American Petroleum Institute

Refinery Stream Speciation

REGULATORY ANALYSIS AND SCIENTIFIC AFFAIRS
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REFINERY STREAM SPECIATION

PERF
COOPERATIVE AIR PROGRAM
PROJECT 94-05-06

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EXECUTIVE SUMMARY

This report contains the results of a study to determine the range of compositions for a number of compounds in typical refinery process streams. Data representing 31 refineries, over 20 processes, and over 50 process streams was contributed by the project participants: Amoco, Arco, BP, Chevron, Exxon, Mobil, Shell and Texaco. **The results of this project will be of use in estimating the emissions of specific compounds, in preparing permit applications and in other environmental control activities. Neither the Petroleum Environmental Research Forum (PERF) or the project participants make any claims as to the suitability or acceptability of the stream composition data reported herein for specific reporting or regulatory purposes.**

This project was undertaken to provide an improved database for determining the composition and estimating the emissions of 24 regulated compounds from typical refinery process streams. Some of these compounds are included in the 1990 Clean Air Act Amendments Title III List of Hazardous Air Pollutants and the others are among those compounds to be regulated under the Accidental Release provisions of Title III. The results presented in this report represent a larger quantity of data than that available to any of the participant individually and will, therefore, result in improved emission estimates and a better understanding of the variability in process stream compositions.

Concentrations of specific compounds are presented both in tabular form and graphically. For each process unit and stream, the data include the minimum, maximum and most likely concentrations for each compound. A second listing presents the data by compound so that potential emission sources can be more easily identified and evaluated. The data are presented graphically by process unit and stream, showing all of the data and the most likely value for each compound. This graphical presentation illustrates the large degree of variability of much of the data. Details of the data collection, review and analysis procedures are also included in the report.

Operations within a refinery are primarily monitored and controlled based on physical properties such as temperature rather than by process stream concentrations of specific compounds. Thus, the range of compositions in a specific process stream may vary widely depending on the particular crude oil, product slate, processing severity, and other factors. The range of the process stream concentration values for a specific compound should be considered in application of the means and most likely values provided in this report.

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INTRODUCTION AND BACKGROUND

Passage of the Clean Air Act Amendments of 1990 created a number of new compliance challenges for the U.S. petroleum industry. In order to provide improved approaches to meeting these challenges, and to allow leveraging of research expenditures, a number of the members of the Petroleum Environmental Research Forum (PERF) formed the Cooperative Air Program (CAP). The CAP consists of a number of individual research projects in twelve areas including emissions monitoring, dispersion modeling, VOC and NOx emission control, pollution prevention and others. Refinery stream speciation is one of the CAP project areas.

The objective of the refinery stream speciation project was to develop industry representative concentration profiles for process streams. Reasons for undertaking this activity included the desire for improved emissions estimates for determination of regulatory applicability, operating permit preparation and compliance, and risk assessment determinations. There was concern that the previously available speciation data was not representative of averages or the ranges of specific compounds in current refinery operations.

The refinery stream speciation profiles presented in this document were developed from stream sampling conducted by each of the participating companies: Amoco, Arco, BP, Chevron, Exxon, Mobil, Shell and Texaco. The identities of specific companies and refineries are coded in the raw data listing for confidentiality. Each company representative provided guidance on the program scope and objectives, the data collection effort, the data analysis procedures, and the reporting of final results.

The results of this report are based on analyses from 31 refineries, over 20 units, and over 50 process streams. One of the most significant observations is the wide range of the reported concentrations for some of the compounds. This is believed to be a result of the way crude oil is converted into useful products and how refinery process units operate. These process units usually monitor and control operations based on physical properties such as temperature rather than by the concentrations of specific compounds. Thus, the range of compositions in a specific process stream may vary widely depending on the particular crude oil, product slate, processing severity, and other factors. This range of process stream concentration should be considered in application of the means and most likely values provided in this report.

This report is divided into a number of sections which describe the data collection and analysis procedures, contain tables of stream compositions and the raw data, and provide a graphical presentation of the data.

Section 3 provides a summary of the data collection and analysis effort.

Section 4 contains a listing of the process units and streams, simplified flow diagrams, and the compounds included in the study.

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Section 5 presents the stream composition data in tabular form. First, for each process unit and stream, the minimum, maximum and most likely values of the concentration of each compound are presented. This is followed by a table listing the data by compound. A third table provides additional statistical information from the analysis.

Section 6 is a listing of the raw data. Participating companies have been provided with an electronic version of this spreadsheet.

Section 7 provides details of the data collection and handling, statistical analysis, and a discussion relating to the analytical sampling.

Section 8 is a graphical presentation of the data by process unit and stream showing all data and the most likely value.

The material contained in this report will be of use in estimating the emissions of specific compounds, in preparing permit applications and in other environmental control activities. Neither PERF or the project participants make any claims as to the suitability or acceptability of the stream composition data reported herein for specific reporting or regulatory purposes.

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Section 3

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PROCEDURES SUMMARY

In order to effectively collect information on stream composition, the participants had to decide on a number of issues prior to collection of data. Process units were selected, a process streams naming convention was developed and a target compound list was agreed upon. These procedures are described in Section 4.

From the agreed upon list of process units, streams and selected species, a Microsoft Excel spreadsheet template was developed and mailed to each participant. Each individual company was responsible for collecting the data from internal sources.

Confidential Company Codes/Data Identification

To ensure confidentiality, a unique alphabet code was assigned to each company. This code was known only to the data project coordinator and the individual company submitting the data. Number suffixes were used to identify individual process units for each company. For example, if company "A" operates 3 refineries with a total of 4 reformers, the data from those units will be identified as A-1, A-2, A-3 and A-4. The data collection template also made provisions for individual refineries to keep track of their own local stream names in addition to the agreed generic convention name so that each site could keep track of their own data, if so desired.

Data Quality Codes

Participants were asked to assign data quality letter codes "A" through "D" in accordance with EPA's "FIRE" rating scheme. A description of these codes is included in Appendix 2 of this report. The data quality ranged from "A" type (tests performed by sound method and reported with enough detail for validation) through "D" type (approximate data or obtained by unknown procedures). A separate code was included for process knowledge or engineering judgement (EJ) estimates.

Reporting Limits

For all the data reported as not detected (ND), participants were asked to provide the actual detection/reporting limit (if known) used by the laboratory. This information on the detection/reporting limit was included in the Excel cell notes as comments on the data collection spreadsheet. For the initial analysis only, the participants agreed to adopt the April 1993 CARB conventions on "Reporting Emissions Derived from Below the Limit of Detection Source Test Results". In this approach, if all occurrences for a given hazardous air pollutant (HAP) in a given stream is ND, zero is used in emissions calculations; if even one occurrence is above ND, then half of the reporting limit value is used in place of all NDs for emissions calculations. Since the data had many sources, was obtained from different methods and the samples had such variable matrices, the reporting limits varied significantly.

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For the final summary data tables and statistics reported in Section 5, a single cutoff value of 0.01% was used as a reporting limit for each species. This approach is discussed in the analytical section in Appendix 2.

Data Compilation and Validation

Once all of the individual data spreadsheets were obtained, the data were combined into a single large spreadsheet, sorted in stream order (all the data for one stream from all companies gathered together), and a preliminary draft data summary as well as all of the coded data were issued for review by the participants. This initial data summary included minimum, maximum, median and averages. The database and summary were provided on diskettes along with guidelines as to how to properly flag corrections. These corrections and questions were returned in diskette form. The corrections and questions were merged into the database and the review process was repeated. There were several iterations of data review/validation.

The validation process included a comparison of each company's HAPs data to the average of all companies' HAPs data for each HAP in a given stream. Each participant also provided comments on the other companies' data.

The data review also included ranking of the data in a scale of 1 to 4 (1=definite inclusion; 4=definite exclusion). Each participant was expected to rank the data. In general, data with a higher quality coding (described in Appendix 2) would rank higher, but visual inspection of consistency and technical judgment was also used.

In some cases, review of the data resulted in elimination of an individual datapoint (one species value) from the spreadsheet as well as removal of a complete data set (all species values for one stream) from the spreadsheet. These types of decisions were made on a case by case basis. Some of the data for streams that were removed from the database were rejected because they were most likely not of the right stream classification.

The participants chose to remove "EJ" type data from the summary table and not to include this type of data in the statistics. The "EJ" type data were only kept in the raw data spreadsheet.

After several such technical reviews, the data were statistically evaluated. The results of this evaluation are included in this report.

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Section 4

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STREAM AND PROCESS DESCRIPTION

SELECTION OF PROCESS UNITS

As previously stated, crude oil is a highly variable complex mixture. Refinery operations are very diverse in terms of processing and conversion units as well as operational variability. The intended use of most refinery intermediates and end products is performance based, not compound specific. Most major refineries have crude distillation units (atmospheric and vacuum), gas plants, conversion units (such as hydrocracking and reforming) and stream/product treating units (caustic, acid and hydrotreating). However, no two refineries operate any of these units in exactly the same way. The process streams are separated into different cuts (boiling ranges) and are routed to other units for further conversion or treating in an integrated refinery. Different companies may have different names for identical processing units. Regardless of how or what the refinery units may be called by any given company for any particular refinery, there are several major units that are common to most major refineries. The PERF participants agreed on the major units that represent the major refinery processes for inclusion in this study. These units are listed in Table 4-1 along with the process stream names chosen. It was agreed to exclude petrochemical and lube production units since these units are not present in all refineries and are even more variable in configuration and operation. The names chosen are the simplest and most common names used at US refineries.

SELECTION OF PROCESS STREAMS AND STREAM NAMING CONVENTION

Before any information could be gathered on stream composition, it was necessary to agree upon a stream naming convention. There are several reasons why this is a very critical step in the data gathering process. Names for the same type of stream from a similar unit may be different from one refinery to the next. For example, the same cut from a crude distillation unit may be called "straight run" naphtha at one location and "virgin" naphtha at another site. A much more difficult problem is the way streams are "cut" or the boiling ranges for the particular stream. A refiner may choose to produce a single stream out of a reformer or may choose to split the reformer output into two boiling ranges. In one case only a "reformate" is produced whereas in another case, there could be a "light" and a "heavy" reformate. These streams can be quite variable in composition with one having significant concentrations of benzene and another with little or no benzene. Additional variability could be encountered depending on the boiling range or carbon number range of the feed to the reformer.

An attempt was made to use the CAS stream identifications that are included in the TSCA inventory of petroleum process streams published by API in 1983. This document lists streams from the process units from which they are derived and are organized in

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descending volatility or ascending order of carbon number. The process streams included in the 1983 API report were those that have been reported to EPA as being in commercial production since 1975. However, it was not possible to use this classification scheme since there were too many narrowly defined streams with overlapping carbon ranges. For example, a reformer stream may not always contain hydrocarbons in the C5 to C11 range or the C4 to C12 range at any one time. These two carbon ranges have different CAS numbers. It would also be very difficult to determine if, when the HAP data was obtained, the particular stream was in the C5 to C11 range or the C4 to C12 range. In some cases there are two streams with the same carbon and boiling range and with two different CAS numbers.

The number of streams for any given unit in the TSCA report is overwhelming and many of the streams should have been combined. There are twenty one liquid streams and thirty eight gas streams listed for the atmospheric distillation unit and fifteen liquid streams listed for the vacuum distillation unit. Refineries do not operate this way and there would be no data available with such narrowly defined and overlapping ranges. The only workable alternative for this PERF project was to simplify the number of streams for any given unit and acknowledge the fact that there would be a range in composition for any given stream.

Even with this simple naming scheme used in this study, some "light" and "heavy" streams could have been combined because in some cases the streams' physical properties may not have been adequately described for the data gatherer to know the exact boiling range of the stream. In addition, some refineries may have just one stream of a given type or may produce "light", "medium", "heavy" and "extra heavy" streams. Placing this type of data in the database added additional variability. The streams included in this report are summarized in Table 5-1 listed under the process units from which they are derived. The corresponding generic refinery streams flow diagrams are included in Figures 1 - 16. Figure 17 is an example of an integrated refinery.

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TABLE 4-1

REFINERY PROCESS UNITS AND STREAM NAMES

From Unit Process Units	Stream Name Process Streams
Supply System	Crude Oil
Atmospheric Distillation	Atmospheric Residue
	Heavy Atmospheric Gas Oil
	Light Atmospheric Gas Oil
	Straight Run Kerosene
	Heavy Naphtha
	Straight Run Naphtha
	Light Ends
Vacuum Distillation	Vacuum Resid
	Heavy Vacuum Gas Oil
	Light Vacuum Gas Oil
	Vacuum Naphtha
Asphalt Plant	Asphalt
	Used Solvent
Visbreaker	Cracked Residue
Resid Hydroprocessing	Hydroprocessed Resid
Coker	Coke
	Coker Gas Oil
	Coker Heavy Naphtha
	Coker Light Naphtha
	Unsaturated Gas
Polymerization	Polymerization Naphtha
	Propane
	Butane
Catalytic Hydrocracker	Heavy Hydrocracked Distillates
	Light Hydrocracked Distillates
	Heavy Hydrocracked Naphtha
	Light Hydrocracked Naphtha
	Saturated Gas
Catalytic Hydrotreater	Catalytic Cracker Feed
Catalytic Cracker	Heavy Cat. Cracked Gas Oil
	Light Cat. Cracked Gas Oil
	Cat. Cracked Gasoline
Cracked Gas Plant	Unsaturated Gas
	Fuel gas
	Sour gas
	Olefins
Hydrodesulfurization	Naphtha
	Jet/Kerosene
	Diesel
	Heating Oil
Alkylation	Alkylate
	Butane
	LPG
Sat. Gas Plant	Sat. gas
Catalytic Isomerization	Isomerization Naphtha
	Isobutane
Spent caustic	Spent caustic
Sulfur Plant	Fuel gas
Sour Water Stripper	Stripped Sour Water
Amine treating	Treated Olefinic
	Sour Gas
Naphtha Pretreating	Desulfurized Naphtha
Catalytic Reformer	Reformate
	Reformate gas
Aromatics Extraction	Benzene
	Toluene
	Xylenes
	Heavy Aromatics
Various Units	Slop Oil
Refined Products:	
Kerosene Treating	Commercial Jet Fuel
Gasoline Blending	Conventional Gasoline
Gasoline Blending	Aviation Gasoline
Gasoline Blending	Reformulated gasoline
Distillate Blending	Diesel Fuel
Distillate Blending	Home Heating Oil
Lube Unit	Solvent-Refined Lubes
Lube Unit	Hydro-Refined Lubes

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SELECTION OF HAPS PERTINENT TO REFINERY OPERATIONS

The Clean Air Act Amendments of 1990 lists 189 compounds as Hazardous Air Pollutants (HAPs). However, many of these compounds such as pesticides, herbicides and halocarbons are not present in crude oil refining. The entire HAPs list was considered by all project members including consultations with refinery operations experts at each company. The short list for data sharing was developed by consensus based on process knowledge and experience. In addition to the eighteen HAPs, there were also six additional compounds added to the list. These additional compounds are of interest for Accidental Release modeling. The HAPs and accidental release compounds included in this study are listed in Table 4-2.

A class of compounds called "Polycyclic Organic Matter" is included as a HAP under the CAA Amendments. Although some compounds that belong to this class are expected to be present in crude oil and some refinery streams and products, the participants opted not to include this type of compounds in this study because POMs are poorly defined in the CAA Amendments and there is virtually no data available as a class or as individual species. In addition, target analytes within that class would have to be identified before any data could be collected.

TABLE 4-2

SELECTION OF HAPs: HAPs that could be found in petroleum and its products

HAPs

1,3-Butadiene	Methyl ethyl ketone
Benzene	Methyl-tert-butylether
Biphenyl	Naphthalene
Cresols	Phenol
Cumene	Styrene
Ethylbenzene	1,2,4-Trimethylbenzene
Ethylene glycol	2,2,4-Trimethylpentane
n-Hexane	Toluene
Methanol	Xylenes

Accidental Releases

Ethane
Ethylene
Propane
Propylene
Butane
Hydrogen Sulfide

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FIGURE 1

ATMOSPHERIC & VACUUM DISTILLATION UNITS

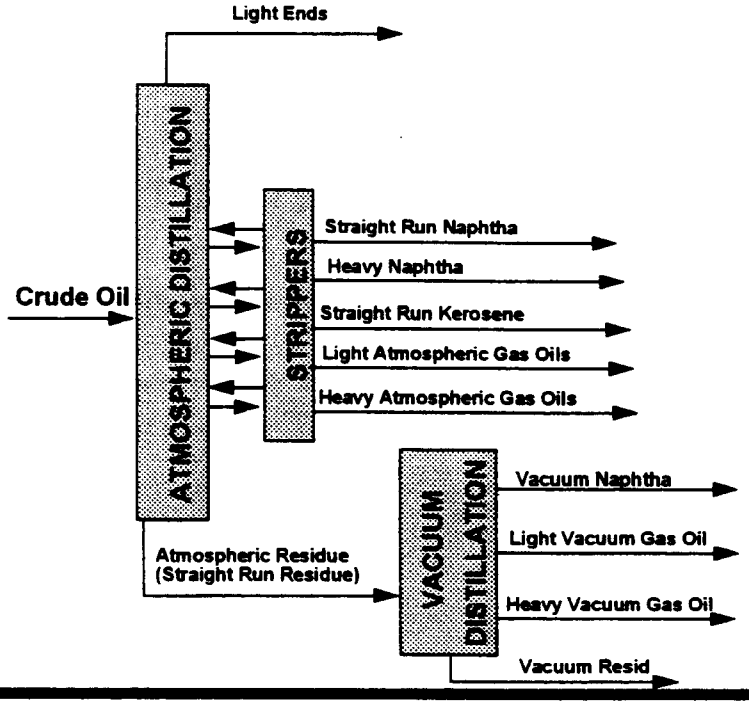

FIGURE 2

ASPHALT PLANT

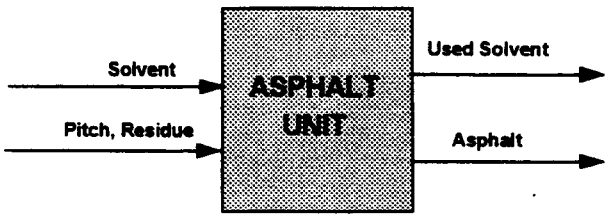

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FIGURE 3

VISBREAKER

Viscosity breaking is a mild cracking operation used to reduce the viscosity of residues. Usually to make MFO (+ Cutter stock)

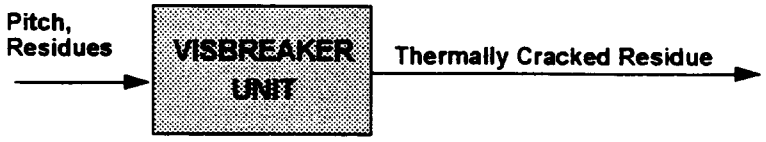

FIGURE 4

RESID HYDROPROCESSING

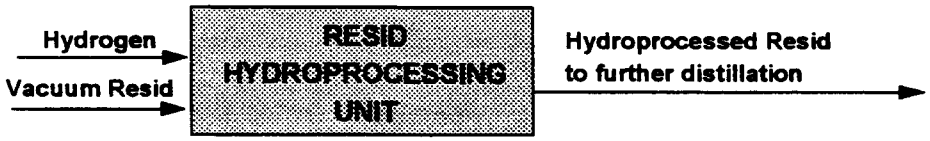

FIGURE 5

COKER

Thermal process for conversion of heavy oils and pitch into lighter products.

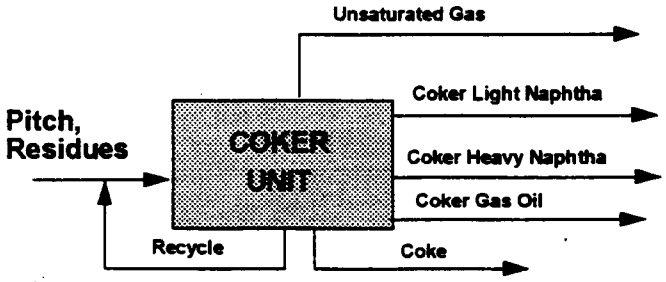

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FIGURE 6

POLYMERIZATION

Conversion of small olefins to longer olefins

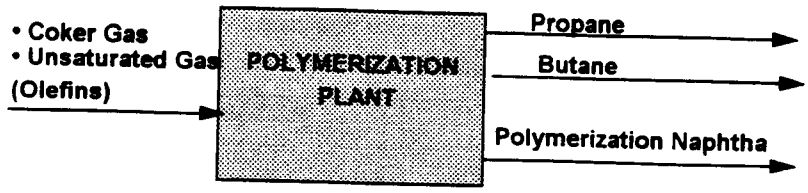

FIGURE 7

CATALYTIC HYDROCRACKING

Large hydrocarbons are converted to smaller saturates.

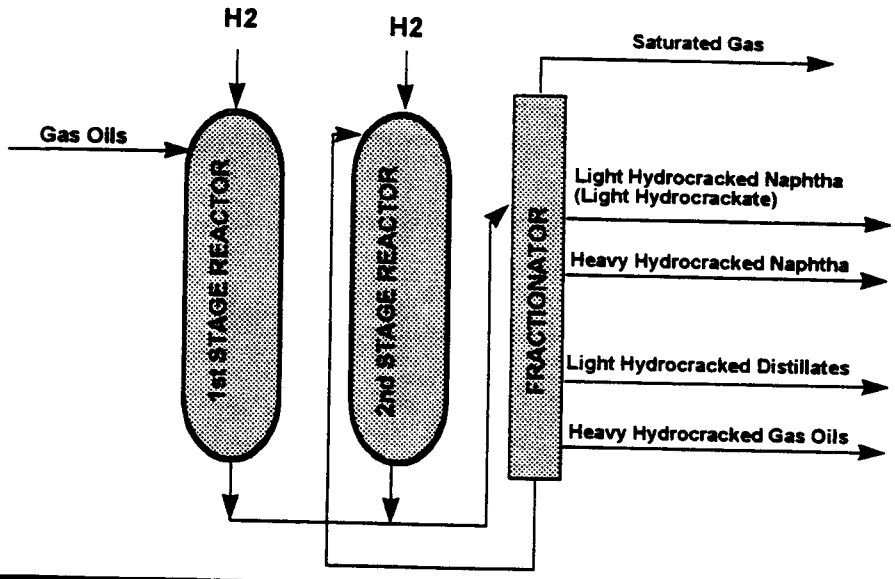

FIGURE 8

CATALYTIC HYDROTREATER

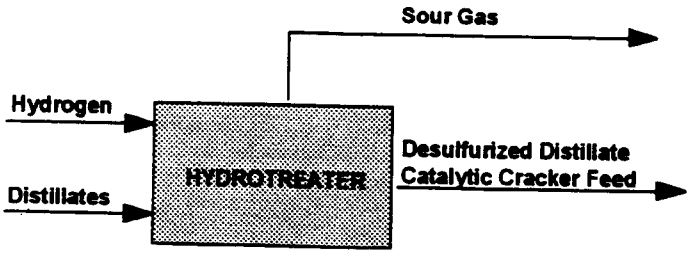

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FIGURE 9
CATALYTIC CRACKER

Highest throughput of the refinery after the crude unit (30-40% basis crude)
Large hydrocarbons are converted to smaller aromatics, olefins isoparaffins, naphthenes.

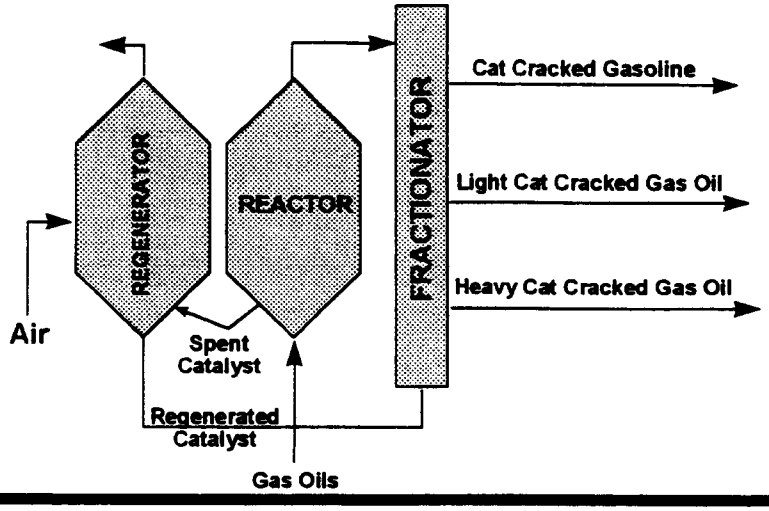

FIGURE 10
CRACKED GAS PLANT

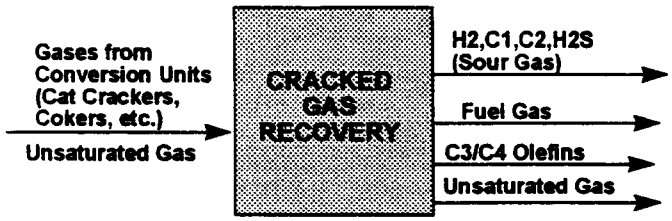

FIGURE 11
HYDRODESULFURIZATION

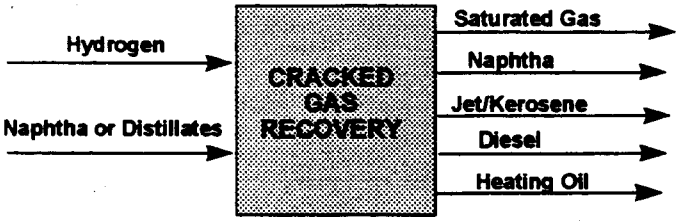

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FIGURE 12

ALKYLATION

The tertiary carbon of an isobutane molecule is joined to the double bond of an olefin molecule in the presence of acid catalyst (HF or H2SO4). Depending on the exact carbon number (3, 4, or 5) and isomer configuration of the olefin molecule, the result is a branched chain isoparaffin of carbon number 7, 8, or 9.

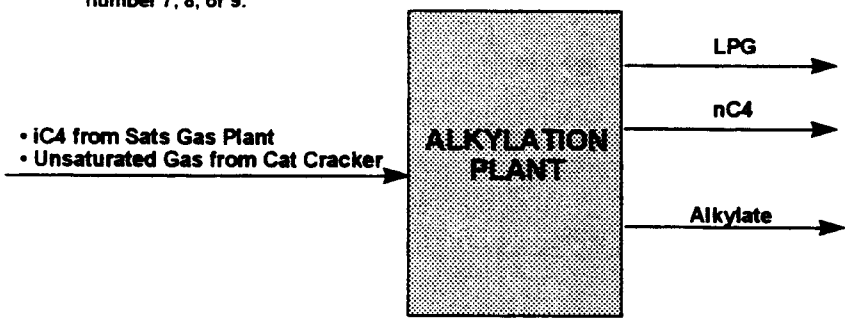

FIGURE 13

SATS GAS PLANT

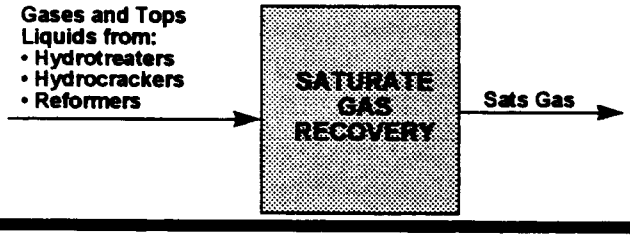

FIGURE 14

CATALYTIC ISOMERIZATION

Conversion of normal paraffins to isoparaffins

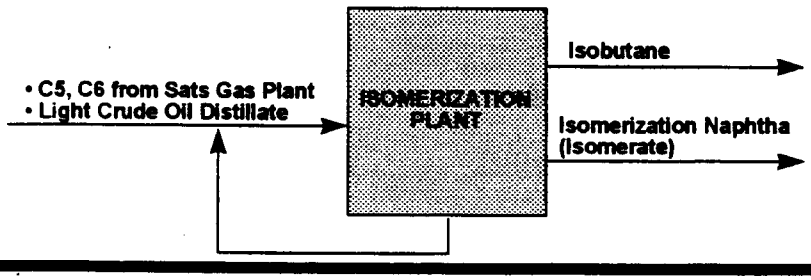

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FIGURE 15

CATALYTIC REFORMER

Conversion of:
- Paraffins to naphthenes and then to aromatics with release of hydrogen
- Paraffins to smaller paraffins (Hydrocracking)

- HDS Light, Heavy & Full Range SR Naphtha
- Light, Heavy & Full Range Hydrocrackate
- HDS Coker Naphtha

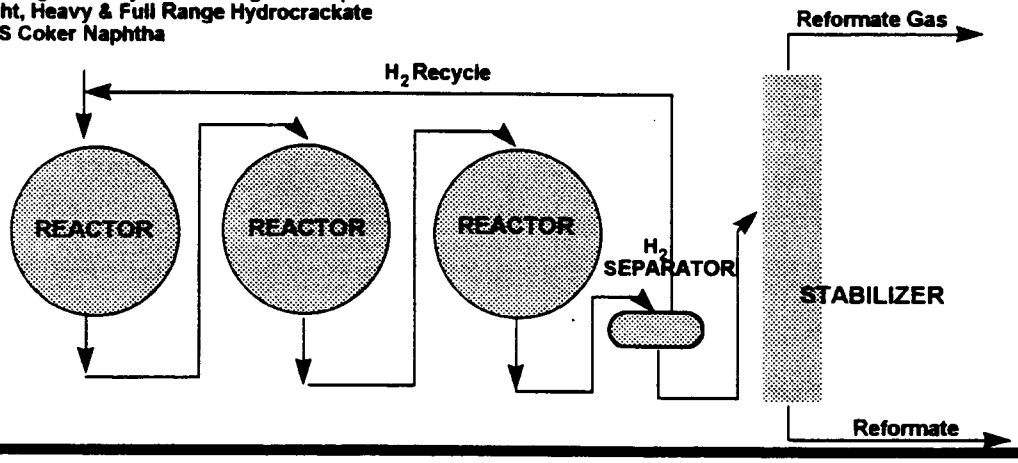

FIGURE 16

AROMATICS EXTRACTION

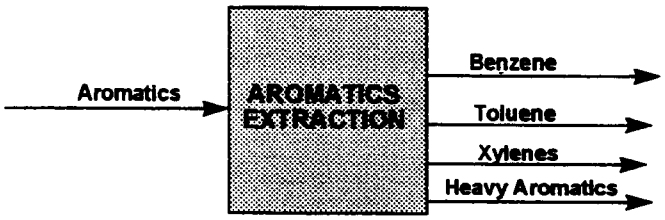

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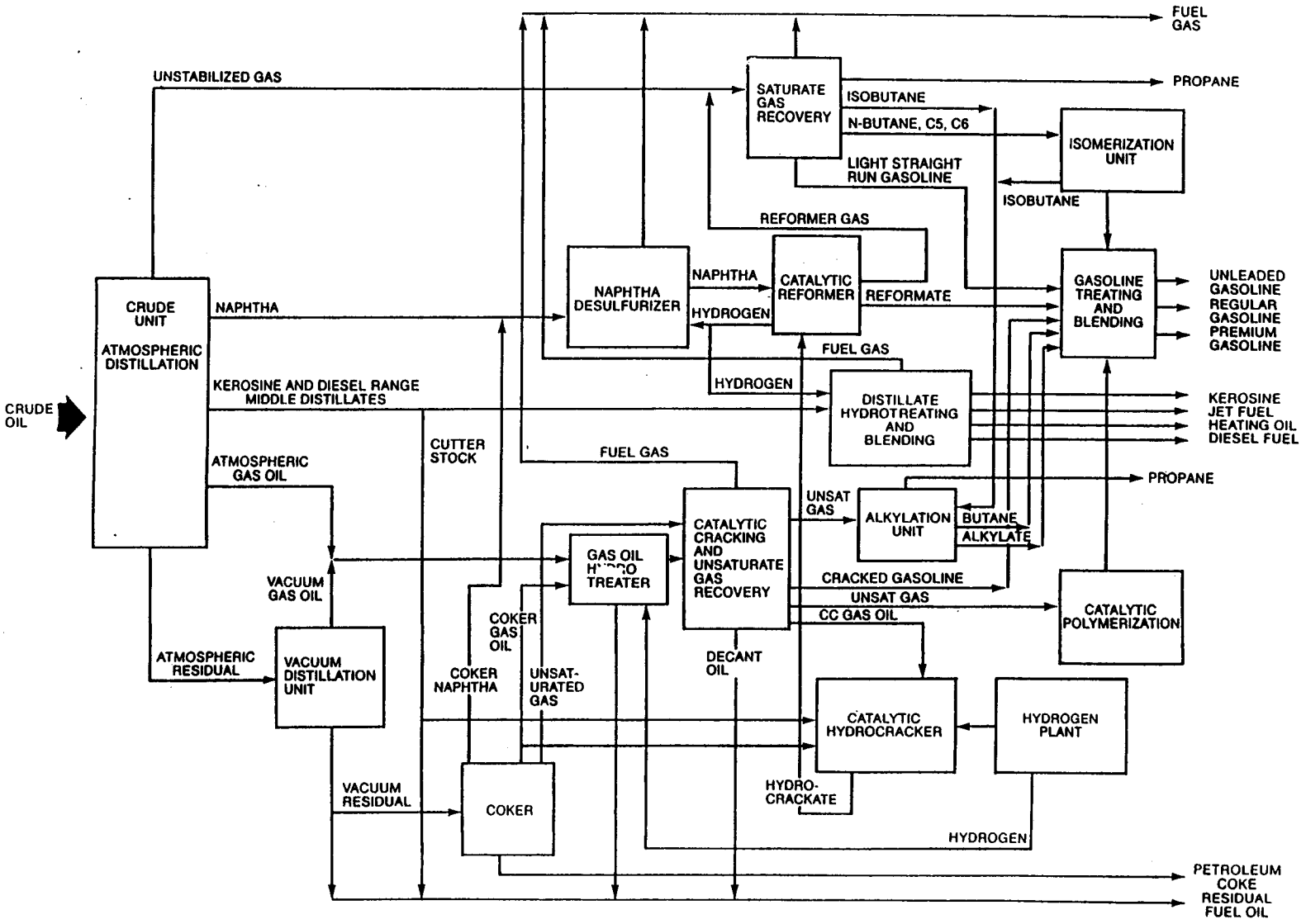
FIGURE 17

FLOW DIAGRAM OF A COMPLEX U.S. REFINERY

(Source: "Standard Definitions for Petroleum Statistics", API, Technical Report No. 1, 4th Edition, 1988)



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Section 5

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SUMMARY STREAM COMPOSITION DATA

SECTION 5 CONTAINS 2 TABLES:

A. COMPOSITIONS LISTED BY REFINERY UNIT AND STREAM
B. COMPOSITIONS LISTED BY HAP

DEFINITIONS:

Number data	Total number of data submissions
Number quantified	Number of data submissions that were not ND
Minimum value	Lowest submitted value of concentration (wt. %)
Maximum value	Highest submitted value of concentration (wt. %)
Most likely value	Most probable value based on a log mean distribution censored at the ND value (wt. %)
ND	Non-detect, including values detected at below the reasonable non-detect level.

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Statistical Summary Listed By Refinery Unit And Stream

---------REF_UNIT=Alkylation REF_STRM=Alkylate from C4 Olefin Feed ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	4	1	ND	0.10	0.018
biphenyl	1	0	ND	ND	ND
butadiene 1,3	1	0	ND	ND	ND
cumene	1	0	ND	ND	ND
ethylbenzene	1	0	ND	ND	ND
methanol	1	0	ND	ND	ND
n_hexane	5	3	ND	5.90	0.255
naphthalene	1	0	ND	ND	ND
phenol	1	0	ND	ND	ND
styrene	1	1	0.02	0.02	0.020
tmb 1,2,4	1	0	ND	ND	ND
tmp 2,2,4	9	9	12.10	36.40	23.839
toluene	5	4	ND	6.12	0.335
xylenes	4	2	ND	0.20	0.034
z_ethylene	1	0	ND	ND	ND
z_propane	1	0	ND	ND	ND
z_propylene	1	0	ND	ND	ND
zz_butane	6	6	0.30	9.23	3.205

---------REF_UNIT=Alkylation REF_STRM=Alkylate-not from C4 Olefin Feed -------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	7	0	ND	ND	ND
biphenyl	1	1	0.05	0.05	0.050
butadiene 1,3	3	0	ND	ND	ND
cumene	7	0	ND	ND	ND
ethylbenzene	4	0	ND	ND	ND
methanol	1	0	ND	ND	ND
n_hexane	4	3	ND	0.06	0.022
naphthalene	7	1	ND	0.05	0.013
phenol	1	0	ND	ND	ND
styrene	1	0	ND	ND	ND
tmb 1,2,4	7	1	ND	0.08	0.013
tmp 2,2,4	5	3	ND	2.19	0.075
toluene	7	0	ND	ND	ND
xylenes	7	4	ND	0.06	0.016
z_ethylene	1	0	ND	ND	ND
z_propane	1	1	0.47	0.47	0.470
z_propylene	4	1	ND	0.14	0.019
zz_butane	1	1	0.75	0.75	0.750

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Statistical Summary Listed By Refinery Unit And Stream

----------REF_UNIT=Alkylation REF_STRM=Butane ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
butadiene 1,3	2	1	ND	0.22	0.047
n_hexane	1	1	0.19	0.19	0.190
z_ethane	3	2	ND	1.11	0.105
z_ethylene	1	1	0.03	0.03	0.030
z_propane	3	3	3.13	5.88	3.912
z_propylene	3	3	0.12	2.75	0.569
zz_butane	5	5	2.25	94.24	30.181

----------REF_UNIT=Alkylation REF_STRM=LPG ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	1	0	ND	ND	ND
butadiene 1,3	1	0	ND	ND	ND
cumene	1	0	ND	ND	ND
ethylbenzene	1	0	ND	ND	ND
mtbe	1	0	ND	ND	ND
n_hexane	1	0	ND	ND	ND
tmb 1,2,4	1	0	ND	ND	ND
tmp 2,2,4	1	0	ND	ND	ND
toluene	1	0	ND	ND	ND
xylenes	1	0	ND	ND	ND
z_ethane	2	2	1.32	1.49	1.402
z_ethylene	1	1	0.02	0.02	0.020
z_propane	2	2	83.06	95.66	89.138
z_propylene	2	2	1.18	1.58	1.365
zz_butane	1	1	0.07	0.07	0.070

----------REF_UNIT=Amine Treating REF_STRM=Sour Gas ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
hydrogen sulf	1	1	0.86	0.86	0.860
n_hexane	2	2	0.36	0.83	0.547
z_ethane	3	3	4.68	19.30	12.858
z_ethylene	1	0	ND	ND	ND
z_propane	3	3	7.80	41.57	18.639
z_propylene	2	1	ND	0.03	0.017
zz_butane	3	3	0.11	26.61	3.385

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Statistical Summary Listed By Refinery Unit And Stream

----------REF_UNIT=Amine Treating REF_STRM=Treated Olefinic ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
butadiene 1,3	2	2	0.18	0.43	0.278
n_hexane	3	3	0.02	0.04	0.027
z_ethane	3	3	0.06	14.64	0.605
z_ethylene	3	1	ND	0.11	0.033
z_propane	3	3	7.55	48.66	14.003
z_propylene	2	2	12.86	31.36	20.082
zz_butane	3	3	5.56	13.91	9.689

--------------REF_UNIT=Aromatics Extract REF_STRM=Benzene --------------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	2	2	99.99	99.99	99.990
cumene	1	0	ND	ND	ND
ethylbenzene	1	0	ND	ND	ND
naphthalene	1	0	ND	ND	ND
tmb 1,2,4	1	0	ND	ND	ND
toluene	1	0	ND	ND	ND
xylenes	1	0	ND	ND	ND

----------REF_UNIT=Aromatics Extract REF_STRM=Heavy Aromatics ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	2	1	ND	5.70	0.239
butadiene 1,3	1	0	ND	ND	ND
cumene	2	2	0.23	1.70	0.625
ethylbenzene	2	2	3.30	3.83	3.555
n_hexane	1	0	ND	ND	ND
naphthalene	2	2	0.03	0.60	0.134
tmb 1,2,4	2	2	4.19	5.70	4.887
tmp 2,2,4	1	0	ND	ND	ND
toluene	2	2	18.72	20.00	19.349
xylenes	2	2	19.27	30.79	24.358
z_propylene	1	0	ND	ND	ND

---------- REF_UNIT=Aromatics Extract REF_STRM=Toluene ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	2	1	ND	0.59	0.077
cumene	2	0	ND	ND	ND
ethylbenzene	2	2	0.16	5.48	0.936
naphthalene	1	0	ND	ND	ND
tmb 1,2,4	2	1	ND	0.30	0.055
toluene	4	4	83.25	100.00	95.326
xylenes	2	2	0.06	6.93	0.645

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Statistical Summary Listed By Refinery Unit And Stream

----------REF_UNIT=Aromatics Extract REF_STRM=Xylenes ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
cumene	1	1	0.59	0.59	0.590
ethylbenzene	1	1	16.08	16.08	16.080
toluene	1	1	0.19	0.19	0.19
xylenes	1	1	77.89	77.89	77.890

----------REF_UNIT=Asphalt Plant REF_STRM=Used Solvent ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	1	1	0.15	0.15	0.150
cumene	1	0	ND	ND	ND
ethylbenzene	6	6	0.10	1.39	0.295
n_hexane	2	1	0.10	0.35	0.187
toluene	3	3	0.11	0.78	0.257
xylenes	6	6	0.18	2.40	0.504

----------REF_UNIT=Atm. Distillation REF_STRM=Atm. Resid. ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	1	0	ND	ND	ND
biphenyl	2	2	0.04	0.04	0.040
cumene	1	0	ND	ND	ND
ethylbenzene	1	1	0.08	0.08	0.080
naphthalene	2	2	2.00	2.00	2.000
toluene	1	0	ND	ND	ND
xylenes	2	2	0.05	0.05	0.050

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Statistical Summary Listed By Refinery Unit And Stream

--------REF_UNIT=Atm. Distillation REF_STRM=Heavy Atm. Gas Oil ---------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	5	0	ND	ND	ND
biphenyl	2	2	0.06	0.10	0.077
butadiene 1,3	4	0	ND	0.02	ND
cresols	3	1	ND	0.10	0.032
cumene	4	1	ND	0.16	0.020
ethylbenzene	5	0	ND	ND	ND
mek	1	0	ND	ND	ND
methanol	1	0	ND	ND	ND
mtbe	2	0	ND	ND	ND
n_hexane	3	0	ND	ND	ND
naphthalene	4	3	ND	0.06	0.032
phenol	2	1	ND	0.02	0.014
styrene	1	0	ND	ND	ND
tmb 1,2,4	3	2	ND	0.06	0.024
tmp 2,2,4	3	0	ND	ND	ND
toluene	6	2	ND	0.10	ND
xylenes	6	5	ND	0.70	0.093
z_ethylene	2	0	ND	ND	ND
z_propane	2	0	ND	ND	ND
z_propylene	3	0	ND	ND	ND
zz_butane	2	0	ND	ND	ND

----------REF_UNIT=Atm. Distillation REF_STRM=Heavy Naphtha ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	18	18	0.08	2.07	0.716
biphenyl	1	1	0.15	0.15	0.150
cumene	13	13	0.02	0.91	0.191
ethylbenzene	18	18	0.50	3.98	1.095
hydrogen sulf	2	0	ND	ND	ND
n_hexane	15	15	0.28	7.53	3.089
naphthalene	7	5	ND	1.27	0.065
tmb 1,2,4	13	13	0.10	3.00	0.749
tmp 2,2,4	1	1	0.03	0.03	0.030
toluene	18	18	0.87	5.87	3.575
xylenes	18	18	1.88	7.00	4.662
z_propane	2	2	0.10	0.54	0.232
zz_butane	7	7	0.09	0.78	0.186

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Statistical Summary Listed By Refinery Unit And Stream

--------REF_UNIT=Atm. Distillation REF_STRM=Light Atm. Gas Oil ---------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	8	4	ND	0.03	0.011
biphenyl	2	2	0.04	0.08	0.057
butadiene 1,3	4	0	ND	0.10	ND
cresols	3	0	ND	0.02	ND
cumene	9	2	ND	0.10	ND
ethylbenzene	10	7	ND	0.10	0.023
mek	2	0	ND	ND	ND
methanol	2	0	ND	ND	ND
mtbe	2	0	ND	ND	ND
n_hexane	5	3	ND	0.09	0.025
naphthalene	10	8	ND	0.69	0.089
phenol	3	0	ND	0.02	ND
styrene	2	0	ND	ND	ND
tmb 1,2,4	7	7	0.07	0.70	0.292
tmp 2,2,4	4	2	ND	0.07	ND
toluene	11	9	ND	0.16	0.030
xylenes	10	10	0.06	0.80	0.206
z_ethylene	2	0	ND	ND	ND
z_propane	2	0	ND	ND	ND
z_propylene	4	0	ND	ND	ND
zz_butane	2	0	ND	ND	ND

----------REF_UNIT=Atm. Distillation REF_STRM=Light Ends ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	12	11	ND	0.93	0.204
biphenyl	5	1	ND	0.12	0.016
butadiene 1,3	5	1	ND	0.15	0.017
cresols	4	0	ND	ND	ND
cumene	6	0	ND	ND	ND
ethylbenzene	9	3	ND	0.03	ND
mek	4	0	ND	ND	ND
methanol	1	0	ND	ND	ND
mtbe	4	0	ND	ND	ND
n_hexane	14	14	0.70	7.17	2.445
naphthalene	5	1	ND	0.03	0.012
phenol	4	0	ND	ND	ND
styrene	5	0	ND	ND	ND
tmb 1,2,4	6	2	ND	0.08	ND
tmp 2,2,4	5	0	ND	ND	ND
toluene	9	9	0.02	0.24	0.093
xylenes	9	4	ND	0.10	ND
z_ethane	4	4	1.33	15.13	5.716
z_ethylene	4	4	0.20	7.32	1.800
z_propane	5	5	0.14	31.00	10.461
z_propylene	10	7	ND	7.40	0.051
zz_butane	5	5	0.05	20.12	8.530

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Statistical Summary Listed By Refinery Unit And Stream

----------REF_UNIT=Atm. Distillation REF_STRM=SR Gasoline ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	2	2	0.59	2.00	1.086
ethylbenzene	1	1	1.00	1.00	1.000
n_hexane	2	2	2.32	9.00	4.569
naphthalene	1	1	0.10	0.10	0.100
toluene	1	1	1.10	1.10	1.100
xylenes	1	1	1.00	1.00	1.000

----------REF_UNIT=Atm. Distillation REF_STRM=SR Kerosene ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	13	6	ND	0.05	ND
biphenyl	6	4	ND	0.24	0.034
butadiene 1,3	6	0	ND	ND	ND
cresols	3	0	ND	ND	ND
cumene	13	10	ND	0.30	0.031
ethylbenzene	13	12	ND	0.55	0.100
hydrogen sulf	1	0	ND	ND	ND
mek	3	0	ND	ND	ND
methanol	2	0	ND	ND	ND
mtbe	3	0	ND	ND	ND
n_hexane	10	8	ND	0.14	0.034
naphthalene	20	18	ND	1.25	0.100
phenol	3	0	ND	ND	ND
styrene	3	0	ND	ND	ND
tmb 1,2,4	14	14	0.07	1.74	0.339
tmp 2,2,4	6	2	ND	0.07	ND
toluene	16	15	ND	0.40	0.093
xylenes	15	15	0.07	1.33	0.292
z_ethylene	3	0	ND	ND	ND
z_propane	3	0	ND	ND	ND
z_propylene	7	0	ND	ND	ND
zz_butane	3	1	ND	0.08	0.028

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Statistical Summary Listed By Refinery Unit And Stream

----------REF_UNIT=Atm. Distillation REF_STRM=SR Naphtha ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	38	38	0.10	4.76	1.197
biphenyl	3	0	ND	ND	ND
butadiene 1,3	5	0	ND	ND	ND
cresols	2	0	ND	ND	ND
cumene	20	14	ND	0.62	0.059
ethylbenzene	28	26	ND	2.47	0.313
hydrogen sulf	2	1	ND	0.02	0.014
mek	2	0	ND	ND	ND
methanol	4	0	ND	ND	ND
mtbe	2	0	ND	ND	ND
n_hexane	30	30	1.20	13.91	5.981
naphthalene	15	6	ND	0.50	0.012
phenol	2	0	ND	ND	ND
styrene	2	0	ND	ND	ND
tmb 1,2,4	14	10	ND	4.70	0.119
tmp 2,2,4	7	1	ND	0.80	0.019
toluene	35	34	ND	7.00	1.810
xylenes	27	27	0.14	6.20	1.707
z_ethane	1	1	0.82	0.82	0.820
z_ethylene	4	0	ND	ND	ND
z_propane	8	6	ND	13.03	0.197
z_propylene	7	1	ND	0.09	0.014
zz_butane	15	15	0.16	27.90	2.222

--------REF_UNIT=Cat. Hydrocracker REF_STRM=Heavy H/C Distillate --------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	2	1	ND	0.21	0.046
butadiene 1,3	1	0	ND	ND	ND
cumene	1	0	ND	ND	ND
ethylbenzene	1	0	ND	ND	ND
n_hexane	1	0	ND	ND	ND
naphthalene	2	1	ND	0.22	0.047
tmb 1,2,4	2	1	ND	0.36	0.060
tmp 2,2,4	1	0	ND	ND	ND
toluene	1	0	ND	ND	ND
xylenes	2	1	ND	0.22	0.047
z_ethylene	1	0	ND	ND	ND
z_propane	1	0	ND	ND	ND
z_propylene	1	0	ND	ND	ND
zz_butane	1	0	ND	ND	ND

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Statistical Summary Listed By Refinery Unit And Stream

-------REF_UNIT=Cat. Hydrocracker REF_STRM=Heavy H/C Naphtha --------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	5	5	0.03	4.20	0.630
cresols	1	0	ND	ND	ND
ethylbenzene	4	4	0.64	3.58	1.579
n_hexane	3	2	ND	2.10	0.145
naphthalene	3	3	0.04	0.29	0.121
tmb 1,2,4	3	3	0.89	5.60	2.828
toluene	5	5	0.96	5.79	3.102
xylenes	3	3	2.99	6.25	4.155

-------REF_UNIT=Cat. Hydrocracker REF_STRM=Light H/C Distillate -------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	3	2	ND	0.67	0.082
butadiene 1,3	2	0	ND	ND	ND
cresols	1	0	ND	ND	ND
cumene	2	0	ND	ND	ND
ethylbenzene	3	3	0.08	1.25	0.424
methanol	1	0	ND	ND	ND
mtbe	2	1	ND	0.03	0.017
n_hexane	2	1	ND	0.04	0.020
naphthalene	2	2	0.30	1.86	0.747
tmb 1,2,4	3	2	ND	3.50	0.187
tmp 2,2,4	2	1	ND	0.05	0.022
toluene	3	3	0.72	2.50	1.557
xylenes	3	3	1.87	2.65	2.316
z_ethylene	1	0	ND	ND	ND
z_propane	1	0	ND	ND	ND
z_propylene	2	0	ND	ND	ND
zz_butane	1	0	ND	ND	ND

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Statistical Summary Listed By Refinery Unit And Stream

--------REF_UNIT=Cat. Hydrocracker REF_STRM=Light H/C Naphtha --------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	6	6	1.70	6.30	3.348
butadiene 1,3	1	0	ND	ND	ND
cumene	3	0	ND	ND	ND
ethylbenzene	3	3	1.10	2.10	1.624
methanol	1	0	ND	ND	ND
n_hexane	3	3	1.20	2.26	1.551
naphthalene	4	0	ND	ND	ND
tmb 1,2,4	1	0	ND	ND	ND
tmp 2,2,4	1	1	4.99	4.99	4.990
toluene	4	4	2.10	19.17	5.457
xylenes	2	2	6.72	12.81	9.278
z_ethylene	1	0	ND	ND	ND
z_propane	1	0	ND	ND	ND
z_propylene	1	0	ND	ND	ND
zz_butane	1	0	ND	ND	ND

-------------REF_UNIT=Cat. Hydrocracker REF_STRM=Sat. Gas -------------

species name	number data	number quantified	minimum value	maximum value	most likely value
hydrogen sulf	1	1	5.60	5.60	5.600
z_ethane	1	1	13.38	13.38	13.380
z_propane	1	1	71.91	71.91	71.910
z_propylene	1	1	0.12	0.12	0.120
zz_butane	1	1	0.17	0.17	0.170

---------REF_UNIT=Cat. Hydrotreater REF_STRM=Cat. Cracker Feed ---------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	3	0	ND	ND	ND
butadiene 1,3	2	0	ND	ND	ND
cresols	1	0	ND	ND	ND
cumene	3	0	ND	ND	ND
ethylbenzene	3	0	ND	ND	ND
methanol	2	0	ND	ND	ND
n_hexane	3	0	ND	ND	ND
naphthalene	3	1	ND	0.15	0.039
tmb 1,2,4	1	0	ND	ND	ND
tmp 2,2,4	2	0	ND	ND	ND
toluene	3	0	ND	ND	ND
xylenes	3	1	ND	0.05	0.022
z_ethane	1	0	ND	ND	ND
z_ethylene	3	0	ND	ND	ND
z_propane	3	0	ND	ND	ND
z_propylene	3	0	ND	ND	ND
zz_butane	3	0	ND	ND	ND

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Statistical Summary Listed By Refinery Unit And Stream

----------REF_UNIT=Cat. Isomer'zn REF_STRM=Isobutane ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
z_ethane	3	3	0.08	0.67	0.231
z_propane	3	3	0.56	8.36	2.055
zz_butane	3	3	14.77	53.13	30.216

----------REF_UNIT=Cat. Isomer'zn REF_STRM=Isom Naphtha ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	2	1	ND	0.51	0.071
butadiene 1,3	1	0	ND	ND	ND
cumene	1	0	ND	ND	ND
n_hexane	5	5	0.95	5.42	2.588
naphthalene	1	0	ND	ND	ND
tmb 1,2,4	1	0	ND	ND	ND
tmp 2,2,4	1	0	ND	ND	ND
toluene	2	1	ND	0.64	0.080
xylenes	2	2	0.02	0.28	0.075
z_propylene	1	0	ND	ND	ND
zz_butane	4	4	0.63	1.43	0.900

----------REF_UNIT=Cat. Reformer REF_STRM=Reformate ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	37	37	0.11	20.00	4.647
biphenyl	2	0	ND	ND	ND
butadiene 1,3	8	0	ND	0.10	ND
cumene	29	27	ND	1.25	0.231
ethylbenzene	36	36	0.07	8.60	3.305
methanol	7	0	ND	ND	ND
n_hexane	30	30	0.05	5.90	2.183
naphthalene	28	24	ND	4.70	0.302
styrene	2	2	0.09	0.13	0.108
tmb 1,2,4	25	24	ND	14.20	3.754
tmp 2,2,4	13	5	ND	1.38	ND
toluene	38	38	5.06	32.24	15.978
xylenes	37	37	2.36	34.43	16.326
z_ethane	1	0	ND	ND	ND
z_ethylene	8	0	ND	ND	ND
z_propane	12	4	ND	1.52	ND
z_propylene	10	0	ND	ND	ND
zz_butane	20	13	ND	10.72	0.089

