R21E	N-PENTANE	TRACE
OWNER	PLAINS EXPLORATION & PRODUCTION CO.	ISOPENTANE	0.1
COMPLETED	951204	CYCLOPENTANE	--
SAMPLED	041117	HEXANES PLUS	0.4
FORMATION	MIOC-CARNEROS	NITROGEN	2.5
GEOLOGIC PROVINCE CODE	745	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)		ARGON	0.1
MEASURED DEPTH	4593	ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	20	HYDROGEN	0.0
OPEN FLOW, MCFD	15	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	6.6
		HELIUM	0.02
		HEATING VALUE*	1,018
		SPECIFIC GRAVITY	0.691

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21571	COMPONENT, MOLE PCT	
STATE	CALIFORNIA	METHANE	73.3
COUNTY	LOS ANGELES	ETHANE	5.4
FIELD	DEL VALLE	PROPANE	6.3
WELL NAME	NL&F 12-20	N-BUTANE	3.2
API	0403722746	ISOBUTANE	1.4
LOCATION	SEC 20, T4N, R17W	N-PENTANE	1.3
OWNER	LBTH, INC.	ISOPENTANE	1.3
COMPLETED	840126	CYCLOPENTANE	--
SAMPLED	061012	HEXANES PLUS	2.5
FORMATION	-	NITROGEN	2.0
GEOLOGIC PROVINCE CODE	760	OXYGEN	--
TRUE VERTICAL DEPTH (FT)		ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.2
WELLHEAD PRESSURE, PSIG	25	HYDROGEN	0.0
OPEN FLOW, MCFD	5	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	3.2
		HELIUM	0.00
		HEATING VALUE*	1,369
		SPECIFIC GRAVITY	0.859

SAMPLE	21570	COMPONENT, MOLE PCT	
STATE	CALIFORNIA	METHANE	55.8
COUNTY	SAN JOAQUIN	ETHANE	0.2
FIELD	FRENCH CAMP	PROPANE	TRACE
WELL NAME	PAGNUCCI 1-34	N-BUTANE	TRACE
API	0407720667	ISOBUTANE	TRACE
LOCATION	SEC 34, T1N, R6E	N-PENTANE	0.0
OWNER	VINTAGE PRODUCTION OF CA, LLC	ISOPENTANE	0.0
COMPLETED	031112	CYCLOPENTANE	--
SAMPLED	060000	HEXANES PLUS	0.0
FORMATION	CRET-LATHROP	NITROGEN	43.7
GEOLOGIC PROVINCE CODE	730	OXYGEN	--
TRUE VERTICAL DEPTH (FT)		ARGON	--
MEASURED DEPTH	9414	ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	3200	HYDROGEN	0.0
OPEN FLOW, MCFD	4415	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	0.01
		HEATING VALUE*	569
		SPECIFIC GRAVITY	0.738

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21533	COMPONENT, MOLE PCT	
STATE	CALIFORNIA	METHANE	69.9
COUNTY	KERN	ETHANE	3.7
FIELD	LOST HILLS	PROPANE	1.5
WELL NAME	33F-1-11D	N-BUTANE	1.5
API	0403023204	ISOBUTANE	1.2
LOCATION	SEC 33, T26S, R21E	N-PENTANE	0.7
OWNER	CHEVRON USA, INC.	ISOPENTANE	0.9
COMPLETED	030930	CYCLOPENTANE	--
SAMPLED	060526	HEXANES PLUS	1.0
FORMATION	MIOC-BELRIDGE DIATOMITE	NITROGEN	0.2
GEOLOGIC PROVINCE CODE	745	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2319	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	4	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	19.3
		HELIUM	0.00
		HEATING VALUE*	1,010
		SPECIFIC GRAVITY	0.869

SAMPLE	21458	COMPONENT, MOLE PCT	
STATE	CALIFORNIA	METHANE	90.9
COUNTY	GLENN	ETHANE	0.3
FIELD	WILLOWS-BEEHIVE BEND	PROPANE	0.0
WELL NAME	SECTION 60 NO. 12	N-BUTANE	0.0
API	0402120818	ISOBUTANE	0.0
LOCATION	SEC 4, T19N, R2W	N-PENTANE	0.0
OWNER	VENOCO, INC.	ISOPENTANE	0.0
COMPLETED	021209	CYCLOPENTANE	--
SAMPLED	050000	HEXANES PLUS	TRACE
FORMATION	CRET-KIONE	NITROGEN	8.7
GEOLOGIC PROVINCE CODE	730	OXYGEN	--
TRUE VERTICAL DEPTH (FT)		ARGON	--
MEASURED DEPTH	3948	ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	1200	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	TRACE
		HELIUM	TRACE
		HEATING VALUE*	928
		SPECIFIC GRAVITY	0.593

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21404	COMPONENT, MOLE PCT	
STATE	CALIFORNIA	METHANE	91.0
COUNTY	LOS ANGELES	ETHANE	0.8
FIELD	WILMINGTON	PROPANE	0.0
WELL NAME	A-359	N-BUTANE	TRACE
API	0423720344	ISOBUTANE	TRACE
LOCATION	SEC 7, T5S, R12W	N-PENTANE	0.0
OWNER	THUMS LONG BEACH CO.	ISOPENTANE	0.0
COMPLETED	000904	CYCLOPENTANE	--
SAMPLED	041117	HEXANES PLUS	0.0
FORMATION	MIOC-PUENTE	NITROGEN	2.8
GEOLOGIC PROVINCE CODE	760	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)		ARGON	TRACE
MEASURED DEPTH	5811	ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.1
OPEN FLOW, MCFD	39	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	5.3
		HELIUM	0.00
		HEATING VALUE*	936
		SPECIFIC GRAVITY	0.621

SAMPLE	21403	COMPONENT, MOLE PCT	
STATE	CALIFORNIA	METHANE	90.8
COUNTY	LOS ANGELES	ETHANE	1.7
FIELD	WILMINGTON	PROPANE	1.0
WELL NAME	D-725	N-BUTANE	0.5
API	0423726289	ISOBUTANE	0.4
LOCATION	SEC 17, T5S, R12W	N-PENTANE	0.1
OWNER	THUMS LONG BEACH CO.	ISOPENTANE	0.2
COMPLETED	030913	CYCLOPENTANE	--
SAMPLED	041117	HEXANES PLUS	0.1
FORMATION	PLIO-REPETTO	NITROGEN	2.9
GEOLOGIC PROVINCE CODE	760	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)		ARGON	TRACE
MEASURED DEPTH	6444	ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	150	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	2.2
		HELIUM	0.03
		HEATING VALUE*	1,021
		SPECIFIC GRAVITY	0.626

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21481	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	94.2
COUNTY	WASHINGTON	ETHANE	0.9
FIELD	ABARR	PROPANE	0.5
WELL NAME	CHRISTIANSON 2-12	N-BUTANE	0.2
API	0512109479	ISOBUTANE	0.1
LOCATION	SEC 12, T3S, R49W	N-PENTANE	TRACE
OWNER	SAND HILLS SOCIETY	ISOPENTANE	0.1
COMPLETED	791021	CYCLOPENTANE	--
SAMPLED	050629	HEXANES PLUS	0.1
FORMATION	CRET-NIOBRARA	NITROGEN	3.5
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2799	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	1388	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.3
		HELIUM	0.04
		HEATING VALUE*	1,000
		SPECIFIC GRAVITY	0.59

SAMPLE	21490	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	75.3
COUNTY	WELD	ETHANE	7.1
FIELD	ARISTOCRAT	PROPANE	6.8
WELL NAME	ARISTOCRAT 41-10C	N-BUTANE	2.6
API	0512312806	ISOBUTANE	1.5
LOCATION	SEC 10, T3N, R65W	N-PENTANE	0.9
OWNER	ENCANA OIL & GAS (USA), INC.	ISOPENTANE	0.8
COMPLETED	040129	CYCLOPENTANE	--
SAMPLED	050630	HEXANES PLUS	1.3
FORMATION	CRET-CODELL, NIOBRARA	NITROGEN	3.0
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	7094	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	210	HYDROGEN	0.1
OPEN FLOW, MCFD	120	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.3
		HELIUM	0.03
		HEATING VALUE*	1,330
		SPECIFIC GRAVITY	0.796

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21459	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	76.3
COUNTY	WELD	ETHANE	7.3
FIELD	ARISTOCRAT NE	PROPANE	6.2
WELL NAME	OCOMA 31-19	N-BUTANE	1.6
API	0512314917	ISOBUTANE	0.8
LOCATION	SEC 31, T4N, R64W	N-PENTANE	0.4
OWNER	MERIT ENERGY CO.	ISOPENTANE	0.4
COMPLETED	910306	CYCLOPENTANE	--
SAMPLED	050610	HEXANES PLUS	0.6
FORMATION	CRET-SUSSEX	NITROGEN	5.8
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	4518	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	585	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.5
		HELIUM	0.10
		HEATING VALUE*	1,196
		SPECIFIC GRAVITY	0.743

SAMPLE	21469	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	48.4
COUNTY	KIOWA	ETHANE	6.2
FIELD	AZTECAN	PROPANE	4.5
WELL NAME	BLACKHOLE 24-4 #2	N-BUTANE	1.6
API	0506106751	ISOBUTANE	0.7
LOCATION	SEC 4, T17S, R45W	N-PENTANE	0.5
OWNER	CITATION OIL & GAS CORP.	ISOPENTANE	0.4
COMPLETED	980407	CYCLOPENTANE	--
SAMPLED	050628	HEXANES PLUS	0.8
FORMATION	PENN-MORROW	NITROGEN	33.9
GEOLOGIC PROVINCE CODE	450	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	4964	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.8
		HELIUM	2.12
		HEATING VALUE*	862
		SPECIFIC GRAVITY	0.837

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21656	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	92.0
COUNTY	YUMA	ETHANE	1.1
FIELD	BALLYNEAL	PROPANE	0.5
WELL NAME	BLEDSOE 2-30-5-44	N-BUTANE	0.1
API	0512509954	ISOBUTANE	0.1
LOCATION	SEC 30, T5N, R44W	N-PENTANE	TRACE
OWNER	FOREST OIL CORP.	ISOPENTANE	TRACE
COMPLETED	060703	CYCLOPENTANE	--
SAMPLED	070814	HEXANES PLUS	TRACE
FORMATION	CRET-NIOBRARA	NITROGEN	5.5
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2440	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	58	HYDROGEN SULFIDE**	TRACE
		CARBON DIOXIDE	0.3
		HELIUM	0.14
		HEATING VALUE*	976
		SPECIFIC GRAVITY	0.595

SAMPLE	21541	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	67.5
COUNTY	ADAMS	ETHANE	13.1
FIELD	BARREL RANCH	PROPANE	9.0
WELL NAME	LINNEBUR 6-23	N-BUTANE	3.0
API	0500109373	ISOBUTANE	1.2
LOCATION	SEC 6, T3S, R60W	N-PENTANE	0.9
OWNER	WHITING OIL & GAS CORP.	ISOPENTANE	0.8
COMPLETED	980325	CYCLOPENTANE	--
SAMPLED	060627	HEXANES PLUS	1.6
FORMATION	CRET-DAKOTA D, J	NITROGEN	1.7
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	6559	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	190	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.4
		HELIUM	0.03
		HEATING VALUE*	1,418
		SPECIFIC GRAVITY	0.855

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21534	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	73.7
COUNTY	ADAMS	ETHANE	10.8
FIELD	BASELINE	PROPANE	6.1
WELL NAME	ABBOTT LANDS 32-7-4	N-BUTANE	2.0
API	0500107859	ISOBUTANE	0.8
LOCATION	SEC 7, T1S, R63W	N-PENTANE	0.7
OWNER	ENERVEST OPERATING, LLC	ISOPENTANE	0.7
COMPLETED	810611	CYCLOPENTANE	--
SAMPLED	060609	HEXANES PLUS	1.4
FORMATION	CRET-DAKOTA J	NITROGEN	1.8
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	7504	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.1
OPEN FLOW, MCFD	229	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.9
		HELIUM	0.04
		HEATING VALUE*	1,307
		SPECIFIC GRAVITY	0.793

SAMPLE	21550	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	64.0
COUNTY	WELD	ETHANE	14.3
FIELD	BIRD HAVEN	PROPANE	10.2
WELL NAME	SHOWERS 5-4, 32-12-10,32-5-7, COMPOSITE	N-BUTANE	3.0
API	0512319939	ISOBUTANE	0.9
LOCATION	SEC 5&32, T7&8N R60W	N-PENTANE	0.7
OWNER	DIVERSIFIED OPERATING CORP.	ISOPENTANE	0.5
COMPLETED	000823	CYCLOPENTANE	--
SAMPLED	060628	HEXANES PLUS	1.0
FORMATION	CRET-DAKOTA D, J	NITROGEN	0.8
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	6955	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD	750	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	4.5
		HELIUM	0.02
		HEATING VALUE*	1,383
		SPECIFIC GRAVITY	0.874

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21487	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	48.5
COUNTY	CHEYENNE	ETHANE	8.3
FIELD	BLEDSOE RANCH	PROPANE	7.7
WELL NAME	GRAY STATE 5 (INJECTION,BLDSO RNCH & CSTLE PK GAS)	N-BUTANE	3.1
API	0501706717	ISOBUTANE	1.0
LOCATION	SEC 36, T12S, R51W	N-PENTANE	0.7
OWNER	CITATION OIL & GAS CORP.	ISOPENTANE	0.6
COMPLETED	880202	CYCLOPENTANE	--
SAMPLED	050630	HEXANES PLUS	1.0
FORMATION	PENN-MORROW	NITROGEN	26.2
GEOLOGIC PROVINCE CODE	450	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	6206	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.9
		HELIUM	1.05
		HEATING VALUE*	1,061
		SPECIFIC GRAVITY	0.899

SAMPLE	21486	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	46.4
COUNTY	CHEYENNE	ETHANE	8.4
FIELD	BLEDSOE RANCH	PROPANE	7.7
WELL NAME	GRAY STATE 1, 3, & 7	N-BUTANE	3.3
API	--	ISOBUTANE	1.0
LOCATION	SEC 36, T12S, R51W	N-PENTANE	1.0
OWNER	CITATION OIL & GAS CORP.	ISOPENTANE	0.8
COMPLETED		CYCLOPENTANE	--
SAMPLED	050630	HEXANES PLUS	1.7
FORMATION	PENN-MORROW	NITROGEN	26.8
GEOLOGIC PROVINCE CODE	450	OXYGEN	--
TRUE VERTICAL DEPTH (FT)		ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.9
		HELIUM	1.07
		HEATING VALUE*	1,103
		SPECIFIC GRAVITY	0.931

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21475	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	23.4
COUNTY	CHEYENNE	ETHANE	3.0
FIELD	BROKEN BOW	PROPANE	3.4
WELL NAME	PFEIFER 41-5-2	N-BUTANE	2.1
API	0501707567	ISOBUTANE	0.8
LOCATION	SEC 5, T13S, R44W	N-PENTANE	0.9
OWNER	CITATION OIL & GAS CORP.	ISOPENTANE	0.7
COMPLETED	971215	CYCLOPENTANE	--
SAMPLED	050628	HEXANES PLUS	1.6
FORMATION	PENN-MORROW	NITROGEN	58.2
GEOLOGIC PROVINCE CODE	450	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	5292	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.2
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	1701	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.4
		HELIUM	4.53
		HEATING VALUE*	606
		SPECIFIC GRAVITY	0.948

SAMPLE	21485	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	47.9
COUNTY	CHEYENNE	ETHANE	6.9
FIELD	CASTLE PEAK	PROPANE	6.3
WELL NAME	WECO-WILLIAM BATTERY	N-BUTANE	2.8
API	0501706676	ISOBUTANE	0.8
LOCATION	SEC 11, T13S, R51W	N-PENTANE	0.9
OWNER	CITATION OIL & GAS CORP.	ISOPENTANE	0.7
COMPLETED	870901	CYCLOPENTANE	--
SAMPLED	050630	HEXANES PLUS	1.4
FORMATION	PENN-MORROW	NITROGEN	29.3
GEOLOGIC PROVINCE CODE	450	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	6202	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD	442	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.8
		HELIUM	1.20
		HEATING VALUE*	1,012
		SPECIFIC GRAVITY	0.898

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21536	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	36.1
COUNTY	CHEYENNE	ETHANE	6.2
FIELD	CHUNKY	PROPANE	6.7
WELL NAME	PETER 42-29 NO. 2	N-BUTANE	3.7
API	0501707420	ISOBUTANE	1.4
LOCATION	SEC 29, T13S, R43W	N-PENTANE	1.1
OWNER	CITATION OIL & GAS CORP.	ISOPENTANE	1.0
COMPLETED	940428	CYCLOPENTANE	--
SAMPLED	060626	HEXANES PLUS	1.7
FORMATION	PENN-MORROW	NITROGEN	38.3
GEOLOGIC PROVINCE CODE	450	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	5213	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.2
WELLHEAD PRESSURE, PSIG	984	HYDROGEN	TRACE
OPEN FLOW, MCFD	207	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	2.1
		HELIUM	1.44
		HEATING VALUE*	979
		SPECIFIC GRAVITY	0.981

SAMPLE	21552	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	50.9
COUNTY	WELD	ETHANE	16.3
FIELD	CROW	PROPANE	15.8
WELL NAME	FEDERAL OSPREY 35-3	N-BUTANE	5.2
API	0512320272	ISOBUTANE	1.7
LOCATION	SEC 35, T8N, R60W	N-PENTANE	1.6
OWNER	DIVERSIFIED OPERATING CORP.	ISOPENTANE	1.2
COMPLETED	021201	CYCLOPENTANE	--
SAMPLED	060628	HEXANES PLUS	2.5
FORMATION	CRET-DAKOTA D	NITROGEN	0.6
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)		ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD	160	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	4.2
		HELIUM	0.01
		HEATING VALUE*	1,662
		SPECIFIC GRAVITY	1.044

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21542	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	71.5
COUNTY	ADAMS	ETHANE	9.4
FIELD	DANSKIN	PROPANE	7.3
WELL NAME	LINNEBUR FARMS 21-3	N-BUTANE	3.2
API	0500108151	ISOBUTANE	1.1
LOCATION	SEC 3, T2S, R60W	N-PENTANE	0.8
OWNER	SOVEREIGN ENERGY, LLC.	ISOPENTANE	0.9
COMPLETED	990211	CYCLOPENTANE	--
SAMPLED	060627	HEXANES PLUS	1.6
FORMATION	CRET-DAKOTA J	NITROGEN	2.8
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	6360	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	315	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.3
		HELIUM	0.06
		HEATING VALUE*	1,360
		SPECIFIC GRAVITY	0.828

SAMPLE	21560	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	63.5
COUNTY	ELBERT	ETHANE	10.8
FIELD	DEADEYE	PROPANE	11.7
WELL NAME	HSR-WHITEHEAD 14-9	N-BUTANE	4.1
API	0503906630	ISOBUTANE	1.1
LOCATION	SEC 9, T6S, R62W	N-PENTANE	1.2
OWNER	HILCORP ENERGY CO.	ISOPENTANE	1.0
COMPLETED	950725	CYCLOPENTANE	--
SAMPLED	060712	HEXANES PLUS	2.3
FORMATION	CRET-DAKOTA D	NITROGEN	2.2
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	7405	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	2.2
		HELIUM	0.02
		HEATING VALUE*	1,493
		SPECIFIC GRAVITY	0.922

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21561	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	63.4
COUNTY	ELBERT	ETHANE	10.8
FIELD	DEADEYE	PROPANE	11.7
WELL NAME	HSR-WHITEHEAD 14-9	N-BUTANE	4.1
API	0503906630	ISOBUTANE	1.1
LOCATION	SEC 9, T6S, R62W	N-PENTANE	1.2
OWNER	HILCORP ENERGY CO.	ISOPENTANE	0.9
COMPLETED	950725	CYCLOPENTANE	--
SAMPLED	060712	HEXANES PLUS	2.3
FORMATION	CRET-DAKOTA D	NITROGEN	2.2
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	7405	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	2.2
		HELIUM	0.02
		HEATING VALUE*	1,493
		SPECIFIC GRAVITY	0.922

SAMPLE	21535	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	23.9
COUNTY	CHEYENNE	ETHANE	12.8
FIELD	DINO	PROPANE	21.6
WELL NAME	DART 22-22 NO.1	N-BUTANE	6.4
API	0501707261	ISOBUTANE	3.9
LOCATION	SEC 22, T15S, R45W	N-PENTANE	2.0
OWNER	CITATION OIL & GAS CORP.	ISOPENTANE	1.9
COMPLETED	911121	CYCLOPENTANE	--
SAMPLED	060626	HEXANES PLUS	3.0
FORMATION	MISS-SPERGEN	NITROGEN	19.9
GEOLOGIC PROVINCE CODE	450	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	5512	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.1
OPEN FLOW, MCFD	14	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	3.7
		HELIUM	0.69
		HEATING VALUE*	1,649
		SPECIFIC GRAVITY	1.239

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21549	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	57.7
COUNTY	WELD	ETHANE	15.6
FIELD	DOLLEY	PROPANE	12.8
WELL NAME	KETTL 23-3	N-BUTANE	4.4
API	0512321025	ISOBUTANE	1.5
LOCATION	SEC 23, T6N, R61W	N-PENTANE	1.3
OWNER	DIVERSIFIED OPERATING CORP.	ISOPENTANE	1.0
COMPLETED	020905	CYCLOPENTANE	--
SAMPLED	060628	HEXANES PLUS	2.1
FORMATION	CRET-DAKOTA D	NITROGEN	0.7
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	6756	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	175	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	2.9
		HELIUM	0.01
		HEATING VALUE*	1,567
		SPECIFIC GRAVITY	0.965

SAMPLE	21539	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	41.6
COUNTY	LINCOLN	ETHANE	13.3
FIELD	FALLOW	PROPANE	16.1
WELL NAME	FALLOW 32-18 NO. 1	N-BUTANE	4.8
API	0507306262	ISOBUTANE	2.3
LOCATION	SEC 18, T10S, R54W	N-PENTANE	1.2
OWNER	CITATION OIL & GAS CORP.	ISOPENTANE	1.3
COMPLETED	921009	CYCLOPENTANE	--
SAMPLED	060627	HEXANES PLUS	2.0
FORMATION	PENN-MARMATON	NITROGEN	16.7
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	6818	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD	43	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.4
		HELIUM	0.30
		HEATING VALUE*	1,486
		SPECIFIC GRAVITY	1.045

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21466	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	33.8
COUNTY	BACA	ETHANE	1.1
FIELD	FLANK	PROPANE	0.7
WELL NAME	COOK NMD 1-13	N-BUTANE	0.3
API	0500906584	ISOBUTANE	0.1
LOCATION	SEC 13, T33S, R44W	N-PENTANE	0.1
OWNER	ENERGY ALLIANCE CO., INC.	ISOPENTANE	0.1
COMPLETED	981029	CYCLOPENTANE	--
SAMPLED	050627	HEXANES PLUS	0.2
FORMATION	PERM-RED CAVE	NITROGEN	61.4
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	1654	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD	580	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	1.92
		HEATING VALUE*	415
		SPECIFIC GRAVITY	0.83

SAMPLE	21472	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	34.0
COUNTY	CHEYENNE	ETHANE	3.5
FIELD	FRONTERA	PROPANE	3.4
WELL NAME	FRONTERA U 5-1	N-BUTANE	1.8
API	0501706663	ISOBUTANE	0.7
LOCATION	SEC 18, T15S, R41W	N-PENTANE	0.8
OWNER	MULL DRILLING CO., INC.	ISOPENTANE	0.6
COMPLETED	871106	CYCLOPENTANE	--
SAMPLED	050628	HEXANES PLUS	1.3
FORMATION	PENN-MORROW	NITROGEN	50.8
GEOLOGIC PROVINCE CODE	450	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	5164	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	106	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.1
		HELIUM	1.74
		HEATING VALUE*	695
		SPECIFIC GRAVITY	0.914

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21473	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	27.3
COUNTY	CHEYENNE	ETHANE	3.7
FIELD	FRONTERA	PROPANE	4.5
WELL NAME	FRONTERA UNIT 7	N-BUTANE	2.8
API	0501706831	ISOBUTANE	1.0
LOCATION	SEC 13, T15S, R42W	N-PENTANE	0.9
OWNER	CITATION OIL & GAS CORP.	ISOPENTANE	0.8
COMPLETED	880523	CYCLOPENTANE	--
SAMPLED	050628	HEXANES PLUS	1.6
FORMATION	PENN-MORROW	NITROGEN	53.3
GEOLOGIC PROVINCE CODE	450	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	5202	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.6
		HELIUM	2.40
		HEATING VALUE*	724
		SPECIFIC GRAVITY	0.969

SAMPLE	21445	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	95.7
COUNTY	LAS ANIMAS	ETHANE	0.0
FIELD	HILL RANCH	PROPANE	0.0
WELL NAME	HILL RANCH 4-14R	N-BUTANE	0.0
API	0507107175	ISOBUTANE	0.0
LOCATION	SEC 4, T35S, R67W	N-PENTANE	0.0
OWNER	XTO ENERGY, INC.	ISOPENTANE	0.0
COMPLETED	011023	CYCLOPENTANE	--
SAMPLED	050412	HEXANES PLUS	0.0
FORMATION	TERT-RATON	NITROGEN	4.0
GEOLOGIC PROVINCE CODE	455	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	1447	ARGON	0.1
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	50	HYDROGEN	0.0
OPEN FLOW, MCFD	380	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	0.00
		HEATING VALUE*	969
		SPECIFIC GRAVITY	0.573

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21470	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	52.4
COUNTY	KIOWA	ETHANE	10.9
FIELD	JACE	PROPANE	8.3
WELL NAME	TUTTLE 33-35-1	N-BUTANE	2.4
API	0506106621	ISOBUTANE	0.8
LOCATION	SEC 35, T17S, R42W	N-PENTANE	0.6
OWNER	CITATION OIL & GAS CORP.	ISOPENTANE	0.5
COMPLETED	920119	CYCLOPENTANE	--
SAMPLED	050628	HEXANES PLUS	0.9
FORMATION	PENN-MORROW	NITROGEN	21.5
GEOLOGIC PROVINCE CODE	450	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	5056	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.8
		HELIUM	0.92
		HEATING VALUE*	1,123
		SPECIFIC GRAVITY	0.869

SAMPLE	21599	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	86.4
COUNTY	GARFIELD	ETHANE	8.1
FIELD	KOKOPELLI	PROPANE	2.9
WELL NAME	JOLLEY 17-6	N-BUTANE	0.7
API	0504507423	ISOBUTANE	0.7
LOCATION	SEC 17, T6S, R91W	N-PENTANE	0.2
OWNER	ENCANA OIL & GAS (USA), INC.	ISOPENTANE	0.2
COMPLETED	000523	CYCLOPENTANE	--
SAMPLED	070523	HEXANES PLUS	0.4
FORMATION	CRET-WILLIAMS FORK	NITROGEN	0.4
GEOLOGIC PROVINCE CODE	595	OXYGEN	--
TRUE VERTICAL DEPTH (FT)		ARGON	--
MEASURED DEPTH	6070	ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	285	HYDROGEN	0.0
OPEN FLOW, MCFD	280	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	TRACE
		HELIUM	0.01
		HEATING VALUE*	1,170
		SPECIFIC GRAVITY	0.66

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21594	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	47.4
COUNTY	ADAMS	ETHANE	19.8
FIELD	KRAUTHEAD	PROPANE	9.6
WELL NAME	ARNOLD ELEANOR 1	N-BUTANE	6.3
API	0500107751	ISOBUTANE	3.1
LOCATION	SEC. 2, T1S, R64W	N-PENTANE	3.9
OWNER	ENERVEST OPERATING, LLC	ISOPENTANE	2.9
COMPLETED	820128	CYCLOPENTANE	--
SAMPLED	070423	HEXANES PLUS	3.3
FORMATION	CRET-DAKOTA D	NITROGEN	0.8
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	7616	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.7
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD	800	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	2.3
		HELIUM	0.01
		HEATING VALUE*	1,810
		SPECIFIC GRAVITY	1.121

SAMPLE	21543	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	72.7
COUNTY	ADAMS	ETHANE	10.7
FIELD	LIDO	PROPANE	6.8
WELL NAME	MCLENNAN ST. A-1	N-BUTANE	2.3
API	0500106616	ISOBUTANE	0.9
LOCATION	SEC 36, T1S, R60W	N-PENTANE	0.7
OWNER	SOVEREIGN ENERGY, LLC.	ISOPENTANE	0.7
COMPLETED	730108	CYCLOPENTANE	--
SAMPLED	060627	HEXANES PLUS	1.4
FORMATION	CRET-DAKOTA J	NITROGEN	2.3
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	6284	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	1037	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.4
		HELIUM	0.05
		HEATING VALUE*	1,326
		SPECIFIC GRAVITY	0.803

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21471	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	25.2
COUNTY	CHEYENNE	ETHANE	1.9
FIELD	LONGHORN GULCH	PROPANE	1.6
WELL NAME	TED 11-3-1	N-BUTANE	0.8
API	0501706857	ISOBUTANE	0.4
LOCATION	SEC 3, T15S, R42W	N-PENTANE	0.3
OWNER	CITATION OIL & GAS CORP.	ISOPENTANE	0.3
COMPLETED	930126	CYCLOPENTANE	--
SAMPLED	050628	HEXANES PLUS	0.4
FORMATION	PENN-MORROW	NITROGEN	64.8
GEOLOGIC PROVINCE CODE	450	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	5080	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	1659	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.0
		HELIUM	3.23
		HEATING VALUE*	410
		SPECIFIC GRAVITY	0.882

SAMPLE	21478	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	92.8
COUNTY	WASHINGTON	ETHANE	1.1
FIELD	LONGKNIFE	PROPANE	0.7
WELL NAME	BURNS 1	N-BUTANE	0.2
API	0512109772	ISOBUTANE	0.2
LOCATION	SEC 29, T2S, R50W	N-PENTANE	0.1
OWNER	SAND HILLS SOCIETY	ISOPENTANE	0.1
COMPLETED	820315	CYCLOPENTANE	--
SAMPLED	050629	HEXANES PLUS	0.1
FORMATION	CRET-NIOBRARA	NITROGEN	4.2
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	3042	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	1330	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.5
		HELIUM	0.05
		HEATING VALUE*	999
		SPECIFIC GRAVITY	0.599

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21544	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	82.3
COUNTY	WELD	ETHANE	8.6
FIELD	LOST CREEK	PROPANE	2.7
WELL NAME	HSR HOBE ST. 2-32	N-BUTANE	0.7
API	0512318355	ISOBUTANE	0.5
LOCATION	SEC 32, T3N, R62W	N-PENTANE	0.2
OWNER	HILCORP ENERGY CO.	ISOPENTANE	0.3
COMPLETED	940928	CYCLOPENTANE	--
SAMPLED	060628	HEXANES PLUS	0.5
FORMATION	CRET-DAKOTA J	NITROGEN	0.5
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	6864	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	324	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	3.6
		HELIUM	0.02
		HEATING VALUE*	1,137
		SPECIFIC GRAVITY	0.699

SAMPLE	21474	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	32.8
COUNTY	CHEYENNE	ETHANE	5.6
FIELD	MAYFIELD	PROPANE	5.9
WELL NAME	N. MAYFIELD 14-17-1	N-BUTANE	3.7
API	0501707436	ISOBUTANE	1.4
LOCATION	SEC 17, T13S, R43W	N-PENTANE	1.4
OWNER	CITATION OIL & GAS CORP.	ISOPENTANE	1.1
COMPLETED	940928	CYCLOPENTANE	--
SAMPLED	050628	HEXANES PLUS	2.1
FORMATION	PENN-MORROW	NITROGEN	41.8
GEOLOGIC PROVINCE CODE	450	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	5216	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	958	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	2.1
		HELIUM	1.91
		HEATING VALUE*	949
		SPECIFIC GRAVITY	0.999

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21476
STATE	COLORADO
COUNTY	LINCOLN
FIELD	METEOR
WELL NAME	STATE METEOR 1-16
API	0507306300
LOCATION	SEC 16, T12S, R52W
OWNER	MULL DRILLING CO., INC.
COMPLETED	020123
SAMPLED	050630
FORMATION	PENN-MORROW
GEOLOGIC PROVINCE CODE	540
TRUE VERTICAL DEPTH (FT)	6690
MEASURED DEPTH	
WELLHEAD PRESSURE, PSIG	
OPEN FLOW, MCFD	981

COMPONENT, MOLE PCT	
METHANE	37.6
ETHANE	6.8
PROPANE	7.3
N-BUTANE	3.4
ISOBUTANE	0.9
N-PENTANE	1.2
ISOPENTANE	0.9
CYCLOPENTANE	--
HEXANES PLUS	2.2
NITROGEN	36.5
OXYGEN	--
ARGON	--
ARGON + OXYGEN	0.1
HYDROGEN	TRACE
HYDROGEN SULFIDE**	0.0
CARBON DIOXIDE	1.5
HELIUM	1.58
HEATING VALUE*	1,018
SPECIFIC GRAVITY	0.975

SAMPLE	21662
STATE	COLORADO
COUNTY	WELD
FIELD	NORTH RIVERSIDE
WELL NAME	PRONGHORN 32-8
API	0512322052
LOCATION	SEC 8, T5N, R61W
OWNER	BONANZA CREEK ENERGY OPERATING CO., LLC
COMPLETED	040528
SAMPLED	070816
FORMATION	CRET-DAKOTA D
GEOLOGIC PROVINCE CODE	540
TRUE VERTICAL DEPTH (FT)	6669
MEASURED DEPTH	
WELLHEAD PRESSURE, PSIG	
OPEN FLOW, MCFD	289

COMPONENT, MOLE PCT	
METHANE	47.6
ETHANE	19.3
PROPANE	16.9
N-BUTANE	5.0
ISOBUTANE	2.1
N-PENTANE	1.9
ISOPENTANE	1.4
CYCLOPENTANE	--
HEXANES PLUS	2.6
NITROGEN	0.3
OXYGEN	--
ARGON	--
ARGON + OXYGEN	0.5
HYDROGEN	0.0
HYDROGEN SULFIDE**	0.0
CARBON DIOXIDE	2.5
HELIUM	0.00
HEATING VALUE*	1,739
SPECIFIC GRAVITY	1.071

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21663	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	47.7
COUNTY	WELD	ETHANE	18.9
FIELD	NORTH RIVERSIDE	PROPANE	17.3
WELL NAME	PRONGHORN 14-8	N-BUTANE	5.0
API	0512323566	ISOBUTANE	2.2
LOCATION	SEC 8, T5N, R61W	N-PENTANE	1.7
OWNER	BONANZA CREEK ENERGY OPERATING CO., LLC	ISOPENTANE	1.4
COMPLETED	061217	CYCLOPENTANE	--
SAMPLED	070816	HEXANES PLUS	2.6
FORMATION	CRET-NIOBRARA	NITROGEN	0.3
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	6142	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.5
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	332	HYDROGEN SULFIDE**	TRACE
		CARBON DIOXIDE	2.4
		HELIUM	0.00
		HEATING VALUE*	1,737
		SPECIFIC GRAVITY	1.069

SAMPLE	21595	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	74.7
COUNTY	DOLORES	ETHANE	2.8
FIELD	PAPOOSE CANYON	PROPANE	1.7
WELL NAME	BREWER FEDERAL 2-17	N-BUTANE	0.8
API	0503306108	ISOBUTANE	0.7
LOCATION	SEC 17, T39N, R19W	N-PENTANE	0.3
OWNER	D. J. SIMMONS, INC.	ISOPENTANE	0.4
COMPLETED	030603	CYCLOPENTANE	--
SAMPLED	070427	HEXANES PLUS	0.5
FORMATION	PENN-HONAKER TRAIL	NITROGEN	17.5
GEOLOGIC PROVINCE CODE	585	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	5344	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.3
WELLHEAD PRESSURE, PSIG	1700	HYDROGEN	TRACE
OPEN FLOW, MCFD	2000	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.18
		HEATING VALUE*	950
		SPECIFIC GRAVITY	0.706

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21600	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	82.1
COUNTY	WELD	ETHANE	8.5
FIELD	PEACOCK	PROPANE	2.8
WELL NAME	LOST CREEK 5	N-BUTANE	0.8
API	0512321441	ISOBUTANE	0.6
LOCATION	SEC 20, T3N, R62W	N-PENTANE	0.4
OWNER	O'BRIEN ENERGY RESOURCES	ISOPENTANE	0.5
COMPLETED	030822	CYCLOPENTANE	--
SAMPLED	070525	HEXANES PLUS	0.7
FORMATION	CRET-DAKOTA J	NITROGEN	0.7
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	6833	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	300	HYDROGEN	0.2
OPEN FLOW, MCFD	90	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	2.6
		HELIUM	0.03
		HEATING VALUE*	1,170
		SPECIFIC GRAVITY	0.704

SAMPLE	21538	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	28.3
COUNTY	KIT CARSON	ETHANE	2.0
FIELD	PENNYPACKER	PROPANE	1.5
WELL NAME	KIRCHOFFNER 21-35 NO. 2	N-BUTANE	0.6
API	0506306292	ISOBUTANE	0.3
LOCATION	SEC 35, T11S, R45W	N-PENTANE	0.3
OWNER	CITATION OIL & GAS CORP.	ISOPENTANE	0.2
COMPLETED	980408	CYCLOPENTANE	--
SAMPLED	060627	HEXANES PLUS	0.5
FORMATION	PENN-MORROW	NITROGEN	61.7
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	5455	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG	470	HYDROGEN	0.0
OPEN FLOW, MCFD	1723	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.5
		HELIUM	3.01
		HEATING VALUE*	433
		SPECIFIC GRAVITY	0.871

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21537	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	28.3
COUNTY	KIT CARSON	ETHANE	2.0
FIELD	PENNYPACKER	PROPANE	1.5
WELL NAME	ANDERSON 23-35 NO. 1	N-BUTANE	0.6
API	0506306298	ISOBUTANE	0.3
LOCATION	SEC 35, T11S, R45W	N-PENTANE	0.3
OWNER	CITATION OIL & GAS CORP.	ISOPENTANE	0.2
COMPLETED	980713	CYCLOPENTANE	--
SAMPLED	060627	HEXANES PLUS	0.5
FORMATION	PENN-MORROW	NITROGEN	61.7
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	5432	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	1622	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.5
		HELIUM	3.01
		HEATING VALUE*	434
		SPECIFIC GRAVITY	0.871

SAMPLE	21482	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	94.0
COUNTY	YUMA	ETHANE	0.9
FIELD	PONY EXPRESS	PROPANE	0.5
WELL NAME	BLACH 1-24	N-BUTANE	0.1
API	0512506159	ISOBUTANE	0.1
LOCATION	SEC 24, T1S, R48W	N-PENTANE	TRACE
OWNER	MOUNTAIN PETROLEUM CORP.	ISOPENTANE	TRACE
COMPLETED	771221	CYCLOPENTANE	--
SAMPLED	050629	HEXANES PLUS	0.1
FORMATION	CRET-NIOBRARA	NITROGEN	3.8
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2576	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	572	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.3
		HELIUM	0.07
		HEATING VALUE*	993
		SPECIFIC GRAVITY	0.588