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Statistical Summary Listed By Refinery Unit And Stream

----------REF_UNIT=Cat. Reformer REF_STRM=Reformate Gas ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	2	2	0.55	0.68	0.612
butadiene 1,3	2	1	ND	0.02	0.014
n_hexane	4	4	0.02	1.77	0.386
z_ethane	4	4	6.57	18.05	11.964
z_ethylene	2	0	ND	ND	ND
z_propane	4	4	22.71	39.60	29.022
z_propylene	5	4	ND	0.13	0.044
zz_butane	4	4	9.68	29.76	15.385

----------REF_UNIT=Coker REF_STRM=Coker Gas Oil ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	7	1	ND	0.10	0.014
butadiene 1,3	6	1	ND	0.10	0.015
cresols	1	0	ND	ND	ND
cumene	2	0	ND	ND	ND
ethylbenzene	4	1	ND	0.70	0.029
methanol	1	0	ND	ND	ND
n_hexane	2	0	ND	ND	ND
naphthalene	5	3	ND	3.00	0.021
tmb 1,2,4	2	1	ND	0.03	0.017
tmp 2,2,4	2	0	ND	ND	ND
toluene	7	4	ND	0.11	0.013
xylenes	7	5	ND	1.20	0.050
z_ethylene	2	0	ND	ND	ND
z_propane	2	0	ND	ND	ND
z_propylene	2	0	ND	ND	ND
zz_butane	2	0	ND	ND	ND

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Statistical Summary Listed By Refinery Unit And Stream

----------REF_UNIT=Coker REF_STRM=Coker Heavy Naphtha ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	10	10	0.10	1.70	0.291
biphenyl	1	0	ND	ND	ND
butadiene 1,3	6	1	ND	0.10	0.015
cresols	2	1	ND	0.03	0.017
cumene	7	7	0.04	0.40	0.149
ethylbenzene	11	11	0.51	2.50	0.927
mek	1	0	ND	ND	ND
mtbe	1	0	ND	ND	ND
n_hexane	10	7	ND	4.35	0.178
naphthalene	5	0	ND	ND	ND
phenol	1	0	ND	ND	ND
styrene	2	2	0.03	0.04	0.035
tmb 1,2,4	10	10	0.57	2.70	0.926
tmp 2,2,4	6	4	ND	1.75	0.025
toluene	12	12	1.39	4.74	2.254
xylenes	11	10	1.98	4.70	3.218
z_propane	2	2	0.09	0.26	0.153
z_propylene	5	2	ND	0.12	ND
zz_butane	2	2	0.53	0.85	0.671

----------REF_UNIT=Coker REF_STRM=Coker Light Naphtha ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	6	6	0.41	0.92	0.679
butadiene 1,3	5	1	ND	0.10	0.016
cumene	4	3	ND	0.15	0.043
ethylbenzene	6	3	ND	1.00	ND
hydrogen sulf	1	1	0.09	0.09	0.090
mek	1	1	0.29	0.29	0.290
methanol	1	0	ND	ND	ND
n_hexane	3	2	ND	2.56	0.160
naphthalene	6	1	ND	0.22	0.017
styrene	1	1	0.51	0.51	0.510
tmb 1,2,4	5	5	0.03	0.60	0.137
tmp 2,2,4	3	2	ND	0.82	0.091
toluene	6	6	0.02	1.11	0.206
xylenes	5	4	0.03	1.00	0.066
z_ethylene	2	0	ND	ND	ND
z_propane	2	2	0.28	1.88	0.726
z_propylene	3	0	ND	ND	ND
zz_butane	3	3	0.36	3.26	0.906

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Statistical Summary Listed By Refinery Unit And Stream

----------REF_UNIT=Coker REF_STRM=Unsat. Gas ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	1	1	0.60	0.60	0.600
butadiene 1,3	4	4	0.03	0.11	0.056
ethylbenzene	1	1	0.02	0.02	0.020
hydrogen sulf	1	1	7.12	7.12	7.120
n_hexane	4	4	1.23	6.77	2.795
toluene	1	1	0.22	0.22	0.220
xylenes	1	1	0.03	0.03	0.030
z_ethane	3	3	9.96	16.76	13.846
z_ethylene	4	4	1.04	1.58	1.405
z_propane	3	3	9.18	14.93	11.921
z_propylene	4	4	3.70	5.28	4.627
zz_butane	3	3	6.68	8.56	7.334

----------REF_UNIT=Cracked Gas Plant REF_STRM=Fuel Gas ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	1	0	ND	ND	ND
butadiene 1,3	5	3	ND	0.36	0.043
cumene	1	0	ND	ND	ND
ethylbenzene	2	0	ND	ND	ND
hydrogen sulf	3	1	ND	21.71	0.466
n_hexane	3	2	ND	0.88	0.094
naphthalene	1	0	ND	ND	ND
tmb 1,2,4	1	0	ND	ND	ND
tmp 2,2,4	2	1	ND	0.03	0.017
toluene	2	0	ND	ND	ND
xylenes	2	1	ND	0.07	0.026
z_ethane	4	4	10.67	26.59	20.244
z_ethylene	5	5	2.70	20.20	11.158
z_propane	4	4	0.51	8.91	2.283
z_propylene	6	6	2.36	7.20	4.600
zz_butane	4	4	0.03	0.85	0.147

----------REF_UNIT=Cracked Gas Plant REF_STRM=Olefins ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
butadiene 1,3	5	4	ND	11.27	0.279
hydrogen sulf	3	0	ND	ND	ND
n_hexane	4	4	0.02	0.40	0.097
z_ethane	1	1	0.30	0.30	0.300
z_propane	4	4	1.94	27.24	4.921
z_propylene	2	2	5.15	10.10	7.212
zz_butane	4	4	7.87	44.38	26.036

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Statistical Summary Listed By Refinery Unit And Stream

----------REF_UNIT=Cracked Gas Plant REF_STRM=Sour Gas ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	1	1	0.03	0.03	0.030
butadiene 1,3	3	3	0.03	0.61	0.171
hydrogen sulf	3	1	ND	7.13	0.267
n_hexane	2	2	0.22	2.76	0.779
toluene	1	1	0.03	0.03	0.030
z_ethane	2	2	8.95	18.32	12.805
z_ethylene	2	2	0.38	5.36	1.427
z_propane	2	2	15.95	21.11	18.350
z_propylene	2	2	1.77	9.31	4.059
zz_butane	2	2	5.47	7.16	6.258

----------REF_UNIT=Cracked Gas Plant REF_STRM=Unsat. Gas ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	1	1	3.50	3.50	3.500
butadiene 1,3	4	2	ND	1.10	ND
ethylbenzene	1	1	2.20	2.20	2.200
n_hexane	3	3	0.04	0.28	0.191
toluene	1	1	3.20	3.20	3.200
z_ethane	3	3	5.79	25.93	7.204
z_ethylene	3	3	5.83	24.75	7.259
z_propane	3	3	0.70	8.08	6.058
z_propylene	3	3	2.46	23.89	16.622
zz_butane	3	3	0.27	3.54	2.468

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Statistical Summary Listed By Refinery Unit And Stream

----------REF_UNIT=Distillate Blending REF_STRM=Diesel Fuel ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	8	0	ND	ND	ND
biphenyl	4	4	0.03	0.26	0.071
butadiene 1,3	4	0	ND	ND	ND
cresols	2	2	0.05	0.05	0.050
cumene	7	5	ND	0.17	0.024
ethylbenzene	9	7	ND	0.18	0.029
methanol	1	0	ND	ND	ND
mtbe	3	1	ND	0.06	0.024
n_hexane	5	3	ND	0.07	0.016
naphthalene	11	10	ND	0.54	0.170
phenol	1	1	0.26	0.26	0.260
tmb 1,2,4	9	9	0.12	1.12	0.225
tmp 2,2,4	4	1	ND	0.02	0.012
toluene	10	9	ND	0.29	0.050
xylenes	13	11	ND	1.10	0.122
z_ethane	2	0	ND	ND	ND
z_ethylene	4	0	ND	ND	ND
z_propane	4	0	ND	ND	ND
z_propylene	5	0	ND	ND	ND
zz_butane	4	0	ND	ND	ND

--------REF_UNIT=Distillate Blending REF_STRM=Home Heating Oil --------

species name	number data	number quantified	minimum value	maximum value	most likely value
biphenyl	4	4	0.10	0.25	0.166
ethylbenzene	1	1	0.10	0.10	0.100
naphthalene	6	6	0.13	0.75	0.364
tmb 1,2,4	6	6	0.13	0.92	0.325
toluene	4	4	0.08	0.15	0.097
xylenes	6	6	0.10	0.56	0.243

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Statistical Summary Listed By Refinery Unit And Stream

--------REF_UNIT=Fluid Cat. Cracker REF_STRM=Cracked gasoline ---------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	33	33	0.08	3.20	0.751
butadiene 1,3	5	0	ND	0.10	ND
cumene	11	9	ND	0.49	0.037
ethylbenzene	26	25	ND	1.89	0.754
mek	1	0	ND	ND	ND
methanol	2	0	ND	ND	ND
mtbe	1	0	ND	ND	ND
n_hexane	24	24	0.24	5.20	0.812
naphthalene	21	16	ND	1.80	0.096
phenol	2	1	ND	2.20	0.148
styrene	1	0	ND	ND	ND
tmb 1,2,4	19	18	ND	7.30	0.762
tmp 2,2,4	9	7	ND	1.19	0.034
toluene	31	30	0.69	9.34	3.336
xylenes	29	27	0.44	18.10	4.574
z_ethane	1	0	ND	ND	ND
z_ethylene	3	0	ND	ND	ND
z_propane	6	3	ND	0.26	0.023
z_propylene	8	4	ND	0.57	0.019
zz_butane	6	6	0.08	1.29	0.407

----------REF_UNIT=Fluid Cat. Cracker REF_STRM=DCO ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
tmb 1,2,4	1	1	0.16	0.16	0.160
xylenes	1	1	0.09	0.09	0.090

-------REF_UNIT=Fluid Cat. Cracker REF_STRM=Heavy Cat. Gas Oil --------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	8	6	ND	1.26	0.175
butadiene 1,3	3	0	ND	ND	ND
cumene	6	6	0.03	0.29	0.114
ethylbenzene	8	8	0.33	4.18	1.128
methanol	1	0	ND	ND	ND
n_hexane	4	2	ND	0.55	ND
naphthalene	9	9	0.16	6.50	0.995
tmb 1,2,4	7	7	2.35	11.60	4.735
tmp 2,2,4	4	2	ND	1.00	ND
toluene	8	8	0.64	8.94	1.671
xylenes	8	8	2.43	13.66	6.998
z_ethylene	2	0	ND	ND	ND
z_propane	2	0	ND	ND	ND
z_propylene	3	0	ND	ND	ND
zz_butane	2	2	0.05	0.87	0.209

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Statistical Summary Listed By Refinery Unit And Stream

-------REF_UNIT=Fluid Cat. Cracker REF_STRM=Light Cat. Gas Oil --------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	12	10	ND	1.56	0.656
biphenyl	5	5	0.08	0.99	0.355
butadiene 1,3	4	0	ND	ND	ND
cresols	1	0	ND	ND	ND
cumene	11	6	ND	0.62	0.013
ethylbenzene	16	16	0.09	2.30	0.557
methanol	6	0	ND	ND	ND
n_hexane	8	5	ND	1.84	0.118
naphthalene	15	14	ND	4.10	0.479
phenol	1	0	ND	ND	ND
styrene	1	1	0.27	0.27	0.270
tmb 1,2,4	16	16	0.23	7.30	1.068
tmp 2,2,4	7	3	ND	1.13	ND
toluene	20	20	0.08	6.00	1.070
xylenes	18	18	0.21	9.54	1.943
z_ethane	1	0	ND	ND	ND
z_ethylene	6	0	ND	ND	ND
z_propane	6	1	ND	0.02	0.011
z_propylene	7	0	ND	ND	ND
zz_butane	6	2	ND	0.12	ND

--------REF_UNIT=Gasoline Blending REF_STRM=Aviation Gasoline ---------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	4	4	0.51	1.62	0.847
cresols	2	2	0.05	0.16	0.089
cumene	3	3	0.02	0.23	0.064
ethylbenzene	4	4	0.25	3.70	0.561
n_hexane	3	3	0.12	5.67	0.892
naphthalene	4	4	0.05	2.30	0.209
tmb 1,2,4	1	1	0.50	0.50	0.500
toluene	4	4	3.62	10.39	7.049
xylenes	4	4	1.50	8.20	2.349

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Statistical Summary Listed By Refinery Unit And Stream

-------REF_UNIT=Gasoline Blending REF_STRM=Conventional Gasoline -------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	43	43	0.04	7.15	1.292
butadiene 1,3	6	0	ND	ND	ND
cresols	1	0	ND	ND	ND
cumene	30	28	ND	0.95	0.150
ethylbenzene	36	35	ND	3.75	0.926
methanol	3	1	ND	2.04	0.143
mtbe	21	19	ND	13.00	0.879
n_hexane	29	28	ND	7.22	1.338
naphthalene	26	25	ND	1.06	0.303
phenol	1	0	ND	ND	ND
styrene	3	3	0.07	0.09	0.078
tmb 1,2,4	24	24	0.03	7.40	2.119
tmp 2,2,4	20	20	0.09	11.90	1.965
toluene	42	39	ND	17.00	5.248
xylenes	36	36	0.13	19.11	4.911
z_ethane	2	0	ND	ND	ND
z_ethylene	6	0	ND	ND	ND
z_propane	8	5	ND	0.11	0.029
z_propylene	7	0	ND	ND	ND
zz_butane	11	11	0.58	5.35	2.932

-------REF_UNIT=Gasoline Blending REF_STRM=Reformulated Gasoline -------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	8	8	0.74	1.73	1.048
butadiene 1,3	5	0	ND	ND	ND
cresols	1	0	ND	ND	ND
cumene	6	6	0.03	0.65	0.101
ethylbenzene	6	6	0.66	1.80	1.213
mtbe	3	3	6.10	15.81	9.409
n_hexane	5	5	0.81	1.80	1.239
naphthalene	7	5	ND	0.45	0.039
phenol	1	0	ND	ND	ND
tmb 1,2,4	5	5	1.67	3.11	2.438
tmp 2,2,4	5	5	0.05	3.80	0.425
toluene	7	7	2.07	14.00	5.955
xylenes	6	6	3.33	11.00	7.042
z_propylene	4	0	ND	ND	ND

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Statistical Summary Listed By Refinery Unit And Stream

----------REF_UNIT=Hydrodesulfur'zn REF_STRM=Diesel ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	2	0	ND	ND	ND
biphenyl	2	2	0.20	0.34	0.261
cresols	1	0	ND	ND	ND
cumene	2	1	ND	0.02	0.014
ethylbenzene	4	1	ND	0.05	0.015
methanol	1	0	ND	ND	ND
n_hexane	1	0	ND	ND	ND
naphthalene	6	5	ND	0.39	0.105
tmb 1,2,4	6	5	ND	0.38	0.063
tmp 2,2,4	1	0	ND	ND	ND
toluene	3	2	ND	0.10	0.032
xylenes	3	2	ND	0.26	0.051
z_ethylene	1	0	ND	ND	ND
z_propane	1	0	ND	ND	ND
z_propylene	1	0	ND	ND	ND
zz_butane	1	0	ND	ND	ND

----------REF_UNIT=Hydrodesulfur'zn REF_STRM=Heating Oil ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
biphenyl	1	1	0.23	0.23	0.230
n_hexane	1	1	0.09	0.09	0.090
naphthalene	1	1	0.10	0.10	0.100
tmb 1,2,4	1	1	0.14	0.14	0.140
xylenes	1	1	0.08	0.08	0.080

----------REF_UNIT=Hydrodesulfur'zn REF_STRM=Jet / Kero ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	2	0	ND	ND	ND
biphenyl	1	1	0.14	0.14	0.140
cumene	2	2	0.03	0.05	0.039
ethylbenzene	3	3	0.02	0.09	0.033
naphthalene	4	4	0.04	0.99	0.181
tmb 1,2,4	4	4	0.25	0.93	0.516
toluene	3	3	0.02	0.09	0.037
xylenes	4	3	ND	0.44	0.058

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Statistical Summary Listed By Refinery Unit And Stream

----------REF_UNIT=Hydrodesulfur'zn REF_STRM=Naphtha ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	4	4	0.61	0.71	0.652
cumene	3	3	0.11	0.17	0.135
ethylbenzene	4	4	0.64	1.11	0.931
n_hexane	3	3	1.98	2.86	2.570
naphthalene	1	1	0.14	0.14	0.140
tmb 1,2,4	3	3	0.10	1.08	0.501
toluene	4	4	2.32	6.11	3.758
xylenes	4	4	2.83	8.61	4.218
z_propane	2	2	0.16	5.11	0.904
zz_butane	2	2	0.16	2.31	0.608

-------REF_UNIT=Kerosine Treating REF_STRM=Commercial Jet Fuel --------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	11	6	ND	2.86	ND
biphenyl	7	7	0.10	1.74	0.210
butadiene 1,3	4	0	ND	ND	ND
cresols	2	1	ND	0.10	0.032
cumene	10	9	ND	0.27	0.067
ethylbenzene	17	17	0.05	0.97	0.170
methanol	1	0	ND	ND	ND
n_hexane	10	6	ND	8.32	0.025
naphthalene	15	14	ND	2.26	0.315
phenol	2	1	ND	0.10	0.032
tmb 1,2,4	14	14	0.06	2.36	0.594
tmp 2,2,4	6	0	ND	ND	ND
toluene	17	16	ND	7.71	0.235
xylenes	18	18	0.19	5.85	0.664
z_ethylene	4	0	ND	ND	ND
z_propane	4	0	ND	ND	ND
z_propylene	5	0	ND	ND	ND
zz_butane	6	2	ND	4.20	ND

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Statistical Summary Listed By Refinery Unit And Stream

----------REF_UNIT=Naphtha Pretreat REF_STRM=Desulf. naphtha ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	8	8	0.17	3.17	1.237
butadiene 1,3	1	0	ND	ND	ND
cresols	1	0	ND	ND	ND
cumene	5	5	0.10	0.14	0.119
ethylbenzene	8	8	0.48	9.20	0.985
n_hexane	7	7	0.83	10.80	3.799
naphthalene	2	1	ND	0.10	0.032
phenol	1	0	ND	ND	ND
tmb 1,2,4	7	7	0.11	4.60	0.802
tmp 2,2,4	1	0	ND	ND	ND
toluene	8	8	2.12	7.56	4.226
xylenes	8	8	1.62	5.31	3.295
z_propane	1	1	0.38	0.38	0.380
z_propylene	1	0	ND	ND	ND
zz_butane	3	3	0.39	1.28	0.675

----------REF_UNIT=Polymerization REF_STRM=Butane ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
z_propane	2	2	0.33	0.73	0.491
z_propylene	1	0	ND	ND	ND
zz_butane	2	2	40.23	61.20	49.619

----------REF_UNIT=Polymerization REF_STRM=Poly. naphtha ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	2	2	0.74	1.74	1.135
cumene	1	1	0.09	0.09	0.090
ethylbenzene	1	1	1.18	1.18	1.180
n_hexane	1	1	0.54	0.54	0.540
tmp 2,2,4	2	2	0.55	0.90	0.704
xylenes	1	1	1.76	1.76	1.760
zz_butane	2	2	2.74	3.68	3.175

----------REF_UNIT=Polymerization REF_STRM=Propane ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
z_ethane	2	2	3.09	5.19	4.005
z_ethylene	2	2	0.11	0.22	0.156
z_propane	2	2	88.53	92.94	90.708
z_propylene	2	2	3.47	5.60	4.408
zz_butane	1	1	0.05	0.05	0.050

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Statistical Summary Listed By Refinery Unit And Stream

---------REF_UNIT=S.W. Stripper REF_STRM=Stripped Sour Water ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	4	0	ND	ND	ND
biphenyl	1	0	ND	ND	ND
butadiene 1,3	4	0	ND	ND	ND
cumene	4	0	ND	ND	ND
ethylbenzene	4	0	ND	ND	ND
hydrogen sulf	1	0	ND	ND	ND
methanol	3	0	ND	ND	ND
n_hexane	4	0	ND	ND	ND
naphthalene	4	0	ND	ND	ND
tmb 1,2,4	2	0	ND	ND	ND
tmp 2,2,4	4	0	ND	ND	ND
toluene	4	0	ND	ND	ND
xylenes	4	0	ND	ND	ND
z_ethylene	4	0	ND	ND	ND
z_propane	4	0	ND	ND	ND
z_propylene	4	0	ND	ND	ND
zz_butane	4	1	ND	0.03	0.013

--------------REF_UNIT=Sat. Gas Plant REF_STRM=Sat. Gas ---------------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	1	1	4.00	4.00	4.000
butadiene 1,3	1	1	0.02	0.02	0.020
ethylbenzene	1	1	0.30	0.30	0.300
n_hexane	5	5	0.05	2.98	0.618
toluene	2	2	1.70	2.00	1.844
z_ethane	5	5	7.43	16.23	9.416
z_ethylene	5	3	ND	8.27	0.045
z_propane	5	5	11.80	37.45	19.778
z_propylene	5	5	0.09	63.11	1.708
zz_butane	4	4	4.26	32.34	13.608

------------REF_UNIT=Spent caustic REF_STRM=Spent caustic -------------

species name	number data	number quantified	minimum value	maximum value	most likely value
cresols	2	1	0.10	2.40	0.49

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Statistical Summary Listed By Refinery Unit And Stream

----------REF_UNIT=Sulfur Plant REF_STRM=Fuel Gas ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
butadiene 1,3	2	1	0.02	0.17	0.058
hydrogen sulf	3	1	ND	0.40	0.063
n_hexane	4	4	0.36	1.81	0.732
z_ethane	5	5	16.28	26.76	20.166
z_ethylene	4	3	ND	18.57	0.588
z_propane	5	5	6.65	30.11	19.718
z_propylene	5	4	ND	7.06	0.082
zz_butane	5	5	0.53	5.09	2.302

----------REF_UNIT=Supply System REF_STRM=Crude Oil ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	63	59	ND	2.52	0.169
biphenyl	2	1	ND	0.06	0.024
butadiene 1,3	3	0	ND	ND	ND
cresols	3	2	ND	0.14	0.037
cumene	13	10	ND	0.88	0.032
ethylbenzene	40	37	ND	0.56	0.118
methanol	2	0	ND	ND	ND
n_hexane	30	30	0.40	4.40	1.174
naphthalene	18	16	ND	0.89	0.057
phenol	3	0	ND	ND	ND
tmb 1,2,4	16	15	ND	0.81	0.233
tmp 2,2,4	4	3	ND	0.37	0.071
toluene	61	59	ND	2.27	0.360
xylenes	45	44	ND	2.48	0.568
z_ethylene	4	0	ND	ND	ND
z_propane	11	11	0.11	2.07	0.243
z_propylene	4	0	ND	ND	ND
zz_butane	12	12	0.36	1.90	0.887

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Statistical Summary Listed By Refinery Unit And Stream

-------REF_UNIT=Vacuum Distillation REF_STRM=Heavy Vacuum Gas Oil -------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	1	0	ND	ND	ND
biphenyl	1	1	0.09	0.09	0.090
cresols	1	0	ND	ND	ND
cumene	1	0	ND	ND	ND
ethylbenzene	1	1	0.02	0.02	0.020
methanol	1	0	ND	ND	ND
n_hexane	1	0	ND	ND	ND
naphthalene	1	1	0.02	0.02	0.020
tmb 1,2,4	1	1	0.03	0.03	0.030
tmp 2,2,4	1	0	ND	ND	ND
toluene	1	1	0.25	0.25	0.250
xylenes	1	1	0.07	0.07	0.070
z_ethylene	1	1	0.17	0.17	0.170
z_propane	1	1	0.11	0.11	0.110
z_propylene	1	1	0.68	0.68	0.680
zz_butane	1	1	0.05	0.05	0.050

-------REF_UNIT=Vacuum Distillation REF_STRM=Light Vacuum Gas Oil -------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	6	0	ND	ND	ND
butadiene 1,3	6	0	ND	ND	ND
cresols	1	0	ND	ND	ND
cumene	6	0	ND	ND	ND
ethylbenzene	6	2	ND	0.12	ND
methanol	1	0	ND	ND	ND
n_hexane	6	1	ND	0.04	0.013
naphthalene	7	1	ND	0.03	0.012
tmb 1,2,4	6	3	ND	0.05	0.011
tmp 2,2,4	6	1	ND	0.02	0.011
toluene	6	1	ND	0.05	0.013
xylenes	6	2	ND	0.05	ND
z_ethylene	6	0	ND	ND	ND
z_propane	6	2	ND	0.03	ND
z_propylene	6	0	ND	ND	ND
zz_butane	6	2	ND	0.03	ND

-----------REF_UNIT=Vacuum Distillation REF_STRM=Vacuum naphtha -----------

species name	number data	number quantified	minimum value	maximum value	most likely value
naphthalene	1	1	0.11	0.11	0.110

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Statistical Summary Listed By Refinery Unit And Stream

----------REF_UNIT=Vacuum Distillation REF_STRM=Vacuum Resid ----------

species name	number data	number quantified	minimum value	maximum value	most likely value
naphthalene	1	1	1.00	1.00	1.000

---------------REF_UNIT=Various Units REF_STRM=Slop Oil ---------------

species name	number data	number quantified	minimum value	maximum value	most likely value
benzene	9	9	0.10	1.14	0.449
biphenyl	1	1	0.18	0.18	0.180
cresols	1	1	1.45	1.45	1.450
cumene	2	2	0.09	0.17	0.124
ethylbenzene	8	8	0.17	1.38	0.509
mtbe	1	1	0.76	0.76	0.760
n_hexane	6	6	0.26	3.63	1.236
naphthalene	6	5	ND	1.80	0.137
phenol	1	1	0.09	0.09	0.090
styrene	1	1	0.59	0.59	0.590
tmb 1,2,4	5	5	0.05	1.19	0.424
tmp 2,2,4	4	4	0.10	0.70	0.226
toluene	9	9	0.80	7.00	2.235
xylenes	10	10	0.34	6.60	2.237
z_propane	2	2	0.10	0.15	0.122
z_propylene	1	1	0.13	0.13	0.130
zz_butane	4	4	0.13	1.44	0.327

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Statistical Summary Listed By Species

Species Name: Butadiene

Refinery Unit	Refinery Stream	number data	number quantified	minimum value	maximum value	most likely value
Alkylation	Alkylate-C4 Olefin F	1	0	ND	ND	ND
Alkylation	Alkylate-not C4 Olef	3	0	ND	ND	ND
Alkylation	Butane	2	1	ND	0.22	0.047
Alkylation	LPG	1	0	ND	ND	ND
Amine Treating	Treated olefinic	2	2	0.18	0.43	0.278
Aromatics Extract	Heavy Aromatics	1	0	ND	ND	ND
Atm. Distillation	Heavy Atm. Gas Oil	4	0	ND	0.02	ND
Atm. Distillation	Light Atm. Gas Oil	4	0	ND	0.10	ND
Atm. Distillation	Light ends	5	1	ND	0.15	0.017
Atm. Distillation	SR Kerosene	6	0	ND	ND	ND
Atm. Distillation	SR Naphtha	5	0	ND	ND	ND
Cat. Hydrocracker	Heavy H/C distilla	1	0	ND	ND	ND
Cat. Hydrocracker	Light H/C distillat	2	0	ND	ND	ND
Cat. Hydrocracker	Light H/C naphtha	1	0	ND	ND	ND
Cat. Hydrotreater	Cat. Cracker Feed	2	0	ND	ND	ND
Cat. Isomer'zn	Isom naphtha	1	0	ND	ND	ND
Cat. Reformer	Reformate	8	0	ND	0.10	ND
Cat. Reformer	Reformate gas	2	1	ND	0.02	0.014
Coker	Coker gas oil	6	1	ND	0.10	0.015
Coker	Coker heavy naphtha	6	1	ND	0.10	0.015
Coker	Coker light naphtha	5	1	ND	0.10	0.016
Coker	Unsat. gas	4	4	0.03	0.11	0.056
Cracked Gas Plant	Fuel Gas	5	3	ND	0.36	0.043
Cracked Gas Plant	Olefins	5	4	ND	11.27	0.279
Cracked Gas Plant	Sour Gas	3	3	0.03	0.61	0.171
Cracked Gas Plant	Unsat. Gas	4	2	ND	1.10	ND
Distillate Blending	Diesel Fuel	4	0	ND	ND	ND
Fluid Cat. Cracker	Cracked gasoline	5	0	ND	0.10	ND
Fluid Cat. Cracker	Heavy Cat. Gas Oil	3	0	ND	ND	ND
Fluid Cat. Cracker	Light Cat. Gas Oil	4	0	ND	ND	ND
Gasoline Blending	Conventional Gasolin	6	0	ND	ND	ND
Gasoline Blending	Reformulated Gasolin	5	0	ND	ND	ND
Kerosine Treating	Commercial Jet Fuel	4	0	ND	ND	ND
Naphtha Pretreat	Desulf. naphtha	1	0	ND	ND	ND
S.W. Stripper	Stripped Sour Water	4	0	ND	ND	ND
Sat. Gas Plant	Sat. Gas	1	1	0.02	0.02	0.020
Sulfur Plant	Fuel Gas	2	1	0.02	0.17	0.058
Supply System	Crude Oil	3	0	ND	ND	ND
Vac. Distillation	Light Vacuum Gas Oil	6	0	ND	ND	ND

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Statistical Summary Listed By Species

Species Name: Benzene

Refinery Unit	Refinery Stream	number data	number quantified	minimum value	maximum value	most likely value
Alkylation	Alkylate-C4 Olefin F	4	1	ND	0.10	0.018
Alkylation	Alkylate-not C4 Olef	7	0	ND	ND	ND
Alkylation	LPG	1	0	ND	ND	ND
Aromatics Extract	Benzene	2	2	99.99	99.99	99.990
Aromatics Extract	Heavy Aromatics	2	1	ND	5.70	0.239
Aromatics Extract	Toluene	2	1	ND	0.59	0.077
Asphalt Plant	Used Solvent	1	1	0.15	0.15	0.150
Atm. Distillation	Atm. Resid.	1	0	ND	ND	ND
Atm. Distillation	Heavy Atm. Gas Oil	5	0	ND	ND	ND
Atm. Distillation	Heavy Naphtha	18	18	0.08	2.07	0.716
Atm. Distillation	Light Atm. Gas Oil	8	4	ND	0.03	0.011
Atm. Distillation	Light ends	12	11	ND	0.93	0.204
Atm. Distillation	SR Gasoline	2	2	0.59	2.00	1.086
Atm. Distillation	SR Kerosene	13	6	ND	0.05	ND
Atm. Distillation	SR Naphtha	38	38	0.10	4.76	1.197
Cat. Hydrocracker	Heavy H/C distilla	2	1	ND	0.21	0.046
Cat. Hydrocracker	Heavy H/C naphtha	5	5	0.03	4.20	0.630
Cat. Hydrocracker	Light H/C distillat	3	2	ND	0.67	0.082
Cat. Hydrocracker	Light H/C naphtha	6	6	1.70	6.30	3.348
Cat. Hydrotreater	Cat. Cracker Feed	3	0	ND	ND	ND
Cat. Isomer'zn	Isom naphtha	2	1	ND	0.51	0.071
Cat. Reformer	Reformate	37	37	0.11	20.00	4.647
Cat. Reformer	Reformate gas	2	2	0.55	0.68	0.612
Coker	Coker gas oil	7	1	ND	0.10	0.014
Coker	Coker heavy naphtha	10	10	0.10	1.70	0.291
Coker	Coker light naphtha	6	6	0.41	0.92	0.679
Coker	Unsat. gas	1	1	0.60	0.60	0.600
Cracked Gas Plant	Fuel Gas	1	0	ND	ND	ND
Cracked Gas Plant	Sour Gas	1	1	0.03	0.03	0.030
Cracked Gas Plant	Unsat. Gas	1	1	3.50	3.50	3.500
Distillate Blending	Diesel Fuel	8	0	ND	ND	ND
Fluid Cat. Cracker	Cracked gasoline	33	33	0.08	3.20	0.751
Fluid Cat. Cracker	Heavy Cat. Gas Oil	8	6	ND	1.26	0.175
Fluid Cat. Cracker	Light Cat. Gas Oil	12	10	ND	1.56	0.656
Gasoline Blending	Aviation Gasoline	4	4	0.51	1.62	0.847
Gasoline Blending	Conventional Gasolin	43	43	0.04	7.15	1.292
Gasoline Blending	Reformulated Gasolin	8	8	0.74	1.73	1.048
Hydrodesulfur'zn	Diesel	2	0	ND	ND	ND
Hydrodesulfur'zn	Jet / Kero	2	0	ND	ND	ND
Hydrodesulfur'zn	Naphtha	4	4	0.61	0.71	0.652
Kerosine Treating	Commercial Jet Fuel	11	6	ND	2.86	ND
Naphtha Pretreat	Desulf. naphtha	8	8	0.17	3.17	0.237
Polymerization	Poly. naphtha	2	2	0.74	1.74	1.135

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Statistical Summary Listed By Species

Species Name: Benzene (continued from previous page)

Refinery Unit	Refinery Stream	number data	number quantified	minimum value	maximum value	most likely value
S.W. Stripper	Stripped Sour Water	4	0	ND	ND	ND
Sat. Gas Plant	Sat. Gas	1	1	4.00	4.00	4.000
Supply System	Crude Oil	63	59	ND	2.52	0.169
Vac. Distillation	Heavy Vacuum Gas Oil	1	0	ND	ND	ND
Vac. Distillation	Light Vacuum Gas Oil	6	0	ND	ND	ND
Various Units	Slop Oil	9	9	0.10	1.14	0.449

Species Name: Biphenyl

Refinery Unit	Refinery Stream	number data	number quantified	minimum value	maximum value	most likely value
Alkylation	Alkylate-C4 Olefin F	1	0	ND	ND	ND
Alkylation	Alkylate-not C4 Olef	1	1	0.05	0.05	0.050
Atm. Distillation	Atm. Resid.	2	2	0.04	0.04	0.040
Atm. Distillation	Heavy Atm. Gas Oil	2	2	0.06	0.10	0.077
Atm. Distillation	Heavy Naphtha	1	1	0.15	0.15	0.150
Atm. Distillation	Light Atm. Gas Oil	2	2	0.04	0.08	0.057
Atm. Distillation	Light ends	5	1	ND	0.12	0.016
Atm. Distillation	SR Kerosene	6	4	ND	0.24	0.034
Atm. Distillation	SR Naphtha	3	0	ND	ND	ND
Cat. Reformer	Reformate	2	0	ND	ND	ND
Coker	Coker heavy naphtha	1	0	ND	ND	ND
Distillate Blending	Diesel Fuel	4	4	0.03	0.26	0.071
Distillate Blending	Home Heating Oil	4	4	0.10	0.25	0.166
Fluid Cat. Cracker	Light Cat. Gas Oil	5	5	0.08	0.99	0.355
Hydrodesulfur'zn	Diesel	2	2	0.20	0.34	0.261
Hydrodesulfur'zn	Heating Oil	1	1	0.23	0.23	0.230
Hydrodesulfur'zn	Jet / Kero	1	1	0.14	0.14	0.140
Kerosine Treating	Commercial Jet Fuel	7	7	0.10	1.74	0.210
S.W. Stripper	Stripped Sour Water	1	0	ND	ND	ND
Supply System	Crude Oil	2	1	ND	0.06	0.024
Vac. Distillation	Heavy Vacuum Gas Oil	1	1	0.09	0.09	0.090
Various Units	Slop Oil	1	1	0.18	0.18	0.180

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Statistical Summary Listed By Species

Species Name: Cresols

Refinery Unit	Refinery Stream	number data	number quantified	minimum value	maximum value	most likely value
Atm. Distillation	Heavy Atm. Gas Oil	3	1	ND	0.10	0.032
Atm. Distillation	Light Atm. Gas Oil	3	0	ND	0.02	ND
Atm. Distillation	Light ends	4	0	ND	ND	ND
Atm. Distillation	SR Kerosene	3	0	ND	ND	ND
Atm. Distillation	SR Naphtha	2	0	ND	ND	ND
Cat. Hydrocracker	Heavy H/C naphtha	1	0	ND	ND	ND
Cat. Hydrocracker	Light H/C distillat	1	0	ND	ND	ND
Cat. Hydrotreater	Cat. Cracker Feed	1	0	ND	ND	ND
Coker	Coker gas oil	1	0	ND	ND	ND
Coker	Coker heavy naphtha	2	1	ND	0.03	0.017
Distillate Blending	Diesel Fuel	2	2	0.05	0.05	0.050
Fluid Cat. Cracker	Light Cat. Gas Oil	1	0	ND	ND	ND
Gasoline Blending	Aviation Gasoline	2	2	0.05	0.16	0.089
Gasoline Blending	Conventional Gasolin	1	0	ND	ND	ND
Gasoline Blending	Reformulated Gasolin	1	0	ND	ND	ND
Hydrodesulfur'zn	Diesel	1	0	ND	ND	ND
Kerosine Treating	Commercial Jet Fuel	2	1	ND	0.10	0.032
Naphtha Pretreat	Desulf. naphtha	1	0	ND	ND	ND
Spent caustic	Spent caustic	2	1	0.10	2.40	0.490
Supply System	Crude Oil	3	2	ND	0.14	0.037
Vac. Distillation	Heavy Vacuum Gas Oil	1	0	ND	ND	ND
Vac. Distillation	Light Vacuum Gas Oil	1	0	ND	ND	ND
Various Units	Slop Oil	1	1	1.45	1.45	1.450

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Statistical Summary Listed By Species

Species Name: Cumene

Refinery Unit	Refinery Stream	number data	number quantified	minimum value	maximum value	most likely value
Alkylation	Alkylate-C4 Olefin F	1	0	ND	ND	ND
Alkylation	Alkylate-not C4 Olef	7	0	ND	ND	ND
Alkylation	LPG	1	0	ND	ND	ND
Aromatics Extract	Benzene	1	0	ND	ND	ND
Aromatics Extract	Heavy Aromatics	2	2	0.23	1.70	0.625
Aromatics Extract	Toluene	2	0	ND	ND	ND
Aromatics Extract	Xylenes	1	1	0.59	0.59	0.590
Asphalt Plant	Used Solvent	1	0	ND	ND	ND
Atm. Distillation	Atm. Resid.	1	0	ND	ND	ND
Atm. Distillation	Heavy Atm. Gas Oil	4	1	ND	0.16	0.020
Atm. Distillation	Heavy Naphtha	13	13	0.02	0.91	0.191
Atm. Distillation	Light Atm. Gas Oil	9	2	ND	0.10	ND
Atm. Distillation	Light ends	6	0	ND	ND	ND
Atm. Distillation	SR Kerosene	13	10	ND	0.30	0.031
Atm. Distillation	SR Naphtha	20	14	ND	0.62	0.059
Cat. Hydrocracker	Heavy H/C distilla	1	0	ND	ND	ND
Cat. Hydrocracker	Light H/C distillat	2	0	ND	ND	ND
Cat. Hydrocracker	Light H/C naphtha	3	0	ND	ND	ND
Cat. Hydrotreater	Cat. Cracker Feed	3	0	ND	ND	ND
Cat. Isomer'zn	Isom naphtha	1	0	ND	ND	ND
Cat. Reformer	Reformate	29	27	ND	1.25	0.231
Coker	Coker gas oil	2	0	ND	ND	ND
Coker	Coker heavy naphtha	7	7	0.04	0.40	0.149
Coker	Coker light naphtha	4	3	ND	0.15	0.043
Cracked Gas Plant	Fuel Gas	1	0	ND	ND	ND
Distillate Blending	Diesel Fuel	7	5	ND	0.17	0.024
Fluid Cat. Cracker	Cracked gasoline	11	9	ND	0.49	0.037
Fluid Cat. Cracker	Heavy Cat. Gas Oil	6	6	0.03	0.29	0.114
Fluid Cat. Cracker	Light Cat. Gas Oil	11	6	ND	0.62	0.013
Gasoline Blending	Aviation Gasoline	3	3	0.02	0.23	0.064
Gasoline Blending	Conventional Gasolin	30	28	ND	0.95	0.150
Gasoline Blending	Reformulated Gasolin	6	6	0.03	0.65	0.101
Hydrodesulfur'zn	Diesel	2	1	ND	0.02	0.014
Hydrodesulfur'zn	Jet / Kero	2	2	0.03	0.05	0.039
Hydrodesulfur'zn	Naphtha	3	3	0.11	0.17	0.135
Kerosine Treating	Commercial Jet Fuel	10	9	ND	0.27	0.067
Naphtha Pretreat	Desulf. naphtha	5	5	0.10	0.14	0.119
Polymerization	Poly. naphtha	1	1	0.09	0.09	0.090
S.W. Stripper	Stripped Sour Water	4	0	ND	ND	ND
Supply System	Crude Oil	13	10	ND	0.88	0.032
Vac. Distillation	Heavy Vacuum Gas Oil	1	0	ND	ND	ND
Vac. Distillation	Light Vacuum Gas Oil	6	0	ND	ND	ND
Various Units	Slop Oil	2	2	0.09	0.17	0.124

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Statistical Summary Listed By Species

Species Name: Ethylbenzene

Refinery Unit	Refinery Stream	number data	number quantified	minimum value	maximum value	most likely value
Alkylation	Alkylate-C4 Olefin F	1	0	ND	ND	ND
Alkylation	Alkylate-not C4 Olef	4	0	ND	ND	ND
Alkylation	LPG	1	0	ND	ND	ND
Aromatics Extract	Benzene	1	0	ND	ND	ND
Aromatics Extract	Heavy Aromatics	2	2	3.30	3.83	3.555
Aromatics Extract	Toluene	2	2	0.16	5.48	0.936
Aromatics Extract	Xylenes	1	1	16.08	16.08	16.080
Asphalt Plant	Used Solvent	6	6	0.10	1.39	0.295
Atm. Distillation	Atm. Resid.	1	1	0.08	0.08	0.080
Atm. Distillation	Heavy Atm. Gas Oil	5	0	ND	ND	ND
Atm. Distillation	Heavy Naphtha	18	18	0.50	3.98	1.095
Atm. Distillation	Light Atm. Gas Oil	10	7	ND	0.10	0.023
Atm. Distillation	Light ends	9	3	ND	0.03	ND
Atm. Distillation	SR Gasoline	1	1	1.00	1.00	1.000
Atm. Distillation	SR Kerosene	13	12	ND	0.55	0.100
Atm. Distillation	SR Naphtha	28	26	ND	2.47	0.313
Cat. Hydrocracker	Heavy H/C distilla	1	0	ND	ND	ND
Cat. Hydrocracker	Heavy H/C naphtha	4	4	0.64	3.58	1.579
Cat. Hydrocracker	Light H/C distillat	3	3	0.08	1.25	0.424
Cat. Hydrocracker	Light H/C naphtha	3	3	1.10	2.10	1.624
Cat. Hydrotreater	Cat. Cracker Feed	3	0	ND	ND	ND
Cat. Reformer	Reformate	36	36	0.07	8.60	3.305
Coker	Coker gas oil	4	1	ND	0.70	0.029
Coker	Coker heavy naphtha	11	11	0.51	2.50	0.927
Coker	Coker light naphtha	6	3	ND	1.00	ND
Coker	Unsat. gas	1	1	0.02	0.02	0.020
Cracked Gas Plant	Fuel Gas	2	0	ND	ND	ND
Cracked Gas Plant	Unsat. Gas	1	1	2.20	2.20	2.200
Distillate Blending	Diesel Fuel	9	7	ND	0.18	0.029
Distillate Blending	Home Heating Oil	1	1	0.10	0.10	0.100
Fluid Cat. Cracker	Cracked gasoline	26	25	ND	1.89	0.754
Fluid Cat. Cracker	Heavy Cat. Gas Oil	8	8	0.33	4.18	1.128
Fluid Cat. Cracker	Light Cat. Gas Oil	16	16	0.09	2.30	0.557
Gasoline Blending	Aviation Gasoline	4	4	0.25	3.70	0.561
Gasoline Blending	Conventional Gasolin	36	35	ND	3.75	0.926
Gasoline Blending	Reformulated Gasolin	6	6	0.66	1.80	1.213
Hydrodesulfur'zn	Diesel	4	1	ND	0.05	0.015
Hydrodesulfur'zn	Jet / Kero	3	3	0.02	0.09	0.033
Hydrodesulfur'zn	Naphtha	4	4	0.64	1.11	0.931
Kerosine Treating	Commercial Jet Fuel	17	17	0.05	0.97	0.170
Naphtha Pretreat	Desulf. naphtha	8	8	0.48	9.20	0.985
Polymerization	Poly. naphtha	1	1	1.18	1.18	1.180
S.W. Stripper	Stripped Sour Water	4	0	ND	ND	ND

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Statistical Summary Listed By Species

Species Name: Ethylbenzene (continued from previous page)

Refinery Unit	Refinery Stream	number data	number quantified	minimum value	maximum value	most likely value
Sat. Gas Plant	Sat. Gas	1	1	0.30	0.30	0.300
Supply System	Crude Oil	40	37	ND	0.56	0.118
Vac. Distillation	Heavy Vacuum Gas Oil	1	1	0.02	0.02	0.020
Vac. Distillation	Light Vacuum Gas Oil	6	2	ND	0.12	ND
Various Units	Slop Oil	8	8	0.17	1.38	0.509

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Statistical Summary Listed By Species

Species Name: n_hexane

Refinery Unit	Refinery Stream	number data	number quantified	minimum value	maximum value	most likely value
Alkylation	Alkylate-C4 Olefin F	5	3	ND	5.90	0.255
Alkylation	Alkylate-not C4 Olef	4	3	ND	0.06	0.022
Alkylation	Butane	1	1	0.19	0.19	0.190
Alkylation	LPG	1	0	ND	ND	ND
Amine Treating	Sour Gas	2	2	0.36	0.83	0.547
Amine Treating	Treated olefinic	3	3	0.02	0.04	0.027
Aromatics Extract	Heavy Aromatics	1	0	ND	ND	ND
Asphalt Plant	Used Solvent	2	1	0.10	0.35	0.187
Atm. Distillation	Heavy Atm. Gas Oil	3	0	ND	ND	ND
Atm. Distillation	Heavy Naphtha	15	15	0.28	7.53	3.089
Atm. Distillation	Light Atm. Gas Oil	5	3	ND	0.09	0.025
Atm. Distillation	Light ends	14	14	0.70	7.17	2.445
Atm. Distillation	SR Gasoline	2	2	2.32	9.00	4.569
Atm. Distillation	SR Kerosene	10	8	ND	0.14	0.034
Atm. Distillation	SR Naphtha	30	30	1.20	13.91	5.981
Cat. Hydrocracker	Heavy H/C distilla	1	0	ND	ND	ND
Cat. Hydrocracker	Heavy H/C naphtha	3	2	ND	2.10	0.145
Cat. Hydrocracker	Light H/C distillat	2	1	ND	0.04	0.020
Cat. Hydrocracker	Light H/C naphtha	3	3	1.20	2.26	1.551
Cat. Hydrotreater	Cat. Cracker Feed	3	0	ND	ND	ND
Cat. Isomer'zn	Isom naphtha	5	5	0.95	5.42	2.588
Cat. Reformer	Reformate	30	30	0.05	5.90	2.183
Cat. Reformer	Reformate gas	4	4	0.02	1.77	0.386
Coker	Coker gas oil	2	0	ND	ND	ND
Coker	Coker heavy naphtha	10	7	ND	4.35	0.178
Coker	Coker light naphtha	3	2	ND	2.56	0.160
Coker	Unsat. gas	4	4	1.23	6.77	2.795
Cracked Gas Plant	Fuel Gas	3	2	ND	0.88	0.094
Cracked Gas Plant	Olefins	4	4	0.02	0.40	0.097
Cracked Gas Plant	Sour Gas	2	2	0.22	2.76	0.779
Cracked Gas Plant	Unsat. Gas	3	3	0.04	0.28	0.191
Distillate Blending	Diesel Fuel	5	3	ND	0.07	0.016
Fluid Cat. Cracker	Cracked gasoline	24	24	0.24	5.20	0.812
Fluid Cat. Cracker	Heavy Cat. Gas Oil	4	2	ND	0.55	ND
Fluid Cat. Cracker	Light Cat. Gas Oil	8	5	ND	1.84	0.118
Gasoline Blending	Aviation Gasoline	3	3	0.12	5.67	0.892
Gasoline Blending	Conventional Gasolin	29	28	ND	7.22	1.338
Gasoline Blending	Reformulated Gasolin	5	5	0.81	1.80	1.239
Hydrodesulfur'zn	Diesel	1	0	ND	ND	ND
Hydrodesulfur'zn	Heating Oil	1	1	0.09	0.09	0.090
Hydrodesulfur'zn	Naphtha	3	3	1.98	2.86	2.570
Kerosine Treating	Commercial Jet Fuel	10	6	ND	8.32	0.025
Naphtha Pretreat	Desulf. naphtha	7	7	0.83	10.80	3.799

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Statistical Summary Listed By Species

Species Name: n_hexane (continued from previous page)

Refinery Unit	Refinery Stream	number data	number quantified	minimum value	maximum value	most likely value
Polymerization	Poly. naphtha	1	1	0.54	0.54	0.540
S.W. Stripper	Stripped Sour Water	4	0	ND	ND	ND
Sat. Gas Plant	Sat. Gas	5	5	0.05	2.98	0.618
Sulfur Plant	Fuel Gas	4	4	0.36	1.81	0.732
Supply System	Crude Oil	30	30	0.40	4.40	1.174
Vac. Distillation	Heavy Vacuum Gas Oil	1	0	ND	ND	ND
Vac. Distillation	Light Vacuum Gas Oil	6	1	ND	0.04	0.013
Various Units	Slop Oil	6	6	0.26	3.63	1.236

Species Name: Hydrogen Sulfide

Refinery Unit	Refinery Stream	number data	number quantified	minimum value	maximum value	most likely value
Amine Treating	Sour Gas	1	1	0.86	0.86	0.860
Atm. Distillation	Heavy Naphtha	2	0	ND	ND	ND
Atm. Distillation	SR Kerosene	1	0	ND	ND	ND
Atm. Distillation	SR Naphtha	2	1	ND	0.02	0.014
Cat. Hydrocracker	Sat. Gas	1	1	5.60	5.60	5.600
Coker	Coker light naphtha	1	1	0.09	0.09	0.090
Coker	Unsat. gas	1	1	7.12	7.12	7.120
Cracked Gas Plant	Fuel Gas	3	1	ND	21.71	0.466
Cracked Gas Plant	Olefins	3	0	ND	ND	ND
Cracked Gas Plant	Sour Gas	3	1	ND	7.13	0.267
S.W. Stripper	Stripped Sour Water	1	0	ND	ND	ND
Sulfur Plant	Fuel Gas	3	1	ND	0.40	0.063

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Statistical Summary Listed By Species

Species Name: Methanol

Refinery Unit	Refinery Stream	number data	number quantified	minimum value	maximum value	most likely value
Alkylation	Alkylate-C4 Olefin F	1	0	ND	ND	ND
Alkylation	Alkylate-not C4 Olef	1	0	ND	ND	ND
Atm. Distillation	Heavy Atm. Gas Oil	1	0	ND	ND	ND
Atm. Distillation	Light Atm. Gas Oil	2	0	ND	ND	ND
Atm. Distillation	Light ends	1	0	ND	ND	ND
Atm. Distillation	SR Kerosene	2	0	ND	ND	ND
Atm. Distillation	SR Naphtha	4	0	ND	ND	ND
Cat. Hydrocracker	Light H/C distillat	1	0	ND	ND	ND
Cat. Hydrocracker	Light H/C naphtha	1	0	ND	ND	ND
Cat. Hydrotreater	Cat. Cracker Feed	2	0	ND	ND	ND
Cat. Reformer	Reformate	7	0	ND	ND	ND
Coker	Coker gas oil	1	0	ND	ND	ND
Coker	Coker light naphtha	1	0	ND	ND	ND
Distillate Blending	Diesel Fuel	1	0	ND	ND	ND
Fluid Cat. Cracker	Cracked gasoline	2	0	ND	ND	ND
Fluid Cat. Cracker	Heavy Cat. Gas Oil	1	0	ND	ND	ND
Fluid Cat. Cracker	Light Cat. Gas Oil	6	0	ND	ND	ND
Gasoline Blending	Conventional Gasolin	3	1	ND	2.04	0.143
Hydrodesulfur'zn	Diesel	1	0	ND	ND	ND
Kerosine Treating	Commercial Jet Fuel	1	0	ND	ND	ND
S.W. Stripper	Stripped Sour Water	3	0	ND	ND	ND
Supply System	Crude Oil	2	0	ND	ND	ND
Vac. Distillation	Heavy Vacuum Gas Oil	1	0	ND	ND	ND
Vac. Distillation	Light Vacuum Gas Oil	1	0	ND	ND	ND

Species Name: Methyl Ethyl Ketone (MEK)

Refinery Unit	Refinery Stream	number data	number quantified	minimum value	maximum value	most likely value
Atm. Distillation	Heavy Atm. Gas Oil	1	0	ND	ND	ND
Atm. Distillation	Light Atm. Gas Oil	2	0	ND	ND	ND
Atm. Distillation	Light ends	4	0	ND	ND	ND
Atm. Distillation	SR Kerosene	3	0	ND	ND	ND
Atm. Distillation	SR Naphtha	2	0	ND	ND	ND
Coker	Coker heavy naphtha	1	0	ND	ND	ND
Coker	Coker light naphtha	1	1	0.29	0.29	0.290
Fluid Cat. Cracker	Cracked gasoline	1	0	ND	ND	ND

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Statistical Summary Listed By Species

Species Name: Methyl Tertiary Butyl Ether (MTBE)

Refinery Unit	Refinery Stream	number data	number quantified	minimum value	maximum value	most likely value
Alkylation	LPG	1	0	ND	ND	ND
Atm. Distillation	Heavy Atm. Gas Oil	2	0	ND	ND	ND
Atm. Distillation	Light Atm. Gas Oil	2	0	ND	ND	ND
Atm. Distillation	Light ends	4	0	ND	ND	ND
Atm. Distillation	SR Kerosene	3	0	ND	ND	ND
Atm. Distillation	SR Naphtha	2	0	ND	ND	ND
Cat. Hydrocracker	Light H/C distillat	2	1	ND	0.03	0.017
Coker	Coker heavy naphtha	1	0	ND	ND	ND
Distillate Blending	Diesel Fuel	3	1	ND	0.06	0.024
Fluid Cat. Cracker	Cracked gasoline	1	0	ND	ND	ND
Gasoline Blending	Conventional Gasolin	21	19	ND	13.00	0.879
Gasoline Blending	Reformulated Gasolin	3	3	6.10	15.81	9.409
Various Units	Slop Oil	1	1	0.76	0.76	0.760