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21604	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	73.5
COUNTY	ADAMS	ETHANE	12.4
FIELD	PORTER	PROPANE	5.8
WELL NAME	PORTER-UPRR 2	N-BUTANE	1.8
API	0500108410	ISOBUTANE	0.9
LOCATION	SEC 23, T2S, R63W	N-PENTANE	0.6
OWNER	ENERVEST OPERATING, LLC.	ISOPENTANE	0.7
COMPLETED	840803	CYCLOPENTANE	--
SAMPLED	070619	HEXANES PLUS	1.2
FORMATION	CRET-DAKOTA J	NITROGEN	1.3
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	7512	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	253	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.9
		HELIUM	0.03
		HEATING VALUE*	1,304
		SPECIFIC GRAVITY	0.785

SAMPLE	21551	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	61.1
COUNTY	ADAMS	ETHANE	14.8
FIELD	QUAIL	PROPANE	11.1
WELL NAME	STATE OF COLORADO NO. 5	N-BUTANE	3.6
API	0500107578	ISOBUTANE	1.4
LOCATION	SEC 36, T2S, R63W	N-PENTANE	1.0
OWNER	MATRIX ENERGY, LLC.	ISOPENTANE	1.0
COMPLETED	800703	CYCLOPENTANE	--
SAMPLED	060629	HEXANES PLUS	1.7
FORMATION	CRET-DAKOTA D, J	NITROGEN	1.5
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	7435	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD	3200	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	2.8
		HELIUM	0.03
		HEATING VALUE*	1,486
		SPECIFIC GRAVITY	0.919

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21477	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	94.7
COUNTY	WASHINGTON	ETHANE	0.8
FIELD	RUSH WILLADEL	PROPANE	0.4
WELL NAME	RUDNIK 1A	N-BUTANE	0.1
API	0512110198	ISOBUTANE	0.1
LOCATION	SEC 24, T3S, R51W	N-PENTANE	TRACE
OWNER	CENTRAL OPERATING, INC.	ISOPENTANE	TRACE
COMPLETED	040830	CYCLOPENTANE	--
SAMPLED	050629	HEXANES PLUS	0.1
FORMATION	CRET-NIOBRARA	NITROGEN	3.3
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2992	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	200	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.4
		HELIUM	0.03
		HEATING VALUE*	996
		SPECIFIC GRAVITY	0.585

SAMPLE	21669	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	68.0
COUNTY	WELD	ETHANE	11.4
FIELD	SCABBARD	PROPANE	7.0
WELL NAME	CHAMPLIN 367 AMOCO 1	N-BUTANE	2.5
API	0512309072	ISOBUTANE	1.0
LOCATION	SEC 5, T1N, R63W	N-PENTANE	0.9
OWNER	ENERVEST OPERATING, LLC.	ISOPENTANE	0.8
COMPLETED	770531	CYCLOPENTANE	--
SAMPLED	070929	HEXANES PLUS	1.1
FORMATION	CRET-DAKOTA J	NITROGEN	5.4
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	7282	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.2
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	480	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.7
		HELIUM	0.03
		HEATING VALUE*	1,303
		SPECIFIC GRAVITY	0.828

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21316	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	57.7
COUNTY	PROWERS	ETHANE	11.5
FIELD	SIGNAL HILL	PROPANE	8.2
WELL NAME	NEU NO. 1-17	N-BUTANE	2.4
API	0509906328	ISOBUTANE	0.8
LOCATION	SEC 17, T24S, R45W	N-PENTANE	0.5
OWNER	BERRY ENERGY, INC.	ISOPENTANE	0.5
COMPLETED	920902	CYCLOPENTANE	--
SAMPLED	040526	HEXANES PLUS	0.4
FORMATION	PENN-MORROW	NITROGEN	16.5
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	5050	ARGON	0.1
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD	2035	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.6
		HELIUM	0.70
		HEATING VALUE*	1,160
		SPECIFIC GRAVITY	0.837

SAMPLE	21488	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	44.0
COUNTY	CHEYENNE	ETHANE	12.2
FIELD	SPEAKER	PROPANE	14.3
WELL NAME	SPEAKER 5-13	N-BUTANE	5.5
API	0501707217	ISOBUTANE	2.3
LOCATION	SEC 13, T12S, R51W	N-PENTANE	2.0
OWNER	CITATION OIL & GAS CORP.	ISOPENTANE	1.6
COMPLETED	910718	CYCLOPENTANE	--
SAMPLED	050630	HEXANES PLUS	3.0
FORMATION	PENN-MORROW	NITROGEN	12.1
GEOLOGIC PROVINCE CODE	450	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	6470	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD	65	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	2.7
		HELIUM	0.30
		HEATING VALUE*	1,561
		SPECIFIC GRAVITY	1.081

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21545	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	41.2
COUNTY	WELD	ETHANE	14.4
FIELD	SPENSON	PROPANE	19.8
WELL NAME	HSR R HUGHES 15-13	N-BUTANE	6.2
API	0512319358	ISOBUTANE	2.8
LOCATION	SEC 13, T1N, R63W	N-PENTANE	3.6
OWNER	KERR-MCGEE ROCKY MOUNTAIN CORP.	ISOPENTANE	2.8
COMPLETED	970531	CYCLOPENTANE	--
SAMPLED	060628	HEXANES PLUS	6.6
FORMATION	CRET-DAKOTA D	NITROGEN	0.4
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	7084	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	950	HYDROGEN	TRACE
OPEN FLOW, MCFD	468	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	2.3
		HELIUM	0.00
		HEATING VALUE*	2,036
		SPECIFIC GRAVITY	1.253

SAMPLE	21480	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	95.5
COUNTY	WASHINGTON	ETHANE	0.6
FIELD	SPOTTED DOG	PROPANE	0.4
WELL NAME	CHRISTIANSON 31-12	N-BUTANE	0.1
API	0512110658	ISOBUTANE	0.1
LOCATION	SEC 12, T3S, R50W	N-PENTANE	TRACE
OWNER	VISTA RESOURCES, INC.	ISOPENTANE	0.1
COMPLETED	020426	CYCLOPENTANE	--
SAMPLED	050629	HEXANES PLUS	0.1
FORMATION	CRET-NIOBRARA	NITROGEN	2.7
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2905	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	380	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.4
		HELIUM	0.04
		HEATING VALUE*	1,002
		SPECIFIC GRAVITY	0.583

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21479	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	95.9
COUNTY	WASHINGTON	ETHANE	0.6
FIELD	SPOTTED DOG	PROPANE	0.2
WELL NAME	CHRISTIANSON 21-12	N-BUTANE	0.1
API	0512110694	ISOBUTANE	0.1
LOCATION	SEC 12, T3S, R50W	N-PENTANE	TRACE
OWNER	VISTA RESOURCES, INC.	ISOPENTANE	0.1
COMPLETED	030628	CYCLOPENTANE	--
SAMPLED	050629	HEXANES PLUS	0.1
FORMATION	CRET-SMOKY HILL	NITROGEN	2.5
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2903	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	225	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.4
		HELIUM	0.04
		HEATING VALUE*	998
		SPECIFIC GRAVITY	0.579

SAMPLE	21484	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	94.5
COUNTY	YUMA	ETHANE	0.8
FIELD	TIERRA PLANO	PROPANE	0.4
WELL NAME	HARRIS 26-2-3	N-BUTANE	0.1
API	0512507919	ISOBUTANE	0.1
LOCATION	SEC 26, T2S, R45W	N-PENTANE	TRACE
OWNER	PRIME OPERATING CO.	ISOPENTANE	TRACE
COMPLETED	961225	CYCLOPENTANE	--
SAMPLED	050629	HEXANES PLUS	TRACE
FORMATION	CRET-NIOBRARA	NITROGEN	3.3
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2070	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	258	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.5
		HELIUM	0.05
		HEATING VALUE*	993
		SPECIFIC GRAVITY	0.586

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21483	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	94.8
COUNTY	YUMA	ETHANE	0.9
FIELD	TIERRA PLANO	PROPANE	0.5
WELL NAME	WINGFIELD 18-17	N-BUTANE	0.1
API	0512508335	ISOBUTANE	0.1
LOCATION	SEC 17, T2S, R45W	N-PENTANE	TRACE
OWNER	BERRY PETROLEUM CO.	ISOPENTANE	TRACE
COMPLETED	010926	CYCLOPENTANE	--
SAMPLED	050629	HEXANES PLUS	TRACE
FORMATION	CRET-NIOBRARA	NITROGEN	2.9
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2254	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	265	HYDROGEN	0.0
OPEN FLOW, MCFD	836	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.5
		HELIUM	0.06
		HEATING VALUE*	999
		SPECIFIC GRAVITY	0.585

SAMPLE	21654	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	93.9
COUNTY	YUMA	ETHANE	1.0
FIELD	VERNON	PROPANE	0.5
WELL NAME	LAWVER 1-5	N-BUTANE	0.1
API	0512506806	ISOBUTANE	0.1
LOCATION	SEC 5, T2S, R44W	N-PENTANE	TRACE
OWNER	MOUNTAIN PETROLEUM CORP.	ISOPENTANE	TRACE
COMPLETED	820724	CYCLOPENTANE	--
SAMPLED	070814	HEXANES PLUS	0.1
FORMATION	CRET-NIOBRARA	NITROGEN	3.8
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2164	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	1206	HYDROGEN SULFIDE**	TRACE
		CARBON DIOXIDE	0.3
		HELIUM	0.09
		HEATING VALUE*	993
		SPECIFIC GRAVITY	0.588

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21548	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	67.8
COUNTY	WELD	ETHANE	11.5
FIELD	WAITE LAKE	PROPANE	9.5
WELL NAME	VERA NO. 1	N-BUTANE	3.5
API	0512309380	ISOBUTANE	1.0
LOCATION	SEC 5, T3N, R61W	N-PENTANE	1.1
OWNER	HILCORP ENERGY CO.	ISOPENTANE	0.8
COMPLETED	990201	CYCLOPENTANE	--
SAMPLED	060628	HEXANES PLUS	1.8
FORMATION	CRET-DAKOTA D	NITROGEN	0.5
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	6630	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	15	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	2.4
		HELIUM	0.01
		HEATING VALUE*	1,441
		SPECIFIC GRAVITY	0.874

SAMPLE	21547	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	83.1
COUNTY	WELD	ETHANE	8.5
FIELD	WAITE LAKE	PROPANE	2.8
WELL NAME	GORDON NO. 1	N-BUTANE	0.7
API	0512313656	ISOBUTANE	0.5
LOCATION	SEC 5, T3N, R61W	N-PENTANE	0.2
OWNER	HILCORP ENERGY CO.	ISOPENTANE	0.3
COMPLETED	880203	CYCLOPENTANE	--
SAMPLED	060628	HEXANES PLUS	0.6
FORMATION	CRET-DAKOTA J	NITROGEN	0.7
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	6625	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	218	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	2.5
		HELIUM	0.03
		HEATING VALUE*	1,150
		SPECIFIC GRAVITY	0.691

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21467	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	41.4
COUNTY	BACA	ETHANE	2.6
FIELD	WALSH	PROPANE	2.9
WELL NAME	COOK 1	N-BUTANE	1.4
API	0500906302	ISOBUTANE	0.5
LOCATION	SEC 27, T32S, R43W	N-PENTANE	0.4
OWNER	SANDLIN OIL CORP.	ISOPENTANE	0.4
COMPLETED	020423	CYCLOPENTANE	--
SAMPLED	050627	HEXANES PLUS	0.7
FORMATION	PERM-WOLFCAMP	NITROGEN	48.4
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2934	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	1070	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	1.11
		HEATING VALUE*	665
		SPECIFIC GRAVITY	0.851

SAMPLE	21468	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	41.2
COUNTY	BACA	ETHANE	2.5
FIELD	WALSH	PROPANE	2.8
WELL NAME	FRAZEE 1	N-BUTANE	1.3
API	0500906622	ISOBUTANE	0.5
LOCATION	SEC 28, T32S, R43W	N-PENTANE	0.4
OWNER	SANDLIN OIL CORP.	ISOPENTANE	0.4
COMPLETED	040209	CYCLOPENTANE	--
SAMPLED	050627	HEXANES PLUS	0.7
FORMATION	PERM-WOLFCAMP	NITROGEN	48.8
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2934	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	418	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	1.13
		HEATING VALUE*	658
		SPECIFIC GRAVITY	0.852

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21546	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	80.3
COUNTY	WELD	ETHANE	7.5
FIELD	WATTENBERG	PROPANE	5.4
WELL NAME	KRAUSE 2	N-BUTANE	1.6
API	0512313719	ISOBUTANE	1.1
LOCATION	SEC 28, T4N, R65W	N-PENTANE	0.3
OWNER	KERR-MCGEE ROCKY MOUNTAIN CORP.	ISOPENTANE	0.4
COMPLETED	880130	CYCLOPENTANE	--
SAMPLED	060628	HEXANES PLUS	0.7
FORMATION	CRET-SUSSEX, NIOBRARA, FT HAYS	NITROGEN	1.1
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	7271	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD	260	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.6
		HELIUM	0.02
		HEATING VALUE*	1,230
		SPECIFIC GRAVITY	0.732

SAMPLE	21655	COMPONENT, MOLE PCT	
STATE	COLORADO	METHANE	90.5
COUNTY	YUMA	ETHANE	1.2
FIELD	WAUNETA	PROPANE	0.5
WELL NAME	BLEDSOE 13-6-3-43	N-BUTANE	0.1
API	0512509319	ISOBUTANE	0.1
LOCATION	SEC 6, T3N, R43W	N-PENTANE	TRACE
OWNER	FOREST OIL CORP.	ISOPENTANE	TRACE
COMPLETED	050812	CYCLOPENTANE	--
SAMPLED	070814	HEXANES PLUS	TRACE
FORMATION	CRET-NIOBRARA	NITROGEN	7.1
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2288	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	TRACE
		CARBON DIOXIDE	0.3
		HELIUM	0.13
		HEATING VALUE*	959
		SPECIFIC GRAVITY	0.601

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21582	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	84.4
COUNTY	BARBER	ETHANE	3.5
FIELD	AETNA	PROPANE	2.1
WELL NAME	SPRIGGS E-1	N-BUTANE	0.8
API	1500722501	ISOBUTANE	0.3
LOCATION	SEC. 33, T33S, R13W	N-PENTANE	0.3
OWNER	WOOLSEY PETROLEUM CORP.	ISOPENTANE	0.2
COMPLETED	980313	CYCLOPENTANE	--
SAMPLED	061215	HEXANES PLUS	0.6
FORMATION	PENN-SNYDERVILLE	NITROGEN	7.1
GEOLOGIC PROVINCE CODE	375	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	3941	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	60	HYDROGEN	0.0
OPEN FLOW, MCFD	33	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.3
		HELIUM	0.25
		HEATING VALUE*	1,059
		SPECIFIC GRAVITY	0.665

SAMPLE	50614	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	64.5
COUNTY	STAFFORD	ETHANE	7.4
FIELD	AJT	PROPANE	3.8
WELL NAME	THOMAS 1	N-BUTANE	1.1
API	1518522904	ISOBUTANE	0.4
LOCATION	SEC 29, T25S, R11W	N-PENTANE	0.4
OWNER	RAYMOND OIL CO, INC.	ISOPENTANE	0.2
COMPLETED	940707	CYCLOPENTANE	--
SAMPLED	930428	HEXANES PLUS	1.5
FORMATION	ORDO-VIOLA	NITROGEN	19.2
GEOLOGIC PROVINCE CODE	385	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	4080	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	--
		CARBON DIOXIDE	0.1
		HELIUM	1.33
		HEATING VALUE*	1,026
		SPECIFIC GRAVITY	0.775

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21578	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	83.5
COUNTY	KIOWA	ETHANE	4.3
FIELD	ALFORD	PROPANE	3.3
WELL NAME	TAVES 3-20	N-BUTANE	1.2
API	1509721538	ISOBUTANE	0.5
LOCATION	SEC 20, T30S, R18W	N-PENTANE	0.3
OWNER	BEREXCO, INC.	ISOPENTANE	0.3
COMPLETED	040524	CYCLOPENTANE	--
SAMPLED	061214	HEXANES PLUS	0.5
FORMATION	PENN-CHEROKEE	NITROGEN	5.9
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)		ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.13
		HEATING VALUE*	1,106
		SPECIFIC GRAVITY	0.679

SAMPLE	50612	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	89.9
COUNTY	KIOWA	ETHANE	3.1
FIELD	ALLSTOTT	PROPANE	1.1
WELL NAME	UNRUH 1-2	N-BUTANE	0.5
API	1509721475	ISOBUTANE	0.2
LOCATION	SEC 2, T28S, R18W	N-PENTANE	0.3
OWNER	VINCENT OIL CORP.	ISOPENTANE	0.2
COMPLETED	011022	CYCLOPENTANE	--
SAMPLED	011004	HEXANES PLUS	1.1
FORMATION	ORDO-VIOLA	NITROGEN	3.2
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	4798	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	1430	HYDROGEN	0.1
OPEN FLOW, MCFD	300	HYDROGEN SULFIDE**	--
		CARBON DIOXIDE	TRACE
		HELIUM	0.23
		HEATING VALUE*	1,098
		SPECIFIC GRAVITY	0.644

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21511	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	76.0
COUNTY	SEWARD	ETHANE	6.6
FIELD	ANGMAN S	PROPANE	5.4
WELL NAME	SANTA FE 1-7	N-BUTANE	2.8
API	1517521349	ISOBUTANE	1.6
LOCATION	SEC 7, T32S, R33W	N-PENTANE	1.0
OWNER	CABOT PETROLEUM CORP.	ISOPENTANE	1.3
COMPLETED	940112	CYCLOPENTANE	--
SAMPLED	051100	HEXANES PLUS	2.0
FORMATION	MISS-ST. LOUIS	NITROGEN	2.9
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	5676	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD	222	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.21
		HEATING VALUE*	1,355
		SPECIFIC GRAVITY	0.808

SAMPLE	50629	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	83.9
COUNTY	HARPER	ETHANE	6.4
FIELD	ANTHONY	PROPANE	3.0
WELL NAME	STEWARD 1-31	N-BUTANE	1.1
API	1507721459	ISOBUTANE	0.4
LOCATION	SEC 31, T33S, R6W	N-PENTANE	0.4
OWNER	UNION VALLEY PETROLEUM CORP.	ISOPENTANE	0.3
COMPLETED	031107	CYCLOPENTANE	--
SAMPLED	070430	HEXANES PLUS	0.6
FORMATION	MISS-MISSISSIPPIAN	NITROGEN	3.9
GEOLOGIC PROVINCE CODE	375	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	4508	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	84	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	--
		HEATING VALUE*	1,145
		SPECIFIC GRAVITY	0.682

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21682	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	72.6
COUNTY	SEWARD	ETHANE	5.4
FIELD	ARKALON	PROPANE	3.1
WELL NAME	COLBURN 1-16	N-BUTANE	0.9
API	1517520852	ISOBUTANE	0.4
LOCATION	SEC 16, T33S, R32W	N-PENTANE	0.2
OWNER	MIDWESTERN EXPLORATION CO.	ISOPENTANE	0.2
COMPLETED	931013	CYCLOPENTANE	--
SAMPLED	080401	HEXANES PLUS	0.3
FORMATION	PERM-CHASE GROUP	NITROGEN	16.3
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2570	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG	130	HYDROGEN	0.0
OPEN FLOW, MCFD	783	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.48
		HEATING VALUE*	980
		SPECIFIC GRAVITY	0.71

SAMPLE	21676	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	73.5
COUNTY	SEWARD	ETHANE	5.2
FIELD	ARKALON	PROPANE	3.0
WELL NAME	COLBURN 1A-21	N-BUTANE	0.8
API	1517521850	ISOBUTANE	0.4
LOCATION	SEC 21, T33S, R32W	N-PENTANE	0.2
OWNER	OIL PRODUCERS INC. OF KANSAS	ISOPENTANE	0.2
COMPLETED	010818	CYCLOPENTANE	--
SAMPLED	080116	HEXANES PLUS	0.2
FORMATION	PERM-KRIDER	NITROGEN	15.9
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2597	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	250	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.52
		HEATING VALUE*	974
		SPECIFIC GRAVITY	0.703

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21678	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	73.6
COUNTY	SEWARD	ETHANE	5.3
FIELD	ARKALON N	PROPANE	3.1
WELL NAME	COLBURN 13-91	N-BUTANE	0.8
API	1517520328	ISOBUTANE	0.4
LOCATION	SEC 17, T33S, R32W	N-PENTANE	0.2
OWNER	OIL PRODUCERS INC. OF KANSAS	ISOPENTANE	0.2
COMPLETED	821102	CYCLOPENTANE	--
SAMPLED	080123	HEXANES PLUS	0.2
FORMATION	PERM-HERRINGTON, KRIDER	NITROGEN	15.5
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2468	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.50
		HEATING VALUE*	984
		SPECIFIC GRAVITY	0.704

SAMPLE	50628	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	60.7
COUNTY	HASKELL	ETHANE	8.8
FIELD	ATKINS	PROPANE	5.5
WELL NAME	ATKINS N 1&2	N-BUTANE	1.4
API	1508121531	ISOBUTANE	1.1
LOCATION	SEC 4, T27S, R33W	N-PENTANE	0.4
OWNER	OXY USA, INC.	ISOPENTANE	0.4
COMPLETED	040717	CYCLOPENTANE	--
SAMPLED	071217	HEXANES PLUS	1.0
FORMATION	PENN-MORROW	NITROGEN	19.9
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	5108	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	--
OPEN FLOW, MCFD	56	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.4
		HELIUM	0.33
		HEATING VALUE*	1,079
		SPECIFIC GRAVITY	0.815

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21640	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	61.6
COUNTY	HODGEMAN	ETHANE	0.5
FIELD	BARRICK	PROPANE	0.1
WELL NAME	BARRICKLOW 1	N-BUTANE	0.0
API	1508321463	ISOBUTANE	0.0
LOCATION	SEC 4, T21S, R21W	N-PENTANE	0.0
OWNER	BECKER OIL CORP.	ISOPENTANE	0.0
COMPLETED	000816	CYCLOPENTANE	--
SAMPLED	070719	HEXANES PLUS	0.0
FORMATION	PERM-CHASE GROUP	NITROGEN	36.7
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2296	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	335	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	TRACE
		HELIUM	1.20
		HEATING VALUE*	633
		SPECIFIC GRAVITY	0.704

SAMPLE	21641	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	60.8
COUNTY	HODGEMAN	ETHANE	0.6
FIELD	BARRICKLOW SE	PROPANE	0.1
WELL NAME	COX 1	N-BUTANE	TRACE
API	1508321473	ISOBUTANE	TRACE
LOCATION	SEC 3, T21S, R22W	N-PENTANE	0.0
OWNER	BECKER OIL CORP.	ISOPENTANE	TRACE
COMPLETED	020701	CYCLOPENTANE	--
SAMPLED	070719	HEXANES PLUS	TRACE
FORMATION	PERM-CHASE GROUP	NITROGEN	37.2
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2382	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	436	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	TRACE
		HELIUM	1.17
		HEATING VALUE*	631
		SPECIFIC GRAVITY	0.708

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21615	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	74.0
COUNTY	STAFFORD	ETHANE	8.0
FIELD	BAUMAN	PROPANE	0.0
WELL NAME	HELMER 1	N-BUTANE	1.4
API	1518522927	ISOBUTANE	0.5
LOCATION	SEC 33, T25S, R11W	N-PENTANE	0.5
OWNER	PRATER OIL & GAS OPERATING	ISOPENTANE	0.3
COMPLETED	930916	CYCLOPENTANE	--
SAMPLED	070717	HEXANES PLUS	0.7
FORMATION	MISS-MISSISSIPPIAN	NITROGEN	13.2
GEOLOGIC PROVINCE CODE	385	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	3987	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD	200	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	1.23
		HEATING VALUE*	1,018
		SPECIFIC GRAVITY	0.703

SAMPLE	21630	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	90.3
COUNTY	EDWARDS	ETHANE	3.1
FIELD	BORDEWICK	PROPANE	1.0
WELL NAME	FOX A1-25	N-BUTANE	0.4
API	1504721513	ISOBUTANE	0.2
LOCATION	SEC 25, T26S, R19W	N-PENTANE	0.1
OWNER	MCCOY PETROLEUM CORP.	ISOPENTANE	0.1
COMPLETED	051104	CYCLOPENTANE	--
SAMPLED	070718	HEXANES PLUS	0.3
FORMATION	MISS-MISSISSIPPIAN	NITROGEN	4.1
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)		ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.29
		HEATING VALUE*	1,034
		SPECIFIC GRAVITY	0.614

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21617	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	77.7
COUNTY	PRATT	ETHANE	4.2
FIELD	BYERS ROAD	PROPANE	2.1
WELL NAME	CURTIS 1	N-BUTANE	0.7
API	1515121539	ISOBUTANE	0.3
LOCATION	SEC 15, T26S, R14W	N-PENTANE	0.3
OWNER	GIANT HOLDING, LLC	ISOPENTANE	0.2
COMPLETED	970512	CYCLOPENTANE	--
SAMPLED	070717	HEXANES PLUS	0.5
FORMATION	MISS-MISSISSIPPIAN	NITROGEN	12.3
GEOLOGIC PROVINCE CODE	385	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	4282	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD	1491	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	1.46
		HEATING VALUE*	988
		SPECIFIC GRAVITY	0.677

SAMPLE	21616	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	87.0
COUNTY	PRATT	ETHANE	4.0
FIELD	CARVER-ROBBINS	PROPANE	1.8
WELL NAME	WARD 2-12	N-BUTANE	0.6
API	1515120721	ISOBUTANE	0.3
LOCATION	SEC 12, T27S, R15W	N-PENTANE	0.2
OWNER	PRATER OIL & GAS OPERATING	ISOPENTANE	0.1
COMPLETED	800325	CYCLOPENTANE	--
SAMPLED	070717	HEXANES PLUS	0.3
FORMATION	MISS-MISSISSIPPIAN	NITROGEN	4.8
GEOLOGIC PROVINCE CODE	385	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	4408	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	1000	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.67
		HEATING VALUE*	1,056
		SPECIFIC GRAVITY	0.637

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21619	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	83.7
COUNTY	PRATT	ETHANE	4.7
FIELD	CARVER-ROBBINS W	PROPANE	2.4
WELL NAME	FISH & GAME 3-6	N-BUTANE	0.8
API	1515121240	ISOBUTANE	0.4
LOCATION	SEC 6, T27S, R15W	N-PENTANE	0.3
OWNER	BEREN CORP.	ISOPENTANE	0.2
COMPLETED	830217	CYCLOPENTANE	--
SAMPLED	070717	HEXANES PLUS	0.6
FORMATION	MISS-MISSISSIPPIAN	NITROGEN	6.0
GEOLOGIC PROVINCE CODE	385	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	4460	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD	500	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	0.69
		HEATING VALUE*	1,078
		SPECIFIC GRAVITY	0.665

SAMPLE	20840	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	89.5
COUNTY	STEVENS	ETHANE	3.4
FIELD	CHRISTOPHER	PROPANE	1.4
WELL NAME	HJV CHRISTOPHER NO. A-1	N-BUTANE	0.5
API	1518922345	ISOBUTANE	0.2
LOCATION	SEC. 3, T33S, R39W	N-PENTANE	0.2
OWNER	ANADARKO PETROLEUM CORP.	ISOPENTANE	0.1
COMPLETED	000827	CYCLOPENTANE	--
SAMPLED	010910	HEXANES PLUS	0.3
FORMATION	PENN-MORROW L	NITROGEN	3.6
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	6315	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	10500	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.4
		HELIUM	0.22
		HEATING VALUE*	1,053
		SPECIFIC GRAVITY	0.627

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21645	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	67.8
COUNTY	HODGEMAN	ETHANE	0.5
FIELD	DON	PROPANE	0.1
WELL NAME	POVERTY HILL 1	N-BUTANE	TRACE
API	1508321513	ISOBUTANE	TRACE
LOCATION	SEC 26, T23S, R24W	N-PENTANE	0.0
OWNER	BECKER OIL CORP.	ISOPENTANE	TRACE
COMPLETED	060711	CYCLOPENTANE	--
SAMPLED	070719	HEXANES PLUS	TRACE
FORMATION	PERM-KRIDER, FORT RILEY	NITROGEN	30.4
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2716	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	110	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	TRACE
		HELIUM	1.01
		HEATING VALUE*	700
		SPECIFIC GRAVITY	0.68

SAMPLE	21639	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	64.7
COUNTY	HODGEMAN	ETHANE	0.5
FIELD	EAKIN NE	PROPANE	0.1
WELL NAME	CHAFFEE 1	N-BUTANE	TRACE
API	1508321467	ISOBUTANE	0.0
LOCATION	SEC 13, T21S, R21W	N-PENTANE	0.0
OWNER	BECKER OIL CORP.	ISOPENTANE	0.0
COMPLETED	010508	CYCLOPENTANE	--
SAMPLED	070718	HEXANES PLUS	TRACE
FORMATION	PERM-CHASE GROUP	NITROGEN	33.5
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2206	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	195	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.0
		HELIUM	1.17
		HEATING VALUE*	666
		SPECIFIC GRAVITY	0.691

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21098	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	70.9
COUNTY	MORTON	ETHANE	5.3
FIELD	ELKHART W	PROPANE	4.4
WELL NAME	PENICK NO. 1-9	N-BUTANE	1.7
API	1512910541	ISOBUTANE	0.7
LOCATION	SEC. 9, T35S, R43W	N-PENTANE	0.5
OWNER	ANADARKO PETROLEUM CORP.	ISOPENTANE	0.4
COMPLETED	550810	CYCLOPENTANE	--
SAMPLED	021120	HEXANES PLUS	0.8
FORMATION	PENN-WABAUNSEE	NITROGEN	13.4
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	2958	ARGON	0.1
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	500	HYDROGEN	0.0
OPEN FLOW, MCFD	8090	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.8
		HELIUM	1.07
		HEATING VALUE*	1,073
		SPECIFIC GRAVITY	0.752

SAMPLE	21626	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	84.8
COUNTY	STAFFORD	ETHANE	2.4
FIELD	FARMINGTON	PROPANE	0.8
WELL NAME	SEIBERT 2-5	N-BUTANE	0.2
API	1518523167	ISOBUTANE	0.1
LOCATION	SEC 5, T25S, R15W	N-PENTANE	0.1
OWNER	CASTELLI EXPLORATION, INC.	ISOPENTANE	0.1
COMPLETED	021026	CYCLOPENTANE	--
SAMPLED	070718	HEXANES PLUS	0.1
FORMATION	PERM-HERINGTON	NITROGEN	10.9
GEOLOGIC PROVINCE CODE	385	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2272	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	180	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	TRACE
		HELIUM	0.52
		HEATING VALUE*	938
		SPECIFIC GRAVITY	0.625

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21627	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	84.3
COUNTY	STAFFORD	ETHANE	1.9
FIELD	FARMINGTON	PROPANE	0.5
WELL NAME	AIKEN 3	N-BUTANE	0.1
API	1518523145	ISOBUTANE	0.1
LOCATION	SEC 6, T25S, R15W	N-PENTANE	TRACE
OWNER	CASTELLI EXPLORATION, INC.	ISOPENTANE	TRACE
COMPLETED	020103	CYCLOPENTANE	--
SAMPLED	070718	HEXANES PLUS	TRACE
FORMATION	PENN-HOWARD	NITROGEN	12.5
GEOLOGIC PROVINCE CODE	385	OXYGEN	--
TRUE VERTICAL DEPTH (FT)		ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD	220	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	TRACE
		HELIUM	0.56
		HEATING VALUE*	907
		SPECIFIC GRAVITY	0.621

SAMPLE	21628	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	84.6
COUNTY	STAFFORD	ETHANE	2.5
FIELD	FARMINGTON W	PROPANE	0.8
WELL NAME	SEIBERT 3-31	N-BUTANE	0.2
API	1518523154	ISOBUTANE	0.1
LOCATION	SEC 31, T24S, R15W	N-PENTANE	0.1
OWNER	CASTELLI EXPLORATION, INC.	ISOPENTANE	0.1
COMPLETED	020425	CYCLOPENTANE	--
SAMPLED	070718	HEXANES PLUS	0.1
FORMATION	PERM-CHASE GROUP	NITROGEN	11.0
GEOLOGIC PROVINCE CODE	385	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2277	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	240	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	TRACE
		HELIUM	0.52
		HEATING VALUE*	939
		SPECIFIC GRAVITY	0.626

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	50592	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	87.2
COUNTY	KINGMAN	ETHANE	5.4
FIELD	GARLISCH SW	PROPANE	2.5
WELL NAME	WUNSCH NO. 1	N-BUTANE	0.9
API	1509521773	ISOBUTANE	0.3
LOCATION	SEC. 26, T28S, R8W	N-PENTANE	0.3
OWNER	MIDCO EXPLORATION, INC.	ISOPENTANE	0.2
COMPLETED	001119	CYCLOPENTANE	--
SAMPLED	010103	HEXANES PLUS	0.3
FORMATION	MISS-MISSISSIPPIAN	NITROGEN	2.8
GEOLOGIC PROVINCE CODE	375	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	4130	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	1203	HYDROGEN	0.0
OPEN FLOW, MCFD	2776	HYDROGEN SULFIDE**	--
		CARBON DIOXIDE	TRACE
		HELIUM	0.18
		HEATING VALUE*	1,116
		SPECIFIC GRAVITY	0.651

SAMPLE	21632	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	74.4
COUNTY	PAWNEE	ETHANE	0.8
FIELD	GATTERMAN	PROPANE	0.1
WELL NAME	GREEN 1	N-BUTANE	TRACE
API	1514521484	ISOBUTANE	TRACE
LOCATION	SEC 35, T23S, R18W	N-PENTANE	0.0
OWNER	BECKER OIL CORP.	ISOPENTANE	TRACE
COMPLETED	030324	CYCLOPENTANE	--
SAMPLED	070718	HEXANES PLUS	TRACE
FORMATION	PERM-KRIDER	NITROGEN	23.6
GEOLOGIC PROVINCE CODE	385	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2261	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	40	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	TRACE
		HELIUM	0.99
		HEATING VALUE*	772
		SPECIFIC GRAVITY	0.654

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21638	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	69.3
COUNTY	PAWNEE	ETHANE	0.7
FIELD	GIVENS	PROPANE	0.1
WELL NAME	PRICE 2	N-BUTANE	TRACE
API	1514521473	ISOBUTANE	TRACE
LOCATION	SEC 19, T22S, R19W	N-PENTANE	TRACE
OWNER	BECKER OIL CORP.	ISOPENTANE	TRACE
COMPLETED	020130	CYCLOPENTANE	--
SAMPLED	070718	HEXANES PLUS	TRACE
FORMATION	PERM-KRIDER	NITROGEN	28.8
GEOLOGIC PROVINCE CODE	385	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2270	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	130	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	TRACE
		HELIUM	1.01
		HEATING VALUE*	719
		SPECIFIC GRAVITY	0.675

SAMPLE	20759	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	61.4
COUNTY	MORTON	ETHANE	6.1
FIELD	GREENWOOD	PROPANE	3.9
WELL NAME	INTERSTATE 2-20	N-BUTANE	1.3
API	1512920358	ISOBUTANE	0.4
LOCATION	SEC. 20, T34S, R45W	N-PENTANE	0.4
OWNER	ANADARKO PETROLEUM CORP.	ISOPENTANE	0.1
COMPLETED	970410	CYCLOPENTANE	--
SAMPLED	010731	HEXANES PLUS	0.4
FORMATION	PENN-WABAUNSEE & TOPEKA	NITROGEN	25.3
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	2783	ARGON	TRACE
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD	85	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	0.57
		HEATING VALUE*	921
		SPECIFIC GRAVITY	0.769

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21637	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	69.3
COUNTY	HODGEMAN	ETHANE	0.8
FIELD	GRONER	PROPANE	0.2
WELL NAME	LEWIS TRUST 1	N-BUTANE	TRACE
API	1508321509	ISOBUTANE	TRACE
LOCATION	SEC 1, T23S, R21W	N-PENTANE	TRACE
OWNER	BECKER OIL CORP.	ISOPENTANE	TRACE
COMPLETED	051109	CYCLOPENTANE	--
SAMPLED	070718	HEXANES PLUS	TRACE
FORMATION	PERM-CHASE GROUP	NITROGEN	28.4
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2530	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	400	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	TRACE
		HELIUM	1.04
		HEATING VALUE*	726
		SPECIFIC GRAVITY	0.676

SAMPLE	21635	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	69.7
COUNTY	EDWARDS	ETHANE	0.8
FIELD	GRONER	PROPANE	0.2
WELL NAME	LIPPOLDT 1	N-BUTANE	TRACE
API	1504721462	ISOBUTANE	TRACE
LOCATION	SEC 6, T23S, R20W	N-PENTANE	TRACE
OWNER	BECKER OIL CORP.	ISOPENTANE	TRACE
COMPLETED	020207	CYCLOPENTANE	--
SAMPLED	070718	HEXANES PLUS	TRACE
FORMATION	PERM-TOWANDA	NITROGEN	28.1
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2544	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	400	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	TRACE
		HELIUM	1.01
		HEATING VALUE*	728
		SPECIFIC GRAVITY	0.674

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21644	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	66.2
COUNTY	HODGEMAN	ETHANE	0.7
FIELD	HANSTON-OPPY	PROPANE	0.1
WELL NAME	OPPY-BURKE 1	N-BUTANE	TRACE
API	1508321510	ISOBUTANE	TRACE
LOCATION	SEC 19, T22S, R22W	N-PENTANE	0.0
OWNER	BECKER OIL CORP.	ISOPENTANE	TRACE
COMPLETED	051215	CYCLOPENTANE	--
SAMPLED	070719	HEXANES PLUS	TRACE
FORMATION	PERM-CHASE GROUP	NITROGEN	31.8
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2619	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	TRACE
		HELIUM	1.10
		HEATING VALUE*	687
		SPECIFIC GRAVITY	0.686

SAMPLE	20771	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	74.2
COUNTY	MORTON	ETHANE	6.8
FIELD	HUGOTON	PROPANE	3.6
WELL NAME	MILLEMON 1-27	N-BUTANE	1.0
API	1512900389	ISOBUTANE	0.4
LOCATION	SEC. 27, T34S, R40W	N-PENTANE	0.2
OWNER	ANADARKO PETROLEUM CORP.	ISOPENTANE	0.2
COMPLETED	500712	CYCLOPENTANE	--
SAMPLED	010801	HEXANES PLUS	0.2
FORMATION	PERM-CHASE GROUP	NITROGEN	12.9
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	2720	ARGON	TRACE
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	404	HYDROGEN	0.0
OPEN FLOW, MCFD	13241	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.39
		HEATING VALUE*	1,036
		SPECIFIC GRAVITY	0.708