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Statistical Summary Listed By Species

Species Name: Naphthalene

Refinery Unit	Refinery Stream	number data	number quantified	minimum value	maximum value	most likely value
Alkylation	Alkylate-C4 Olefin F	1	0	ND	ND	ND
Alkylation	Alkylate-not C4 Olef	7	1	ND	0.05	0.013
Aromatics Extract	Benzene	1	0	ND	ND	ND
Aromatics Extract	Heavy Aromatics	2	2	0.03	0.60	0.134
Aromatics Extract	Toluene	1	0	ND	ND	ND
Atm. Distillation	Atm. Resid.	2	2	2.00	2.00	2.000
Atm. Distillation	Heavy Atm. Gas Oil	4	3	ND	0.06	0.032
Atm. Distillation	Heavy Naphtha	7	5	ND	1.27	0.065
Atm. Distillation	Light Atm. Gas Oil	10	8	ND	0.69	0.089
Atm. Distillation	Light ends	5	1	ND	0.03	0.012
Atm. Distillation	SR Gasoline	1	1	0.10	0.10	0.100
Atm. Distillation	SR Kerosene	20	18	ND	1.25	0.100
Atm. Distillation	SR Naphtha	15	6	ND	0.50	0.012
Cat. Hydrocracker	Heavy H/C distilla	2	1	ND	0.22	0.047
Cat. Hydrocracker	Heavy H/C naphtha	3	3	0.04	0.29	0.121
Cat. Hydrocracker	Light H/C distillat	2	2	0.30	1.86	0.747
Cat. Hydrocracker	Light H/C naphtha	4	0	ND	ND	ND
Cat. Hydrotreater	Cat. Cracker Feed	3	1	ND	0.15	0.039
Cat. Isomer'zn	Isom naphtha	1	0	ND	ND	ND
Cat. Reformer	Reformate	28	24	ND	4.70	0.302
Coker	Coker gas oil	5	3	ND	3.00	0.021
Coker	Coker heavy naphtha	5	0	ND	ND	ND
Coker	Coker light naphtha	6	1	ND	0.22	0.017
Cracked Gas Plant	Fuel Gas	1	0	ND	ND	ND
Distillate Blending	Diesel Fuel	11	10	ND	0.54	0.170
Distillate Blending	Home Heating Oil	6	6	0.13	0.75	0.364
Fluid Cat. Cracker	Cracked gasoline	21	16	ND	1.80	0.096
Fluid Cat. Cracker	Heavy Cat. Gas Oil	9	9	0.16	6.50	0.995
Fluid Cat. Cracker	Light Cat. Gas Oil	15	14	ND	4.10	0.479
Gasoline Blending	Aviation Gasoline	4	4	0.05	2.30	0.209
Gasoline Blending	Conventional Gasolin	26	25	ND	1.06	0.303
Gasoline Blending	Reformulated Gasolin	7	5	ND	0.45	0.039
Hydrodesulfur'zn	Diesel	6	5	ND	0.39	0.105
Hydrodesulfur'zn	Heating Oil	1	1	0.10	0.10	0.100
Hydrodesulfur'zn	Jet / Kero	4	4	0.04	0.99	0.181
Hydrodesulfur'zn	Naphtha	1	1	0.14	0.14	0.140
Kerosine Treating	Commercial Jet Fuel	15	14	ND	2.26	0.315
Naphtha Pretreat	Desulf. naphtha	2	1	ND	0.10	0.032
S.W. Stripper	Stripped Sour Water	4	0	ND	ND	ND
Supply System	Crude Oil	18	16	ND	0.89	0.057
Vac. Distillation	Heavy Vacuum Gas Oil	1	1	0.02	0.02	0.020
Vac. Distillation	Light Vacuum Gas Oil	7	1	ND	0.03	0.012
Vac. Distillation	Vac, naphtha	1	1	0.11	0.11	0.110
Vac. Distillation	Vacuum Resid	1	1	1.00	1.00	1.000
Various Units	Slop Oil	6	5	ND	1.80	0.137

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Statistical Summary Listed By Species

Species Name: Phenol

Refinery Unit	Refinery Stream	number data	number quantified	minimum value	maximum value	most likely value
Alkylation	Alkylate-C4 Olefin F	1	0	ND	ND	ND
Alkylation	Alkylate-not C4 Olef	1	0	ND	ND	ND
Atm. Distillation	Heavy Atm. Gas Oil	2	1	ND	0.02	0.014
Atm. Distillation	Light Atm. Gas Oil	3	0	ND	0.02	ND
Atm. Distillation	Light ends	4	0	ND	ND	ND
Atm. Distillation	SR Kerosene	3	0	ND	ND	ND
Atm. Distillation	SR Naphtha	2	0	ND	ND	ND
Coker	Coker heavy naphtha	1	0	ND	ND	ND
Distillate Blending	Diesel Fuel	1	1	0.26	0.26	0.260
Fluid Cat. Cracker	Cracked gasoline	2	1	ND	2.20	0.148
Fluid Cat. Cracker	Light Cat. Gas Oil	1	0	ND	ND	ND
Gasoline Blending	Conventional Gasolin	1	0	ND	ND	ND
Gasoline Blending	Reformulated Gasolin	1	0	ND	ND	ND
Kerosine Treating	Commercial Jet Fuel	2	1	ND	0.10	0.032
Naphtha Pretreat	Desulf. naphtha	1	0	ND	ND	ND
Supply System	Crude Oil	3	0	ND	ND	ND
Various Units	Slop Oil	1	1	0.09	0.09	0.090

Species Name: Styrene

Refinery Unit	Refinery Stream	number data	number quantified	minimum value	maximum value	most likely value
Alkylation	Alkylate-C4 Olefin F	1	1	0.02	0.02	0.020
Alkylation	Alkylate-not C4 Olef	1	0	ND	ND	ND
Atm. Distillation	Heavy Atm. Gas Oil	1	0	ND	ND	ND
Atm. Distillation	Light Atm. Gas Oil	2	0	ND	ND	ND
Atm. Distillation	Light ends	5	0	ND	ND	ND
Atm. Distillation	SR Kerosene	3	0	ND	ND	ND
Atm. Distillation	SR Naphtha	2	0	ND	ND	ND
Cat. Reformer	Reformate	2	2	0.09	0.13	0.108
Coker	Coker heavy naphtha	2	2	0.03	0.04	0.035
Coker	Coker light naphtha	1	1	0.51	0.51	0.510
Fluid Cat. Cracker	Cracked gasoline	1	0	ND	ND	ND
Fluid Cat. Cracker	Light Cat. Gas Oil	1	1	0.27	0.27	0.270
Gasoline Blending	Conventional Gasolin	3	3	0.07	0.09	0.078
Various Units	Slop Oil	1	1	0.59	0.59	0.590

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Statistical Summary Listed By Species

Species Name: 1,2,4 Tri Methyl Benzene

Refinery Unit	Refinery Stream	number data	number quantified	minimum value	maximum value	most likely value
Alkylation	Alkylate-C4 Olefin F	1	0	ND	ND	ND
Alkylation	Alkylate-not C4 Olef	7	1	ND	0.08	0.013
Alkylation	LPG	1	0	ND	ND	ND
Aromatics Extract	Benzene	1	0	ND	ND	ND
Aromatics Extract	Heavy Aromatics	2	2	4.19	5.70	4.887
Aromatics Extract	Toluene	2	1	ND	0.30	0.055
Atm. Distillation	Heavy Atm. Gas Oil	3	2	ND	0.06	0.024
Atm. Distillation	Heavy Naphtha	13	13	0.10	3.00	0.749
Atm. Distillation	Light Atm. Gas Oil	7	7	0.07	0.70	0.292
Atm. Distillation	Light ends	6	2	ND	0.08	ND
Atm. Distillation	SR Kerosene	14	14	0.07	1.74	0.339
Atm. Distillation	SR Naphtha	14	10	ND	4.70	0.119
Cat. Hydrocracker	Heavy H/C distilla	2	1	ND	0.36	0.060
Cat. Hydrocracker	Heavy H/C naphtha	3	3	0.89	5.60	2.828
Cat. Hydrocracker	Light H/C distillat	3	2	ND	3.50	0.187
Cat. Hydrocracker	Light H/C naphtha	1	0	ND	ND	ND
Cat. Hydrotreater	Cat. Cracker Feed	1	0	ND	ND	ND
Cat. Isomer'zn	Isom naphtha	1	0	ND	ND	ND
Cat. Reformer	Reformate	25	24	ND	14.20	3.754
Coker	Coker gas oil	2	1	ND	0.03	0.017
Coker	Coker heavy naphtha	10	10	0.57	2.70	0.926
Coker	Coker light naphtha	5	5	0.03	0.60	0.137
Cracked Gas Plant	Fuel Gas	1	0	ND	ND	ND
Distillate Blending	Diesel Fuel	9	9	0.12	1.12	0.225
Distillate Blending	Home Heating Oil	6	6	0.13	0.92	0.325
Fluid Cat. Cracker	Cracked gasoline	19	18	ND	7.30	0.762
Fluid Cat. Cracker	DCO	1	1	0.16	0.16	0.160
Fluid Cat. Cracker	Heavy Cat. Gas Oil	7	7	2.35	11.60	4.735
Fluid Cat. Cracker	Light Cat. Gas Oil	16	16	0.23	7.30	1.068
Gasoline Blending	Aviation Gasoline	1	1	0.50	0.50	0.500
Gasoline Blending	Conventional Gasolin	24	24	0.03	7.40	2.119
Gasoline Blending	Reformulated Gasolin	5	5	1.67	3.11	2.438
Hydrodesulfur'zn	Diesel	6	5	ND	0.38	0.063
Hydrodesulfur'zn	Heating Oil	1	1	0.14	0.14	0.140
Hydrodesulfur'zn	Jet / Kero	4	4	0.25	0.93	0.516
Hydrodesulfur'zn	Naphtha	3	3	0.10	1.08	0.501
Kerosine Treating	Commercial Jet Fuel	14	14	0.06	2.36	0.594
Naphtha Pretreat	Desulf. naphtha	7	7	0.11	4.60	0.802
S.W. Stripper	Stripped Sour Water	2	0	ND	ND	ND
Supply System	Crude Oil	16	15	ND	0.81	0.233
Vac. Distillation	Heavy Vacuum Gas Oil	1	1	0.03	0.03	0.030
Vac. Distillation	Light Vacuum Gas Oil	6	3	ND	0.05	0.011
Various Units	Slop Oil	5	5	0.05	1.19	0.424

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Statistical Summary Listed By Species

Species Name: 2,2,4 Tri Methyl Pentane

Refinery Unit	Refinery Stream	number data	number quantified	minimum value	maximum value	most likely value
Alkylation	Alkylate-C4 Olefin F	9	9	12.10	36.40	23.839
Alkylation	Alkylate-not C4 Olef	5	3	ND	2.19	0.075
Alkylation	LPG	1	0	ND	ND	ND
Aromatics Extract	Heavy Aromatics	1	0	ND	ND	ND
Atm. Distillation	Heavy Atm. Gas Oil	3	0	ND	ND	ND
Atm. Distillation	Heavy Naphtha	1	1	0.03	0.03	0.030
Atm. Distillation	Light Atm. Gas Oil	4	2	ND	0.07	ND
Atm. Distillation	Light ends	5	0	ND	ND	ND
Atm. Distillation	SR Kerosene	6	2	ND	0.07	ND
Atm. Distillation	SR Naphtha	7	1	ND	0.80	0.019
Cat. Hydrocracker	Heavy H/C distilla	1	0	ND	ND	ND
Cat. Hydrocracker	Light H/C distillat	2	1	ND	0.05	0.022
Cat. Hydrocracker	Light H/C naphtha	1	1	4.99	4.99	4.990
Cat. Hydrotreater	Cat. Cracker Feed	2	0	ND	ND	ND
Cat. Isomer'zn	Isom naphtha	1	0	ND	ND	ND
Cat. Reformer	Reformate	13	5	ND	1.38	ND
Coker	Coker gas oil	2	0	ND	ND	ND
Coker	Coker heavy naphtha	6	4	ND	1.75	0.025
Coker	Coker light naphtha	3	2	ND	0.82	0.091
Cracked Gas Plant	Fuel Gas	2	1	ND	0.03	0.017
Distillate Blending	Diesel Fuel	4	1	ND	0.02	0.012
Fluid Cat. Cracker	Cracked gasoline	9	7	ND	1.19	0.034
Fluid Cat. Cracker	Heavy Cat. Gas Oil	4	2	ND	1.00	ND
Fluid Cat. Cracker	Light Cat. Gas Oil	7	3	ND	1.13	ND
Gasoline Blending	Conventional Gasolin	20	20	0.09	11.90	1.965
Gasoline Blending	Reformulated Gasolin	5	5	0.05	3.80	0.425
Hydrodesulfur'zn	Diesel	1	0	ND	ND	ND
Kerosine Treating	Commercial Jet Fuel	6	0	ND	ND	ND
Naphtha Pretreat	Desulf. naphtha	1	0	ND	ND	ND
Polymerization	Poly. naphtha	2	2	0.55	0.90	0.704
S.W. Stripper	Stripped Sour Water	4	0	ND	ND	ND
Supply System	Crude Oil	4	3	ND	0.37	0.071
Vac. Distillation	Heavy Vacuum Gas Oil	1	0	ND	ND	ND
Vac. Distillation	Light Vacuum Gas Oil	6	1	ND	0.02	0.011
Various Units	Slop Oil	4	4	0.10	0.70	0.226

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Statistical Summary Listed By Species

Species Name: Toluene

Refinery Unit	Refinery Stream	number data	number quantified	minimum value	maximum value	most likely value
Alkylation	Alkylate-C4 Olefin F	5	4	ND	6.12	0.335
Alkylation	Alkylate-not C4 Olef	7	0	ND	ND	ND
Alkylation	LPG	1	0	ND	ND	ND
Aromatics Extract	Benzene	1	0	ND	ND	ND
Aromatics Extract	Heavy Aromatics	2	2	18.72	20.00	19.349
Aromatics Extract	Toluene	4	4	83.25	100.00	95.326
Aromatics Extract	Xylenes	1	1	0.19	0.19	0.190
Asphalt Plant	Used Solvent	3	3	0.11	0.78	0.257
Atm. Distillation	Atm. Resid.	1	0	ND	ND	ND
Atm. Distillation	Heavy Atm. Gas Oil	6	2	ND	0.10	ND
Atm. Distillation	Heavy Naphtha	18	18	0.87	5.87	3.575
Atm. Distillation	Light Atm. Gas Oil	11	9	ND	0.16	0.030
Atm. Distillation	Light ends	9	9	0.02	0.24	0.093
Atm. Distillation	SR Gasoline	1	1	1.10	1.10	1.100
Atm. Distillation	SR Kerosene	16	15	ND	0.40	0.093
Atm. Distillation	SR Naphtha	35	34	ND	7.00	1.810
Cat. Hydrocracker	Heavy H/C distilla	1	0	ND	ND	ND
Cat. Hydrocracker	Heavy H/C naphtha	5	5	0.96	5.79	3.102
Cat. Hydrocracker	Light H/C distillat	3	3	0.72	2.50	1.557
Cat. Hydrocracker	Light H/C naphtha	4	4	2.10	19.17	5.457
Cat. Hydrotreater	Cat. Cracker Feed	3	0	ND	ND	ND
Cat. Isomer'zn	Isom naphtha	2	1	ND	0.64	0.080
Cat. Reformer	Reformate	38	38	5.06	32.24	15.978
Coker	Coker gas oil	7	4	ND	0.11	0.013
Coker	Coker heavy naphtha	12	12	1.39	4.74	2.254
Coker	Coker light naphtha	6	6	0.02	1.11	0.206
Coker	Unsat. gas	1	1	0.22	0.22	0.220
Cracked Gas Plant	Fuel Gas	2	0	ND	ND	ND
Cracked Gas Plant	Sour Gas	1	1	0.03	0.03	0.030
Cracked Gas Plant	Unsat. Gas	1	1	3.20	3.20	3.200
Distillate Blending	Diesel Fuel	10	9	ND	0.29	0.050
Distillate Blending	Home Heating Oil	4	4	0.08	0.15	0.097
Fluid Cat. Cracker	Cracked gasoline	31	30	0.69	9.34	3.336
Fluid Cat. Cracker	Heavy Cat. Gas Oil	8	8	0.64	8.94	1.671
Fluid Cat. Cracker	Light Cat. Gas Oil	20	20	0.08	6.00	1.070
Gasoline Blending	Aviation Gasoline	4	4	3.62	10.39	7.049
Gasoline Blending	Conventional Gasolin	42	39	ND	17.00	5.248
Gasoline Blending	Reformulated Gasolin	7	7	2.07	14.00	5.955
Hydrodesulfur'zn	Diesel	3	2	ND	0.10	0.032
Hydrodesulfur'zn	Jet / Kero	3	3	0.02	0.09	0.037
Hydrodesulfur'zn	Naphtha	4	4	2.32	6.11	3.758
Kerosine Treating	Commercial Jet Fuel	17	16	ND	7.71	0.235
Naphtha Pretreat	Desulf. naphtha	8	8	2.12	7.56	4.226

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Statistical Summary Listed By Species

Species Name: Toluene (continued from previous page)

Refinery Unit	Refinery Stream	number data	number quantified	minimum value	maximum value	most likely value
S.W. Stripper	Stripped Sour Water	4	0	ND	ND	ND
Sat. Gas Plant	Sat. Gas	2	2	1.70	2.00	1.844
Supply System	Crude Oil	61	59	ND	2.27	0.360
Vac. Distillation	Heavy Vacuum Gas Oil	1	1	0.25	0.25	0.250
Vac. Distillation	Light Vacuum Gas Oil	6	1	ND	0.05	0.013
Various Units	Slop Oil	9	9	0.80	7.00	2.235

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Statistical Summary Listed By Species

Species Name: Xylenes

Refinery Unit	Refinery Stream	number data	number quantified	minimum value	maximum value	most likely value
Alkylation	Alkylate-C4 Olefin F	4	2	ND	0.20	0.034
Alkylation	Alkylate-not C4 Olef	7	4	ND	0.06	0.016
Alkylation	LPG	1	0	ND	ND	ND
Aromatics Extract	Benzene	1	0	ND	ND	ND
Aromatics Extract	Heavy Aromatics	2	2	19.27	30.79	24.358
Aromatics Extract	Toluene	2	2	0.06	6.93	0.645
Aromatics Extract	Xylenes	1	1	77.89	77.89	77.890
Asphalt Plant	Used Solvent	6	6	0.18	2.40	0.504
Atm. Distillation	Atm. Resid.	2	2	0.05	0.05	0.050
Atm. Distillation	Heavy Atm. Gas Oil	6	5	ND	0.70	0.093
Atm. Distillation	Heavy Naphtha	18	18	1.88	7.00	4.662
Atm. Distillation	Light Atm. Gas Oil	10	10	0.06	0.80	0.206
Atm. Distillation	Light ends	9	4	ND	0.10	ND
Atm. Distillation	SR Gasoline	1	1	1.00	1.00	1.000
Atm. Distillation	SR Kerosene	15	15	0.07	1.33	0.292
Atm. Distillation	SR Naphtha	27	27	0.14	6.20	1.707
Cat. Hydrocracker	Heavy H/C distilla	2	1	ND	0.22	0.047
Cat. Hydrocracker	Heavy H/C naphtha	3	3	2.99	6.25	4.155
Cat. Hydrocracker	Light H/C distillat	3	3	1.87	2.65	2.316
Cat. Hydrocracker	Light H/C naphtha	2	2	6.72	12.81	9.278
Cat. Hydrotreater	Cat. Cracker Feed	3	1	ND	0.05	0.022
Cat. Isomer'zn	Isom naphtha	2	2	0.02	0.28	0.075
Cat. Reformer	Reformate	37	37	2.36	34.43	16.326
Coker	Coker gas oil	7	5	ND	1.20	0.050
Coker	Coker heavy naphtha	11	10	1.98	4.70	3.218
Coker	Coker light naphtha	5	4	0.03	1.00	0.066
Coker	Unsat. gas	1	1	0.03	0.03	0.030
Cracked Gas Plant	Fuel Gas	2	1	ND	0.07	0.026
Distillate Blending	Diesel Fuel	13	11	ND	1.10	0.122
Distillate Blending	Home Heating Oil	6	6	0.10	0.56	0.243
Fluid Cat. Cracker	Cracked gasoline	29	27	0.44	18.10	4.574
Fluid Cat. Cracker	DCO	1	1	0.09	0.09	0.090
Fluid Cat. Cracker	Heavy Cat. Gas Oil	8	8	2.43	13.66	6.998
Fluid Cat. Cracker	Light Cat. Gas Oil	18	18	0.21	9.54	1.943
Gasoline Blending	Aviation Gasoline	4	4	1.50	8.20	2.349
Gasoline Blending	Conventional Gasolin	36	36	0.13	19.11	4.911
Gasoline Blending	Reformulated Gasolin	6	6	3.33	11.00	7.042
Hydrodesulfur'zn	Diesel	3	2	ND	0.26	0.051
Hydrodesulfur'zn	Heating Oil	1	1	0.08	0.08	0.080
Hydrodesulfur'zn	Jet / Kero	4	3	ND	0.44	0.058
Hydrodesulfur'zn	Naphtha	4	4	2.83	8.61	4.218
Kerosine Treating	Commercial Jet Fuel	18	18	0.19	5.85	0.664
Naphtha Pretreat	Desulf. naphtha	8	8	1.62	5.31	3.295

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Statistical Summary Listed By Species

Species Name: Xylenes (contined from previous page)

Refinery Unit	Refinery Stream	number data	number quantified	minimum value	maximum value	most likely value
Polymerization	Poly. naphtha	1	1	1.76	1.76	1.760
S.W. Stripper	Stripped Sour Water	4	0	ND	ND	ND
Supply System	Crude Oil	45	44	ND	2.48	0.568
Vac. Distillation	Heavy Vacuum Gas Oil	1	1	0.07	0.07	0.070
Vac. Distillation	Light Vacuum Gas Oil	6	2	ND	0.05	ND
Various Units	Slop Oil	10	10	0.34	6.60	2.237

Species Name: Ethane

Refinery Unit	Refinery Stream	number data	number quantified	minimum value	maximum value	most likely value
Alkylation	Butane	3	2	ND	1.11	0.105
Alkylation	LPG	2	2	1.32	1.49	1.402
Amine Treating	Sour Gas	3	3	4.68	19.30	12.858
Amine Treating	Treated olefinic	3	3	0.06	14.64	0.605
Atm. Distillation	Light ends	4	4	1.33	15.13	5.716
Atm. Distillation	SR Naphtha	1	1	0.82	0.82	0.820
Cat. Hydrocracker	Sat. Gas	1	1	13.38	13.38	13.380
Cat. Hydrotreater	Cat. Cracker Feed	1	0	ND	ND	ND
Cat. Isomer'zn	Isobutane	3	3	0.08	0.67	0.231
Cat. Reformer	Reformate	1	0	ND	ND	ND
Cat. Reformer	Reformate gas	4	4	6.57	18.05	11.964
Coker	Unsat. gas	3	3	9.96	16.76	13.846
Cracked Gas Plant	Fuel Gas	4	4	10.67	26.59	20.244
Cracked Gas Plant	Olefins	1	1	0.30	0.30	0.300
Cracked Gas Plant	Sour Gas	2	2	8.95	18.32	12.805
Cracked Gas Plant	Unsat. Gas	3	3	5.79	25.93	7.204
Distillate Blending	Diesel Fuel	2	0	ND	ND	ND
Fluid Cat. Cracker	Cracked gasoline	1	0	ND	ND	ND
Fluid Cat. Cracker	Light Cat. Gas Oil	1	0	ND	ND	ND
Gasoline Blending	Conventional Gasolin	2	0	ND	ND	ND
Polymerization	Propane	2	2	3.09	5.19	4.005
Sat. Gas Plant	Sat. Gas	5	5	7.43	16.23	9.416
Sulfur Plant	Fuel Gas	5	5	16.28	26.76	20.166

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Statistical Summary Listed By Species

Species Name: Ethylene

Refinery Unit	Refinery Stream	number data	number quantified	minimum value	maximum value	most likely value
Alkylation	Alkylate-C4 Olefin F	1	0	ND	ND	ND
Alkylation	Alkylate-not C4 Olef	1	0	ND	ND	ND
Alkylation	Butane	1	1	0.03	0.03	0.030
Alkylation	LPG	1	1	0.02	0.02	0.020
Amine Treating	Sour Gas	1	0	ND	ND	ND
Amine Treating	Treated olefinic	3	1	ND	0.11	0.033
Atm. Distillation	Heavy Atm. Gas Oil	2	0	ND	ND	ND
Atm. Distillation	Light Atm. Gas Oil	2	0	ND	ND	ND
Atm. Distillation	Light ends	4	4	0.20	7.32	1.800
Atm. Distillation	SR Kerosene	3	0	ND	ND	ND
Atm. Distillation	SR Naphtha	4	0	ND	ND	ND
Cat. Hydrocracker	Heavy H/C distilla	1	0	ND	ND	ND
Cat. Hydrocracker	Light H/C distillat	1	0	ND	ND	ND
Cat. Hydrocracker	Light H/C naphtha	1	0	ND	ND	ND
Cat. Hydrotreater	Cat. Cracker Feed	3	0	ND	ND	ND
Cat. Reformer	Reformate	8	0	ND	ND	ND
Cat. Reformer	Reformate gas	2	0	ND	ND	ND
Coker	Coker gas oil	2	0	ND	ND	ND
Coker	Coker light naphtha	2	0	ND	ND	ND
Coker	Unsat. gas	4	4	1.04	1.58	1.405
Cracked Gas Plant	Fuel Gas	5	5	2.70	20.20	11.158
Cracked Gas Plant	Sour Gas	2	2	0.38	5.36	1.427
Cracked Gas Plant	Unsat. Gas	3	3	5.83	24.75	7.259
Distillate Blending	Diesel Fuel	4	0	ND	ND	ND
Fluid Cat. Cracker	Cracked gasoline	3	0	ND	ND	ND
Fluid Cat. Cracker	Heavy Cat. Gas Oil	2	0	ND	ND	ND
Fluid Cat. Cracker	Light Cat. Gas Oil	6	0	ND	ND	ND
Gasoline Blending	Conventional Gasolin	6	0	ND	ND	ND
Hydrodesulfur'zn	Diesel	1	0	ND	ND	ND
Kerosine Treating	Commercial Jet Fuel	4	0	ND	ND	ND
Polymerization	Propane	2	2	0.11	0.22	0.156
S.W. Stripper	Stripped Sour Water	4	0	ND	ND	ND
Sat. Gas Plant	Sat. Gas	5	3	ND	8.27	0.045
Sulfur Plant	Fuel Gas	4	3	ND	18.57	0.588
Supply System	Crude Oil	4	0	ND	ND	ND
Vac. Distillation	Heavy Vacuum Gas Oil	1	1	0.17	0.17	0.170
Vac. Distillation	Light Vacuum Gas Oil	6	0	ND	ND	ND

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Statistical Summary Listed By Species

Species Name: Propane

Refinery Unit	Refinery Stream	number data	number quantified	minimum value	maximum value	most likely value
Alkylation	Alkylate-C4 Olefin F	1	0	ND	ND	ND
Alkylation	Alkylate-not C4 Olef	1	1	0.47	0.47	0.470
Alkylation	Butane	3	3	3.13	5.88	3.912
Alkylation	LPG	2	2	83.06	95.66	89.138
Amine Treating	Sour Gas	3	3	7.80	41.57	18.639
Amine Treating	Treated olefinic	3	3	7.55	48.66	14.003
Atm. Distillation	Heavy Atm. Gas Oil	2	0	ND	ND	ND
Atm. Distillation	Heavy Naphtha	2	2	0.10	0.54	0.232
Atm. Distillation	Light Atm. Gas Oil	2	0	ND	ND	ND
Atm. Distillation	Light ends	5	5	0.14	31.00	10.461
Atm. Distillation	SR Kerosene	3	0	ND	ND	ND
Atm. Distillation	SR Naphtha	8	6	ND	13.03	0.197
Cat. Hydrocracker	Heavy H/C distilla	1	0	ND	ND	ND
Cat. Hydrocracker	Light H/C distillat	1	0	ND	ND	ND
Cat. Hydrocracker	Light H/C naphtha	1	0	ND	ND	ND
Cat. Hydrocracker	Sat. Gas	1	1	71.91	71.91	71.910
Cat. Hydrotreater	Cat. Cracker Feed	3	0	ND	ND	ND
Cat. Isomer'zn	Isobutane	3	3	0.56	8.36	2.055
Cat. Reformer	Reformate	12	4	ND	1.52	ND
Cat. Reformer	Reformate gas	4	4	22.71	39.60	29.022
Coker	Coker gas oil	2	0	ND	ND	ND
Coker	Coker heavy naphtha	2	2	0.09	0.26	0.153
Coker	Coker light naphtha	2	2	0.28	1.88	0.726
Coker	Unsat. gas	3	3	9.18	14.93	11.921
Cracked Gas Plant	Fuel Gas	4	4	0.51	8.91	2.283
Cracked Gas Plant	Olefins	4	4	1.94	27.24	4.921
Cracked Gas Plant	Sour Gas	2	2	15.95	21.11	18.350
Cracked Gas Plant	Unsat. Gas	3	3	0.70	8.08	6.058
Distillate Blending	Diesel Fuel	4	0	ND	ND	ND
Fluid Cat. Cracker	Cracked gasoline	6	3	ND	0.26	0.023
Fluid Cat. Cracker	Heavy Cat. Gas Oil	2	0	ND	ND	ND
Fluid Cat. Cracker	Light Cat. Gas Oil	6	1	ND	0.02	0.011
Gasoline Blending	Conventional Gasolin	8	5	ND	0.11	0.029
Hydrodesulfur'zn	Diesel	1	0	ND	ND	ND
Hydrodesulfur'zn	Naphtha	2	2	0.16	5.11	0.904
Kerosine Treating	Commercial Jet Fuel	4	0	ND	ND	ND
Naphtha Pretreat	Desulf. naphtha	1	1	0.38	0.38	0.380
Polymerization	Butane	2	2	0.33	0.73	0.491
Polymerization	Propane	2	2	88.53	92.94	90.708
S.W. Stripper	Stripped Sour Water	4	0	ND	ND	ND
Sat. Gas Plant	Sat. Gas	5	5	11.80	37.45	19.778
Sulfur Plant	Fuel Gas	5	5	6.65	30.11	19.718
Supply System	Crude Oil	11	11	0.11	2.07	0.243
Vac. Distillation	Heavy Vacuum Gas Oil	1	1	0.11	0.11	0.110
Vac. Distillation	Light Vacuum Gas Oil	6	2	ND	0.03	ND
Various Units	Slop Oil	2	2	0.10	0.15	0.122

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Statistical Summary Listed By Species

Species Name: Propylene

Refinery Unit	Refinery Stream	number data	number quantified	minimum value	maximum value	most likely value
Alkylation	Alkylate-C4 Olefin F	1	0	ND	ND	ND
Alkylation	Alkylate-not C4 Olef	4	1	ND	0.14	0.019
Alkylation	Butane	3	3	0.12	2.75	0.569
Alkylation	LPG	2	2	1.18	1.58	1.365
Amine Treating	Sour Gas	2	1	ND	0.03	0.017
Amine Treating	Treated olefinic	2	2	12.86	31.36	20.082
Aromatics Extract	Heavy Aromatics	1	0	ND	ND	ND
Atm. Distillation	Heavy Atm. Gas Oil	3	0	ND	ND	ND
Atm. Distillation	Light Atm. Gas Oil	4	0	ND	ND	ND
Atm. Distillation	Light ends	10	7	ND	7.40	0.051
Atm. Distillation	SR Kerosene	7	0	ND	ND	ND
Atm. Distillation	SR Naphtha	7	1	ND	0.09	0.014
Cat. Hydrocracker	Heavy H/C distilla	1	0	ND	ND	ND
Cat. Hydrocracker	Light H/C distillat	2	0	ND	ND	ND
Cat. Hydrocracker	Light H/C naphtha	1	0	ND	ND	ND
Cat. Hydrocracker	Sat. Gas	1	1	0.12	0.12	0.120
Cat. Hydrotreater	Cat. Cracker Feed	3	0	ND	ND	ND
Cat. Isomer'zn	Isom naphtha	1	0	ND	ND	ND
Cat. Reformer	Reformate	10	0	ND	ND	ND
Cat. Reformer	Reformate gas	5	4	ND	0.13	0.044
Coker	Coker gas oil	2	0	ND	ND	ND
Coker	Coker heavy naphtha	5	2	ND	0.12	ND
Coker	Coker light naphtha	3	0	ND	ND	ND
Coker	Unsat. gas	4	4	3.70	5.28	4.627
Cracked Gas Plant	Fuel Gas	6	6	2.36	7.20	4.600
Cracked Gas Plant	Olefins	2	2	5.15	10.10	7.212
Cracked Gas Plant	Sour Gas	2	2	1.77	9.31	4.059
Cracked Gas Plant	Unsat. Gas	3	3	2.46	23.89	16.622
Distillate Blending	Diesel Fuel	5	0	ND	ND	ND
Fluid Cat. Cracker	Cracked gasoline	8	4	ND	0.57	0.019
Fluid Cat. Cracker	Heavy Cat. Gas Oil	3	0	ND	ND	ND
Fluid Cat. Cracker	Light Cat. Gas Oil	7	0	ND	ND	ND
Gasoline Blending	Conventional Gasolin	7	0	ND	ND	ND
Gasoline Blending	Reformulated Gasolin	4	0	ND	ND	ND
Hydrodesulfur'zn	Diesel	1	0	ND	ND	ND
Kerosine Treating	Commercial Jet Fuel	5	0	ND	ND	ND
Naphtha Pretreat	Desulf. naphtha	1	0	ND	ND	ND
Polymerization	Butane	1	0	ND	ND	ND
Polymerization	Propane	2	2	3.47	5.60	4.408
S.W. Stripper	Stripped Sour Water	4	0	ND	ND	ND
Sat. Gas Plant	Sat. Gas	5	5	0.09	63.11	1.708
Sulfur Plant	Fuel Gas	5	4	ND	7.06	0.082
Supply System	Crude Oil	4	0	ND	ND	ND
Vac. Distillation	Heavy Vacuum Gas Oil	1	1	0.68	0.68	0.680
Vac. Distillation	Light Vacuum Gas Oil	6	0	ND	ND	ND
Various Units	Slop Oil	1	1	0.13	0.13	0.130

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Statistical Summary Listed By Species

Species Name: Butane

Refinery Unit	Refinery Stream	number data	number quantified	minimum value	maximum value	most likely value
Alkylation	Alkylate-C4 Olefin F	6	6	0.30	9.23	3.205
Alkylation	Alkylate-not C4 Olef	1	1	0.75	0.75	0.750
Alkylation	Butane	5	5	2.25	94.24	30.181
Alkylation	LPG	1	1	0.07	0.07	0.070
Amine Treating	Sour Gas	3	3	0.11	26.61	3.385
Amine Treating	Treated olefinic	3	3	5.56	13.91	9.689
Atm. Distillation	Heavy Atm. Gas Oil	2	0	ND	ND	ND
Atm. Distillation	Heavy Naphtha	7	7	0.09	0.78	0.186
Atm. Distillation	Light Atm. Gas Oil	2	0	ND	ND	ND
Atm. Distillation	Light ends	5	5	0.05	20.12	8.530
Atm. Distillation	SR Kerosene	3	1	ND	0.08	0.028
Atm. Distillation	SR Naphtha	15	15	0.16	27.90	2.222
Cat. Hydrocracker	Heavy H/C distilla	1	0	ND	ND	ND
Cat. Hydrocracker	Light H/C distillat	1	0	ND	ND	ND
Cat. Hydrocracker	Light H/C naphtha	1	0	ND	ND	ND
Cat. Hydrocracker	Sat. Gas	1	1	0.17	0.17	0.170
Cat. Hydrotreater	Cat. Cracker Feed	3	0	ND	ND	ND
Cat. Isomer'zn	Isobutane	3	3	14.77	53.13	30.216
Cat. Isomer'zn	Isom naphtha	4	4	0.63	1.43	0.900
Cat. Reformer	Reformate	20	13	ND	10.72	0.089
Cat. Reformer	Reformate gas	4	4	9.68	29.76	15.385
Coker	Coker gas oil	2	0	ND	ND	ND
Coker	Coker heavy naphtha	2	2	0.53	0.85	0.671
Coker	Coker light naphtha	3	3	0.36	3.26	0.906
Coker	Unsat. gas	3	3	6.68	8.56	7.334
Cracked Gas Plant	Fuel Gas	4	4	0.03	0.85	0.147
Cracked Gas Plant	Olefins	4	4	7.87	44.38	26.036
Cracked Gas Plant	Sour Gas	2	2	5.47	7.16	6.258
Cracked Gas Plant	Unsat. Gas	3	3	0.27	3.54	2.468
Distillate Blending	Diesel Fuel	4	0	ND	ND	ND
Fluid Cat. Cracker	Cracked gasoline	6	6	0.08	1.29	0.407
Fluid Cat. Cracker	Heavy Cat. Gas Oil	2	2	0.05	0.87	0.209
Fluid Cat. Cracker	Light Cat. Gas Oil	6	2	ND	0.12	ND
Gasoline Blending	Conventional Gasolin	11	11	0.58	5.35	2.932
Hydrodesulfur'zn	Diesel	1	0	ND	ND	ND
Hydrodesulfur'zn	Naphtha	2	2	0.16	2.31	0.608
Kerosine Treating	Commercial Jet Fuel	6	2	ND	4.20	ND
Naphtha Pretreat	Desulf. naphtha	3	3	0.39	1.28	0.675
Polymerization	Butane	2	2	40.23	61.20	49.619
Polymerization	Poly. naphtha	2	2	2.74	3.68	3.175
Polymerization	Propane	1	1	0.05	0.05	0.050
S.W. Stripper	Stripped Sour Water	4	1	ND	0.03	0.013
Sat. Gas Plant	Sat. Gas	4	4	4.26	32.34	13.608

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Statistical Summary Listed By Species

Species Name: Butane (continued from previous page)

Refinery Unit	Refinery Stream	number data	number quantified	minimum value	maximum value	most likely value
Sulfur Plant	Fuel Gas	5	5	0.53	5.09	2.302
Supply System	Crude Oil	12	12	0.36	1.90	0.887
Vac Distillation	Heavy Vacuum Gas Oil	1	1	0.05	0.05	0.050
Vac Distillation	Light Vacuum Gas Oil	6	2	ND	0.03	ND
Various Units	Slop Oil	4	4	0.13	1.44	0.327

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Appendix 1

Section 6

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RAW DATA

Column A	Date Sampled	Used to show that data is reasonably current.
Column B	Site Identification	Reserved for internal company use.
Column C	Sample Identification	Reserved for internal company use.
Column D	Number of Analyses	Number of separate streams averaged to obtain data entry.
Column E	Quality Coding	Measured Data A Recognized test method, reported in sufficient detail for validation B Recognized test method, insufficient deatil for validation C New or untested method D Unacceptable method but provides information on data range NK Insufficient information to determine test method used Calculated Data MB Derived by calcualtion, verified by material balance Estimated Data EJ Engineering Judgement
Column F	Ranking	1 Included 2 To be discussed by TAC 3 Additional QA required from submitting company 4 Excluded from data analysis
Column G	Classification	Reserved for EPA use for SCC classification.
Column H	From Unit	Stream comes from this unit
Column I	Stream Name	
Column J	Lower and Upper Carbon Number, Lower and Upper Boiling Point	Used for guidance for stream classification

Notes: 1. Columns F through M available only on electronic spreadsheet.
2. Concentrations are in Wt. %
3. Blank entries indicate not analyzed (some entries are NA), NP indicates not expected

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	A	B	C	D	E	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	1,3 Butadiene	No. of Mins	No. of Maxs	Benzene	No. of Mins	No. of Maxs	Biphenyl	No. of Mins	No. of Maxs	Cresols (mixed)	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	4	5	Typ.	59	59	Typ.	4	4	Typ.	0	5	Typ.	34	35
3	*Supply System*		*Crude Oil*																	
4	Post 199	F1	DU FEED	1	B	3						0.15								
5	Post 199	F1	DU FEED	1	B	3						0.49								
6	Post 199	F2	DU FEED	1	A	3						0.12								
7	Post 199	F2	BRYANS MILL	1	A	3						0.36								
8	Post 199	F2	DOCK/INT	1	A	3						0.08								
9	Post 199	F2	DU2 FEED	1	A	3						0.12								
10	Post 199	F2	EAST TX	1	A	3						0.09								
11	Post 199	F2	HVI	1	A	3						0.09								
12	Post 199	F2	WEST TX	1	A	3						0.23								
13	Post 199	F2	DU1 CRUDE	1	A	3						0.1								
14	Post 199	F2	DU1 CRUDE	1	A	3						0.12								
15	Post 199	F2	DU2 CRUDE	1	A	3						0.12								
16	Post 199	F3	KLM CRUDE	1	C	6						0.01								
17	Post 199	F3	NORTH SLOPE	1	C	6						0.29								
18	Post 199	F4	DU FEED	1	A	4						0.08								
19	Post 199	F7	BONNEY LIGHT	1	A	3						0.25								
20	Post 199	F7	MAYA	1	A	3						0.1								
21	Post 199	F7	OLMECA	1	A	3						0.16								
22	Post 199	F7	OZARK	1	A	3						1.24								
23	Post 199	F7	ILLINOIS LITE	1	A	3						0.02								
24	Jun-05	F7	AVG '92 CRUDES		A	4						0.34								
25	Sep-92	J1	1	1	A	8						0.688								
26	Sep-92	J2	1	1	A	8						0.304								
27	Oct-92	J3	1	1	A	9						0.203								
28	Oct-92	J3	2	1	A	8						0.312								
29	Aug-92	J4	1	1	A	8						0.273								
30	Aug-92	J4	2	1	A	6						0.516								
31	Aug-92	J4	3	1	A	7						0.211								
32	Aug-92	J5	1	1	A	7						0.106								
33	Feb-92	P1	ANS Crude	1	A	6			NP			0.25			NA			ND		
34	Apr-93	Q1	San Joaquin	2	C	6						0.3						0.05		

	A	B	C	D	E	N	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
1	Date Sampled	*Site Coding*	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Cumene	No. of Mins	No. of Maxs	Ethylbenzene	No. of Mins	No. of Maxs	Ethylene Gycol	No. of Mins	No. of Maxs	n-Hexane	No. of Mins	No. of Maxs	Hydrogen Sulfide	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	49	49	Typ.	0	1	Typ.	22	25	Typ.	2	2	Typ.	2
3	*Supply System*		*Crude Oil*																	
4	Post 199	F1	DU FEED	1	B	3														
5	Post 199	F1	DU FEED	1	B	3														
6	Post 199	F2	DU FEED	1	A	3										1.3				
7	Post 199	F2	BRYANS MILL	1	A	3										4.4				
8	Post 199	F2	DOCK/INT	1	A	3										1.3				
9	Post 199	F2	DU2 FEED	1	A	3										1.3				
10	Post 199	F2	EAST TX	1	A	3										1.2				
11	Post 199	F2	HVI	1	A	3										1.2				
12	Post 199	F2	WEST TX	1	A	3										0.85				
13	Post 199	F2	DU1 CRUDE	1	A	3										0.64				
14	Post 199	F2	DU1 CRUDE	1	A	3										1.3				
15	Post 199	F2	DU2 CRUDE	1	A	3										1.3				
16	Post 199	F3	KLM CRUDE	1	C	6	*0.05*			0.02										
17	Post 199	F3	NORTH SLOPE	1	C	6	0.07			0.28										
18	Post 199	F4	DU FEED	1	A	4				0.19										
19	Post 199	F7	BONNEY LIGHT	1	A	3										1.23				
20	Post 199	F7	MAYA	1	A	3										0.74				
21	Post 199	F7	OLMECA	1	A	3										1.6				
22	Post 199	F7	OZARK	1	A	3										1.6				
23	Post 199	F7	ILLINOIS LITE	1	A	3										0.88				
24	Jun-05	F7	AVG '92 CRUDES		A	4				0.45						1.3				
25	Sep-92	J1	1	1	A	8				0.555						2.478				
26	Sep-92	J2	1	1	A	8				0.127						2.06				
27	Oct-92	J3	1	1	A	9				0.101						0.757				
28	Oct-92	J3	2	1	A	8				0.12						1.75				
29	Aug-92	J4	1	1	A	8				0.123						1.501				
30	Aug-92	J4	2	1	A	6										2.607				
31	Aug-92	J4	3	1	A	7										1.164				
32	Aug-92	J5	1	1	A	7										0.438				
33	Feb-92	P1	ANS Crude	1	A	6	NA			0.13			NP			NA			NA	
34	Apr-93	Q1	San Joaquin	2	C	6														

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	A	B	C	D	E	N	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Methanol	No. of Mins	No. of Maxs	MEK	No. of Mins	No. of Maxs	MTBE	No. of Mins	No. of Maxs	Naphthalene	No. of Mins	No. of Maxs	Phenol
2	Count =	742	*Site Use Only*	1076	742	5404	1	Typ.	0	0	Typ.	8	7	Typ.	50	49	Typ.	3	2	Typ.
3	*Supply System*		*Crude Oil*																	
4	Post 199	F1	DU FEED	1	B	3														
5	Post 199	F1	DU FEED	1	B	3														
6	Post 199	F2	DU FEED	1	A	3														
7	Post 199	F2	BRYANS MILL	1	A	3														
8	Post 199	F2	DOCK/INT	1	A	3														
9	Post 199	F2	DU2 FEED	1	A	3														
10	Post 199	F2	EAST TX	1	A	3														
11	Post 199	F2	HVI	1	A	3														
12	Post 199	F2	WEST TX	1	A	3														
13	Post 199	F2	DU1 CRUDE	1	A	3														
14	Post 199	F2	DU1 CRUDE	1	A	3														
15	Post 199	F2	DU2 CRUDE	1	A	3														
16	Post 199	F3	KLM CRUDE	1	C	6											0.002			
17	Post 199	F3	NORTH SLOPE	1	C	6											0.03			
18	Post 199	F4	DU FEED	1	A	4														
19	Post 199	F7	BONNEY LIGHT	1	A	3														
20	Post 199	F7	MAYA	1	A	3														
21	Post 199	F7	OLMECA	1	A	3														
22	Post 199	F7	OZARK	1	A	3														
23	Post 199	F7	ILLINOIS LITE	1	A	3														
24	Jun-05	F7	AVG '92 CRUDES		A	4														
25	Sep-92	J1	1	1	A	8														
26	Sep-92	J2	1	1	A	8														
27	Oct-92	J3	1	1	A	9											0.105			
28	Oct-92	J3	2	1	A	8														
29	Aug-92	J4	1	1	A	8														
30	Aug-92	J4	2	1	A	6														
31	Aug-92	J4	3	1	A	7														
32	Aug-92	J5	1	1	A	7														
33	Feb-92	P1	ANS Crude	1	A	6		NA			NP			NP			0.068			ND
34	Apr-93	Q1	San Joaquin	2	C	6											0.06			0

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	A	B	C	D	E	N	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	Styrene	No. of Mins	No. of Maxs	1,2,4 TMB	No. of Mins	No. of Maxs	2,2,4 TMP	No. of Mins	No. of Maxs	Toluene	No. of Mins	No. of Maxs
2	Count =	742	Site Use Only	1076	742	5404	6	6	Typ.	51	51	Typ.	12	12	Typ.	54	54	Typ.	53	86
3	Supply System		Crude Oil																	
4	Post 199	F1	DU FEED	1	B	3												0.41		
5	Post 199	F1	DU FEED	1	B	3												0.51		
6	Post 199	F2	DU FEED	1	A	3												0.48		
7	Post 199	F2	BRYANS MILL	1	A	3												1.5		
8	Post 199	F2	DOCK/INT	1	A	3												0.4		
9	Post 199	F2	DU2 FEED	1	A	3												0.47		
10	Post 199	F2	EAST TX	1	A	3												0.44		
11	Post 199	F2	HVI	1	A	3												0.44		
12	Post 199	F2	WEST TX	1	A	3												0.69		
13	Post 199	F2	DU1 CRUDE	1	A	3												0.35		
14	Post 199	F2	DU1 CRUDE	1	A	3												0.48		
15	Post 199	F2	DU2 CRUDE	1	A	3												0.48		
16	Post 199	F3	KLM CRUDE	1	C	6						ND						0.05		
17	Post 199	F3	NORTH SLOPE	1	C	6												0.71		
18	Post 199	F4	DU FEED	1	A	4												0.36		
19	Post 199	F7	BONNEY LIGHT	1	A	3												0.64		
20	Post 199	F7	MAYA	1	A	3												0.35		
21	Post 199	F7	OLMECA	1	A	3												0.7		
22	Post 199	F7	OZARK	1	A	3												1.2		
23	Post 199	F7	ILLINOIS LITE	1	A	3												0.22		
24	Jun-05	F7	AVG '92 CRUDES		A	4												0.74		
25	Sep-92	J1	1	1	A	8						0.694						2.268		
26	Sep-92	J2	1	1	A	8						0.647						1.779		
27	Oct-92	J3	1	1	A	9						0.239						0.596		
28	Oct-92	J3	2	1	A	8						0.557						1.23		
29	Aug-92	J4	1	1	A	8						0.177						0.809		
30	Aug-92	J4	2	1	A	6						0.096						1.239		
31	Aug-92	J4	3	1	A	7						0.106						0.407		
32	Aug-92	J5	1	1	A	7						0.141						0.338		
33	Feb-92	P1	ANS Crude	1	A	6			NP			0.54			NA			0.61		
34	Apr-93	Q1	San Joaquin	2	C	6												0.1		

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	A	B	C	D	E	N	BS	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Xylenes (mixed)	No. of Mins	No. of Maxs	Ethane	No. of Mins	No. of Maxs	Ethylene	No. of Mins	No. of Maxs	Propane	No. of Mins	No. of Maxs	Propylene	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	0	0	Typ.	1	1	Typ.	1	2	Typ.	2	2	Typ.	8
3	*Supply System*		*Crude Oil*																	
4	Post 199	F1	DU FEED	1	B	3	0.64													
5	Post 199	F1	DU FEED	1	B	3	2.2													
6	Post 199	F2	DU FEED	1	A	3														
7	Post 199	F2	BRYANS MILL	1	A	3														
8	Post 199	F2	DOCK/INT	1	A	3														
9	Post 199	F2	DU2 FEED	1	A	3														
10	Post 199	F2	EAST TX	1	A	3														
11	Post 199	F2	HVI	1	A	3														
12	Post 199	F2	WEST TX	1	A	3														
13	Post 199	F2	DU1 CRUDE	1	A	3														
14	Post 199	F2	DU1 CRUDE	1	A	3														
15	Post 199	F2	DU2 CRUDE	1	A	3														
16	Post 199	F3	KLM CRUDE	1	C	6	0.05													
17	Post 199	F3	NORTH SLOPE	1	C	6	0.57													
18	Post 199	F4	DU FEED	1	A	4	0.19													
19	Post 199	F7	BONNEY LIGHT	1	A	3														
20	Post 199	F7	MAYA	1	A	3														
21	Post 199	F7	OLMECA	1	A	3														
22	Post 199	F7	OZARK	1	A	3														
23	Post 199	F7	ILLINOIS LITE	1	A	3														
24	Jun-05	F7	AVG '92 CRUDES		A	4														
25	Sep-92	J1	1	1	A	8	1.859									0.218				
26	Sep-92	J2	1	1	A	8	2.208									0.168				
27	Oct-92	J3	1	1	A	9	0.836									0.227				
28	Oct-92	J3	2	1	A	8	1.315									0.316				
29	Aug-92	J4	1	1	A	8	0.765									0.219				
30	Aug-92	J4	2	1	A	6	1.026													
31	Aug-92	J4	3	1	A	7	0.35									0.11				
32	Aug-92	J5	1	1	A	7	0.355									0.131				
33	Feb-92	P1	ANS Crude	1	A	6	0.61			NA			NA			NA			NA	
34	Apr-93	Q1	San Joaquin	2	C	6	1													

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	A	B	C	D	E	N	CH	CI
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Butane
2	Count =	742	*Site Use Only*	1076	742	5404	8	Typ.
3	*Supply System*		*Crude Oil*					
4	Post 199	F1	DU FEED	1	B	3		
5	Post 199	F1	DU FEED	1	B	3		
6	Post 199	F2	DU FEED	1	A	3		
7	Post 199	F2	BRYANS MILL	1	A	3		
8	Post 199	F2	DOCK/INT	1	A	3		
9	Post 199	F2	DU2 FEED	1	A	3		
10	Post 199	F2	EAST TX	1	A	3		
11	Post 199	F2	HVI	1	A	3		
12	Post 199	F2	WEST TX	1	A	3		
13	Post 199	F2	DU1 CRUDE	1	A	3		
14	Post 199	F2	DU1 CRUDE	1	A	3		
15	Post 199	F2	DU2 CRUDE	1	A	3		
16	Post 199	F3	KLM CRUDE	1	C	6		
17	Post 199	F3	NORTH SLOPE	1	C	6		
18	Post 199	F4	DU FEED	1	A	4		
19	Post 199	F7	BONNEY LIGHT	1	A	3		
20	Post 199	F7	MAYA	1	A	3		
21	Post 199	F7	OLMECA	1	A	3		
22	Post 199	F7	OZARK	1	A	3		
23	Post 199	F7	ILLINOIS LITE	1	A	3		
24	Jun-05	F7	AVG '92 CRUDES		A	4		
25	Sep-92	J1	1	1	A	8		1.066
26	Sep-92	J2	1	1	A	8		1.012
27	Oct-92	J3	1	1	A	9		0.572
28	Oct-92	J3	2	1	A	8		1.158
29	Aug-92	J4	1	1	A	8		0.907
30	Aug-92	J4	2	1	A	6		1.185
31	Aug-92	J4	3	1	A	7		0.646
32	Aug-92	J5	1	1	A	7		0.363
33	Feb-92	P1	ANS Crude	1	A	6		NA
34	Apr-93	Q1	San Joaquin	2	C	6		