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20766	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	73.4
COUNTY	MORTON	ETHANE	6.7
FIELD	HUGOTON	PROPANE	3.7
WELL NAME	PARKER B-2	N-BUTANE	1.1
API	1512921425	ISOBUTANE	0.4
LOCATION	SEC. 29, T34S, R40W	N-PENTANE	0.3
OWNER	OXY USA, INC.	ISOPENTANE	0.2
COMPLETED	960222	CYCLOPENTANE	--
SAMPLED	010801	HEXANES PLUS	0.2
FORMATION	PERM-CHASE GROUP	NITROGEN	13.5
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	2585	ARGON	TRACE
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	350	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.41
		HEATING VALUE*	1,033
		SPECIFIC GRAVITY	0.714

SAMPLE	20768	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	73.2
COUNTY	MORTON	ETHANE	6.6
FIELD	HUGOTON	PROPANE	3.7
WELL NAME	MILLER M-1	N-BUTANE	1.1
API	1512900380	ISOBUTANE	0.4
LOCATION	SEC. 20, T34S, R40W	N-PENTANE	0.3
OWNER	OXY USA, INC.	ISOPENTANE	0.2
COMPLETED	510629	CYCLOPENTANE	--
SAMPLED	010801	HEXANES PLUS	0.3
FORMATION	PERM-CHASE GROUP	NITROGEN	13.8
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	2620	ARGON	TRACE
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	417	HYDROGEN	0.0
OPEN FLOW, MCFD	13700	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.41
		HEATING VALUE*	1,030
		SPECIFIC GRAVITY	0.715

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20751	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	73.7
COUNTY	MORTON	ETHANE	6.7
FIELD	HUGOTON	PROPANE	3.7
WELL NAME	LOETHER A-3	N-BUTANE	1.0
API	1512921431	ISOBUTANE	0.4
LOCATION	SEC. 5, T35S, R40W	N-PENTANE	0.2
OWNER	OXY USA, INC.	ISOPENTANE	0.2
COMPLETED	960422	CYCLOPENTANE	--
SAMPLED	010801	HEXANES PLUS	0.3
FORMATION	PERM-CHASE GROUP	NITROGEN	13.2
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	2662	ARGON	TRACE
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	251	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.41
		HEATING VALUE*	1,034
		SPECIFIC GRAVITY	0.711

SAMPLE	20769	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	73.5
COUNTY	MORTON	ETHANE	6.6
FIELD	HUGOTON	PROPANE	3.6
WELL NAME	MILLER M-2	N-BUTANE	1.0
API	1512921423	ISOBUTANE	0.4
LOCATION	SEC. 20, T34S, R40W	N-PENTANE	0.2
OWNER	OXY USA, INC.	ISOPENTANE	0.2
COMPLETED	960222	CYCLOPENTANE	--
SAMPLED	010801	HEXANES PLUS	0.2
FORMATION	PERM-CHASE GROUP	NITROGEN	13.7
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	2564	ARGON	TRACE
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	405	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.41
		HEATING VALUE*	1,027
		SPECIFIC GRAVITY	0.712

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20767	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	73.4
COUNTY	MORTON	ETHANE	6.7
FIELD	HUGOTON	PROPANE	3.7
WELL NAME	WIKER A-1	N-BUTANE	1.1
API	1512900381	ISOBUTANE	0.5
LOCATION	SEC. 21, T34S, R40W	N-PENTANE	0.3
OWNER	OXY USA, INC.	ISOPENTANE	0.2
COMPLETED	510530	CYCLOPENTANE	--
SAMPLED	010801	HEXANES PLUS	0.2
FORMATION	PERM-CHASE GROUP	NITROGEN	13.4
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	2626	ARGON	TRACE
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	403	HYDROGEN	0.0
OPEN FLOW, MCFD	15800	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.41
		HEATING VALUE*	1.034
		SPECIFIC GRAVITY	0.714

SAMPLE	20770	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	73.2
COUNTY	MORTON	ETHANE	6.7
FIELD	HUGOTON	PROPANE	3.7
WELL NAME	EDWARDS C-2	N-BUTANE	1.1
API	1512921424	ISOBUTANE	0.4
LOCATION	SEC. 17, T34S, R40W	N-PENTANE	0.3
OWNER	OXY USA, INC.	ISOPENTANE	0.2
COMPLETED	960229	CYCLOPENTANE	--
SAMPLED	010801	HEXANES PLUS	0.3
FORMATION	PERM-CHASE GROUP	NITROGEN	13.7
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	2581	ARGON	TRACE
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	388	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.41
		HEATING VALUE*	1.032
		SPECIFIC GRAVITY	0.715

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20765	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	73.5
COUNTY	MORTON	ETHANE	6.7
FIELD	HUGOTON	PROPANE	3.7
WELL NAME	PARKER B-1	N-BUTANE	1.0
API	1512900392	ISOBUTANE	0.4
LOCATION	SEC. 29, T34S, R40W	N-PENTANE	0.3
OWNER	OXY USA, INC.	ISOPENTANE	0.2
COMPLETED	510523	CYCLOPENTANE	--
SAMPLED	010801	HEXANES PLUS	0.2
FORMATION	PERM-CHASE GROUP	NITROGEN	13.6
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	2578	ARGON	TRACE
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	421	HYDROGEN	0.0
OPEN FLOW, MCFD	12100	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.41
		HEATING VALUE*	1,029
		SPECIFIC GRAVITY	0.712

SAMPLE	20764	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	72.3
COUNTY	MORTON	ETHANE	6.2
FIELD	HUGOTON	PROPANE	3.5
WELL NAME	MATERN A-3	N-BUTANE	1.0
API	1512921465	ISOBUTANE	0.4
LOCATION	SEC. 34, T34S, R41W	N-PENTANE	0.3
OWNER	OXY USA, INC.	ISOPENTANE	0.2
COMPLETED	970129	CYCLOPENTANE	--
SAMPLED	010801	HEXANES PLUS	0.3
FORMATION	PERM-CHASE GROUP	NITROGEN	15.4
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	2356	ARGON	0.1
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	191	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.45
		HEATING VALUE*	1,005
		SPECIFIC GRAVITY	0.716

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20763	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	71.8
COUNTY	MORTON	ETHANE	5.9
FIELD	HUGOTON	PROPANE	3.3
WELL NAME	MATERN A-1	N-BUTANE	1.0
API	1512900429	ISOBUTANE	0.4
LOCATION	SEC. 34, T34S, R41W	N-PENTANE	0.2
OWNER	OXY USA, INC.	ISOPENTANE	0.2
COMPLETED	520430	CYCLOPENTANE	--
SAMPLED	010801	HEXANES PLUS	0.3
FORMATION	PERM-CHASE GROUP	NITROGEN	16.3
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	2374	ARGON	0.1
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	425	HYDROGEN	TRACE
OPEN FLOW, MCFD	11400	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.46
		HEATING VALUE*	990
		SPECIFIC GRAVITY	0.716

SAMPLE	21095	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	65.3
COUNTY	FINNEY	ETHANE	3.1
FIELD	HUGOTON	PROPANE	1.7
WELL NAME	NUSSER GAS UNIT A 2HI	N-BUTANE	0.4
API	1505521290	ISOBUTANE	0.2
LOCATION	SEC. 27, T25S, R32W	N-PENTANE	0.1
OWNER	BP AMERICA PRODUCTION CO.	ISOPENTANE	0.1
COMPLETED	940701	CYCLOPENTANE	--
SAMPLED	021120	HEXANES PLUS	0.1
FORMATION	PERM-CHASE GROUP	NITROGEN	28.3
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	2560	ARGON	TRACE
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	135	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	TRACE
		HELIUM	0.67
		HEATING VALUE*	788
		SPECIFIC GRAVITY	0.714

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21092
STATE	KANSAS
COUNTY	FINNEY
FIELD	HUGOTON
WELL NAME	BEACH NO. 1-32
API	1505500517
LOCATION	SEC. 32, T25S, R31W
OWNER	CIMAREX ENERGY CO.
COMPLETED	560509
SAMPLED	021120
FORMATION	PERM-CHASE GROUP
GEOLOGIC PROVINCE CODE	360
TRUE VERTICAL DEPTH (FT)	2636
MEASURED DEPTH	
WELLHEAD PRESSURE, PSIG	415
OPEN FLOW, MCFD	8983

COMPONENT, MOLE PCT	
METHANE	65.0
ETHANE	2.6
PROPANE	1.3
N-BUTANE	0.3
ISOBUTANE	0.1
N-PENTANE	TRACE
ISOPENTANE	0.1
CYCLOPENTANE	--
HEXANES PLUS	0.1
NITROGEN	29.8
OXYGEN	0.0
ARGON	TRACE
ARGON + OXYGEN	---
HYDROGEN	0.0
HYDROGEN SULFIDE**	0.0
CARBON DIOXIDE	TRACE
HELIUM	0.74
HEATING VALUE*	755
SPECIFIC GRAVITY	0.708

SAMPLE	21094
STATE	KANSAS
COUNTY	FINNEY
FIELD	HUGOTON
WELL NAME	BEACH NO. 2-2
API	1505521716
LOCATION	SEC. 33, T25S, R31W
OWNER	CIMAREX ENERGY CO.
COMPLETED	010320
SAMPLED	021120
FORMATION	PERM-CHASE GROUP
GEOLOGIC PROVINCE CODE	360
TRUE VERTICAL DEPTH (FT)	2641
MEASURED DEPTH	
WELLHEAD PRESSURE, PSIG	157
OPEN FLOW, MCFD	96

COMPONENT, MOLE PCT	
METHANE	65.7
ETHANE	2.7
PROPANE	1.4
N-BUTANE	0.3
ISOBUTANE	0.1
N-PENTANE	TRACE
ISOPENTANE	0.1
CYCLOPENTANE	--
HEXANES PLUS	TRACE
NITROGEN	28.9
OXYGEN	0.0
ARGON	TRACE
ARGON + OXYGEN	---
HYDROGEN	0.0
HYDROGEN SULFIDE**	0.0
CARBON DIOXIDE	0.0
HELIUM	0.76
HEATING VALUE*	767
SPECIFIC GRAVITY	0.706

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20760	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	52.4
COUNTY	MORTON	ETHANE	2.5
FIELD	INTERSTATE	PROPANE	1.7
WELL NAME	INTERSTATE F-4	N-BUTANE	0.9
API	1512920455	ISOBUTANE	0.3
LOCATION	SEC. 20, T34S, R43W	N-PENTANE	0.4
OWNER	ANADARKO PETROLEUM CORP.	ISOPENTANE	0.3
COMPLETED	801214	CYCLOPENTANE	--
SAMPLED	010731	HEXANES PLUS	0.4
FORMATION	PERM-RED CAVE	NITROGEN	39.4
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	1236	ARGON	0.1
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.5
OPEN FLOW, MCFD	240	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.98
		HEATING VALUE*	707
		SPECIFIC GRAVITY	0.782

SAMPLE	21647	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	70.3
COUNTY	HODGEMAN	ETHANE	0.7
FIELD	JETPORT	PROPANE	0.1
WELL NAME	JETMORE-BRADFORD 1	N-BUTANE	TRACE
API	1508321486	ISOBUTANE	TRACE
LOCATION	SEC 18, T24S, R23W	N-PENTANE	0.0
OWNER	BECKER OIL CORP.	ISOPENTANE	TRACE
COMPLETED	040501	CYCLOPENTANE	--
SAMPLED	070719	HEXANES PLUS	TRACE
FORMATION	PERM-CHASE GROUP	NITROGEN	27.8
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)		ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	TRACE
		HELIUM	0.99
		HEATING VALUE*	727
		SPECIFIC GRAVITY	0.67

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21634
STATE	KANSAS
COUNTY	HODGEMAN
FIELD	KINGRY
WELL NAME	DELANEY 1-10
API	1508321504
LOCATION	SEC 10, T23S, R21W
OWNER	BECKER OIL CORP.
COMPLETED	060101
SAMPLED	070718
FORMATION	PERM-TOWANDA
GEOLOGIC PROVINCE CODE	360
TRUE VERTICAL DEPTH (FT)	2584
MEASURED DEPTH	
WELLHEAD PRESSURE, PSIG	
OPEN FLOW, MCFD	

COMPONENT, MOLE PCT	
METHANE	69.9
ETHANE	0.6
PROPANE	0.1
N-BUTANE	TRACE
ISOBUTANE	TRACE
N-PENTANE	0.0
ISOPENTANE	TRACE
CYCLOPENTANE	--
HEXANES PLUS	TRACE
NITROGEN	28.2
OXYGEN	--
ARGON	--
ARGON + OXYGEN	TRACE
HYDROGEN	0.0
HYDROGEN SULFIDE**	0.0
CARBON DIOXIDE	TRACE
HELIUM	1.05
HEATING VALUE*	723
SPECIFIC GRAVITY	0.671

SAMPLE	21614
STATE	KANSAS
COUNTY	STAFFORD
FIELD	LEESBURGH
WELL NAME	MCCUNE 1A
API	1518523174
LOCATION	SEC 12, T25S, R13W
OWNER	BECKER OIL CORP.
COMPLETED	030324
SAMPLED	070717
FORMATION	PENN-BERN
GEOLOGIC PROVINCE CODE	385
TRUE VERTICAL DEPTH (FT)	2892
MEASURED DEPTH	
WELLHEAD PRESSURE, PSIG	
OPEN FLOW, MCFD	160

COMPONENT, MOLE PCT	
METHANE	72.4
ETHANE	1.9
PROPANE	0.6
N-BUTANE	0.1
ISOBUTANE	0.1
N-PENTANE	TRACE
ISOPENTANE	TRACE
CYCLOPENTANE	--
HEXANES PLUS	TRACE
NITROGEN	23.9
OXYGEN	--
ARGON	--
ARGON + OXYGEN	TRACE
HYDROGEN	TRACE
HYDROGEN SULFIDE**	0.0
CARBON DIOXIDE	TRACE
HELIUM	0.90
HEATING VALUE*	788
SPECIFIC GRAVITY	0.667

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21613	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	71.4
COUNTY	STAFFORD	ETHANE	1.8
FIELD	LEESBURGH	PROPANE	0.6
WELL NAME	RUSSELL 1A	N-BUTANE	0.1
API	1518523175	ISOBUTANE	0.1
LOCATION	SEC 13, T25S, R13W	N-PENTANE	TRACE
OWNER	BECKER OIL CORP.	ISOPENTANE	TRACE
COMPLETED	030321	CYCLOPENTANE	--
SAMPLED	070717	HEXANES PLUS	TRACE
FORMATION	PERM-KRIDER, TOWANDA	NITROGEN	24.9
GEOLOGIC PROVINCE CODE	385	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	1991	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	360	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	TRACE
		HELIUM	0.95
		HEATING VALUE*	780
		SPECIFIC GRAVITY	0.672

SAMPLE	21651	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	58.9
COUNTY	WICHITA	ETHANE	4.0
FIELD	LEOTI GAS AREA	PROPANE	2.8
WELL NAME	WALK 1	N-BUTANE	0.9
API	1520320034	ISOBUTANE	0.4
LOCATION	SEC 27, T18S, R38W	N-PENTANE	0.2
OWNER	MULL DRILLING CO. INC.	ISOPENTANE	0.2
COMPLETED	761103	CYCLOPENTANE	--
SAMPLED	070813	HEXANES PLUS	0.3
FORMATION	PERM-CHASE GROUP	NITROGEN	31.6
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2808	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	1650	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	TRACE
		HELIUM	0.71
		HEATING VALUE*	809
		SPECIFIC GRAVITY	0.762

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21625	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	81.1
COUNTY	STAFFORD	ETHANE	3.5
FIELD	MACKSVILLE	PROPANE	1.8
WELL NAME	CRS TK NAGEL 1B	N-BUTANE	0.7
API	1518510481	ISOBUTANE	0.3
LOCATION	SEC 3, T24S, R15W	N-PENTANE	0.3
OWNER	CHESAPEAKE OPERATING, INC.	ISOPENTANE	0.2
COMPLETED	610328	CYCLOPENTANE	--
SAMPLED	070718	HEXANES PLUS	0.4
FORMATION	MISS-MISSISSIPPIAN	NITROGEN	10.3
GEOLOGIC PROVINCE CODE	385	OXYGEN	--
TRUE VERTICAL DEPTH (FT)		ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	1.08
		HEATING VALUE*	1,003
		SPECIFIC GRAVITY	0.664

SAMPLE	21653	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	34.8
COUNTY	SCOTT	ETHANE	2.2
FIELD	MANNING SW	PROPANE	2.0
WELL NAME	WEISENBERGER K 1	N-BUTANE	0.8
API	1517120580	ISOBUTANE	0.3
LOCATION	SEC 10, T18S, R31W	N-PENTANE	0.3
OWNER	SLAWSON EXPLORATION CO.	ISOPENTANE	0.2
COMPLETED	060519	CYCLOPENTANE	--
SAMPLED	070814	HEXANES PLUS	0.4
FORMATION	PERM-CHASE GROUP	NITROGEN	57.6
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2746	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	60	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.0
		HELIUM	1.38
		HEATING VALUE*	513
		SPECIFIC GRAVITY	0.85

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21611	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	70.8
COUNTY	RICE	ETHANE	7.4
FIELD	MCCLINTOCK	PROPANE	5.5
WELL NAME	FITZPATRICK JR 1	N-BUTANE	1.8
API	1515921916	ISOBUTANE	0.9
LOCATION	SEC 18, T21S, R8W	N-PENTANE	0.5
OWNER	JAY FITZPATRICK, JR.	ISOPENTANE	0.4
COMPLETED	850105	CYCLOPENTANE	--
SAMPLED	070716	HEXANES PLUS	0.6
FORMATION	MISS-MISSISSIPPIAN	NITROGEN	11.5
GEOLOGIC PROVINCE CODE	385	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	3304	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	4900	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	TRACE
		HELIUM	0.52
		HEATING VALUE*	1,138
		SPECIFIC GRAVITY	0.76

SAMPLE	21091	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	71.5
COUNTY	FINNEY	ETHANE	5.4
FIELD	PANOMA GAS AREA	PROPANE	3.2
WELL NAME	JONES NO. M-1	N-BUTANE	0.9
API	1505520308	ISOBUTANE	0.4
LOCATION	SEC. 32, T26S, R34W	N-PENTANE	0.2
OWNER	CIMAREX ENERGY CO.	ISOPENTANE	0.2
COMPLETED	780831	CYCLOPENTANE	--
SAMPLED	021119	HEXANES PLUS	0.2
FORMATION	PERM-COUNCIL GROVE	NITROGEN	17.6
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	2963	ARGON	TRACE
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	194	HYDROGEN	0.0
OPEN FLOW, MCFD	4400	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	TRACE
		HELIUM	0.46
		HEATING VALUE*	963
		SPECIFIC GRAVITY	0.711

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21090	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	71.7
COUNTY	FINNEY	ETHANE	5.3
FIELD	PANOMA GAS AREA	PROPANE	3.2
WELL NAME	JONES NO. P-1	N-BUTANE	0.9
API	1505520316	ISOBUTANE	0.4
LOCATION	SEC. 33, T26S, R34W	N-PENTANE	0.2
OWNER	CIMAREX ENERGY CO.	ISOPENTANE	0.2
COMPLETED	780831	CYCLOPENTANE	--
SAMPLED	021119	HEXANES PLUS	0.2
FORMATION	PERM-COUNCIL GROVE	NITROGEN	17.5
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	2903	ARGON	TRACE
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	235	HYDROGEN	0.0
OPEN FLOW, MCFD	2400	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	TRACE
		HELIUM	0.47
		HEATING VALUE*	965
		SPECIFIC GRAVITY	0.711

SAMPLE	21239	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	68.1
COUNTY	RUSH	ETHANE	2.5
FIELD	REICHEL	PROPANE	1.1
WELL NAME	HOFFMAN 3	N-BUTANE	0.4
API	1516520994	ISOBUTANE	0.3
LOCATION	SEC. 29, T16S, R17W	N-PENTANE	0.1
OWNER	BEAR PETROLEUM, INC.	ISOPENTANE	0.1
COMPLETED	820714	CYCLOPENTANE	--
SAMPLED	030819	HEXANES PLUS	0.2
FORMATION	PERM-CHASE GROUP	NITROGEN	25.1
GEOLOGIC PROVINCE CODE	385	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)		ARGON	0.1
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.0
		HELIUM	1.89
		HEATING VALUE*	805
		SPECIFIC GRAVITY	0.694

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21238	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	69.3
COUNTY	RUSH	ETHANE	3.4
FIELD	REICHEL	PROPANE	2.0
WELL NAME	LIPPERT 3	N-BUTANE	1.0
API	1516520991	ISOBUTANE	0.5
LOCATION	SEC. 19, T16S, R17W	N-PENTANE	0.3
OWNER	BEAR PETROLEUM, INC.	ISOPENTANE	0.3
COMPLETED	820617	CYCLOPENTANE	--
SAMPLED	030819	HEXANES PLUS	0.5
FORMATION	PERM-COTTONWOOD	NITROGEN	20.8
GEOLOGIC PROVINCE CODE	385	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	2397	ARGON	0.1
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	738	HYDROGEN	0.0
OPEN FLOW, MCFD	889	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	1.68
		HEATING VALUE*	910
		SPECIFIC GRAVITY	0.717

SAMPLE	21234	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	61.5
COUNTY	RUSH	ETHANE	3.0
FIELD	REICHEL E	PROPANE	1.3
WELL NAME	BRACK 3A	N-BUTANE	0.8
API	1516520306	ISOBUTANE	0.5
LOCATION	SEC. 34, T17S, R16W	N-PENTANE	0.5
OWNER	BEAR PETROLEUM, INC.	ISOPENTANE	0.4
COMPLETED	700806	CYCLOPENTANE	--
SAMPLED	030819	HEXANES PLUS	0.8
FORMATION	PENN-GRANITE WASH	NITROGEN	28.7
GEOLOGIC PROVINCE CODE	385	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	3525	ARGON	0.1
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD	4850	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	2.19
		HEATING VALUE*	827
		SPECIFIC GRAVITY	0.75

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21233	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	63.5
COUNTY	RUSH	ETHANE	2.8
FIELD	REICHEL E	PROPANE	1.8
WELL NAME	BAHR 1	N-BUTANE	1.6
API	1516521198	ISOBUTANE	0.7
LOCATION	SEC. 35, T17S, R16W	N-PENTANE	0.9
OWNER	BEAR PETROLEUM, INC.	ISOPENTANE	0.6
COMPLETED	840529	CYCLOPENTANE	--
SAMPLED	030819	HEXANES PLUS	1.7
FORMATION	PENN-LANSING	NITROGEN	24.3
GEOLOGIC PROVINCE CODE	385	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	3438	ARGON	0.2
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	1028	HYDROGEN	0.0
OPEN FLOW, MCFD	500	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	1.71
		HEATING VALUE*	955
		SPECIFIC GRAVITY	0.785

SAMPLE	21235	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	69.2
COUNTY	RUSH	ETHANE	3.1
FIELD	REICHEL GAS AREA	PROPANE	1.4
WELL NAME	FOOS 1	N-BUTANE	0.6
API	1516502235	ISOBUTANE	0.4
LOCATION	SEC. 25, T17S, R17W	N-PENTANE	0.2
OWNER	BEAR PETROLEUM, INC.	ISOPENTANE	0.2
COMPLETED	620605	CYCLOPENTANE	--
SAMPLED	030819	HEXANES PLUS	1.0
FORMATION	PENN-LANSING	NITROGEN	21.9
GEOLOGIC PROVINCE CODE	385	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	3503	ARGON	0.1
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	1300	HYDROGEN	TRACE
OPEN FLOW, MCFD	10000	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	1.75
		HEATING VALUE*	885
		SPECIFIC GRAVITY	0.713

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21236	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	64.0
COUNTY	RUSH	ETHANE	2.0
FIELD	REICHEL W	PROPANE	0.9
WELL NAME	LEGLEITER A1	N-BUTANE	0.3
API	1516521019	ISOBUTANE	0.2
LOCATION	SEC. 11, T17S, R18W	N-PENTANE	0.1
OWNER	BEAR PETROLEUM, INC.	ISOPENTANE	0.1
COMPLETED	830701	CYCLOPENTANE	--
SAMPLED	030819	HEXANES PLUS	0.1
FORMATION	PERM-CHASE GROUP	NITROGEN	30.4
GEOLOGIC PROVINCE CODE	385	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)		ARGON	0.1
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.0
		HELIUM	1.94
		HEATING VALUE*	735
		SPECIFIC GRAVITY	0.704

SAMPLE	21237	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	64.4
COUNTY	RUSH	ETHANE	2.3
FIELD	REICHEL W	PROPANE	1.0
WELL NAME	MUTH 1	N-BUTANE	0.4
API	1516521146	ISOBUTANE	0.3
LOCATION	SEC. 1, T17S, R18W	N-PENTANE	0.1
OWNER	BEAR PETROLEUM, INC.	ISOPENTANE	0.1
COMPLETED	840713	CYCLOPENTANE	--
SAMPLED	030819	HEXANES PLUS	0.4
FORMATION	PERM-CHASE GROUP	NITROGEN	28.9
GEOLOGIC PROVINCE CODE	385	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	2044	ARGON	0.1
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	519	HYDROGEN	0.0
OPEN FLOW, MCFD	348	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.0
		HELIUM	2.00
		HEATING VALUE*	767
		SPECIFIC GRAVITY	0.71

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21648	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	71.6
COUNTY	HODGEMAN	ETHANE	0.6
FIELD	RICHTER E	PROPANE	0.1
WELL NAME	STOECKER 1	N-BUTANE	TRACE
API	1508321514	ISOBUTANE	TRACE
LOCATION	SEC 4, T24S, R22W	N-PENTANE	0.0
OWNER	BECKER OIL CORP.	ISOPENTANE	0.0
COMPLETED	060710	CYCLOPENTANE	--
SAMPLED	070719	HEXANES PLUS	TRACE
FORMATION	PERM-KRIDER U	NITROGEN	26.6
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2420	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	120	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	TRACE
		HELIUM	1.02
		HEATING VALUE*	739
		SPECIFIC GRAVITY	0.664

SAMPLE	21633	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	72.4
COUNTY	HODGEMAN	ETHANE	0.7
FIELD	SAW LOG CREEK	PROPANE	0.1
WELL NAME	GLEASON 1	N-BUTANE	TRACE
API	1508321508	ISOBUTANE	TRACE
LOCATION	SEC 32, T23S, R21W	N-PENTANE	TRACE
OWNER	BECKER OIL CORP.	ISOPENTANE	TRACE
COMPLETED	060101	CYCLOPENTANE	--
SAMPLED	070718	HEXANES PLUS	TRACE
FORMATION	PERM-CHASE GROUP	NITROGEN	25.7
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2669	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	500	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	TRACE
		HELIUM	0.86
		HEATING VALUE*	752
		SPECIFIC GRAVITY	0.663

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21652	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	56.2
COUNTY	SCOTT	ETHANE	4.1
FIELD	SHALLOW WATER W	PROPANE	2.9
WELL NAME	BUCKNER 1(WAS NOT FLOWING)	N-BUTANE	1.0
API	1517120400	ISOBUTANE	0.4
LOCATION	SEC 16, T20S, R33W	N-PENTANE	0.3
OWNER	BEREXCO, INC.	ISOPENTANE	0.2
COMPLETED	900113	CYCLOPENTANE	--
SAMPLED	070813	HEXANES PLUS	0.4
FORMATION	PERM-CHASE GROUP	NITROGEN	33.6
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2617	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD	190	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	TRACE
		HELIUM	0.85
		HEATING VALUE*	796
		SPECIFIC GRAVITY	0.776

SAMPLE	21612	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	67.4
COUNTY	STAFFORD	ETHANE	4.1
FIELD	SODEN E	PROPANE	3.0
WELL NAME	FANSHIER 1-25	N-BUTANE	1.2
API	1518523224	ISOBUTANE	0.6
LOCATION	SEC 25, T23S, R13W	N-PENTANE	0.4
OWNER	AMERICAN WARRIOR, INC.	ISOPENTANE	0.3
COMPLETED	040502	CYCLOPENTANE	--
SAMPLED	070717	HEXANES PLUS	0.7
FORMATION	PENN-LANSING-KANSAS CITY	NITROGEN	21.3
GEOLOGIC PROVINCE CODE	385	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	3590	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	0.86
		HEATING VALUE*	948
		SPECIFIC GRAVITY	0.744

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21646	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	70.5
COUNTY	HODGEMAN	ETHANE	0.7
FIELD	STELLA B	PROPANE	0.1
WELL NAME	BENISH 1	N-BUTANE	TRACE
API	1508321488	ISOBUTANE	TRACE
LOCATION	SEC 9, T24S, R24W	N-PENTANE	0.0
OWNER	BECKER OIL CORP.	ISOPENTANE	TRACE
COMPLETED	060314	CYCLOPENTANE	--
SAMPLED	070719	HEXANES PLUS	0.0
FORMATION	PERM-KRIDER	NITROGEN	27.6
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2579	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	145	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	TRACE
		HELIUM	1.03
		HEATING VALUE*	730
		SPECIFIC GRAVITY	0.669

SAMPLE	21240	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	68.5
COUNTY	RUSH	ETHANE	2.2
FIELD	STREMEL	PROPANE	1.0
WELL NAME	OCHS 1	N-BUTANE	0.4
API	1516530158	ISOBUTANE	0.3
LOCATION	SEC. 30, T16S, R16W	N-PENTANE	0.1
OWNER	BEAR PETROLEUM, INC.	ISOPENTANE	0.1
COMPLETED	670201	CYCLOPENTANE	--
SAMPLED	030819	HEXANES PLUS	0.2
FORMATION	PENN-SHAWNEE	NITROGEN	25.1
GEOLOGIC PROVINCE CODE	385	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	3003	ARGON	0.1
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	1120	HYDROGEN	0.0
OPEN FLOW, MCFD	702	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	1.80
		HEATING VALUE*	800
		SPECIFIC GRAVITY	0.692

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21618	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	89.0
COUNTY	EDWARDS	ETHANE	4.2
FIELD	TROUSDALE NE	PROPANE	1.9
WELL NAME	ELLEDGE BATTERY 1	N-BUTANE	0.7
API	1504720079	ISOBUTANE	0.3
LOCATION	SEC 23, T26S, R16W	N-PENTANE	0.3
OWNER	BEREN CORP.	ISOPENTANE	0.2
COMPLETED	701106	CYCLOPENTANE	--
SAMPLED	070717	HEXANES PLUS	0.5
FORMATION	PENN-WABAUNSEE	NITROGEN	2.6
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	3260	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	280	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	0.26
		HEATING VALUE*	1,095
		SPECIFIC GRAVITY	0.638

SAMPLE	21631	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	84.0
COUNTY	EDWARDS	ETHANE	3.3
FIELD	WAYNE NW	PROPANE	1.3
WELL NAME	GRYBOWSKI-MARTIN 1	N-BUTANE	0.4
API	1504720342	ISOBUTANE	0.2
LOCATION	SEC 18, T24S, R17W	N-PENTANE	0.1
OWNER	HOLL, F.G., CO. LLC	ISOPENTANE	0.1
COMPLETED	780512	CYCLOPENTANE	--
SAMPLED	070718	HEXANES PLUS	0.2
FORMATION	PENN-CHEROKEE, MISS-MISSISSIPPIAN	NITROGEN	9.2
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	4376	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	1550	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	1.14
		HEATING VALUE*	977
		SPECIFIC GRAVITY	0.634

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21642	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	64.2
COUNTY	HODGEMAN	ETHANE	0.6
FIELD	WIELAND	PROPANE	0.1
WELL NAME	WIELAND 1A	N-BUTANE	TRACE
API	1508321482	ISOBUTANE	TRACE
LOCATION	SEC 16, T21S, R22W	N-PENTANE	0.0
OWNER	BECKER OIL CORP.	ISOPENTANE	0.0
COMPLETED	030728	CYCLOPENTANE	--
SAMPLED	070719	HEXANES PLUS	0.0
FORMATION	PERM-WINFIELD	NITROGEN	33.9
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2426	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	817	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	TRACE
		HELIUM	1.15
		HEATING VALUE*	664
		SPECIFIC GRAVITY	0.694

SAMPLE	21643	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	63.6
COUNTY	HODGEMAN	ETHANE	0.6
FIELD	WIELAND N	PROPANE	0.1
WELL NAME	SELFRIDGE 1A	N-BUTANE	TRACE
API	1508321485	ISOBUTANE	TRACE
LOCATION	SEC 8, T21S, R22W	N-PENTANE	0.0
OWNER	BECKER OIL CORP.	ISOPENTANE	TRACE
COMPLETED	040601	CYCLOPENTANE	--
SAMPLED	070719	HEXANES PLUS	0.0
FORMATION	PERM-KRIDER, WINFIELD	NITROGEN	34.5
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2390	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	1832	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	TRACE
		HELIUM	1.14
		HEATING VALUE*	658
		SPECIFIC GRAVITY	0.697

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21620	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	85.2
COUNTY	EDWARDS	ETHANE	2.6
FIELD	WIL	PROPANE	0.9
WELL NAME	JULIAN 3-5	N-BUTANE	0.2
API	1504721471	ISOBUTANE	0.1
LOCATION	SEC 5, T25S, R16W	N-PENTANE	0.1
OWNER	CASTELLI EXPLORATION, INC.	ISOPENTANE	0.1
COMPLETED	021018	CYCLOPENTANE	--
SAMPLED	070717	HEXANES PLUS	0.1
FORMATION	PERM-CHASE GROUP	NITROGEN	10.2
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2474	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	366	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	TRACE
		HELIUM	0.49
		HEATING VALUE*	952
		SPECIFIC GRAVITY	0.625

SAMPLE	21622	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	85.3
COUNTY	EDWARDS	ETHANE	2.6
FIELD	WIL	PROPANE	1.0
WELL NAME	JULIAN 2-5	N-BUTANE	0.2
API	1504721464	ISOBUTANE	0.1
LOCATION	SEC 5, T25S, R16W	N-PENTANE	0.1
OWNER	CASTELLI EXPLORATION, INC.	ISOPENTANE	0.1
COMPLETED	020420	CYCLOPENTANE	--
SAMPLED	070717	HEXANES PLUS	0.1
FORMATION	PERM-CHASE GROUP	NITROGEN	9.9
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2329	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	250	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	TRACE
		HELIUM	0.50
		HEATING VALUE*	958
		SPECIFIC GRAVITY	0.626

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21623	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	88.8
COUNTY	EDWARDS	ETHANE	3.2
FIELD	WIL W	PROPANE	1.1
WELL NAME	KEEN 1-12	N-BUTANE	0.4
API	1504721034	ISOBUTANE	0.2
LOCATION	SEC 12, T25S, R17W	N-PENTANE	0.2
OWNER	HOLL, F.G., CO. LLC	ISOPENTANE	0.1
COMPLETED	820712	CYCLOPENTANE	--
SAMPLED	070717	HEXANES PLUS	0.3
FORMATION	MISS-MISSISSIPPIAN	NITROGEN	4.9
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	4400	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	0.51
		HEATING VALUE*	1,033
		SPECIFIC GRAVITY	0.624

SAMPLE	20762	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	71.8
COUNTY	MORTON	ETHANE	4.8
FIELD	WILBURTON E	PROPANE	3.1
WELL NAME	BARKER B 1-4	N-BUTANE	1.1
API	1512921649	ISOBUTANE	0.6
LOCATION	SEC. 36, T34S, R41W	N-PENTANE	0.5
OWNER	OXY USA, INC.	ISOPENTANE	0.4
COMPLETED	010930	CYCLOPENTANE	--
SAMPLED	010801	HEXANES PLUS	0.4
FORMATION	PENN-MORROW U	NITROGEN	16.6
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	5494	ARGON	TRACE
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD	1600	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.4
		HELIUM	0.34
		HEATING VALUE*	999
		SPECIFIC GRAVITY	0.73

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	50591	COMPONENT, MOLE PCT	
STATE	KANSAS	METHANE	90.5
COUNTY	BARBER	ETHANE	4.2
FIELD	WOLGAMOTT	PROPANE	1.8
WELL NAME	WOLGAMOTT NO. 2-9	N-BUTANE	0.6
API	1500722680	ISOBUTANE	0.2
LOCATION	SEC. 9, T35S, R14W	N-PENTANE	0.2
OWNER	JACK EXPLORATION, INC.	ISOPENTANE	0.2
COMPLETED	011024	CYCLOPENTANE	--
SAMPLED	020905	HEXANES PLUS	0.5
FORMATION	MISS-MISSISSIPPIAN	NITROGEN	1.7
GEOLOGIC PROVINCE CODE	375	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	4898	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	1669	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	--
		HEATING VALUE*	1,105
		SPECIFIC GRAVITY	0.634

SAMPLE	21589	COMPONENT, MOLE PCT	
STATE	LOUISIANA	METHANE	92.4
COUNTY	BIENVILLE	ETHANE	3.4
FIELD	ALABAMA BEND	PROPANE	0.7
WELL NAME	BLACK STONE MINERALS 11-1-1	N-BUTANE	0.1
API	1701321462	ISOBUTANE	0.2
LOCATION	SEC. 11, T15N, R10W	N-PENTANE	TRACE
OWNER	PETROCHEM OPERATING CO.	ISOPENTANE	0.1
COMPLETED	050612	CYCLOPENTANE	--
SAMPLED	070319	HEXANES PLUS	0.1
FORMATION	JURA-COTTON VALLEY	NITROGEN	0.2
GEOLOGIC PROVINCE CODE	230	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	10106	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	1500	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	2.7
		HELIUM	0.00
		HEATING VALUE*	1,034
		SPECIFIC GRAVITY	0.614

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21590	COMPONENT, MOLE PCT	
STATE	LOUISIANA	METHANE	91.9
COUNTY	BIENVILLE	ETHANE	3.8
FIELD	ALABAMA BEND	PROPANE	0.8
WELL NAME	BLACK STONE MINERALS 3-16-1	N-BUTANE	0.2
API	1701321463	ISOBUTANE	0.2
LOCATION	SEC. 3, T15N, R10W	N-PENTANE	0.1
OWNER	PETROCHEM OPERATING CO.	ISOPENTANE	0.1
COMPLETED	051102	CYCLOPENTANE	--
SAMPLED	070319	HEXANES PLUS	0.1
FORMATION	JURA-COTTON VALLEY	NITROGEN	0.2
GEOLOGIC PROVINCE CODE	230	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	9884	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	1475	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	2.7
		HELIUM	0.00
		HEATING VALUE*	1,042
		SPECIFIC GRAVITY	0.619

SAMPLE	21453	COMPONENT, MOLE PCT	
STATE	MONTANA	METHANE	81.6
COUNTY	TOOLE	ETHANE	5.5
FIELD	AMANDA	PROPANE	3.1
WELL NAME	JACOBSON 23-10	N-BUTANE	1.1
API	2510123540	ISOBUTANE	0.5
LOCATION	SEC 23, T36N, R4W	N-PENTANE	0.3
OWNER	SOMONT OIL COMPANY, INC.	ISOPENTANE	0.3
COMPLETED	920811	CYCLOPENTANE	--
SAMPLED	050000	HEXANES PLUS	0.5
FORMATION	JURA-SWIFT	NITROGEN	5.3
GEOLOGIC PROVINCE CODE	500	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2520	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG	520	HYDROGEN	0.0
OPEN FLOW, MCFD	35	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.4
		HELIUM	0.10
		HEATING VALUE*	1,105
		SPECIFIC GRAVITY	0.696

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21532	COMPONENT, MOLE PCT	
STATE	MONTANA	METHANE	91.7
COUNTY	LIBERTY	ETHANE	0.5
FIELD	KEITH E	PROPANE	0.1
WELL NAME	SHOEMAKER 9-22	N-BUTANE	TRACE
API	2505121732	ISOBUTANE	TRACE
LOCATION	SEC 22, T36N, R6E	N-PENTANE	TRACE
OWNER	CROFT PETROLEUM CO.	ISOPENTANE	TRACE
COMPLETED	011010	CYCLOPENTANE	--
SAMPLED	060608	HEXANES PLUS	TRACE
FORMATION	CRET-SECOND WHITE SPECKS	NITROGEN	7.3
GEOLOGIC PROVINCE CODE	500	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2090	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	465	HYDROGEN	0.0
OPEN FLOW, MCFD	127	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.14
		HEATING VALUE*	946
		SPECIFIC GRAVITY	0.591

SAMPLE	21602	COMPONENT, MOLE PCT	
STATE	MONTANA	METHANE	86.6
COUNTY	GLACIER	ETHANE	2.3
FIELD	LITTLE ROCK	PROPANE	2.2
WELL NAME	AUGESTAD 2-2	N-BUTANE	0.9
API	2503522076	ISOBUTANE	0.6
LOCATION	SEC 2, T36N, R6W	N-PENTANE	0.2
OWNER	CROFT PETROLEUM CO.	ISOPENTANE	0.3
COMPLETED	070307	CYCLOPENTANE	--
SAMPLED	070000	HEXANES PLUS	0.3
FORMATION	CRET-BLACKLEAF	NITROGEN	6.0
GEOLOGIC PROVINCE CODE	500	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	1996	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG	115	HYDROGEN	0.2
OPEN FLOW, MCFD	153	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.37
		HEATING VALUE*	1,054
		SPECIFIC GRAVITY	0.647

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21597	COMPONENT, MOLE PCT	
STATE	MONTANA	METHANE	93.9
COUNTY	TOOLE	ETHANE	1.4
FIELD	PHANTOM WEST	PROPANE	0.1
WELL NAME	FEDERAL 1-1	N-BUTANE	0.1
API	2510122383	ISOBUTANE	0.1
LOCATION	SEC 1, T37N, R2E	N-PENTANE	TRACE
OWNER	MCR, LLC	ISOPENTANE	TRACE
COMPLETED	820910	CYCLOPENTANE	--
SAMPLED	070515	HEXANES PLUS	TRACE
FORMATION	CRET-SUNBURST	NITROGEN	1.4
GEOLOGIC PROVINCE CODE	500	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2633	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	35	HYDROGEN	0.0
OPEN FLOW, MCFD	32	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	2.9
		HELIUM	0.08
		HEATING VALUE*	985
		SPECIFIC GRAVITY	0.598

SAMPLE	21607	COMPONENT, MOLE PCT	
STATE	MONTANA	METHANE	85.9
COUNTY	TOOLE	ETHANE	1.4
FIELD	POLICE COULEE	PROPANE	0.5
WELL NAME	O'LOUGHLIN 29-3	N-BUTANE	0.1
API	2510121751	ISOBUTANE	0.1
LOCATION	SEC 29, T37N, R1E	N-PENTANE	TRACE
OWNER	DNR OIL & GAS, INC.	ISOPENTANE	0.1
COMPLETED	781002	CYCLOPENTANE	--
SAMPLED	070628	HEXANES PLUS	TRACE
FORMATION	CRET-BOW ISLAND	NITROGEN	10.0
GEOLOGIC PROVINCE CODE	500	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	1133	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.6
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD	643	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.3
		HELIUM	0.09
		HEATING VALUE*	918
		SPECIFIC GRAVITY	0.628

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21666	COMPONENT, MOLE PCT	
STATE	MONTANA	METHANE	73.5
COUNTY	GLACIER	ETHANE	7.3
FIELD	REAGAN	PROPANE	5.9
WELL NAME	TRIBAL 194-15	N-BUTANE	2.1
API	2503506938	ISOBUTANE	1.0
LOCATION	SEC 15, T37N, R7W	N-PENTANE	0.4
OWNER	OMIMEX CANADA LTD.	ISOPENTANE	0.4
COMPLETED	490825	CYCLOPENTANE	--
SAMPLED	070827	HEXANES PLUS	0.5
FORMATION	CRET-BLACKLEAF	NITROGEN	8.4
GEOLOGIC PROVINCE CODE	500	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2208	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.2
WELLHEAD PRESSURE, PSIG	309	HYDROGEN	0.1
OPEN FLOW, MCFD	2245	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.16
		HEATING VALUE*	1,177
		SPECIFIC GRAVITY	0.754

SAMPLE	21665	COMPONENT, MOLE PCT	
STATE	MONTANA	METHANE	93.9
COUNTY	LIBERTY	ETHANE	0.2
FIELD	SAGE CREEK	PROPANE	0.0
WELL NAME	STATE 14-16	N-BUTANE	0.0
API	2505121711	ISOBUTANE	0.0
LOCATION	SEC 16, T37N, R7E	N-PENTANE	0.0
OWNER	OMIMEX CANADA LTD.	ISOPENTANE	0.0
COMPLETED	990809	CYCLOPENTANE	--
SAMPLED	070823	HEXANES PLUS	0.0
FORMATION	CRET-WHITE SPECKS 2ND	NITROGEN	5.5
GEOLOGIC PROVINCE CODE	500	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	1927	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	348	HYDROGEN	0.0
OPEN FLOW, MCFD	92	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.16
		HEATING VALUE*	955
		SPECIFIC GRAVITY	0.579

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21670	COMPONENT, MOLE PCT	
STATE	MONTANA	METHANE	89.2
COUNTY	BLAINE	ETHANE	1.6
FIELD	SAWTOOTH MOUNTAIN	PROPANE	0.6
WELL NAME	FEDERAL 14-31	N-BUTANE	0.1
API	2500522312	ISOBUTANE	0.1
LOCATION	SEC 31, T28N, R19E	N-PENTANE	TRACE
OWNER	DEVON ENERGY CORP.	ISOPENTANE	0.2
COMPLETED	830925	CYCLOPENTANE	--
SAMPLED	071004	HEXANES PLUS	TRACE
FORMATION	CRET-JUDITH RIVER	NITROGEN	7.9
GEOLOGIC PROVINCE CODE	395	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	1590	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	34	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.11
		HEATING VALUE*	963
		SPECIFIC GRAVITY	0.608

SAMPLE	21621	COMPONENT, MOLE PCT	
STATE	MONTANA	METHANE	94.5
COUNTY	HILL	ETHANE	0.2
FIELD	ST JOE ROAD	PROPANE	TRACE
WELL NAME	DUSEK 28-4-36-16	N-BUTANE	0.0
API	2504123215	ISOBUTANE	0.0
LOCATION	SEC 28, T36N, R16E	N-PENTANE	0.0
OWNER	KLABZUBA OIL & GAS, INC.	ISOPENTANE	0.0
COMPLETED	050523	CYCLOPENTANE	--
SAMPLED	070709	HEXANES PLUS	0.0
FORMATION	CRET-NIOBRARA	NITROGEN	5.0
GEOLOGIC PROVINCE CODE	500	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	1973	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	717	HYDROGEN	0.1
OPEN FLOW, MCFD	105	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.09
		HEATING VALUE*	961
		SPECIFIC GRAVITY	0.575

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21657
STATE	NEBRASKA
COUNTY	CHEYENNE
FIELD	JURGENS
WELL NAME	POPPEN 8-B
API	2603322491
LOCATION	SEC 32, T16N, R48W
OWNER	PATHEX PETROLEUM, INC.
COMPLETED	931106
SAMPLED	070815
FORMATION	CRET-NIOBRARA
GEOLOGIC PROVINCE CODE	540
TRUE VERTICAL DEPTH (FT)	3649
MEASURED DEPTH	
WELLHEAD PRESSURE, PSIG	
OPEN FLOW, MCFD	494
COMPONENT, MOLE PCT	
METHANE	89.2
ETHANE	1.4
PROPANE	1.0
N-BUTANE	0.3
ISOBUTANE	0.2
N-PENTANE	0.1
ISOPENTANE	0.1
CYCLOPENTANE	--
HEXANES PLUS	0.1
NITROGEN	6.7
OXYGEN	--
ARGON	--
ARGON + OXYGEN	0.1
HYDROGEN	0.0
HYDROGEN SULFIDE**	TRACE
CARBON DIOXIDE	0.5
HELIUM	0.14
HEATING VALUE*	988
SPECIFIC GRAVITY	0.619

SAMPLE	21660
STATE	NEBRASKA
COUNTY	CHEYENNE
FIELD	MCCOURT W
WELL NAME	TOOF 3-4B
API	2603322443
LOCATION	SEC 3, T16N, R48W
OWNER	PATHEX PETROLEUM, INC.
COMPLETED	930208
SAMPLED	070815
FORMATION	CRET-NIOBRARA
GEOLOGIC PROVINCE CODE	540
TRUE VERTICAL DEPTH (FT)	3595
MEASURED DEPTH	
WELLHEAD PRESSURE, PSIG	
OPEN FLOW, MCFD	468
COMPONENT, MOLE PCT	
METHANE	91.0
ETHANE	1.3
PROPANE	0.9
N-BUTANE	0.3
ISOBUTANE	0.2
N-PENTANE	0.1
ISOPENTANE	0.1
CYCLOPENTANE	--
HEXANES PLUS	0.1
NITROGEN	5.2
OXYGEN	--
ARGON	--
ARGON + OXYGEN	0.1
HYDROGEN	0.0
HYDROGEN SULFIDE**	TRACE
CARBON DIOXIDE	0.5
HELIUM	0.14
HEATING VALUE*	998
SPECIFIC GRAVITY	0.609

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21658	COMPONENT, MOLE PCT	
STATE	NEBRASKA	METHANE	89.6
COUNTY	CHEYENNE	ETHANE	1.5
FIELD	MILLER	PROPANE	1.0
WELL NAME	MILLER FARMS 21-4A	N-BUTANE	0.3
API	2603322480	ISOBUTANE	0.2
LOCATION	SEC 21, T16N, R47W	N-PENTANE	0.1
OWNER	PATHEX PETROLEUM, INC.	ISOPENTANE	0.1
COMPLETED	931016	CYCLOPENTANE	--
SAMPLED	070815	HEXANES PLUS	0.1
FORMATION	CRET-NIOBRARA	NITROGEN	6.3
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	3414	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	328	HYDROGEN SULFIDE**	TRACE
		CARBON DIOXIDE	0.6
		HELIUM	0.15
		HEATING VALUE*	987
		SPECIFIC GRAVITY	0.616

SAMPLE	21659	COMPONENT, MOLE PCT	
STATE	NEBRASKA	METHANE	89.8
COUNTY	CHEYENNE	ETHANE	1.4
FIELD	MILLER N	PROPANE	1.0
WELL NAME	HYDE 5-2A	N-BUTANE	0.3
API	2603322438	ISOBUTANE	0.2
LOCATION	SEC 5, T16N, R47W	N-PENTANE	0.1
OWNER	PATHEX PETROLEUM, INC.	ISOPENTANE	0.1
COMPLETED	930120	CYCLOPENTANE	--
SAMPLED	070815	HEXANES PLUS	0.1
FORMATION	CRET-NIOBRARA	NITROGEN	6.3
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	3402	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	442	HYDROGEN SULFIDE**	0.1
		CARBON DIOXIDE	0.5
		HELIUM	0.16
		HEATING VALUE*	989
		SPECIFIC GRAVITY	0.615

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21661	COMPONENT, MOLE PCT	
STATE	NEBRASKA	METHANE	71.1
COUNTY	KIMBALL	ETHANE	6.5
FIELD	TYSON	PROPANE	8.9
WELL NAME	STATE C-1	N-BUTANE	3.6
API	2610521731	ISOBUTANE	1.1
LOCATION	SEC 16, T13N, R53W	N-PENTANE	1.0
OWNER	BEREN CORP.	ISOPENTANE	0.8
COMPLETED	780906	CYCLOPENTANE	--
SAMPLED	070815	HEXANES PLUS	1.6
FORMATION	CRET-DAKOTA D	NITROGEN	2.9
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	5642	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.3
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	2800	HYDROGEN SULFIDE**	TRACE
		CARBON DIOXIDE	2.0
		HELIUM	0.07
		HEATING VALUE*	1,365
		SPECIFIC GRAVITY	0.849

SAMPLE	21569	COMPONENT, MOLE PCT	
STATE	NEBRASKA	METHANE	15.1
COUNTY	KIMBALL	ETHANE	1.8
FIELD	WILDCAT	PROPANE	1.0
WELL NAME	COUSINS NEAR 10-33T	N-BUTANE	0.2
API	2610522596	ISOBUTANE	0.1
LOCATION	SEC 33, T14N, R56W	N-PENTANE	TRACE
OWNER	ADVANTAGE RESOURCES, INC.	ISOPENTANE	TRACE
COMPLETED	050711	CYCLOPENTANE	--
SAMPLED	061005	HEXANES PLUS	TRACE
FORMATION	PERM-WYKERT	NITROGEN	78.9
GEOLOGIC PROVINCE CODE	540	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	8226	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG	5	HYDROGEN	2.3
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.58
		HEATING VALUE*	226
		SPECIFIC GRAVITY	0.891

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21522	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	88.7
COUNTY	CHAVES	ETHANE	3.9
FIELD	ACME	PROPANE	1.5
WELL NAME	MILLER STATE 1	N-BUTANE	0.5
API	3000563538	ISOBUTANE	0.3
LOCATION	SEC 2, T8S, R27E	N-PENTANE	0.2
OWNER	ELK OIL CO.	ISOPENTANE	0.2
COMPLETED	030224	CYCLOPENTANE	--
SAMPLED	060309	HEXANES PLUS	0.3
FORMATION	PERM-PERMIAN	NITROGEN	3.9
GEOLOGIC PROVINCE CODE	430	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	6577	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD	800	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	0.32
		HEATING VALUE*	1,059
		SPECIFIC GRAVITY	0.63

SAMPLE	50609	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	89.6
COUNTY	SAN JUAN	ETHANE	6.0
FIELD	ALBINO	PROPANE	2.0
WELL NAME	SAN JUAN 32-8 UNIT 46	N-BUTANE	0.4
API	3004525127	ISOBUTANE	0.4
LOCATION	SEC 14, T32N, R8W	N-PENTANE	0.1
OWNER	CONOCOPHILLIPS CO.	ISOPENTANE	0.2
COMPLETED	820113	CYCLOPENTANE	--
SAMPLED	050427	HEXANES PLUS	0.4
FORMATION	CRET-PICTURED CLIFFS	NITROGEN	0.1
GEOLOGIC PROVINCE CODE	580	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	3973	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	--
		CARBON DIOXIDE	0.8
		HELIUM	0.01
		HEATING VALUE*	1,124
		SPECIFIC GRAVITY	0.641

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21499	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	81.1
COUNTY	LEA	ETHANE	9.1
FIELD	ANDERSON RANCH	PROPANE	4.7
WELL NAME	ANDERSON RANCH UNIT 201	N-BUTANE	1.4
API	3002534272	ISOBUTANE	0.7
LOCATION	SEC 14E, T16S, R32E	N-PENTANE	0.4
OWNER	CONOCOPHILLIPS CO.	ISOPENTANE	0.4
COMPLETED	980628	CYCLOPENTANE	--
SAMPLED	050906	HEXANES PLUS	0.7
FORMATION	PENN-MORROW	NITROGEN	1.1
GEOLOGIC PROVINCE CODE	430	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	12231	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	298	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.3
		HELIUM	0.04
		HEATING VALUE*	1,235
		SPECIFIC GRAVITY	0.714

SAMPLE	50606	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	82.1
COUNTY	SAN JUAN	ETHANE	8.2
FIELD	ANIMAS/BLANCO	PROPANE	3.6
WELL NAME	PRIMO 1A	N-BUTANE	1.0
API	3004521827	ISOBUTANE	0.6
LOCATION	SEC 6, T31N, R10W	N-PENTANE	0.3
OWNER	CONOCOPHILLIPS CO.	ISOPENTANE	0.4
COMPLETED	751216	CYCLOPENTANE	--
SAMPLED	050429	HEXANES PLUS	1.4
FORMATION	CRET-CHACRA, MESAVERDE	NITROGEN	0.1
GEOLOGIC PROVINCE CODE	580	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	5020	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	--
		CARBON DIOXIDE	2.2
		HELIUM	0.01
		HEATING VALUE*	1,227
		SPECIFIC GRAVITY	0.731

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21460	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	86.5
COUNTY	SAN JUAN	ETHANE	4.4
FIELD	AZTEC N	PROPANE	2.0
WELL NAME	AZTEC COM 1	N-BUTANE	0.5
API	3004509974	ISOBUTANE	0.3
LOCATION	SEC 2, T30N, R11W	N-PENTANE	0.2
OWNER	BP AMERICA PRODUCTION CO.	ISOPENTANE	0.2
COMPLETED	961108	CYCLOPENTANE	--
SAMPLED	050613	HEXANES PLUS	0.3
FORMATION	CRET-FRUITLAND	NITROGEN	5.2
GEOLOGIC PROVINCE CODE	580	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2166	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.3
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	800	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	0.03
		HEATING VALUE*	1,058
		SPECIFIC GRAVITY	0.645

SAMPLE	50613	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	75.3
COUNTY	RIO ARRIBA	ETHANE	10.3
FIELD	BASIN	PROPANE	6.5
WELL NAME	JICARILLA A-12	N-BUTANE	2.1
API	3003920396	ISOBUTANE	1.2
LOCATION	SEC 24, T26N, R4W	N-PENTANE	0.7
OWNER	CONOCOPHILLIPS CO.	ISOPENTANE	0.9
COMPLETED	711028	CYCLOPENTANE	--
SAMPLED	051201	HEXANES PLUS	1.9
FORMATION	CRET-DAKOTA	NITROGEN	0.4
GEOLOGIC PROVINCE CODE	580	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	8274	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	2100	HYDROGEN	0.0
OPEN FLOW, MCFD	1534	HYDROGEN SULFIDE**	--
		CARBON DIOXIDE	0.6
		HELIUM	0.02
		HEATING VALUE*	1,385
		SPECIFIC GRAVITY	0.8

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20624	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	85.5
COUNTY	SAN JUAN	ETHANE	8.4
FIELD	BASIN	PROPANE	2.5
WELL NAME	GALLEGOS CANYON UNIT 166E	N-BUTANE	0.6
API	3004524429	ISOBUTANE	0.4
LOCATION	SEC. 34, T28N, R12W	N-PENTANE	0.2
OWNER	BP AMERICA PRODUCTION CO.	ISOPENTANE	0.2
COMPLETED	811026	CYCLOPENTANE	--
SAMPLED	010410	HEXANES PLUS	0.4
FORMATION	CRET-DAKOTA	NITROGEN	0.8
GEOLOGIC PROVINCE CODE	580	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	6034	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	1392	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.0
		HELIUM	0.10
		HEATING VALUE*	1,140
		SPECIFIC GRAVITY	0.661

SAMPLE	20646	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	80.1
COUNTY	SAN JUAN	ETHANE	10.8
FIELD	BASIN	PROPANE	4.4
WELL NAME	GALLEGOS CANYON UNIT 216E	N-BUTANE	1.1
API	3004524271	ISOBUTANE	0.6
LOCATION	SEC. 14, T28N, R12W	N-PENTANE	0.3
OWNER	BP AMERICA PRODUCTION CO.	ISOPENTANE	0.3
COMPLETED	800717	CYCLOPENTANE	--
SAMPLED	010411	HEXANES PLUS	0.5
FORMATION	CRET-DAKOTA	NITROGEN	0.6
GEOLOGIC PROVINCE CODE	580	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	6144	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	742	HYDROGEN	0.0
OPEN FLOW, MCFD	787	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.1
		HELIUM	0.11
		HEATING VALUE*	1,218
		SPECIFIC GRAVITY	0.711

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20643	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	75.7
COUNTY	SAN JUAN	ETHANE	13.2
FIELD	BASIN	PROPANE	6.0
WELL NAME	GALLEGOS CANYON UNIT 219E	N-BUTANE	1.3
API	3004525449	ISOBUTANE	0.7
LOCATION	SEC. 23, T28N, R12W	N-PENTANE	0.3
OWNER	BP AMERICA PRODUCTION CO.	ISOPENTANE	0.3
COMPLETED	830701	CYCLOPENTANE	--
SAMPLED	010411	HEXANES PLUS	0.7
FORMATION	CRET-DAKOTA	NITROGEN	0.7
GEOLOGIC PROVINCE CODE	580	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	6114	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	964	HYDROGEN	0.0
OPEN FLOW, MCFD	947	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.1
		HELIUM	0.11
		HEATING VALUE*	1,273
		SPECIFIC GRAVITY	0.745

SAMPLE	20622	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	85.6
COUNTY	SAN JUAN	ETHANE	8.4
FIELD	BASIN	PROPANE	2.4
WELL NAME	GALLEGOS CANYON UNIT 178E	N-BUTANE	0.6
API	3004526206	ISOBUTANE	0.4
LOCATION	SEC. 4, T27N, R12W	N-PENTANE	0.2
OWNER	BP AMERICA PRODUCTION CO.	ISOPENTANE	0.2
COMPLETED	850701	CYCLOPENTANE	--
SAMPLED	010410	HEXANES PLUS	0.4
FORMATION	CRET-DAKOTA	NITROGEN	0.8
GEOLOGIC PROVINCE CODE	580	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	5972	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	832	HYDROGEN	0.0
OPEN FLOW, MCFD	1510	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.8
		HELIUM	0.11
		HEATING VALUE*	1,145
		SPECIFIC GRAVITY	0.662

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20634	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	80.5
COUNTY	SAN JUAN	ETHANE	11.0
FIELD	BASIN	PROPANE	4.2
WELL NAME	GALLEGOS CANYON UNIT 265E	N-BUTANE	0.9
API	3004526706	ISOBUTANE	0.5
LOCATION	SEC. 25, T28N, R12W	N-PENTANE	0.2
OWNER	BP AMERICA PRODUCTION CO.	ISOPENTANE	0.2
COMPLETED	860424	CYCLOPENTANE	--
SAMPLED	010411	HEXANES PLUS	0.3
FORMATION	CRET-DAKOTA	NITROGEN	1.3
GEOLOGIC PROVINCE CODE	580	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	6215	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	1771	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.9
		HELIUM	0.12
		HEATING VALUE*	1,189
		SPECIFIC GRAVITY	0.696

SAMPLE	20635	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	79.5
COUNTY	SAN JUAN	ETHANE	11.0
FIELD	BASIN	PROPANE	4.6
WELL NAME	GALLEGOS CANYON UNIT 232E	N-BUTANE	1.2
API	3004526338	ISOBUTANE	0.6
LOCATION	SEC. 26, T28N, R12W	N-PENTANE	0.3
OWNER	BP AMERICA PRODUCTION CO.	ISOPENTANE	0.3
COMPLETED	850607	CYCLOPENTANE	--
SAMPLED	010411	HEXANES PLUS	0.5
FORMATION	CRET-DAKOTA	NITROGEN	1.1
GEOLOGIC PROVINCE CODE	580	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	6186	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	1218	HYDROGEN	0.0
OPEN FLOW, MCFD	1438	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.8
		HELIUM	0.12
		HEATING VALUE*	1,221
		SPECIFIC GRAVITY	0.713

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20626	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	94.5
COUNTY	SAN JUAN	ETHANE	2.5
FIELD	BASIN	PROPANE	0.4
WELL NAME	GALLEGOS CANYON UNIT 9	N-BUTANE	0.1
API	3004507006	ISOBUTANE	0.1
LOCATION	SEC. 32, T28N, R12W	N-PENTANE	TRACE
OWNER	BP AMERICA PRODUCTION CO.	ISOPENTANE	TRACE
COMPLETED	921006	CYCLOPENTANE	--
SAMPLED	010410	HEXANES PLUS	0.1
FORMATION	CRET-FRUITLAND	NITROGEN	0.2
GEOLOGIC PROVINCE CODE	580	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	1208	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	120	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	2.0
		HELIUM	0.01
		HEATING VALUE*	1,026
		SPECIFIC GRAVITY	0.597

SAMPLE	20628	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	93.4
COUNTY	SAN JUAN	ETHANE	3.7
FIELD	BASIN	PROPANE	0.6
WELL NAME	GALLEGOS CANYON UNIT 41	N-BUTANE	0.2
API	3004507074	ISOBUTANE	0.1
LOCATION	SEC. 32, T28N, R12W	N-PENTANE	0.1
OWNER	BP AMERICA PRODUCTION CO.	ISOPENTANE	0.1
COMPLETED	950305	CYCLOPENTANE	--
SAMPLED	010410	HEXANES PLUS	0.1
FORMATION	CRET-FRUITLAND	NITROGEN	0.2
GEOLOGIC PROVINCE CODE	580	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	1276	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	194	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.6
		HELIUM	0.01
		HEATING VALUE*	1,046
		SPECIFIC GRAVITY	0.604

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20621	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	91.6
COUNTY	SAN JUAN	ETHANE	3.8
FIELD	BASIN	PROPANE	0.7
WELL NAME	GALLEGOS CANYON UNIT 61	N-BUTANE	0.2
API	3004506939	ISOBUTANE	0.1
LOCATION	SEC. 4, T27N, R12W	N-PENTANE	0.1
OWNER	BP AMERICA PRODUCTION CO.	ISOPENTANE	0.1
COMPLETED	920930	CYCLOPENTANE	--
SAMPLED	010410	HEXANES PLUS	0.1
FORMATION	CRET-FRUITLAND	NITROGEN	0.2
GEOLOGIC PROVINCE CODE	580	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	1395	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	280	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	3.0
		HELIUM	0.02
		HEATING VALUE*	1,036
		SPECIFIC GRAVITY	0.62

SAMPLE	20641	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	76.2
COUNTY	SAN JUAN	ETHANE	12.7
FIELD	BASIN	PROPANE	5.6
WELL NAME	GALLEGOS CANYON UNIT 216	N-BUTANE	1.5
API	3004511621	ISOBUTANE	0.8
LOCATION	SEC. 14, T28N, R12W	N-PENTANE	0.4
OWNER	BP AMERICA PRODUCTION CO.	ISOPENTANE	0.5
COMPLETED	660215	CYCLOPENTANE	--
SAMPLED	010411	HEXANES PLUS	0.6
FORMATION	CRET-GRANEROS, DAKOTA	NITROGEN	0.7
GEOLOGIC PROVINCE CODE	580	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	6104	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	2448	HYDROGEN	0.0
OPEN FLOW, MCFD	10268	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.1
		HELIUM	0.11
		HEATING VALUE*	1,271
		SPECIFIC GRAVITY	0.745

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20645	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	79.1
COUNTY	SAN JUAN	ETHANE	11.2
FIELD	BASIN	PROPANE	4.8
WELL NAME	GALLEGOS CANYON UNIT 208E	N-BUTANE	1.1
API	3004523898	ISOBUTANE	0.7
LOCATION	SEC. 15, T28N, R12W	N-PENTANE	0.3
OWNER	BP AMERICA PRODUCTION CO.	ISOPENTANE	0.4
COMPLETED	800430	CYCLOPENTANE	--
SAMPLED	010411	HEXANES PLUS	0.6
FORMATION	CRET-GRANEROS, DAKOTA	NITROGEN	0.6
GEOLOGIC PROVINCE CODE	580	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	5971	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	1344	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.1
		HELIUM	0.11
		HEATING VALUE*	1,236
		SPECIFIC GRAVITY	0.722

SAMPLE	50623	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	94.5
COUNTY	RIO ARRIBA	ETHANE	2.0
FIELD	BASIN	PROPANE	0.7
WELL NAME	SAN JUAN 30-5 UNIT 102	N-BUTANE	0.2
API	3003923176	ISOBUTANE	0.1
LOCATION	SEC 34,T30N,R5W	N-PENTANE	0.1
OWNER	CONOCOPHILLIPS CO.	ISOPENTANE	0.1
COMPLETED	840829	CYCLOPENTANE	--
SAMPLED	070311	HEXANES PLUS	0.4
FORMATION	CRET-MESAVERDE, DAKOTA	NITROGEN	0.1
GEOLOGIC PROVINCE CODE	580	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	8243	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	151	HYDROGEN	--
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	--
		CARBON DIOXIDE	1.9
		HELIUM	0.01
		HEATING VALUE*	1,049
		SPECIFIC GRAVITY	0.609

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	50624	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	94.1
COUNTY	RIO ARRIBA	ETHANE	1.9
FIELD	BASIN	PROPANE	0.7
WELL NAME	SAN JUAN 30-5 UNIT 102	N-BUTANE	0.2
API	3003923176	ISOBUTANE	0.2
LOCATION	SEC 34,T30N,R5W	N-PENTANE	0.1
OWNER	CONOCOPHILLIPS CO.	ISOPENTANE	0.1
COMPLETED	840829	CYCLOPENTANE	--
SAMPLED	070311	HEXANES PLUS	0.6
FORMATION	CRET-MESAVERDE, DAKOTA	NITROGEN	0.1
GEOLOGIC PROVINCE CODE	580	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	8243	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	151	HYDROGEN	--
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	--
		CARBON DIOXIDE	1.9
		HELIUM	0.01
		HEATING VALUE*	1,063
		SPECIFIC GRAVITY	0.618

SAMPLE	21650	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	81.8
COUNTY	RIO ARRIBA	ETHANE	8.1
FIELD	BASIN,ICE CANYON, BLANCO	PROPANE	4.0
WELL NAME	MONA LISA 2	N-BUTANE	1.2
API	3003925745	ISOBUTANE	0.8
LOCATION	SEC 14, T26N, R7W	N-PENTANE	0.4
OWNER	DUGAN PRODUCTION CORP.	ISOPENTANE	0.5
COMPLETED	980506	CYCLOPENTANE	--
SAMPLED	070723	HEXANES PLUS	0.7
FORMATION	CRET-DAKOTA,GALLUP,MESAVERDE	NITROGEN	1.9
GEOLOGIC PROVINCE CODE	580	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	6770	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	145	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.8
		HELIUM	0.04
		HEATING VALUE*	1,197
		SPECIFIC GRAVITY	0.707

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21418	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	85.8
COUNTY	EDDY	ETHANE	6.8
FIELD	BIG SINKS	PROPANE	2.1
WELL NAME	POKER LAKER UNIT 196	N-BUTANE	0.7
API	3001533164	ISOBUTANE	0.4
LOCATION	SEC 29, T24S, R31E	N-PENTANE	0.2
OWNER	BASS ENTERPRISES PRODUCTION CO.	ISOPENTANE	0.2
COMPLETED	040209	CYCLOPENTANE	--
SAMPLED	050214	HEXANES PLUS	0.4
FORMATION	PERM-WOLFCAMP	NITROGEN	2.9
GEOLOGIC PROVINCE CODE	430	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	12954	ARGON	0.1
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	2000	HYDROGEN	0.0
OPEN FLOW, MCFD	555	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	0.04
		HEATING VALUE*	1,119
		SPECIFIC GRAVITY	0.657

SAMPLE	21581	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	96.2
COUNTY	EDDY	ETHANE	1.7
FIELD	BLACK RIVER NORTH	PROPANE	0.2
WELL NAME	FOREHAND FED 25 COM 1	N-BUTANE	TRACE
API	3001524740	ISOBUTANE	TRACE
LOCATION	SEC 25, T23S, R26E	N-PENTANE	TRACE
OWNER	VERNON E. FAULCONER, INC.	ISOPENTANE	TRACE
COMPLETED	931209	CYCLOPENTANE	--
SAMPLED	070102	HEXANES PLUS	TRACE
FORMATION	PENN-ATOKA	NITROGEN	0.8
GEOLOGIC PROVINCE CODE	430	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	11228	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG	400	HYDROGEN	0.0
OPEN FLOW, MCFD	700	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.0
		HELIUM	0.03
		HEATING VALUE*	1,012
		SPECIFIC GRAVITY	0.579

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	50608	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	96.1
COUNTY	SAN JUAN	ETHANE	1.4
FIELD	BLANCO	PROPANE	0.1
WELL NAME	SAN JUAN 32-8 UNIT 46	N-BUTANE	TRACE
API	3004525127	ISOBUTANE	TRACE
LOCATION	SEC 14, T32N, R8W	N-PENTANE	0.0
OWNER	CONOCOPHILLIPS CO.	ISOPENTANE	0.0
COMPLETED	820113	CYCLOPENTANE	--
SAMPLED	050427	HEXANES PLUS	TRACE
FORMATION	CRET-MESAVERDE	NITROGEN	0.1
GEOLOGIC PROVINCE CODE	580	OXYGEN	TRACE
TRUE VERTICAL DEPTH (FT)	6330	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	--
		CARBON DIOXIDE	2.2
		HELIUM	0.01
		HEATING VALUE*	1,005
		SPECIFIC GRAVITY	0.587

SAMPLE	20671	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	86.2
COUNTY	SAN JUAN	ETHANE	7.2
FIELD	BLANCO	PROPANE	2.6
WELL NAME	DAWSON LS NO. 1	N-BUTANE	0.7
API	3004510273	ISOBUTANE	0.5
LOCATION	SEC. 30, T31N, R8W	N-PENTANE	0.2
OWNER	BP AMERICA PRODUCTION CO.	ISOPENTANE	0.3
COMPLETED	530626	CYCLOPENTANE	--
SAMPLED	010412	HEXANES PLUS	0.4
FORMATION	CRET-MESAVERDE	NITROGEN	0.3
GEOLOGIC PROVINCE CODE	580	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	5196	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.7
		HELIUM	0.05
		HEATING VALUE*	1,141
		SPECIFIC GRAVITY	0.667

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20650	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	80.7
COUNTY	SAN JUAN	ETHANE	10.5
FIELD	BLANCO	PROPANE	4.7
WELL NAME	STOREY B LS NO. 4	N-BUTANE	1.2
API	3004509624	ISOBUTANE	0.8
LOCATION	SEC. 11, T30N, R11W	N-PENTANE	0.3
OWNER	BP AMERICA PRODUCTION CO.	ISOPENTANE	0.4
COMPLETED	560821	CYCLOPENTANE	--
SAMPLED	010411	HEXANES PLUS	0.4
FORMATION	CRET-MESAVERDE	NITROGEN	0.4
GEOLOGIC PROVINCE CODE	580	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	3938	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.6
		HELIUM	0.08
		HEATING VALUE*	1,231
		SPECIFIC GRAVITY	0.708

SAMPLE	20667	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	81.8
COUNTY	SAN JUAN	ETHANE	9.8
FIELD	BLANCO	PROPANE	4.1
WELL NAME	FLORANCE GAS COM E 9A	N-BUTANE	1.1
API	3004521882	ISOBUTANE	0.7
LOCATION	SEC. 13, T30N, R9W	N-PENTANE	0.3
OWNER	BP AMERICA PRODUCTION CO.	ISOPENTANE	0.3
COMPLETED	790526	CYCLOPENTANE	--
SAMPLED	010412	HEXANES PLUS	0.5
FORMATION	CRET-MESAVERDE, PICTURED CLIFFS	NITROGEN	0.3
GEOLOGIC PROVINCE CODE	580	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	2562	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD	2897	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.1
		HELIUM	0.07
		HEATING VALUE*	1,208
		SPECIFIC GRAVITY	0.7

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	50607	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	86.5
COUNTY	SAN JUAN	ETHANE	6.1
FIELD	BLANCO	PROPANE	2.5
WELL NAME	PRIMO 1A	N-BUTANE	0.7
API	3004521827	ISOBUTANE	0.4
LOCATION	SEC 6, T31N, R10W	N-PENTANE	0.2
OWNER	CONOCOPHILLIPS CO.	ISOPENTANE	0.2
COMPLETED	751216	CYCLOPENTANE	--
SAMPLED	050429	HEXANES PLUS	0.5
FORMATION	CRET-PICTURED CLIFFS	NITROGEN	0.1
GEOLOGIC PROVINCE CODE	580	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	2723	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	--
		CARBON DIOXIDE	2.8
		HELIUM	0.01
		HEATING VALUE*	1,124
		SPECIFIC GRAVITY	0.674

SAMPLE	20666	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	83.2
COUNTY	SAN JUAN	ETHANE	9.1
FIELD	BLANCO	PROPANE	3.8
WELL NAME	FLORANCE 20A	N-BUTANE	1.0
API	3004522152	ISOBUTANE	0.6
LOCATION	SEC. 24, T30N, R9W	N-PENTANE	0.3
OWNER	BP AMERICA PRODUCTION CO.	ISOPENTANE	0.3
COMPLETED	790601	CYCLOPENTANE	--
SAMPLED	010412	HEXANES PLUS	0.4
FORMATION	CRET-PICTURED CLIFFS, MESAVERDE	NITROGEN	0.1
GEOLOGIC PROVINCE CODE	580	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	2539	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.0
		HELIUM	0.06
		HEATING VALUE*	1,197
		SPECIFIC GRAVITY	0.691

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20598
STATE	NEW MEXICO
COUNTY	CHAVES
FIELD	CHAVES CO. UNDESIGNATED
WELL NAME	MACHO FEDERAL COM NO. 10
API	3000561648
LOCATION	SEC. 7, T7S, R23E
OWNER	LIME ROCK RESOURCES
COMPLETED	820729
SAMPLED	010227
FORMATION	PERM-ABO
GEOLOGIC PROVINCE CODE	430
TRUE VERTICAL DEPTH (FT)	2903
MEASURED DEPTH	
WELLHEAD PRESSURE, PSIG	765
OPEN FLOW, MCFD	1600

COMPONENT, MOLE PCT	
METHANE	89.4
ETHANE	2.5
PROPANE	1.0
N-BUTANE	0.4
ISOBUTANE	0.1
N-PENTANE	0.1
ISOPENTANE	0.1
CYCLOPENTANE	--
HEXANES PLUS	0.2
NITROGEN	5.6
OXYGEN	0.0
ARGON	TRACE
ARGON + OXYGEN	---
HYDROGEN	TRACE
HYDROGEN SULFIDE**	0.0
CARBON DIOXIDE	TRACE
HELIUM	0.46
HEATING VALUE*	1,011
SPECIFIC GRAVITY	0.615