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	A	B	C	D	E	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	1,3 Butadiene	No. of Mins	No. of Maxs	Benzene	No. of Mins	No. of Maxs	Biphenyl	No. of Mins	No. of Maxs	Cresols (mixed)	No. of Mins	No. of Maxs
2	Count =	742	Site Use Only	1076	742	5404	4	5	Typ.	59	59	Typ.	4	4	Typ.	0	5	Typ.	34	36
35	Apr-93	Q1	Mid-Continental	2	C	11						0.33			0.06			0.14		
36	Oct-92	Q8	Pt Thomas	2	A	4						0.154								
37	Oct-92	Q8	Pt Thomas	2	A	4						0.85								
38	Oct-92	Q8	ANS Compo	2	A	4						0.676								
39	Oct-92	Q8	Prudoe Bay	2	A	4						0.656								
40	Oct-92	Q8	Prudoe Bay	2	A	4						0.702								
41	Oct-92	Q8	Prudoe Bay	2	A	4						0.736								
42	Oct-92	Q8	Prudoe Bay	2	A	4						0.513								
43	Oct-92	Q8	Prudoe Bay	2	A	4						0.692								
44	Dec-89	Q2	SVC Crude	1	B	2						0								
45	Dec-89	Q2	Minas Crude	1	B	4						0.011								
46	Dec-89	Q2	Domestic Crude	1	B	4						0.064								
47	Dec-89	Q2	North Slope Crude	1	B	4						0.221								
48	Jul-93	V1	TANK-4	1	A	13			*2E-04*			0.130			NA			NA		
49	Sep-93	V2	CRD-FEED	1	A	14			*2E-05*			0.16696			NA			NA		
50	Mar-94	V3	NS/FRT-3	1	A	12			NA			0.00479			NA			NA		
51	Dec-94	V4	CU-CFCH	1	A	15			ND			0.10645			*5E-05*			NA		
52	1987	W1	C11	1	A	7						0.08								
53	1987	W2	C21	1	A	6						0.25								
54	1987	W3	C31	1	A	4						0.08								
55	1987	W1	ANS	1	A	4						0.18								
56	1987	W3	ANS-Heavy	1	A	4						0.28								
57	1987	W3	Gulf Suez	1	A	1						1.6								
58	1987	W3	Lago	1	A	1						2.52								
59	1987	W3	Arab Light	1	A	5						0.1								
60	1987	W3	Arab Medium	1	A	5						0.05								
61	1987	W3	Arab Heavy	1	A	4						0.04								
62	1987	W3	Kuwait Medium	1	A	5						0.07								
63	1987	W3	Maya Medium	1	A	5						0.09								
64	Jan-88	Y1	R1350	1	B	7						0.38								
65	Jan-88	Y2	R1350	10	B	21				0.002	2.728	0.169							0.002	0.155
66	Jan-88	Y3	R1350	3	B	21				0.024	0.138	0.047							0.017	0.034

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	A	B	C	D	E	N	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Cumene	No. of Mins	No. of Maxs	Ethylbenzene	No. of Mins	No. of Maxs	Ethylene Glycol	No. of Mins	No. of Maxs	n-Hexane	No. of Mins	No. of Maxs	Hydrogen Sulfide	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	49	49	Typ.	0	1	Typ.	22	25	Typ.	2	2	Typ.	2
35	Apr-93	Q1	Mid-Continental	2	C	11	0.11			0.5						1.34				
36	Oct-92	Q8	Pt Thomas	2	A	4				0.075										
37	Oct-92	Q8	Pt Thomas	2	A	4				0.164										
38	Oct-92	Q8	ANS Compo	2	A	4				0.13										
39	Oct-92	Q8	Prudoe Bay	2	A	4				0.117										
40	Oct-92	Q8	Prudoe Bay	2	A	4				0.347										
41	Oct-92	Q8	Prudoe Bay	2	A	4				0.128										
42	Oct-92	Q8	Prudoe Bay	2	A	4				0.102										
43	Oct-92	Q8	Prudoe Bay	2	A	4				0.128										
44	Dec-89	Q2	SVC Crude	1	B	2				ND										
45	Dec-89	Q2	Minas Crude	1	B	4				0.027										
46	Dec-89	Q2	Domestic Crude	1	B	4				0.101										
47	Dec-89	Q2	North Slope Crude	1	B	4				0.134										
48	Jul-93	V1	TANK-4	1	A	13	0.030			0.05711			NA			1.15253			NA	
49	Sep-93	V2	CRD-FEED	1	A	14	0.02411			0.14965			NA			0.86835			NA	
50	Mar-94	V3	NS/FRT-3	1	A	12	0.88347			*0.0002*			NA			1.09127			NA	
51	Dec-94	V4	CU-CFCH	1	A	16	0.07673			0.21573			NA			0.46982			NA	
52	1987	W1	C11	1	A	7	0.02			0.01						0.4				
53	1987	W2	C21	1	A	6				0.15										
54	1987	W3	C31	1	A	4				0.19										
55	1987	W1	ANS	1	A	4				0.36										
56	1987	W3	ANS-Heavy	1	A	4				0.5										
57	1987	W3	Gulf Suez	1	A	1														
58	1987	W3	Lago	1	A	1														
59	1987	W3	Arab Light	1	A	5				0.35										
60	1987	W3	Arab Medium	1	A	5				0.16										
61	1987	W3	Arab Heavy	1	A	4	0.01			0.05										
62	1987	W3	Kuwait Medium	1	A	5	0.01			0.19										
63	1987	W3	Maya Medium	1	A	5				0.11										
64	Jan-88	Y1	R1350	1	B	7	0.06			0.44										
65	Jan-88	Y2	R1350	10	B	21	0.031	0.002	1.293	0.164										
66	Jan-88	Y3	R1350	3	B	21	0.024	0.062	0.131	0.101										

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	A	B	C	D	E	N	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Methanol	No. of Mins	No. of Maxs	MEK	No. of Mins	No. of Maxs	MTBE	No. of Mins	No. of Maxs	Naphthalene	No. of Mins	No. of Maxs	Phenol
2	Count =	742	*Site Use Only*	1076	742	5404	1	Typ.	0	0	Typ.	8	7	Typ.	50	49	Typ.	3	2	Typ.
35	Apr-93	Q1	Mid-Continental	2	C	11											0.17			0.01
36	Oct-92	Q8	Pt Thomas	2	A	4														
37	Oct-92	Q8	Pt Thomas	2	A	4														
38	Oct-92	Q8	ANS Compo	2	A	4														
39	Oct-92	Q8	Prudoe Bay	2	A	4														
40	Oct-92	Q8	Prudoe Bay	2	A	4														
41	Oct-92	Q8	Prudoe Bay	2	A	4														
42	Oct-92	Q8	Prudoe Bay	2	A	4														
43	Oct-92	Q8	Prudoe Bay	2	A	4														
44	Dec-89	Q2	SVC Crude	1	B	2														
45	Dec-89	Q2	Minas Crude	1	B	4														
46	Dec-89	Q2	Domestic Crude	1	B	4														
47	Dec-89	Q2	North Slope Crude	1	B	4														
48	Jul-93	V1	TANK-4	1	A	13		NA			NA			NA			0.38494			NA
49	Sep-93	V2	CRD-FEED	1	A	14		NA			NA			NA			0.01581			NA
50	Mar-94	V3	NS/FRT-3	1	A	12		*6E-05*			NA			NA			0.89287			NA
51	Dec-94	V4	CU-CFCH	1	A	15		*5E-05*			NA			NA			0.37473			NA
52	1987	W1	C11	1	A	7											0.06			
53	1987	W2	C21	1	A	6											0.15			
54	1987	W3	C31	1	A	4														
55	1987	W1	ANS	1	A	4														
56	1987	W3	ANS-Heavy	1	A	4														
57	1987	W3	Gulf Suez	1	A	1														
58	1987	W3	Lago	1	A	1														
59	1987	W3	Arab Light	1	A	5											0.04			
60	1987	W3	Arab Medium	1	A	5											0			
61	1987	W3	Arab Heavy	1	A	4														
62	1987	W3	Kuwait Medium	1	A	5														
63	1987	W3	Maya Medium	1	A	5											0.03			
64	Jan-88	Y1	R1350	1	B	7											0.05			
65	Jan-88	Y2	R1350	10	B	21									0.008	0.523	0.047			
66	Jan-88	Y3	R1350	3	B	21									0.005	0.032	0.026			

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	A	B	C	D	E	N	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	Styrene	No. of Mins	No. of Maxs	1,2,4 TMB	No. of Mins	No. of Maxs	2,2,4 TMP	No. of Mins	No. of Maxs	Toluene	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	6	6	Typ.	51	51	Typ.	12	12	Typ.	54	54	Typ.	53	86
35	Apr-93	Q1	Mid-Continental	2	C	11									0.28			0.67		
36	Oct-92	Q8	Pt Thomas	2	A	4												0.178		
37	Oct-92	Q8	Pt Thomas	2	A	4												0.371		
38	Oct-92	Q8	ANS Compo	2	A	4												0.347		
39	Oct-92	Q8	Prudoe Bay	2	A	4												0.311		
40	Oct-92	Q8	Prudoe Bay	2	A	4												0.358		
41	Oct-92	Q8	Prudoe Bay	2	A	4												0.338		
42	Oct-92	Q8	Prudoe Bay	2	A	4												0.255		
43	Oct-92	Q8	Prudoe Bay	2	A	4												0.34		
44	Dec-89	Q2	SVC Crude	1	B	2												ND		
45	Dec-89	Q2	Minas Crude	1	B	4												0.065		
46	Dec-89	Q2	Domestic Crude	1	B	4												0.073		
47	Dec-89	Q2	North Slope Crude	1	B	4												0.613		
48	Jul-93	V1	TANK-4	1	A	13			NA			NA			0.0861			0.30365		
49	Sep-93	V2	CRD-FEED	1	A	14			NA			0.31118			0.37418			0.43521		
50	Mar-94	V3	NS/FRT-3	1	A	12			NA			NA			NA			0.89287		
51	Dec-94	V4	CU-CFCH	1	A	15			NA			0.81445			0.00091			0.49936		
52	1987	W1	C11	1	A	7												0.25		
53	1987	W2	C21	1	A	6						0.7						0.63		
54	1987	W3	C31	1	A	4												0.24		
55	1987	W1	ANS	1	A	4												0.39		
56	1987	W3	ANS-Heavy	1	A	4												0.68		
57	1987	W3	Gulf Suez	1	A	1														
58	1987	W3	Lago	1	A	1														
59	1987	W3	Arab Light	1	A	5												0.44		
60	1987	W3	Arab Medium	1	A	5												0.29		
61	1987	W3	Arab Heavy	1	A	4												ND		
62	1987	W3	Kuwait Medium	1	A	5												0.36		
63	1987	W3	Maya Medium	1	A	5												0.33		
64	Jan-88	Y1	R1350	1	B	7						0.14						0.64424		
65	Jan-88	Y2	R1350	10	B	21				0.007	1.603	0.295				0.007	3.969	0.499	0.017	5.12
66	Jan-88	Y3	R1350	3	B	21				0.109	0.23	0.201				0.136	0.359	0.184	0.272	0.508

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	A	B	C	D	E	N	BS	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Xylenes (mixed)	No. of Mins	No. of Maxs	Ethane	No. of Mins	No. of Maxs	Ethylene	No. of Mins	No. of Maxs	Propane	No. of Mins	No. of Maxs	Propylene	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	0	0	Typ.	1	1	Typ.	1	2	Typ.	2	2	Typ.	8
35	Apr-93	Q1	Mid-Continental	2	C	11	1.19													
36	Oct-92	Q8	Pt Thomas	2	A	4	0.723													
37	Oct-92	Q8	Pt Thomas	2	A	4	1.34													
38	Oct-92	Q8	ANS Compo	2	A	4	1.02													
39	Oct-92	Q8	Prudoe Bay	2	A	4	0.939													
40	Oct-92	Q8	Prudoe Bay	2	A	4	0.798													
41	Oct-92	Q8	Prudoe Bay	2	A	4	1.031													
42	Oct-92	Q8	Prudoe Bay	2	A	4	1.709													
43	Oct-92	Q8	Prudoe Bay	2	A	4	1													
44	Dec-89	Q2	SVC Crude	1	B	2	0.026													
45	Dec-89	Q2	Minas Crude	1	B	4	2.48													
46	Dec-89	Q2	Domestic Crude	1	B	4	0.31													
47	Dec-89	Q2	North Slope Crude	1	B	4	0.525													
48	Jul-93	V1	TANK-4	1	A	13	0.45506			NA			*2E-04*			0.24472			*2E-04*	
49	Sep-93	V2	CRD-FEED	1	A	14	0.36172			NA			*2E-05*			0.3601			*0.0002*	
50	Mar-94	V3	NS/FRT-3	1	A	12	0.00901			NA			*1E-05*			0.1073			*1E-05*	
51	Dec-94	V4	CU-CFCH	1	A	15	1.37909			NA			*5E-05*			2.07027			*5E-05*	
52	1987	W1	C11	1	A	7	0.43													
53	1987	W2	C21	1	A	6	0.3													
54	1987	W3	C31	1	A	4	0.32													
55	1987	W1	ANS	1	A	4	0.54													
56	1987	W3	ANS-Heavy	1	A	4	0.87													
57	1987	W3	Gulf Suez	1	A	1														
58	1987	W3	Lago	1	A	1														
59	1987	W3	Arab Light	1	A	5	0.69													
60	1987	W3	Arab Medium	1	A	5	0.65													
61	1987	W3	Arab Heavy	1	A	4	0.52													
62	1987	W3	Kuwait Medium	1	A	5	0.76													
63	1987	W3	Maya Medium	1	A	5	0.57													
64	Jan-88	Y1	R1350	1	B	7	0.50805													
65	Jan-88	Y2	R1350	10	B	21	0.774													
66	Jan-88	Y3	R1350	3	B	21	0.287													

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	A	B	C	D	E	N	CH	CI
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Butane
2	Count =	742	*Site Use Only*	1076	742	5404	8	Typ.
35	Apr-93	Q1	Mid-Continental	2	C	11		
36	Oct-92	Q8	Pt Thomas	2	A	4		
37	Oct-92	Q8	Pt Thomas	2	A	4		
38	Oct-92	Q8	ANS Compo	2	A	4		
39	Oct-92	Q8	Prudoe Bay	2	A	4		
40	Oct-92	Q8	Prudoe Bay	2	A	4		
41	Oct-92	Q8	Prudoe Bay	2	A	4		
42	Oct-92	Q8	Prudoe Bay	2	A	4		
43	Oct-92	Q8	Prudoe Bay	2	A	4		
44	Dec-89	Q2	SVC Crude	1	B	2		
45	Dec-89	Q2	Minas Crude	1	B	4		
46	Dec-89	Q2	Domestic Crude	1	B	4		
47	Dec-89	Q2	North Slope Crude	1	B	4		
48	Jul-93	V1	TANK-4	1	A	13		1.13223
49	Sep-93	V2	CRD-FEED	1	A	14		1.09403
50	Mar-94	V3	NS/FRT-3	1	A	12		0.59421
51	Dec-94	V4	CU-CFCH	1	A	15		1.89773
52	1987	W1	C11	1	A	7		
53	1987	W2	C21	1	A	6		
54	1987	W3	C31	1	A	4		
55	1987	W1	ANS	1	A	4		
56	1987	W3	ANS-Heavy	1	A	4		
57	1987	W3	Gulf Suez	1	A	1		
58	1987	W3	Lago	1	A	1		
59	1987	W3	Arab Light	1	A	5		
60	1987	W3	Arab Medium	1	A	5		
61	1987	W3	Arab Heavy	1	A	4		
62	1987	W3	Kuwait Medium	1	A	5		
63	1987	W3	Maya Medium	1	A	5		
64	Jan-88	Y1	R1350	1	B	7		
65	Jan-88	Y2	R1350	10	B	21		
66	Jan-88	Y3	R1350	3	B	21		

	A	B	C	D	E	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	1,3 Butadiene	No. of Mins	No. of Maxs	Benzene	No. of Mins	No. of Maxs	Biphenyl	No. of Mins	No. of Maxs	Cresols (mixed)	No. of Mins	No. of Maxs
2	Count =	742	Site Use Only	1076	742	5404	4	5	Typ.	59	59	Typ.	4	4	Typ.	0	5	Typ.	34	35
67																				
68	Atm. Distillation		Atm. Resid.																	
69	Oct-92	J3	3	1	A	0														
70	Oct-90	P1	SR Resid #1 Crude	1	A	0			NP			NP			NP			NP		
71	Dec-89	Q2	C1180 Bottoms	3	B	0														
72	Apr-93	Q1	Resid Fuel Oil	2	C	5						0			0.04					
73	Apr-94	Q1	Bunker	2	B	4									0.04					
74																				
75	Atm. Distillation		Heavy Atm. Gas Oil																	
76	1990	F6	SR HGO	1	B	4			0.005			0.005								
77	Sep-92	J1	2	1	A	0														
78	Sep-92	J2	2	1	A	0														
79	Aug-92	J4	4	1	HL	0														
80	Aug-92	J5	2	1	A	0														
81	Nov-90	P1	HGO #2	1	A	0			NP			NP			NA			ND		
82	Apr-93	Q1	Heavy Gas Oil	2	C	7						0.01			0.1			0.1		
83	Jul-93	V1	CRD1-HGO	1	A	14			2E-04			0.00277			NA			NA		
84	Sep-93	V2	CRD-HGO	1	A	14			2E-05			1E-05			NA			NA		
85	1991	W1	91-12	1	A	17			0.0008			0.0008			0.06			0.0008		
86	1987	W1	53	1	A	5														
87																				
88	Atm. Distillation		Light Atm. Gas Oil																	
89	Post 199	F3	SR LGO	1	C	6						0.001								
90	1990	F6	SR LGO	1	B	3			0.05			0.03								
91	Sep-92	J1	3	1	A	0														
92	Sep-92	J1	4	1	A	0														
93	Oct-92	J3	4	1	A	0														
94	Oct-90	P1	Stove Oil	1	A	7			NP			NP			NA			0.005		
95	Jul-93	V1	CRD1-GO	1	A	14			2E-04			0.00471			NA			NA		
96	Sep-93	V2	CRD-LGO	1	A	14			2E-05			0.00047			NA			NA		
97	Mar-94	V3	CRD-DIESEL	1	A	12			NA			0.02198			NA			NA		
98	1987	W1	11	1	A	6														

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	A	B	C	D	E	N	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Cumene	No. of Mins	No. of Maxs	Ethylbenzene	No. of Mins	No. of Maxs	Ethylene Gycol	No. of Mins	No. of Maxs	n-Hexane	No. of Mins	No. of Maxs	Hydrogen Sulfide	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	49	49	Typ.	0	1	Typ.	22	25	Typ.	2	2	Typ.	2
67																				
68	*Atm. Distillation*		*Atm. Resid.*																	
69	Oct-92	J3	3	1	A	0														
70	Oct-90	P1	SR Resid #1 Crude	1	A	0	NP			NP			NP			NP			NA	
71	Dec-89	Q2	C1180 Bottoms	3	B	0														
72	Apr-93	Q1	Resid Fuel Oil	2	C	5														
73	Apr-94	Q1	Bunker	2	B	4	ND			0.08										
74																				
75	*Atm. Distillation*		*Heavy Atm. Gas Oil*																	
76	1990	F6	SR HGO	1	B	4														
77	Sep-92	J1	2	1	A	0														
78	Sep-92	J2	2	1	A	0														
79	Aug-92	J4	4	1	HL	0														
80	Aug-92	J5	2	1	A	0														
81	Nov-90	P1	HGO #2	1	A	0	NA			NP			NP			NP			NA	
82	Apr-93	Q1	Heavy Gas Oil	2	C	7	0.16			ND										
83	Jul-93	V1	CRD1-HGO	1	A	14	*3E-04*			0.00392			NA			0.00231			NA	
84	Sep-93	V2	CRD-HGO	1	A	14	0.00035			0.00127			NA			*2E-05*			NA	
85	1991	W1	91-12	1	A	17	*0.0008*			0.003						*0.0008*				
86	1987	W1	53	1	A	6				0.003										
87																				
88	*Atm. Distillation*		*Light Atm. Gas Oil*																	
89	Post 199	F3	SR LGO	1	C	6	*0.05*			0.01										
90	1990	F6	SR LGO	1	B	3														
91	Sep-92	J1	3	1	A	0														
92	Sep-92	J1	4	1	A	0														
93	Oct-92	J3	4	1	A	0														
94	Oct-90	P1	Stove Oil	1	A	7	NA			0.022			NP			NP			NA	
95	Jul-93	V1	CRD1-GO	1	A	14	*3E-04*			0.00989			NA			0.02519			NA	
96	Sep-93	V2	CRD-LGO	1	A	14	*1E-05*			*1E-05*			NA			*2E-05*			NA	
97	Mar-94	V3	CRD-DIESEL	1	A	12	*0.0003*			0.09046			NA			*0.0003*			NA	
98	1987	W1	11	1	A	6	0.006			0.013										

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	A	B	C	D	E	N	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Methanol	No. of Mins	No. of Maxs	MEK	No. of Mins	No. of Maxs	MTBE	No. of Mins	No. of Maxs	Naphthalene	No. of Mins	No. of Maxs	Phenol
2	Count =	742	*Site Use Only*	1076	742	5404	1	Typ.	0	0	Typ.	8	7	Typ.	60	49	Typ.	3	2	Typ.
67																				
68	*Atm. Distillation*		*Atm. Resid.*																	
69	Oct-92	J3	3	1	A	0														
70	Oct-90	P1	SR Resid #1 Crude	1	A	0		NP			NP			NP			NP			NP
71	Dec-89	Q2	C1180 Bottoms	3	B	0														
72	Apr-93	Q1	Resid Fuel Oil	2	C	5											2			
73	Apr-94	Q1	Bunker	2	B	4											2			
74																				
75	*Atm. Distillation*		*Heavy Atm. Gas Oil*																	
76	1990	F6	SR HGO	1	B	4														
77	Sep-92	J1	2	1	A	0														
78	Sep-92	J2	2	1	A	0														
79	Aug-92	J4	4	1	HL	0														
80	Aug-92	J5	2	1	A	0														
81	Nov-90	P1	HGO #2	1	A	0		NP			NP			NP			NP			NP
82	Apr-93	Q1	Heavy Gas Oil	2	C	7								ND						0.02
83	Jul-93	V1	CRD1-HGO	1	A	14		*6E-04*			NA			NA			0.061			NA
84	Sep-93	V2	CRD-HGO	1	A	14		NA			NA			NA			0.00115			NA
85	1991	W1	91-12	1	A	17					*0.0008*			*0.0008*			0.05			*0.0008*
86	1987	W1	53	1	A	5											0.062			
87																				
88	*Atm. Distillation*		*Light Atm. Gas Oil*																	
89	Post 199	F3	SR LGO	1	C	6											ND			
90	1990	F6	SR LGO	1	B	3														
91	Sep-92	J1	3	1	A	0														
92	Sep-92	J1	4	1	A	0														
93	Oct-92	J3	4	1	A	0														
94	Oct-90	P1	Stove Oil	1	A	7		NP			NP			NP			0.69			*0.005*
95	Jul-93	V1	CRD1-GO	1	A	14		*6E-04*			NA			NA			0.23002			NA
96	Sep-93	V2	CRD-LGO	1	A	14		NA			NA			NA			*1E-05*			NA
97	Mar-94	V3	CRD-DIESEL	1	A	12		*0.0003*			NA			NA			0.00656			NA
98	1987	W1	11	1	A	6											0.2365			

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	A	B	C	D	E	N	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	Styrene	No. of Mins	No. of Maxs	1,2,4 TMB	No. of Mins	No. of Maxs	2,2,4 TMP	No. of Mins	No. of Maxs	Toluene	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	6	6	Typ.	51	51	Typ.	12	12	Typ.	54	54	Typ.	53	85
67																				
68	*Atm. Distillation*		*Atm. Resid.*																	
69	Oct-92	J3	3	1	A	0														
70	Oct-90	P1	SR Resid #1 Crude	1	A	0			NP			NP			NP			NP		
71	Dec-89	Q2	C1180 Bottoms	3	B	0														
72	Apr-93	Q1	Resid Fuel Oil	2	C	5												0		
73	Apr-94	Q1	Bunker	2	B	4														
74																				
75	*Atm. Distillation*		*Heavy Atm. Gas Oil*																	
76	1990	F6	SR HGO	1	B	4												0.04		
77	Sep-92	J1	2	1	A	0														
78	Sep-92	J2	2	1	A	0														
79	Aug-92	J4	4	1	HL	0														
80	Aug-92	J5	2	1	A	0														
81	Nov-90	P1	HGO #2	1	A	0			NP			NP			NP			NP		
82	Apr-93	Q1	Heavy Gas Oil	2	C	7												0.1		
83	Jul-93	V1	CRD1-HGO	1	A	14			NA			NA			0.01464			0.00899		
84	Sep-93	V2	CRD-HGO	1	A	14			NA			0.00588			0.00046			0.00092		
85	1991	W1	91-12	1	A	17			*0.0008*			0.04			*0.0008*			0.004		
86	1987	W1	53	1	A	5						0.062						0.005		
87																				
88	*Atm. Distillation*		*Light Atm. Gas Oil*																	
89	Post 199	F3	SR LGO	1	C	6									0.04			0.02		
90	1990	F6	SR LGO	1	B	3												ND		
91	Sep-92	J1	3	1	A	0														
92	Sep-92	J1	4	1	A	0														
93	Oct-92	J3	4	1	A	0														
94	Oct-90	P1	Stove Oil	1	A	7			NP			0.55			NP			0.021		
95	Jul-93	V1	CRD1-GO	1	A	14			NA			NA			0.07475			0.03873		
96	Sep-93	V2	CRD-LGO	1	A	14			NA			0.00106			*2E-05*			0.00035		
97	Mar-94	V3	CRD-DIESEL	1	A	12			NA			NA			NA			0.10806		
98	1987	W1	11	1	A	6						0.1555						0.0135		

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	A	B	C	D	E	N	BS	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Xylenes (mixed)	No. of Mins	No. of Maxs	Ethane	No. of Mins	No. of Maxs	Ethylene	No. of Mins	No. of Maxs	Propane	No. of Mins	No. of Maxs	Propylene	No. of Mins
2	Count =	742	Site Use Only	1076	742	5404	Typ.	0	0	Typ.	1	1	Typ.	1	2	Typ.	2	2	Typ.	8
67																				
68	*Atm. Distillation*		*Atm. Resid.*																	
69	Oct-92	J3	3	1	A	0														
70	Oct-90	P1	SR Resid #1 Crude	1	A	0	NP			NP			NP			NP			NP	
71	Dec-89	Q2	C1180 Bottoms	3	B	0														
72	Apr-93	Q1	Resid Fuel Oil	2	C	5	0.05													
73	Apr-94	Q1	Bunker	2	B	4	0.05													
74																				
75	*Atm. Distillation*		*Heavy Atm. Gas Oil*																	
76	1990	F6	SR HGO	1	B	4	0.1													
77	Sep-92	J1	2	1	A	0														
78	Sep-92	J2	2	1	A	0														
79	Aug-92	J4	4	1	HL	0														
80	Aug-92	J5	2	1	A	0														
81	Nov-90	P1	HGO #2	1	A	0	NP			NP			NP			NP			NP	
82	Apr-93	Q1	Heavy Gas Oil	2	C	7	0.7													
83	Jul-93	V1	CRD1-HGO	1	A	14	0.03183			NA			*2E-04*			*2E-04*			*2E-04*	
84	Sep-93	V2	CRD-HGO	1	A	14	0.00208			NA			*2E-05*			*2E-05*			*2E-05*	
85	1991	W1	91-12	1	A	17	0.37												*0.0008*	
86	1987	W1	53	1	A	6	0.168													
87																				
88	*Atm. Distillation*		*Light Atm. Gas Oil*																	
89	Post 199	F3	SR LGO	1	C	6	0.06													
90	1990	F6	SR LGO	1	B	3	0.4													
91	Sep-92	J1	3	1	A	0														
92	Sep-92	J1	4	1	A	0														
93	Oct-92	J3	4	1	A	0														
94	Oct-90	P1	Stove Oil	1	A	7	0.12			NP			NP			NP			NP	
95	Jul-93	V1	CRD1-GO	1	A	14	0.13314			NA			*2E-04*			*2E-04*			*2E-04*	
96	Sep-93	V2	CRD-LGO	1	A	14	0.00024			NA			*2E-05*			*2E-05*			*2E-05*	
97	Mar-94	V3	CRD-DIESEL	1	A	12	2.00429			NA			*6E-05*			*6E-05*			*6E-05*	
98	1987	W1	11	1	A	6	0.185													

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	A	B	C	D	E	N	CH	CI
	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Butane
	Count =	742	*Site Use Only*	1076	742	5404	8	Typ.
67								
68	*Atm. Distillation*		*Atm. Resid.*					
69	Oct-92	J3	3	1	A	0		
70	Oct-90	P1	SR Resid #1 Crude	1	A	0		NP
71	Dec-89	Q2	C1180 Bottoms	3	B	0		
72	Apr-93	Q1	Resid Fuel Oil	2	C	5		
73	Apr-94	Q1	Bunker	2	B	4		
74								
75	*Atm. Distillation*		*Heavy Atm. Gas Oil*					
76	1990	F6	SR HGO	1	B	4		
77	Sep-92	J1	2	1	A	0		
78	Sep-92	J2	2	1	A	0		
79	Aug-92	J4	4	1	HL	0		
80	Aug-92	J5	2	1	A	0		
81	Nov-90	P1	HGO #2	1	A	0		NP
82	Apr-93	Q1	Heavy Gas Oil	2	C	7		
83	Jul-93	V1	CRD1-HGO	1	A	14		*2E-04*
84	Sep-93	V2	CRD-HGO	1	A	14		*2E-05*
85	1991	W1	91-12	1	A	17		
86	1987	W1	53	1	A	5		
87								
88	*Atm. Distillation*		*Light Atm. Gas Oil*					
89	Post 199	F3	SR LGO	1	C	6		
90	1990	F6	SR LGO	1	B	3		
91	Sep-92	J1	3	1	A	0		
92	Sep-92	J1	4	1	A	0		
93	Oct-92	J3	4	1	A	0		
94	Oct-90	P1	Stove Oil	1	A	7		NP
95	Jul-93	V1	CRD1-GO	1	A	14		*2E-04*
96	Sep-93	V2	CRD-LGO	1	A	14		0.00023
97	Mar-94	V3	CRD-DIESEL	1	A	12		*6E-05*
98	1987	W1	11	1	A	6		

	A	B	C	D	E	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	1,3 Butadiene	No. of Mins	No. of Maxs	Benzene	No. of Mins	No. of Maxs	Biphenyl	No. of Mins	No. of Maxs	Cresols (mixed)	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	4	5	Typ.	59	59	Typ.	4	4	Typ.	0	5	Typ.	34	35
99	1987	W1	51	1	A	6														
100	1987	W1	71	1	A	8						0.028								
101	1991	W1	91-11	1	A	17			*0.0008*			*0.0008*			0.08			*0.0008*		
102	1991	W1	91-20	1	A	17			*0.0008*			0.02			0.04			*0.0008*		
103	Jan-88	Y1	R2500	2	B	18				ND	0.002	0.002							0.002	0.018
104																				
105	*Atm. Distillation*		*SR Kerosene*																	
106	Post 199	F7	SR KER./FEED KHT	1	B	0														
107	Sep-92	J2	3	2	A	9									0.098					
108	Oct-92	J3	5	1	A	3														
109	Oct-92	J3	6	1	A	0														
110	Oct-92	J3	7	1	A	5									0.211					
111	Aug-92	J4	5	1	A	0														
112	Aug-92	J4	6	1	A	0														
113	Aug-92	J4	7	1	A	5									0.243					
114	Aug-92	J4	8	1	A	3														
115	Aug-92	J5	3	1	A	3														
116	Aug-92	J5	4	1	A	4														
117	Oct-92	Q1,2,6,7	Kerosene, SR	4	B	3			ND			ND								
118	Jul-93	V1	CRD1-WW	1	A	14			*2E-04*			0.01342			NA			NA		
119	Sep-93	V2	CRD-WW	1	A	14			*2E-05*			0.01711			NA			NA		
120	Mar-94	V3	CRD-KERO	1	A	12			NA			0.03662			NA			NA		
121	1987	W1	9	1	A	8						0.008								
122	1987	W1	49	1	A	8						0.052								
123	1987	W1	69	1	A	9						0.045								
124	1991	W1	91-3	1	A	17			*0.0008*			0.01			0.04			*0.0008*		
125	1991	W1	91-19	1	A	17			*0.0008*			0.03			*0.0008*			*0.0008*		
126	1991	W1	91-10	1	A	17			*0.0008*			0.03			*0.0008*			*0.0008*		
127	Jan-88	Y1	R2600/2900	2	B	20				ND	0.01233	0.01233							0.003	0.0308
128	Jan-88	Y2	R2700/R2800	2	B	12				ND	ND	*0.0015*							ND	ND
129	Jan-88	Y3	R2600	2	B	17				ND	ND	*0.0015*							ND	0.05
130																				

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	A	B	C	D	E	N	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Cumene	No. of Mins	No. of Maxs	Ethylbenzene	No. of Mins	No. of Maxs	Ethylene Gycol	No. of Mins	No. of Maxs	n-Hexane	No. of Mins	No. of Maxs	Hydrogen Sulfide	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	49	49	Typ.	0	1	Typ.	22	25	Typ.	2	2	Typ.	2
9	1987	W1	51	1	A	6	0.012			0.023										
100	1987	W1	71	1	A	8	0.035			0.1						0.09				
101	1991	W1	91-11	1	A	17	0.01			0.02						*0.0008*				
102	1991	W1	91-20	1	A	17	0.03			0.1						0.09				
103	Jan-88	Y1	R2500	2	B	18	0.0103	ND	0.0365	0.0365										
104																				
105	*Atm. Distillation*		*SR Kerosene*																	
106	Post 199	F7	SR KER./FEED KHT	1	B	0														
107	Sep-92	J2	3	2	A	9														
108	Oct-92	J3	5	1	A	3														
109	Oct-92	J3	6	1	A	0														
110	Oct-92	J3	7	1	A	5														
111	Aug-92	J4	5	1	A	0														
12	Aug-92	J4	6	1	A	0														
13	Aug-92	J4	7	1	A	5														
114	Aug-92	J4	8	1	A	3														
115	Aug-92	J5	3	1	A	3														
116	Aug-92	J5	4	1	A	4														
117	Oct-92	Q1,2,6,7	Kerosene, SR	4	B	3	0.3			ND						ND				
118	Jul-93	V1	CRD1-WW	1	A	14	0.03423			0.04888			NA			0.02192			NA	
119	Sep-93	V2	CRD-WW	1	A	14	0.0064			0.04408			NA			0.02327			NA	
120	Mar-94	V3	CRD-KERO	1	A	12	*0.0003*			0.42267			NA			*0.0003*			NA	
121	1987	W1	9	1	A	8	0.038			0.13						0.041				
122	1987	W1	49	1	A	8	0.286			0.4						0.143				
123	1987	W1	69	1	A	9	0.271			0.412						0.119			0.001	
124	1991	W1	91-3	1	A	17	0.03			0.13						0.04				
125	1991	W1	91-19	1	A	17	0.02			0.55						0.09				
126	1991	W1	91-10	1	A	17	0.02			0.4						0.1				
127	Jan-88	Y1	R2600/2900	2	B	20	0.017	0.0037	0.1307	0.067										
128	Jan-88	Y2	R2700/R2800	2	B	12	*0.0015*	ND	0.018	0.018										
129	Jan-88	Y3	R2600	2	B	17	0.05	0.034	0.064	0.049										
130																				

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	A	B	C	D	E	N	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Methanol	No. of Mins	No. of Maxs	MEK	No. of Mins	No. of Maxs	MTBE	No. of Mins	No. of Maxs	Naphthalene	No. of Mins	No. of Maxs	Phenol
2	Count =	742	*Site Use Only*	1076	742	5404	1	Typ.	0	0	Typ.	8	7	Typ.	50	49	Typ.	3	2	Typ.
99	1987	W1	51	1	A	6											0.411			
100	1987	W1	71	1	A	8											0.301			
101	1991	W1	91-11	1	A	17					*0.0008*			*0.0008*			0.03			*0.0008*
102	1991	W1	91-20	1	A	17					*0.0008*			*0.0008*			0.02			*0.0008*
103	Jan-88	Y1	R2500	2	B	18									0.0047	0.10344	0.054			
104																				
105	*Atm. Distillation*		*SR Kerosene*																	
106	Post 199	F7	SR KER./FEED KHT	1	B	0														
107	Sep-92	J2	3	2	A	9											0.104			
108	Oct-92	J3	5	1	A	3											0.121			
109	Oct-92	J3	6	1	A	0														
110	Oct-92	J3	7	1	A	5											1.245			
111	Aug-92	J4	5	1	A	0														
112	Aug-92	J4	6	1	A	0														
113	Aug-92	J4	7	1	A	5											0.686			
114	Aug-92	J4	8	1	A	3											0.705			
115	Aug-92	J5	3	1	A	3											0.104			
116	Aug-92	J5	4	1	A	4											0.446			
117	Oct-92	Q1,2,6,7	Kerosene, SR	4	B	3											ND			
118	Jul-93	V1	CRD1-WW	1	A	14		*6E-04*			NA			NA			0.61303			NA
119	Sep-93	V2	CRD-WW	1	A	14		NA			NA			NA			0.041			NA
120	Mar-94	V3	CRD-KERO	1	A	12		*0.0003*			NA			NA			0.06608			NA
121	1987	W1	9	1	A	8											0.213			
122	1987	W1	49	1	A	8											0.039			
123	1987	W1	69	1	A	9											0.017			
124	1991	W1	91-3	1	A	17					*0.0008*			*0.0008*			0.02			*0.0008*
125	1991	W1	91-19	1	A	17					*0.0008*			*0.0008*			0.01			*0.0008*
126	1991	W1	91-10	1	A	17					*0.0008*			*0.0008*			0.03			*0.0008*
127	Jan-88	Y1	R2600/2900	2	B	20									0.2355	0.238	0.2368			
128	Jan-88	Y2	R2700/R2800	2	B	12									ND	0.076	0.076			
129	Jan-88	Y3	R2600	2	B	17									ND	0.123	0.123			
130																				

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	A	B	C	D	E	N	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR
	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	Styrene	No. of Mins	No. of Maxs	1,2,4 TMB	No. of Mins	No. of Maxs	2,2,4 TMP	No. of Mins	No. of Maxs	Toluene	No. of Mins	No. of Maxs
	Count =	742	*Site Use Only*	1076	742	5404	6	6	Typ.	51	51	Typ.	12	12	Typ.	54	54	Typ.	53	85
99	1987	W1	51	1	A	6						0.249						0.022		
100	1987	W1	71	1	A	8						0.7						0.163		
101	1991	W1	91-11	1	A	17			*0.0008*			0.24			*0.0008*			0.02		
102	1991	W1	91-20	1	A	17			*0.0008*			0.7			*0.0008*			0.1		
103	Jan-88	Y1	R2500	2	B	18				0.00589	0.1436	0.0747				0.019	0.041	0.03	ND	0.0645
104																				
105	*Atm. Distillation*		*SR Kerosene*																	
106	Post 199	F7	SR KER./FEED KHT	1	B	0														
107	Sep-92	J2	3	2	A	9				0.58	0.7	0.64						0.083	0.15	0.406
108	Oct-92	J3	5	1	A	3						0.113								
109	Oct-92	J3	6	1	A	0														
110	Oct-92	J3	7	1	A	5						0.548						0.086		
111	Aug-92	J4	5	1	A	0														
112	Aug-92	J4	6	1	A	0														
113	Aug-92	J4	7	1	A	5						0.324						0.087		
114	Aug-92	J4	8	1	A	3						0.365								
115	Aug-92	J5	3	1	A	3						0.169						0.105		
116	Aug-92	J5	4	1	A	4						0.363						0.11		
117	Oct-92	Q1,2,6,7	Kerosene, SR	4	B	3						0.8			ND			ND		
118	Jul-93	V1	CRD1-WW	1	A	14			NA			NA			0.06624			0.11721		
119	Sep-93	V2	CRD-WW	1	A	14			NA			1.7396			0.02795			0.04691		
120	Mar-94	V3	CRD-KERO	1	A	12			NA			NA			NA			0.36602		
121	1987	W1	9	1	A	8						0.639						0.085		
122	1987	W1	49	1	A	8						4.887						0.403		
123	1987	W1	69	1	A	9						6.033						0.567		
124	1991	W1	91-3	1	A	17			*0.0008*			0.21			*0.0008*			0.07		
125	1991	W1	91-19	1	A	17			*0.0008*			4.8			*0.0008*			0.4		
126	1991	W1	91-10	1	A	17			*0.0008*			4.6			*0.0008*			0.25		
127	Jan-88	Y1	R2600/2900	2	B	20				0.1159	0.2047	0.1603				0.0148	0.0826	0.0487	0.0764	0.1924
128	Jan-88	Y2	R2700/R2800	2	B	12				0.004	1.752	0.878				ND	ND	*0.0015*	ND	0.156
129	Jan-88	Y3	R2600	2	B	17				0.057	0.081	0.069				0.013	0.032	0.022	0.088	0.208
130																				

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	A	B	C	D	E	N	BS	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Xylenes (mixed)	No. of Mins	No. of Maxs	Ethane	No. of Mins	No. of Maxs	Ethylene	No. of Mins	No. of Maxs	Propane	No. of Mins	No. of Maxs	Propylene	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	0	0	Typ.	1	1	Typ.	1	2	Typ.	2	2	Typ.	8
99	1987	W1	51	1	A	6	0.202													
100	1987	W1	71	1	A	8	0.8													
101	1991	W1	91-11	1	A	17	0.2												*0.0008*	
102	1991	W1	91-20	1	A	17	0.8												*0.0008*	
103	Jan-88	Y1	R2500	2	B	18	0.0645													
104																				
105	*Atm. Distillation*		*SR Kerosene*																	
106	Post 199	F7	SR KER./FEED KHT	1	B	0														
107	Sep-92	J2	3	2	A	9	0.278													
108	Oct-92	J3	5	1	A	3	0.124													
109	Oct-92	J3	6	1	A	0														
110	Oct-92	J3	7	1	A	6	0.444													
111	Aug-92	J4	5	1	A	0														
112	Aug-92	J4	6	1	A	0														
113	Aug-92	J4	7	1	A	6	0.277													
114	Aug-92	J4	8	1	A	3	0.278													
115	Aug-92	J5	3	1	A	3														
116	Aug-92	J5	4	1	A	4	0.554													
117	Oct-92	Q1,2,6,7	Kerosene, SR	4	B	3	0.6												ND	
118	Jul-93	V1	CRD1-WW	1	A	14	0.39547			NA			*2E-04*			*2E-04*			*2E-04*	
119	Sep-93	V2	CRD-WW	1	A	14	0.07474			NA			*2E-05*			*2E-05*			*2E-05*	
120	Mar-94	V3	CRD-KERO	1	A	12	1.32929			NA			*6E-05*			*6E-05*			*6E-05*	
121	1987	W1	9	1	A	8	0.553													
122	1987	W1	49	1	A	8	3.315													
123	1987	W1	69	1	A	9	3.79													
124	1991	W1	91-3	1	A	17	0.56												*0.0008*	
125	1991	W1	91-19	1	A	17	3.1												*0.0008*	
126	1991	W1	91-10	1	A	17	2.9												*0.0008*	
127	Jan-88	Y1	R2600/2900	2	B	20	0.13445													
128	Jan-88	Y2	R2700/R2800	2	B	12	0.156													
129	Jan-88	Y3	R2600	2	B	17	0.148													
130																				

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	A	B	C	D	E	N	CH	CI
	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Butane
	Count =	742	*Site Use Only*	1076	742	5404	8	Typ.
99	1987	W1	51	1	A	6		
100	1987	W1	71	1	A	8		
101	1991	W1	91-11	1	A	17		
102	1991	W1	91-20	1	A	17		
103	Jan-88	Y1	R2500	2	B	18		
104								
105	*Atm. Distillation*		*SR Kerosene*					
106	Post 199	F7	SR KER./FEED KHT	1	B	0		
107	Sep-92	J2	3	2	A	9		
108	Oct-92	J3	5	1	A	3		
109	Oct-92	J3	6	1	A	0		
110	Oct-92	J3	7	1	A	5		
111	Aug-92	J4	5	1	A	0		
112	Aug-92	J4	6	1	A	0		
113	Aug-92	J4	7	1	A	5		
114	Aug-92	J4	8	1	A	3		
115	Aug-92	J5	3	1	A	3		
116	Aug-92	J5	4	1	A	4		
117	Oct-92	Q1,2,6,7	Kerosene, SR	4	B	3		
118	Jul-93	V1	CRD1-WW	1	A	14		*2E-04*
119	Sep-93	V2	CRD-WW	1	A	14		0.08237
120	Mar-94	V3	CRD-KERO	1	A	12		*6E-05*
121	1987	W1	9	1	A	8		
122	1987	W1	49	1	A	8		
123	1987	W1	69	1	A	9		
124	1991	W1	91-3	1	A	17		
125	1991	W1	91-19	1	A	17		
126	1991	W1	91-10	1	A	17		
127	Jan-88	Y1	R2600/2900	2	B	20		
128	Jan-88	Y2	R2700/R2800	2	B	12		
129	Jan-88	Y3	R2600	2	B	17		
130								

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	A	B	C	D	E	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	1,3 Butadiene	No. of Mins	No. of Maxs	Benzene	No. of Mins	No. of Maxs	Biphenyl	No. of Mins	No. of Maxs	Cresols (mixed)	No. of Mins	No. of Maxs
2	Count =	742	Site Use Only	1076	742	5404	4	5	Typ.	59	59	Typ.	4	4	Typ.	0	5	Typ.	34	35
131	*Atm. Distillation*		*Heavy Naphtha*																	
132	Post 199	F7	DESUL. HVY NAPHTHA	1	B	6						0.51								
133	Post 199	F7	SR HVY. NAPHTHA	1	B	6						0.44								
134	Sep-92	J1	6	1	A	8						0.622								
135	Sep-92	J2	4	1	A	8						1.055								
136	Oct-92	J3	8	1	A	7						0.084								
137	Oct-92	J3	9	1	A	2									0.145					
138	Oct-92	J3	10	1	A	6						1.381								
139	Oct-92	J3	11	1	A	10						2.072								
140	Aug-92	J4	9	1	A	8						0.34								
141	Aug-92	J4	10	1	A	7						0.774								
142	Aug-92	J5	5	1	A	8						0.716								
143	Dec-89	Q2	Feed	4	B	0														
144	Jun-93	Q3	ANS HSR	2	A	7						1.92								
145	Jul-93	V1	CRD1-HWN	1	A	14			*2E-04*			0.01865			NA			NA		
146	Sep-93	V2	CRD-HNAPH	1	A	14			*3E-05*			0.02281			NA			NA		
147	1987	W1	28	1	A	8						0.727								
148	1987	W1	68	1	A	7						1.313								
149	1987	W3	37	1	A	5						1.11								
150	1987	W2	HN21	1	A	5						0.78								
151		W4	HN41	1	A	7						1.24								
152	Jan-88	Y1	R6900	1	B	7						0.15102								
153	Jan-88	Y2	R6900	1	B	7						0.52385								
154	Jan-88	Y3	R6900	1	B	7						0.00751								
155																				
156	*Atm. Distillation*		*SR Naphtha*																	
157	Post 199	F1	NHT FEED	?	B	2				0.4	1.8									
158	Post 199	F2	DU1/LT NAPHTHA	1	B	3						0.65								
159	Post 199	F2	DU1/HVY NAPHTHA	1	B	1														
160	Post 199	F2	DU2/NAPHTHA	1	A	4						0.24								
161	Post 199	F3	SR NAPHTHA	1	C	7						1.3								
162	Post 199	F4	NAPHTHA	1	A	16				0.4	0.5	0.4								

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	A	B	C	D	E	N	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Cumene	No. of Mins	No. of Maxs	Ethylbenzene	No. of Mins	No. of Maxs	Ethylene Glycol	No. of Mins	No. of Maxs	n-Hexane	No. of Mins	No. of Maxs	Hydrogen Sulfide	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	6404	Typ.	49	49	Typ.	0	1	Typ.	22	25	Typ.	2	2	Typ.	2
131	*Atm. Distillation*		*Heavy Naphtha*																	
132	Post 199	F7	DESUL. HVY NAPHTHA	1	B	6	0.3			2.9						1.3				
133	Post 199	F7	SR HVY. NAPHTHA	1	B	6	0.68			3.98						0.99				
134	Sep-92	J1	6	1	A	8	0.236			1.592						2.361				
135	Sep-92	J2	4	1	A	8	0.095			0.687						5.152				
136	Oct-92	J3	8	1	A	7	0.199			0.631						0.284				
137	Oct-92	J3	9	1	A	2														
138	Oct-92	J3	10	1	A	6				0.756						5.369				
139	Oct-92	J3	11	1	A	10	0.085			0.937						3.76				
140	Aug-92	J4	9	1	A	8	0.19			0.927						1.182				
141	Aug-92	J4	10	1	A	7				0.503						5.352				
142	Aug-92	J5	5	1	A	8	0.123			0.719						3.119				
143	Dec-89	Q2	Feed	4	B	0														
144	Jun-93	Q3	ANS HSR	2	A	7				0.81						6.98				
145	Jul-93	V1	CRD1-HWN	1	A	14	*3E-04*			0.07989			NA			*3E-04*			NA	
146	Sep-93	V2	CRD-HNAPH	1	A	14	0.05444			0.26222			NA			0.07951			NA	
147	1987	W1	28	1	A	8	0.282			1.424						4			0.0033	
148	1987	W1	68	1	A	7				0.88						4.7			0.0095	
149	1987	W3	37	1	A	5				1.59						4.69				
150	1987	W2	HN21	1	A	5				1.46										
151		W4	HN41	1	A	7	0.91			1.36						7.53				
152	Jan-88	Y1	R6900	1	B	7	0.34143			2.44911										
153	Jan-88	Y2	R6900	1	B	7	0.15164			0.89606										
154	Jan-88	Y3	R6900	1	B	7	0.02129			0.12772										
155																				
156	*Atm. Distillation*		*SR Naphtha*																	
157	Post 199	F1	NHT FEED	?	B	2														
158	Post 199	F2	DU1/LT NAPHTHA	1	B	3										2.2				
159	Post 199	F2	DU1/HVY NAPHTHA	1	B	1														
160	Post 199	F2	DU2/NAPHTHA	1	A	4										3.7				
161	Post 199	F3	SR NAPHTHA	1	C	7	0.13			0.5						7.4				
162	Post 199	F4	NAPHTHA	1	A	16		2	2.5	2.3				3.7	4					

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	A	B	C	D	E	N	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Methanol	No. of Mins	No. of Maxs	MEK	No. of Mins	No. of Maxs	MTBE	No. of Mins	No. of Maxs	Naphthalene	No. of Mins	No. of Maxs	Phenol
2	Count =	742	*Site Use Only*	1076	742	5404	1	Typ.	0	0	Typ.	8	7	Typ.	50	49	Typ.	3	2	Typ.
131	*Atm. Distillation*		*Heavy Naphtha*																	
132	Post 199	F7	DESUL. HVY NAPHTHA	1	B	6														
133	Post 199	F7	SR HVY. NAPHTHA	1	B	6														
134	Sep-92	J1	6	1	A	8														
135	Sep-92	J2	4	1	A	8														
136	Oct-92	J3	8	1	A	7														
137	Oct-92	J3	9	1	A	2											1.265			
138	Oct-92	J3	10	1	A	6														
139	Oct-92	J3	11	1	A	10											0.084			
140	Aug-92	J4	9	1	A	8														
141	Aug-92	J4	10	1	A	7														
142	Aug-92	J5	5	1	A	8														
143	Dec-89	Q2	Feed	4	B	0														
144	Jun-93	Q3	ANS HSR	2	A	7											ND			
145	Jul-93	V1	CRD1-HWN	1	A	14		*6E-04*			NA			NA			1.95464			NA
146	Sep-93	V2	CRD-HNAPH	1	A	14		NA			NA			NA			0.06288			NA
147	1987	W1	28	1	A	8														
148	1987	W1	68	1	A	7														
149	1987	W3	37	1	A	5														
150	1987	W2	HN21	1	A	5														
151		W4	HN41	1	A	7											0.4			
152	Jan-88	Y1	R6900	1	B	7											0.39396			
153	Jan-88	Y2	R6900	1	B	7											*0.0015*			
154	Jan-88	Y3	R6900	1	B	7											0.36188			
155																				
156	*Atm. Distillation*		*SR Naphtha*																	
157	Post 199	F1	NHT FEED	?	B	2														
158	Post 199	F2	DU1/LT NAPHTHA	1	B	3														
159	Post 199	F2	DU1/HVY NAPHTHA	1	B	1														
160	Post 199	F2	DU2/NAPHTHA	1	A	4														
161	Post 199	F3	SR NAPHTHA	1	C	7											0.3			
162	Post 199	F4	NAPHTHA	1	A	16									ND	0.3	*0.05*			

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	A	B	C	D	E	N	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	Styrene	No. of Mins	No. of Maxs	1,2,4 TMB	No. of Mins	No. of Maxs	2,2,4 TMP	No. of Mins	No. of Maxs	Toluene	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	6	6	Typ.	51	51	Typ.	12	12	Typ.	54	54	Typ.	53	85
131	*Atm. Distillation*		*Heavy Naphtha*																	
132	Post 199	F7	DESUL. HVY NAPHTHA	1	B	6												3.1		
133	Post 199	F7	SR HVY. NAPHTHA	1	B	6												2.22		
134	Sep-92	J1	6	1	A	8						1.15						5.529		
135	Sep-92	J2	4	1	A	8												5.274		
136	Oct-92	J3	8	1	A	7						2.967						0.871		
137	Oct-92	J3	9	1	A	2														
138	Oct-92	J3	10	1	A	6												4.66		
139	Oct-92	J3	11	1	A	10						1.199						4.577		
140	Aug-92	J4	9	1	A	8						1.43						2.422		
141	Aug-92	J4	10	1	A	7						0.617						3.557		
142	Aug-92	J5	5	1	A	8						1.103						3.111		
143	Dec-89	Q2	Feed	4	B	0														
144	Jun-93	Q3	ANS HSR	2	A	7						0.22			0.03			5.87		
145	Jul-93	V1	CRD1-HWN	1	A	14			NA			NA			*3E-04*			0.17377		
146	Sep-93	V2	CRD-HNAPH	1	A	14			NA			1.78037			0.10257			0.17263		
147	1987	W1	28	1	A	8						1.943						3.277		
148	1987	W1	68	1	A	7						0.098						4.106		
149	1987	W3	37	1	A	5												3.73		
150	1987	W2	HN21	1	A	5						3						5.62		
151		W4	HN41	1	A	7												5.04		
152	Jan-88	Y1	R6900	1	B	7						0.95863						2.8562		
153	Jan-88	Y2	R6900	1	B	7						0.20678						2.35732		
154	Jan-88	Y3	R6900	1	B	7						0.55222						0.10393		
155																				
156	*Atm. Distillation*		*SR Naphtha*																	
157	Post 199	F1	NHT FEED	?	B	2														
158	Post 199	F2	DU1/LT NAPHTHA	1	B	3												3.3		
159	Post 199	F2	DU1/HVY NAPHTHA	1	B	1												0.66		
160	Post 199	F2	DU2/NAPHTHA	1	A	4												2.6		
161	Post 199	F3	SR NAPHTHA	1	C	7												2.7		
162	Post 199	F4	NAPHTHA	1	A	16										2.5	3.7	3.3	2	3.5

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	A	B	C	D	E	N	BS	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Xylenes (mixed)	No. of Mins	No. of Maxs	Ethane	No. of Mins	No. of Maxs	Ethylene	No. of Mins	No. of Maxs	Propane	No. of Mins	No. of Maxs	Propylene	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	0	0	Typ.	1	1	Typ.	1	2	Typ.	2	2	Typ.	8
131	*Atm. Distillation*		*Heavy Naphtha*																	
132	Post 199	F7	DESUL. HVY NAPHTHA	1	B	6	6.4													
133	Post 199	F7	SR HVY. NAPHTHA	1	B	6	6.9													
134	Sep-92	J1	6	1	A	8	5.764													
135	Sep-92	J2	4	1	A	8	6.118									0.537				
136	Oct-92	J3	8	1	A	7	5.049													
137	Oct-92	J3	9	1	A	2														
138	Oct-92	J3	10	1	A	6	4.243													
139	Oct-92	J3	11	1	A	10	5.515									0.102				
140	Aug-92	J4	9	1	A	8	3.795													
141	Aug-92	J4	10	1	A	7	1.876													
142	Aug-92	J5	5	1	A	8	3.854													
143	Dec-89	Q2	Feed	4	B	0														
144	Jun-93	Q3	ANS HSR	2	A	7	3.68													
145	Jul-93	V1	CRD1-HWN	1	A	14	0.66394			NA			*2E-04*			*2E-04*			*2E-04*	
146	Sep-93	V2	CRD-HNAPH	1	A	14	0.4753			NA			*2E-05*			*2E-05*			*2E-05*	
147	1987	W1	28	1	A	8	6.051													
148	1987	W1	68	1	A	7	6.075													
149	1987	W3	37	1	A	5	5													
150	1987	W2	HN21	1	A	5	7													
151		W4	HN41	1	A	7	5.49													
152	Jan-88	Y1	R6900	1	B	7	2.92843													
153	Jan-88	Y2	R6900	1	B	7	4.57679													
154	Jan-88	Y3	R6900	1	B	7	0.43075													
155																				
156	*Atm. Distillation*		*SR Naphtha*																	
157	Post 199	F1	NHT FEED	?	B	2														
158	Post 199	F2	DU1/LT NAPHTHA	1	B	3														
159	Post 199	F2	DU1/HVY NAPHTHA	1	B	1														
160	Post 199	F2	DU2/NAPHTHA	1	A	4	6.18													
161	Post 199	F3	SR NAPHTHA	1	C	7	0.02													
162	Post 199	F4	NAPHTHA	1	A	16	2													

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	A	B	C	D	E	N	CH	CI
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Butane
2	Count =	742	*Site Use Only*	1076	742	5404	8	Typ.
131	*Atm. Distillation*		*Heavy Naphtha*					
132	Post 199	F7	DESUL. HVY NAPHTHA	1	B	6		
133	Post 199	F7	SR HVY. NAPHTHA	1	B	6		
134	Sep-92	J1	6	1	A	8		0.124
135	Sep-92	J2	4	1	A	8		0.78
136	Oct-92	J3	8	1	A	7		
137	Oct-92	J3	9	1	A	2		
138	Oct-92	J3	10	1	A	6		0.109
139	Oct-92	J3	11	1	A	10		0.532
140	Aug-92	J4	9	1	A	8		0.156
141	Aug-92	J4	10	1	A	7		0.087
142	Aug-92	J5	5	1	A	8		0.09
143	Dec-89	Q2	Feed	4	B	0		
144	Jun-93	Q3	ANS HSR	2	A	7		
145	Jul-93	V1	CRD1-HWN	1	A	14		*2E-04*
146	Sep-93	V2	CRD-HNAPH	1	A	14		0.00428
147	1987	W1	28	1	A	8		
148	1987	W1	68	1	A	7		
149	1987	W3	37	1	A	5		
150	1987	W2	HN21	1	A	5		
151		W4	HN41	1	A	7		
152	Jan-88	Y1	R6900	1	B	7		
153	Jan-88	Y2	R6900	1	B	7		
154	Jan-88	Y3	R6900	1	B	7		
155								
156	*Atm. Distillation*		*SR Naphtha*					
157	Post 199	F1	NHT FEED	?	B	2		
158	Post 199	F2	DU1/LT NAPHTHA	1	B	3		
159	Post 199	F2	DU1/HVY NAPHTHA	1	B	1		
160	Post 199	F2	DU2/NAPHTHA	1	A	4		
161	Post 199	F3	SR NAPHTHA	1	C	7		
162	Post 199	F4	NAPHTHA	1	A	16		

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	A	B	C	D	E	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	1,3 Butadiene	No. of Mins	No. of Maxs	Benzene	No. of Mins	No. of Maxs	Biphenyl	No. of Mins	No. of Maxs	Cresols (mixed)	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	4	5	Typ.	59	59	Typ.	4	4	Typ.	0	5	Typ.	34	35
163	93-'94	F5	BT & MF NAPHT.	1	A	5				0.3	2									
164	1990	F6	SR NAPHTHA	1	B	3			*ND*			0.1								
165	Post 199	F7	SR LT. NAPHTHA	1	B	5						3.2								
166	Post 199	F7	DU1 SR NAPHTHA	1	B	6						1.66								
167	Post 199	F7	DU2 SR NAPHTHA	1	B	6						1.05								
168	Post 199	F7	AVERAGE NAPHTHA		B	8						1.83								
169	Sep-92	J1	7	1	A	7						2.366								
170	Sep-92	J1	8	1	A	6						3.662								
171	Sep-92	J1	9	1	A	6						3.164								
172	Sep-92	J1	10	1	A	6						3.089								
173	Sep-92	J2	5	1	A	4														
174	Sep-92	J2	6	1	A	5						2.258								
175	Oct-92	J3	12	1	A	3						1.4								
176	Oct-92	J3	13	1	A	3						2.559								
177	Aug-92	J4	11	1	A	6						2.625								
178	Aug-92	J4	12	1	A	5						1.899								
179	Aug-92	J4	13	1	A	6						0.358								
180	Aug-92	J5	6	1	A	7						0.715								
181	Oct-90	P1	SR Naphtha	1	A	4			NP			0.7			NA			NP		
182	Oct-92	Q1,2,6,7	Gasoline, SR	4	B	7			ND			0.3								
183	Apr-93	Q1	Naphtha	2	C	7						2								
184	Dec-89	Q2	No 1 CRU 2nd stage	4	B	19				0.4	0.7	0.48							0.1	0.1
185	Dec-89	Q2	No 2 CRU	4	B	17				ND	1.8	0.68							0.1	0.9
186	Jun-93	Q3	ANS LSR	2	A	3						2.31								
187	Jul-93	V1	CRD1-OVA	1	A	14			*2E-04*			0.61529			NA			NA		
188	Mar-94	V3	CRD-NAPH	1	A	12			NA			1.3906			NA			NA		
189	Mar-94	V3	CRD-GASOL	1	A	12			NA			4.75976			NA			NA		
190	Dec-94	V4	CU-SRG	1	A	15			NA			0.8916			*5E-05*			NA		
191	1987	W1	65	1	A	8						0.979								
192	1987	W1	48	1	A	6						1.719								
193	1987	W3	428	1	A	4						0.57								
194	1991	W1	91-39	1	A	17			*0.0008*			1.8			*0.0008*			*0.0008*		

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	A	B	C	D	E	N	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Cumene	No. of Mins	No. of Maxs	Ethylbenzene	No. of Mins	No. of Maxs	Ethylene Gycol	No. of Mins	No. of Maxs	n-Hexane	No. of Mins	No. of Maxs	Hydrogen Sulfide	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	49	49	Typ.	0	1	Typ.	22	25	Typ.	2	2	Typ.	2
163	93-'94	F5	BT & MF NAPHT.	1	A	5								1	10					
164	1990	F6	SR NAPHTHA	1	B	3														
165	Post 199	F7	SR LT. NAPHTHA	1	B	5				0.96						11.6				
166	Post 199	F7	DU1 SR NAPHTHA	1	B	6	0.17			0.98						5.41				
167	Post 199	F7	DU2 SR NAPHTHA	1	B	6	0.37			2.26						3.66				
168	Post 199	F7	AVERAGE NAPHTHA		B	8	0.34			2.47						6.3				
169	Sep-92	J1	7	1	A	7				0.107						11.241				
170	Sep-92	J1	8	1	A	6				0.082						13.298				
171	Sep-92	J1	9	1	A	6				0.118						13.278				
172	Sep-92	J1	10	1	A	6				0.104						13.477				
173	Sep-92	J2	5	1	A	4										5.57968				
174	Sep-92	J2	6	1	A	5										10.011				
175	Oct-92	J3	12	1	A	3										7.477				
176	Oct-92	J3	13	1	A	3										13.906				
177	Aug-92	J4	11	1	A	6										12.282				
178	Aug-92	J4	12	1	A	5										7.95				
179	Aug-92	J4	13	1	A	6				0.178						9.294				
180	Aug-92	J5	6	1	A	7	0.126			0.751						3.23				
181	Oct-90	P1	SR Naphtha	1	A	4	NA			1.1			NA			NA			NP	
182	Oct-92	Q1,2,6,7	Gasoline, SR	4	B	7	0.62			1						7.23				
183	Apr-93	Q1	Naphtha	2	C	7	0.1			ND						7.5				
184	Dec-89	Q2	No 1 CRU 2nd stage	4	B	19	0.1	0.3	0.6	0.5										
185	Dec-89	Q2	No 2 CRU	4	B	17	0.3	0.5	0.8	0.68										
186	Jun-93	Q3	ANS LSR	2	A	3				ND						1.5				
187	Jul-93	V1	CRD1-OVA	1	A	14	0.20202			0.45929			NA			1.20108			NA	
188	Mar-94	V3	CRD-NAPH	1	A	12	*0.0003*			1.5764			NA			3.07267			NA	
189	Mar-94	V3	CRD-GASOL	1	A	12	*0.0003*			0.30635			NA			10.886			NA	
190	Dec-94	V4	CU-SRG	1	A	15	0.1363			0.5729			NA			3.1268			NA	
191	1987	W1	65	1	A	8	0.058			0.497						10.35			0.0152	
192	1987	W1	48	1	A	6	0.139			1.053						4			0.0057	
193	1987	W3	428	1	A	4				1.41										
194	1991	W1	91-39	1	A	17	0.01			0.2						3.9				

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	A	B	C	D	E	N	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Methanol	No. of Mins	No. of Maxs	MEK	No. of Mins	No. of Maxs	MTBE	No. of Mins	No. of Maxs	Naphthalene	No. of Mins	No. of Maxs	Phenol
2	Count =	742	*Site Use Only*	1076	742	5404	1	Typ.	0	0	Typ.	8	7	Typ.	50	49	Typ.	3	2	Typ.
163	93-'94	F5	BT & MF NAPHT.	1	A	5														
164	1990	F6	SR NAPHTHA	1	B	3														
165	Post 199	F7	SR LT. NAPHTHA	1	B	5														
166	Post 199	F7	DU1 SR NAPHTHA	1	B	6														
167	Post 199	F7	DU2 SR NAPHTHA	1	B	6														
168	Post 199	F7	AVERAGE NAPHTHA		B	8														
169	Sep-92	J1	7	1	A	7														
170	Sep-92	J1	8	1	A	6														
171	Sep-92	J1	9	1	A	6														
172	Sep-92	J1	10	1	A	6														
173	Sep-92	J2	5	1	A	4														
174	Sep-92	J2	6	1	A	5														
175	Oct-92	J3	12	1	A	3														
176	Oct-92	J3	13	1	A	3														
177	Aug-92	J4	11	1	A	6														
178	Aug-92	J4	12	1	A	5														
179	Aug-92	J4	13	1	A	6														
180	Aug-92	J5	6	1	A	7														
181	Oct-90	P1	SR Naphtha	1	A	4		NP			NP			NP			NP			NP
182	Oct-92	Q1,2,6,7	Gasoline, SR	4	B	7											ND			
183	Apr-93	Q1	Naphtha	2	C	7											0.5			
184	Dec-89	Q2	No 1 CRU 2nd stage	4	B	19									<.1	<.1	0.05			
185	Dec-89	Q2	No 2 CRU	4	B	17									ND	<.1	0.03			
186	Jun-93	Q3	ANS LSR	2	A	3											ND			
187	Jul-93	V1	CRD1-OVA	1	A	14		*7E-04*			NA			NA			0.10762			NA
188	Mar-94	V3	CRD-NAPH	1	A	12		*0.0003*			NA			NA			*0.0002*			NA
189	Mar-94	V3	CRD-GASOL	1	A	12		*0.0003*			NA			NA			*0.0002*			NA
190	Dec-94	V4	CU-SRG	1	A	15		*5E-05*			NA			NA			*5E-05*			NA
191	1987	W1	65	1	A	8														
192	1987	W1	48	1	A	6														
193	1987	W3	428	1	A	4														
194	1991	W1	91-39	1	A	17					*0.0008*			*0.0008*			0.02			*0.0008*

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	A	B	C	D	E	N	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	Styrene	No. of Mins	No. of Maxs	1,2,4 TMB	No. of Mins	No. of Maxs	2,2,4 TMP	No. of Mins	No. of Maxs	Toluene	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	6	6	Typ.	51	51	Typ.	12	12	Typ.	54	54	Typ.	53	85
163	93-'94	F5	BT & MF NAPHT.	1	A	5										2	ND			
164	1990	F6	SR NAPHTHA	1	B	3												4.6		
165	Post 199	F7	SR LT. NAPHTHA	1	B	5												5.2		
166	Post 199	F7	DU1 SR NAPHTHA	1	B	6												2.23		
167	Post 199	F7	DU2 SR NAPHTHA	1	B	6												1.96		
168	Post 199	F7	AVERAGE NAPHTHA		B	8												3.7	0.38	0.87
169	Sep-92	J1	7	1	A	7												2.031		
170	Sep-92	J1	8	1	A	6												2.24		
171	Sep-92	J1	9	1	A	6												2.213		
172	Sep-92	J1	10	1	A	6												2.286		
173	Sep-92	J2	5	1	A	4														
174	Sep-92	J2	6	1	A	5												1.637		
175	Oct-92	J3	12	1	A	3														
176	Oct-92	J3	13	1	A	3														
177	Aug-92	J4	11	1	A	6												2.108		
178	Aug-92	J4	12	1	A	5												0.53		
179	Aug-92	J4	13	1	A	6												1.578		
180	Aug-92	J5	6	1	A	7						0.92						3.195		
181	Oct-90	P1	SR Naphtha	1	A	4			NP			4.7			NA			ND		
182	Oct-92	Q1,2,6,7	Gasoline, SR	4	B	7						0.8			ND			1.1		
183	Apr-93	Q1	Naphtha	2	C	7									0.8			7		
184	Dec-89	Q2	No 1 CRU 2nd stage	4	B	19				0.5	0.7	0.6				1.5	2.3	1.88	1.1	2.5
185	Dec-89	Q2	No 2 CRU	4	B	17				ND	0.8	0.45				1.7	2.2	2	1.9	2.9
186	Jun-93	Q3	ANS LSR	2	A	3						ND			ND			1.25		
187	Jul-93	V1	CRD1-OVA	1	A	14			NA			NA			*3E-04*			0.7112		
188	Mar-94	V3	CRD-NAPH	1	A	12			NA			NA			NA			5.88907		
189	Mar-94	V3	CRD-GASOL	1	A	12			NA			NA			NA			2.99635		
190	Dec-94	V4	CU-SRG	1	A	15			NA			0.9187			0.0148			2.1933		
191	1987	W1	65	1	A	8						0.117						2.134		
192	1987	W1	48	1	A	6						0.166								
193	1987	W3	428	1	A	4												2.72		
194	1991	W1	91-39	1	A	17			*0.0008*			1.3			*0.0008*			1.4		

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	A	B	C	D	E	N	BS	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Xylenes (mixed)	No. of Mins	No. of Maxs	Ethane	No. of Mins	No. of Maxs	Ethylene	No. of Mins	No. of Maxs	Propane	No. of Mins	No. of Maxs	Propylene	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	0	0	Typ.	1	1	Typ.	1	2	Typ.	2	2	Typ.	8
163	93-'94	F5	BT & MF NAPHT.	1	A	5														
164	1990	F6	SR NAPHTHA	1	B	3	5													
165	Post 199	F7	SR LT. NAPHTHA	1	B	5	1.43													
166	Post 199	F7	DU1 SR NAPHTHA	1	B	6	2.9													
167	Post 199	F7	DU2 SR NAPHTHA	1	B	6	4.1													
168	Post 199	F7	AVERAGE NAPHTHA		B	8	4.1													
169	Sep-92	J1	7	1	A	7	0.202									1.642				
170	Sep-92	J1	8	1	A	6	0.143													
171	Sep-92	J1	9	1	A	6	0.216													
172	Sep-92	J1	10	1	A	6	0.203													
173	Sep-92	J2	5	1	A	4				0.81694						13.0314				
174	Sep-92	J2	6	1	A	5	0.16													
175	Oct-92	J3	12	1	A	3														
176	Oct-92	J3	13	1	A	3														
177	Aug-92	J4	11	1	A	6	0.091									0.109				
178	Aug-92	J4	12	1	A	5										2.27				
179	Aug-92	J4	13	1	A	6	0.76													
180	Aug-92	J5	6	1	A	7	3.364													
181	Oct-90	P1	SR Naphtha	1	A	4	5			NP			NP			NP			NP	
182	Oct-92	Q1,2,6,7	Gasoline, SR	4	B	7	6.2												ND	
183	Apr-93	Q1	Naphtha	2	C	7	5													
184	Dec-89	Q2	No 1 CRU 2nd stage	4	B	19	2.2													
185	Dec-89	Q2	No 2 CRU	4	B	17	2.5													
186	Jun-93	Q3	ANS LSR	2	A	3	ND													
187	Jul-93	V1	CRD1-OVA	1	A	14	3.19563			NA			*2E-04*			0.19361			*2E-04*	
188	Mar-94	V3	CRD-NAPH	1	A	12	5.19079			NA			*6E-05*			*6E-05*			*6E-05*	
189	Mar-94	V3	CRD-GASOL	1	A	12	1.36129			NA			*6E-05*			*6E-05*			*6E-05*	
190	Dec-94	V4	CU-SRG	1	A	15	3.2202			NA			0.0114			0.8252			0.0858	
191	1987	W1	65	1	A	8	1.792													
192	1987	W1	48	1	A	6														
193	1987	W3	428	1	A	4	1.18													
194	1991	W1	91-39	1	A	17	2.23												*0.0008*	

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	A	B	C	D	E	N	CH	CI
	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Butane
	Count =	742	Site Use Only	1076	742	5404	8	Typ.
163	93-'94	F5	BT & MF NAPHT.	1	A	5		
164	1990	F6	SR NAPHTHA	1	B	3		
165	Post 199	F7	SR LT. NAPHTHA	1	B	5		
166	Post 199	F7	DU1 SR NAPHTHA	1	B	6		
167	Post 199	F7	DU2 SR NAPHTHA	1	B	6		
168	Post 199	F7	AVERAGE NAPHTHA		B	8		
169	Sep-92	J1	7	1	A	7		10.987
170	Sep-92	J1	8	1	A	6		2.729
171	Sep-92	J1	9	1	A	6		3.404
172	Sep-92	J1	10	1	A	6		2.306
173	Sep-92	J2	5	1	A	4		27.8992
174	Sep-92	J2	6	1	A	5		4.676
175	Oct-92	J3	12	1	A	3		2.996
176	Oct-92	J3	13	1	A	3		0.587
177	Aug-92	J4	11	1	A	6		2.45
178	Aug-92	J4	12	1	A	5		18.57
179	Aug-92	J4	13	1	A	6		1.049
180	Aug-92	J5	6	1	A	7		
181	Oct-90	P1	SR Naphtha	1	A	4		NA
182	Oct-92	Q1,2,6,7	Gasoline, SR	4	B	7		
183	Apr-93	Q1	Naphtha	2	C	7		
184	Dec-89	Q2	No 1 CRU 2nd stage	4	B	19		
185	Dec-89	Q2	No 2 CRU	4	B	17		
186	Jun-93	Q3	ANS LSR	2	A	3		
187	Jul-93	V1	CRD1-OVA	1	A	14		0.39343
188	Mar-94	V3	CRD-NAPH	1	A	12		0.16395
189	Mar-94	V3	CRD-GASOL	1	A	12		1.11412
190	Dec-94	V4	CU-SRG	1	A	15		2.4855
191	1987	W1	65	1	A	8		
192	1987	W1	48	1	A	6		
193	1987	W3	428	1	A	4		
194	1991	W1	91-39	1	A	17		

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	A	B	C	D	E	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	1,3 Butadiene	No. of Mins	No. of Maxs	Benzene	No. of Mins	No. of Maxs	Biphenyl	No. of Mins	No. of Maxs	Cresols (mixed)	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	4	5	Typ.	59	59	Typ.	4	4	Typ.	0	5	Typ.	34	35
195	1991	W1	91-1	1	A	17			*0.0008*			1.69			*0.0008*			*0.0008*		
196	Jan-88	Y1	R7600	1	B	7						3.42516								
197	Jan-88	Y2	R7600	1	B	7						0.68879								
198	Jan-88	Y3	R7600	1	B	7						0.6416								
199																				
200	*Atm. Distillation*		*SR Gasoline*																	
201		F1	LT SR GASOLINE	1	B	1						2								
202	Post 199	F4	DU-4 RA	1	A	9				2	2.4									
203	Post 199	F7	SR GASOLINE	1	B	2						0.59								
204																				
205	*Atm. Distillation*		*Light ends*																	
206	Post 199	F4	TO FUEL GAS TRT	1	A	1						0.3								
207	Sep-92	J1	11	1	A	6														
208	Sep-92	J2	7	1	A	4														
209	Oct-92	J3	14	1	A	7														
210	Aug-92	J5	7	1	A	6														
211	Oct-92	Q1,2,6,7	Condensate, whole	4	B	7			ND			1.43								
212	Dec-89	Q2	Fuel Gas Avg	4	B	7			0.15											
213																				
214	Dec-94	V4	FCC-LFD	1	A	15			NA			0.0125			0.12175			NA		
215	1987	W1	3	1	A	3						0.1								
216	1987	W1	23	1	A	8						0.0026								
217	1987	W1	43	1	A	5						0.22								
218	1991	W1	91-5	1	A	17			*0.0008*			0.1			*0.0008*			*0.0008*		
219	1991	W1	91-14	1	A	17			*0.0008*			0.3			*0.0008*			*0.0008*		
220	1991	W1	91-46	1	A	5						0.45								
221	1991	W1	87-6	1	A	3						0.47								
222	1991	W1	91-6	1	A	17			*0.0008*			0.29			*0.0008*			*0.0008*		
223	1991	W1	87-55	1	A	5						0.15								
224	1991	W1	91-16	1	A	16			0.01			0.13			ND			*0.0008*		
225	1991	W1	87-600	1	A	4						0.93								
226																				

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	A	B	C	D	E	N	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Cumene	No. of Mins	No. of Maxs	Ethylbenzene	No. of Mins	No. of Maxs	Ethylene Gycol	No. of Mins	No. of Maxs	n-Hexane	No. of Mins	No. of Maxs	Hydrogen Sulfide	No. of Mins
	Count =	742	Site Use Only	1076	742	5404	Typ.	49	49	Typ.	0	1	Typ.	22	25	Typ.	2	2	Typ.	2
95	1991	W1	91-1	1	A	17	0.04			0.51						10.35				
96	Jan-88	Y1	R7600	1	B	7	*0.0145*			1.93121										
97	Jan-88	Y2	R7600	1	B	7	*0.0015*			*0.0015*										
98	Jan-88	Y3	R7600	1	B	7	*0.0015*			0.10875										
99																				
200	*Atm. Distillation*		*SR Gasoline*																	
201		F1	LT SR GASOLINE	1	B	1														
202	Post 199	F4	DU-4 RA	1	A	9				1						9				
203	Post 199	F7	SR GASOLINE	1	B	2										2.32				
204																				
205	*Atm. Distillation*		*Light ends*																	
206	Post 199	F4	TO FUEL GAS TRT	1	A	1														
207	Sep-92	J1	11	1	A	6										2.70625				
208	Sep-92	J2	7	1	A	4										4.74835				
209	Oct-92	J3	14	1	A	7										2.18014			14.0881	
210	Aug-92	J5	7	1	A	6										0.69845				
211	Oct-92	Q1,2,6,7	Condensate, whole	4	B	7	0.04			0.35						2.9				
212	Dec-89	Q2	Fuel Gas Avg	4	B	7														
213																				
214	Dec-94	V4	FCC-LFD	1	A	15	0.00363			0.0225			NA			0.00825			NA	
215	1987	W1	3	1	A	3										1.73				
216	1987	W1	23	1	A	8	0.0037									0.017			0.0014	
217	1987	W1	43	1	A	5				0.003						1.27				
218	1991	W1	91-5	1	A	17	*0.0008*			*0.0008*						2.4				
219	1991	W1	91-14	1	A	17	*0.0008*			0.003						1.95				
220	1991	W1	91-46	1	A	5				0.01						2.5				
221	1991	W1	87-6	1	A	3										6.56				
222	1991	W1	91-6	1	A	17	*0.0008*			*0.0008*						7.17				
223	1991	W1	87-55	1	A	5				0.03						1.76				
224	1991	W1	91-16	1	A	16	*0.0008*			0.03						3.21				
225	1991	W1	87-600	1	A	4				0.01						2.03				
226																				

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	A	B	C	D	E	N	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Methanol	No. of Mins	No. of Maxs	MEK	No. of Mins	No. of Maxs	MTBE	No. of Mins	No. of Maxs	Naphthalene	No. of Mins	No. of Maxs	Phenol
2	Count =	742	*Site Use Only*	1076	742	5404	1	Typ.	0	0	Typ.	8	7	Typ.	50	49	Typ.	3	2	Typ.
195	1991	W1	91-1	1	A	17					*0.0008*			*0.0008*			*0.0008*			*0.0008*
196	Jan-88	Y1	R7600	1	B	7											*0.0145*			
197	Jan-88	Y2	R7600	1	B	7											*0.0015*			
198	Jan-88	Y3	R7600	1	B	7											*0.0015*			
199																				
200	*Atm. Distillation*		*SR Gasoline*																	
201		F1	LT SR GASOLINE	1	B	1														
202	Post 199	F4	DU-4 RA	1	A	9											0.1			
203	Post 199	F7	SR GASOLINE	1	B	2														
204																				
205	*Atm. Distillation*		*Light ends*																	
206	Post 199	F4	TO FUEL GAS TRT	1	A	1														
207	Sep-92	J1	11	1	A	6														
208	Sep-92	J2	7	1	A	4														
209	Oct-92	J3	14	1	A	7														
210	Aug-92	J5	7	1	A	6														
211	Oct-92	Q1,2,6,7	Condensate, whole	4	B	7											0.02			
212	Dec-89	Q2	Fuel Gas Avg	4	B	7														
213																				
214	Dec-94	V4	FCC-LFD	1	A	15		*5E-05*			NA			NA			0.02588			NA
215	1987	W1	3	1	A	3														
216	1987	W1	23	1	A	8														
217	1987	W1	43	1	A	5														
218	1991	W1	91-5	1	A	17					*0.0008*			*0.0008*			*0.0008*			*0.0008*
219	1991	W1	91-14	1	A	17					*0.0008*			*0.0008*			*0.0008*			*0.0008*
220	1991	W1	91-46	1	A	5														
221	1991	W1	87-6	1	A	3														
222	1991	W1	91-6	1	A	17					*0.0008*			*0.0008*			*0.0008*			*0.0008*
223	1991	W1	87-55	1	A	5														
224	1991	W1	91-16	1	A	16					*0.0008*			*0.0008*			*0.0008*			*0.0008*
225	1991	W1	87-600	1	A	4														
226																				

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	A	B	C	D	E	N	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	Styrene	No. of Mins	No. of Maxs	1,2,4 TMB	No. of Mins	No. of Maxs	2,2,4 TMP	No. of Mins	No. of Maxs	Toluene	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	6	6	Typ.	51	51	Typ.	12	12	Typ.	54	54	Typ.	53	85
195	1991	W1	91-1	1	A	17			*0.0008*			0.11			*0.0008*			1.48		
196	Jan-88	Y1	R7600	1	B	7						*0.0145*						5.21061		
197	Jan-88	Y2	R7600	1	B	7						*0.0015*						0.03287		
198	Jan-88	Y3	R7600	1	B	7						*0.0015*						0.60587		
199																				
200	*Atm. Distillation*		*SR Gasoline*																	
201		F1	LT SR GASOLINE	1	B	1														
202	Post 199	F4	DU-4 RA	1	A	9										0.2	2	1.1		
203	Post 199	F7	SR GASOLINE	1	B	2														
204																				
205	*Atm. Distillation*		*Light ends*																	
206	Post 199	F4	TO FUEL GAS TRT	1	A	1														
207	Sep-92	J1	11	1	A	6														
208	Sep-92	J2	7	1	A	4														
209	Oct-92	J3	14	1	A	7														
210	Aug-92	J5	7	1	A	6														
211	Oct-92	Q1,2,6,7	Condensate, whole	4	B	7						ND			ND			4.9		
212	Dec-89	Q2	Fuel Gas Avg	4	B	7														
213																				
214	Dec-94	V4	FCC-LFD	1	A	15			NA			0.04038			0.00138			0.23563		
215	1987	W1	3	1	A	3												0.041		
216	1987	W1	23	1	A	8			0.0005			0.075						0.018		
217	1987	W1	43	1	A	5												0.081		
218	1991	W1	91-5	1	A	17			*0.0008*			*0.0008*			*0.0008*			0.04		
219	1991	W1	91-14	1	A	17			*0.0008*			*0.0008*			*0.0008*			0.16		
220	1991	W1	91-46	1	A	5												0.2		
221	1991	W1	87-6	1	A	3														
222	1991	W1	91-6	1	A	17			*0.0008*			*0.0008*			*0.0008*			0.67		
223	1991	W1	87-55	1	A	5												0.2		
224	1991	W1	91-16	1	A	16			*0.0008*			*0.0008*			*0.0008*			0.2		
225	1991	W1	87-600	1	A	4												0.74		
226																				

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	A	B	C	D	E	N	BS	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Xylenes (mixed)	No. of Mins	No. of Maxs	Ethane	No. of Mins	No. of Maxs	Ethylene	No. of Mins	No. of Maxs	Propane	No. of Mins	No. of Maxs	Propylene	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	6404	Typ.	0	0	Typ.	1	1	Typ.	1	2	Typ.	2	2	Typ.	8
195	1991	W1	91-1	1	A	17	1.34												*0.0008*	
196	Jan-88	Y1	R7600	1	B	7	0.02624													
197	Jan-88	Y2	R7600	1	B	7	*0.0015*													
198	Jan-88	Y3	R7600	1	B	7	0.07302													
199																				
200	*Atm. Distillation*		*SR Gasoline*																	
201		F1	LT SR GASOLINE	1	B	1														
202	Post 199	F4	DU-4 RA	1	A	9	1													
203	Post 199	F7	SR GASOLINE	1	B	2														
204																				
205	*Atm. Distillation*		*Light ends*																	
206	Post 199	F4	TO FUEL GAS TRT	1	A	1														
207	Sep-92	J1	11	1	A	6				15.1253			2.84883			24.0539			0.94	
208	Sep-92	J2	7	1	A	4				1.32544						10.9622				
209	Oct-92	J3	14	1	A	7				4.75436			0.01223			19.5041			0.01835	
210	Aug-92	J5	7	1	A	6				11.1711			1.83334			31.0026			0.209	
211	Oct-92	Q1,2,6,7	Condensate, whole	4	B	7	5.14												ND	
212	Dec-89	Q2	Fuel Gas Avg	4	B	7					0.82	20.89	7.32				1.53	14.1	7.4	
213																				
214	Dec-94	V4	FCC-LFD	1	A	15	0.1015			NA			0.20225			0.13913			0.83188	
215	1987	W1	3	1	A	3														
216	1987	W1	23	1	A	8	0.094													
217	1987	W1	43	1	A	6	0.002													
218	1991	W1	91-5	1	A	17	*0.0008*												*0.0008*	
219	1991	W1	91-14	1	A	17	0.002												*0.0008*	
220	1991	W1	91-46	1	A	5	0.01													
221	1991	W1	87-6	1	A	3													0.14	
222	1991	W1	91-6	1	A	17	*0.0008*												0.14	
223	1991	W1	87-55	1	A	5	0.08													
224	1991	W1	91-16	1	A	16	0.08												*0.0008*	
225	1991	W1	87-600	1	A	4														
226																				

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	A	B	C	D	E	N	CH	CI
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Butane
2	Count =	742	Site Use Only	1076	742	5404	8	Typ.
195	1991	W1	91-1	1	A	17		
196	Jan-88	Y1	R7600	1	B	7		
197	Jan-88	Y2	R7600	1	B	7		
198	Jan-88	Y3	R7600	1	B	7		
199								
200	*Atm. Distillation*		*SR Gasoline*					
201		F1	LT SR GASOLINE	1	B	1		
202	Post 199	F4	DU-4 RA	1	A	9		
203	Post 199	F7	SR GASOLINE	1	B	2		
204								
205	*Atm. Distillation*		*Light ends*					
206	Post 199	F4	TO FUEL GAS TRT	1	A	1		
207	Sep-92	J1	11	1	A	6		16.7877
208	Sep-92	J2	7	1	A	4		18.0807
209	Oct-92	J3	14	1	A	7		20.1151
210	Aug-92	J5	7	1	A	6		18.9327
211	Oct-92	Q1,2,6,7	Condensate, whole	4	B	7		
212	Dec-89	Q2	Fuel Gas Avg	4	B	7		
213								
214	Dec-94	V4	FCC-LFD	1	A	15		0.0525
215	1987	W1	3	1	A	3		
216	1987	W1	23	1	A	8		
217	1987	W1	43	1	A	5		
218	1991	W1	91-5	1	A	17		
219	1991	W1	91-14	1	A	17		
220	1991	W1	91-46	1	A	5		
221	1991	W1	87-6	1	A	3		
222	1991	W1	91-6	1	A	17		
223	1991	W1	87-55	1	A	5		
224	1991	W1	91-16	1	A	16		
225	1991	W1	87-600	1	A	4		
226								

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	A	B	C	D	E	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	1,3 Butadiene	No. of Mins	No. of Maxs	Benzene	No. of Mins	No. of Maxs	Biphenyl	No. of Mins	No. of Maxs	Cresols (mixed)	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	4	5	Typ.	59	59	Typ.	4	4	Typ.	0	5	Typ.	34	35
227	*Vac. Distillation*		*Vacuum Resid*																	
228	Post 199	F4	NA	1	A	1														
229	Aug-92	J4	14	1	A	0														
230	Aug-92	J4	15	1	A	0														
231	Aug-92	J4	16	1	A	0														
232	Aug-92	J5	8	1	A	0														
233	Oct-90	P1	Resid #51 Vac Unit	1	A	0			NP			NP			NP			NP		
234																				
235	*Vac. Distillation*		*Heavy Vacuum Gas Oil*																	
236	Oct-92	J3	15	1	A	0														
237	Oct-92	J3	16	1	A	0														
238	Aug-92	J4	17	1	A	0														
239	Aug-92	J5	9	1	A	0														
240	Nov-90	P1	HGO #51 VAC	1	A	0			NP			NP			NP			ND		
241	Dec-94	V4	FCC-HFD	1	A	15			NA			0.01344			0.089			NA		
242																				
243	*Vac. Distillation*		*Light Vacuum Gas Oil*																	
244	Oct-92	J3	17	1	A	0														
245	Aug-92	J5	10	1	A	0														
246	Nov-90	P1	LGO #51 VAC	1	A	2			NP			NP			NA			ND		
247	Jul-93	V1	VAC1-LGO	1	A	14			*2E-04*			*3E-04*			NA			NA		
248	Jul-93	V1	ISO2-STABFEED	1	A	14			*0.0002*			0.3214			NA			NA		
249	Sep-93	V2	ISO-1STSTAGEFEED	1	A	14			*2E-05*			0.00113			NA			NA		
250	Sep-93	V2	ISO-1STSTAGEREC	1	A	14			*2E-08*			2.2E-05			NA			NA		
251	Sep-93	V2	ISO-2NDSTAGEREC	1	A	14			*6E-08*			*5E-07*			NA			NA		
252	Sep-93	V2	VAC11-TOPGASOIL	1	A	14			*2E-05*			*1E-05*			NA			NA		
253	Sep-93	V2	VAC11-VIRGINLGO	1	A	14			*2E-05*			0.00942			NA			NA		
254																				
255	*Vac. Distillation*		*Vac, naphtha*																	
256	Oct-92	J3	18	1	A	1														
257																				
258	*Asphalt Plant*		*Asphalt*																	

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	A	B	C	D	E	N	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Cumene	No. of Mins	No. of Maxs	Ethylbenzene	No. of Mins	No. of Maxs	Ethylene Glycol	No. of Mins	No. of Maxs	n-Hexane	No. of Mins	No. of Maxs	Hydrogen Sulfide	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	6404	Typ.	49	49	Typ.	0	1	Typ.	22	25	Typ.	2	2	Typ.	2
27	*Vac. Distillation*		*Vacuum Resid*																	
228	Post 199	F4	NA	1	A	1														
229	Aug-92	J4	14	1	A	0														
230	Aug-92	J4	15	1	A	0														
231	Aug-92	J4	16	1	A	0														
232	Aug-92	J5	8	1	A	0														
233	Oct-90	P1	Resid #51 Vac Unit	1	A	0	NP			NP			NP			NP			NP	
234																				
235	*Vac. Distillation*		*Heavy Vacuum Gas Oil*																	
236	Oct-92	J3	15	1	A	0														
237	Oct-92	J3	16	1	A	0														
238	Aug-92	J4	17	1	A	0														
239	Aug-92	J5	9	1	A	0														
240	Nov-90	P1	HGO #51 VAC	1	A	0	NP			NP			NP			NP			NP	
241	Dec-94	V4	FCC-HFD	1	A	16	*5E-05*			0.02			NA			0.00833			NA	
242																				
243	*Vac. Distillation*		*Light Vacuum Gas Oil*																	
244	Oct-92	J3	17	1	A	0														
245	Aug-92	J5	10	1	A	0														
246	Nov-90	P1	LGO #51 VAC	1	A	2	NA			NP			NP			NP			NP	
247	Jul-93	V1	VAC1-LGO	1	A	14	*3E-04*			0.11878			NA			*3E-04*			NA	
248	Jul-93	V1	ISO2-STABFEED	1	A	14	0.37365			0.27376			NA			0.317			NA	
249	Sep-93	V2	ISO-1STSTAGEFEED	1	A	14	0.00068			0.00405			NA			0.00304			NA	
250	Sep-93	V2	ISO-1STSTAGEREC	1	A	14	*2E-07*			*2E-07*			NA			6.2E-05			NA	
251	Sep-93	V2	ISO-2NDSTAGEREC	1	A	14	*6E-07*			*5E-07*			NA			0.00022			NA	
252	Sep-93	V2	VAC11-TOPGASOIL	1	A	14	*0.000*			0.00024			NA			0.00047			NA	
253	Sep-93	V2	VAC11-VIRGINLGO	1	A	14	0.0033			0.02613			NA			0.03579			NA	
254																				
255	*Vac. Distillation*		*Vac, naphtha*																	
256	Oct-92	J3	18	1	A	1														
257																				
258	*Asphalt Plant*		*Asphalt*																	

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	A	B	C	D	E	N	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
1	Date Sampled	Site Coding	Sample id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Methanol	No. of Mins	No. of Maxs	MEK	No. of Mins	No. of Maxs	MTBE	No. of Mins	No. of Maxs	Naphthalene	No. of Mins	No. of Maxs	Phenol
2	Count =	742	*Site Use Only*	1076	742	5404	1	Typ.	0	0	Typ.	8	7	Typ.	50	49	Typ.	3	2	Typ.
227	*Vac. Distillation*		*Vacuum Resid*																	
228	Post 199	F4	NA	1	A	1											1			
229	Aug-92	J4	14	1	A	0														
230	Aug-92	J4	15	1	A	0														
231	Aug-92	J4	16	1	A	0														
232	Aug-92	J5	8	1	A	0														
233	Oct-90	P1	Resid #51 Vac Unit	1	A	0		NP			NP			NP			NP			NP
234																				
235	*Vac. Distillation*		*Heavy Vacuum Gas Oil*																	
236	Oct-92	J3	15	1	A	0														
237	Oct-92	J3	16	1	A	0														
238	Aug-92	J4	17	1	A	0														
239	Aug-92	J5	9	1	A	0														
240	Nov-90	P1	HGO #51 VAC	1	A	0		NP			NP			NP			NP			NP
241	Dec-94	V4	FCC-HFD	1	A	15		*5E-05*			NA			NA			0.017			NA
242																				
243	*Vac. Distillation*		*Light Vacuum Gas Oil*																	
244	Oct-92	J3	17	1	A	0														
245	Aug-92	J5	10	1	A	0														
246	Nov-90	P1	LGO #51 VAC	1	A	2		NP			NP			NP			0.028			NP
247	Jul-93	V1	VAC1-LGO	1	A	14		*6E-04*			NA			NA			0.00967			NA
248	Jul-93	V1	ISO2-STABFEED	1	A	14		*0.0006*			NA			NA			0.9482			NA
249	Sep-93	V2	ISO-1STSTAGEFEED	1	A	14		NA			NA			NA			0.00439			NA
250	Sep-93	V2	ISO-1STSTAGEREC	1	A	14		NA			NA			NA			*5E-07*			NA
251	Sep-93	V2	ISO-2NDSTAGEREC	1	A	14		NA			NA			NA			*1E-06*			NA
252	Sep-93	V2	VAC11-TOPGASOIL	1	A	14		NA			NA			NA			0.00047			NA
253	Sep-93	V2	VAC11-VIRGINLGO	1	A	14		NA			NA			NA			0.0028			NA
254																				
255	*Vac. Distillation*		*Vac, naphtha*																	
256	Oct-92	J3	18	1	A	1											0.107			
257																				
258	*Asphalt Plant*		*Asphalt*																	

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	A	B	C	D	E	N	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	Styrene	No. of Mins	No. of Maxs	1,2,4 TMB	No. of Mins	No. of Maxs	2,2,4 TMP	No. of Mins	No. of Maxs	Toluene	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	6	6	Typ.	51	51	Typ.	12	12	Typ.	54	54	Typ.	53	86
227	*Vac. Distillation*		*Vacuum Resid*																	
228	Post 199	F4	NA	1	A	1														
229	Aug-92	J4	14	1	A	0														
230	Aug-92	J4	15	1	A	0														
231	Aug-92	J4	16	1	A	0														
232	Aug-92	J5	8	1	A	0														
233	Oct-90	P1	Resid #51 Vac Unit	1	A	0			NP			NP			NP			NP		
234																				
235	*Vac. Distillation*		*Heavy Vacuum Gas Oil*																	
236	Oct-92	J3	15	1	A	0														
237	Oct-92	J3	16	1	A	0														
238	Aug-92	J4	17	1	A	0														
239	Aug-92	J5	9	1	A	0														
240	Nov-90	P1	HGO #51 VAC	1	A	0			NP			NP			NP			NP		
241	Dec-94	V4	FCC-HFD	1	A	15			NA			0.02767			*5E-05*			0.25		
242																				
243	*Vac. Distillation*		*Light Vacuum Gas Oil*																	
244	Oct-92	J3	17	1	A	0														
245	Aug-92	J5	10	1	A	0														
246	Nov-90	P1	LGO #51 VAC	1	A	2			NP			0.03			NP			NP		
247	Jul-93	V1	VAC1-LGO	1	A	14			NA			NA			*3E-04*			*3E-04*		
248	Jul-93	V1	ISO2-STABFEED	1	A	14			NA			NA			*0.0003*			1.01126		
249	Sep-93	V2	ISO-1STSTAGEFEED	1	A	14			NA			0.03073			0.00349			0.0018		
250	Sep-93	V2	ISO-1STSTAGEREC	1	A	14			NA			5.2E-06			2E-05			2.2E-05		
251	Sep-93	V2	ISO-2NDSTAGEREC	1	A	14			NA			*7E-07*			*1E-06*			*5E-07*		
252	Sep-93	V2	VAC11-TOPGASOIL	1	A	14			NA			0.00153			*2E-05*			0.0003		
253	Sep-93	V2	VAC11-VIRGINLGO	1	A	14			NA			0.0485			0.0213			0.049		
254																				
255	*Vac. Distillation*		*Vac, naphtha*																	
256	Oct-92	J3	18	1	A	1														
257																				
258	*Asphalt Plant*		*Asphalt*																	

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	A	B	C	D	E	N	BS	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Xylenes (mixed)	No. of Mins	No. of Maxs	Ethane	No. of Mins	No. of Maxs	Ethylene	No. of Mins	No. of Maxs	Propane	No. of Mins	No. of Maxs	Propylene	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	0	0	Typ.	1	1	Typ.	1	2	Typ.	2	2	Typ.	8
227	*Vac. Distillation*		*Vacuum Resid*																	
228	Post 199	F4	NA	1	A	1														
229	Aug-92	J4	14	1	A	0														
230	Aug-92	J4	15	1	A	0														
231	Aug-92	J4	16	1	A	0														
232	Aug-92	J5	8	1	A	0														
233	Oct-90	P1	Resid #51 Vac Unit	1	A	0	NP			NP			NP			NP			NP	
234																				
235	*Vac. Distillation*		*Heavy Vacuum Gas Oil*																	
236	Oct-92	J3	15	1	A	0														
237	Oct-92	J3	16	1	A	0														
238	Aug-92	J4	17	1	A	0														
239	Aug-92	J5	9	1	A	0														
240	Nov-90	P1	HGO #51 VAC	1	A	0	NP			NP			NP			NP			NP	
241	Dec-94	V4	FCC-HFD	1	A	15	0.07078			NA			0.16933			0.11278			0.675	
242																				
243	*Vac. Distillation*		*Light Vacuum Gas Oil*																	
244	Oct-92	J3	17	1	A	0														
245	Aug-92	J5	10	1	A	0														
246	Nov-90	P1	LGO #51 VAC	1	A	2	NP			NP			NP			NP			NP	
247	Jul-93	V1	VAC1-LGO	1	A	14	0.00056			NA			*2E-04*			*2E-04*			*2E-04*	
248	Jul-93	V1	ISO2-STABFEED	1	A	14	2.06227			NA			*0.0002*			*0.0002*			*0.0002*	
249	Sep-93	V2	ISO-1STSTAGEFEED	1	A	14	0.0152			NA			*2E-05*			0.02623			*2E-05*	
250	Sep-93	V2	ISO-1STSTAGEREC	1	A	14	3.9E-05			NA			*2E-08*			0.00044			*2E-08*	
251	Sep-93	V2	ISO-2NDSTAGEREC	1	A	14	1.2E-06			NA			*5E-08*			0.00104			*5E-08*	
252	Sep-93	V2	VAC11-TOPGASOIL	1	A	14	0.00059			NA			*2E-05*			*2E-05*			*2E-05*	
253	Sep-93	V2	VAC11-VIRGINLGO	1	A	14	0.0505			NA			*2E-05*			0.01919			*2E-05*	
254																				
255	*Vac. Distillation*		*Vac, naphtha*																	
256	Oct-92	J3	18	1	A	1														
257																				
258	*Asphalt Plant*		*Asphalt*																	

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	A	B	C	D	E	N	CH	CI
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Butane
2	Count =	742	*Site Use Only*	1076	742	5404	8	Typ.
27	*Vac. Distillation*		*Vacuum Resid*					
228	Post 199	F4	NA	1	A	1		
229	Aug-92	J4	14	1	A	0		
230	Aug-92	J4	15	1	A	0		
231	Aug-92	J4	16	1	A	0		
232	Aug-92	J5	8	1	A	0		
233	Oct-90	P1	Resid #51 Vac Unit	1	A	0		NP
234								
235	*Vac. Distillation*		*Heavy Vacuum Gas Oil*					
236	Oct-92	J3	15	1	A	0		
237	Oct-92	J3	16	1	A	0		
238	Aug-92	J4	17	1	A	0		
239	Aug-92	J5	9	1	A	0		
240	Nov-90	P1	HGO #51 VAC	1	A	0		NP
241	Dec-94	V4	FCC-HFD	1	A	16		0.04556
242								
243	*Vac. Distillation*		*Light Vacuum Gas Oil*					
244	Oct-92	J3	17	1	A	0		
245	Aug-92	J5	10	1	A	0		
246	Nov-90	P1	LGO #51 VAC	1	A	2		NP
247	Jul-93	V1	VAC1-LGO	1	A	14		*2E-04*
248	Jul-93	V1	ISO2-STABFEED	1	A	14		*0.0002*
249	Sep-93	V2	ISO-1STSTAGEFEED	1	A	14		0.03287
250	Sep-93	V2	ISO-1STSTAGEREC	1	A	14		0.00011
251	Sep-93	V2	ISO-2NDSTAGEREC	1	A	14		0.00029
252	Sep-93	V2	VAC11-TOPGASOIL	1	A	14		*2E-05*
253	Sep-93	V2	VAC11-VIRGINLGO	1	A	14		0.01719
254								
255	*Vac. Distillation*		*Vac, naphtha*					
256	Oct-92	J3	18	1	A	1		
257								
258	*Asphalt Plant*		*Asphalt*					

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	A	B	C	D	E	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1	Date Sampled	Site Coding	Sample id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	1,3 Butadiene	No. of Mins	No. of Maxs	Benzene	No. of Mins	No. of Maxs	Biphenyl	No. of Mins	No. of Maxs	Cresols (mixed)	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	4	5	Typ.	59	59	Typ.	4	4	Typ.	0	5	Typ.	34	35
259	Aug-92	J4	18	1	A	0														
260																				
261	*Asphalt Plant*		*Used Solvent*																	
262	Post 199	F7	MC-250 CUTBACK	1	B	4														
263	Post 199	F7	MC-30 CUTBACK	1	B	2														
264	Post 199	F7	MC-3000 CUTBACK	1	B	2														
265	Post 199	F7	MC-800 CUTBACK	1	B	2														
266	Post 199	F7	MC-30/70 CUTBK	1	B	5						0.15								
267	Jun-05	F7	AVG CUTBACK 92		B	3														
268																				
269	*Visbreaker*		*Cracked residue*																	
270																				
271	*Resid Hydropro.*		*Hydroprocessed resid*																	
272	Oct-92	J3	19	1	A	0														
273																				
274	*Coker*		*Coker gas oil*																	
275	Post 199	F3	KLGO	1	C	4						0.001								
276	Post 199	F4	LGO	1	A	6			0.1			0.1								
277	1990	F6	COKER LGO	1	B	3			*0.05*			<0.01								
278	1990	F6	COKER HGO	1	B	2			*0.05*			<0.01								
279	1990	F6	COKER XHGO	1	B	4			*0.05*			*0.025*								
280	Oct-92	J3	20	1	A	0														
281	Aug-92	J4	19	1	A	1														
282	Nov-90	P1	Coker LGO	1	A	2			NP			NP			NA			ND		
283	Jul-93	V1	COK2-FG	1	A	14			*0.0002*			*2E-07*			NA			NA		
284	Sep-93	V2	COK-HGO	1	A	14			*2E-05*			*1E-05*			NA			NA		
285	1987	W1	96	1	A	0														
286																				
287	*Coker*		*Coker heavy naphtha*																	
288	Post 199	F4	UNSTAB. GASOLINE	1	A	18	0.01	0.2	0.1	0.9	2.2	1.1								
289	1990	F6	COKER NAPHTHA	1	B	4			*0.05*			0.28								
290	Oct-92	J3	21	1	A	6														

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	A	B	C	D	E	N	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Cumene	No. of Mins	No. of Maxs	Ethylbenzene	No. of Mins	No. of Maxs	Ethylene Glycol	No. of Mins	No. of Maxs	n-Hexane	No. of Mins	No. of Maxs	Hydrogen Sulfide	No. of Mins
2	Count =	742	Site Use Only	1076	742	5404	Typ.	49	49	Typ.	0	1	Typ.	22	25	Typ.	2	2	Typ.	2
59	Aug-92	J4	18	1	A	0														
260																				
261	*Asphalt Plant*		*Used Solvent*																	
262	Post 199	F7	MC-250 CUTBACK	1	B	4				0.29						*0.05*				
263	Post 199	F7	MC-30 CUTBACK	1	B	2				0.31										
264	Post 199	F7	MC-3000 CUTBACK	1	B	2				0.1										
265	Post 199	F7	MC-800 CUTBACK	1	B	2				0.16										
266	Post 199	F7	MC-30/70 CUTBK	1	B	6	ND			1.39						0.35				
267	Jun-05	F7	AVG CUTBACK 92		B	3				0.33										
268																				
269	*Visbreaker*		*Cracked residue*																	
270																				
271	*Resid Hydropro.*		*Hydroprocessed resid*																	
72	Oct-92	J3	19	1	A	0														
73																				
274	*Coker*		*Coker gas oil*																	
275	Post 199	F3	KLGO	1	C	4				0.01										
276	Post 199	F4	LGO	1	A	6				0.7										
277	1990	F6	COKER LGO	1	B	3														
278	1990	F6	COKER HGO	1	B	2														
279	1990	F6	COKER XHGO	1	B	4														
280	Oct-92	J3	20	1	A	0														
281	Aug-92	J4	19	1	A	1														
282	Nov-90	P1	Coker LGO	1	A	2	NA			NP			NP			NP			NA	
283	Jul-93	V1	COK2-FG	1	A	14	*2E-07*			*2E-07*			NA			2.3E-06			NA	
284	Sep-93	V2	COK-HGO	1	A	14	0.00032			0.00119			NA			*2E-05*			NA	
285	1987	W1	96	1	A	0														
286																				
287	*Coker*		*Coker heavy naphtha*																	
288	Post 199	F4	UNSTAB. GASOLINE	1	A	18	0.16			2.5				3.7	5	*4.35*				
289	1990	F6	COKER NAPHTHA	1	B	4														
290	Oct-92	J3	21	1	A	6				0.586						0.77				