SAMPLE	21521
STATE	NEW MEXICO
COUNTY	CHAVES
FIELD	FOOR RANCH
WELL NAME	WR STATE 4
API	3000562652
LOCATION	SEC 24, T9S, R26E
OWNER	ELK OIL CO.
COMPLETED	890123
SAMPLED	060309
FORMATION	ORDO-ORDOVICIAN
GEOLOGIC PROVINCE CODE	430
TRUE VERTICAL DEPTH (FT)	5938
MEASURED DEPTH	
WELLHEAD PRESSURE, PSIG	
OPEN FLOW, MCFD	1000

COMPONENT, MOLE PCT	
METHANE	87.2
ETHANE	4.7
PROPANE	1.7
N-BUTANE	0.6
ISOBUTANE	0.3
N-PENTANE	0.2
ISOPENTANE	0.2
CYCLOPENTANE	--
HEXANES PLUS	0.4
NITROGEN	4.1
OXYGEN	--
ARGON	--
ARGON + OXYGEN	TRACE
HYDROGEN	0.0
HYDROGEN SULFIDE**	0.0
CARBON DIOXIDE	0.4
HELIUM	0.19
HEATING VALUE*	1,073
SPECIFIC GRAVITY	0.644

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21523	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	88.8
COUNTY	CHAVES	ETHANE	4.3
FIELD	FOOR RANCH	PROPANE	1.6
WELL NAME	STATE SE 4	N-BUTANE	0.6
API	3000563342	ISOBUTANE	0.3
LOCATION	SEC 23, T9S, R26E	N-PENTANE	0.2
OWNER	ELK OIL CO.	ISOPENTANE	0.2
COMPLETED	010412	CYCLOPENTANE	--
SAMPLED	060309	HEXANES PLUS	0.4
FORMATION	PENN-PENNSYLVANIAN	NITROGEN	3.3
GEOLOGIC PROVINCE CODE	430	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	5794	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	2000	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.19
		HEATING VALUE*	1,079
		SPECIFIC GRAVITY	0.634

SAMPLE	21425	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	85.8
COUNTY	CHAVES	ETHANE	4.4
FIELD	FOOR RANCH	PROPANE	1.7
WELL NAME	QUINIELA AXQ STATE 3	N-BUTANE	0.6
API	3000563618	ISOBUTANE	0.3
LOCATION	SEC 5, T10S, R26E	N-PENTANE	0.2
OWNER	YATES PETROLEUM CORP.	ISOPENTANE	0.2
COMPLETED	040412	CYCLOPENTANE	--
SAMPLED	050304	HEXANES PLUS	0.3
FORMATION	SILU-SILURIAN	NITROGEN	6.1
GEOLOGIC PROVINCE CODE	430	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	5852	ARGON	0.1
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD	3020	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.27
		HEATING VALUE*	1,046
		SPECIFIC GRAVITY	0.644

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21447
STATE	NEW MEXICO
COUNTY	EDDY
FIELD	INDIAN BASIN
WELL NAME	FEDERAL 33 GAS COM 3
API	3001532180
LOCATION	SEC 33, T21S, R23E
OWNER	CHEVRON USA, INC.
COMPLETED	040309
SAMPLED	050420
FORMATION	PENN-CISCO
GEOLOGIC PROVINCE CODE	430
TRUE VERTICAL DEPTH (FT)	7281
MEASURED DEPTH	
WELLHEAD PRESSURE, PSIG	340
OPEN FLOW, MCFD	800

COMPONENT, MOLE PCT	
METHANE	88.6
ETHANE	4.7
PROPANE	1.6
N-BUTANE	0.6
ISOBUTANE	0.3
N-PENTANE	0.2
ISOPENTANE	0.2
CYCLOPENTANE	--
HEXANES PLUS	0.4
NITROGEN	2.9
OXYGEN	--
ARGON	--
ARGON + OXYGEN	0.0
HYDROGEN	0.0
HYDROGEN SULFIDE**	0.0
CARBON DIOXIDE	0.7
HELIUM	0.02
HEATING VALUE*	1,082
SPECIFIC GRAVITY	0.639

SAMPLE	20637
STATE	NEW MEXICO
COUNTY	SAN JUAN
FIELD	KUTZ W
WELL NAME	GALLEGOS CANYON UNIT 368
API	3004526878
LOCATION	SEC. 26, T28N, R12W
OWNER	BP AMERICA PRODUCTION CO.
COMPLETED	880530
SAMPLED	010411
FORMATION	CRET-PICTURED CLIFFS
GEOLOGIC PROVINCE CODE	580
TRUE VERTICAL DEPTH (FT)	1581
MEASURED DEPTH	
WELLHEAD PRESSURE, PSIG	70
OPEN FLOW, MCFD	210

COMPONENT, MOLE PCT	
METHANE	95.0
ETHANE	2.4
PROPANE	0.1
N-BUTANE	TRACE
ISOBUTANE	TRACE
N-PENTANE	TRACE
ISOPENTANE	TRACE
CYCLOPENTANE	--
HEXANES PLUS	TRACE
NITROGEN	0.1
OXYGEN	0.0
ARGON	0.0
ARGON + OXYGEN	---
HYDROGEN	0.0
HYDROGEN SULFIDE**	0.0
CARBON DIOXIDE	2.2
HELIUM	0.01
HEATING VALUE*	1,012
SPECIFIC GRAVITY	0.591

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20642	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	94.5
COUNTY	SAN JUAN	ETHANE	3.0
FIELD	KUTZ W	PROPANE	0.2
WELL NAME	GALLEGOS CANYON UNIT 279	N-BUTANE	0.1
API	3004523603	ISOBUTANE	0.1
LOCATION	SEC. 23, T28N, R12W	N-PENTANE	TRACE
OWNER	BP AMERICA PRODUCTION CO.	ISOPENTANE	TRACE
COMPLETED	790920	CYCLOPENTANE	--
SAMPLED	010411	HEXANES PLUS	TRACE
FORMATION	CRET-PICTURED CLIFFS	NITROGEN	0.1
GEOLOGIC PROVINCE CODE	580	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	1595	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	260	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.9
		HELIUM	0.01
		HEATING VALUE*	1,024
		SPECIFIC GRAVITY	0.593

SAMPLE	20629	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	95.2
COUNTY	SAN JUAN	ETHANE	2.9
FIELD	KUTZ W	PROPANE	0.4
WELL NAME	GALLEGOS CANYON UNIT 315	N-BUTANE	0.1
API	3004524655	ISOBUTANE	0.1
LOCATION	SEC. 21, T28N, R12W	N-PENTANE	TRACE
OWNER	BP AMERICA PRODUCTION CO.	ISOPENTANE	TRACE
COMPLETED	810416	CYCLOPENTANE	--
SAMPLED	010410	HEXANES PLUS	0.1
FORMATION	CRET-PICTURED CLIFFS	NITROGEN	0.2
GEOLOGIC PROVINCE CODE	580	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	1290	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	205	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.1
		HELIUM	0.01
		HEATING VALUE*	1,037
		SPECIFIC GRAVITY	0.589

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20636
STATE	NEW MEXICO
COUNTY	SAN JUAN
FIELD	KUTZ W
WELL NAME	GALLEGOS CANYON UNIT 337
API	3004526136
LOCATION	SEC. 26, T28N, R12W
OWNER	BP AMERICA PRODUCTION CO.
COMPLETED	841230
SAMPLED	010411
FORMATION	CRET-PICTURED CLIFFS
GEOLOGIC PROVINCE CODE	580
TRUE VERTICAL DEPTH (FT)	1697
MEASURED DEPTH	
WELLHEAD PRESSURE, PSIG	
OPEN FLOW, MCFD	415

COMPONENT, MOLE PCT	
METHANE	95.6
ETHANE	1.7
PROPANE	0.1
N-BUTANE	TRACE
ISOBUTANE	TRACE
N-PENTANE	TRACE
ISOPENTANE	TRACE
CYCLOPENTANE	--
HEXANES PLUS	TRACE
NITROGEN	0.1
OXYGEN	0.0
ARGON	0.0
ARGON + OXYGEN	---
HYDROGEN	0.0
HYDROGEN SULFIDE**	0.0
CARBON DIOXIDE	2.4
HELIUM	0.01
HEATING VALUE*	1,003
SPECIFIC GRAVITY	0.588

SAMPLE	20627
STATE	NEW MEXICO
COUNTY	SAN JUAN
FIELD	KUTZ W
WELL NAME	GALLEGOS CANYON UNIT 354
API	3004526471
LOCATION	SEC. 29, T28N, R12W
OWNER	BP AMERICA PRODUCTION CO.
COMPLETED	850825
SAMPLED	010410
FORMATION	CRET-PICTURED CLIFFS
GEOLOGIC PROVINCE CODE	580
TRUE VERTICAL DEPTH (FT)	1291
MEASURED DEPTH	
WELLHEAD PRESSURE, PSIG	
OPEN FLOW, MCFD	483

COMPONENT, MOLE PCT	
METHANE	93.6
ETHANE	3.6
PROPANE	0.6
N-BUTANE	0.1
ISOBUTANE	0.1
N-PENTANE	TRACE
ISOPENTANE	0.1
CYCLOPENTANE	--
HEXANES PLUS	0.1
NITROGEN	0.2
OXYGEN	0.0
ARGON	0.0
ARGON + OXYGEN	---
HYDROGEN	0.0
HYDROGEN SULFIDE**	0.0
CARBON DIOXIDE	1.6
HELIUM	0.01
HEATING VALUE*	1,043
SPECIFIC GRAVITY	0.601

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20644	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	94.4
COUNTY	SAN JUAN	ETHANE	3.0
FIELD	KUTZ W	PROPANE	0.4
WELL NAME	GALLEGOS CANYON UNIT 290	N-BUTANE	0.1
API	3004523821	ISOBUTANE	0.1
LOCATION	SEC. 15, T28N, R12W	N-PENTANE	TRACE
OWNER	BP AMERICA PRODUCTION CO.	ISOPENTANE	TRACE
COMPLETED	800121	CYCLOPENTANE	--
SAMPLED	010411	HEXANES PLUS	0.1
FORMATION	CRET-PICTURED CLIFFS	NITROGEN	0.1
GEOLOGIC PROVINCE CODE	580	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	1503	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	250	HYDROGEN	0.0
OPEN FLOW, MCFD	522	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.8
		HELIUM	0.01
		HEATING VALUE*	1,030
		SPECIFIC GRAVITY	0.595

SAMPLE	20630	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	89.5
COUNTY	SAN JUAN	ETHANE	7.0
FIELD	KUTZ W	PROPANE	0.6
WELL NAME	GALLEGOS CANYON UNIT 316	N-BUTANE	0.2
API	3004521865	ISOBUTANE	0.1
LOCATION	SEC. 21, T28N, R12W	N-PENTANE	0.1
OWNER	BP AMERICA PRODUCTION CO.	ISOPENTANE	0.1
COMPLETED	760316	CYCLOPENTANE	--
SAMPLED	010410	HEXANES PLUS	0.2
FORMATION	CRET-PICTURED CLIFFS	NITROGEN	0.3
GEOLOGIC PROVINCE CODE	580	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	1373	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	190	HYDROGEN	0.0
OPEN FLOW, MCFD	504	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	2.0
		HELIUM	0.01
		HEATING VALUE*	1,069
		SPECIFIC GRAVITY	0.624

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20625	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	92.2
COUNTY	SAN JUAN	ETHANE	3.9
FIELD	KUTZ W	PROPANE	0.8
WELL NAME	GALLEGOS CANYON UNIT 268	N-BUTANE	0.2
API	3004522239	ISOBUTANE	0.2
LOCATION	SEC. 32, T28N, R12W	N-PENTANE	0.1
OWNER	BP AMERICA PRODUCTION CO.	ISOPENTANE	0.1
COMPLETED	770422	CYCLOPENTANE	--
SAMPLED	010410	HEXANES PLUS	0.2
FORMATION	CRET-PICTURED CLIFFS	NITROGEN	0.2
GEOLOGIC PROVINCE CODE	580	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	1300	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	228	HYDROGEN	0.0
OPEN FLOW, MCFD	76	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	2.1
		HELIUM	0.02
		HEATING VALUE*	1,049
		SPECIFIC GRAVITY	0.615

SAMPLE	20623	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	90.9
COUNTY	SAN JUAN	ETHANE	4.3
FIELD	KUTZ W	PROPANE	0.9
WELL NAME	GALLEGOS CANYON UNIT 318	N-BUTANE	0.3
API	3004524799	ISOBUTANE	0.2
LOCATION	SEC. 28, T28N, R12W	N-PENTANE	0.1
OWNER	BP AMERICA PRODUCTION CO.	ISOPENTANE	0.1
COMPLETED	810408	CYCLOPENTANE	--
SAMPLED	010410	HEXANES PLUS	0.1
FORMATION	CRET-PICTURED CLIFFS	NITROGEN	0.2
GEOLOGIC PROVINCE CODE	580	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	1396	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	40	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	3.0
		HELIUM	0.02
		HEATING VALUE*	1,045
		SPECIFIC GRAVITY	0.625

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20620	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	89.6
COUNTY	SAN JUAN	ETHANE	4.4
FIELD	KUTZ W	PROPANE	1.0
WELL NAME	GALLEGOS CANYON UNIT 11	N-BUTANE	0.3
API	3004513354	ISOBUTANE	0.2
LOCATION	SEC. 34, T28N, R12W	N-PENTANE	0.1
OWNER	BP AMERICA PRODUCTION CO.	ISOPENTANE	0.1
COMPLETED	521028	CYCLOPENTANE	--
SAMPLED	010410	HEXANES PLUS	0.2
FORMATION	CRET-PICTURED CLIFFS	NITROGEN	0.2
GEOLOGIC PROVINCE CODE	580	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	1490	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	448	HYDROGEN	0.0
OPEN FLOW, MCFD	887	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	3.8
		HELIUM	0.02
		HEATING VALUE*	1,045
		SPECIFIC GRAVITY	0.639

SAMPLE	20639	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	88.7
COUNTY	SAN JUAN	ETHANE	5.6
FIELD	KUTZ W	PROPANE	1.6
WELL NAME	GALLEGOS CANYON UNIT 233	N-BUTANE	0.5
API	3004511686	ISOBUTANE	0.3
LOCATION	SEC. 27, T28N, R12W	N-PENTANE	0.1
OWNER	BP AMERICA PRODUCTION CO.	ISOPENTANE	0.2
COMPLETED	971208	CYCLOPENTANE	--
SAMPLED	010411	HEXANES PLUS	0.3
FORMATION	CRET-PICTURED CLIFFS	NITROGEN	0.3
GEOLOGIC PROVINCE CODE	580	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	1439	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	410	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	2.5
		HELIUM	0.03
		HEATING VALUE*	1,088
		SPECIFIC GRAVITY	0.645

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20640	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	91.2
COUNTY	SAN JUAN	ETHANE	1.7
FIELD	KUTZ W	PROPANE	0.6
WELL NAME	GALLEGOS CANYON UNIT 267	N-BUTANE	0.2
API	3004522235	ISOBUTANE	0.1
LOCATION	SEC. 23, T28N, R12W	N-PENTANE	0.1
OWNER	BP AMERICA PRODUCTION CO.	ISOPENTANE	0.1
COMPLETED	770329	CYCLOPENTANE	--
SAMPLED	010411	HEXANES PLUS	0.1
FORMATION	CRET-PICTURED CLIFFS	NITROGEN	3.5
GEOLOGIC PROVINCE CODE	580	OXYGEN	0.8
TRUE VERTICAL DEPTH (FT)	1630	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	375	HYDROGEN	0.0
OPEN FLOW, MCFD	337	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.3
		HELIUM	0.18
		HEATING VALUE*	994
		SPECIFIC GRAVITY	0.611

SAMPLE	21606	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	90.4
COUNTY	SAN JUAN	ETHANE	4.3
FIELD	KUTZ W, PINON N	PROPANE	1.9
WELL NAME	GALLEGOS CANYON UNIT 517	N-BUTANE	0.6
API	3004528156	ISOBUTANE	0.4
LOCATION	SEC 18, T28N, R11W	N-PENTANE	0.2
OWNER	BP AMERICA PRODUCTION CO.	ISOPENTANE	0.3
COMPLETED	020920	CYCLOPENTANE	--
SAMPLED	070626	HEXANES PLUS	0.4
FORMATION	CRET-PICTURED CLIFFS, FRUITLAND	NITROGEN	0.9
GEOLOGIC PROVINCE CODE	580	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	1548	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	811	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.7
		HELIUM	0.00
		HEATING VALUE*	1,108
		SPECIFIC GRAVITY	0.637

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21667	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	92.0
COUNTY	RIO ARRIBA	ETHANE	4.6
FIELD	LA JARA CANYON	PROPANE	0.4
WELL NAME	JICARILLA 29-02-16-1	N-BUTANE	TRACE
API	3003926108	ISOBUTANE	0.1
LOCATION	SEC 16, T29N, R2W	N-PENTANE	0.0
OWNER	BLACK HILLS GAS RESOURCES	ISOPENTANE	TRACE
COMPLETED	031010	CYCLOPENTANE	--
SAMPLED	070828	HEXANES PLUS	TRACE
FORMATION	EOCE-SAN JOSE, PALE-NACIMIENTO	NITROGEN	2.6
GEOLOGIC PROVINCE CODE	580	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2814	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	1086	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.02
		HEATING VALUE*	1,030
		SPECIFIC GRAVITY	0.595

SAMPLE	21456	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	72.2
COUNTY	EDDY	ETHANE	9.1
FIELD	LOVING E	PROPANE	4.7
WELL NAME	FATE 34-1	N-BUTANE	1.4
API	3001523879	ISOBUTANE	0.6
LOCATION	SEC 34, T23S, R28E	N-PENTANE	0.5
OWNER	BK EXPLORATION CORP.	ISOPENTANE	0.4
COMPLETED	980310	CYCLOPENTANE	--
SAMPLED	050519	HEXANES PLUS	0.7
FORMATION	PERM-BRUSHY CANYON	NITROGEN	10.0
GEOLOGIC PROVINCE CODE	430	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	6192	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.3
WELLHEAD PRESSURE, PSIG	200	HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.3
		HELIUM	0.03
		HEATING VALUE*	1,139
		SPECIFIC GRAVITY	0.751

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20585
STATE	NEW MEXICO
COUNTY	CHAVES
FIELD	PECOS SLOPE
WELL NAME	BARN FEDERAL NO. 1
API	3000560698
LOCATION	SEC. 12, T8S, R22E
OWNER	LIME ROCK RESOURCES
COMPLETED	810203
SAMPLED	010226
FORMATION	PERM-ABO
GEOLOGIC PROVINCE CODE	430
TRUE VERTICAL DEPTH (FT)	2891
MEASURED DEPTH	
WELLHEAD PRESSURE, PSIG	1000
OPEN FLOW, MCFD	1339

COMPONENT, MOLE PCT	
METHANE	89.9
ETHANE	1.7
PROPANE	0.8
N-BUTANE	0.4
ISOBUTANE	0.1
N-PENTANE	0.2
ISOPENTANE	0.1
CYCLOPENTANE	--
HEXANES PLUS	0.2
NITROGEN	5.8
OXYGEN	0.0
ARGON	TRACE
ARGON + OXYGEN	---
HYDROGEN	TRACE
HYDROGEN SULFIDE**	0.0
CARBON DIOXIDE	0.0
HELIUM	0.63
HEATING VALUE*	999
SPECIFIC GRAVITY	0.61

SAMPLE	20582
STATE	NEW MEXICO
COUNTY	CHAVES
FIELD	PECOS SLOPE
WELL NAME	LEWIS ABN FEDERAL NO. 1
API	3000562248
LOCATION	SEC. 21, T8S, R23E
OWNER	LIME ROCK RESOURCES
COMPLETED	850329
SAMPLED	010226
FORMATION	PERM-ABO
GEOLOGIC PROVINCE CODE	430
TRUE VERTICAL DEPTH (FT)	3067
MEASURED DEPTH	
WELLHEAD PRESSURE, PSIG	
OPEN FLOW, MCFD	725

COMPONENT, MOLE PCT	
METHANE	89.8
ETHANE	2.2
PROPANE	0.7
N-BUTANE	0.3
ISOBUTANE	0.1
N-PENTANE	0.1
ISOPENTANE	TRACE
CYCLOPENTANE	--
HEXANES PLUS	0.1
NITROGEN	6.0
OXYGEN	0.0
ARGON	0.1
ARGON + OXYGEN	---
HYDROGEN	TRACE
HYDROGEN SULFIDE**	0.0
CARBON DIOXIDE	0.0
HELIUM	0.72
HEATING VALUE*	985
SPECIFIC GRAVITY	0.604

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20597	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	89.4
COUNTY	CHAVES	ETHANE	2.5
FIELD	PECOS SLOPE W	PROPANE	1.1
WELL NAME	MACHO FEDERAL NO. 13	N-BUTANE	0.5
API	3000561914	ISOBUTANE	0.2
LOCATION	SEC. 6, T7S, R23E	N-PENTANE	0.2
OWNER	LIME ROCK RESOURCES	ISOPENTANE	0.1
COMPLETED	830703	CYCLOPENTANE	--
SAMPLED	010227	HEXANES PLUS	0.2
FORMATION	PERM-ABO	NITROGEN	5.4
GEOLOGIC PROVINCE CODE	430	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	2947	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	760	HYDROGEN	0.1
OPEN FLOW, MCFD	3100	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.0
		HELIUM	0.42
		HEATING VALUE*	1,018
		SPECIFIC GRAVITY	0.618

SAMPLE	20584	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	90.0
COUNTY	CHAVES	ETHANE	2.1
FIELD	PECOS SLOPE W	PROPANE	0.8
WELL NAME	ROCK FEDERAL NO. 1	N-BUTANE	0.4
API	3000560600	ISOBUTANE	0.1
LOCATION	SEC. 7, T8S, R23E	N-PENTANE	0.2
OWNER	LIME ROCK RESOURCES	ISOPENTANE	0.1
COMPLETED	800303	CYCLOPENTANE	--
SAMPLED	010226	HEXANES PLUS	0.2
FORMATION	PERM-ABO	NITROGEN	5.5
GEOLOGIC PROVINCE CODE	430	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	3363	ARGON	TRACE
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	847	HYDROGEN	TRACE
OPEN FLOW, MCFD	912	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.0
		HELIUM	0.57
		HEATING VALUE*	1,005
		SPECIFIC GRAVITY	0.611

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21598	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	74.5
COUNTY	SAN JUAN	ETHANE	12.1
FIELD	PINON, BASIN	PROPANE	7.0
WELL NAME	T L RHODES B 1E	N-BUTANE	2.0
API	3004526130	ISOBUTANE	0.7
LOCATION	SEC 20, T28N, R11W	N-PENTANE	0.5
OWNER	ROBERT L. BAYLESS PRODUCERS, LLC.	ISOPENTANE	0.5
COMPLETED	970321	CYCLOPENTANE	--
SAMPLED	070516	HEXANES PLUS	0.8
FORMATION	CRET-GALLUP, DAKOTA	NITROGEN	1.3
GEOLOGIC PROVINCE CODE	580	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	6212	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.6
		HELIUM	0.05
		HEATING VALUE*	1,308
		SPECIFIC GRAVITY	0.768

SAMPLE	21664	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	95.2
COUNTY	SAN JUAN	ETHANE	2.8
FIELD	POTWIN	PROPANE	0.2
WELL NAME	BOWERS 1	N-BUTANE	TRACE
API	3004525486	ISOBUTANE	0.1
LOCATION	SEC 17, T24N, R8W	N-PENTANE	TRACE
OWNER	DUGAN PRODUCTION CORP.	ISOPENTANE	TRACE
COMPLETED	850621	CYCLOPENTANE	--
SAMPLED	070809	HEXANES PLUS	TRACE
FORMATION	CRET-PICTURED CLIFFS	NITROGEN	1.1
GEOLOGIC PROVINCE CODE	580	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	1990	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	60	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.6
		HELIUM	0.00
		HEATING VALUE*	1,023
		SPECIFIC GRAVITY	0.582

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21608	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	84.9
COUNTY	RIO ARRIBA	ETHANE	5.5
FIELD	PUERTO CHIQUITO E	PROPANE	2.7
WELL NAME	E PUERTO CHIQUITO MANCOS UNIT 37	N-BUTANE	1.1
API	3003923209	ISOBUTANE	0.4
LOCATION	SEC 8C, T26N, R1E	N-PENTANE	0.3
OWNER	BENSON-MONTIN-GREER DRILLING CORP.	ISOPENTANE	0.4
COMPLETED	850103	CYCLOPENTANE	--
SAMPLED	070627	HEXANES PLUS	0.6
FORMATION	CRET-NIBRARA, MANCOS	NITROGEN	1.2
GEOLOGIC PROVINCE CODE	580	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2752	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG	45	HYDROGEN	0.0
OPEN FLOW, MCFD	27	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	2.8
		HELIUM	0.04
		HEATING VALUE*	1,132
		SPECIFIC GRAVITY	0.69

SAMPLE	20696	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	72.6
COUNTY	EDDY	ETHANE	12.5
FIELD	SHUGART N	PROPANE	5.8
WELL NAME	PATON B FEDERAL NO. 1	N-BUTANE	1.9
API	3001525953	ISOBUTANE	0.7
LOCATION	SEC. 9, T18S, R31E	N-PENTANE	0.6
OWNER	ANADARKO PETROLEUM CORP.	ISOPENTANE	0.6
COMPLETED	990813	CYCLOPENTANE	--
SAMPLED	010619	HEXANES PLUS	1.2
FORMATION	PERM-BONE SPRING	NITROGEN	3.4
GEOLOGIC PROVINCE CODE	430	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	8090	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	37	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.8
		HELIUM	0.04
		HEATING VALUE*	1,290
		SPECIFIC GRAVITY	0.781

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20638	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	67.4
COUNTY	SAN JUAN	ETHANE	10.6
FIELD	SIMPSON	PROPANE	4.7
WELL NAME	GALLEGOS CANYON UNIT 83E	N-BUTANE	0.9
API	3004526011	ISOBUTANE	0.3
LOCATION	SEC. 26, T28N, R12W	N-PENTANE	0.2
OWNER	BP AMERICA PRODUCTION CO.	ISOPENTANE	0.2
COMPLETED	950212	CYCLOPENTANE	--
SAMPLED	010411	HEXANES PLUS	0.3
FORMATION	CRET-GALLUP	NITROGEN	11.5
GEOLOGIC PROVINCE CODE	580	OXYGEN	2.9
TRUE VERTICAL DEPTH (FT)	5200	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	300	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.7
		HELIUM	0.33
		HEATING VALUE*	1,058
		SPECIFIC GRAVITY	0.752

SAMPLE	20678	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	74.2
COUNTY	LEA	ETHANE	10.4
FIELD	YOUNG N	PROPANE	4.8
WELL NAME	CHEVRON 12 FEDERAL NO. 1	N-BUTANE	1.5
API	3002529747	ISOBUTANE	0.5
LOCATION	SEC. 12, T18S, R32E	N-PENTANE	0.5
OWNER	HARVEY E. YATES CO.	ISOPENTANE	0.4
COMPLETED	860930	CYCLOPENTANE	--
SAMPLED	010618	HEXANES PLUS	0.8
FORMATION	PERM-BONE SPRING	NITROGEN	3.4
GEOLOGIC PROVINCE CODE	430	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	8443	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	81	HYDROGEN SULFIDE**	0.4
		CARBON DIOXIDE	3.1
		HELIUM	0.02
		HEATING VALUE*	1,200
		SPECIFIC GRAVITY	0.763

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20683	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	73.9
COUNTY	LEA	ETHANE	12.8
FIELD	YOUNG N	PROPANE	5.6
WELL NAME	FEDERAL AM NO. 1	N-BUTANE	1.7
API	3002529087	ISOBUTANE	0.6
LOCATION	SEC. 8, T18S, R32E	N-PENTANE	0.5
OWNER	HARVEY E. YATES CO.	ISOPENTANE	0.5
COMPLETED	000611	CYCLOPENTANE	--
SAMPLED	010618	HEXANES PLUS	0.8
FORMATION	PERM-BONE SPRING	NITROGEN	2.7
GEOLOGIC PROVINCE CODE	430	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	8258	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.9
		HELIUM	0.03
		HEATING VALUE*	1,269
		SPECIFIC GRAVITY	0.761

SAMPLE	20690	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	73.7
COUNTY	LEA	ETHANE	12.5
FIELD	YOUNG N	PROPANE	5.5
WELL NAME	YOUNG DEEP UNIT NO. 38	N-BUTANE	1.7
API	3002533864	ISOBUTANE	0.6
LOCATION	SEC. 10, T18S, R32E	N-PENTANE	0.5
OWNER	HARVEY E. YATES CO.	ISOPENTANE	0.4
COMPLETED	971231	CYCLOPENTANE	--
SAMPLED	010619	HEXANES PLUS	1.3
FORMATION	PERM-BONE SPRING	NITROGEN	3.6
GEOLOGIC PROVINCE CODE	430	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	8892	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	225	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	0.03
		HEATING VALUE*	1,278
		SPECIFIC GRAVITY	0.766

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20676	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	69.9
COUNTY	LEA	ETHANE	11.6
FIELD	YOUNG N	PROPANE	6.6
WELL NAME	AMOCO 1 FEDERAL NO. 1	N-BUTANE	2.1
API	3002528889	ISOBUTANE	0.8
LOCATION	SEC. 1, T18S, R32E	N-PENTANE	0.6
OWNER	HARVEY E. YATES CO.	ISOPENTANE	0.6
COMPLETED	841218	CYCLOPENTANE	--
SAMPLED	010618	HEXANES PLUS	0.9
FORMATION	PERM-BONE SPRING	NITROGEN	3.1
GEOLOGIC PROVINCE CODE	430	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	8697	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.4
		CARBON DIOXIDE	3.3
		HELIUM	0.04
		HEATING VALUE*	1,267
		SPECIFIC GRAVITY	0.808

SAMPLE	20687	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	70.3
COUNTY	LEA	ETHANE	13.9
FIELD	YOUNG N	PROPANE	6.5
WELL NAME	YOUNG DEEP UNIT NO. 36	N-BUTANE	1.9
API	3002533642	ISOBUTANE	0.7
LOCATION	SEC. 9, T18S, R32E	N-PENTANE	0.7
OWNER	HARVEY E. YATES CO.	ISOPENTANE	0.5
COMPLETED	961211	CYCLOPENTANE	--
SAMPLED	010618	HEXANES PLUS	1.8
FORMATION	PERM-BONE SPRING	NITROGEN	3.6
GEOLOGIC PROVINCE CODE	430	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	8832	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD	85	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.04
		HEATING VALUE*	1,341
		SPECIFIC GRAVITY	0.805

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20701	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	70.4
COUNTY	LEA	ETHANE	13.5
FIELD	YOUNG N	PROPANE	6.4
WELL NAME	YOUNG DEEP UNIT NO. 1	N-BUTANE	1.9
API	3002526813	ISOBUTANE	0.7
LOCATION	SEC. 8, T18S, R32E	N-PENTANE	0.7
OWNER	HARVEY E. YATES CO.	ISOPENTANE	0.5
COMPLETED	840306	CYCLOPENTANE	--
SAMPLED	010619	HEXANES PLUS	1.9
FORMATION	PERM-BONE SPRING	NITROGEN	3.8
GEOLOGIC PROVINCE CODE	430	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	8791	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	0.04
		HEATING VALUE*	1,338
		SPECIFIC GRAVITY	0.806

SAMPLE	20691	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	69.2
COUNTY	EDDY	ETHANE	13.1
FIELD	YOUNG N	PROPANE	7.1
WELL NAME	AMOCO EAST 2 STATE NO. 2	N-BUTANE	2.6
API	3002528711	ISOBUTANE	0.9
LOCATION	SEC. 2, T18S, R32E	N-PENTANE	0.8
OWNER	HARVEY E. YATES CO.	ISOPENTANE	0.7
COMPLETED	840823	CYCLOPENTANE	--
SAMPLED	010619	HEXANES PLUS	1.4
FORMATION	PERM-BONE SPRING	NITROGEN	3.8
GEOLOGIC PROVINCE CODE	430	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	8568	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.4
		HELIUM	0.05
		HEATING VALUE*	1,351
		SPECIFIC GRAVITY	0.819

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20688	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	75.5
COUNTY	LEA	ETHANE	11.8
FIELD	YOUNG N	PROPANE	5.4
WELL NAME	YOUNG DEEP UNIT NO. 12	N-BUTANE	1.5
API	3002530866	ISOBUTANE	0.6
LOCATION	SEC. 4, T18S, R32E	N-PENTANE	0.4
OWNER	HARVEY E. YATES CO.	ISOPENTANE	0.4
COMPLETED	900529	CYCLOPENTANE	--
SAMPLED	010619	HEXANES PLUS	0.5
FORMATION	PERM-BONE SPRING	NITROGEN	3.8
GEOLOGIC PROVINCE CODE	430	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	8470	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	214	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	0.05
		HEATING VALUE*	1,230
		SPECIFIC GRAVITY	0.737

SAMPLE	20692	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	69.0
COUNTY	LEA	ETHANE	13.9
FIELD	YOUNG N	PROPANE	7.3
WELL NAME	YOUNG DEEP UNIT NO. 24	N-BUTANE	2.4
API	3002530783	ISOBUTANE	0.9
LOCATION	SEC. 10, T18S, R32E	N-PENTANE	0.8
OWNER	HARVEY E. YATES CO.	ISOPENTANE	0.7
COMPLETED	900503	CYCLOPENTANE	--
SAMPLED	010619	HEXANES PLUS	1.5
FORMATION	PERM-BONE SPRING	NITROGEN	3.5
GEOLOGIC PROVINCE CODE	430	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	9012	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD	214	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	0.05
		HEATING VALUE*	1,364
		SPECIFIC GRAVITY	0.819

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20681	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	67.4
COUNTY	LEA	ETHANE	14.2
FIELD	YOUNG N	PROPANE	7.8
WELL NAME	YOUNG DEEP UNIT NO. 29	N-BUTANE	3.0
API	3002531299	ISOBUTANE	1.0
LOCATION	SEC. 10, T18S, R32E	N-PENTANE	0.9
OWNER	HARVEY E. YATES CO.	ISOPENTANE	1.0
COMPLETED	910917	CYCLOPENTANE	--
SAMPLED	010618	HEXANES PLUS	1.0
FORMATION	PERM-BONE SPRING	NITROGEN	3.4
GEOLOGIC PROVINCE CODE	430	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	8863	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	0.06
		HEATING VALUE*	1,389
		SPECIFIC GRAVITY	0.835

SAMPLE	20677	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	68.9
COUNTY	LEA	ETHANE	13.3
FIELD	YOUNG N	PROPANE	6.8
WELL NAME	AMOCO 1 FEDERAL NO. 2	N-BUTANE	2.4
API	3002529848	ISOBUTANE	0.8
LOCATION	SEC. 1, T18S, R32E	N-PENTANE	0.7
OWNER	HARVEY E. YATES CO.	ISOPENTANE	0.6
COMPLETED	870416	CYCLOPENTANE	--
SAMPLED	010618	HEXANES PLUS	0.8
FORMATION	PERM-BONE SPRING	NITROGEN	2.7
GEOLOGIC PROVINCE CODE	430	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	8425	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	272	HYDROGEN SULFIDE**	0.4
		CARBON DIOXIDE	2.4
		HELIUM	0.09
		HEATING VALUE*	1,304
		SPECIFIC GRAVITY	0.813

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20689	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	64.2
COUNTY	LEA	ETHANE	17.5
FIELD	YOUNG N	PROPANE	9.0
WELL NAME	YOUNG DEEP UNIT NO. 30	N-BUTANE	2.6
API	3002533174	ISOBUTANE	1.0
LOCATION	SEC. 10, T18S, R32E	N-PENTANE	0.7
OWNER	HARVEY E. YATES CO.	ISOPENTANE	0.6
COMPLETED	951227	CYCLOPENTANE	--
SAMPLED	010619	HEXANES PLUS	1.3
FORMATION	PERM-BONE SPRING	NITROGEN	2.6
GEOLOGIC PROVINCE CODE	430	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	8878	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD	349	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.3
		HELIUM	0.10
		HEATING VALUE*	1,423
		SPECIFIC GRAVITY	0.849

SAMPLE	20682	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	58.1
COUNTY	LEA	ETHANE	14.4
FIELD	YOUNG N	PROPANE	10.1
WELL NAME	FEDERAL AF NO. 1	N-BUTANE	3.0
API	3002527406	ISOBUTANE	1.2
LOCATION	SEC. 8, T18S, R32E	N-PENTANE	0.8
OWNER	HARVEY E. YATES CO.	ISOPENTANE	0.8
COMPLETED	010106	CYCLOPENTANE	--
SAMPLED	010618	HEXANES PLUS	1.0
FORMATION	PERM-DELAWARE	NITROGEN	10.5
GEOLOGIC PROVINCE CODE	430	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	5008	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	14	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.06
		HEATING VALUE*	1,347
		SPECIFIC GRAVITY	0.881

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20685	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	60.7
COUNTY	LEA	ETHANE	14.4
FIELD	YOUNG N	PROPANE	9.3
WELL NAME	AMOCO CP FEDERAL NO. 1	N-BUTANE	2.8
API	3002527680	ISOBUTANE	1.1
LOCATION	SEC. 8, T18S, R32E	N-PENTANE	0.8
OWNER	HARVEY E. YATES CO.	ISOPENTANE	0.8
COMPLETED	890714	CYCLOPENTANE	--
SAMPLED	010618	HEXANES PLUS	1.2
FORMATION	PERM-DELAWARE	NITROGEN	8.9
GEOLOGIC PROVINCE CODE	430	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	4913	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	TRACE
		HELIUM	0.06
		HEATING VALUE*	1,350
		SPECIFIC GRAVITY	0.865

SAMPLE	20686	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	58.7
COUNTY	LEA	ETHANE	17.3
FIELD	YOUNG N	PROPANE	10.5
WELL NAME	YOUNG 8 FEDERAL, WEST NO. 1	N-BUTANE	2.8
API	3002530503	ISOBUTANE	1.1
LOCATION	SEC. 8, T18S, R32E	N-PENTANE	0.7
OWNER	HARVEY E. YATES CO.	ISOPENTANE	0.7
COMPLETED	890307	CYCLOPENTANE	--
SAMPLED	010818	HEXANES PLUS	0.9
FORMATION	PERM-DELAWARE	NITROGEN	7.2
GEOLOGIC PROVINCE CODE	430	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	5020	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	150	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	TRACE
		HELIUM	0.09
		HEATING VALUE*	1,392
		SPECIFIC GRAVITY	0.875

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20680	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	55.1
COUNTY	LEA	ETHANE	19.6
FIELD	YOUNG N	PROPANE	12.7
WELL NAME	SHOOT 12 FEDERAL NO. 3	N-BUTANE	3.0
API	3002531101	ISOBUTANE	1.3
LOCATION	SEC. 12, T18S, R32E	N-PENTANE	0.7
OWNER	HARVEY E. YATES CO.	ISOPENTANE	0.8
COMPLETED	910112	CYCLOPENTANE	--
SAMPLED	010618	HEXANES PLUS	0.9
FORMATION	PERM-DELAWARE	NITROGEN	5.8
GEOLOGIC PROVINCE CODE	430	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	4939	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	46	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.13
		HEATING VALUE*	1,464
		SPECIFIC GRAVITY	0.907

SAMPLE	50610	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	53.0
COUNTY	LINCOLN	ETHANE	4.4
FIELD	AGRA W	PROPANE	3.4
WELL NAME	HOLMAN 3A-26	N-BUTANE	1.3
API	3508123739	ISOBUTANE	0.6
LOCATION	SEC 26, T17N, R3E	N-PENTANE	0.4
OWNER	BAY PETROLEUM CORP.	ISOPENTANE	0.3
COMPLETED	050610	CYCLOPENTANE	--
SAMPLED	050822	HEXANES PLUS	0.4
FORMATION	MISS-MISSISSIPPIAN	NITROGEN	36.1
GEOLOGIC PROVINCE CODE	355	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	4226	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	--
OPEN FLOW, MCFD	30	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	TRACE
		HELIUM	0.00
		HEATING VALUE*	
		SPECIFIC GRAVITY	

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	50611	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	76.0
COUNTY	LINCOLN	ETHANE	9.3
FIELD	AGRA W	PROPANE	4.6
WELL NAME	HOLMAN 2-26	N-BUTANE	1.6
API	3508123643	ISOBUTANE	0.5
LOCATION	SEC 26, T17N, R3E	N-PENTANE	0.5
OWNER	BAY PETROLEUM CORP.	ISOPENTANE	0.3
COMPLETED	010520	CYCLOPENTANE	--
SAMPLED	050720	HEXANES PLUS	0.7
FORMATION	MISS-MISSISSIPPIAN	NITROGEN	6.4
GEOLOGIC PROVINCE CODE	355	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	4224	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	--
OPEN FLOW, MCFD	25	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.00
		HEATING VALUE*	
		SPECIFIC GRAVITY	

SAMPLE	21508	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	84.4
COUNTY	HUGHES	ETHANE	6.5
FIELD	ALABAMA	PROPANE	2.9
WELL NAME	RAINBOLT 1-3	N-BUTANE	0.8
API	3506321134	ISOBUTANE	0.4
LOCATION	SEC 3, T9N, R11E	N-PENTANE	0.3
OWNER	CROWN ENERGY CO.	ISOPENTANE	0.2
COMPLETED	801024	CYCLOPENTANE	--
SAMPLED	051104	HEXANES PLUS	0.4
FORMATION	PENN-BARTLESVILLE	NITROGEN	3.6
GEOLOGIC PROVINCE CODE	355	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	1675	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	120	HYDROGEN	TRACE
OPEN FLOW, MCFD	55	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.12
		HEATING VALUE*	1,123
		SPECIFIC GRAVITY	0.667

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21507	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	83.4
COUNTY	HUGHES	ETHANE	7.2
FIELD	ALABAMA S	PROPANE	3.1
WELL NAME	HAMMOND 2-9	N-BUTANE	0.8
API	3506321147	ISOBUTANE	0.3
LOCATION	SEC 9, T9N, R11E	N-PENTANE	0.2
OWNER	CROWN ENERGY CO.	ISOPENTANE	0.2
COMPLETED	801215	CYCLOPENTANE	--
SAMPLED	051104	HEXANES PLUS	0.4
FORMATION	PENN-RED FORK, BARTLESVILLE	NITROGEN	4.1
GEOLOGIC PROVINCE CODE	355	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	1605	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	30	HYDROGEN	0.0
OPEN FLOW, MCFD	8	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.3
		HELIUM	0.12
		HEATING VALUE*	1,118
		SPECIFIC GRAVITY	0.67

SAMPLE	21518	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	74.7
COUNTY	GRADY	ETHANE	9.5
FIELD	ALEX NW	PROPANE	6.9
WELL NAME	BURTON 1-11	N-BUTANE	2.8
API	3505123174	ISOBUTANE	1.4
LOCATION	SEC 11, T5N, R6W	N-PENTANE	1.0
OWNER	WARD PETROLEUM CORP.	ISOPENTANE	0.7
COMPLETED	040709	CYCLOPENTANE	--
SAMPLED	060302	HEXANES PLUS	1.4
FORMATION	ORDO-BROMIDE 1 & 2	NITROGEN	0.5
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)		ARGON	--
MEASURED DEPTH	17092	ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	4000	HYDROGEN	0.0
OPEN FLOW, MCFD	1000	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.2
		HELIUM	0.02
		HEATING VALUE*	1,368
		SPECIFIC GRAVITY	0.806

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21517	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	92.7
COUNTY	KINGFISHER	ETHANE	3.5
FIELD	ALTONA	PROPANE	1.5
WELL NAME	JUSTICE 9A	N-BUTANE	0.4
API	3507324394	ISOBUTANE	0.3
LOCATION	SEC 9, T15N, R9W	N-PENTANE	0.2
OWNER	CHESAPEAKE OPERATING, INC.	ISOPENTANE	0.2
COMPLETED	971224	CYCLOPENTANE	--
SAMPLED	060130	HEXANES PLUS	0.4
FORMATION	PENN-INOLA,ATOKA,MORROW,MISS-CHESTER	NITROGEN	0.4
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	8826	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	23	HYDROGEN	0.0
OPEN FLOW, MCFD	26	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.4
		HELIUM	0.03
		HEATING VALUE*	1,095
		SPECIFIC GRAVITY	0.618

SAMPLE	21514	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	90.9
COUNTY	KINGFISHER	ETHANE	2.8
FIELD	ALTONA	PROPANE	1.3
WELL NAME	GALILEO 1-20	N-BUTANE	0.4
API	3507324475	ISOBUTANE	0.2
LOCATION	SEC 20, T15N, R9W	N-PENTANE	0.1
OWNER	RANGE PRODUCTION CO.	ISOPENTANE	0.2
COMPLETED	040816	CYCLOPENTANE	--
SAMPLED	060123	HEXANES PLUS	0.3
FORMATION	PENN-MORROW	NITROGEN	3.3
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	9003	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	600	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.4
		HELIUM	0.03
		HEATING VALUE*	1,048
		SPECIFIC GRAVITY	0.62

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21515	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	90.3
COUNTY	KINGFISHER	ETHANE	4.2
FIELD	ALTONA	PROPANE	1.9
WELL NAME	BETTY 1-28	N-BUTANE	0.6
API	3507324288	ISOBUTANE	0.2
LOCATION	SEC 28, T16N, R9W	N-PENTANE	0.2
OWNER	KAISER-FRANCIS OIL CO.	ISOPENTANE	0.2
COMPLETED	010623	CYCLOPENTANE	--
SAMPLED	060131	HEXANES PLUS	0.4
FORMATION	PENN-RED FORK, MISS-CHESTER	NITROGEN	1.6
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	8556	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	100	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.4
		HELIUM	0.04
		HEATING VALUE*	1,095
		SPECIFIC GRAVITY	0.631

SAMPLE	21573	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	85.5
COUNTY	GRADY	ETHANE	6.4
FIELD	AMBER NE	PROPANE	3.3
WELL NAME	CAMPBELL FARMS 1-25	N-BUTANE	1.2
API	3505123097	ISOBUTANE	0.6
LOCATION	SEC. 25, T9N, R6W	N-PENTANE	0.5
OWNER	LINN ENERGY, LLC	ISOPENTANE	0.4
COMPLETED	031117	CYCLOPENTANE	--
SAMPLED	061024	HEXANES PLUS	0.9
FORMATION	ORDO-BROMIDE	NITROGEN	0.7
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	11960	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	450	HYDROGEN	0.0
OPEN FLOW, MCFD	116	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.6
		HELIUM	0.03
		HEATING VALUE*	1,196
		SPECIFIC GRAVITY	0.688

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21525	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	97.2
COUNTY	CARTER	ETHANE	0.9
FIELD	ARDMORE E	PROPANE	0.0
WELL NAME	CITY OF ARDMORE 1-3	N-BUTANE	TRACE
API	3501922184	ISOBUTANE	TRACE
LOCATION	SEC 3, T5S, R2E	N-PENTANE	0.0
OWNER	KAISER-FRANCIS OIL CO.	ISOPENTANE	0.0
COMPLETED	811113	CYCLOPENTANE	--
SAMPLED	060328	HEXANES PLUS	0.0
FORMATION	MISS-GODDARD	NITROGEN	0.6
GEOLOGIC PROVINCE CODE	350	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	16401	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG	6362	HYDROGEN	0.0
OPEN FLOW, MCFD	1730	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.2
		HELIUM	0.02
		HEATING VALUE*	1,001
		SPECIFIC GRAVITY	0.573

SAMPLE	21566	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	83.7
COUNTY	CREEK	ETHANE	7.4
FIELD	BIG POND	PROPANE	3.4
WELL NAME	JOHN JOHN 2 & 3	N-BUTANE	1.1
API	3503727669	ISOBUTANE	0.4
LOCATION	SEC 32, T15N, R8E	N-PENTANE	0.4
OWNER	TUSCANY OIL & GAS, LLC	ISOPENTANE	0.2
COMPLETED	870225	CYCLOPENTANE	--
SAMPLED	060915	HEXANES PLUS	0.5
FORMATION	PENN-PRUE	NITROGEN	2.6
GEOLOGIC PROVINCE CODE	355	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2477	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG	600	HYDROGEN	0.0
OPEN FLOW, MCFD	250	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.07
		HEATING VALUE*	1,161
		SPECIFIC GRAVITY	0.68

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21563	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	79.8
COUNTY	OKFUSKEE	ETHANE	6.6
FIELD	BIGHAM SW	PROPANE	3.6
WELL NAME	MATTHEW 1	N-BUTANE	0.9
API	3510722273	ISOBUTANE	0.4
LOCATION	SEC 3, T10N, R10E	N-PENTANE	0.3
OWNER	KENDOL EXPLORATION, INC.	ISOPENTANE	0.2
COMPLETED	860523	CYCLOPENTANE	--
SAMPLED	060700	HEXANES PLUS	0.4
FORMATION	PENN-SKINNER	NITROGEN	7.3
GEOLOGIC PROVINCE CODE	355	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	1802	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	50	HYDROGEN	0.0
OPEN FLOW, MCFD	70	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	0.15
		HEATING VALUE*	1,100
		SPECIFIC GRAVITY	0.692

SAMPLE	21524	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	58.7
COUNTY	NOBLE	ETHANE	15.0
FIELD	BILLINGS	PROPANE	10.2
WELL NAME	BILLINGS 9-15	N-BUTANE	2.9
API	3510323850	ISOBUTANE	1.2
LOCATION	SEC 15, T23N, R2W	N-PENTANE	0.7
OWNER	CHESAPEAKE OPERATING, INC.	ISOPENTANE	0.5
COMPLETED	041213	CYCLOPENTANE	--
SAMPLED	060321	HEXANES PLUS	1.0
FORMATION	PENN-HASKELL, TONKAWA	NITROGEN	9.4
GEOLOGIC PROVINCE CODE	355	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	2741	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	200	HYDROGEN	0.0
OPEN FLOW, MCFD	253	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	0.06
		HEATING VALUE*	1,349
		SPECIFIC GRAVITY	0.874

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21583	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	96.4
COUNTY	LE FLORE	ETHANE	0.7
FIELD	BOKOSHE S	PROPANE	TRACE
WELL NAME	GUNTER 3	N-BUTANE	0.0
API	3507920946	ISOBUTANE	0.0
LOCATION	SEC 6, T7N, R24E	N-PENTANE	0.0
OWNER	BP AMERICA PRODUCTION CO.	ISOPENTANE	0.0
COMPLETED	950601	CYCLOPENTANE	--
SAMPLED	070220	HEXANES PLUS	0.0
FORMATION	PENN-HARTSHORNE	NITROGEN	2.5
GEOLOGIC PROVINCE CODE	345	OXYGEN	--
TRUE VERTICAL DEPTH (FT)		ARGON	--
MEASURED DEPTH	2930	ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	131	HYDROGEN	TRACE
OPEN FLOW, MCFD	100	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.3
		HELIUM	0.06
		HEATING VALUE*	988
		SPECIFIC GRAVITY	0.571

SAMPLE	21584	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	82.8
COUNTY	BEAVER	ETHANE	5.2
FIELD	BOYD S	PROPANE	3.7
WELL NAME	HANLON 1-26	N-BUTANE	1.2
API	3500722778	ISOBUTANE	0.5
LOCATION	SEC 26, T3N, R20E	N-PENTANE	0.3
OWNER	KAISER FRANCIS OIL CO.	ISOPENTANE	0.3
COMPLETED	840622	CYCLOPENTANE	--
SAMPLED	070313	HEXANES PLUS	0.6
FORMATION	MISS-MISSISSIPPIAN	NITROGEN	4.9
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	7043	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	573	HYDROGEN	0.0
OPEN FLOW, MCFD	865	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.3
		HELIUM	0.13
		HEATING VALUE*	1,131
		SPECIFIC GRAVITY	0.689

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21588	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	81.3
COUNTY	GRADY	ETHANE	9.5
FIELD	BRADLEY	PROPANE	4.1
WELL NAME	TOM B 4	N-BUTANE	1.5
API	3505122987	ISOBUTANE	0.5
LOCATION	SEC. 35, T5N, R5W	N-PENTANE	0.6
OWNER	MERIT ENERGY CO.	ISOPENTANE	0.3
COMPLETED	010801	CYCLOPENTANE	--
SAMPLED	070313	HEXANES PLUS	0.9
FORMATION	ORDO-VIOLA	NITROGEN	0.7
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	13160	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	115	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.4
		HELIUM	0.03
		HEATING VALUE*	1,242
		SPECIFIC GRAVITY	0.716

SAMPLE	21587	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	85.8
COUNTY	STEPHENS	ETHANE	7.3
FIELD	BRAY SE	PROPANE	3.0
WELL NAME	LUBELL BI 1	N-BUTANE	0.9
API	3513730064	ISOBUTANE	0.6
LOCATION	SEC. 30, T2N, R5W	N-PENTANE	0.3
OWNER	MERIT ENERGY CO.	ISOPENTANE	0.3
COMPLETED	660303	CYCLOPENTANE	--
SAMPLED	070313	HEXANES PLUS	0.6
FORMATION	PENN-SPRINGER	NITROGEN	0.6
GEOLOGIC PROVINCE CODE	350	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	14505	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	362	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.5
		HELIUM	0.03
		HEATING VALUE*	1,178
		SPECIFIC GRAVITY	0.675

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21579	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	96.2
COUNTY	PITTSBURG	ETHANE	2.1
FIELD	BROOKEN	PROPANE	0.3
WELL NAME	AHERN-COBLENTZ 1-10	N-BUTANE	TRACE
API	3512160088	ISOBUTANE	TRACE
LOCATION	SEC 10, T7N, R18E	N-PENTANE	0.0
OWNER	CHESAPEAKE OPERATING, INC.	ISOPENTANE	0.0
COMPLETED	611108	CYCLOPENTANE	--
SAMPLED	061218	HEXANES PLUS	0.0
FORMATION	PENN-DIRTY CREEK	NITROGEN	0.4
GEOLOGIC PROVINCE CODE	345	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	4496	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	92	HYDROGEN	TRACE
OPEN FLOW, MCFD	180	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.8
		HELIUM	0.04
		HEATING VALUE*	1,020
		SPECIFIC GRAVITY	0.577

SAMPLE	21580	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	96.1
COUNTY	HASKELL	ETHANE	0.8
FIELD	BROOKEN	PROPANE	0.1
WELL NAME	WAGNON CREEK 1	N-BUTANE	0.0
API	3506120484	ISOBUTANE	0.0
LOCATION	SEC 25, T9N, R18E	N-PENTANE	0.0
OWNER	HANNA OIL & GAS CO.	ISOPENTANE	0.0
COMPLETED	811127	CYCLOPENTANE	--
SAMPLED	061221	HEXANES PLUS	0.0
FORMATION	DEVO-HUNTON	NITROGEN	1.6
GEOLOGIC PROVINCE CODE	345	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	5538	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	415	HYDROGEN	0.0
OPEN FLOW, MCFD	25	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.4
		HELIUM	0.08
		HEATING VALUE*	987
		SPECIFIC GRAVITY	0.578

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21673	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	80.2
COUNTY	GARFIELD	ETHANE	9.1
FIELD	BROWN MIDDLE	PROPANE	4.4
WELL NAME	FICKEN 1	N-BUTANE	1.3
API	3504722316	ISOBUTANE	0.4
LOCATION	SEC 28, T20N, R4W	N-PENTANE	0.4
OWNER	HAMMER OIL PROPERTIES, INC.	ISOPENTANE	0.2
COMPLETED	801013	CYCLOPENTANE	--
SAMPLED	071025	HEXANES PLUS	0.5
FORMATION	PENN-OSWEGO, MISS-MISSISSIPPIAN	NITROGEN	3.1
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	6074	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG	1040	HYDROGEN	TRACE
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.3
		HELIUM	0.08
		HEATING VALUE*	1,185
		SPECIFIC GRAVITY	0.704

SAMPLE	21429	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	89.9
COUNTY	MAJOR	ETHANE	2.9
FIELD	CAMPBELL	PROPANE	1.1
WELL NAME	HIBBS 1-11	N-BUTANE	0.5
API	3509324342	ISOBUTANE	0.2
LOCATION	SEC 11, T23N, R16W	N-PENTANE	0.2
OWNER	CHESAPEAKE OPERATING, INC.	ISOPENTANE	0.1
COMPLETED	040129	CYCLOPENTANE	--
SAMPLED	050329	HEXANES PLUS	0.3
FORMATION	MISS-CHESTER, MERAMEC	NITROGEN	4.1
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	7186	ARGON	0.1
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	100	HYDROGEN	0.0
OPEN FLOW, MCFD	409	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.4
		HELIUM	0.07
		HEATING VALUE*	1,041
		SPECIFIC GRAVITY	0.625

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21434	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	42.4
COUNTY	BEAVER	ETHANE	11.6
FIELD	CAMRICK	PROPANE	15.8
WELL NAME	CAMRICK CENTRAL TANK BATTERY	N-BUTANE	7.4
API	--	ISOBUTANE	3.5
LOCATION	SEC 27, T1N, R20E	N-PENTANE	2.3
OWNER	CHAPARRAL ENERGY LLC	ISOPENTANE	1.5
COMPLETED		CYCLOPENTANE	--
SAMPLED	050329	HEXANES PLUS	3.1
FORMATION	PENN-MORROW	NITROGEN	2.5
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)		ARGON	TRACE
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	970	HYDROGEN	9.7
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.0
		HELIUM	0.16
		HEATING VALUE*	1,721
		SPECIFIC GRAVITY	1.032

SAMPLE	20748	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	80.6
COUNTY	TEXAS	ETHANE	7.6
FIELD	CAMRICK	PROPANE	5.7
WELL NAME	COX ROBINSON NO. 1	N-BUTANE	1.7
API	3513935592	ISOBUTANE	0.6
LOCATION	SEC. 23, T2N, R19E	N-PENTANE	0.5
OWNER	CHAPARRAL ENERGY LLC	ISOPENTANE	0.3
COMPLETED	560718	CYCLOPENTANE	--
SAMPLED	010730	HEXANES PLUS	0.7
FORMATION	PENN-MORROW	NITROGEN	1.6
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	6607	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD	17500	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.5
		HELIUM	0.16
		HEATING VALUE*	1,232
		SPECIFIC GRAVITY	0.721

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20755	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	82.0
COUNTY	TEXAS	ETHANE	6.8
FIELD	CAMRICK	PROPANE	4.7
WELL NAME	IDA MARIE ROGERS NO. 1-3	N-BUTANE	1.7
API	3513935684	ISOBUTANE	0.5
LOCATION	SEC. 3, T1N, R18E	N-PENTANE	0.7
OWNER	CHAPARRAL ENERGY LLC	ISOPENTANE	0.4
COMPLETED	611020	CYCLOPENTANE	--
SAMPLED	010731	HEXANES PLUS	0.8
FORMATION	PENN-MORROW	NITROGEN	1.9
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	6367	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.1
OPEN FLOW, MCFD	5876	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.3
		HELIUM	0.19
		HEATING VALUE*	1,222
		SPECIFIC GRAVITY	0.714

SAMPLE	20754	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	95.8
COUNTY	TEXAS	ETHANE	2.1
FIELD	CAMRICK	PROPANE	0.6
WELL NAME	YELL NO. 1	N-BUTANE	0.2
API	3513920614	ISOBUTANE	0.1
LOCATION	SEC. 27, T1N, R18E	N-PENTANE	0.1
OWNER	SAMSON RESOURCES CO.	ISOPENTANE	0.1
COMPLETED	740608	CYCLOPENTANE	--
SAMPLED	010731	HEXANES PLUS	0.1
FORMATION	PENN-MORROW L	NITROGEN	0.5
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	7088	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD	1650	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.6
		HELIUM	0.07
		HEATING VALUE*	1,038
		SPECIFIC GRAVITY	0.585

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20713	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	88.2
COUNTY	CUSTER	ETHANE	6.9
FIELD	CANUTE N	PROPANE	2.3
WELL NAME	JIMMY DEAN NO. 1-23	N-BUTANE	0.4
API	3503921387	ISOBUTANE	0.4
LOCATION	SEC. 23, T12N, R20W	N-PENTANE	0.1
OWNER	LINN ENERGY, LLC	ISOPENTANE	0.2
COMPLETED	901001	CYCLOPENTANE	--
SAMPLED	010709	HEXANES PLUS	0.3
FORMATION	PENN-RED FORK	NITROGEN	0.4
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	14180	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	8000	HYDROGEN	0.0
OPEN FLOW, MCFD	1410	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.0
		HELIUM	0.03
		HEATING VALUE*	1,121
		SPECIFIC GRAVITY	0.643

SAMPLE	21426	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	86.9
COUNTY	ROGER MILLS	ETHANE	6.1
FIELD	CARPENTER	PROPANE	2.1
WELL NAME	HALL 1-2	N-BUTANE	0.6
API	3512922529	ISOBUTANE	0.4
LOCATION	SEC 2, T11N, R23W	N-PENTANE	0.2
OWNER	ST. MARY LAND & EXPLORATION CO.	ISOPENTANE	0.2
COMPLETED	040204	CYCLOPENTANE	--
SAMPLED	050311	HEXANES PLUS	0.3
FORMATION	PENN-MARMATON, CHEROKEE	NITROGEN	2.3
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	14348	ARGON	0.2
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	1500	HYDROGEN	0.0
OPEN FLOW, MCFD	400	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.7
		HELIUM	0.03
		HEATING VALUE*	1,102
		SPECIFIC GRAVITY	0.65

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20712	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	88.3
COUNTY	CUSTER	ETHANE	7.0
FIELD	CARPENTER NE	PROPANE	2.0
WELL NAME	MALSON NO. 1-5	N-BUTANE	0.4
API	3503921711	ISOBUTANE	0.4
LOCATION	SEC. 5, T12N, R20W	N-PENTANE	0.1
OWNER	EL PASO PRODUCTION CO.	ISOPENTANE	0.1
COMPLETED	971002	CYCLOPENTANE	--
SAMPLED	010709	HEXANES PLUS	0.2
FORMATION	PENN-DESMOINESIAN L	NITROGEN	0.3
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	13304	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	7000	HYDROGEN	0.0
OPEN FLOW, MCFD	3111	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.1
		HELIUM	0.03
		HEATING VALUE*	1,113
		SPECIFIC GRAVITY	0.64

SAMPLE	20703	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	86.0
COUNTY	CUSTER	ETHANE	7.7
FIELD	CARPENTER NE	PROPANE	3.1
WELL NAME	MOUSE NO. 1-32	N-BUTANE	0.6
API	3503920713	ISOBUTANE	0.5
LOCATION	SEC. 32, T13N, R19W	N-PENTANE	0.2
OWNER	EL PASO PRODUCTION CO.	ISOPENTANE	0.3
COMPLETED	821121	CYCLOPENTANE	--
SAMPLED	010709	HEXANES PLUS	0.2
FORMATION	PENN-RED FORK	NITROGEN	0.4
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	12882	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	5764	HYDROGEN	0.0
OPEN FLOW, MCFD	550	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.0
		HELIUM	0.04
		HEATING VALUE*	1,151
		SPECIFIC GRAVITY	0.663

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21452	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	90.3
COUNTY	GRADY	ETHANE	4.1
FIELD	CHITWOOD SOUTH	PROPANE	1.1
WELL NAME	MACK FARMS 1-19	N-BUTANE	0.2
API	3505123158	ISOBUTANE	0.1
LOCATION	SEC 19, T4N, R6W	N-PENTANE	TRACE
OWNER	CHESAPEAKE OPERATING, INC.	ISOPENTANE	TRACE
COMPLETED	040317	CYCLOPENTANE	--
SAMPLED	050509	HEXANES PLUS	0.1
FORMATION	PENN-SPRINGER U	NITROGEN	3.5
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	14930	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG	700	HYDROGEN	0.0
OPEN FLOW, MCFD	731	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.6
		HELIUM	0.04
		HEATING VALUE*	1,027
		SPECIFIC GRAVITY	0.611

SAMPLE	21438	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	88.6
COUNTY	TEXAS	ETHANE	4.1
FIELD	DOMBEY W	PROPANE	2.3
WELL NAME	ROLLINS 1-2	N-BUTANE	0.8
API	3513921118	ISOBUTANE	0.4
LOCATION	SEC 2, T4N, R19E	N-PENTANE	0.3
OWNER	CHAPARRAL ENERGY LLC	ISOPENTANE	0.2
COMPLETED	790510	CYCLOPENTANE	--
SAMPLED	050329	HEXANES PLUS	0.6
FORMATION	MISS-CHESTER	NITROGEN	2.3
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	6660	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	115	HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	0.18
		HEATING VALUE*	1,116
		SPECIFIC GRAVITY	0.649

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21437	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	87.1
COUNTY	TEXAS	ETHANE	4.4
FIELD	DOMBEY W	PROPANE	2.8
WELL NAME	FLYNT 1-2 (LOWER)	N-BUTANE	1.0
API	3513923732	ISOBUTANE	0.5
LOCATION	SEC 2, T4N, R19E	N-PENTANE	0.4
OWNER	CHAPARRAL ENERGY LLC	ISOPENTANE	0.3
COMPLETED	040203	CYCLOPENTANE	--
SAMPLED	050329	HEXANES PLUS	0.6
FORMATION	MISS-CHESTER	NITROGEN	2.7
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	6628	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	78	HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	0.19
		HEATING VALUE*	1,129
		SPECIFIC GRAVITY	0.662

SAMPLE	21435	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	86.3
COUNTY	TEXAS	ETHANE	4.6
FIELD	DOMBEY W	PROPANE	3.1
WELL NAME	MENG 1-11	N-BUTANE	1.1
API	3513923371	ISOBUTANE	0.5
LOCATION	SEC 11, T4N, R19E	N-PENTANE	0.4
OWNER	CHAPARRAL ENERGY LLC	ISOPENTANE	0.3
COMPLETED	011218	CYCLOPENTANE	--
SAMPLED	050329	HEXANES PLUS	0.6
FORMATION	MISS-CHESTER	NITROGEN	2.8
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	6646	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	80	HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	0.19
		HEATING VALUE*	1,140
		SPECIFIC GRAVITY	0.669

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21436	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	81.6
COUNTY	TEXAS	ETHANE	5.3
FIELD	DOMBEY W	PROPANE	3.4
WELL NAME	MYERS 1-13	N-BUTANE	1.1
API	3513922596	ISOBUTANE	0.5
LOCATION	SEC 13, T4N, R19E	N-PENTANE	0.4
OWNER	CHAPARRAL ENERGY LLC	ISOPENTANE	0.3
COMPLETED	951115	CYCLOPENTANE	--
SAMPLED	050329	HEXANES PLUS	0.7
FORMATION	MISS-CHESTER, PENN-LANSING-KC	NITROGEN	6.2
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)		ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	80	HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.26
		HEATING VALUE*	1,121
		SPECIFIC GRAVITY	0.693

SAMPLE	21439	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	85.5
COUNTY	TEXAS	ETHANE	4.8
FIELD	DOMBEY W	PROPANE	3.6
WELL NAME	PAUL MENDENHALL 1-11	N-BUTANE	1.2
API	3513921225	ISOBUTANE	0.6
LOCATION	SEC 11, T4N, R19E	N-PENTANE	0.4
OWNER	CHAPARRAL ENERGY LLC	ISOPENTANE	0.4
COMPLETED	791107	CYCLOPENTANE	--
SAMPLED	050329	HEXANES PLUS	0.7
FORMATION	PENN-KEYES, MISS-MISSISSIPPIAN	NITROGEN	2.5
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	6720	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	78	HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	0.19
		HEATING VALUE*	1,162
		SPECIFIC GRAVITY	0.681

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21432	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	86.4
COUNTY	TEXAS	ETHANE	4.6
FIELD	DOMBEY W	PROPANE	3.1
WELL NAME	MYERS WD 1-2	N-BUTANE	1.0
API	3513921811	ISOBUTANE	0.5
LOCATION	SEC 2, T4N, R19E	N-PENTANE	0.4
OWNER	CHAPARRAL ENERGY LLC	ISOPENTANE	0.3
COMPLETED	831221	CYCLOPENTANE	--
SAMPLED	050329	HEXANES PLUS	0.6
FORMATION	PENN-MORROW	NITROGEN	2.8
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	6555	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	80	HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	0.19
		HEATING VALUE*	1,137
		SPECIFIC GRAVITY	0.667

SAMPLE	21433	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	76.0
COUNTY	TEXAS	ETHANE	6.2
FIELD	DOMBEY W	PROPANE	3.3
WELL NAME	FLYNT 1-2 (UPPER)	N-BUTANE	1.1
API	3513923732	ISOBUTANE	0.5
LOCATION	SEC 2, T4N, R19E	N-PENTANE	0.4
OWNER	CHAPARRAL ENERGY LLC	ISOPENTANE	0.3
COMPLETED	040203	CYCLOPENTANE	--
SAMPLED	050329	HEXANES PLUS	0.6
FORMATION	PENN-TORONTO	NITROGEN	11.4
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	4457	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	123	HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.33
		HEATING VALUE*	1,065
		SPECIFIC GRAVITY	0.711

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20738	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	78.2
COUNTY	TEXAS	ETHANE	8.3
FIELD	GOODWELL SE	PROPANE	4.3
WELL NAME	MITCHELL NO. 35-1	N-BUTANE	1.5
API	3513922108	ISOBUTANE	0.5
LOCATION	SEC. 35, T1N, R12E	N-PENTANE	0.5
OWNER	CONOCOPHILLIPS CO.	ISOPENTANE	0.3
COMPLETED	860628	CYCLOPENTANE	--
SAMPLED	010730	HEXANES PLUS	0.6
FORMATION	PENN-MORROW	NITROGEN	5.3
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	6785	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	1500	HYDROGEN	TRACE
OPEN FLOW, MCFD	4650	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.3
		HELIUM	0.22
		HEATING VALUE*	1,174
		SPECIFIC GRAVITY	0.718

SAMPLE	20886	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	74.3
COUNTY	TEXAS	ETHANE	6.6
FIELD	GUYMON-HUGOTON	PROPANE	3.7
WELL NAME	HAZE NO. 1	N-BUTANE	1.1
API	3513900463	ISOBUTANE	0.5
LOCATION	SEC. 35, T1N, R13E	N-PENTANE	0.3
OWNER	CONOCOPHILLIPS CO.	ISOPENTANE	0.2
COMPLETED	440810	CYCLOPENTANE	--
SAMPLED	011030	HEXANES PLUS	0.3
FORMATION	PERM-CHASE GROUP	NITROGEN	12.4
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	2930	ARGON	0.1
MEASURED DEPTH	2930	ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.44
		HEATING VALUE*	1,048
		SPECIFIC GRAVITY	0.712

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20885	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	73.4
COUNTY	TEXAS	ETHANE	6.4
FIELD	GUYMON-HUGOTON	PROPANE	3.6
WELL NAME	JAKE NO. 1	N-BUTANE	1.1
API	3513900467	ISOBUTANE	0.4
LOCATION	SEC. 33, T1N, R13E	N-PENTANE	0.3
OWNER	CONOCOPHILLIPS CO.	ISOPENTANE	0.2
COMPLETED	460402	CYCLOPENTANE	--
SAMPLED	011030	HEXANES PLUS	0.3
FORMATION	PERM-CHASE GROUP	NITROGEN	13.7
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	2930	ARGON	0.1
MEASURED DEPTH	2971	ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.46
		HEATING VALUE*	1,027
		SPECIFIC GRAVITY	0.713

SAMPLE	20884	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	73.7
COUNTY	TEXAS	ETHANE	6.5
FIELD	GUYMON-HUGOTON	PROPANE	3.7
WELL NAME	RIFFE NO. B-1	N-BUTANE	1.1
API	3513901785	ISOBUTANE	0.4
LOCATION	SEC. 32, T1N, R13E	N-PENTANE	0.3
OWNER	CONOCOPHILLIPS CO.	ISOPENTANE	0.2
COMPLETED	480109	CYCLOPENTANE	--
SAMPLED	011030	HEXANES PLUS	0.3
FORMATION	PERM-CHASE GROUP	NITROGEN	13.2
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	2932	ARGON	0.1
MEASURED DEPTH	2975	ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.47
		HEATING VALUE*	1,037
		SPECIFIC GRAVITY	0.714

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20888	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	70.0
COUNTY	TEXAS	ETHANE	6.4
FIELD	GUYMON-HUGOTON	PROPANE	3.8
WELL NAME	ORV NO. 2	N-BUTANE	1.1
API	3513921307	ISOBUTANE	0.5
LOCATION	SEC. 31, T2N, R12E	N-PENTANE	0.3
OWNER	CONOCOPHILLIPS CO.	ISOPENTANE	0.2
COMPLETED	800520	CYCLOPENTANE	--
SAMPLED	011030	HEXANES PLUS	0.2
FORMATION	PERM-CHASE GROUP	NITROGEN	16.8
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	2695	ARGON	0.1
MEASURED DEPTH	2906	ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	43	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.61
		HEATING VALUE*	997
		SPECIFIC GRAVITY	0.727

SAMPLE	20890	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	65.5
COUNTY	TEXAS	ETHANE	5.8
FIELD	GUYMON-HUGOTON	PROPANE	3.7
WELL NAME	STONEBRAKER NO. AA-1	N-BUTANE	1.1
API	3513900683	ISOBUTANE	0.5
LOCATION	SEC. 10, T2N, R12E	N-PENTANE	0.3
OWNER	OXY USA, INC.	ISOPENTANE	0.2
COMPLETED	521128	CYCLOPENTANE	--
SAMPLED	011030	HEXANES PLUS	0.3
FORMATION	PERM-CHASE GROUP	NITROGEN	21.8
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	2708	ARGON	0.1
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	15800	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.68
		HEATING VALUE*	944
		SPECIFIC GRAVITY	0.746

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20889	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	64.7
COUNTY	TEXAS	ETHANE	5.8
FIELD	GUYMON-HUGOTON	PROPANE	3.8
WELL NAME	STONEBRAKER NO. Y-1	N-BUTANE	1.2
API	3513900092	ISOBUTANE	0.5
LOCATION	SEC. 9, T2N, R12E	N-PENTANE	0.3
OWNER	OXY USA, INC.	ISOPENTANE	0.2
COMPLETED	530201	CYCLOPENTANE	--
SAMPLED	011030	HEXANES PLUS	0.3
FORMATION	PERM-CHASE GROUP	NITROGEN	22.4
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	2664	ARGON	0.1
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	26600	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.73
		HEATING VALUE*	938
		SPECIFIC GRAVITY	0.75

SAMPLE	20881	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	68.0
COUNTY	TEXAS	ETHANE	6.2
FIELD	GUYMON-HUGOTON	PROPANE	3.8
WELL NAME	BERGNER NO. 1-B	N-BUTANE	1.2
API	3513901879	ISOBUTANE	0.5
LOCATION	SEC. 33, T1N, R11E	N-PENTANE	0.3
OWNER	CONOCOPHILLIPS CO.	ISOPENTANE	0.2
COMPLETED	550531	CYCLOPENTANE	--
SAMPLED	011030	HEXANES PLUS	0.3
FORMATION	PERM-CHASE GROUP	NITROGEN	18.6
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	2763	ARGON	0.1
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	9225	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.79
		HEATING VALUE*	982
		SPECIFIC GRAVITY	0.737

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20880
STATE	OKLAHOMA
COUNTY	TEXAS
FIELD	GUYMON-HUGOTON
WELL NAME	BERGNER NO. 1
API	3513900527
LOCATION	SEC. 32, T1N, R11E
OWNER	CONOCOPHILLIPS CO.
COMPLETED	541014
SAMPLED	011030
FORMATION	PERM-CHASE GROUP
GEOLOGIC PROVINCE CODE	360
TRUE VERTICAL DEPTH (FT)	2720
MEASURED DEPTH	2837
WELLHEAD PRESSURE, PSIG	
OPEN FLOW, MCFD	2162

COMPONENT, MOLE PCT	
METHANE	66.4
ETHANE	6.1
PROPANE	3.9
N-BUTANE	1.2
ISOBUTANE	0.5
N-PENTANE	0.3
ISOPENTANE	0.2
CYCLOPENTANE	--
HEXANES PLUS	0.3
NITROGEN	20.0
OXYGEN	0.0
ARGON	0.1
ARGON + OXYGEN	---
HYDROGEN	0.0
HYDROGEN SULFIDE**	0.0
CARBON DIOXIDE	0.1
HELIUM	0.93
HEATING VALUE*	966
SPECIFIC GRAVITY	0.743

SAMPLE	20675
STATE	OKLAHOMA
COUNTY	TEXAS
FIELD	GUYMON-HUGOTON
WELL NAME	STONEBRAKER NO. W-1
API	3513900888
LOCATION	SEC. 30, T3N, R12E
OWNER	OXY USA, INC.
COMPLETED	521113
SAMPLED	010511
FORMATION	PERM-CHASE GROUP
GEOLOGIC PROVINCE CODE	360
TRUE VERTICAL DEPTH (FT)	2656
MEASURED DEPTH	
WELLHEAD PRESSURE, PSIG	393
OPEN FLOW, MCFD	6400