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	A	B	C	D	E	N	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Methanol	No. of Mins	No. of Maxs	MEK	No. of Mins	No. of Maxs	MTBE	No. of Mins	No. of Maxs	Naphthalene	No. of Mins	No. of Maxs	Phenol
2	Count =	742	*Site Use Only*	1076	742	5404	1	Typ.	0	0	Typ.	8	7	Typ.	50	49	Typ.	3	2	Typ.
259	Aug-92	J4	18	1	A	0														
260																				
261	*Asphalt Plant*		*Used Solvent*																	
262	Post 199	F7	MC-250 CUTBACK	1	B	4														
263	Post 199	F7	MC-30 CUTBACK	1	B	2														
264	Post 199	F7	MC-3000 CUTBACK	1	B	2														
265	Post 199	F7	MC-800 CUTBACK	1	B	2														
266	Post 199	F7	MC-30/70 CUTBK	1	B	6														
267	Jun-05	F7	AVG CUTBACK 92		B	3														
268																				
269	*Visbreaker*		*Cracked residue*																	
270																				
271	*Resid Hydropro.*		*Hydroprocessed resid*																	
272	Oct-92	J3	19	1	A	0														
273																				
274	*Coker*		*Coker gas oil*																	
275	Post 199	F3	KLGO	1	C	4														
276	Post 199	F4	LGO	1	A	6											3			
277	1990	F6	COKER LGO	1	B	3														
278	1990	F6	COKER HGO	1	B	2														
279	1990	F6	COKER XHGO	1	B	4														
280	Oct-92	J3	20	1	A	0														
281	Aug-92	J4	19	1	A	1											0.41			
282	Nov-90	P1	Coker LGO	1	A	2		NP			NP			NP			0.028			NP
283	Jul-93	V1	COK2-FG	1	A	14		*0.0006*			NA			NA			*2E-07*			NA
284	Sep-93	V2	COK-HGO	1	A	14		NA			NA			NA			0.00108			NA
285	1987	W1	96	1	A	0														
286																				
287	*Coker*		*Coker heavy naphtha*																	
288	Post 199	F4	UNSTAB. GASOLINE	1	A	18											0.01			
289	1990	F6	COKER NAPHTHA	1	B	4														
290	Oct-92	J3	21	1	A	6														

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	A	B	C	D	E	N	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	Styrene	No. of Mins	No. of Maxs	1,2,4 TMB	No. of Mins	No. of Maxs	2,2,4 TMP	No. of Mins	No. of Maxs	Toluene	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	6	6	Typ.	51	51	Typ.	12	12	Typ.	54	54	Typ.	53	85
59	Aug-92	J4	18	1	A	0														
260																				
261	*Asphalt Plant*		*Used Solvent*																	
262	Post 199	F7	MC-250 CUTBACK	1	B	4												0.11		
263	Post 199	F7	MC-30 CUTBACK	1	B	2														
264	Post 199	F7	MC-3000 CUTBACK	1	B	2														
265	Post 199	F7	MC-800 CUTBACK	1	B	2														
266	Post 199	F7	MC-30/70 CUTBK	1	B	6												0.78		
267	Jun-05	F7	AVG CUTBACK 92		B	3												0.16		
268																				
269	*Visbreaker*		*Cracked residue*																	
270																				
271	*Resid Hydropro.*		*Hydroprocessed resid*																	
72	Oct-92	J3	19	1	A	0														
73																				
274	*Coker*		*Coker gas oil*																	
275	Post 199	F3	KLGO	1	C	4												0.02		
276	Post 199	F4	LGO	1	A	6												0.1		
277	1990	F6	COKER LGO	1	B	3												0.11		
278	1990	F6	COKER HGO	1	B	2												ND		
279	1990	F6	COKER XHGO	1	B	4												0.04		
280	Oct-92	J3	20	1	A	0														
281	Aug-92	J4	19	1	A	1														
282	Nov-90	P1	Coker LGO	1	A	2			NP			0.03			NP			NP		
283	Jul-93	V1	COK2-FG	1	A	14			NA			NA			*2E-07*			*2E-07*		
284	Sep-93	V2	COK-HGO	1	A	14			NA			0.00551			0.00043			0.00087		
285	1987	W1	96	1	A	0														
286																				
287	*Coker*		*Coker heavy naphtha*																	
288	Post 199	F4	UNSTAB. GASOLINE	1	A	18										0.42	5.1	2.5	4	5.4
289	1990	F6	COKER NAPHTHA	1	B	4												2.3		
290	Oct-92	J3	21	1	A	6						0.966			1.369			1.486		

1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Xylenes (mixed)	No. of Mins	No. of Maxs	Ethane	No. of Mins	No. of Maxs	Ethylene	No. of Mins	No. of Maxs	Propane	No. of Mins	No. of Maxs	Propylene	No. of Mins
	A	B	C	D	E	N	BS	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG
2	Count =	742	Site Use Only	1076	742	5404	Typ.	0	0	Typ.	1	1	Typ.	1	2	Typ.	2	2	Typ.	8
259	Aug-92	J4	18	1	A	0														
260																				
261	*Asphalt Plant*		*Used Solvent*																	
262	Post 199	F7	MC-250 CUTBACK	1	B	4	0.35													
263	Post 199	F7	MC-30 CUTBACK	1	B	2	0.62													
264	Post 199	F7	MC-3000 CUTBACK	1	B	2	0.18													
265	Post 199	F7	MC-800 CUTBACK	1	B	2	0.28													
266	Post 199	F7	MC-30/70 CUTBK	1	B	5	2.4													
267	Jun-05	F7	AVG CUTBACK 92		B	3	0.57													
268																				
269	*Visbreaker*		*Cracked residue*																	
270																				
271	*Resid Hydropro.*		*Hydroprocessed resid*																	
272	Oct-92	J3	19	1	A	0														
273																				
274	*Coker*		*Coker gas oil*																	
275	Post 199	F3	KLGO	1	C	4	0.06													
276	Post 199	F4	LGO	1	A	6	1.2													
277	1990	F6	COKER LGO	1	B	3	0.37													
278	1990	F6	COKER HGO	1	B	2	0.24													
279	1990	F6	COKER XHGO	1	B	4	0.16													
280	Oct-92	J3	20	1	A	0														
281	Aug-92	J4	19	1	A	1														
282	Nov-90	P1	Coker LGO	1	A	2	NP			NP			NP			NP			NP	
283	Jul-93	V1	COK2-FG	1	A	14	4.9E-07			NA			0.00134			0.0044			0.0022	
284	Sep-93	V2	COK-HGO	1	A	14	0.00195			NA			*2E-05*			*2E-05*			*2E-05*	
285	1987	W1	96	1	A	0														
286																				
287	*Coker*		*Coker heavy naphtha*																	
288	Post 199	F4	UNSTAB. GASOLINE	1	A	18	*4.7*													
289	1990	F6	COKER NAPHTHA	1	B	4	2.8													
290	Oct-92	J3	21	1	A	6	3.164													

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	A	B	C	D	E	N	CH	CI
	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Butane
2	Count =	742	*Site Use Only*	1076	742	5404	8	Typ.
259	Aug-92	J4	18	1	A	0		
260								
261	*Asphalt Plant*		*Used Solvent*					
262	Post 199	F7	MC-250 CUTBACK	1	B	4		
263	Post 199	F7	MC-30 CUTBACK	1	B	2		
264	Post 199	F7	MC-3000 CUTBACK	1	B	2		
265	Post 199	F7	MC-800 CUTBACK	1	B	2		
266	Post 199	F7	MC-30/70 CUTBK	1	B	5		
267	Jun-05	F7	AVG CUTBACK 92		B	3		
268								
269	*Visbreaker*		*Cracked residue*					
270								
271	*Resid Hydropro.*		*Hydroprocessed resid*					
272	Oct-92	J3	19	1	A	0		
273								
274	*Coker*		*Coker gas oil*					
275	Post 199	F3	KLGO	1	C	4		
276	Post 199	F4	LGO	1	A	6		
277	1990	F6	COKER LGO	1	B	3		
278	1990	F6	COKER HGO	1	B	2		
279	1990	F6	COKER XHGO	1	B	4		
280	Oct-92	J3	20	1	A	0		
281	Aug-92	J4	19	1	A	1		
282	Nov-90	P1	Coker LGO	1	A	2		NP
283	Jul-93	V1	COK2-FG	1	A	14		0.00062
284	Sep-93	V2	COK-HGO	1	A	14		*2E-05*
285	1987	W1	96	1	A	0		
286								
287	*Coker*		*Coker heavy naphtha*					
288	Post 199	F4	UNSTAB. GASOLINE	1	A	18		
289	1990	F6	COKER NAPHTHA	1	B	4		
290	Oct-92	J3	21	1	A	6		

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	A	B	C	D	E	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	1,3 Butadiene	No. of Mins	No. of Maxs	Benzene	No. of Mins	No. of Maxs	Biphenyl	No. of Mins	No. of Maxs	Cresols (mixed)	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	4	5	Typ.	59	59	Typ.	4	4	Typ.	0	5	Typ.	34	35
291	Oct-92	J3	22	1	A	9						0.138								
292	Aug-92	J4	20	1	A	10						0.126								
293	Aug-92	J5	11	1	A	7						0.121								
294	Nov-90	P1	Coker Gasoline	1	A	8			0.01			1.7			NA			0.034		
295	Dec-89	Q2	Heavy Naphtha	4	B	0														
296	Oct-92	Q1,2,6,7	HF Coker Naphtha	4	B	6			ND			0.5								
297	Oct-92	Q1,2,6,7	Naphtha Heavy	4	B	6			ND			2.6								
298	Sep-93	V2	COK-FURNOIL	1	A	14			*2E-05*			0.00098			NA			NA		
299	1987	W1	85	1	A	9						0.39								
300	1991	W1	91-22	1	A	16			*0.0008*			0.1			*0.0008*			*0.0008*		
301	1991	W1	87-100	1	A	7						0.27								
302																				
303	*Coker*		*Coker light naphtha*																	
304	Post 199	F4	COKER C3/C4	6	A	1			*2E-05*											
305	1990	F6	LT. COKER GASOLINE	1	B	4			*0.05*			0.8								
306	Oct-92	J3	23	1	A	5						0.47								
307	Nov-90	P1	Coker Naphtha	1	A	5			NP			NP			NA			NP		
308	Oct-92	Q1,2,6,7	Naphtha, lt	4	B	4			ND											
309	Dec-89	Q2	Light Naphtha	4	B	6				<.1	2.87	0.92								
310	Jul-93	V1	COK2-GN	1	A	14			*0.0002*			0.72597			NA			NA		
311	Sep-93	V2	COK-NAPH	1	A	14			0.02149			0.55257			NA			NA		
312		W1	84	1	A	9						0.406								
313																				
314	*Coker*		*Unsat. gas*																	
315	Post 199	F4	WET GAS	1	A	3			0.06	0.1	2.5									
316	Oct-92	J3	24	1	A	7			0.10814											
317	Aug-92	J4	21	1	A	7			0.04899											
318	Aug-92	J5	12	1	A	8			0.02518											
319	Oct-90	P1	Coker Debut OH	1	A	2			NP			NP			NP			NP		
320	Jul-89	V1	COK2-WG	1	A	12			*0.0002*			2.5E-07			NA			*ND*		
321	1987	W1	94	1	A	6						0.6								
322																				

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	A	B	C	D	E	N	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Cumene	No. of Mins	No. of Maxs	Ethylbenzene	No. of Mins	No. of Maxs	Ethylene Gycol	No. of Mins	No. of Maxs	n-Hexane	No. of Mins	No. of Maxs	Hydrogen Sulfide	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	49	49	Typ.	0	1	Typ.	22	25	Typ.	2	2	Typ.	2
291	Oct-92	J3	22	1	A	9				0.505						2.963				
292	Aug-92	J4	20	1	A	10	0.262			0.6						2.305				
293	Aug-92	J5	11	1	A	7				0.831						2.134				
294	Nov-90	P1	Coker Gasoline	1	A	8	NA			0.7			NP			NA			NA	
295	Dec-89	Q2	Heavy Naphtha	4	B	0														
296	Oct-92	Q1,2,6,7	HF Coker Naphtha	4	B	6	0.3			1.3						ND				
297	Oct-92	Q1,2,6,7	Naphtha Heavy	4	B	6	0.4			1.6						ND				
298	Sep-93	V2	COK-FURNOIL	1	A	14	0.0033			0.01856			NA			0.00147			NA	
299	1987	W1	85	1	A	9	0.05			0.95						3.81				
300	1991	W1	91-22	1	A	16	O.04			1						4				
301	1991	W1	87-100	1	A	7	0.04			0.68						2.63				
302																				
303	*Coker*		*Coker light naphtha*																	
304	Post 199	F4	COKER C3/C4	6	A	1														
305	1990	F6	LT. COKER GASOLINE	1	B	4														
306	Oct-92	J3	23	1	A	5										12.76				
307	Nov-90	P1	Coker Naphtha	1	A	5	NA			0.016			NP			NA			NA	
308	Oct-92	Q1,2,6,7	Naphtha, lt	4	B	4	0.01			ND						ND				
309	Dec-89	Q2	Light Naphtha	4	B	6		ND	ND	ND										
310	Jul-93	V1	COK2-GN	1	A	14	0.14656			*0.0003*			NA			1.19476			NA	
311	Sep-93	V2	COK-NAPH	1	A	14	0.04014			0.41081			NA			2.56432			NA	
312		W1	84	1	A	9	0.053			1						4			0.0939	
313																				
314	*Coker*		*Unsat. gas*																	
315	Post 199	F4	WET GAS	1	A	3														
316	Oct-92	J3	24	1	A	7										2.61572				
317	Aug-92	J4	21	1	A	7										6.77269				
318	Aug-92	J5	12	1	A	8										1.23326			7.12023	
319	Oct-90	P1	Coker Debut OH	1	A	2	NP			NP			NP			NP			NA	
320	Jul-89	V1	COK2-WG	1	A	12	*2E-07*			*2E-07*			NA			7E-07			NA	
321	1987	W1	94	1	A	6				0.019						2.8				
322																				

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	A	B	C	D	E	N	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Methanol	No. of Mins	No. of Maxs	MEK	No. of Mins	No. of Maxs	MTBE	No. of Mins	No. of Maxs	Naphthalene	No. of Mins	No. of Maxs	Phenol
2	Count =	742	Site Use Only	1076	742	5404	1	Typ.	0	0	Typ.	8	7	Typ.	50	49	Typ.	3	2	Typ.
291	Oct-92	J3	22	1	A	9														
292	Aug-92	J4	20	1	A	10														
293	Aug-92	J5	11	1	A	7														
294	Nov-90	P1	Coker Gasoline	1	A	8		NP			NP			NP			0			NP
295	Dec-89	Q2	Heavy Naphtha	4	B	0														
296	Oct-92	Q1,2,6,7	HF Coker Naphtha	4	B	6											ND			
297	Oct-92	Q1,2,6,7	Naphtha Heavy	4	B	6											ND			
298	Sep-93	V2	COK-FURNOIL	1	A	14		NA			NA			NA			0.04421			NA
299	1987	W1	85	1	A	9														
300	1991	W1	91-22	1	A	16					*0.0008*			*0.0008*			0.003			*0.0008*
301	1991	W1	87-100	1	A	7														
302																				
303	*Coker*		*Coker light naphtha*																	
304	Post 199	F4	COKER C3/C4	6	A	1														
305	1990	F6	LT. COKER GASOLINE	1	B	4														
306	Oct-92	J3	23	1	A	5					0.285									
307	Nov-90	P1	Coker Naphtha	1	A	5		NP			NP			NP			0.22			NP
308	Oct-92	Q1,2,6,7	Naphtha, lt	4	B	4											0.01			
309	Dec-89	Q2	Light Naphtha	4	B	6									ND	<.1	0.01			
310	Jul-93	V1	COK2-GN	1	A	14		*0.0007*			NA			NA			*0.0003*			NA
311	Sep-93	V2	COK-NAPH	1	A	14		NA			NA			NA			0.00662			NA
312		W1	84	1	A	9											ND			
313																				
314	*Coker*		*Unsat. gas*																	
315	Post 199	F4	WET GAS	1	A	3														
316	Oct-92	J3	24	1	A	7														
317	Aug-92	J4	21	1	A	7														
318	Aug-92	J5	12	1	A	8														
319	Oct-90	P1	Coker Debut OH	1	A	2		NP			NP			NP			NP			NP
320	Jul-89	V1	COK2-WG	1	A	12		*ND*			*ND*	ND	ND	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*
321	1987	W1	94	1	A	6														
322																				

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	A	B	C	D	E	N	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	Styrene	No. of Mins	No. of Maxs	1,2,4 TMB	No. of Mins	No. of Maxs	2,2,4 TMP	No. of Mins	No. of Maxs	Toluene	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	6	6	Typ.	51	51	Typ.	12	12	Typ.	54	54	Typ.	53	85
291	Oct-92	J3	22	1	A	9						0.849						1.387		
292	Aug-92	J4	20	1	A	10						0.979						1.386		
293	Aug-92	J5	11	1	A	7						1.016			1.751			4.737		
294	Nov-90	P1	Coker Gasoline	1	A	8			NP			2.7			NA			3.6		
295	Dec-89	Q2	Heavy Naphtha	4	B	0														
296	Oct-92	Q1,2,6,7	HF Coker Naphtha	4	B	6						1.3			ND			2.5		
297	Oct-92	Q1,2,6,7	Naphtha Heavy	4	B	6						0.6			ND			3		
298	Sep-93	V2	COK-FURNOIL	1	A	14			NA			0.08329			0.00513			0.01294		
299	1987	W1	85	1	A	9			0.04			0.57			0.81			2		
300	1991	W1	91-22	1	A	16			0.03			0.6			0.6			2.1		
301	1991	W1	87-100	1	A	7						0.69						1.4		
302																				
303	*Coker*		*Coker light naphtha*																	
304	Post 199	F4	COKER C3/C4	6	A	1														
305	1990	F6	LT. COKER GASOLINE	1	B	4												0.25		
306	Oct-92	J3	23	1	A	5												0.687		
307	Nov-90	P1	Coker Naphtha	1	A	5			NP			0.49			NA			0.02		
308	Oct-92	Q1,2,6,7	Naphtha, lt	4	B	4						0.03			ND					
309	Dec-89	Q2	Light Naphtha	4	B	6				ND	<.1	0.03				ND	<.1	0.04	ND	<.3
310	Jul-93	V1	COK2-GN	1	A	14			NA			NA			0.81987			1.1063		
311	Sep-93	V2	COK-NAPH	1	A	14			NA			0.44959			0.6723			0.45919		
312		W1	84	1	A	9			0.51			0.6						2.1		
313																				
314	*Coker*		*Unsat. gas*																	
315	Post 199	F4	WET GAS	1	A	3														
316	Oct-92	J3	24	1	A	7														
317	Aug-92	J4	21	1	A	7														
318	Aug-92	J5	12	1	A	8														
319	Oct-90	P1	Coker Debut OH	1	A	2			NP			NP			NP			NP		
320	Jul-89	V1	COK2-WG	1	A	12	*ND*	*ND*	*ND*			NA			*2E-07*			*2E-07*		
321	1987	W1	94	1	A	6												0.215		
322																				

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	A	B	C	D	E	N	BS	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Xylenes (mixed)	No. of Mins	No. of Maxs	Ethane	No. of Mins	No. of Maxs	Ethylene	No. of Mins	No. of Maxs	Propane	No. of Mins	No. of Maxs	Propylene	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	6404	Typ.	0	0	Typ.	1	1	Typ.	1	2	Typ.	2	2	Typ.	8
291	Oct-92	J3	22	1	A	9	2.74									0.259			0.124	
292	Aug-92	J4	20	1	A	10	3.149									0.094			0.119	
293	Aug-92	J5	11	1	A	7	4.638													
294	Nov-90	P1	Coker Gasoline	1	A	8	3.6			NP			NP			NP			NA	
295	Dec-89	Q2	Heavy Naphtha	4	B	0														
296	Oct-92	Q1,2,6,7	HF Coker Naphtha	4	B	6	3.8												ND	
297	Oct-92	Q1,2,6,7	Naphtha Heavy	4	B	6	13.4												ND	
298	Sep-93	V2	COK-FURNOIL	1	A	14	0.05398			NA			*2E-05*			*2E-05*			*2E-05*	
299	1987	W1	85	1	A	9	3.34													
300	1991	W1	91-22	1	A	16	3.4												*0.0008*	
301	1991	W1	87-100	1	A	7	1.98													
302																				
303	*Coker*		*Coker light naphtha*																	
304	Post 199	F4	COKER C3/C4	6	A	1														
305	1990	F6	LT. COKER GASOLINE	1	B	4	*0.05*													
306	Oct-92	J3	23	1	A	5														
307	Nov-90	P1	Coker Naphtha	1	A	5	0.095			NP			NP			NP			NP	
308	Oct-92	Q1,2,6,7	Naphtha, lt	4	B	4	0.03												ND	
309	Dec-89	Q2	Light Naphtha	4	B	6	0.05													
310	Jul-93	V1	COK2-GN	1	A	14	4.74631			NA			*0.0002*			0.27501			*0.0002*	
311	Sep-93	V2	COK-NAPH	1	A	14	1.000			NA			*2E-05*			1.88297			*2E-05*	
312		W1	84	1	A	9	2.4													
313																				
314	*Coker*		*Unsat. gas*																	
315	Post 199	F4	WET GAS	1	A	3														
316	Oct-92	J3	24	1	A	7				15.8987			1.53457			12.3606			5.0615	
317	Aug-92	J4	21	1	A	7				9.9596			1.03886			9.1785			3.6986	
318	Aug-92	J5	12	1	A	8				16.7611			1.54687			14.9305			4.8908	
319	Oct-90	P1	Coker Debut OH	1	A	2	NP			NA			1.578			NA			33.89	
320	Jul-89	V1	COK2-WG	1	A	12	*2E-07*			NA			0.00413			0.01772			0.00787	
321	1987	W1	94	1	A	6	0.0265												5.28	
322																				

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	A	B	C	D	E	N	CH	CI
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Butane
2	Count =	742	*Site Use Only*	1076	742	5404	8	Typ.
291	Oct-92	J3	22	1	A	9		0.852
292	Aug-92	J4	20	1	A	10		0.527
293	Aug-92	J5	11	1	A	7		
294	Nov-90	P1	Coker Gasoline	1	A	8		NA
295	Dec-89	Q2	Heavy Naphtha	4	B	0		
296	Oct-92	Q1,2,6,7	HF Coker Naphtha	4	B	6		
297	Oct-92	Q1,2,6,7	Naphtha Heavy	4	B	6		
298	Sep-93	V2	COK-FURNOIL	1	A	14		*2E-05*
299	1987	W1	85	1	A	9		
300	1991	W1	91-22	1	A	16		
301	1991	W1	87-100	1	A	7		
302								
303	*Coker*		*Coker light naphtha*					
304	Post 199	F4	COKER C3/C4	6	A	1		
305	1990	F6	LT. COKER GASOLINE	1	B	4		
306	Oct-92	J3	23	1	A	5		1.163
307	Nov-90	P1	Coker Naphtha	1	A	5		NP
308	Oct-92	Q1,2,6,7	Naphtha, lt	4	B	4		
309	Dec-89	Q2	Light Naphtha	4	B	6		
310	Jul-93	V1	COK2-GN	1	A	14		0.36152
311	Sep-93	V2	COK-NAPH	1	A	14		3.26378
312		W1	84	1	A	9		
313								
314	*Coker*		*Unsat. gas*					
315	Post 199	F4	WET GAS	1	A	3		
316	Oct-92	J3	24	1	A	7		6.90375
317	Aug-92	J4	21	1	A	7		6.67547
318	Aug-92	J5	12	1	A	8		8.56056
319	Oct-90	P1	Coker Debut OH	1	A	2		NA
320	Jul-89	V1	COK2-WG	1	A	12		0.00591
321	1987	W1	94	1	A	6		
322								

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	A	B	C	D	E	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
	Date Sampled	Site Coding	Sample id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	1,3 Butadiene	No. of Mins	No. of Maxs	Benzene	No. of Mins	No. of Maxs	Biphenyl	No. of Mins	No. of Maxs	Cresols (mixed)	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	4	5	Typ.	59	59	Typ.	4	4	Typ.	0	5	Typ.	34	35
323	*Polymerization*		*Poly. naphtha*																	
324	Sep-92	J1	12	1	A	7						0.74								
325	Aug-92	J5	13	1	A	3						1.739								
326																				
327	*Polymerization*		***Propane***																	
328	Sep-92	J1	13	1	A	5														
329	Aug-92	J5	15	1	A	4														
330																				
331	*Polymerization*		***Butane***																	
332	Sep-92	J1	14	1	A	3														
333	Aug-92	J5	14	1	A	2														
334																				
335	*Cat. Hydrocracker*		*Heavy H/C distillates*																	
336	Oct-92	J3	25	1	A	3														
337	Dec-89	Q2	Heavy Gasoline	4	B	0														
338	Sep-93	V2	ISO-RECSPLBTM	1	A	14			*2E-05*			*1E-05*			NA			NA		
339	Jun-05	W1	87-260	1	A	2						0.21								
340																				
341	*Cat. Hydrocracker*		*Light H/C distillates*																	
342	Oct-90	P1	DUX	1	A	5			NP			NP			NA			*ND*		
343	Oct-92	Q1,2,6,7	Isomax light	4	B	5			ND			0.52								
344	Dec-89	Q2	WGT AVG Hydrobate	1	B	6						0.67								
345	Jul-93	V1	ISO2-KER	1	A	14			*0.0002*			*0.0003*			NA			NA		
346	Sep-93	V2	ISO-KERO	1	A	14			*2E-05*			0.00171			NA			NA		
347	Jan-88	Y2	R2800	1	C	7						*0.0015*								
348																				
349	*Cat. Hydrocracker*		*Heavy H/C naphtha*																	
350	Post 199	F2	HYDROCRACKATE	1	A	5						0.03								
351	Post 199	F3	HVY HYDROCRACKATE	1	C	16				0.47	0.52								0.14	0.15
352	Post 199	F4	HEAVY NAPHTHA	1	A	3				ND	0.35									
353	Post 199	F7	LIQUID TOPS	1	B	3						4.2								
354	Oct-92	J3	26	1	A	7						0.76								

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	A	B	C	D	E	N	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Cumene	No. of Mins	No. of Maxs	Ethylbenzene	No. of Mins	No. of Maxs	Ethylene Glycol	No. of Mins	No. of Maxs	n-Hexane	No. of Mins	No. of Maxs	Hydrogen Sulfide	No. of Mins
2	Count =	742	Site Use Only	1076	742	5404	Typ.	49	49	Typ.	0	1	Typ.	22	25	Typ.	2	2	Typ.	2
323	*Polymerization*		*Poly. naphtha*																	
324	Sep-92	J1	12	1	A	7	0.09			1.18						0.543				
325	Aug-92	J5	13	1	A	3														
326																				
327	*Polymerization*		***Propane***																	
328	Sep-92	J1	13	1	A	5														
329	Aug-92	J5	15	1	A	4														
330																				
331	*Polymerization*		***Butane***																	
332	Sep-92	J1	14	1	A	3														
333	Aug-92	J5	14	1	A	2														
334																				
335	*Cat. Hydrocracker*		*Heavy H/C distillates*																	
336	Oct-92	J3	25	1	A	3														
337	Dec-89	Q2	Heavy Gasoline	4	B	0														
338	Sep-93	V2	ISO-RECSPLBTM	1	A	14	*1E-05*			*1E-05*			NA			*2E-05*			NA	
339	Jun-05	W1	87-260	1	A	2										1.17				
340																				
341	*Cat. Hydrocracker*		*Light H/C distillates*																	
342	Oct-90	P1	DUX	1	A	5	NA			1.25			NP			NP			NP	
343	Oct-92	Q1,2,6,7	Isomax light	4	B	5	ND			0.01						0.037				
344	Dec-89	Q2	WGT AVG Hydrobate	1	B	6				0.65										
345	Jul-93	V1	ISO2-KER	1	A	14	*0.0003*			0.08413			NA			0.01128			NA	
346	Sep-93	V2	ISO-KERO	1	A	14	0.02621			0.06332			NA			0.00257			NA	
347	Jan-88	Y2	R2800	1	C	7	*0.0015*			*0.0015*										
348																				
349	*Cat. Hydrocracker*		*Heavy H/C naphtha*																	
350	Post 199	F2	HYDROCRACKATE	1	A	5				0.92						0.01				
351	Post 199	F3	HVY HYDROCRACKATE	1	C	16		0.39	0.8					1.3	1.6					
352	Post 199	F4	HEAVY NAPHTHA	1	A	3								ND	0.06					
353	Post 199	F7	LIQUID TOPS	1	B	3										2.1				
354	Oct-92	J3	26	1	A	7				3.577						0.182				

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	A	B	C	D	E	N	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Methanol	No. of Mins	No. of Maxs	MEK	No. of Mins	No. of Maxs	MTBE	No. of Mins	No. of Maxs	Naphthalene	No. of Mins	No. of Maxs	Phenol
2	Count =	742	Site Use Only	1076	742	5404	1	Typ.	0	0	Typ.	8	7	Typ.	50	49	Typ.	3	2	Typ.
323	Polymerization		Poly. naphtha																	
324	Sep-92	J1	12	1	A	7														
325	Aug-92	J5	13	1	A	3														
326																				
327	Polymerization		Propane																	
328	Sep-92	J1	13	1	A	5														
329	Aug-92	J5	15	1	A	4														
330																				
331	Polymerization		Butane																	
332	Sep-92	J1	14	1	A	3														
333	Aug-92	J5	14	1	A	2														
334																				
335	Cat. Hydrocracker		Heavy H/C distillates																	
336	Oct-92	J3	25	1	A	3														
337	Dec-89	Q2	Heavy Gasoline	4	B	0											0.223			
338	Sep-93	V2	ISO-RECSPLBTM	1	A	14		NA			NA			NA			0.00858			NA
339	Jun-05	W1	87-260	1	A	2														
340																				
341	Cat. Hydrocracker		Light H/C distillates																	
342	Oct-90	P1	DUX	1	A	5		NP			NP			NP			0.3			NP
343	Oct-92	Q1,2,6,7	Isomax light	4	B	5								ND						
344	Dec-89	Q2	WGT AVG Hydrobate	1	B	6								0.03						
345	Jul-93	V1	ISO2-KER	1	A	14		0.0006			NA			NA			1.86448			NA
346	Sep-93	V2	ISO-KERO	1	A	14		NA			NA			NA			0.05915			NA
347	Jan-88	Y2	R2800	1	C	7											0.04286			
348																				
349	Cat. Hydrocracker		Heavy H/C naphtha																	
350	Post 199	F2	HYDROCRACKATE	1	A	5														
351	Post 199	F3	HVY HYDROCRACKATE	1	C	16									0.01	0.02				
352	Post 199	F4	HEAVY NAPHTHA	1	A	3														
353	Post 199	F7	LIQUID TOPS	1	B	3														
354	Oct-92	J3	26	1	A	7											0.156			

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	A	B	C	D	E	N	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	Styrene	No. of Mins	No. of Maxs	1,2,4 TMB	No. of Mins	No. of Maxs	2,2,4 TMP	No. of Mins	No. of Maxs	Toluene	No. of Mins	No. of Maxs
2	Count =	742	Site Use Only	1076	742	5404	6	6	Typ.	51	51	Typ.	12	12	Typ.	54	54	Typ.	53	85
323	Polymerization		Poly. naphtha																	
324	Sep-92	J1	12	1	A	7									0.9					
325	Aug-92	J5	13	1	A	3									0.553					
326																				
327	Polymerization		Propane																	
328	Sep-92	J1	13	1	A	5														
329	Aug-92	J5	15	1	A	4														
330																				
331	Polymerization		Butane																	
332	Sep-92	J1	14	1	A	3														
333	Aug-92	J5	14	1	A	2														
334																				
335	Cat. Hydrocracker		Heavy H/C distillates																	
336	Oct-92	J3	25	1	A	3						0.363								
337	Dec-89	Q2	Heavy Gasoline	4	B	0														
338	Sep-93	V2	ISO-RECSPLBTM	1	A	14			NA			0.00098			2E-05			1E-05		
339	Jun-05	W1	87-260	1	A	2														
340																				
341	Cat. Hydrocracker		Light H/C distillates																	
342	Oct-90	P1	DUX	1	A	5			NP			3.5			NP			2.5		
343	Oct-92	Q1,2,6,7	Isomax light	4	B	5						ND			ND			0.72		
344	Dec-89	Q2	WGT AVG Hydrobate	1	B	6						0.46						2.11		
345	Jul-93	V1	ISO2-KER	1	A	14			NA			NA			0.04918			0.00785		
346	Sep-93	V2	ISO-KERO	1	A	14			NA			0.22254			0.03013			0.0425		
347	Jan-88	Y2	R2800	1	C	7						0.015						0.0015		
348																				
349	Cat. Hydrocracker		Heavy H/C naphtha																	
350	Post 199	F2	HYDROCRACKATE	1	A	5												0.96		
351	Post 199	F3	HVY HYDROCRACKATE	1	C	16							1.7	2.5		4.1	5.1		6	7.5
352	Post 199	F4	HEAVY NAPHTHA	1	A	3										ND	4.3			
353	Post 199	F7	LIQUID TOPS	1	B	3												3.6		
354	Oct-92	J3	26	1	A	7						5.112						5.79		

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	A	B	C	D	E	N	BS	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Xylenes (mixed)	No. of Mins	No. of Maxs	Ethane	No. of Mins	No. of Maxs	Ethylene	No. of Mins	No. of Maxs	Propane	No. of Mins	No. of Maxs	Propylene	No. of Mins
2	Count =	742	Site Use Only	1076	742	5404	Typ.	0	0	Typ.	1	1	Typ.	1	2	Typ.	2	2	Typ.	8
323	*Polymerization*		*Poly. naphtha*																	
324	Sep-92	J1	12	1	A	7	1.76													
325	Aug-92	J5	13	1	A	3														
326																				
327	*Polymerization*		***Propane***																	
328	Sep-92	J1	13	1	A	5				5.18912			0.21557			88.5294			5.5957	
329	Aug-92	J5	15	1	A	4				3.08982			0.10986			92.9358			3.47	
330																				
331	*Polymerization*		***Butane***																	
332	Sep-92	J1	14	1	A	3										0.73098			0.0073	
333	Aug-92	J5	14	1	A	2										0.33				
334																				
335	*Cat. Hydrocracker*		*Heavy H/C distillates*																	
336	Oct-92	J3	25	1	A	3	0.217													
337	Dec-89	Q2	Heavy Gasoline	4	B	0														
338	Sep-93	V2	ISO-RECSPLBTM	1	A	14	2.5E-05			NA			*2E-05*			*2E-05*			*2E-05*	
339	Jun-05	W1	87-260	1	A	2														
340																				
341	*Cat. Hydrocracker*		*Light H/C distillates*																	
342	Oct-90	P1	DUX	1	A	5	2.65			NP			NP			NP			NP	
343	Oct-92	Q1,2,6,7	Isomax light	4	B	5	0.06												ND	
344	Dec-89	Q2	WGT AVG Hydrobate	1	B	6	2.45													
345	Jul-93	V1	ISO2-KER	1	A	14	1.87393			NA			*0.0002*			*0.0002*			*0.0002*	
346	Sep-93	V2	ISO-KERO	1	A	14	0.24274			NA			*2E-05*			*2E-05*			*2E-05*	
347	Jan-88	Y2	R2800	1	C	7	*0.0015*													
348																				
349	*Cat. Hydrocracker*		*Heavy H/C naphtha*																	
350	Post 199	F2	HYDROCRACKATE	1	A	5	3.64													
351	Post 199	F3	HVY HYDROCRACKATE	1	C	16														
352	Post 199	F4	HEAVY NAPHTHA	1	A	3														
353	Post 199	F7	LIQUID TOPS	1	B	3														
354	Oct-92	J3	26	1	A	7	18.014													

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	A	B	C	D	E	N	CH	CI
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Butane
2	Count =	742	Site Use Only	1076	742	5404	8	Typ.
323	*Polymerization*		*Poly. naphtha*					
324	Sep-92	J1	12	1	A	7		3.678
325	Aug-92	J5	13	1	A	3		2.736
326								
327	*Polymerization*		***Propane***					
328	Sep-92	J1	13	1	A	5		0.05414
329	Aug-92	J5	15	1	A	4		
330								
331	*Polymerization*		***Butane***					
332	Sep-92	J1	14	1	A	3		61.2036
333	Aug-92	J5	14	1	A	2		40.23
334								
335	*Cat. Hydrocracker*		*Heavy H/C distillates*					
336	Oct-92	J3	25	1	A	3		
337	Dec-89	Q2	Heavy Gasoline	4	B	0		
338	Sep-93	V2	ISO-RECSPLBTM	1	A	14		*2E-05*
339	Jun-05	W1	87-260	1	A	2		
340								
341	*Cat. Hydrocracker*		*Light H/C distillates*					
342	Oct-90	P1	DUX	1	A	5		NP
343	Oct-92	Q1,2,6,7	Isomax light	4	B	5		
344	Dec-89	Q2	WGT AVG Hydrobate	1	B	6		
345	Jul-93	V1	ISO2-KER	1	A	14		*0.0002*
346	Sep-93	V2	ISO-KERO	1	A	14		*2E-05*
347	Jan-88	Y2	R2800	1	C	7		
348								
349	*Cat. Hydrocracker*		*Heavy H/C naphtha*					
350	Post 199	F2	HYDROCRACKATE	1	A	5		
351	Post 199	F3	HVY HYDROCRACKATE	1	C	16		
352	Post 199	F4	HEAVY NAPHTHA	1	A	3		
353	Post 199	F7	LIQUID TOPS	1	B	3		
354	Oct-92	J3	26	1	A	7		

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	A	B	C	D	E	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	1,3 Butadiene	No. of Mins	No. of Maxs	Benzene	No. of Mins	No. of Maxs	Biphenyl	No. of Mins	No. of Maxs	Cresols (mixed)	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	4	5	Typ.	59	59	Typ.	4	4	Typ.	0	5	Typ.	34	35
355	Oct-90	P1	HUX Hydrocracker	1	A	6			NP			0.65			NA			ND		
356	Dec-89	Q2	WGT AVG Heavy Naphtha	1	B	6						0.49								
357	Sep-93	V2	ISO-HISO	1	A	14			*3E-05*			*1E-05*			NA			NA		
358																				
359	*Cat. Hydrocracker*	*Light H/C naphtha*																		
360	Post 199	F3	LT HYDROCRACKATE	1	C	4						2.4								
361	Post 199	F4	LT+HVY HYDRONATE	1	A	3						1.7								
362	Oct-92	J3	27	1	A	5						6.3								
363	Feb-92	P1	LUX	1	A	2			NP			2.7			NA			NP		
364	Dec-89	Q2	Light Gasoline	4	B	0														
365	Jul-93	V1	ISO2-LTISO	1	A	14			*0.0002*			3.5203			NA			NA		
366	Sep-93	V2	ISO-LTISO	1	A	14			*3E-05*			0.73882			NA			NA		
367	Jan-88	Y3	R7010	1	B	6						4.0249								
368																				
369	*Cat. Hydrocracker*	*Sat. Gas*																		
370	Oct-92	J3	28	1	A	5														
371	Jul-93	V1	ISO2-LPSEPGAS	1	A	14			*0.0002*			*2E-07*			NA			NA		
372	Jul-93	V1	ISO2-STABOVHD	1	A	14			*0.0002*			*2E-07*			NA			NA		
373	Sep-93	V2	ISO-LPVAP	1	A	14			*4E-08*			*3E-07*			NA			NA		
374	Sep-93	V2	ISO-STABOVHDV	1	A	14			*2E-08*			5.6E-05			NA			NA		
375	Sep-93	V2	ISO-STABOVHDL	1	A	14			*4E-08*			*3E-07*			NA			NA		
376	Jun-05	W1	87-259	1	A	2						0.29								
377																				
378	*Cat. Hydrotreater*	*Cat. Cracker Feed*																		
379	Oct-92	J3	29	1	A	0														
380	Oct-92	J3	30	1	A	0														
381	Aug-92	J4	22	1	A	0														
382	Aug-92	J4	23	1	A	0														
383	Aug-92	J5	16	1	A	0														
384	Nov-90	P1	Fluid Unit Feed	1	A	0			NP			NP			NA			ND		
385	Jul-93	V1	FCC-FF	1	A	14			*0.0002*			0.00366			NA			NA		
386	Sep-93	V2	FCC-FF	1	A	14			*2E-05*			0.00044			NA			NA		

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	A	B	C	D	E	N	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Cumene	No. of Mins	No. of Maxs	Ethylbenzene	No. of Mins	No. of Maxs	Ethylene Glycol	No. of Mins	No. of Maxs	n-Hexane	No. of Mins	No. of Maxs	Hydrogen Sulfide	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	49	49	Typ.	0	1	Typ.	22	25	Typ.	2	2	Typ.	2
355	Oct-90	P1	HUX Hydrocracker	1	A	6	NA			2.8			NP			NA			NP	
356	Dec-89	Q2	WGT AVG Heavy Naphtha	1	B	6				0.64										
357	Sep-93	V2	ISO-HISO	1	A	14	0.00027			*1E-05*			NA			*2E-05*			NA	
358																				
359	*Cat. Hydrocracker*	*Light H/C naphtha*																		
360	Post 199	F3	LT HYDROCRACKATE	1	C	4	ND			1.1						0.02				
361	Post 199	F4	LT+HVY HYDRONATE	1	A	3				<0.1						1.2				
362	Oct-92	J3	27	1	A	5				2.095						2.259				
363	Feb-92	P1	LUX	1	A	2	NA			NP			NP			NA			NP	
364	Dec-89	Q2	Light Gasoline	4	B	0														
365	Jul-93	V1	ISO2-LTISO	1	A	14	*0.0004*			1.60213			NA			1.34983			NA	
366	Sep-93	V2	ISO-LTISO	1	A	14	0.0003			*2E-05*			NA			2.74717			NA	
367	Jan-88	Y3	R7010	1	B	6	*0.0015*			*0.0015*										
368																				
369	*Cat. Hydrocracker*	*Sat. Gas*																		
370	Oct-92	J3	28	1	A	5													5.59886	
371	Jul-93	V1	ISO2-LPSEPGAS	1	A	14	*2E-07*			*2E-07*			NA			*2E-07*			NA	
372	Jul-93	V1	ISO2-STABOVHD	1	A	14	*2E-07*			*2E-07*			NA			*2E-07*			NA	
373	Sep-93	V2	ISO-LPVAP	1	A	14	*4E-07*			*3E-07*			NA			3.5E-05			NA	
374	Sep-93	V2	ISO-STABOVHDV	1	A	14	*2E-07*			*2E-07*			NA			3.2E-05			NA	
375	Sep-93	V2	ISO-STABOVHDL	1	A	14	*3E-07*			*3E-07*			NA			*4E-07*			NA	
376	Jun-05	W1	87-259	1	A	2										0.72				
377																				
378	*Cat. Hydrotreater*	*Cat. Cracker Feed*																		
379	Oct-92	J3	29	1	A	0														
380	Oct-92	J3	30	1	A	0														
381	Aug-92	J4	22	1	A	0														
382	Aug-92	J4	23	1	A	0														
383	Aug-92	J5	16	1	A	0														
384	Nov-90	P1	Fluid Unit Feed	1	A	0	NA			NP			NP			NP			NA	
385	Jul-93	V1	FCC-FF	1	A	14	*0.0003*			0.00488			NA			0.00455			NA	
386	Sep-93	V2	FCC-FF	1	A	14	1.1E-05			0.00033			NA			0.00122			NA	

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	A	B	C	D	E	N	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Methanol	No. of Mins	No. of Maxs	MEK	No. of Mins	No. of Maxs	MTBE	No. of Mins	No. of Maxs	Naphthalene	No. of Mins	No. of Maxs	Phenol
2	Count =	742	*Site Use Only*	1076	742	5404	1	Typ.	0	0	Typ.	8	7	Typ.	50	49	Typ.	3	2	Typ.
355	Oct-90	P1	HUX Hydrocracker	1	A	6		NP			NP			NP			0.037			NP
356	Dec-89	Q2	WGT AVG Heavy Naphtha	1	B	6											0.29			
357	Sep-93	V2	ISO-HISO	1	A	14		NA			NA			NA			*1E-05*			NA
358																				
359	*Cat. Hydrocracker*		*Light H/C naphtha*																	
360	Post 199	F3	LT HYDROCRACKATE	1	C	4											ND			
361	Post 199	F4	LT+HVY HYDRONATE	1	A	3											<0.1			
362	Oct-92	J3	27	1	A	5														
363	Feb-92	P1	LUX	1	A	2		NP			NP			NP			NP			NP
364	Dec-89	Q2	Light Gasoline	4	B	0														
365	Jul-93	V1	ISO2-LTISO	1	A	14		*0.0008*			NA			NA			*0.0004*			NA
366	Sep-93	V2	ISO-LTISO	1	A	14		NA			NA			NA			*2E-05*			NA
367	Jan-88	Y3	R7010	1	B	6											*0.0015*			
368																				
369	*Cat. Hydrocracker*		*Sat. Gas*																	
370	Oct-92	J3	28	1	A	5														
371	Jul-93	V1	ISO2-LPSEPGAS	1	A	14		*0.0005*			NA			NA			*2E-07*			NA
372	Jul-93	V1	ISO2-STABOVHD	1	A	14		*0.0005*			NA			NA			*2E-07*			NA
373	Sep-93	V2	ISO-LPVAP	1	A	14		NA			NA			NA			*8E-07*			NA
374	Sep-93	V2	ISO-STABOVHDV	1	A	14		NA			NA			NA			*4E-07*			NA
375	Sep-93	V2	ISO-STABOVHDL	1	A	14		NA			NA			NA			*7E-07*			NA
376	Jun-05	W1	87-259	1	A	2														
377																				
378	*Cat. Hydrotreater*		*Cat. Cracker Feed*																	
379	Oct-92	J3	29	1	A	0														
380	Oct-92	J3	30	1	A	0														
381	Aug-92	J4	22	1	A	0														
382	Aug-92	J4	23	1	A	0														
383	Aug-92	J5	16	1	A	0														
384	Nov-90	P1	Fluid Unit Feed	1	A	0		NP			NP			NP			NP			NP
385	Jul-93	V1	FCC-FF	1	A	14		*0.0006*			NA			NA			0.14933			NA
386	Sep-93	V2	FCC-FF	1	A	14		NA			NA			NA			0.00078			NA

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	A	B	C	D	E	N	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	Styrene	No. of Mins	No. of Maxs	1,2,4 TMB	No. of Mins	No. of Maxs	2,2,4 TMP	No. of Mins	No. of Maxs	Toluene	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	6	6	Typ.	51	51	Typ.	12	12	Typ.	54	54	Typ.	53	85
355	Oct-90	P1	HUX Hydrocracker	1	A	6			NP			5.6			NA			5.5		
356	Dec-89	Q2	WGT AVG Heavy Naphtha	1	B	6						0.89						1.85		
357	Sep-93	V2	ISO-HISO	1	A	14			NA			*2E-05*			0.27404			1.3E-05		
358																				
359	*Cat. Hydrocracker*	*Light H/C naphtha*																		
360	Post 199	F3	LT HYDROCRACKATE	1	C	4														
361	Post 199	F4	LT+HVY HYDRONATE	1	A	3												3.7		
362	Oct-92	J3	27	1	A	5												19.168		
363	Feb-92	P1	LUX	1	A	2			NP			NP			NA			2.1		
364	Dec-89	Q2	Light Gasoline	4	B	0														
365	Jul-93	V1	ISO2-LTISO	1	A	14			NA			NA			4.98808			5.22641		
366	Sep-93	V2	ISO-LTISO	1	A	14			NA			*3E-05*			0.31211			0.02702		
367	Jan-88	Y3	R7010	1	B	6						*ND*						0.06515		
368																				
369	*Cat. Hydrocracker*	*Sat. Gas*																		
370	Oct-92	J3	28	1	A	5														
371	Jul-93	V1	ISO2-LPSEPGAS	1	A	14			NA			NA			*2E-07*			*2E-07*		
372	Jul-93	V1	ISO2-STABOVHD	1	A	14			NA			NA			*2E-07*			*2E-07*		
373	Sep-93	V2	ISO-LPVAP	1	A	14			NA			*5E-07*			*6E-07*			*3E-07*		
374	Sep-93	V2	ISO-STABOVHDV	1	A	14			NA			*2E-07*			*3E-07*			*1E-07*		
375	Sep-93	V2	ISO-STABOVHDL	1	A	14			NA			*4E-07*			*5E-07*			*3E-07*		
376	Jun-05	W1	87-259	1	A	2														
377																				
378	*Cat. Hydrotreater*	*Cat. Cracker Feed*																		
379	Oct-92	J3	29	1	A	0														
380	Oct-92	J3	30	1	A	0														
381	Aug-92	J4	22	1	A	0														
382	Aug-92	J4	23	1	A	0														
383	Aug-92	J5	16	1	A	0														
384	Nov-90	P1	Fluid Unit Feed	1	A	0			NP			NP			NP			NP		
385	Jul-93	V1	FCC-FF	1	A	14			NA			NA			0.0041			0.00521		
386	Sep-93	V2	FCC-FF	1	A	14			NA			0.00277			0.00011			0.00067		

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Refine Process and Product Stream Speciation — For TAC Review Only — ND shown as half detect limit . . . *alics*

	A	B	C	D	E	N	BS	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Xylenes (mixed)	No. of Mins	No. of Maxs	Ethane	No. of Mins	No. of Maxs	Ethylene	No. of Mins	No. of Maxs	Propane	No. of Mins	No. of Maxs	Propylene	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	0	0	Typ.	1	1	Typ.	1	2	Typ.	2	2	Typ.	8
355	Oct-90	P1	HUX Hydrocracker	1	A	6	6.25			NP			NP			NP			NP	
356	Dec-89	Q2	WGT AVG Heavy Naphtha	1	B	6	2.99													
357	Sep-93	V2	ISO-HISO	1	A	14	2.7E-05			NA			*2E-05*			*2E-05*			*2E-05*	
358																				
359	*Cat. Hydrocracker*	*Light H/C naphtha*																		
360	Post 199	F3	LT HYDROCRACKATE	1	C	4	0.08													
361	Post 199	F4	LT+HVY HYDRONATE	1	A	3														
362	Oct-92	J3	27	1	A	6	6.719													
363	Feb-92	P1	LUX	1	A	2	NP			NP			NP			NP			NP	
364	Dec-89	Q2	Light Gasoline	4	B	0														
365	Jul-93	V1	ISO2-LTISO	1	A	14	12.8096			NA			*0.0002*			*0.0002*			*0.0002*	
366	Sep-93	V2	ISO-LTISO	1	A	14	3E-05			NA			*2E-05*			0.02869			*2E-05*	
367	Jan-88	Y3	R7010	1	B	6	*0.0015*													
368																				
369	*Cat. Hydrocracker*	*Sat. Gas*																		
370	Oct-92	J3	28	1	A	5				13.3842						71.905			0.1223	
371	Jul-93	V1	ISO2-LPSEPGAS	1	A	14	0.0005			NA			*0.0002*			0.00685			*0.0002*	
372	Jul-93	V1	ISO2-STABOVHD	1	A	14	0.0005			NA			*0.0002*			0.014			*0.0002*	
373	Sep-93	V2	ISO-LPVAP	1	A	14	7.7E-07			NA			*3E-08*			0.00278			*3E-08*	
374	Sep-93	V2	ISO-STABOVHDV	1	A	14	3.5E-07			NA			*1E-08*			*1E-08*			0.00142	
375	Sep-93	V2	ISO-STABOVHDL	1	A	14	6.8E-07			NA			*3E-08*			*3E-08*			0.0039	
376	Jun-05	W1	87-259	1	A	2														
377																				
378	*Cat. Hydrotreater*	*Cat. Cracker Feed*																		
379	Oct-92	J3	29	1	A	0														
380	Oct-92	J3	30	1	A	0														
381	Aug-92	J4	22	1	A	0														
382	Aug-92	J4	23	1	A	0														
383	Aug-92	J5	16	1	A	0														
384	Nov-90	P1	Fluid Unit Feed	1	A	0	NP			NP			NP			NP			NP	
385	Jul-93	V1	FCC-FF	1	A	14	0.05458			NA			*0.0002*			0.00266			*0.0002*	
386	Sep-93	V2	FCC-FF	1	A	14	0.001			NA			*2E-05*			0.00044			*2E-05*	

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	A	B	C	D	E	N	CH	CI
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Butane
2	Count =	742	*Site Use Only*	1076	742	5404	8	Typ.
355	Oct-90	P1	HUX Hydrocracker	1	A	6		NP
356	Dec-89	Q2	WGT AVG Heavy Naphtha	1	B	6		
357	Sep-93	V2	ISO-HISO	1	A	14		*2E-05*
358								
359	*Cat. Hydrocracker*	*Light H/C naphtha*						
360	Post 199	F3	LT HYDROCRACKATE	1	C	4		
361	Post 199	F4	LT+HVY HYDRONATE	1	A	3		
362	Oct-92	J3	27	1	A	6		
363	Feb-92	P1	LUX	1	A	2		NA
364	Dec-89	Q2	Light Gasoline	4	B	0		
365	Jul-93	V1	ISO2-LTISO	1	A	14		*0.0002*
366	Sep-93	V2	ISO-LTISO	1	A	14		3.89389
367	Jan-88	Y3	R7010	1	B	6		
368								
369	*Cat. Hydrocracker*	*Sat. Gas*						
370	Oct-92	J3	28	1	A	5		0.1689
371	Jul-93	V1	ISO2-LPSEPGAS	1	A	14		0.00189
372	Jul-93	V1	ISO2-STABOVHD	1	A	14		0.0032
373	Sep-93	V2	ISO-LPVAP	1	A	14		0.00068
374	Sep-93	V2	ISO-STABOVHDV	1	A	14		0.00136
375	Sep-93	V2	ISO-STABOVHDL	1	A	14		0.00168
376	Jun-05	W1	87-259	1	A	2		
377								
378	*Cat. Hydrotreater*	*Cat. Cracker Feed*						
379	Oct-92	J3	29	1	A	0		
380	Oct-92	J3	30	1	A	0		
381	Aug-92	J4	22	1	A	0		
382	Aug-92	J4	23	1	A	0		
383	Aug-92	J5	16	1	A	0		
384	Nov-90	P1	Fluid Unit Feed	1	A	0		NP
385	Jul-93	V1	FCC-FF	1	A	14		0.001
386	Sep-93	V2	FCC-FF	1	A	14		0.00122