COMPONENT, MOLE PCT	
METHANE	59.6
ETHANE	5.5
PROPANE	3.8
N-BUTANE	1.2
ISOBUTANE	0.5
N-PENTANE	0.3
ISOPENTANE	0.2
CYCLOPENTANE	--
HEXANES PLUS	0.2
NITROGEN	27.6
OXYGEN	0.0
ARGON	0.1
ARGON + OXYGEN	---
HYDROGEN	0.0
HYDROGEN SULFIDE**	0.0
CARBON DIOXIDE	0.1
HELIUM	1.06
HEATING VALUE*	878
SPECIFIC GRAVITY	0.766

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20877	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	59.3
COUNTY	TEXAS	ETHANE	5.4
FIELD	GUYMON-HUGOTON	PROPANE	3.9
WELL NAME	CLARK NO. 1	N-BUTANE	1.3
API	3513921191	ISOBUTANE	0.5
LOCATION	SEC. 36, T1N, R10E	N-PENTANE	0.3
OWNER	FIRST NATIONAL OIL, INC.	ISOPENTANE	0.2
COMPLETED	800122	CYCLOPENTANE	--
SAMPLED	011030	HEXANES PLUS	0.3
FORMATION	PERM-CHASE GROUP	NITROGEN	26.8
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	2630	ARGON	0.1
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	154	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.4
		HELIUM	1.46
		HEATING VALUE*	887
		SPECIFIC GRAVITY	0.77

SAMPLE	20891	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	58.9
COUNTY	TEXAS	ETHANE	4.7
FIELD	GUYMON-HUGOTON	PROPANE	3.8
WELL NAME	STONEBRAKER NO. M-2	N-BUTANE	1.4
API	3513920812	ISOBUTANE	0.5
LOCATION	SEC. 1, T2N, R12E	N-PENTANE	0.3
OWNER	OXY USA, INC.	ISOPENTANE	0.3
COMPLETED	760119	CYCLOPENTANE	--
SAMPLED	011030	HEXANES PLUS	0.3
FORMATION	PERM-COUNCIL GROVE	NITROGEN	28.7
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	3020	ARGON	0.1
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	360	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	0.73
		HEATING VALUE*	877
		SPECIFIC GRAVITY	0.779

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20887	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	89.2
COUNTY	TEXAS	ETHANE	5.6
FIELD	GUYMON-HUGOTON	PROPANE	2.1
WELL NAME	CECIL NO. 1-32	N-BUTANE	0.7
API	3513922503	ISOBUTANE	0.2
LOCATION	SEC. 32, T2N, R12E	N-PENTANE	0.2
OWNER	CABOT OIL & GAS CORP.	ISOPENTANE	0.1
COMPLETED	940418	CYCLOPENTANE	--
SAMPLED	011030	HEXANES PLUS	0.4
FORMATION	PENN-MORROW	NITROGEN	1.2
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	6149	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	288	HYDROGEN	TRACE
OPEN FLOW, MCFD	1337	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.3
		HELIUM	0.13
		HEATING VALUE*	1,113
		SPECIFIC GRAVITY	0.636

SAMPLE	20704	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	84.7
COUNTY	CUSTER	ETHANE	8.8
FIELD	HAMMON E	PROPANE	3.3
WELL NAME	USA WOLLMAN NO. 1-18	N-BUTANE	0.7
API	3503921025	ISOBUTANE	0.5
LOCATION	SEC. 18, T13N, R19W	N-PENTANE	0.2
OWNER	EL PASO PRODUCTION CO.	ISOPENTANE	0.2
COMPLETED	840726	CYCLOPENTANE	--
SAMPLED	010709	HEXANES PLUS	0.3
FORMATION	PENN-RED FORK	NITROGEN	0.3
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	12952	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	6704	HYDROGEN	0.0
OPEN FLOW, MCFD	824	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.0
		HELIUM	0.04
		HEATING VALUE*	1,163
		SPECIFIC GRAVITY	0.671

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20706	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	85.5
COUNTY	CUSTER	ETHANE	8.0
FIELD	HAMMON E	PROPANE	3.0
WELL NAME	LONG NO. 1-2	N-BUTANE	0.7
API	3503920739	ISOBUTANE	0.5
LOCATION	SEC. 2, T13N, R20W	N-PENTANE	0.2
OWNER	EL PASO PRODUCTION CO.	ISOPENTANE	0.3
COMPLETED	820603	CYCLOPENTANE	--
SAMPLED	010709	HEXANES PLUS	0.5
FORMATION	PENN-RED FORK	NITROGEN	0.3
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	12662	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	5134	HYDROGEN	0.0
OPEN FLOW, MCFD	815	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.1
		HELIUM	0.04
		HEATING VALUE*	1,160
		SPECIFIC GRAVITY	0.67

SAMPLE	21430	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	88.7
COUNTY	CADDO	ETHANE	3.5
FIELD	LOOKEBA E	PROPANE	0.8
WELL NAME	HAMPTON 1-1	N-BUTANE	0.1
API	3501522744	ISOBUTANE	0.1
LOCATION	SEC 1, T11N, R11W	N-PENTANE	TRACE
OWNER	CHESAPEAKE OPERATING, INC.	ISOPENTANE	TRACE
COMPLETED	040327	CYCLOPENTANE	--
SAMPLED	050401	HEXANES PLUS	TRACE
FORMATION	PENN-MORROW	NITROGEN	5.3
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.5
TRUE VERTICAL DEPTH (FT)	12558	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	1000	HYDROGEN	0.0
OPEN FLOW, MCFD	500	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.9
		HELIUM	0.00
		HEATING VALUE*	991
		SPECIFIC GRAVITY	0.617

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21451	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	82.1
COUNTY	STEPHENS	ETHANE	6.8
FIELD	MARLOW DISTRICT	PROPANE	3.6
WELL NAME	YOUNG 2-13	N-BUTANE	1.2
API	3513725998	ISOBUTANE	0.6
LOCATION	SEC 13, T2N, R8W	N-PENTANE	0.4
OWNER	CHESAPEAKE OPERATING, INC.	ISOPENTANE	0.3
COMPLETED	040411	CYCLOPENTANE	--
SAMPLED	050509	HEXANES PLUS	0.5
FORMATION	PENN-HOXBAR L, DEESE	NITROGEN	4.1
GEOLOGIC PROVINCE CODE	350	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	13716	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG	1000	HYDROGEN	0.0
OPEN FLOW, MCFD	2485	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.3
		HELIUM	0.02
		HEATING VALUE*	1,150
		SPECIFIC GRAVITY	0.693

SAMPLE	21444	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	92.3
COUNTY	GRADY	ETHANE	2.8
FIELD	MINCO E	PROPANE	1.0
WELL NAME	ELAINE 1-18	N-BUTANE	0.3
API	3505121826	ISOBUTANE	0.1
LOCATION	SEC 18, T10N, R6W	N-PENTANE	0.1
OWNER	OKLAND OIL CO.	ISOPENTANE	0.1
COMPLETED	040412	CYCLOPENTANE	--
SAMPLED	050407	HEXANES PLUS	0.2
FORMATION	PENN-COTTAGE GROVE	NITROGEN	2.6
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	8348	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	1320	HYDROGEN	0.0
OPEN FLOW, MCFD	976	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.3
		HELIUM	0.07
		HEATING VALUE*	1,043
		SPECIFIC GRAVITY	0.606

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21431	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	84.4
COUNTY	BEAVER	ETHANE	6.8
FIELD	MOCANE-LAVERNE GAS AREA	PROPANE	4.2
WELL NAME	ALEXANDER 1-21	N-BUTANE	1.2
API	3500720144	ISOBUTANE	0.6
LOCATION	SEC 21, T2N, R27E	N-PENTANE	0.5
OWNER	CHAPARRAL ENERGY LLC	ISOPENTANE	0.3
COMPLETED	670513	CYCLOPENTANE	--
SAMPLED	050329	HEXANES PLUS	0.7
FORMATION	PENN-MORROW	NITROGEN	0.7
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	7908	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	146	HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.6
		HELIUM	0.10
		HEATING VALUE*	1,202
		SPECIFIC GRAVITY	0.693

SAMPLE	20709	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	79.7
COUNTY	CUSTER	ETHANE	10.5
FIELD	MOOREWOOD NE	PROPANE	5.0
WELL NAME	KENNY NO. 3	N-BUTANE	1.4
API	3503921166	ISOBUTANE	0.6
LOCATION	SEC. 15, T15N, R20W	N-PENTANE	0.4
OWNER	EL PASO PRODUCTION CO.	ISOPENTANE	0.4
COMPLETED	851029	CYCLOPENTANE	--
SAMPLED	010709	HEXANES PLUS	0.7
FORMATION	PENN-CHEROKEE	NITROGEN	0.4
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	11252	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	5292	HYDROGEN	TRACE
OPEN FLOW, MCFD	1750	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.0
		HELIUM	0.03
		HEATING VALUE*	1,246
		SPECIFIC GRAVITY	0.723

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20711	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	79.8
COUNTY	CUSTER	ETHANE	10.5
FIELD	MOOREWOOD NE	PROPANE	5.1
WELL NAME	HUTCHESON NO. 22-1	N-BUTANE	1.4
API	3503921131	ISOBUTANE	0.6
LOCATION	SEC. 22, T15N, R20W	N-PENTANE	0.4
OWNER	EL PASO PRODUCTION CO.	ISOPENTANE	0.4
COMPLETED	850129	CYCLOPENTANE	--
SAMPLED	010709	HEXANES PLUS	0.5
FORMATION	PENN-PRUE	NITROGEN	0.4
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	11275	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	2097	HYDROGEN	TRACE
OPEN FLOW, MCFD	2504	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.0
		HELIUM	0.03
		HEATING VALUE*	1,243
		SPECIFIC GRAVITY	0.721

SAMPLE	20710	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	80.0
COUNTY	CUSTER	ETHANE	10.4
FIELD	MOOREWOOD NE	PROPANE	5.1
WELL NAME	HUTCHESON NO. 22-4	N-BUTANE	1.4
API	3503921733	ISOBUTANE	0.6
LOCATION	SEC. 22, T15N, R20W	N-PENTANE	0.3
OWNER	EL PASO PRODUCTION CO.	ISOPENTANE	0.3
COMPLETED	980130	CYCLOPENTANE	--
SAMPLED	010709	HEXANES PLUS	0.5
FORMATION	PENN-RED FORK	NITROGEN	0.4
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	11224	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	2650	HYDROGEN	0.0
OPEN FLOW, MCFD	1000	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.9
		HELIUM	0.04
		HEATING VALUE*	1,239
		SPECIFIC GRAVITY	0.718

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20708	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	78.0
COUNTY	CUSTER	ETHANE	11.3
FIELD	MOOREWOOD NE	PROPANE	6.3
WELL NAME	BEESON NO. 1-21	N-BUTANE	1.3
API	3503920565	ISOBUTANE	0.8
LOCATION	SEC. 21, T15N, R20W	N-PENTANE	0.3
OWNER	EL PASO PRODUCTION CO.	ISOPENTANE	0.3
COMPLETED	820225	CYCLOPENTANE	--
SAMPLED	010709	HEXANES PLUS	0.3
FORMATION	PENN-SKINNER	NITROGEN	0.5
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	11225	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	3764	HYDROGEN	TRACE
OPEN FLOW, MCFD	3047	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.9
		HELIUM	0.06
		HEATING VALUE*	1,256
		SPECIFIC GRAVITY	0.729

SAMPLE	20717	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	93.5
COUNTY	DEWEY	ETHANE	1.2
FIELD	PUTNAM	PROPANE	0.3
WELL NAME	SQUIRES NO. 1	N-BUTANE	0.1
API	3504321287	ISOBUTANE	0.1
LOCATION	SEC. 21, T18N, R17W	N-PENTANE	0.1
OWNER	CHAPARRAL ENERGY LLC	ISOPENTANE	0.1
COMPLETED	811126	CYCLOPENTANE	--
SAMPLED	010710	HEXANES PLUS	0.2
FORMATION	MISS-MISSISSIPPIAN	NITROGEN	0.9
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	11870	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	3620	HYDROGEN	0.0
OPEN FLOW, MCFD	770	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	3.6
		HELIUM	0.03
		HEATING VALUE*	996
		SPECIFIC GRAVITY	0.611

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	20716	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	86.4
COUNTY	DEWEY	ETHANE	6.2
FIELD	PUTNAM	PROPANE	3.1
WELL NAME	ALLEN ESTATE UNIT NO. 1	N-BUTANE	1.1
API	3504320652	ISOBUTANE	0.5
LOCATION	SEC. 7, T18N, R16W	N-PENTANE	0.3
OWNER	CHAPARRAL ENERGY LLC	ISOPENTANE	0.3
COMPLETED	760714	CYCLOPENTANE	--
SAMPLED	010710	HEXANES PLUS	0.5
FORMATION	PENN-MORROW	NITROGEN	0.5
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	9548	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	3387	HYDROGEN	0.0
OPEN FLOW, MCFD	2338	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.0
		HELIUM	0.05
		HEATING VALUE*	1,166
		SPECIFIC GRAVITY	0.674

SAMPLE	21058	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	97.0
COUNTY	ROGER MILLS	ETHANE	0.6
FIELD	REYDON	PROPANE	TRACE
WELL NAME	PETERSEN NO. 2-17	N-BUTANE	TRACE
API	3512921915	ISOBUTANE	TRACE
LOCATION	SEC. 17, T13N, R26W	N-PENTANE	0.0
OWNER	BURLINGTON RESOURCES OIL & GAS CO., LP	ISOPENTANE	0.0
COMPLETED	950917	CYCLOPENTANE	--
SAMPLED	021029	HEXANES PLUS	TRACE
FORMATION	PENN-MORROW	NITROGEN	0.2
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	15641	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	7230	HYDROGEN	0.0
OPEN FLOW, MCFD	1000	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	2.1
		HELIUM	0.02
		HEATING VALUE*	995
		SPECIFIC GRAVITY	0.579

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21421	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	89.1
COUNTY	STEPHENS	ETHANE	4.2
FIELD	STAGE STAND	PROPANE	1.9
WELL NAME	HLAVATY 2-15A	N-BUTANE	0.7
API	3513725973	ISOBUTANE	0.3
LOCATION	SEC 15, T1N, R8W	N-PENTANE	0.2
OWNER	ZINKE & TRUMBO, INC.	ISOPENTANE	0.2
COMPLETED	031221	CYCLOPENTANE	--
SAMPLED	050301	HEXANES PLUS	0.3
FORMATION	CAMO-ARBUCKLE U	NITROGEN	2.9
GEOLOGIC PROVINCE CODE	350	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	8460	ARGON	TRACE
MEASURED DEPTH	8460	ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	2100	HYDROGEN	0.0
OPEN FLOW, MCFD	2319	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	0.03
		HEATING VALUE*	1,087
		SPECIFIC GRAVITY	0.636

SAMPLE	21067	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	84.9
COUNTY	ROGER MILLS	ETHANE	8.0
FIELD	STRONG CITY	PROPANE	3.3
WELL NAME	USA NO. 5-31	N-BUTANE	0.8
API	3512922320	ISOBUTANE	0.5
LOCATION	SEC. 31, T15N, R22W	N-PENTANE	0.2
OWNER	BURLINGTON RESOURCES OIL & GAS CO., LP	ISOPENTANE	0.3
COMPLETED	010918	CYCLOPENTANE	--
SAMPLED	021029	HEXANES PLUS	0.5
FORMATION	PENN-DESMOINESIAN	NITROGEN	0.3
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	11484	ARGON	TRACE
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	4068	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.1
		HELIUM	0.06
		HEATING VALUE*	1,168
		SPECIFIC GRAVITY	0.676

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21065	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	89.5
COUNTY	ROGER MILLS	ETHANE	6.0
FIELD	STRONG CITY	PROPANE	1.7
WELL NAME	ROBERTS RANCH NO. 1-18	N-BUTANE	0.3
API	3512921523	ISOBUTANE	0.3
LOCATION	SEC. 18, T14N, R22W	N-PENTANE	0.1
OWNER	BURLINGTON RESOURCES OIL & GAS CO., LP	ISOPENTANE	0.1
COMPLETED	900922	CYCLOPENTANE	--
SAMPLED	021029	HEXANES PLUS	0.3
FORMATION	PENN-RED FORK	NITROGEN	0.3
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	12411	ARGON	0.1
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD	2400	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.4
		HELIUM	0.04
		HEATING VALUE*	1,095
		SPECIFIC GRAVITY	0.634

SAMPLE	21066	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	90.0
COUNTY	ROGER MILLS	ETHANE	5.8
FIELD	STRONG CITY	PROPANE	1.6
WELL NAME	ROBERTS RANCH NO. 3-18	N-BUTANE	0.3
API	3512921647	ISOBUTANE	0.3
LOCATION	SEC. 18, T14N, R22W	N-PENTANE	0.1
OWNER	BURLINGTON RESOURCES OIL & GAS CO., LP	ISOPENTANE	0.1
COMPLETED	990714	CYCLOPENTANE	--
SAMPLED	021029	HEXANES PLUS	0.2
FORMATION	PENN-RED FORK	NITROGEN	0.3
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	12330	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	592	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.4
		HELIUM	0.04
		HEATING VALUE*	1,089
		SPECIFIC GRAVITY	0.629

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21419	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	64.6
COUNTY	TEXAS	ETHANE	7.3
FIELD	STURGIS E	PROPANE	4.1
WELL NAME	STATE D5	N-BUTANE	1.1
API	3513923750	ISOBUTANE	0.4
LOCATION	SEC 30, T5N, R10E	N-PENTANE	0.2
OWNER	RUPE OIL COMPANY, INC.	ISOPENTANE	0.2
COMPLETED	040115	CYCLOPENTANE	--
SAMPLED	050215	HEXANES PLUS	0.4
FORMATION	PENN-ATOKA	NITROGEN	20.8
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	3979	ARGON	0.4
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	380	HYDROGEN	0.0
OPEN FLOW, MCFD	2114	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.62
		HEATING VALUE*	967
		SPECIFIC GRAVITY	0.753

SAMPLE	20739	COMPONENT, MOLE PCT	
STATE	OKLAHOMA	METHANE	77.2
COUNTY	TEXAS	ETHANE	8.1
FIELD	TEXHOMA E	PROPANE	4.5
WELL NAME	WAUGH NO. 3	N-BUTANE	1.6
API	3513922416	ISOBUTANE	0.5
LOCATION	SEC. 31, T1N, R13E	N-PENTANE	0.6
OWNER	CONOCOPHILLIPS CO.	ISOPENTANE	0.4
COMPLETED	921201	CYCLOPENTANE	--
SAMPLED	010730	HEXANES PLUS	0.7
FORMATION	PENN-MORROW	NITROGEN	5.8
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	6763	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	247	HYDROGEN	TRACE
OPEN FLOW, MCFD	163	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.3
		HELIUM	0.22
		HEATING VALUE*	1,185
		SPECIFIC GRAVITY	0.732

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21526	COMPONENT, MOLE PCT	
STATE	TEXAS	METHANE	88.8
COUNTY	PECOS	ETHANE	5.7
FIELD	ABELL	PROPANE	2.5
WELL NAME	TENNECO-AARESTAD 1	N-BUTANE	0.8
API	4237135177	ISOBUTANE	0.3
LOCATION	SEC 30, BLK 9, H&GN SUR	N-PENTANE	0.2
OWNER	OLSEN ENERGY, INC.	ISOPENTANE	0.2
COMPLETED	850127	CYCLOPENTANE	--
SAMPLED	060406	HEXANES PLUS	0.4
FORMATION	PERM-CLEARFORK	NITROGEN	0.9
GEOLOGIC PROVINCE CODE	430	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	3767	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	1497	HYDROGEN	0.0
OPEN FLOW, MCFD	1875	HYDROGEN SULFIDE**	TRACE
		CARBON DIOXIDE	0.2
		HELIUM	0.03
		HEATING VALUE*	1,131
		SPECIFIC GRAVITY	0.644

SAMPLE	21502	COMPONENT, MOLE PCT	
STATE	TEXAS	METHANE	83.3
COUNTY	PECOS	ETHANE	6.9
FIELD	ABELL	PROPANE	3.9
WELL NAME	WAGNER 1	N-BUTANE	1.3
API	4237103888	ISOBUTANE	0.4
LOCATION	SEC 23, BLK 9, H&GN SUR	N-PENTANE	0.5
OWNER	JOHN M. CLARK, INC.	ISOPENTANE	0.2
COMPLETED	850207	CYCLOPENTANE	--
SAMPLED	050914	HEXANES PLUS	0.7
FORMATION	ORDO-WADDELL	NITROGEN	2.6
GEOLOGIC PROVINCE CODE	430	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	5738	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	185	HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	0.03
		HEATING VALUE*	1,178
		SPECIFIC GRAVITY	0.692

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21519	COMPONENT, MOLE PCT	
STATE	TEXAS	METHANE	85.8
COUNTY	CRANE	ETHANE	6.2
FIELD	ABELL E	PROPANE	3.0
WELL NAME	TUCKER-A-1U	N-BUTANE	0.9
API	4210330503	ISOBUTANE	0.4
LOCATION	SEC 21, BLK 1, H&TC SUR	N-PENTANE	0.3
OWNER	INCLINE ENERGY	ISOPENTANE	0.2
COMPLETED	720126	CYCLOPENTANE	--
SAMPLED	060308	HEXANES PLUS	0.4
FORMATION	PERM-GLORIETA	NITROGEN	2.5
GEOLOGIC PROVINCE CODE	430	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	3317	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	200	HYDROGEN	0.0
OPEN FLOW, MCFD	50	HYDROGEN SULFIDE**	TRACE
		CARBON DIOXIDE	0.2
		HELIUM	0.03
		HEATING VALUE*	1,138
		SPECIFIC GRAVITY	0.664

SAMPLE	21496	COMPONENT, MOLE PCT	
STATE	TEXAS	METHANE	80.4
COUNTY	CRANE	ETHANE	4.7
FIELD	ABELL NW	PROPANE	2.0
WELL NAME	GRISHAM 27-1	N-BUTANE	0.7
API	4210334722	ISOBUTANE	0.3
LOCATION	SEC 27, BLK 1, H&TC SUR	N-PENTANE	0.2
OWNER	EOG RESOURCES, INC.	ISOPENTANE	0.2
COMPLETED	000418	CYCLOPENTANE	--
SAMPLED	050823	HEXANES PLUS	0.4
FORMATION	PERM-CLEAR FORK	NITROGEN	10.3
GEOLOGIC PROVINCE CODE	430	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	3400	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	800	HYDROGEN	0.0
OPEN FLOW, MCFD	200	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.8
		HELIUM	0.01
		HEATING VALUE*	1,013
		SPECIFIC GRAVITY	0.677

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21516	COMPONENT, MOLE PCT	
STATE	TEXAS	METHANE	75.3
COUNTY	WHEELER	ETHANE	3.7
FIELD	ALLEN-ENGLER	PROPANE	2.6
WELL NAME	PATTERSON 45-8	N-BUTANE	0.7
API	4248331619	ISOBUTANE	0.4
LOCATION	SEC 45, BLK A5, H&GN SUR	N-PENTANE	0.2
OWNER	PABLO ENERGY, INC.	ISOPENTANE	0.2
COMPLETED	021002	CYCLOPENTANE	--
SAMPLED	060201	HEXANES PLUS	0.3
FORMATION	PERM-BROWN DOLOMITE	NITROGEN	16.1
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	4068	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD	40	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	TRACE
		HELIUM	0.51
		HEATING VALUE*	956
		SPECIFIC GRAVITY	0.691

SAMPLE	21504	COMPONENT, MOLE PCT	
STATE	TEXAS	METHANE	20.5
COUNTY	UPTON	ETHANE	22.2
FIELD	AMACKER-TIPPETT SW	PROPANE	29.8
WELL NAME	HALFF ESTATE 20-5	N-BUTANE	7.0
API	4246134181	ISOBUTANE	3.6
LOCATION	SEC 20, BLK Y, GC&SF SUR	N-PENTANE	2.8
OWNER	EOG RESOURCES, INC.	ISOPENTANE	2.5
COMPLETED	011001	CYCLOPENTANE	--
SAMPLED	051010	HEXANES PLUS	4.0
FORMATION	PERM-WOLFCAMP	NITROGEN	1.7
GEOLOGIC PROVINCE CODE	430	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	8750	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.0
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	25	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	5.9
		HELIUM	0.01
		HEATING VALUE*	2,102
		SPECIFIC GRAVITY	1.368

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21497	COMPONENT, MOLE PCT	
STATE	TEXAS	METHANE	73.3
COUNTY	UPTON	ETHANE	12.0
FIELD	AMACKER-TIPPETT W	PROPANE	6.8
WELL NAME	AMACKER V T 64 2	N-BUTANE	2.0
API	4246132851	ISOBUTANE	0.7
LOCATION	SEC 64, BLK Y, TC RR SUR	N-PENTANE	0.6
OWNER	HUNT OIL CO	ISOPENTANE	0.5
COMPLETED	050329	CYCLOPENTANE	--
SAMPLED	050830	HEXANES PLUS	0.9
FORMATION	PENN-STRAWN	NITROGEN	3.2
GEOLOGIC PROVINCE CODE	430	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	10166	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.0
WELLHEAD PRESSURE, PSIG	540	HYDROGEN	0.0
OPEN FLOW, MCFD	400	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.0
		HELIUM	0.04
		HEATING VALUE*	1,299
		SPECIFIC GRAVITY	0.772

SAMPLE	21500	COMPONENT, MOLE PCT	
STATE	TEXAS	METHANE	78.5
COUNTY	ECTOR	ETHANE	8.7
FIELD	ANDECTOR	PROPANE	4.4
WELL NAME	EMBAR 59	N-BUTANE	1.3
API	4213535329	ISOBUTANE	0.6
LOCATION	SEC 17, BLK 44, T&P SUR	N-PENTANE	0.4
OWNER	CONOCOPHILLIPS CO.	ISOPENTANE	0.4
COMPLETED	951110	CYCLOPENTANE	--
SAMPLED	050914	HEXANES PLUS	0.6
FORMATION	PERM-GRAYBURG	NITROGEN	4.8
GEOLOGIC PROVINCE CODE	430	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	3854	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	250	HYDROGEN	TRACE
OPEN FLOW, MCFD	116	HYDROGEN SULFIDE**	0.1
		CARBON DIOXIDE	0.1
		HELIUM	0.05
		HEATING VALUE*	1,183
		SPECIFIC GRAVITY	0.718

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21501	COMPONENT, MOLE PCT	
STATE	TEXAS	METHANE	76.1
COUNTY	ECTOR	ETHANE	8.8
FIELD	ANDECTOR	PROPANE	4.6
WELL NAME	FRANK B 2	N-BUTANE	1.3
API	4213503102	ISOBUTANE	0.5
LOCATION	SEC 6, BLK 44, T&P SUR	N-PENTANE	0.3
OWNER	CONOCOPHILLIPS CO.	ISOPENTANE	0.2
COMPLETED	940906	CYCLOPENTANE	--
SAMPLED	050914	HEXANES PLUS	0.4
FORMATION	ORDO-MCKEE	NITROGEN	7.4
GEOLOGIC PROVINCE CODE	430	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	7840	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.2
WELLHEAD PRESSURE, PSIG	300	HYDROGEN	0.0
OPEN FLOW, MCFD	68	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	0.07
		HEATING VALUE*	1,138
		SPECIFIC GRAVITY	0.719

SAMPLE	21509	COMPONENT, MOLE PCT	
STATE	TEXAS	METHANE	74.5
COUNTY	IRION	ETHANE	11.4
FIELD	ANDREW A	PROPANE	5.5
WELL NAME	BURNEY 3086 NO. 1	N-BUTANE	1.5
API	4223531362	ISOBUTANE	0.7
LOCATION	SEC 3086, BLK 28, H&TC SUR	N-PENTANE	0.5
OWNER	MEADCO PROPERTIES	ISOPENTANE	0.5
COMPLETED	790426	CYCLOPENTANE	--
SAMPLED	051115	HEXANES PLUS	0.8
FORMATION	PENN-CANYON	NITROGEN	4.0
GEOLOGIC PROVINCE CODE	430	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	7340	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	300	HYDROGEN	0.0
OPEN FLOW, MCFD	60	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.5
		HELIUM	0.09
		HEATING VALUE*	1,247
		SPECIFIC GRAVITY	0.755

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21528	COMPONENT, MOLE PCT	
STATE	TEXAS	METHANE	77.6
COUNTY	SHERMAN	ETHANE	7.1
FIELD	ANVIL	PROPANE	4.1
WELL NAME	HANDLIN 3	N-BUTANE	1.5
API	4242130731	ISOBUTANE	0.5
LOCATION	SEC 84, BLK 1C, GH&H SUR	N-PENTANE	0.6
OWNER	CONOCOPHILLIPS CO.	ISOPENTANE	0.4
COMPLETED	000127	CYCLOPENTANE	--
SAMPLED	060525	HEXANES PLUS	0.9
FORMATION	PENN-MORROW	NITROGEN	6.7
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	6638	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG	161	HYDROGEN	TRACE
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	0.18
		HEATING VALUE*	1,162
		SPECIFIC GRAVITY	0.728

SAMPLE	21530	COMPONENT, MOLE PCT	
STATE	TEXAS	METHANE	31.3
COUNTY	HOWARD	ETHANE	12.6
FIELD	BC	PROPANE	24.6
WELL NAME	NEWTON 1	N-BUTANE	8.0
API	4222734182	ISOBUTANE	4.0
LOCATION	SEC 12, BLK 33, T&P SUR	N-PENTANE	5.4
OWNER	ENDEAVOR ENERGY RESOURCES, L.P.	ISOPENTANE	4.5
COMPLETED	870930	CYCLOPENTANE	--
SAMPLED	060523	HEXANES PLUS	8.5
FORMATION	PENN-CANYON B & C	NITROGEN	0.6
GEOLOGIC PROVINCE CODE	430	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	9050	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.6
		HELIUM	0.01
		HEATING VALUE*	2,353
		SPECIFIC GRAVITY	1.433

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21675	COMPONENT, MOLE PCT	
STATE	TEXAS	METHANE	85.7
COUNTY	LIPSCOMB	ETHANE	6.7
FIELD	BROWN	PROPANE	3.4
WELL NAME	BROWN 2-987	N-BUTANE	1.0
API	4229532186	ISOBUTANE	0.4
LOCATION	SEC 987, BLK 43, H&TC SUR	N-PENTANE	0.2
OWNER	BRACKEN OPERATING, LLC.	ISOPENTANE	0.2
COMPLETED	940714	CYCLOPENTANE	--
SAMPLED	071100	HEXANES PLUS	0.3
FORMATION	PENN-TONKAWA	NITROGEN	1.5
GEOLOGIC PROVINCE CODE	360	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	6524	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG	1015	HYDROGEN	0.0
OPEN FLOW, MCFD	825	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.4
		HELIUM	0.11
		HEATING VALUE*	1,149
		SPECIFIC GRAVITY	0.665

SAMPLE	21510	COMPONENT, MOLE PCT	
STATE	TEXAS	METHANE	89.2
COUNTY	CROCKETT	ETHANE	3.3
FIELD	HUNT-BAGGETT	PROPANE	2.5
WELL NAME	BAGGETT E.G. 2402	N-BUTANE	0.8
API	4210536809	ISOBUTANE	0.2
LOCATION	SEC 24, BLK F, GC&SF SUR	N-PENTANE	0.1
OWNER	CHESAPEAKE OPERATING, INC.	ISOPENTANE	0.1
COMPLETED	950323	CYCLOPENTANE	--
SAMPLED	051117	HEXANES PLUS	0.2
FORMATION	PERM-CLEAR FORK, PENN-STRAWN	NITROGEN	2.8
GEOLOGIC PROVINCE CODE	430	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	9423	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	210	HYDROGEN	0.0
OPEN FLOW, MCFD	60	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.8
		HELIUM	0.07
		HEATING VALUE*	1,074
		SPECIFIC GRAVITY	0.636

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21022	COMPONENT, MOLE PCT	
STATE	TEXAS	METHANE	88.5
COUNTY	DENTON	ETHANE	6.6
FIELD	NEWARK E	PROPANE	1.7
WELL NAME	CLYDE NICHOLSON NO. 2	N-BUTANE	0.4
API	4212131183	ISOBUTANE	0.4
LOCATION	CARMEL MANCHACA SURVEY	N-PENTANE	0.1
OWNER	WAYNE HARPER	ISOPENTANE	0.1
COMPLETED	020418	CYCLOPENTANE	--
SAMPLED	020723	HEXANES PLUS	0.1
FORMATION	MISS-BARNETT SHALE	NITROGEN	0.7
GEOLOGIC PROVINCE CODE	420	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	8508	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	2000	HYDROGEN	0.0
OPEN FLOW, MCFD	1300	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.4
		HELIUM	0.03
		HEATING VALUE*	1,094
		SPECIFIC GRAVITY	0.636

SAMPLE	21677	COMPONENT, MOLE PCT	
STATE	TEXAS	METHANE	78.2
COUNTY	EASTLAND	ETHANE	10.4
FIELD	NORTH RIDGE	PROPANE	3.7
WELL NAME	J W BARNES 5	N-BUTANE	0.8
API	4213330161	ISOBUTANE	0.3
LOCATION	JOHN P ROHUS SUR, A-415	N-PENTANE	0.2
OWNER	NORTH RIDGE CORP.	ISOPENTANE	0.1
COMPLETED	050131	CYCLOPENTANE	--
SAMPLED	080201	HEXANES PLUS	0.2
FORMATION	PENN-DUFFER	NITROGEN	5.5
GEOLOGIC PROVINCE CODE	425	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	3830	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	20	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.3
		HELIUM	0.25
		HEATING VALUE*	1,127
		SPECIFIC GRAVITY	0.692

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21423	COMPONENT, MOLE PCT	
STATE	TEXAS	METHANE	84.6
COUNTY	OCHILTREE	ETHANE	7.9
FIELD	PAN PETRO	PROPANE	2.5
WELL NAME	LESLIE 1-222	N-BUTANE	0.6
API	4235732330	ISOBUTANE	0.2
LOCATION	SEC 222, BLK 43, H&TC SUR	N-PENTANE	0.2
OWNER	COURSON OIL & GAS, INC.	ISOPENTANE	0.1
COMPLETED	040427	CYCLOPENTANE	--
SAMPLED	050302	HEXANES PLUS	0.3
FORMATION	PENN-NOVI	NITROGEN	2.9
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	8677	ARGON	TRACE
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	2150	HYDROGEN	0.0
OPEN FLOW, MCFD	1005	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.6
		HELIUM	0.07
		HEATING VALUE*	1,111
		SPECIFIC GRAVITY	0.658

SAMPLE	21446	COMPONENT, MOLE PCT	
STATE	TEXAS	METHANE	54.3
COUNTY	COOKE	ETHANE	1.0
FIELD	RADIE	PROPANE	0.0
WELL NAME	STRAUSS WI-2	N-BUTANE	0.1
API	4209733248	ISOBUTANE	TRACE
LOCATION	N. TREVINO SURVEY, A-1021	N-PENTANE	TRACE
OWNER	HEP OIL CO., LTD	ISOPENTANE	TRACE
COMPLETED	951120	CYCLOPENTANE	--
SAMPLED	050414	HEXANES PLUS	TRACE
FORMATION	ORDO-ELLENBURGER	NITROGEN	43.9
GEOLOGIC PROVINCE CODE	350	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	2168	ARGON	0.1
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	575	HYDROGEN	0.2
OPEN FLOW, MCFD	1430	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	TRACE
		HELIUM	0.33
		HEATING VALUE*	574
		SPECIFIC GRAVITY	0.742

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21442	COMPONENT, MOLE PCT	
STATE	TEXAS	METHANE	56.1
COUNTY	SHERMAN	ETHANE	5.1
FIELD	TEXAS HUGOTON	PROPANE	4.5
WELL NAME	STROTHER 1-74	N-BUTANE	1.4
API	4242130064	ISOBUTANE	0.7
LOCATION	SEC 74, BLK 1T, T&NO SUR	N-PENTANE	0.4
OWNER	CHAPARRAL ENERGY LLC	ISOPENTANE	0.3
COMPLETED	770707	CYCLOPENTANE	--
SAMPLED	050412	HEXANES PLUS	0.5
FORMATION	PERM-HERINGTON	NITROGEN	29.7
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	2752	ARGON	0.1
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	13	HYDROGEN	TRACE
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	1.13
		HEATING VALUE*	890
		SPECIFIC GRAVITY	0.797

SAMPLE	21440	COMPONENT, MOLE PCT	
STATE	TEXAS	METHANE	61.0
COUNTY	SHERMAN	ETHANE	5.2
FIELD	TEXAS HUGOTON	PROPANE	4.1
WELL NAME	ROSS 1-72	N-BUTANE	1.3
API	4242130065	ISOBUTANE	0.6
LOCATION	SEC 72, BLK 1T, T&NO SUR	N-PENTANE	0.4
OWNER	CHAPARRAL ENERGY LLC	ISOPENTANE	0.3
COMPLETED	770709	CYCLOPENTANE	--
SAMPLED	050412	HEXANES PLUS	0.5
FORMATION	PERM-HERINGTON, KRIDER	NITROGEN	25.4
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	2756	ARGON	0.1
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	12	HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	1.08
		HEATING VALUE*	925
		SPECIFIC GRAVITY	0.773

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21443	COMPONENT, MOLE PCT	
STATE	TEXAS	METHANE	57.8
COUNTY	SHERMAN	ETHANE	5.2
FIELD	TEXAS HUGOTON	PROPANE	4.3
WELL NAME	BILLINGTON-ETHERIDGE 1-108	N-BUTANE	1.4
API	4242130052	ISOBUTANE	0.7
LOCATION	SEC 108, BLK 1T, T&NO SUR	N-PENTANE	0.3
OWNER	CHAPARRAL ENERGY LLC	ISOPENTANE	0.3
COMPLETED	761218	CYCLOPENTANE	--
SAMPLED	050412	HEXANES PLUS	0.5
FORMATION	PERM-KRIDER	NITROGEN	28.4
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	2725	ARGON	0.1
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	16	HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	1.08
		HEATING VALUE*	896
		SPECIFIC GRAVITY	0.787

SAMPLE	21441	COMPONENT, MOLE PCT	
STATE	TEXAS	METHANE	59.7
COUNTY	SHERMAN	ETHANE	5.1
FIELD	TEXAS HUGOTON	PROPANE	4.2
WELL NAME	MILES 2-R	N-BUTANE	1.4
API	4242130414	ISOBUTANE	0.7
LOCATION	SEC 38, BLK 1T, T&NO SUR	N-PENTANE	0.4
OWNER	CHAPARRAL ENERGY LLC	ISOPENTANE	0.3
COMPLETED	880501	CYCLOPENTANE	--
SAMPLED	050412	HEXANES PLUS	0.5
FORMATION	PERM-KRIDER	NITROGEN	26.4
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	2720	ARGON	0.1
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	10	HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	1.20
		HEATING VALUE*	920
		SPECIFIC GRAVITY	0.781