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	A	B	C	D	E	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	1,3 Butadiene	No. of Mins	No. of Maxs	Benzene	No. of Mins	No. of Maxs	Biphenyl	No. of Mins	No. of Maxs	Cresols (mixed)	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	4	5	Typ.	59	59	Typ.	4	4	Typ.	0	5	Typ.	34	35
387	Mar-94	V3	TCC-VAPFEED	1	A	13			NA			*2E-05*			NA			NA		
388	Mar-94	V3	TCC-LFEED	1	A	13			NA			*2E-05*			NA			NA		
389																				
390	*Fluid Cat. Cracker*	*DCO*																		
391	Sep-92	J1	15	1	A	0														
392	Sep-92	J2	8	1	A	2														
393	Sep-92	J2	9	1	A	0														
394	Oct-92	J3	31	1	A	0														
395	Aug-92	J4	24	1	A	0														
396	Aug-92	J4	25	1	A	0														
397	Aug-92	J5	17	1	A	0														
398																				
399	*Fluid Cat. Cracker*	*Heavy Cat. Gas Oil*																		
400	Post 199	F4	CCH GAS OIL	1	A	1														
401	Sep-92	J1	16	1	A	2														
402	Sep-92	J2	10	1	A	0														
403	Aug-92	J4	26	1	A	4														
404	Aug-92	J5	18	1	A	0														
405	Feb-92	P1	*CBO (i.e. CSO)*	1	A	6			NP			NP			NA			0.02		
406	Oct-92	Q1,2,6,7	FCC heavy, 265+	4	B	7			ND			ND								
407	Dec-89	Q2	Heavy Gasoline	3	B	8						0.6								
408	Jun-93	Q3	High HS HCC	2	A	6						ND								
409	Jul-93	V1	FCC-HVYGO	1	A	14			*0.0001*			0.01083			NA			NA		
410	Jul-93	V1	FCC-TCD	1	A	14			*0.0002*			1.12807			NA			NA		
411	Sep-93	V2	FCC-TCD	1	A	14			*3E-05*			0.98457			NA			NA		
412	Sep-93	V2	FCC-HGO	1	A	14			*2E-05*			0.00735			NA			NA		
413	Mar-94	V3	TCC-HYCYC/OIL	1	A	13			NA			*0.0002*			NA			NA		
414	1987	W1	207	1	A	10						0.005			0.093					
415	Jan-88	Y1	R6700/6800	2	B	21				0.1583	2.3599	1.2591							0.18477	0.23103
416	Jan-88	Y2	R6500/6800	5	B	21				0.146	4.722	0.558							0.036	0.287
417	Jan-88	Y3	R6300/R6600/R6800	3	B	21				0.016	5.104	0.231							0.023	0.509
418																				

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	A	B	C	D	E	N	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Cumene	No. of Mins	No. of Maxs	Ethylbenzene	No. of Mins	No. of Maxs	Ethylene Gycol	No. of Mins	No. of Maxs	n-Hexane	No. of Mins	No. of Maxs	Hydrogen Sulfide	No. of Mins
2	Count =	742	Site Use Only	1076	742	5404	Typ.	49	49	Typ.	0	1	Typ.	22	25	Typ.	2	2	Typ.	2
387	Mar-94	V3	TCC-VAPFEED	1	A	13	0.38285			2E-05			NA			0.60972			NA	
388	Mar-94	V3	TCC-LFEED	1	A	13	8E-05			2E-05			NA			8E-05			NA	
389																				
390	*Fluid Cat. Cracker*		***DCO***																	
391	Sep-92	J1	15	1	A	0														
392	Sep-92	J2	8	1	A	2														
393	Sep-92	J2	9	1	A	0														
394	Oct-92	J3	31	1	A	0														
395	Aug-92	J4	24	1	A	0														
396	Aug-92	J4	25	1	A	0														
397	Aug-92	J5	17	1	A	0														
398																				
399	*Fluid Cat. Cracker*		*Heavy Cat. Gas Oil*																	
400	Post 199	F4	CCH GAS OIL	1	A	1														
401	Sep-92	J1	16	1	A	2														
402	Sep-92	J2	10	1	A	0														
403	Aug-92	J4	26	1	A	4														
404	Aug-92	J5	18	1	A	0														
405	Feb-92	P1	*CBO (i.e. CSO)*	1	A	5	NA			0.002			NP			NP			NP	
406	Oct-92	Q1,2,6,7	FCC heavy, 265+	4	B	7	0.13			2.06						ND				
407	Dec-89	Q2	Heavy Gasoline	3	B	8				0.33										
408	Jun-93	Q3	High HS HCC	2	A	5				1.2						ND				
409	Jul-93	V1	FCC-HVYGO	1	A	14	0.00077			0.01596			NA			0.0058			NA	
410	Jul-93	V1	FCC-TCD	1	A	14	0.04574			0.84228			NA			0.50396			NA	
411	Sep-93	V2	FCC-TCD	1	A	14	0.03361			0.54023			NA			0.5473			NA	
412	Sep-93	V2	FCC-HGO	1	A	14	0.00068			0.00783			NA			0.00309			NA	
413	Mar-94	V3	TCC-HYCYC/OIL	1	A	13	5E-05			0.00121			NA			5E-05			NA	
414	1987	W1	207	1	A	10	0.002			0.043						0.002				
415	Jan-88	Y1	R6700/6800	2	B	21	0.2079	2.3228	6.0365	4.17966										
416	Jan-88	Y2	R6500/6800	5	B	21	0.091	0.268	4.097	1.047										
417	Jan-88	Y3	R6300/R6600/R6800	3	B	21	0.286	0.029	5.925	2.971										
418																				

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Refine Process and Product Stream Speciation — For TAC ... ew Only — ND shown as half detect limit .. .alics

	A	B	C	D	E	N	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Methanol	No. of Mins	No. of Maxs	MEK	No. of Mins	No. of Maxs	MTBE	No. of Mins	No. of Maxs	Naphthalene	No. of Mins	No. of Maxs	Phenol
2	Count =	742	Site Use Only	1076	742	5404	1	Typ.	0	0	Typ.	8	7	Typ.	50	49	Typ.	3	2	Typ.
387	Mar-94	V3	TCC-VAPFEED	1	A	13		*1E-04*			NA			NA			0.00279			NA
388	Mar-94	V3	TCC-LFEED	1	A	13		*8E-05*			NA			NA			0.00429			NA
389																				
390	*Fluid Cat. Cracker*		*DCO*																	
391	Sep-92	J1	15	1	A	0														
392	Sep-92	J2	8	1	A	2														
393	Sep-92	J2	9	1	A	0														
394	Oct-92	J3	31	1	A	0														
395	Aug-92	J4	24	1	A	0														
396	Aug-92	J4	25	1	A	0														
397	Aug-92	J5	17	1	A	0														
398																				
399	*Fluid Cat. Cracker*		*Heavy Cat. Gas Oil*																	
400	Post 199	F4	CCH GAS OIL	1	A	1											6.5			
401	Sep-92	J1	16	1	A	2											0.09			
402	Sep-92	J2	10	1	A	0														
403	Aug-92	J4	26	1	A	4											0.156			
404	Aug-92	J5	18	1	A	0														
405	Feb-92	P1	*CBO (i.e. CSO)*	1	A	5		NP			NP			NP			0.011			NP
406	Oct-92	Q1,2,6,7	FCC heavy, 265+	4	B	7											1.7			
407	Dec-89	Q2	Heavy Gasoline	3	B	8											4.57			
408	Jun-93	Q3	High HS HCC	2	A	5											2.43			
409	Jul-93	V1	FCC-HVYGO	1	A	14		*0.0005*			NA			NA			0.04807			NA
410	Jul-93	V1	FCC-TCD	1	A	14		*0.0007*			NA			NA			1.22942			NA
411	Sep-93	V2	FCC-TCD	1	A	14		NA			NA			NA			0.15723			NA
412	Sep-93	V2	FCC-HGO	1	A	14		NA			NA			NA			0.00503			NA
413	Mar-94	V3	TCC-HYCYC/OIL	1	A	13		*5E-05*			NA			NA			0.00134			NA
414	1987	W1	207	1	A	10											0.291			
415	Jan-88	Y1	R6700/6800	2	B	21									0.00264	0.69557	0.3491			
416	Jan-88	Y2	R6500/6800	5	B	21									0.101	1.059	0.369			
417	Jan-88	Y3	R6300/R6600/R6800	3	B	21									0.303	1.028	0.388			
418																				

1	A	B	C	D	E	N	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR
	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	Styrene	No. of Mins	No. of Maxs	1,2,4 TMB	No. of Mins	No. of Maxs	2,2,4 TMP	No. of Mins	No. of Maxs	Toluene	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	6	6	Typ.	51	51	Typ.	12	12	Typ.	54	54	Typ.	53	85
387	Mar-94	V3	TCC-VAPFEED	1	A	13			NA			NA			NA			0.50694		
388	Mar-94	V3	TCC-LFEED	1	A	13			NA			NA			NA			*8E-05*		
389																				
390	*Fluid Cat. Cracker*		***DCO***																	
391	Sep-92	J1	15	1	A	0														
392	Sep-92	J2	8	1	A	2						0.163								
393	Sep-92	J2	9	1	A	0														
394	Oct-92	J3	31	1	A	0														
395	Aug-92	J4	24	1	A	0														
396	Aug-92	J4	25	1	A	0														
397	Aug-92	J5	17	1	A	0														
398																				
399	*Fluid Cat. Cracker*		*Heavy Cat. Gas Oil*																	
400	Post 199	F4	CCH GAS OIL	1	A	1														
401	Sep-92	J1	16	1	A	2						0.085								
402	Sep-92	J2	10	1	A	0														
403	Aug-92	J4	26	1	A	4						0.149						0.105		
404	Aug-92	J5	18	1	A	0														
405	Feb-92	P1	*CBO (i.e. CSO)*	1	A	5			NP			0.027			NP			ND		
406	Oct-92	Q1,2,6,7	FCC heavy, 265+	4	B	7						6.83			0.01			0.64		
407	Dec-89	Q2	Heavy Gasoline	3	B	8				3.6	5.3	4.17						0.67		
408	Jun-93	Q3	High HS HCC	2	A	5						11.6			ND			0.75		
409	Jul-93	V1	FCC-HVYGO	1	A	14			NA			NA			0.01779			0.04836		
410	Jul-93	V1	FCC-TCD	1	A	14			NA			NA			1.00431			2.96452		
411	Sep-93	V2	FCC-TCD	1	A	14			NA			2.39669			0.06361			2.01062		
412	Sep-93	V2	FCC-HGO	1	A	14			NA			0.04081			0.00377			0.0266		
413	Mar-94	V3	TCC-HYCYC/OIL	1	A	13			NA			NA			NA			*5E-05*		
414	1987	W1	207	1	A	10			0.001			0.3						0.066		
415	Jan-88	Y1	R6700/6800	2	B	21				0.9977	7.154	4.07607				2.5339	15.3521	8.943	2.87713	22.8792
416	Jan-88	Y2	R6500/6800	5	B	21				0.172	5.959	2.351				1.693	15.315	1.745	1.316	19.575
417	Jan-88	Y3	R6300/R6600/R6800	3	B	21				0.413	13.307	5.612				0.094	11.402	4.004	0.325	27.841
418																				

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1	A	B	C	D	E	N	BS	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG
	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Xylenes (mixed)	No. of Mins	No. of Maxs	Ethane	No. of Mins	No. of Maxs	Ethylene	No. of Mins	No. of Maxs	Propane	No. of Mins	No. of Maxs	Propylene	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	0	0	Typ.	1	1	Typ.	1	2	Typ.	2	2	Typ.	8
387	Mar-94	V3	TCC-VAPFEED	1	A	13	3.9E-05			0.02008			*2E-05*			0.06693			0.03976	
388	Mar-94	V3	TCC-LFEED	1	A	13	3.1E-05			*2E-05*			*2E-05*			*2E-05*			*2E-05*	
389																				
390	*Fluid Cat. Cracker*		*DCO*																	
391	Sep-92	J1	15	1	A	0														
392	Sep-92	J2	8	1	A	2	0.094													
393	Sep-92	J2	9	1	A	0														
394	Oct-92	J3	31	1	A	0														
395	Aug-92	J4	24	1	A	0														
396	Aug-92	J4	25	1	A	0														
397	Aug-92	J5	17	1	A	0														
398																				
399	*Fluid Cat. Cracker*		*Heavy Cat. Gas Oil*																	
400	Post 199	F4	CCH GAS OIL	1	A	1														
401	Sep-92	J1	16	1	A	2														
402	Sep-92	J2	10	1	A	0														
403	Aug-92	J4	26	1	A	4	0.131													
404	Aug-92	J5	18	1	A	0														
405	Feb-92	P1	*CBO (i.e. CSO)*	1	A	5	0.009			NP			NP			NP			NP	
406	Oct-92	Q1,2,6,7	FCC heavy, 265+	4	B	7	13.66												ND	
407	Dec-89	Q2	Heavy Gasoline	3	B	8	2.43													
408	Jun-93	Q3	High HS HCC	2	A	5	13.46													
409	Jul-93	V1	FCC-HVYGO	1	A	14	0.13453			NA			*0.0001*			0.00551			*0.0001*	
410	Jul-93	V1	FCC-TCD	1	A	14	5.98892			NA			*0.0002*			*0.0002*			*0.0002*	
411	Sep-93	V2	FCC-TCD	1	A	14	2.70328			NA			*2E-05*			*2E-05*			*2E-05*	
412	Sep-93	V2	FCC-HGO	1	A	14	0.04623			NA			0.006			*1E-05*			0.02205	
413	Mar-94	V3	TCC-HYCYC/OIL	1	A	13	0.00057			*1E-05*			*1E-05*			*1E-05*			*1E-05*	
414	1987	W1	207	1	A	10	0.304													
415	Jan-88	Y1	R6700/6800	2	B	21	12.8781													
416	Jan-88	Y2	R6500/6800	5	B	21	6.6													
417	Jan-88	Y3	R6300/R6600/R6800	3	B	21	13.167													
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	A	B	C	D	E	N	CH	CI
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Butane
2	Count =	742	Site Use Only	1076	742	5404	8	Typ.
387	Mar-94	V3	TCC-VAPFEED	1	A	13		2.53937
388	Mar-94	V3	TCC-LFEED	1	A	13		*2E-05*
389								
390	*Fluid Cat. Cracker*	*DCO*						
391	Sep-92	J1	15	1	A	0		
392	Sep-92	J2	8	1	A	2		
393	Sep-92	J2	9	1	A	0		
394	Oct-92	J3	31	1	A	0		
395	Aug-92	J4	24	1	A	0		
396	Aug-92	J4	25	1	A	0		
397	Aug-92	J5	17	1	A	0		
398								
399	*Fluid Cat. Cracker*	*Heavy Cat. Gas Oil*						
400	Post 199	F4	CCH GAS OIL	1	A	1		
401	Sep-92	J1	16	1	A	2		
402	Sep-92	J2	10	1	A	0		
403	Aug-92	J4	26	1	A	4		
404	Aug-92	J5	18	1	A	0		
405	Feb-92	P1	*CBO (i.e. CSO)*	1	A	5		NP
406	Oct-92	Q1,2,6,7	FCC heavy, 265+	4	B	7		
407	Dec-89	Q2	Heavy Gasoline	3	B	8		
408	Jun-93	Q3	High HS HCC	2	A	5		
409	Jul-93	V1	FCC-HVYGO	1	A	14		0.00077
410	Jul-93	V1	FCC-TCD	1	A	14		0.04814
411	Sep-93	V2	FCC-TCD	1	A	14		0.87322
412	Sep-93	V2	FCC-HGO	1	A	14		0.00658
413	Mar-94	V3	TCC-HYCYC/OIL	1	A	13		*1E-05*
414	1987	W1	207	1	A	10		
415	Jan-88	Y1	R6700/6800	2	B	21		
416	Jan-88	Y2	R6500/6800	5	B	21		
417	Jan-88	Y3	R6300/R6600/R6800	3	B	21		
418								

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	A	B	C	D	E	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	1,3 Butadiene	No. of Mins	No. of Maxs	Benzene	No. of Mins	No. of Maxs	Biphenyl	No. of Mins	No. of Maxs	Cresols (mixed)	No. of Mins	No. of Maxs
2	Count =	742	Site Use Only	1076	742	5404	4	5	Typ.	59	59	Typ.	4	4	Typ.	0	5	Typ.	34	35
19	*Fluid Cat. Cracker*	*Light Cat. Gas Oil*																		
420	1990	F6	CCGO	1	B	3			*ND*			*0.025*								
421	Sep-92	J1	17	1	A	4														
422	Sep-92	J2	11	2	A	10														
423	Oct-92	J3	32	1	A	5														
424	Aug-92	J4	27	1	A	6									0.389					
425	Aug-92	J4	28	1	A	6									0.544					
426	Aug-92	J5	19	1	A	5									0.164					
427	Feb-92	P1	LCO	1	A	4			NP			NP			NA			*0.0025*		
428	Oct-92	Q1,2,6,7	FCC heavy	4	B	6			ND			ND								
429	Jun-93	Q3	High HS LCC	2	A	6						0.99								
430	Dec-89	Q2	Light Gasoline	3	B	16				1.6	2	1.2								
431	Jul-93	V1	FCC-CLGS	1	A	14			0.01032			0.0072			NA			NA		
432	Jul-93	V1	FCC-LCDGGP	1	A	14			*0.0002*			1.5648			NA			NA		
433	Sep-93	V2	FCC-LGO	1	A	14			*2E-05*			0.00108			NA			NA		
434	Mar-94	V3	TCC-LTCYC/OIL	1	A	10			NA			NA			NA			NA		
435	Nov-90	V4	FCC-LCGO	1	A	15			NA			0.02			*5E-05*			NA		
436	Nov-90	V4	FCC-LGSLN	1	A	15			NA			0.91			*5E-05*			NA		
437	Nov-90	V4	FCC-HGSLN	1	A	15			NA			0.28			0.0784			NA		
438		W1	LCGO11	3	A	28				0.42	1.67	0.86333						0.0036	0.03	0.07
439		W3	34	1	A	7						1.27			0.99					
440	Jan-88	Y1	R7400	1	B	7						1.19436								
441	Jan-88	Y2	R7300	1	B	7						0.82								
442	Jan-88	Y3	R7200/R7300/R7400	3	B	19				0.354	1.186	1.12							ND	0.096
443																				
444	*Fluid Cat. Cracker*	*Cracked gasoline*																		
445	Post 199	F1	LT CC GASOLINE	1	B	4						1								
446	Post 199	F1	XLT CC GASOLINE	1	B	2						2								
447	Post 199	F2	LCC GASOLINE	1	A	3						1.2								
448	Post 199	F2	HCC GASOLINE	1	A	3						0.28								
449	Post 199	F3	CC GASOLINE	1	C	6						0.75								
450	Post 199	F3	LT CC GASOLINE	1	C	12				1.2	1.5									

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Refin[illegible]rocess and Product Stream Speciation — *For TAC [illegible]w Only* — ND shown as half detect limit [illegible]lics

	A	B	C	D	E	N	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Cumene	No. of Mins	No. of Maxs	Ethylbenzene	No. of Mins	No. of Maxs	Ethylene Glycol	No. of Mins	No. of Maxs	n-Hexane	No. of Mins	No. of Maxs	Hydrogen Sulfide	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	49	49	Typ.	0	1	Typ.	22	25	Typ.	2	2	Typ.	2
419	*Fluid Cat. Cracker*		*Light Cat. Gas Oil*																	
420	1990	F6	CCGO	1	B	3														
421	Sep-92	J1	17	1	A	4														
422	Sep-92	J2	11	2	A	10														
423	Oct-92	J3	32	1	A	5				0.101										
424	Aug-92	J4	27	1	A	6				0.106										
425	Aug-92	J4	28	1	A	6				0.09										
426	Aug-92	J5	19	1	A	5														
427	Feb-92	P1	LCO	1	A	4	NA			0.002			NP			NP			NA	
428	Oct-92	Q1,2,6,7	FCC heavy	4	B	6	ND			2.3						ND				
429	Jun-93	Q3	High HS LCC	2	A	6				0.79						1.84				
430	Dec-89	Q2	Light Gasoline	3	B	16		1.1	1.2	1.13										
431	Jul-93	V1	FCC-CLGS	1	A	14	0.01452			0.3757			NA			0.00118			NA	
432	Jul-93	V1	FCC-LCDGGP	1	A	14	0.01293			0.57333			NA			0.68853			NA	
433	Sep-93	V2	FCC-LGO	1	A	14	0.00065			0.00624			NA			0.00108			NA	
434	Mar-94	V3	TCC-LTCYC/OIL	1	A	10	0.21092			NA			NA			*7E-05*			NA	
435	Nov-90	V4	FCC-LCGO	1	A	15	0.01			0.09			NA			0.01			NA	
436	Nov-90	V4	FCC-LGSLN	1	A	15	0.01			0.61			NA			1.2			NA	
437	Nov-90	V4	FCC-HGSLN	1	A	15	0.06			1.43			NA			0.16			NA	
438		W1	LCGO11	3	A	28	0.05	1.4	1.8	1.58				ND	1.82	0.85				
439		W3	34	1	A	7				1.67										
440	Jan-88	Y1	R7400	1	B	7	0.62002			2.05587										
441	Jan-88	Y2	R7300	1	B	7	0.036			0.986										
442	Jan-88	Y3	R7200/R7300/R7400	3	B	19	0.052	0.564	0.608	0.586										
443																				
444	*Fluid Cat. Cracker*		*Cracked gasoline*																	
445	Post 199	F1	LT CC GASOLINE	1	B	4														
446	Post 199	F1	XLT CC GASOLINE	1	B	2														
447	Post 199	F2	LCC GASOLINE	1	A	3										0.73				
448	Post 199	F2	HCC GASOLINE	1	A	3										0.28				
449	Post 199	F3	CC GASOLINE	1	C	6				1.2						0.6				
450	Post 199	F3	LT CC GASOLINE	1	C	12	0.02	0.4	0.57							1.2				

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Refine[illegible]rocess and Product Stream Speciation — *For TAC[illegible]ew Only* — ND shown as half detect limit . [illegible]alics

	A	B	C	D	E	N	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Methanol	No. of Mins	No. of Maxs	MEK	No. of Mins	No. of Maxs	MTBE	No. of Mins	No. of Maxs	Naphthalene	No. of Mins	No. of Maxs	Phenol
	Count =	742	*Site Use Only*	1076	742	5404	1	Typ.	0	0	Typ.	8	7	Typ.	50	49	Typ.	3	2	Typ.
419	*Fluid Cat. Cracker*		*Light Cat. Gas Oil*																	
420	1990	F6	CCGO	1	B	3														
421	Sep-92	J1	17	1	A	4											0.735			
422	Sep-92	J2	11	2	A	10									0.451	0.522	0.4865			
423	Oct-92	J3	32	1	A	5											0.679			
424	Aug-92	J4	27	1	A	6											0.942			
425	Aug-92	J4	28	1	A	6											0.934			
426	Aug-92	J5	19	1	A	5											0.889			
427	Feb-92	P1	LCO	1	A	4		NP			NP			NP			0.28			NP
428	Oct-92	Q1,2,6,7	FCC heavy	4	B	6											4.1			
429	Jun-93	Q3	High HS LCC	2	A	6											ND			
430	Dec-89	Q2	Light Gasoline	3	B	16									<.1	0.1	0.08			
431	Jul-93	V1	FCC-CLGS	1	A	14		*0.0005*			NA			NA			0.64387			NA
432	Jul-93	V1	FCC-LCDGGP	1	A	14		*0.0007*			NA			NA			0.00107			NA
433	Sep-93	V2	FCC-LGO	1	A	14		NA			NA			NA			0.01914			NA
434	Mar-94	V3	TCC-LTCYC/OIL	1	A	10		*7E-05*			NA			NA			NA			NA
435	Nov-90	V4	FCC-LCGO	1	A	15		*5E-05*			NA			NA			0.69			NA
436	Nov-90	V4	FCC-LGSLN	1	A	15		*5E-05*			NA			NA			*5E-05*			NA
437	Nov-90	V4	FCC-HGSLN	1	A	15		*5E-05*			NA			NA			1.45			NA
438		W1	LCGO11	3	A	28									0.23	1.38	0.81			0.0015
439		W3	34	1	A	7											1.19			
440	Jan-88	Y1	R7400	1	B	7											0.01436			
441	Jan-88	Y2	R7300	1	B	7											0.101			
442	Jan-88	Y3	R7200/R7300/R7400	3	B	19									ND	0.016	0.011			
443																				
444	*Fluid Cat. Cracker*		*Cracked gasoline*																	
445	Post 199	F1	LT CC GASOLINE	1	B	4														
446	Post 199	F1	XLT CC GASOLINE	1	B	2														
447	Post 199	F2	LCC GASOLINE	1	A	3														
448	Post 199	F2	HCC GASOLINE	1	A	3														
449	Post 199	F3	CC GASOLINE	1	C	6														
450	Post 199	F3	LT CC GASOLINE	1	C	12											ND			

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	A	B	C	D	E	N	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	Styrene	No. of Mins	No. of Maxs	1,2,4 TMB	No. of Mins	No. of Maxs	2,2,4 TMP	No. of Mins	No. of Maxs	Toluene	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	6	6	Typ.	51	51	Typ.	12	12	Typ.	54	54	Typ.	53	86
419	*Fluid Cat. Cracker*		*Light Cat. Gas Oil*																	
420	1990	F6	CCGO	1	B	3												0.18		
421	Sep-92	J1	17	1	A	4						0.501						0.142		
422	Sep-92	J2	11	2	A	10				0.232	0.254	0.243						0.08	0.131	0.29
423	Oct-92	J3	32	1	A	5						0.44						0.216		
424	Aug-92	J4	27	1	A	6						0.614						0.242		
425	Aug-92	J4	28	1	A	6						0.625						0.189		
426	Aug-92	J5	19	1	A	5						0.225						0.1		
427	Feb-92	P1	LCO	1	A	4			NP			0.027			NP			NP		
428	Oct-92	Q1,2,6,7	FCC heavy	4	B	6						7.3			0.01			2.2		
429	Jun-93	Q3	High HS LCC	2	A	6						0.06			ND			5.86		
430	Dec-89	Q2	Light Gasoline	3	B	16				2.1	2.5	2.23				4.2	ND	4.5	6.5	6.8
431	Jul-93	V1	FCC-CLGS	1	A	14			NA			NA			0.00151			0.01581		
432	Jul-93	V1	FCC-LCDGGP	1	A	14			NA			NA			1.13107			1.56		
433	Sep-93	V2	FCC-LGO	1	A	14			NA			0.07774			0.00054			0.0086		
434	Mar-94	V3	TCC-LTCYC/OIL	1	A	10			NA			NA			NA			0.36058		
435	Nov-90	V4	FCC-LCGO	1	A	15			NA			0.57			*5E-05*			0.21		
436	Nov-90	V4	FCC-LGSLN	1	A	15			NA			0.56			0.15			3.67		
437	Nov-90	V4	FCC-HGSLN	1	A	15			NA			4.74			0.08			3.65		
438		W1	LCGO11	3	A	28	0.017	0.526	0.27	1.73	8.13	5.72				3.6	7.48	5.33	6.89	13.84
439		W3	34	1	A	7						3						6		
440	Jan-88	Y1	R7400	1	B	7						1.74259						2.53883		
441	Jan-88	Y2	R7300	1	B	7						1.889						3.362		
442	Jan-88	Y3	R7200/R7300/R7400	3	B	19				0.293	1.09	0.366				1.3	4.101	3.785	2.1	3.009
443																				
444	*Fluid Cat. Cracker*		*Cracked gasoline*																	
445	Post 199	F1	LT CC GASOLINE	1	B	4									1			5.5		
446	Post 199	F1	XLT CC GASOLINE	1	B	2												0.5		
447	Post 199	F2	LCC GASOLINE	1	A	3												4.4		
448	Post 199	F2	HCC GASOLINE	1	A	3												2.4		
449	Post 199	F3	CC GASOLINE	1	C	6						2.9						4.1		
450	Post 199	F3	LT CC GASOLINE	1	C	12						2.4			ND	4	4.4		2.3	3.2

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	A	B	C	D	E	N	BS	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Xylenes (mixed)	No. of Mins	No. of Maxs	Ethane	No. of Mins	No. of Maxs	Ethylene	No. of Mins	No. of Maxs	Propane	No. of Mins	No. of Maxs	Propylene	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	0	0	Typ.	1	1	Typ.	1	2	Typ.	2	2	Typ.	8
419	*Fluid Cat. Cracker*		*Light Cat. Gas Oil*																	
420	1990	F6	CCGO	1	B	3	0.4													
421	Sep-92	J1	17	1	A	4	0.355													
422	Sep-92	J2	11	2	A	10	0.2105													
423	Oct-92	J3	32	1	A	5	0.642													
424	Aug-92	J4	27	1	A	6	0.832													
425	Aug-92	J4	28	1	A	6	0.665													
426	Aug-92	J5	19	1	A	5	0.23													
427	Feb-92	P1	LCO	1	A	4	NP			NP			NP			NP			NP	
428	Oct-92	Q1,2,6,7	FCC heavy	4	B	6	13.8												ND	
429	Jun-93	Q3	High HS LCC	2	A	6	4.54													
430	Dec-89	Q2	Light Gasoline	3	B	16	6.67													
431	Jul-93	V1	FCC-CLGS	1	A	14	0.16694			NA			0.01032			*0.0002*			*0.0002*	
432	Jul-93	V1	FCC-LCDGGP	1	A	14	2.7552			NA			*0.0002*			*0.0002*			*0.0002*	
433	Sep-93	V2	FCC-LGO	1	A	14	0.04312			NA			*2E-05*			*2E-05*			*2E-05*	
434	Mar-94	V3	TCC-LTCYC/OIL	1	A	10	0			*1E-05*			*1E-05*			*1E-05*			*1E-05*	
435	Nov-90	V4	FCC-LCGO	1	A	15	0.64			NA			*5E-05*			0.02			*5E-05*	
436	Nov-90	V4	FCC-LGSLN	1	A	15	3.38			NA			*5E-05*			*5E-05*			*5E-05*	
437	Nov-90	V4	FCC-HGSLN	1	A	15	9.27			NA			*5E-05*			*5E-05*			*5E-05*	
438		W1	LCGO11	3	A	28	9.54													
439		W3	34	1	A	7	8.86													
440	Jan-88	Y1	R7400	1	B	7	2.73463													
441	Jan-88	Y2	R7300	1	B	7	5.251													
442	Jan-88	Y3	R7200/R7300/R7400	3	B	19	2.929													
443																				
444	*Fluid Cat. Cracker*		*Cracked gasoline*																	
445	Post 199	F1	LT CC GASOLINE	1	B	4	10.5													
446	Post 199	F1	XLT CC GASOLINE	1	B	2														
447	Post 199	F2	LCC GASOLINE	1	A	3														
448	Post 199	F2	HCC GASOLINE	1	A	3														
449	Post 199	F3	CC GASOLINE	1	C	6	7.1													
450	Post 199	F3	LT CC GASOLINE	1	C	12	*2.75*													

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	A	B	C	D	E	N	CH	CI
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Butane
2	Count =	742	*Site Use Only*	1076	742	5404	8	Typ.
419	*Fluid Cat. Cracker*		*Light Cat. Gas Oil*					
420	1990	F6	CCGO	1	B	3		
421	Sep-92	J1	17	1	A	4		
422	Sep-92	J2	11	2	A	10		
423	Oct-92	J3	32	1	A	5		
424	Aug-92	J4	27	1	A	6		
425	Aug-92	J4	28	1	A	6		
426	Aug-92	J5	19	1	A	5		
427	Feb-92	P1	LCO	1	A	4		NP
428	Oct-92	Q1,2,6,7	FCC heavy	4	B	6		
429	Jun-93	Q3	High HS LCC	2	A	6		
430	Dec-89	Q2	Light Gasoline	3	B	16		
431	Jul-93	V1	FCC-CLGS	1	A	14		*0.0002*
432	Jul-93	V1	FCC-LCDGGP	1	A	14		0.06267
433	Sep-93	V2	FCC-LGO	1	A	14		*2E-05*
434	Mar-94	V3	TCC-LTCYC/OIL	1	A	10		*1E-05*
435	Nov-90	V4	FCC-LCGO	1	A	15		0.01
436	Nov-90	V4	FCC-LGSLN	1	A	15		0.12
437	Nov-90	V4	FCC-HGSLN	1	A	15		*5E-05*
438		W1	LCGO11	3	A	28		
439		W3	34	1	A	7		
440	Jan-88	Y1	R7400	1	B	7		
441	Jan-88	Y2	R7300	1	B	7		
442	Jan-88	Y3	R7200/R7300/R7400	3	B	19		
443								
444	*Fluid Cat. Cracker*		*Cracked gasoline*					
445	Post 199	F1	LT CC GASOLINE	1	B	4		
446	Post 199	F1	XLT CC GASOLINE	1	B	2		
447	Post 199	F2	LCC GASOLINE	1	A	3		
448	Post 199	F2	HCC GASOLINE	1	A	3		
449	Post 199	F3	CC GASOLINE	1	C	6		
450	Post 199	F3	LT CC GASOLINE	1	C	12		

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	A	B	C	D	E	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	1,3 Butadiene	No. of Mins	No. of Maxs	Benzene	No. of Mins	No. of Maxs	Biphenyl	No. of Mins	No. of Maxs	Cresols (mixed)	No. of Mins	No. of Maxs
2	Count =	742	Site Use Only	1076	742	5404	4	5	Typ.	59	59	Typ.	4	4	Typ.	0	5	Typ.	34	35
451	Post 199	F3	MID CC NAPHTHA	1	C	6						0.66								
452	Post 199	F4	CCU L GASOLINE	1	A	4						3.2								
453	Post 199	F4	CCH GASOLINE	1	A	9				1.5	1.6									
454	1990	F6	LT. CC GASOLINE	1	B	4			*0.05*			2.6								
455	1990	F6	HVY. CC GASOLINE	1	B	3	ND	<0.1				0.1								
456	Post 199	F7	LT CC GASOLINE	1	B	6						2.12								
457	Post 199	F7	HVY CC GASOLINE	1	B	6						1.5								
458	Post 199	F7	CC GASOLINE UNT.	1	B	7						1.8								
459	Sep-92	J1	18	2	A	27				0.761	0.94	0.85								
460	Sep-92	J2	12	1	A	7			0.22177											
461	Oct-92	J3	33	1	A	6						1.665								
462	Oct-92	J3	34	1	A	3						1.519								
463	Oct-92	J3	35	1	A	7						0.676								
464	Oct-92	J3	36	1	A	7						0.591								
465	Aug-92	J4	29	1	A	10						0.799								
466	Aug-92	J5	20	1	A	10						0.85								
467	Feb-92	P1	FCC Rerun Btms	1	A	6			NP			0.08			NA			NP		
468	Oct-92	Q1,2,6,7	FCC lt 180-265	4	B	8			ND			0.59								
469	Oct-92	Q1,2,6,7	FCC lt 120-180	4	B	4			ND			3.09								
470	Oct-92	Q1,2,6,7	FCC light	4	B	8			ND			1.1								
471	Jun-93	Q3	LS LSR	2	A	5						0.51								
472	Jun-93	Q3	LS HSR	2	A	8						0.29								
473	Jul-93	V1	FCC-FR-DEC-OIL	1	A	16			*0.0001*	*0.0002*	*0.0002*	*0.0002*			NA			NA		
474	Jul-93	V1	FCC-RDG	1	A	14			*0.0003*			0.00164			NA			NA		
475	Jul-93	V1	FCC-FRD	1	A	14			*0.0002*			2.175			NA			NA		
476	Jul-93	V1	FCC-DEC4OVD/DBOG	1	A	16			*0.0002*	*2E-07*	*2E-07*	*3E-07*			NA			NA		
477	Sep-93	V2	FCC-DO	1	A	14			*2E-05*			0.00587			NA			NA		
478	Sep-93	V2	FCC-SFG	1	A	14			*4E-08*			5.6E-06			NA			NA		
479	Sep-93	V2	FCC-ROVHDV	1	A	14			4.4E-08			1.4E-05			NA			NA		
480	Sep-93	V2	FCC-ROVHDL	1	A	14			*3E-05*			0.2236			NA			NA		
481	Mar-94	V3	TCC-DEC4BTM	1	A	13			NA			1.25165			NA			NA		
482	1987	W1	1003	1	A	12						0.9221								

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	A	B	C	D	E	N	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Cumene	No. of Mins	No. of Maxs	Ethylbenzene	No. of Mins	No. of Maxs	Ethylene Glycol	No. of Mins	No. of Maxs	n-Hexane	No. of Mins	No. of Maxs	Hydrogen Sulfide	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	49	49	Typ.	0	1	Typ.	22	25	Typ.	2	2	Typ.	2
451	Post 199	F3	MID CC NAPHTHA	1	C	6	0.075			0.99										
452	Post 199	F4	CCU L GASOLINE	1	A	4				0.7										
453	Post 199	F4	CCH GASOLINE	1	A	9				1.7										
454	1990	F6	LT. CC GASOLINE	1	B	4														
455	1990	F6	HVY. CC GASOLINE	1	B	3														
456	Post 199	F7	LT CC GASOLINE	1	B	6				1.32						1.58				
457	Post 199	F7	HVY CC GASOLINE	1	B	6				1.5						1.6				
458	Post 199	F7	CC GASOLINE UNT.	1	B	7				1.4						1.6				
459	Sep-92	J1	18	2	A	27		0.53	0.97	0.75				0.76	1.02	0.89				
460	Sep-92	J2	12	1	A	7										0.30021				
461	Oct-92	J3	33	1	A	6				1.673						0.889				
462	Oct-92	J3	34	1	A	3										1.154				
463	Oct-92	J3	35	1	A	7				1.886						0.238				
464	Oct-92	J3	36	1	A	7				1.865						0.259				
465	Aug-92	J4	29	1	A	10				1.276						0.553				
466	Aug-92	J5	20	1	A	10				0.815						0.744				
467	Feb-92	P1	FCC Rerun Btms	1	A	6	NA			0.17			NP			NA			NA	
468	Oct-92	Q1,2,6,7	FCC lt 180-265	4	B	8	ND			1.05						0.26				
469	Oct-92	Q1,2,6,7	FCC lt 120-180	4	B	4	ND			ND						4.41				
470	Oct-92	Q1,2,6,7	FCC light	4	B	8	1.8			1.2						2				
471	Jun-93	Q3	LS LSR	2	A	5				ND						1.132				
472	Jun-93	Q3	LS HSR	2	A	8				0.27						5.2				
473	Jul-93	V1	FCC-FR-DEC-OIL	1	A	16	*0.0002*			*0.0002*			NA			*0.0001*			NA	
474	Jul-93	V1	FCC-RDG	1	A	14	*4E-07*			0.00109			NA			0.00073			NA	
475	Jul-93	V1	FCC-FRD	1	A	14	0.06			1.18571			NA			0.56357			NA	
476	Jul-93	V1	FCC-DEC4OVD/DBOG	1	A	16	*3E-07*			5.9E-06			NA			*2E-07*			NA	
477	Sep-93	V2	FCC-DO	1	A	14	0.00028			0.0044			NA			0.00257			NA	
478	Sep-93	V2	FCC-SFG	1	A	14	*4E-07*			*3E-07*			NA			*4E-07*			NA	
479	Sep-93	V2	FCC-ROVHDV	1	A	14	*4E-07*			*4E-07*			NA			1.4E-05			NA	
480	Sep-93	V2	FCC-ROVHDL	1	A	14	0.0168			0.24773			NA			0.05373			NA	
481	Mar-94	V3	TCC-DEC4BTM	1	A	13	0.48514			1.05478			NA			0.98919			NA	
482	1987	W1	1003	1	A	12	0.0132			0.7089						1.0432				

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	A	B	C	D	E	N	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Methanol	No. of Mins	No. of Maxs	MEK	No. of Mins	No. of Maxs	MTBE	No. of Mins	No. of Maxs	Naphthalene	No. of Mins	No. of Maxs	Phenol
2	Count =	742	*Site Use Only*	1076	742	5404	1	Typ.	0	0	Typ.	8	7	Typ.	50	49	Typ.	3	2	Typ.
451	Post 199	F3	MID CC NAPHTHA	1	C	6											0.7			
452	Post 199	F4	CCU L GASOLINE	1	A	4														
453	Post 199	F4	CCH GASOLINE	1	A	9														
454	1990	F6	LT. CC GASOLINE	1	B	4														
455	1990	F6	HVY. CC GASOLINE	1	B	3														
456	Post 199	F7	LT CC GASOLINE	1	B	6											0.91			
457	Post 199	F7	HVY CC GASOLINE	1	B	6											1.8			
458	Post 199	F7	CC GASOLINE UNT.	1	B	7											1.3			2.2
459	Sep-92	J1	18	2	A	27									0.17	0.22	0.195			
460	Sep-92	J2	12	1	A	7														
461	Oct-92	J3	33	1	A	6														
462	Oct-92	J3	34	1	A	3														
463	Oct-92	J3	35	1	A	7											1.061			
464	Oct-92	J3	36	1	A	7											1.149			
465	Aug-92	J4	29	1	A	10											0.698			
466	Aug-92	J5	20	1	A	10											0.412			
467	Feb-92	P1	FCC Rerun Btms	1	A	6		NP			NP			NP			0.13			NP
468	Oct-92	Q1,2,6,7	FCC lt 180-265	4	B	8											0.01			
469	Oct-92	Q1,2,6,7	FCC lt 120-180	4	B	4											ND			
470	Oct-92	Q1,2,6,7	FCC light	4	B	8											ND			
471	Jun-93	Q3	LS LSR	2	A	5											ND			
472	Jun-93	Q3	LS HSR	2	A	8											0.01			
473	Jul-93	V1	FCC-FR-DEC-OIL	1	A	16		*0.0005*			NA			NA			*0.0002*			NA
474	Jul-93	V1	FCC-RDG	1	A	14		*0.0009*			NA			NA			*4E-07*			NA
475	Jul-93	V1	FCC-FRD	1	A	14		*0.0007*			NA			NA			0.85571			NA
476	Jul-93	V1	FCC-DEC4OVD/DBOG	1	A	16		*0.0007*			NA			NA			*3E-07*			NA
477	Sep-93	V2	FCC-DO	1	A	14		NA			NA			NA			0.00211			NA
478	Sep-93	V2	FCC-SFG	1	A	14		NA			NA			NA			*8E-07*			NA
479	Sep-93	V2	FCC-ROVHDV	1	A	14		NA			NA			NA			*9E-07*			NA
480	Sep-93	V2	FCC-ROVHDL	1	A	14		NA			NA			NA			0.07427			NA
481	Mar-94	V3	TCC-DEC4BTM	1	A	13		*3E-05*			NA			NA			0.03893			NA
482	1987	W1	1003	1	A	12					0.0029			0.002			0.0819			0.0057

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Refine[illegible]rocess and Product Stream Speciation — *For TAC[illegible]ew Only* — ND shown as half detect limit [illegible]alics

	A	B	C	D	E	N	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	Styrene	No. of Mins	No. of Maxs	1,2,4 TMB	No. of Mins	No. of Maxs	2,2,4 TMP	No. of Mins	No. of Maxs	Toluene	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	6	6	Typ.	51	51	Typ.	12	12	Typ.	54	54	Typ.	53	86
451	Post 199	F3	MID CC NAPHTHA	1	C	6												3.55		
452	Post 199	F4	CCU L GASOLINE	1	A	4												3.8		
453	Post 199	F4	CCH GASOLINE	1	A	9										4	4.5	*4.25*	9	9.1
454	1990	F6	LT. CC GASOLINE	1	B	4												6.9		
455	1990	F6	HVY. CC GASOLINE	1	B	3												5.3		
456	Post 199	F7	LT CC GASOLINE	1	B	6												3.6		
457	Post 199	F7	HVY CC GASOLINE	1	B	6												3.8		
458	Post 199	F7	CC GASOLINE UNT.	1	B	7												3.7		
459	Sep-92	J1	18	2	A	27						0.8			0.09	2.43	3.19	2.81	2.59	4.9
460	Sep-92	J2	12	1	A	7														
461	Oct-92	J3	33	1	A	6						0.896						9.341		
462	Oct-92	J3	34	1	A	3												0.511		
463	Oct-92	J3	35	1	A	7						3.775						6.022		
464	Oct-92	J3	36	1	A	7						4.124						5.367		
465	Aug-92	J4	29	1	A	10						2.178						4.255		
466	Aug-92	J5	20	1	A	10						1.748						3.889		
467	Feb-92	P1	FCC Rerun Btms	1	A	6			NP			0.31			NA			0.44		
468	Oct-92	Q1,2,6,7	FCC lt 180-265	4	B	8						0.04			0.05			1.538		
469	Oct-92	Q1,2,6,7	FCC lt 120-180	4	B	4						ND			0.01			0.05		
470	Oct-92	Q1,2,6,7	FCC light	4	B	8						0.9			0.02			3.5		
471	Jun-93	Q3	LS LSR	2	A	5						0.01			ND			0.69		
472	Jun-93	Q3	LS HSR	2	A	8						0.25			0.06			2.55		
473	Jul-93	V1	FCC-FR-DEC-OIL	1	A	16			NA			NA			*0.0002*			*0.0002*		
474	Jul-93	V1	FCC-RDG	1	A	14			NA			NA			0.00073			0.00091		
475	Jul-93	V1	FCC-FRD	1	A	14			NA			NA			1.18914			1.649		
476	Jul-93	V1	FCC-DEC4OVD/DBOG	1	A	16			NA			NA			*3E-07*			*3E-07*		
477	Sep-93	V2	FCC-DO	1	A	14			NA			0.01844			0.00303			0.01972		
478	Sep-93	V2	FCC-SFG	1	A	14			NA			*5E-07*			*6E-07*			9.8E-06		
479	Sep-93	V2	FCC-ROVHDV	1	A	14			NA			*5E-07*			*7E-07*			1E-05		
480	Sep-93	V2	FCC-ROVHDL	1	A	14			NA			1.14133			0.02453			0.7008		
481	Mar-94	V3	TCC-DEC4BTM	1	A	13			NA			NA			NA			3.81224		
482	1987	W1	1003	1	A	12			0.0056			1.773						3.5772		

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Refine rocess and Product Stream Speciation — For TAC . ew Only — ND shown as half detect limit . alics

	A	B	C	D	E	N	BS	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Xylenes (mixed)	No. of Mins	No. of Maxs	Ethane	No. of Mins	No. of Maxs	Ethylene	No. of Mins	No. of Maxs	Propane	No. of Mins	No. of Maxs	Propylene	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	0	0	Typ.	1	1	Typ.	1	2	Typ.	2	2	Typ.	8
451	Post 199	F3	MID CC NAPHTHA	1	C	6	6.3													
452	Post 199	F4	CCU L GASOLINE	1	A	4	3													
453	Post 199	F4	CCH GASOLINE	1	A	9	*9.05*													
454	1990	F6	LT. CC GASOLINE	1	B	4	0.44													
455	1990	F6	HVY. CC GASOLINE	1	B	3	16													
456	Post 199	F7	LT CC GASOLINE	1	B	6	6.4													
457	Post 199	F7	HVY CC GASOLINE	1	B	6	8													
458	Post 199	F7	CC GASOLINE UNT.	1	B	7	7.2													
459	Sep-92	J1	18	2	A	27	3.745									0.26	0.558	0.57	0.566	0.76
460	Sep-92	J2	12	1	A	7				4.71994			4.02926			6.17211			20.0998	
461	Oct-92	J3	33	1	A	6	7.302													
462	Oct-92	J3	34	1	A	3														
463	Oct-92	J3	35	1	A	7	9.714													
464	Oct-92	J3	36	1	A	7	10.12													
465	Aug-92	J4	29	1	A	10	7.232									0.156			0.42	
466	Aug-92	J5	20	1	A	10	4.946									0.092			0.142	
467	Feb-92	P1	FCC Rerun Btms	1	A	6	1			NP			NP			NP			NP	
468	Oct-92	Q1,2,6,7	FCC lt 180-265	4	B	8	3.04												ND	
469	Oct-92	Q1,2,6,7	FCC lt 120-180	4	B	4	ND												ND	
470	Oct-92	Q1,2,6,7	FCC light	4	B	8	4.4												ND	
471	Jun-93	Q3	LS LSR	2	A	5	0.02													
472	Jun-93	Q3	LS HSR	2	A	8	2.63													
473	Jul-93	V1	FCC-FR-DEC-OIL	1	A	16	0.00046			NA			*0.0001*			*0.0001*			*0.0001*	
474	Jul-93	V1	FCC-RDG	1	A	14	7.3E-07			NA			0.006			0.01073			0.02891	
475	Jul-93	V1	FCC-FRD	1	A	14	3.84857			NA			*0.0002*			*0.0002*			*0.0002*	
476	Jul-93	V1	FCC-DEC4OVD/DBOG	1	A	16	5.7E-07			NA			*0.0002*			*0.0002*			*0.0002*	
477	Sep-93	V2	FCC-DO	1	A	14	0.02459			NA			*1E-05*			*1E-05*			*1E-05*	
478	Sep-93	V2	FCC-SFG	1	A	14	7.6E-07			NA			*3E-08*			*3E-08*			0.00178	
479	Sep-93	V2	FCC-ROVHDV	1	A	14	8.4E-07			NA			*3E-08*			*3E-08*			5.3E-06	
480	Sep-93	V2	FCC-ROVHDL	1	A	14	1.36933			NA			*2E-05*			*2E-05*			0.1792	
481	Mar-94	V3	TCC-DEC4BTM	1	A	13	5.718			*7E-06*			*7E-06*			*7E-06*			*7E-06*	
482	1987	W1	1003	1	A	12	3.8069													

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	A	B	C	D	E	N	CH	CI
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Butane
2	Count =	742	*Site Use Only*	1076	742	5404	8	Typ.
451	Post 199	F3	MID CC NAPHTHA	1	C	6		
452	Post 199	F4	CCU L GASOLINE	1	A	4		
453	Post 199	F4	CCH GASOLINE	1	A	9		
454	1990	F6	LT. CC GASOLINE	1	B	4		
455	1990	F6	HVY. CC GASOLINE	1	B	3		
456	Post 199	F7	LT CC GASOLINE	1	B	6		
457	Post 199	F7	HVY CC GASOLINE	1	B	6		
458	Post 199	F7	CC GASOLINE UNT.	1	B	7		
459	Sep-92	J1	18	2	A	27	1.82	1.29
460	Sep-92	J2	12	1	A	7		3.21561
461	Oct-92	J3	33	1	A	6		
462	Oct-92	J3	34	1	A	3		
463	Oct-92	J3	35	1	A	7		
464	Oct-92	J3	36	1	A	7		
465	Aug-92	J4	29	1	A	10		0.533
466	Aug-92	J5	20	1	A	10		0.991
467	Feb-92	P1	FCC Rerun Btms	1	A	6		NA
468	Oct-92	Q1,2,6,7	FCC lt 180-265	4	B	8		
469	Oct-92	Q1,2,6,7	FCC lt 120-180	4	B	4		
470	Oct-92	Q1,2,6,7	FCC light	4	B	8		
471	Jun-93	Q3	LS LSR	2	A	5		
472	Jun-93	Q3	LS HSR	2	A	8		
473	Jul-93	V1	FCC-FR-DEC-OIL	1	A	16		*0.0001*
474	Jul-93	V1	FCC-RDG	1	A	14		0.00582
475	Jul-93	V1	FCC-FRD	1	A	14		0.16543
476	Jul-93	V1	FCC-DEC4OVD/DBOG	1	A	16		*0.0002*
477	Sep-93	V2	FCC-DO	1	A	14		0.00624
478	Sep-93	V2	FCC-SFG	1	A	14		1.6E-05
479	Sep-93	V2	FCC-ROVHDV	1	A	14		*3E-08*
480	Sep-93	V2	FCC-ROVHDL	1	A	14		0.08133
481	Mar-94	V3	TCC-DEC4BTM	1	A	13		0.23059
482	1987	W1	1003	1	A	12		

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	A	B	C	D	E	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	1,3 Butadiene	No. of Mins	No. of Maxs	Benzene	No. of Mins	No. of Maxs	Biphenyl	No. of Mins	No. of Maxs	Cresols (mixed)	No. of Mins	No. of Maxs
2	Count =	742	Site Use Only	1076	742	5404	4	5	Typ.	59	59	Typ.	4	4	Typ.	0	5	Typ.	34	35
483	Apr-88	W1	8804	1	A	6						0.42								
484	Jun-05	W1	87-588	1	A	7						1.67								
485	Jun-05	W1	87-1004	1	A	7						0.5								
486	Jan-88	Y1	R6100	1	B	7						0.76479								
487		Y2	R6100	1	B	7						0.58872								
488																				
489	*Cracked Gas Plant Unsat. Gas*																			
490	Post 199	F2	G. FRACT	1	B	4			1.1			3.5								
491	Post 199	F4	UP TO C4	50	A	1			0.04											
492	Sep-92	J1	19	1	A	7			0											
493	Sep-92	J2	13	1	A	7			0											
494	Oct-92	J3	37	1	A	6														
495	Sep-93	V2	C3SPLITFEED	1	A	13			*5E-08*			2.5E-06			NA			NA		
496																				
497	*Cracked Gas Plant Fuel Gas*																			
498	Post 199	F3	CCU LGO	1	C	4														
499	Sep-92	J1	20	1	A	5														
500	Oct-92	J3	38	1	A	6														
501	Aug-92	J4	30	1	A	7			0.05644											
502	Aug-92	J5	21	1	A	5														
503	Oct-90	P1	Absorber Rel. to Fuel	1	B	3			ND			NP			NP			NP		
504	Oct-92	Q1,2,6,7	Gas C1-C4	4	B	1			ND			ND								
505	Jan-88	Y2	R1400/R1500	2	B	4	0.33	0.39	0.36											
506	Jan-88	Y3	R1400/R1500	2	C	5	0.04	0.16	0.1											
507																				
508	*Cracked Gas Plant Sour Gas*																			
509	Aug-92	J5	22	1	A	6														
510	Nov-90	P1	Fuel Gas SFIA	1	A	10			0.025			0.0275			NP			NP		
511	Jan-88	Y1	R1700	1	C	2			0.61											
512	Jan-88	Y2	R1700	1	C	2			0.37											
513																				
514	*Cracked Gas Plant Olefins*																			

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Refinery Process and Product Stream Speciation — For TAC Review Only — ND shown as half detect limit — Italics