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21424	COMPONENT, MOLE PCT	
STATE	TEXAS	METHANE	91.9
COUNTY	HEMPHILL	ETHANE	3.3
FIELD	URSCHEL RANCH	PROPANE	0.6
WELL NAME	URSCHEL 1-60	N-BUTANE	0.1
API	4221132287	ISOBUTANE	0.1
LOCATION	SEC 60, BLK 1, G&M SUR	N-PENTANE	TRACE
OWNER	BRACKEN OPERATING, LLC	ISOPENTANE	0.1
COMPLETED	040123	CYCLOPENTANE	--
SAMPLED	050309	HEXANES PLUS	0.1
FORMATION	PENN-MORROW	NITROGEN	2.5
GEOLOGIC PROVINCE CODE	360	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	11634	ARGON	0.1
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	6450	HYDROGEN	0.0
OPEN FLOW, MCFD	2915	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.3
		HELIUM	0.04
		HEATING VALUE*	1,017
		SPECIFIC GRAVITY	0.605

SAMPLE	21416	COMPONENT, MOLE PCT	
STATE	UTAH	METHANE	63.5
COUNTY	GRAND	ETHANE	17.1
FIELD	BIG FLAT	PROPANE	10.4
WELL NAME	KANE SPRINGS FEDERAL 25-19-34-1	N-BUTANE	2.6
API	4301931334	ISOBUTANE	1.1
LOCATION	SEC. 34, T25S, R19E	N-PENTANE	0.5
OWNER	INTREPID OIL & GAS, LLC	ISOPENTANE	0.4
COMPLETED	930521	CYCLOPENTANE	--
SAMPLED	050131	HEXANES PLUS	0.6
FORMATION	PENN-CANE CREEK	NITROGEN	3.6
GEOLOGIC PROVINCE CODE	585	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	7985	ARGON	0.1
MEASURED DEPTH	7985	ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	30	HYDROGEN	TRACE
OPEN FLOW, MCFD	328	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.0
		HELIUM	0.12
		HEATING VALUE*	1,394
		SPECIFIC GRAVITY	0.838

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21457	COMPONENT, MOLE PCT	
STATE	UTAH	METHANE	57.7
COUNTY	SAN JUAN	ETHANE	15.9
FIELD	CAJON LAKE	PROPANE	7.0
WELL NAME	SANDIA FED 9-44	N-BUTANE	0.9
API	4303731371	ISOBUTANE	0.4
LOCATION	SEC 9, T39S, R26E	N-PENTANE	TRACE
OWNER	MAX CULLUM	ISOPENTANE	0.1
COMPLETED	981015	CYCLOPENTANE	--
SAMPLED	050519	HEXANES PLUS	0.1
FORMATION	PENN-ISMAY	NITROGEN	14.8
GEOLOGIC PROVINCE CODE	585	OXYGEN	--
TRUE VERTICAL DEPTH (FT)		ARGON	--
MEASURED DEPTH	6240	ARGON + OXYGEN	2.7
WELLHEAD PRESSURE, PSIG	17	HYDROGEN	0.0
OPEN FLOW, MCFD	25	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	0.02
		HEATING VALUE*	1,096
		SPECIFIC GRAVITY	0.808

SAMPLE	21308	COMPONENT, MOLE PCT	
STATE	UTAH	METHANE	82.3
COUNTY	DUCHESNE	ETHANE	6.8
FIELD	CEDAR RIM	PROPANE	2.7
WELL NAME	UTE FEE 2-33C6	N-BUTANE	0.9
API	4301331123	ISOBUTANE	0.4
LOCATION	SEC 33, T3S, R6W	N-PENTANE	0.3
OWNER	EL PASO PRODUCTION OIL & GAS CO.	ISOPENTANE	0.3
COMPLETED	851223	CYCLOPENTANE	--
SAMPLED	040428	HEXANES PLUS	0.7
FORMATION	EOCE-WASATCH	NITROGEN	4.5
GEOLOGIC PROVINCE CODE	575	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	8765	ARGON	0.3
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	130	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.7
		HELIUM	0.04
		HEATING VALUE*	1,121
		SPECIFIC GRAVITY	0.689

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21505	COMPONENT, MOLE PCT	
STATE	UTAH	METHANE	74.9
COUNTY	SAN JUAN	ETHANE	11.4
FIELD	LITTLE NANCY	PROPANE	5.1
WELL NAME	NANCY FEDERAL 3-11	N-BUTANE	1.6
API	4303730902	ISOBUTANE	0.7
LOCATION	SEC 3, T38S, R25E	N-PENTANE	0.7
OWNER	D. J. SIMMONS, INC.	ISOPENTANE	0.6
COMPLETED	840506	CYCLOPENTANE	--
SAMPLED	051025	HEXANES PLUS	1.2
FORMATION	PENN-ISMAY	NITROGEN	3.7
GEOLOGIC PROVINCE CODE	585	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	5410	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	520	HYDROGEN	0.0
OPEN FLOW, MCFD	50	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.03
		HEATING VALUE*	1,273
		SPECIFIC GRAVITY	0.762

SAMPLE	21455	COMPONENT, MOLE PCT	
STATE	UTAH	METHANE	57.1
COUNTY	SAN JUAN	ETHANE	14.3
FIELD	MONUMENT	PROPANE	9.8
WELL NAME	MONUMENT 8N-2	N-BUTANE	4.3
API	4303731509	ISOBUTANE	2.0
LOCATION	SEC 8, T40S, R25E	N-PENTANE	1.9
OWNER	RIM SOUTHWEST CORP.	ISOPENTANE	1.2
COMPLETED	900514	CYCLOPENTANE	--
SAMPLED	050526	HEXANES PLUS	2.8
FORMATION	PENN-ISMAY, DESERT CREEK	NITROGEN	5.9
GEOLOGIC PROVINCE CODE	585	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	6080	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.6
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	22	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.12
		HEATING VALUE*	1,541
		SPECIFIC GRAVITY	0.966

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21555
STATE	UTAH
COUNTY	UINTAH
FIELD	PARIETTE BENCH
WELL NAME	PARIETTE BENCH FEDERAL 32-6-9-19
API	4304731554
LOCATION	SEC 6, T9S, R19E
OWNER	NEWFIELD PRODUCTION CO.
COMPLETED	841219
SAMPLED	060620
FORMATION	EOCE-GREEN RIVER
GEOLOGIC PROVINCE CODE	575
TRUE VERTICAL DEPTH (FT)	5596
MEASURED DEPTH	
WELLHEAD PRESSURE, PSIG	
OPEN FLOW, MCFD	38

COMPONENT, MOLE PCT	
METHANE	90.2
ETHANE	3.8
PROPANE	2.3
N-BUTANE	0.6
ISOBUTANE	0.4
N-PENTANE	0.2
ISOPENTANE	0.2
CYCLOPENTANE	--
HEXANES PLUS	0.3
NITROGEN	1.7
OXYGEN	--
ARGON	--
ARGON + OXYGEN	TRACE
HYDROGEN	0.0
HYDROGEN SULFIDE**	0.0
CARBON DIOXIDE	0.2
HELIUM	0.03
HEATING VALUE*	1,102
SPECIFIC GRAVITY	0.633

SAMPLE	21415
STATE	UTAH
COUNTY	GRAND
FIELD	PARK ROAD
WELL NAME	KANE SPRINGS FEDERAL 19-1A
API	4301931324
LOCATION	SEC. 19, T26S, R20E
OWNER	INTREPID OIL & GAS, LLC
COMPLETED	911113
SAMPLED	050131
FORMATION	PENN-CANE CREEK
GEOLOGIC PROVINCE CODE	585
TRUE VERTICAL DEPTH (FT)	9825
MEASURED DEPTH	9825
WELLHEAD PRESSURE, PSIG	25
OPEN FLOW, MCFD	25

COMPONENT, MOLE PCT	
METHANE	52.7
ETHANE	18.4
PROPANE	13.8
N-BUTANE	4.0
ISOBUTANE	1.5
N-PENTANE	0.9
ISOPENTANE	0.7
CYCLOPENTANE	--
HEXANES PLUS	1.1
NITROGEN	6.6
OXYGEN	0.0
ARGON	0.3
ARGON + OXYGEN	---
HYDROGEN	TRACE
HYDROGEN SULFIDE**	0.0
CARBON DIOXIDE	0.1
HELIUM	0.16
HEATING VALUE*	1,500
SPECIFIC GRAVITY	0.942

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21649	COMPONENT, MOLE PCT	
STATE	UTAH	METHANE	82.3
COUNTY	CARBON	ETHANE	5.7
FIELD	PETERS POINT	PROPANE	2.0
WELL NAME	PETERS POINT UNIT FEDERAL 16-35	N-BUTANE	0.5
API	4300730965	ISOBUTANE	0.4
LOCATION	SEC 35, T12S, R16E	N-PENTANE	0.1
OWNER	BILL BARRETT CORP.	ISOPENTANE	0.2
COMPLETED	051213	CYCLOPENTANE	--
SAMPLED	070803	HEXANES PLUS	0.3
FORMATION	CRET-MESAVERDE	NITROGEN	7.4
GEOLOGIC PROVINCE CODE	575	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	7673	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.8
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	1862	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.4
		HELIUM	0.00
		HEATING VALUE*	1,039
		SPECIFIC GRAVITY	0.667

SAMPLE	21454	COMPONENT, MOLE PCT	
STATE	UTAH	METHANE	64.7
COUNTY	SAN JUAN	ETHANE	15.3
FIELD	RUNWAY	PROPANE	8.3
WELL NAME	RUNWAY 10C-5A	N-BUTANE	2.4
API	4303731597	ISOBUTANE	1.1
LOCATION	SEC 10, T40S, R25E	N-PENTANE	0.8
OWNER	RIM SOUTHWEST CORP.	ISOPENTANE	0.6
COMPLETED	910318	CYCLOPENTANE	--
SAMPLED	050525	HEXANES PLUS	1.2
FORMATION	PENN-ISMAY, DESERT CREEK	NITROGEN	5.0
GEOLOGIC PROVINCE CODE	585	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	6164	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.3
WELLHEAD PRESSURE, PSIG	30	HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.09
		HEATING VALUE*	1,365
		SPECIFIC GRAVITY	0.84

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21489	COMPONENT, MOLE PCT	
STATE	UTAH	METHANE	83.9
COUNTY	UINTAH	ETHANE	6.2
FIELD	UTELAND BUTTE	PROPANE	3.0
WELL NAME	STATE 1-16-10-18	N-BUTANE	0.9
API	4304733807	ISOBUTANE	0.4
LOCATION	SEC 16, T10S, R18E	N-PENTANE	0.4
OWNER	PENDRAGON ENERGY PARTNERS, INC	ISOPENTANE	0.2
COMPLETED	010511	CYCLOPENTANE	--
SAMPLED	050619	HEXANES PLUS	0.6
FORMATION	EOCE-GREEN RIVER	NITROGEN	4.1
GEOLOGIC PROVINCE CODE	575	OXYGEN	--
TRUE VERTICAL DEPTH (FT)		ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	0.05
		HEATING VALUE*	1,129
		SPECIFIC GRAVITY	0.677

SAMPLE	21448	COMPONENT, MOLE PCT	
STATE	UTAH	METHANE	76.7
COUNTY	SAN JUAN	ETHANE	10.7
FIELD	WILD STALLION	PROPANE	4.8
WELL NAME	WILD STALLION UNIT 1	N-BUTANE	1.3
API	4303731426	ISOBUTANE	0.6
LOCATION	SEC 33, T36S, R23E	N-PENTANE	0.4
OWNER	D.J. SIMMONS COMPANY	ISOPENTANE	0.3
COMPLETED	880812	CYCLOPENTANE	--
SAMPLED	050428	HEXANES PLUS	0.5
FORMATION	PENN-ISMAY	NITROGEN	4.5
GEOLOGIC PROVINCE CODE	585	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	6308	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG	250	HYDROGEN	0.0
OPEN FLOW, MCFD	65	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.1
		HELIUM	0.02
		HEATING VALUE*	1,199
		SPECIFIC GRAVITY	0.725

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21591	COMPONENT, MOLE PCT	
STATE	WYOMING	METHANE	84.3
COUNTY	SWEETWATER	ETHANE	8.0
FIELD	ARCH	PROPANE	2.8
WELL NAME	ARCH UNIT 62	N-BUTANE	0.6
API	4903705590	ISOBUTANE	0.4
LOCATION	SEC. 15, T19N, R99W	N-PENTANE	0.3
OWNER	ANADARKO E&P CO., LP.	ISOPENTANE	0.3
COMPLETED	620902	CYCLOPENTANE	--
SAMPLED	070409	HEXANES PLUS	0.6
FORMATION	CRET-ALMOND	NITROGEN	0.2
GEOLOGIC PROVINCE CODE	535	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	4352	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	300	HYDROGEN	0.0
OPEN FLOW, MCFD	140	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	2.4
		HELIUM	0.00
		HEATING VALUE*	1,151
		SPECIFIC GRAVITY	0.685

SAMPLE	21498	COMPONENT, MOLE PCT	
STATE	WYOMING	METHANE	89.9
COUNTY	FREMONT	ETHANE	4.4
FIELD	BEAVER CREEK	PROPANE	1.9
WELL NAME	BEAVER CREEK UNIT 196	N-BUTANE	0.6
API	4901322094	ISOBUTANE	0.3
LOCATION	SEC 22, T34N, R96W	N-PENTANE	0.2
OWNER	DEVON ENERGY PRODUCTION	ISOPENTANE	0.2
COMPLETED	040313	CYCLOPENTANE	--
SAMPLED	050902	HEXANES PLUS	0.3
FORMATION	CRET-SHANNON	NITROGEN	2.1
GEOLOGIC PROVINCE CODE	530	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	5700	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG	325	HYDROGEN	0.0
OPEN FLOW, MCFD	385	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.0
		HELIUM	0.02
		HEATING VALUE*	1,096
		SPECIFIC GRAVITY	0.631

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21463	COMPONENT, MOLE PCT	
STATE	WYOMING	METHANE	80.3
COUNTY	SUBLETTE	ETHANE	8.2
FIELD	BIG PINEY	PROPANE	4.1
WELL NAME	S 72-28	N-BUTANE	0.9
API	4903523213	ISOBUTANE	0.5
LOCATION	SEC 28, T30N, R113W	N-PENTANE	0.3
OWNER	EOG RESOURCES, INC.	ISOPENTANE	0.4
COMPLETED	041014	CYCLOPENTANE	--
SAMPLED	050616	HEXANES PLUS	0.4
FORMATION	PALE-TRANSITION ZONE	NITROGEN	3.5
GEOLOGIC PROVINCE CODE	535	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	3416	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	571	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.3
		HELIUM	0.10
		HEATING VALUE*	1,151
		SPECIFIC GRAVITY	0.702

SAMPLE	21047	COMPONENT, MOLE PCT	
STATE	WYOMING	METHANE	89.3
COUNTY	LINCOLN	ETHANE	5.7
FIELD	BIRD CANYON	PROPANE	2.4
WELL NAME	HAUN FEDERAL NO. 20-5	N-BUTANE	0.6
API	4902320553	ISOBUTANE	0.4
LOCATION	SEC. 5, T26N, R111W	N-PENTANE	0.1
OWNER	ENCANA OIL & GAS (USA), INC.	ISOPENTANE	0.2
COMPLETED	000821	CYCLOPENTANE	--
SAMPLED	021010	HEXANES PLUS	0.4
FORMATION	CRET-BEAR RIVER & DAKOTA	NITROGEN	0.5
GEOLOGIC PROVINCE CODE	535	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	9031	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	TRACE
OPEN FLOW, MCFD	184	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.4
		HELIUM	0.04
		HEATING VALUE*	1,129
		SPECIFIC GRAVITY	0.64

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21046	COMPONENT, MOLE PCT	
STATE	WYOMING	METHANE	84.6
COUNTY	SWEETWATER	ETHANE	6.9
FIELD	BLUE FOREST	PROPANE	4.3
WELL NAME	FEDERAL NO. 12-4	N-BUTANE	1.2
API	4903723536	ISOBUTANE	0.7
LOCATION	SEC. 4, T24N, R110W	N-PENTANE	0.2
OWNER	ENCANA OIL & GAS (USA), INC.	ISOPENTANE	0.3
COMPLETED	950907	CYCLOPENTANE	--
SAMPLED	021010	HEXANES PLUS	0.3
FORMATION	CRET-MUDDY	NITROGEN	0.9
GEOLOGIC PROVINCE CODE	535	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	11326	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	183	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.6
		HELIUM	0.06
		HEATING VALUE*	1,183
		SPECIFIC GRAVITY	0.683

SAMPLE	21491	COMPONENT, MOLE PCT	
STATE	WYOMING	METHANE	93.6
COUNTY	SWEETWATER	ETHANE	1.8
FIELD	BRADY	PROPANE	0.4
WELL NAME	NORTH COOPER RIDGE UNIT 9-4	N-BUTANE	0.1
API	4903725607	ISOBUTANE	0.3
LOCATION	SEC 9, T17N, R100W	N-PENTANE	0.1
OWNER	ANADARKO E&P CO. LP	ISOPENTANE	0.1
COMPLETED	031012	CYCLOPENTANE	--
SAMPLED	050718	HEXANES PLUS	0.1
FORMATION	CRET-ALMOND COAL	NITROGEN	2.7
GEOLOGIC PROVINCE CODE	535	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	3201	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	800	HYDROGEN	0.0
OPEN FLOW, MCFD	211	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.9
		HELIUM	0.01
		HEATING VALUE*	1,010
		SPECIFIC GRAVITY	0.596

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. – SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21577	COMPONENT, MOLE PCT	
STATE	WYOMING	METHANE	93.5
COUNTY	SWEETWATER	ETHANE	2.5
FIELD	CEDAR BREAKS	PROPANE	0.4
WELL NAME	CEDAR CHEST UNIT 7-5	N-BUTANE	0.1
API	4903724260	ISOBUTANE	0.1
LOCATION	SEC 5, T13N, R94W	N-PENTANE	TRACE
OWNER	EOG RESOURCES, INC.	ISOPENTANE	TRACE
COMPLETED	000715	CYCLOPENTANE	--
SAMPLED	061116	HEXANES PLUS	TRACE
FORMATION	CRET-ALMOND	NITROGEN	0.2
GEOLOGIC PROVINCE CODE	535	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	12470	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	1500	HYDROGEN	0.0
OPEN FLOW, MCFD	5034	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	3.1
		HELIUM	0.00
		HEATING VALUE*	1,009
		SPECIFIC GRAVITY	0.605

SAMPLE	21531	COMPONENT, MOLE PCT	
STATE	WYOMING	METHANE	77.9
COUNTY	SWEETWATER	ETHANE	8.8
FIELD	FREWEN	PROPANE	5.3
WELL NAME	FREWEN UNIT 16	N-BUTANE	1.2
API	4903724438	ISOBUTANE	1.3
LOCATION	SEC 16, T19N R94W	N-PENTANE	0.3
OWNER	BP AMERICA PRODUCTION CO.	ISOPENTANE	0.4
COMPLETED	001214	CYCLOPENTANE	--
SAMPLED	060530	HEXANES PLUS	0.5
FORMATION	CRET-MESAVERDE	NITROGEN	0.6
GEOLOGIC PROVINCE CODE	535	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	9926	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	1800	HYDROGEN	0.0
OPEN FLOW, MCFD	180	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	3.6
		HELIUM	0.01
		HEATING VALUE*	1,214
		SPECIFIC GRAVITY	0.748

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21044	COMPONENT, MOLE PCT	
STATE	WYOMING	METHANE	92.9
COUNTY	SWEETWATER	ETHANE	4.6
FIELD	MESA	PROPANE	0.9
WELL NAME	MESA FEDERAL NO. 10-30	N-BUTANE	0.1
API	4903723307	ISOBUTANE	0.1
LOCATION	SEC. 30, T24N, R110W	N-PENTANE	TRACE
OWNER	ENCANA OIL & GAS (USA), INC.	ISOPENTANE	TRACE
COMPLETED	940717	CYCLOPENTANE	--
SAMPLED	021010	HEXANES PLUS	0.1
FORMATION	CRET-FRONTIER	NITROGEN	0.4
GEOLOGIC PROVINCE CODE	535	OXYGEN	0.0
TRUE VERTICAL DEPTH (FT)	10230	ARGON	0.0
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	1210	HYDROGEN	0.0
OPEN FLOW, MCFD	2815	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.7
		HELIUM	0.02
		HEATING VALUE*	1,063
		SPECIFIC GRAVITY	0.602

SAMPLE	21668	COMPONENT, MOLE PCT	
STATE	WYOMING	METHANE	84.2
COUNTY	LINCOLN	ETHANE	9.7
FIELD	OPAL	PROPANE	3.0
WELL NAME	OPAL 4-21	N-BUTANE	0.6
API	4902305070	ISOBUTANE	0.5
LOCATION	SEC 21, T22N, R112W	N-PENTANE	0.1
OWNER	EOG RESOURCES, INC.	ISOPENTANE	0.2
COMPLETED	021221	CYCLOPENTANE	--
SAMPLED	070913	HEXANES PLUS	0.2
FORMATION	CRET-FRONTIER	NITROGEN	0.9
GEOLOGIC PROVINCE CODE	535	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	10749	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG	1800	HYDROGEN	0.0
OPEN FLOW, MCFD	150	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.6
		HELIUM	0.01
		HEATING VALUE*	1,156
		SPECIFIC GRAVITY	0.666

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	50625	COMPONENT, MOLE PCT	
STATE	WYOMING	METHANE	80.0
COUNTY	LINCOLN	ETHANE	11.4
FIELD	OPAL BENCH	PROPANE	4.0
WELL NAME	OPAL BENCH UNIT 27-1	N-BUTANE	0.8
API	4902321358	ISOBUTANE	0.9
LOCATION	SEC 27, T22N, R113W	N-PENTANE	0.2
OWNER	CHEVRON USA, INC.	ISOPENTANE	0.3
COMPLETED	970907	CYCLOPENTANE	--
SAMPLED	061200	HEXANES PLUS	0.3
FORMATION	CRET-DAKOTA	NITROGEN	1.2
GEOLOGIC PROVINCE CODE	535	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	12132	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	---
WELLHEAD PRESSURE, PSIG	540	HYDROGEN	--
OPEN FLOW, MCFD	810	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.8
		HELIUM	0.00
		HEATING VALUE*	1,211
		SPECIFIC GRAVITY	0.706

SAMPLE	21609	COMPONENT, MOLE PCT	
STATE	WYOMING	METHANE	87.8
COUNTY	PARK	ETHANE	7.2
FIELD	OREGON BASIN SE	PROPANE	1.4
WELL NAME	BADGER CREEK USA 5277 2-24	N-BUTANE	0.3
API	4902921289	ISOBUTANE	0.4
LOCATION	SEC 24, T50N, R100W	N-PENTANE	0.1
OWNER	SAGA PETROLEUM, LLC.	ISOPENTANE	0.1
COMPLETED	840126	CYCLOPENTANE	--
SAMPLED	070701	HEXANES PLUS	0.2
FORMATION	CRET-FRONTIER	NITROGEN	1.1
GEOLOGIC PROVINCE CODE	520	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	4956	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	120	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	1.3
		HELIUM	0.02
		HEATING VALUE*	1,092
		SPECIFIC GRAVITY	0.639

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21574	COMPONENT, MOLE PCT	
STATE	WYOMING	METHANE	18.2
COUNTY	SUBLETTE	ETHANE	TRACE
FIELD	RILEY RIDGE UNIT	PROPANE	0.0
WELL NAME	RILEY RIDGE FEDERAL 10-14	N-BUTANE	0.0
API	4903520603	ISOBUTANE	TRACE
LOCATION	SEC 10, T29N, R114W	N-PENTANE	0.0
OWNER	WOLD OIL PROPERTIES	ISOPENTANE	0.0
COMPLETED	810630	CYCLOPENTANE	--
SAMPLED	061026	HEXANES PLUS	TRACE
FORMATION	MISS-MADISON	NITROGEN	10.8
GEOLOGIC PROVINCE CODE	535	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	15337	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG	530	HYDROGEN	TRACE
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	4.8
		CARBON DIOXIDE	65.6
		HELIUM	0.48
		HEATING VALUE*	216
		SPECIFIC GRAVITY	1.261

SAMPLE	21576	COMPONENT, MOLE PCT	
STATE	WYOMING	METHANE	20.2
COUNTY	SUBLETTE	ETHANE	TRACE
FIELD	RILEY RIDGE UNIT	PROPANE	0.0
WELL NAME	RILEY RIDGE FEDERAL 8-24 (END OF FLOW)	N-BUTANE	0.0
API	4903520537	ISOBUTANE	TRACE
LOCATION	SEC 8, T29N, R114W	N-PENTANE	0.0
OWNER	WOLD OIL PROPERTIES	ISOPENTANE	0.0
COMPLETED	800924	CYCLOPENTANE	--
SAMPLED	060820	HEXANES PLUS	TRACE
FORMATION	MISS-MADISON	NITROGEN	7.1
GEOLOGIC PROVINCE CODE	535	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	15120	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.3
OPEN FLOW, MCFD	12300	HYDROGEN SULFIDE**	5.2
		CARBON DIOXIDE	66.7
		HELIUM	0.49
		HEATING VALUE*	239
		SPECIFIC GRAVITY	1.257

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21575	COMPONENT, MOLE PCT	
STATE	WYOMING	METHANE	20.7
COUNTY	SUBLETTE	ETHANE	TRACE
FIELD	RILEY RIDGE UNIT	PROPANE	0.0
WELL NAME	RILEY RIDGE FEDERAL 8-24 (1ST SAMPLE)	N-BUTANE	0.0
API	4903520537	ISOBUTANE	TRACE
LOCATION	SEC 8, T29N, R114W	N-PENTANE	0.0
OWNER	WOLD OIL PROPERTIES	ISOPENTANE	0.0
COMPLETED	800924	CYCLOPENTANE	--
SAMPLED	060820	HEXANES PLUS	TRACE
FORMATION	MISS-MADISON	NITROGEN	7.3
GEOLOGIC PROVINCE CODE	535	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	15120	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	2.5
OPEN FLOW, MCFD	12300	HYDROGEN SULFIDE**	0.7
		CARBON DIOXIDE	68.3
		HELIUM	0.50
		HEATING VALUE*	223
		SPECIFIC GRAVITY	1.234

SAMPLE	21568	COMPONENT, MOLE PCT	
STATE	WYOMING	METHANE	17.2
COUNTY	SUBLETTE	ETHANE	TRACE
FIELD	RILEY RIDGE UNIT	PROPANE	0.0
WELL NAME	RILEY RIDGE FEDERAL 10-14	N-BUTANE	0.0
API	4903520603	ISOBUTANE	0.1
LOCATION	SEC 10, T29N, R114W	N-PENTANE	0.0
OWNER	WOLD OIL PROPERTIES	ISOPENTANE	0.0
COMPLETED	810630	CYCLOPENTANE	--
SAMPLED	060924	HEXANES PLUS	TRACE
FORMATION	MISS-MADISON	NITROGEN	7.3
GEOLOGIC PROVINCE CODE	535	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	15762	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG	660	HYDROGEN	0.2
OPEN FLOW, MCFD		HYDROGEN SULFIDE**	1.3
		CARBON DIOXIDE	73.3
		HELIUM	0.53
		HEATING VALUE*	188
		SPECIFIC GRAVITY	1.3

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21629	COMPONENT, MOLE PCT	
STATE	WYOMING	METHANE	88.3
COUNTY	CARBON	ETHANE	5.6
FIELD	ROBBERS GULCH	PROPANE	1.4
WELL NAME	HANGOUT RIDGE 5-25-14-93	N-BUTANE	0.3
API	4900722633	ISOBUTANE	0.3
LOCATION	SEC 25, T14N, R93W	N-PENTANE	0.1
OWNER	DEVON ENERGY PRODUCTION CO., LP.	ISOPENTANE	0.1
COMPLETED	051122	CYCLOPENTANE	--
SAMPLED	070717	HEXANES PLUS	0.2
FORMATION	CRET-MESAVERDE	NITROGEN	0.4
GEOLOGIC PROVINCE CODE	535	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	11048	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	800	HYDROGEN	0.0
OPEN FLOW, MCFD	1050	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	3.3
		HELIUM	0.00
		HEATING VALUE*	1,065
		SPECIFIC GRAVITY	0.646

SAMPLE	21636	COMPONENT, MOLE PCT	
STATE	WYOMING	METHANE	83.2
COUNTY	CARBON	ETHANE	6.1
FIELD	ROBBERS GULCH	PROPANE	2.1
WELL NAME	ROBBERS GULCH 5-23-14-92	N-BUTANE	0.5
API	4900722348	ISOBUTANE	0.5
LOCATION	SEC 23, T14N, R92W	N-PENTANE	0.2
OWNER	DEVON ENERGY PRODUCTION CO., LP.	ISOPENTANE	0.2
COMPLETED	031003	CYCLOPENTANE	--
SAMPLED	070717	HEXANES PLUS	0.3
FORMATION	CRET-MESAVERDE	NITROGEN	4.0
GEOLOGIC PROVINCE CODE	535	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	8818	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	TRACE
WELLHEAD PRESSURE, PSIG	650	HYDROGEN	0.0
OPEN FLOW, MCFD	360	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	2.9
		HELIUM	0.00
		HEATING VALUE*	1,064
		SPECIFIC GRAVITY	0.677

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

TABLE 1. - SAMPLES FROM GAS AND OIL WELLS IN THE UNITED STATES

SAMPLE	21610	COMPONENT, MOLE PCT	
STATE	WYOMING	METHANE	88.8
COUNTY	LINCOLN	ETHANE	5.9
FIELD	ROCKING CHAIR	PROPANE	2.2
WELL NAME	HYRUM DITCH 11X-26	N-BUTANE	0.5
API	4902320342	ISOBUTANE	0.4
LOCATION	SEC 26, T26N, R113W	N-PENTANE	0.1
OWNER	XTO ENERGY, INC.	ISOPENTANE	0.2
COMPLETED	791127	CYCLOPENTANE	--
SAMPLED	070710	HEXANES PLUS	0.2
FORMATION	CRET-FRONTIER U 1 & 2	NITROGEN	1.3
GEOLOGIC PROVINCE CODE	535	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	7971	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG	900	HYDROGEN	0.0
OPEN FLOW, MCFD	62	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	0.2
		HELIUM	0.02
		HEATING VALUE*	1,112
		SPECIFIC GRAVITY	0.637

SAMPLE	21529	COMPONENT, MOLE PCT	
STATE	WYOMING	METHANE	94.7
COUNTY	CAMPBELL	ETHANE	TRACE
FIELD	WAGENSEN	PROPANE	0.0
WELL NAME	EAGLE 31-30 (FIELD COMPOSITE)	N-BUTANE	0.0
API	4900539756	ISOBUTANE	0.0
LOCATION	SEC 30, T46N, R71W	N-PENTANE	0.0
OWNER	DUNCAN OIL, INC.	ISOPENTANE	0.0
COMPLETED	000605	CYCLOPENTANE	--
SAMPLED	060523	HEXANES PLUS	0.0
FORMATION	PALE-WYODAK COAL	NITROGEN	1.4
GEOLOGIC PROVINCE CODE	515	OXYGEN	--
TRUE VERTICAL DEPTH (FT)	388	ARGON	--
MEASURED DEPTH		ARGON + OXYGEN	0.1
WELLHEAD PRESSURE, PSIG		HYDROGEN	0.0
OPEN FLOW, MCFD	19	HYDROGEN SULFIDE**	0.0
		CARBON DIOXIDE	3.9
		HELIUM	0.00
		HEATING VALUE*	959
		SPECIFIC GRAVITY	0.598

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY
** DUE TO THE ABSORPTION OF H2S DURING SAMPLING, THE REPORTED RESULTS MAY NOT BE RELIABLE

Table 2

Samples from Natural Gas Pipelines in the United States

TABLE 2. - SAMPLES FROM PIPELINES IN THE UNITED STATES

SAMPLE	21123	COMPONENT, MOLE PCT	
STATE	NEW MEXICO	METHANE	85.4
COUNTY	SAN JUAN	ETHANE	7.1
FIELD		PROPANE	3.3
PLANT	SAN JUAN GAS PLANT	N-BUTANE	0.9
LOCATION	TOTAL INLET-SAN JUAN	ISOBUTANE	0.6
OWNER	CONOCOPHILLIPS CO.	N-PENTANE	0.2
SAMPLED	021204	ISOPENTANE	0.3
FORMATION	-	CYCLOPENTANE	--
GEOLOGIC PROVINCE CODE	580	HEXANES PLUS	0.4
PRESSURE, PSIG	888	NITROGEN	0.3
FLOW, MCFD	522000	OXYGEN	0.0
		ARGON	0.0
		ARGON + OXYGEN	---
		HYDROGEN	0.0
		HYDROGEN SULFIDE	0.0
		CARBON DIOXIDE	1.4
		HELIUM	0.05
		HEATING VALUE*	1,162
		SPECIFIC GRAVITY	0.676

* CALCULATED GROSS BTU PER CU FT, DRY, AT 60 DEGREES FAHRENHEIT AND 30 INCHES OF MERCURY

Previous Publications in the Helium Survey Series

1. Anderson, C.C., and H.H. Hinson. Helium-Bearing Natural Gases of the United States. Analyses and Analytical Methods. BuMines Bulletin 486, 1951, 141 pp.

2. Boone, W.J., Jr. Helium-Bearing Natural Gases of the United States. Analyses and Analytical Methods. Supplement to Bulletin 486. BuMines Bulletin 576, 1958, 117pp.

3. Munnerlyn, R.D., and R.D. Miller. Helium-Bearing Natural Gases of the United States: Analyses. Second Supplement to Bulletin 486. BuMines Bulletin 617, 1963, 93pp.

4. Miller, R.D., and G.P. Norrell. Analyses of Natural Gases of the United States, 1961. BuMines IC 8221, 1964, 148 pp.

5. ___. Analyses of Natural Gases of the United States, 1962. BuMines IC 8239, 1964, 120 pp.

6. ___. Analyses of Natural Gases of the United States, 1963. BuMines IC 8241, 1965, 102 pp.

7. Moore, B.J., R.D. Miller, and R.D. Shrewsbury. Analyses of Natural Gases of the United States, 1964. BuMines IC 8302, 1966, 144 pp.

8. Moore, B.J., and R.D. Shrewsbury. Analyses of Natural Gases of the United States, 1965. BuMines IC 8316, 1966, 181 pp.

9. ___. Analyses of Natural Gases, 1966. BuMines IC 8356, 1967, 130 pp.

10. ___. Analyses of Natural Gases, 1967. BuMines IC 8395, 1968, 187 pp.

11. Cardwell, L.E., and L.F. Benton. Analyses of Natural Gases, 1968. BuMines IC 8443, 1970, 169 pp.

12. ___. Analyses of Natural Gases, 1969. BuMines IC 8475, 1970, 134 pp.

13. ___. Analyses of Natural Gases, 1970. BuMines IC 8518, 1971, 130 pp.

14. ___. Analyses of Natural Gases, 1971. BuMines IC 8554, 1972, 163 pp.

15. ___. Analyses of Natural Gases, 1972. BuMines IC 8607, 1973, 104 pp.
16. Moore, B.J. Analyses of Natural Gases, 1973. BuMines IC 8658, 1974, 96 pp.

17. ___. Analyses of Natural Gases, 1974. BuMines IC 8684, 1975, 122 pp.

18. ___. Analyses of Natural Gases, 1917–74. BuMines CP 1-76, 1976, 889 pp.; NTIS PB 251-202.

19. ___. Analyses of Natural Gases, 1975. BuMines IC 8717, 1976, 82 pp.

20. ___. Analyses of Natural Gases, 1976. BuMines IC 8749, 1977, 94 pp.

21. ___. Analyses of Natural Gases, 1977. BuMines IC 8780, 1978, 95 pp.

22. ___. Analyses of Natural Gases, 1978. BuMines IC 8810, 1979, 113 pp.

23. ___. Analyses of Natural Gases, 1979. BuMines IC 8833, 1980, 100 pp.

24. ___. Analyses of Natural Gases, 1980. BuMines IC 8856, 1981, 236 pp.

25. ___. Analyses of Natural Gases, 1917–80. BuMines IC 8870, 1982, 1055 pp.

26. Miller, R.D., and F.R. Hertweck, Jr. Analyses of Natural Gases, 1981. BuMines IC 8890, 1982, 84 pp.

27. ___. Analyses of Natural Gases, 1982. BuMines IC 8942, 1983, 100 pp.

28. Hertweck, F.R., Jr., and D.D. Fox. Analyses of Natural Gases, 1983. BuMines IC 8993, 1984, 127 pp.

29. Moore, B.J., and J.E. Hamak. Analyses of Natural Gases, 1984. BuMines IC9046, 1985, 102 pp.

30. Moore, B.J., and S. Sigler. Analyses of Natural Gases, 1985. BuMines IC9096, 1986, 182 pp.

31. ___. Analyses of Natural Gases, 1917–85. BuMines IC 9129, 1987, 1197 pp.

32. ___. Analyses of Natural Gases, 1986. BuMines IC 9167, 1988, 101 pp.

33. ___. Analyses of Natural Gases, 1987. BuMines IC 9188, 1988, 74 pp.

34. Hamak, J.E., and S. Sigler. Analyses of Natural Gases, 1988. BuMines IC9225, 1989, 66 pp.

35. ___. Analyses of Natural Gases, 1989. BuMines IC 9256, 1990, 60 pp.

36. ___. Analyses of Natural Gases, 1990. BuMines IC 9290, 1991, 56 pp.

37. ___. Analyses of Natural Gases, 1986-1990. BuMines IC 9301, 1991, 315 pp.

38. Hamak, J.E., and B.D. Gage. Analyses of Natural Gases, 1991. BuMines IC9318, 1992, 97 pp.

39. Hamak, J.E., and Stella M. Sigler. Analyses of Natural Gases, 1992. BuMines IC 9356, 1993, 62 pp.

40. Sigler, Stella M. Analyses of Natural Gases, 1993. BuMines IC 9400, 1994, 58 pp.

41. Hamak, J.E., and D.L. Driskill. Analyses of Natural Gases, 1994–95. Bureau of Land Management, Technical Note 399, 1996, 68 pp.

42. Gage, B.D., and D.L. Driskill. Analyses of Natural Gases, 1996–1997. Bureau of Land Management, Technical Note 404, 1998, 71 pp.

43. Gage, B.D., and D.L. Driskill. Analyses of Natural Gases, 1998–2001. Bureau of Land Management, Technical Note 412, 2003, 173 pp.

44. Gage, B.D., and D.L. Driskill. Analyses of Natural Gases, 2002–2004. Bureau of Land Management, Technical Note 418, 2005, 246 pp.