	A	B	C	D	E	N	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Cumene	No. of Mins	No. of Maxs	Ethylbenzene	No. of Mins	No. of Maxs	Ethylene Gycol	No. of Mins	No. of Maxs	n-Hexane	No. of Mins	No. of Maxs	Hydrogen Sulfide	No. of Mins
2	Count =	742	Site Use Only	1076	742	5404	Typ.	49	49	Typ.	0	1	Typ.	22	25	Typ.	2	2	Typ.	2
483	Apr-88	W1	8804	1	A	6				1.53						0.43				
484	Jun-05	W1	87-588	1	A	7	0.03			1.4						1.82				
485	Jun-05	W1	87-1004	1	A	7	0.07			1.8						0.3				
486	Jan-88	Y1	R6100	1	B	7	0.106			1.07339										
487		Y2	R6100	1	B	7	0.0397			0.88992										
488																				
489	*Cracked Gas Plant Unsat. Gas*																			
490	Post 199	F2	G. FRACT	1	B	4				2.2										
491	Post 199	F4	UP TO C4	50	A	1														
492	Sep-92	J1	19	1	A	7														
493	Sep-92	J2	13	1	A	7										0.27987				
494	Oct-92	J3	37	1	A	6										0.06289				
495	Sep-93	V2	C3SPLITFEED	1	A	13	5.3E-06			*5E-07*			NA			0.04421				
496																2.2E-05			NA	
497	*Cracked Gas Plant Fuel Gas*																			
498	Post 199	F3	CCU LGO	1	C	4				0.01										
499	Sep-92	J1	20	1	A	5														
500	Oct-92	J3	38	1	A	6										0.87913				
501	Aug-92	J4	30	1	A	7										0.03913				
502	Aug-92	J5	21	1	A	5														
503	Oct-90	P1	Absorber Rel. to Fuel	1	B	3	NP			NP			NP			NP			0.006	
504	Oct-92	Q1,2,6,7	Gas C1-C4	4	B	1	ND			ND						ND				
505	Jan-88	Y2	R1400/R1500	2	B	4											ND	ND	*0.001*	
506	Jan-88	Y3	R1400/R1500	2	C	5											ND	21.71	21.71	
507																				
508	*Cracked Gas Plant Sour Gas*																			
509	Aug-92	J5	22	1	A	6										2.7621				
510	Nov-90	P1	Fuel Gas SFIA	1	A	10	NP			NP			NP			0.22			0.0034	
511	Jan-88	Y1	R1700	1	C	2													*0.001*	
512	Jan-88	Y2	R1700	1	C	2													7.13	
513																				
514	*Cracked Gas Plant Olefins*																			

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	A	B	C	D	E	N	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Methanol	No. of Mins	No. of Maxs	MEK	No. of Mins	No. of Maxs	MTBE	No. of Mins	No. of Maxs	Naphthalene	No. of Mins	No. of Maxs	Phenol
2	Count =	742	Site Use Only	1076	742	5404	1	Typ.	0	0	Typ.	8	7	Typ.	50	49	Typ.	3	2	Typ.
483	Apr-88	W1	8804	1	A	6														
484	Jun-05	W1	87-588	1	A	7														
485	Jun-05	W1	87-1004	1	A	7														
486	Jan-88	Y1	R6100	1	B	7											0.51389			
487		Y2	R6100	1	B	7											0.17798			
488																				
489	*Cracked Gas Plant Unsat. Gas*																			
490	Post 199	F2	G. FRACT	1	B	4														
491	Post 199	F4	UP TO C4	50	A	1														
492	Sep-92	J1	19	1	A	7														
493	Sep-92	J2	13	1	A	7														
494	Oct-92	J3	37	1	A	6														
495	Sep-93	V2	C3SPLITFEED	1	A	13		NA			NA			NA			*1E-06*			NA
496																				
497	*Cracked Gas Plant Fuel Gas*																			
498	Post 199	F3	CCU LGO	1	C	4														
499	Sep-92	J1	20	1	A	5														
500	Oct-92	J3	38	1	A	6														
501	Aug-92	J4	30	1	A	7														
502	Aug-92	J5	21	1	A	5														
503	Oct-90	P1	Absorber Rel. to Fuel	1	B	3		NP			NP			NP			NP			NP
504	Oct-92	Q1,2,6,7	Gas C1-C4	4	B	1											ND			
505	Jan-88	Y2	R1400/R1500	2	B	4														
506	Jan-88	Y3	R1400/R1500	2	C	5														
507																				
508	*Cracked Gas Plant Sour Gas*																			
509	Aug-92	J5	22	1	A	6														
510	Nov-90	P1	Fuel Gas SFIA	1	A	10		NP			NP			NP			NP			NP
511	Jan-88	Y1	R1700	1	C	2														
512	Jan-88	Y2	R1700	1	C	2														
513																				
514	*Cracked Gas Plant Olefins*																			

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	A	B	C	D	E	N	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	Styrene	No. of Mins	No. of Maxs	1,2,4 TMB	No. of Mins	No. of Maxs	2,2,4 TMP	No. of Mins	No. of Maxs	Toluene	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	6	6	Typ.	51	51	Typ.	12	12	Typ.	54	54	Typ.	53	85
483	Apr-88	W1	8804	1	A	6						7.3						3.6		
484	Jun-05	W1	87-588	1	A	7						1.73						7.48		
485	Jun-05	W1	87-1004	1	A	7						8.13						4.91		
486	Jan-88	Y1	R6100	1	B	7						2.1602						3.01892		
487		Y2	R6100	1	B	7						2.13582						2.95728		
488																				
489	*Cracked Gas Plant Unsat. Gas*																			
490	Post 199	F2	G. FRACT	1	B	4												3.2		
491	Post 199	F4	UP TO C4	50	A	1														
492	Sep-92	J1	19	1	A	7														
493	Sep-92	J2	13	1	A	7														
494	Oct-92	J3	37	1	A	6														
495	Sep-93	V2	C3SPLITFEED	1	A	13			NA			6E-07			8.1E-07			1.3E-05		
496																				
497	*Cracked Gas Plant Fuel Gas*																			
498	Post 199	F3	CCU LGO	1	C	4									0.03			0.01		
499	Sep-92	J1	20	1	A	5														
500	Oct-92	J3	38	1	A	6														
501	Aug-92	J4	30	1	A	7														
502	Aug-92	J5	21.	1	A	5														
503	Oct-90	P1	Absorber Rel. to Fuel	1	B	3			NP			NP			NP			NP		
504	Oct-92	Q1,2,6,7	Gas C1-C4	4	B	1						ND			ND			ND		
505	Jan-88	Y2	R1400/R1500	2	B	4														
506	Jan-88	Y3	R1400/R1500	2	C	5														
507																				
508	*Cracked Gas Plant Sour Gas*																			
509	Aug-92	J5	22	1	A	6														
510	Nov-90	P1	Fuel Gas SFIA	1	A	10			NP			NP			NA			0.0275		
511	Jan-88	Y1	R1700	1	C	2														
512	Jan-88	Y2	R1700	1	C	2														
513																				
514	*Cracked Gas Plant Olefins*																			

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	A	B	C	D	E	N	BS	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Xylenes (mixed)	No. of Mins	No. of Maxs	Ethane	No. of Mins	No. of Maxs	Ethylene	No. of Mins	No. of Maxs	Propane	No. of Mins	No. of Maxs	Propylene	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	0	0	Typ.	1	1	Typ.	1	2	Typ.	2	2	Typ.	8
483	Apr-88	W1	8804	1	A	6	7.9													
484	Jun-05	W1	87-588	1	A	7	6.91													
485	Jun-05	W1	87-1004	1	A	7	13.83													
486	Jan-88	Y1	R6100	1	B	7	4.66926													
487		Y2	R6100	1	B	7	5.0931													
488																				
489	*Cracked Gas Plant Unsat. Gas*																			
490	Post 199	F2	G. FRACT	1	B	4														
491	Post 199	F4	UP TO C4	50	A	1														
492	Sep-92	J1	19	1	A	7				5.79396			5.82984			8.0796			20.6916	
493	Sep-92	J2	13	1	A	7				9.38148			10.0307			6.83911			23.8922	
494	Oct-92	J3	37	1	A	6				25.9302			24.7495			0.7013			2.46085	
495	Sep-93	V2	C3SPLITFEED	1	A	13	1.7E-05			NA			*4E-08*			NA			0.00465	
496																				
497	*Cracked Gas Plant Fuel Gas*																			
498	Post 199	F3	CCU LGO	1	C	4	0.07													
499	Sep-92	J1	20	1	A	5				24.5647			20.198			7.0721			6.64	
500	Oct-92	J3	38	1	A	6				26.5912			2.70046			8.91304			4.31946	
501	Aug-92	J4	30	1	A	7				10.6657			19.1524			0.51268			2.3587	
502	Aug-92	J5	21	1	A	5				26.0383			17.4951			1.3326			3.7948	
503	Oct-90	P1	Absorber Rel. to Fuel	1	B	3	NP			NA			12			NA			6.5	
504	Oct-92	Q1,2,6,7	Gas C1-C4	4	B	1	ND												7.2	
505	Jan-88	Y2	R1400/R1500	2	B	4														
506	Jan-88	Y3	R1400/R1500	2	C	5														
507																				
508	*Cracked Gas Plant Sour Gas*																			
509	Aug-92	J5	22	1	A	6				8.94526			0.37986			15.9458			1.76657	
510	Nov-90	P1	Fuel Gas SFIA	1	A	10	NP			18.32			5.355			21.113			9.31	
511	Jan-88	Y1	R1700	1	C	2														
512	Jan-88	Y2	R1700	1	C	2														
513																				
514	*Cracked Gas Plant Olefins*																			

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	A	B	C	D	E	N	CH	CI
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Butane
2	Count =	742	Site Use Only	1076	742	5404	8	Typ.
483	Apr-88	W1	8804	1	A	6		
484	Jun-05	W1	87-588	1	A	7		
485	Jun-05	W1	87-1004	1	A	7		
486	Jan-88	Y1	R6100	1	B	7		
487		Y2	R6100	1	B	7		
488								
489	*Cracked Gas Plant Unsat. Gas*							
490	Post 199	F2	G. FRACT	1	B	4		
491	Post 199	F4	UP TO C4	50	A	1		
492	Sep-92	J1	19	1	A	7		3.53892
493	Sep-92	J2	13	1	A	7		1.76025
494	Oct-92	J3	37	1	A	6		0.26833
495	Sep-93	V2	C3SPLITFEED	1	A	13		4.8E-05
496								
497	*Cracked Gas Plant Fuel Gas*							
498	Post 199	F3	CCU LGO	1	C	4		
499	Sep-92	J1	20	1	A	5		0.65791
500	Oct-92	J3	38	1	A	6		0.85228
501	Aug-92	J4	30	1	A	7		0.04897
502	Aug-92	J5	21	1	A	5		0.02744
503	Oct-90	P1	Absorber Rel. to Fuel	1	B	3		NA
504	Oct-92	Q1,2,6,7	Gas C1-C4	4	B	1		
505	Jan-88	Y2	R1400/R1500	2	B	4		
506	Jan-88	Y3	R1400/R1500	2	C	5		
507								
508	*Cracked Gas Plant Sour Gas*							
509	Aug-92	J5	22	1	A	6		7.16246
510	Nov-90	P1	Fuel Gas SFIA	1	A	10		5.4725
511	Jan-88	Y1	R1700	1	C	2		
512	Jan-88	Y2	R1700	1	C	2		
513								
514	*Cracked Gas Plant Olefins*							

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	A	B	C	D	E	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	1,3 Butadiene	No. of Mins	No. of Maxs	Benzene	No. of Mins	No. of Maxs	Biphenyl	No. of Mins	No. of Maxs	Cresols (mixed)	No. of Mins	No. of Maxs
2	Count =	742	Site Use Only	1076	742	5404	4	6	Typ.	59	59	Typ.	4	4	Typ.	0	6	Typ.	34	35
515	Sep-92	J1	21	1	A	6														
516	Sep-92	J2	14	1	A	5			0.58073											
517	Oct-92	J3	39	1	A	6			0.24076											
518	Aug-92	J4	31	1	A	3														
519	Aug-92	J4	32	1	A	3														
520	Aug-92	J5	23	1	A	6														
521	Sep-93	V2	C3SPLITBTM	1	A	13			*2E-08*			7.5E-06			NA			NA		
522	Jan-88	Y1	R1800	1	C	1			0.38											
523	Jan-88	Y2	R1800	1	C	0			ND											
524	Jan-88	Y3	R1802	1	C	1			11.27											
525																				
526	*Hydrodesulfur'zn*		*Naphtha*																	
527	Sep-92	J2	15	1	A	9						0.618								
528	Oct-92	J3	40	1	A	9						0.606								
529	Aug-92	J5	24	1	A	8						0.661								
530	Oct-90	P1	Desul Prod/Lt Hydro	1	A	4			NP			0.71			NA			NP		
531	Oct-92	Q1,2,6,7	HF FCC lt 120	4	B	1			ND			0.83								
532	Dec-89	Q2	Penhex 861 TK	4	B	11				1.4	1.8	0.87							ND	<.1
533	Dec-89	Q2	Pentane	4	B	11				0.3	1.1	1.7							ND	<.1
534	Jan-88	Y3	70910	1	B	7						*0.0015*								
535																				
536	*Hydrodesulfur'zn*		*Jet / Kero*																	
537	Oct-92	J3	41	1	A	4									0.14					
538	Oct-90	P1	Jet Product	1	A	5			NP			NP			NA			NP		
539	Oct-92	Q1,2,6,7	HF FCC lt 180	4	B	7			ND			0.39								
540	Jan-88	Y2	00406	1	B	6						ND								
541	Jan-88	Y3	00410/00422	2	B	21				0.002	0.002	0.002							0.029	0.03
542																				
543	*Hydrodesulfur'zn*		*Diesel*																	
544	Oct-92	J3	42	1	A	3									0.336					
545	Aug-92	J4	33	1	A	5									0.195					
546	Oct-90	P1	Desulf Prod/Midbarrel	1	A	3			NP			NP			NA			ND		

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	A	B	C	D	E	N	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Cumene	No. of Mins	No. of Maxs	Ethylbenzene	No. of Mins	No. of Maxs	Ethylene Glycol	No. of Mins	No. of Maxs	n-Hexane	No. of Mins	No. of Maxs	Hydrogen Sulfide	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	49	49	Typ.	0	1	Typ.	22	25	Typ.	2	2	Typ.	2
15	Sep-92	J1	21	1	A	5														
516	Sep-92	J2	14	1	A	5										0.09249				
517	Oct-92	J3	39	1	A	6										0.01692				
518	Aug-92	J4	31	1	A	3										0.39889				
519	Aug-92	J4	32	1	A	3										0.12392				
520	Aug-92	J5	23	1	A	6										0.23184				
521	Sep-93	V2	C3SPLITBTM	1	A	13	*2E-07*			*2E-07*			NA			*2E-07*			NA	
522	Jan-88	Y1	R1800	1	C	1													*ND*	
523	Jan-88	Y2	R1800	1	C	0													*ND*	
524	Jan-88	Y3	R1802	1	C	1													*ND*	
525																				
526	*Hydrodesulfur'zn*		*Naphtha*																	
527	Sep-92	J2	15	1	A	9	0.132			0.972						1.983				
528	Oct-92	J3	40	1	A	9	0.166			1.106						2.697				
529	Aug-92	J5	24	1	A	8	0.108			0.643						2.864				
530	Oct-90	P1	Desul Prod/Lt Hydro	1	A	4	NA			1.11			NP			NA			NP	
531	Oct-92	Q1,2,6,7	HF FCC lt 120	4	B	1	ND			ND						ND				
532	Dec-89	Q2	Penhex 861 TK	4	B	11	0.04	<.1	<.1	0.05										
533	Dec-89	Q2	Pentane	4	B	11	0.01	ND	<.1	0.01										
534	Jan-88	Y3	70910	1	B	7	*0.0015*			*0.0015*										
535																				
536	*Hydrodesulfur'zn*		*Jet / Kero*																	
537	Oct-92	J3	41	1	A	4														
538	Oct-90	P1	Jet Product	1	A	5	NA			0.02			NP			NA			NP	
539	Oct-92	Q1,2,6,7	HF FCC lt 180	4	B	7	0.02			0.51						0.96				
540	Jan-88	Y2	00406	1	B	6	0.04663			0.08571										
541	Jan-88	Y3	00410/00422	2	B	21	0.029	0.031	0.032	0.032										
542																				
543	*Hydrodesulfur'zn*		*Diesel*																	
544	Oct-92	J3	42	1	A	3														
545	Aug-92	J4	33	1	A	5														
546	Oct-90	P1	Desulf Prod/Midbarrel	1	A	3	NA			0.002			NP			NP			NP	

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	A	B	C	D	E	N	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Methanol	No. of Mins	No. of Maxs	MEK	No. of Mins	No. of Maxs	MTBE	No. of Mins	No. of Maxs	Naphthalene	No. of Mins	No. of Maxs	Phenol
2	Count =	742	*Site Use Only*	1076	742	5404	1	Typ.	0	0	Typ.	8	7	Typ.	50	49	Typ.	3	2	Typ.
515	Sep-92	J1	21	1	A	5														
516	Sep-92	J2	14	1	A	5														
517	Oct-92	J3	39	1	A	6														
518	Aug-92	J4	31	1	A	3														
519	Aug-92	J4	32	1	A	3														
520	Aug-92	J5	23	1	A	6														
521	Sep-93	V2	C3SPLITBTM	1	A	13		NA			NA			NA			*5E-07*			NA
522	Jan-88	Y1	R1800	1	C	1														
523	Jan-88	Y2	R1800	1	C	0														
524	Jan-88	Y3	R1802	1	C	1														
525																				
526	*Hydrodesulfur'zn*		*Naphtha*																	
527	Sep-92	J2	15	1	A	9														
528	Oct-92	J3	40	1	A	9											0.14			
529	Aug-92	J5	24	1	A	8														
530	Oct-90	P1	Desul Prod/Lt Hydro	1	A	4		NP			NP			NP			NP			NP
531	Oct-92	Q1,2,6,7	HF FCC lt 120	4	B	1											ND			
532	Dec-89	Q2	Penhex 861 TK	4	B	11									<.1	<.1	0.05			
533	Dec-89	Q2	Pentane	4	B	11									ND	<.1	0.01			
534	Jan-88	Y3	70910	1	B	7											*0.0015*			
535																				
536	*Hydrodesulfur'zn*		*Jet / Kero*																	
537	Oct-92	J3	41	1	A	4											0.987			
538	Oct-90	P1	Jet Product	1	A	5		NP			NP			NP			0.33			NP
539	Oct-92	Q1,2,6,7	HF FCC lt 180	4	B	7											ND			
540	Jan-88	Y2	00406	1	B	6											0.08949			
541	Jan-88	Y3	00410/00422	2	B	21									0.02	0.065	0.042			
542																				
543	*Hydrodesulfur'zn*		*Diesel*																	
544	Oct-92	J3	42	1	A	3											0.157			
545	Aug-92	J4	33	1	A	6											0.394			
546	Oct-90	P1	Desulf Prod/Midbarrel	1	A	3		NP			NP			NP			0.281			NP

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	A	B	C	D	E	N	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	Styrene	No. of Mins	No. of Maxs	1,2,4 TMB	No. of Mins	No. of Maxs	2,2,4 TMP	No. of Mins	No. of Maxs	Toluene	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	6	6	Typ.	51	51	Typ.	12	12	Typ.	54	54	Typ.	53	86
515	Sep-92	J1	21	1	A	5														
516	Sep-92	J2	14	1	A	5														
517	Oct-92	J3	39	1	A	6														
518	Aug-92	J4	31	1	A	3														
519	Aug-92	J4	32	1	A	3														
520	Aug-92	J5	23	1	A	6														
521	Sep-93	V2	C3SPLITBTM	1	A	13			NA			*3E-07*			6.7E-06			1.2E-05		
522	Jan-88	Y1	R1800	1	C	1														
523	Jan-88	Y2	R1800	1	C	0														
524	Jan-88	Y3	R1802	1	C	1														
525																				
526	*Hydrodesulfur'zn*		*Naphtha*																	
527	Sep-92	J2	15	1	A	9						0.097						6.109		
528	Oct-92	J3	40	1	A	9						1.08						2.324		
529	Aug-92	J5	24	1	A	8						0.614						3.353		
530	Oct-90	P1	Desul Prod/Lt Hydro	1	A	4			NP			NP			NA			5.1		
531	Oct-92	Q1,2,6,7	HF FCC lt 120	4	B	1						ND			ND			ND		
532	Dec-89	Q2	Penhex 861 TK	4	B	11				<.1	0.1	0.06				<.1	0.1	0.08	<.1	<.3
533	Dec-89	Q2	Pentane	4	B	11				ND	0.1	0.03				ND	0.1	0.05	ND	<.1
534	Jan-88	Y3	70910	1	B	7						*0.0015*						*0.0015*		
535																				
536	*Hydrodesulfur'zn*		*Jet / Kero*																	
537	Oct-92	J3	41	1	A	4						0.785								
538	Oct-90	P1	Jet Product	1	A	5			NP			0.5			NA			0.019		
539	Oct-92	Q1,2,6,7	HF FCC lt 180	4	B	7						0.1			ND			8.27		
540	Jan-88	Y2	00406	1	B	6						0.93143						0.02899		
541	Jan-88	Y3	00410/00422	2	B	21				0.236	0.261	0.249				0.027	0.162	0.094	0.137	0.183
542																				
543	*Hydrodesulfur'zn*		*Diesel*																	
544	Oct-92	J3	42	1	A	3						0.081								
545	Aug-92	J4	33	1	A	6						0.321						0.097		
546	Oct-90	P1	Desulf Prod/Midbarrel	1	A	3			NP			0.028			NP			NP		

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	A	B	C	D	E	N	BS	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Xylenes (mixed)	No. of Mins	No. of Maxs	Ethane	No. of Mins	No. of Maxs	Ethylene	No. of Mins	No. of Maxs	Propane	No. of Mins	No. of Maxs	Propylene	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	6404	Typ.	0	0	Typ.	1	1	Typ.	1	2	Typ.	2	2	Typ.	8
515	Sep-92	J1	21	1	A	5				15.0149			0.05079			32.7113			0.0285	
516	Sep-92	J2	14	1	A	5										3.88088			5.1482	
517	Oct-92	J3	39	1	A	6				0.30102						27.2414			10.1017	
518	Aug-92	J4	31	1	A	3										2.5986				
519	Aug-92	J4	32	1	A	3										1.9391				
520	Aug-92	J5	23	1	A	6				19.5175			0.02058			54.0986			0.13379	
521	Sep-93	V2	C3SPLITBTM	1	A	13	1.4E-05			NA			*2E-08*			NA			0.00375	
522	Jan-88	Y1	R1800	1	C	1														
523	Jan-88	Y2	R1800	1	C	0														
524	Jan-88	Y3	R1802	1	C	1														
525																				
526	*Hydrodesulfur'zn*		*Naphtha*																	
527	Sep-92	J2	15	1	A	9	8.605									0.156				
528	Oct-92	J3	40	1	A	9	3.386									5.109				
529	Aug-92	J5	24	1	A	8	2.834													
530	Oct-90	P1	Desul Prod/Lt Hydro	1	A	4	5.1			NP			NP			NP			NP	
531	Oct-92	Q1,2,6,7	HF FCC lt 120	4	B	1	ND												ND	
532	Dec-89	Q2	Penhex 861 TK	4	B	11	0.13													
533	Dec-89	Q2	Pentane	4	B	11	0.08													
534	Jan-88	Y3	70910	1	B	7	*0.0015*													
535																				
536	*Hydrodesulfur'zn*		*Jet / Kero*																	
537	Oct-92	J3	41	1	A	4	0.347													
538	Oct-90	P1	Jet Product	1	A	5	0.01			NP			NP			NP			NP	
539	Oct-92	Q1,2,6,7	HF FCC lt 180	4	B	7	1.77												ND	
540	Jan-88	Y2	00406	1	B	6	0.43988													
541	Jan-88	Y3	00410/00422	2	B	21	0.16													
542																				
543	*Hydrodesulfur'zn*		*Diesel*																	
544	Oct-92	J3	42	1	A	3														
545	Aug-92	J4	33	1	A	5	0.247													
546	Oct-90	P1	Desulf Prod/Midbarrel	1	A	3	NP			NP			NP			NP			NP	

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	A	B	C	D	E	N	CH	CI
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Butane
2	Count =	742	Site Use Only	1076	742	5404	8	Typ.
515	Sep-92	J1	21	1	A	5		29.1263
516	Sep-92	J2	14	1	A	5		7.86952
517	Oct-92	J3	39	1	A	6		26.0679
518	Aug-92	J4	31	1	A	3		31.2674
519	Aug-92	J4	32	1	A	3		44.3762
520	Aug-92	J5	23	1	A	6		6.69478
521	Sep-93	V2	C3SPLITBTM	1	A	13		0.00019
522	Jan-88	Y1	R1800	1	C	1		
523	Jan-88	Y2	R1800	1	C	0		
524	Jan-88	Y3	R1802	1	C	1		
525								
526	*Hydrodesulfur'zn*		*Naphtha*					
527	Sep-92	J2	15	1	A	9		0.164
528	Oct-92	J3	40	1	A	9		
529	Aug-92	J5	24	1	A	8		2.31
530	Oct-90	P1	Desul Prod/Lt Hydro	1	A	4		NA
531	Oct-92	Q1,2,6,7	HF FCC lt 120	4	B	1		
532	Dec-89	Q2	Penhex 861 TK	4	B	11		
533	Dec-89	Q2	Pentane	4	B	11		
534	Jan-88	Y3	70910	1	B	7		
535								
536	*Hydrodesulfur'zn*		*Jet / Kero*					
537	Oct-92	J3	41	1	A	4		
538	Oct-90	P1	Jet Product	1	A	5		NP
539	Oct-92	Q1,2,6,7	HF FCC lt 180	4	B	7		
540	Jan-88	Y2	00406	1	B	6		
541	Jan-88	Y3	00410/00422	2	B	21		
542								
543	*Hydrodesulfur'zn*		*Diesel*					
544	Oct-92	J3	42	1	A	3		
545	Aug-92	J4	33	1	A	5		
546	Oct-90	P1	Desulf Prod/Midbarrel	1	A	3		NP

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Refinery Process and Product Stream Speciation — For TAC Review Only — ND shown as half detect limit — Italics

	A	B	C	D	E	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	1,3 Butadiene	No. of Mins	No. of Maxs	Benzene	No. of Mins	No. of Maxs	Biphenyl	No. of Mins	No. of Maxs	Cresols (mixed)	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	4	5	Typ.	59	59	Typ.	4	4	Typ.	0	5	Typ.	34	35
547	Oct-92	Q1,2,6,7	HF FCC hvy 265+	4	B	7			ND			ND								
548	Nov-90	V4	HTRT-GULF	1	A	14			NA			*5E-05*			NA			NA		
549	Jan-88	Y1	00460	1	B	3														
550	Jan-88	Y2	00460	1	B	7						0.00605								
551																				
552	*Hydrodesulfur'zn*		*Heating Oil*																	
553	Oct-92	J3	43	1	A	5									0.231					
554																				
555	*Alkylation*		*Alkylate*																	
556	Post 199	F2	ALKYLATE	1	A	5						0.03								
557	Post 199	F4	ALKYLATE	1	A	6														
558	93-'94	F5	ALKYLATE	1	A	2						*0.025*								
559	1990	F6	ALKYLATE	1	B	2			*ND*			*0.05*								
560	Sep-92	J1	22	1	A	3														
561	Sep-92	J2	16	1	A	3														
562	Oct-92	J3	44	1	A	2														
563	Oct-92	J3	45	1	A	2														
564	Aug-92	J4	34	1	A	3														
565	Feb-92	P1	Alkylate	1	A	0			NP			NP			NP			NP		
566	Dec-89	Q2	Aviation Alky	4	B	0														
567	Apr-93	Q1	Alkylate	2	C	6														
568	Oct-92	Q1,2,6,7	Whole Alkylate	4	B	3			ND			ND								
569	Oct-92	Q1,2,6,7	Aviation alkylate	4	B	3			ND			ND								
570	Oct-92	Q1,2,6,7	Lt Poly Gasoline	4	B	3			ND			ND								
571	Nov-90	V4	ALKY-AKLT	1	A	15			NA			*5E-05*			*5E-05*			NA		
572	Dec-94	V4	ALKY-ASO	1	A	15			NA			0.00852			0.05469			NA		
573	Jan-88	Y1	R5900	1	B	7						*0.0015*								
574	Jan-88	Y2	R5900	2	B	10				ND	ND	*0.0015*							ND	ND
575	Jan-88	Y3	R5900	1	B	7						*0.0015*								
576																				
577	*Alkylation*		*Butane*																	
578	Sep-92	J1	23	1	A	5														

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Refinery Process and Product Stream Speciation — For TAC ... Raw Only — ND shown as half detect limit ... Italics

	A	B	C	D	E	N	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Cumene	No. of Mins	No. of Maxs	Ethylbenzene	No. of Mins	No. of Maxs	Ethylene Glycol	No. of Mins	No. of Maxs	n-Hexane	No. of Mins	No. of Maxs	Hydrogen Sulfide	No. of Mins
2	Count =	742	Site Use Only	1076	742	5404	Typ.	49	49	Typ.	0	1	Typ.	22	25	Typ.	2	2	Typ.	2
547	Oct-92	Q1,2,6,7	HF FCC hvy 265+	4	B	7	0.13			1.74						0.01				
548	Nov-90	V4	HTRT-GULF	1	A	14	*5E-05*			*5E-05*			NA			*5E-05*			NA	
549	Jan-88	Y1	00460	1	B	3				*0.001*										
550	Jan-88	Y2	00460	1	B	7	0.02059			0.04965										
551																				
552	*Hydrodesulfur'zn*		*Heating Oil*																	
553	Oct-92	J3	43	1	A	5										0.086				
554																				
555	*Alkylation*		*Alkylate*																	
556	Post 199	F2	ALKYLATE	1	A	5										0.05				
557	Post 199	F4	ALKYLATE	1	A	6								5.8	6	5.9				
558	93-'94	F5	ALKYLATE	1	A	2										*0.05*				
559	1990	F6	ALKYLATE	1	B	2														
560	Sep-92	J1	22	1	A	3														
561	Sep-92	J2	16	1	A	3														
562	Oct-92	J3	44	1	A	2														
563	Oct-92	J3	45	1	A	2														
564	Aug-92	J4	34	1	A	3														
565	Feb-92	P1	Alkylate	1	A	0	NP			NP			NP			NA			NP	
566	Dec-89	Q2	Aviation Alky	4	B	0														
567	Apr-93	Q1	Alkylate	2	C	6										3.22				
568	Oct-92	Q1,2,6,7	Whole Alkylate	4	B	3	ND									0.06				
569	Oct-92	Q1,2,6,7	Aviation alkylate	4	B	3	ND									0.04				
570	Oct-92	Q1,2,6,7	Lt Poly Gasoline	4	B	3	ND									0.01				
571	Nov-90	V4	ALKY-AKLT	1	A	15	*5E-05*			*5E-05*			NA			0.01			NA	
572	Dec-94	V4	ALKY-ASO	1	A	15	*5E-05*			0.00506			NA			0.03025			NA	
573	Jan-88	Y1	R5900	1	B	7	*0.0015*			*0.0015*										
574	Jan-88	Y2	R5900	2	B	10	*0.0015*	*ND*	*ND*	*0.0015*										
575	Jan-88	Y3	R5900	1	B	7	*0.0015*			*0.0015*										
576																				
577	*Alkylation*		*Butane*																	
578	Sep-92	J1	23	1	A	5														

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	A	B	C	D	E	N	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Methanol	No. of Mins	No. of Maxs	MEK	No. of Mins	No. of Maxs	MTBE	No. of Mins	No. of Maxs	Naphthalene	No. of Mins	No. of Maxs	Phenol
2	Count =	742	*Site Use Only*	1076	742	6404	1	Typ.	0	0	Typ.	8	7	Typ.	50	49	Typ.	3	2	Typ.
547	Oct-92	Q1,2,6,7	HF FCC hvy 265+	4	B	7								0.11						
548	Nov-90	V4	HTRT-GULF	1	A	14		*5E-05*			NA			NA			0.0751			NA
549	Jan-88	Y1	00460	1	B	3											0.00587			
550	Jan-88	Y2	00460	1	B	7											0.2543			
551																				
552	*Hydrodesulfur'zn*		*Heating Oil*																	
553	Oct-92	J3	43	1	A	5											0.1			
554																				
555	*Alkylation*		*Alkylate*																	
556	Post 199	F2	ALKYLATE	1	A	5														
557	Post 199	F4	ALKYLATE	1	A	6														
558	93-'94	F5	ALKYLATE	1	A	2														
559	1990	F6	ALKYLATE	1	B	2														
560	Sep-92	J1	22	1	A	3														
561	Sep-92	J2	16	1	A	3														
562	Oct-92	J3	44	1	A	2														
563	Oct-92	J3	45	1	A	2														
564	Aug-92	J4	34	1	A	3														
565	Feb-92	P1	Alkylate	1	A	0		NP			NP			NP			NP			NP
566	Dec-89	Q2	Aviation Alky	4	B	0														
567	Apr-93	Q1	Alkylate	2	C	6														0
568	Oct-92	Q1,2,6,7	Whole Alkylate	4	B	3											ND			
569	Oct-92	Q1,2,6,7	Aviation alkylate	4	B	3											ND			
570	Oct-92	Q1,2,6,7	Lt Poly Gasoline	4	B	3											ND			
571	Nov-90	V4	ALKY-AKLT	1	A	16		*5E-05*			NA			NA			*5E-05*			NA
572	Dec-94	V4	ALKY-ASO	1	A	16		0.00222			NA			NA			0.04741			NA
573	Jan-88	Y1	R5900	1	B	7											*0.0015*			
574	Jan-88	Y2	R5900	2	B	10											*0.0015*			
575	Jan-88	Y3	R5900	1	B	7									ND	ND	*0.0015*	ND	ND	0.0015
576																				
577	*Alkylation*		*Butane*																	
578	Sep-92	J1	23	1	A	5														

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ND shown as half detect limit ...alics

	A	B	C	D	E	N	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	Styrene	No. of Mins	No. of Maxs	1,2,4 TMB	No. of Mins	No. of Maxs	2,2,4 TMP	No. of Mins	No. of Maxs	Toluene	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	6	6	Typ.	51	51	Typ.	12	12	Typ.	54	54	Typ.	53	85
547	Oct-92	Q1,2,6,7	HF FCC hvy 265+	4	B	7						5.59			ND			0.47		
548	Nov-90	V4	HTRT-GULF	1	A	14			NA			0.0894			*5E-05*			*5E-05*		
549	Jan-88	Y1	00460	1	B	3						*0.001*								
550	Jan-88	Y2	00460	1	B	7						0.38024						0.05207		
551																				
552	*Hydrodesulfur'zn*		*Heating Oil*																	
553	Oct-92	J3	43	1	A	5						0.14								
554																				
555	*Alkylation*		*Alkylate*																	
556	Post 199	F2	ALKYLATE	1	A	5									36.4			0.28		
557	Post 199	F4	ALKYLATE	1	A	6							27	30	29					
558	93-'94	F5	ALKYLATE	1	A	2														
559	1990	F6	ALKYLATE	1	B	2														
560	Sep-92	J1	22	1	A	3									28.949			3.731		
561	Sep-92	J2	16	1	A	3									15.655			6.115		
562	Oct-92	J3	44	1	A	2									16.808					
563	Oct-92	J3	45	1	A	2									30.655					
564	Aug-92	J4	34	1	A	3									12.1					
565	Feb-92	P1	Alkylate	1	A	0			NP			NP			NA			NP		
566	Dec-89	Q2	Aviation Alky	4	B	0														
567	Apr-93	Q1	Alkylate	2	C	6			0.02						35.43			0.1		
568	Oct-92	Q1,2,6,7	Whole Alkylate	4	B	3						ND			1.81			ND		
569	Oct-92	Q1,2,6,7	Aviation alkylate	4	B	3						ND			2.19			ND		
570	Oct-92	Q1,2,6,7	Lt Poly Gasoline	4	B	3						ND			0.01			ND		
571	Nov-90	V4	ALKY-AKLT	1	A	15			NA			*5E-05*			22.18			*5E-05*		
572	Dec-94	V4	ALKY-ASO	1	A	15			NA			0.07704			0.48617			0.01259		
573	Jan-88	Y1	R5900	1	B	7						*0.0015*						*0.0016*		
574	Jan-88	Y2	R5900	2	B	10	ND	ND	*0.0015*	ND	ND	*0.0015*	ND	ND	*0.0015*	ND	ND	*0.0015*	*ND*	*ND*
575	Jan-88	Y3	R5900	1	B	7						*0.0015*						*0.0015*		
576																				
577	*Alkylation*		*Butane*																	
578	Sep-92	J1	23	1	A	5														

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Refine Process and Product Stream Speciation — *For TAC ... ew Only* — ND shown as half detect limit ... alics

	A	B	C	D	E	N	BS	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Xylenes (mixed)	No. of Mins	No. of Maxs	Ethane	No. of Mins	No. of Maxs	Ethylene	No. of Mins	No. of Maxs	Propane	No. of Mins	No. of Maxs	Propylene	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	0	0	Typ.	1	1	Typ.	1	2	Typ.	2	2	Typ.	8
547	Oct-92	Q1,2,6,7	HF FCC hvy 265+	4	B	7	11.18												ND	
548	Nov-90	V4	HTRT-GULF	1	A	14	0.0001			NA			*5E-05*			*5E-05*			*5E-05*	
549	Jan-88	Y1	00460	1	B	3														
550	Jan-88	Y2	00460	1	B	7	0.25672													
551																				
552	*Hydrodesulfur'zn*		*Heating Oil*																	
553	Oct-92	J3	43	1	A	5	0.08													
554																				
555	*Alkylation*		*Alkylate*																	
556	Post 199	F2	ALKYLATE	1	A	5	36.4													
557	Post 199	F4	ALKYLATE	1	A	6														
558	93-'94	F5	ALKYLATE	1	A	2														
559	1990	F6	ALKYLATE	1	B	2	0.001													
560	Sep-92	J1	22	1	A	3														
561	Sep-92	J2	16	1	A	3														
562	Oct-92	J3	44	1	A	2														
563	Oct-92	J3	45	1	A	2														
564	Aug-92	J4	34	1	A	3	0.116													
565	Feb-92	P1	Alkylate	1	A	0	NP			NP			NP			NP			NP	
566	Dec-89	Q2	Aviation Alky	4	B	0														
567	Apr-93	Q1	Alkylate	2	C	6	0.2													
568	Oct-92	Q1,2,6,7	Whole Alkylate	4	B	3	0.02												ND	
569	Oct-92	Q1,2,6,7	Aviation alkylate	4	B	3	0.02												ND	
570	Oct-92	Q1,2,6,7	Lt Poly Gasoline	4	B	3	0.02												ND	
571	Nov-90	V4	ALKY-AKLT	1	A	15	0.0001			NA			*5E-05*			*5E-05*			*5E-05*	
572	Dec-94	V4	ALKY-ASO	1	A	15	0.05506			NA			*5E-05*			0.46605			0.13901	
573	Jan-88	Y1	R5900	1	B	7	*0.0015*													
574	Jan-88	Y2	R5900	2	B	10	*0.0015*													
575	Jan-88	Y3	R5900	1	B	7	*0.0015*													
576																				
577	*Alkylation*		*Butane*																	
578	Sep-92	J1	23	1	A	5				1.11086			0.02786			5.87724			0.117	

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	A	B	C	D	E	N	CH	CI
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Butane
2	Count =	742	Site Use Only	1076	742	5404	8	Typ.
547	Oct-92	Q1,2,6,7	HF FCC hvy 265+	4	B	7		
548	Nov-90	V4	HTRT-GULF	1	A	14		*5E-05*
549	Jan-88	Y1	00460	1	B	3		
550	Jan-88	Y2	00460	1	B	7		
551								
552	*Hydrodesulfur'zn*		*Heating Oil*					
553	Oct-92	J3	43	1	A	6		
554								
555	*Alkylation*		*Alkylate*					
556	Post 199	F2	ALKYLATE	1	A	5		
557	Post 199	F4	ALKYLATE	1	A	6		
558	93-'94	F5	ALKYLATE	1	A	2		
559	1990	F6	ALKYLATE	1	B	2		
560	Sep-92	J1	22	1	A	3		0.302
561	Sep-92	J2	16	1	A	3		7.324
562	Oct-92	J3	44	1	A	2		4.075
563	Oct-92	J3	45	1	A	2		6.917
564	Aug-92	J4	34	1	A	3		1.8
565	Feb-92	P1	Alkylate	1	A	0		NA
566	Dec-89	Q2	Aviation Alky	4	B	0		
567	Apr-93	Q1	Alkylate	2	C	6		
568	Oct-92	Q1,2,6,7	Whole Alkylate	4	B	3		
569	Oct-92	Q1,2,6,7	Aviation alkylate	4	B	3		
570	Oct-92	Q1,2,6,7	Lt Poly Gasoline	4	B	3		
571	Nov-90	V4	ALKY-AKLT	1	A	15		9.23
572	Dec-94	V4	ALKY-ASO	1	A	15		0.74568
573	Jan-88	Y1	R5900	1	B	7		
574	Jan-88	Y2	R5900	2	B	10		
575	Jan-88	Y3	R5900	1	B	7		
576								
577	*Alkylation*		*Butane*					
578	Sep-92	J1	23	1	A	5		2.25098

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Refine Process and Product Stream Speciation — *For TAC ... ew Only* — ND shown as half detect limit ... alics

	A	B	C	D	E	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	1,3 Butadiene	No. of Mins	No. of Maxs	Benzene	No. of Mins	No. of Maxs	Biphenyl	No. of Mins	No. of Maxs	Cresols (mixed)	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	4	5	Typ.	59	59	Typ.	4	4	Typ.	0	5	Typ.	34	35
579	Sep-92	J2	17	1	A	1														
580	Oct-92	J3	46	1	A	1														
581	Aug-92	J4	35	1	A	5														
582	Aug-92	J4	36	1	A	5			0.2206											
583	Nov-90	P1	Butane Product	1	A	0			ND			NP			NP			NP		
584	Jul-93	V1	ALK2-REW	1	A	14			*0.0003*			1.43889			NA			NA		
585																				
586	*Alkylation*		*LPG*																	
587	Oct-92	J3	47	1	A	4														
588	Aug-92	J4	37	1	A	4														
589	Oct-90	P1	Release to LPG	1	B	1			ND			NP			NP			NP		
590	Oct-92	Q1,2,6,7	LPG, C3-C7	4	B	1			ND			ND								
591																				
592	*Sat. Gas Plant*		*Sat. Gas*																	
593	Post 199	F7	OVERALL GP COMP	1	B	1														
594	Post 199	F7	GASOLINE	1	B	4						4								
595	Sep-92	J2	18	1	A	4														
596	Oct-92	J3	48	1	A	6														
597	Aug-92	J4	38	1	A	6														
598	Aug-92	J4	39	1	A	4														
599	Aug-92	J5	25	1	A	7			0.02195											
600	Nov-90	P1	SRD OVHD	1	B	1														
601	Jul-93	V1	SAG-NSO	1	A	14			*0.0003*			3.27156			NA			NA		
602	Jul-93	V1	SAG-NSB	1	A	14			*0.0002*			0.47786			NA			NA		
603	Sep-93	V2	SAG-NSO	1	A	14			*4E-05*			1.50933			NA			NA		
604	Sep-93	V2	SAG-NSB	1	A	14			*3E-05*			0.49656			NA			NA		
605																				
606	*Cat. Isomer'zn*		*Isom naphtha*																	
607	Sep-92	J1	24	1	A	2														
608	Sep-92	J1	25	1	A	5						0.509								
609	Oct-92	J3	49	1	A	2														
610	Aug-92	J4	40	1	A	2														

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	A	B	C	D	E	N	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Cumene	No. of Mins	No. of Maxs	Ethylbenzene	No. of Mins	No. of Maxs	Ethylene Glycol	No. of Mins	No. of Maxs	n-Hexane	No. of Mins	No. of Maxs	Hydrogen Sulfide	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	49	49	Typ.	0	1	Typ.	22	25	Typ.	2	2	Typ.	2
579	Sep-92	J2	17	1	A	1														
580	Oct-92	J3	46	1	A	1														
581	Aug-92	J4	35	1	A	5										0.1867				
582	Aug-92	J4	36	1	A	5														
583	Nov-90	P1	Butane Product	1	A	0	NP			NP			NP			NP			NP	
584	Jul-93	V1	ALK2-REW	1	A	14	0.01333			0.09533			NA			0.022			NA	
585																				
586	*Alkylation*		*LPG*																	
587	Oct-92	J3	47	1	A	4														
588	Aug-92	J4	37	1	A	4														
589	Oct-90	P1	Release to LPG	1	B	1	NP			NP			NP			NP			NP	
590	Oct-92	Q1,2,6,7	LPG, C3-C7	4	B	1	ND			ND						ND				
591																				
592	*Sat. Gas Plant*		*Sat. Gas*																	
593	Post 199	F7	OVERALL GP COMP	1	B	1														
594	Post 199	F7	GASOLINE	1	B	4				0.3						1.5				
595	Sep-92	J2	18	1	A	4														
596	Oct-92	J3	48	1	A	6										2.98183				
597	Aug-92	J4	38	1	A	6										2.67428				
598	Aug-92	J4	39	1	A	4										0.17961				
599	Aug-92	J5	25	1	A	7										0.05245				
600	Nov-90	P1	SRD OVHD	1	B	1														
601	Jul-93	V1	SAG-NSO	1	A	14	*0.0006*			*0.0006*			NA			2.816			NA	
602	Jul-93	V1	SAG-NSB	1	A	14	0.22392			0.73461			NA			0.95763			NA	
603	Sep-93	V2	SAG-NSO	1	A	14	*2E-05*			0.01422			NA			5.71378			NA	
604	Sep-93	V2	SAG-NSB	1	A	14	0.10153			0.65305			NA			1.94262			NA	
605																				
606	*Cat. Isomer'zn*		*Isom naphtha*																	
607	Sep-92	J1	24	1	A	2										4.653				
608	Sep-92	J1	25	1	A	5										3.048				
609	Oct-92	J3	49	1	A	2										2.013				
610	Aug-92	J4	40	1	A	2										0.949				

1	A	B	C	D	E	N	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Methanol	No. of Mins	No. of Maxs	MEK	No. of Mins	No. of Maxs	MTBE	No. of Mins	No. of Maxs	Naphthalene	No. of Mins	No. of Maxs	Phenol
2	Count =	742	*Site Use Only*	1076	742	5404	1	Typ.	0	0	Typ.	8	7	Typ.	50	49	Typ.	3	2	Typ.
579	Sep-92	J2	17	1	A	1														
580	Oct-92	J3	46	1	A	1														
581	Aug-92	J4	35	1	A	5														
582	Aug-92	J4	36	1	A	5														
583	Nov-90	P1	Butane Product	1	A	0		NP			NP			NP			NP			NP
584	Jul-93	V1	ALK2-REW	1	A	14		0.00111			NA			NA			0.012			NA
585																				
586	*Alkylation*		*LPG*																	
587	Oct-92	J3	47	1	A	4														
588	Aug-92	J4	37	1	A	4														
589	Oct-90	P1	Release to LPG	1	B	1		NP			NP			NP			NP			NP
590	Oct-92	Q1,2,6,7	LPG, C3-C7	4	B	1								ND						
591																				
592	*Sat. Gas Plant*		*Sat. Gas*																	
593	Post 199	F7	OVERALL GP COMP	1	B	1														
594	Post 199	F7	GASOLINE	1	B	4														
595	Sep-92	J2	18	1	A	4														
596	Oct-92	J3	48	1	A	6														
597	Aug-92	J4	38	1	A	6														
598	Aug-92	J4	39	1	A	4														
599	Aug-92	J5	25	1	A	7														
600	Nov-90	P1	SRD OVHD	1	B	1														
601	Jul-93	V1	SAG-NSO	1	A	14		*0.0011*			NA			NA			*0.0006*			NA
602	Jul-93	V1	SAG-NSB	1	A	14		6.5E-05			NA			NA			0.18499			NA
603	Sep-93	V2	SAG-NSO	1	A	14		NA			NA			NA			*2E-05*			NA
604	Sep-93	V2	SAG-NSB	1	A	14		NA			NA			NA			0.00242			NA
605																				
606	*Cat. Isomer'zn*		*Isom naphtha*																	
607	Sep-92	J1	24	1	A	2														
608	Sep-92	J1	25	1	A	5														
609	Oct-92	J3	49	1	A	2														
610	Aug-92	J4	40	1	A	2														

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	A	B	C	D	E	N	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR
	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	Styrene	No. of Mins	No. of Maxs	1,2,4 TMB	No. of Mins	No. of Maxs	2,2,4 TMP	No. of Mins	No. of Maxs	Toluene	No. of Mins	No. of Maxs
	Count =	742	Site Use Only	1076	742	5404	6	6	Typ.	51	51	Typ.	12	12	Typ.	54	54	Typ.	53	85
579	Sep-92	J2	17	1	A	1														
580	Oct-92	J3	46	1	A	1														
581	Aug-92	J4	35	1	A	5														
582	Aug-92	J4	36	1	A	5														
583	Nov-90	P1	Butane Product	1	A	0			NP			NP			NP			NP		
584	Jul-93	V1	ALK2-REW	1	A	14			NA			NA			4.78489			2.49444		
585																				
586	*Alkylation*		*LPG*																	
587	Oct-92	J3	47	1	A	4														
588	Aug-92	J4	37	1	A	4														
589	Oct-90	P1	Release to LPG	1	B	1			NP			NP			NP			NP		
590	Oct-92	Q1,2,6,7	LPG, C3-C7	4	B	1						ND			ND			ND		
591																				
592	*Sat. Gas Plant*		*Sat. Gas*																	
593	Post 199	F7	OVERALL GP COMP	1	B	1												1.7		
594	Post 199	F7	GASOLINE	1	B	4												2		
595	Sep-92	J2	18	1	A	4														
596	Oct-92	J3	48	1	A	6														
597	Aug-92	J4	38	1	A	6														
598	Aug-92	J4	39	1	A	4														
599	Aug-92	J5	25	1	A	7														
600	Nov-90	P1	SRD OVHD	1	B	1														
601	Jul-93	V1	SAG-NSO	1	A	14			NA			NA			1.12556			1.73311		
602	Jul-93	V1	SAG-NSB	1	A	14			NA			NA			0.5126			2.75191		
603	Sep-93	V2	SAG-NSO	1	A	14			NA			*4E-05*			*3E-05*			*2E-05*		
604	Sep-93	V2	SAG-NSB	1	A	14			NA			1.33486			1.29987			1.5341		
605																				
606	*Cat. Isomer'zn*		*Isom naphtha*																	
607	Sep-92	J1	24	1	A	2														
608	Sep-92	J1	25	1	A	5												0.644		
609	Oct-92	J3	49	1	A	2														
610	Aug-92	J4	40	1	A	2														

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	A	B	C	D	E	N	BS	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Xylenes (mixed)	No. of Mins	No. of Maxs	Ethane	No. of Mins	No. of Maxs	Ethylene	No. of Mins	No. of Maxs	Propane	No. of Mins	No. of Maxs	Propylene	No. of Mins
2	Count =	742	Site Use Only	1076	742	5404	Typ.	0	0	Typ.	1	1	Typ.	1	2	Typ.	2	2	Typ.	8
579	Sep-92	J2	17	1	A	1														
580	Oct-92	J3	46	1	A	1														
581	Aug-92	J4	35	1	A	5				0.076						3.82958			0.30388	
582	Aug-92	J4	36	1	A	5				0.01082						3.1251			2.7549	
583	Nov-90	P1	Butane Product	1	A	0	NP			NA			NA			NA			NA	
584	Jul-93	V1	ALK2-REW	1	A	14	0.233			NA			*0.0003*			0.978			*0.0003*	
585																				
586	*Alkylation*		*LPG*																	
587	Oct-92	J3	47	1	A	4				1.49156			0.0188			83.0555			1.18467	
588	Aug-92	J4	37	1	A	4				1.32078						95.6571			1.58	
589	Oct-90	P1	Release to LPG	1	B	1	NP			NP			NP			NA			0.01	
590	Oct-92	Q1,2,6,7	LPG, C3-C7	4	B	1	ND												30.4	
591																				
592	*Sat. Gas Plant*		*Sat. Gas*																	
593	Post 199	F7	OVERALL GP COMP	1	B	1														
594	Post 199	F7	GASOLINE	1	B	4														
595	Sep-92	J2	18	1	A	4				16.2332			8.27444			11.7989			63.109	
596	Oct-92	J3	48	1	A	6				7.42899			0.00568			37.4506			0.09366	
597	Aug-92	J4	38	1	A	6				9.03169			0.06496			24.0199			0.16566	
598	Aug-92	J4	39	1	A	4				7.93417						18.4651				
599	Aug-92	J5	25	1	A	7				9.56137			6.54634			13.9151			20.6784	
600	Nov-90	P1	SRD OVHD	1	B	1				NA			ND			NA			1.5	
601	Jul-93	V1	SAG-NSO	1	A	14	0.00111			NA			*0.0003*			0.03133			*0.0003*	
602	Jul-93	V1	SAG-NSB	1	A	14	4.77824			NA			*0.0002*			*0.0002*			*0.0002*	
603	Sep-93	V2	SAG-NSO	1	A	14	0.00338			NA			*3E-05*			*3E-05*			*3E-05*	
604	Sep-93	V2	SAG-NSB	1	A	14	1.58575			NA			*2E-05*			*2E-05*			*2E-05*	
605																				
606	*Cat. Isomer'zn*		*Isom naphtha*																	
607	Sep-92	J1	24	1	A	2														
608	Sep-92	J1	25	1	A	5	0.277													
609	Oct-92	J3	49	1	A	2														
610	Aug-92	J4	40	1	A	2														

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	A	B	C	D	E	N	CH	CI
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Butane
2	Count =	742	Site Use Only	1076	742	5404	8	Typ.
579	Sep-92	J2	17	1	A	1		93.0204
580	Oct-92	J3	46	1	A	1		94.2363
581	Aug-92	J4	35	1	A	5		43.8916
582	Aug-92	J4	36	1	A	5		10.2443
583	Nov-90	P1	Butane Product	1	A	0		NA
584	Jul-93	V1	ALK2-REW	1	A	14		1.398
585								
586	*Alkylation*		*LPG*					
587	Oct-92	J3	47	1	A	4		
588	Aug-92	J4	37	1	A	4		0.06614
589	Oct-90	P1	Release to LPG	1	B	1		NA
590	Oct-92	Q1,2,6,7	LPG, C3-C7	4	B	1		
591								
592	*Sat. Gas Plant*		*Sat. Gas*					
593	Post 199	F7	OVERALL GP COMP	1	B	1		
594	Post 199	F7	GASOLINE	1	B	4		
595	Sep-92	J2	18	1	A	4		
596	Oct-92	J3	48	1	A	6		10.7016
597	Aug-92	J4	38	1	A	6		23.2576
598	Aug-92	J4	39	1	A	4		32.3423
599	Aug-92	J5	25	1	A	7		4.26199
600	Nov-90	P1	SRD OVHD	1	B	1		NA
601	Jul-93	V1	SAG-NSO	1	A	14		0.97844
602	Jul-93	V1	SAG-NSB	1	A	14		*0.0002*
603	Sep-93	V2	SAG-NSO	1	A	14		0.10378
604	Sep-93	V2	SAG-NSB	1	A	14		0.14758
605								
606	*Cat. Isomer'zn*		*Isom naphtha*					
607	Sep-92	J1	24	1	A	2		1.434
608	Sep-92	J1	25	1	A	5		1.269
609	Oct-92	J3	49	1	A	2		0.633
610	Aug-92	J4	40	1	A	2		0.691

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	A	B	C	D	E	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	1,3 Butadiene	No. of Mins	No. of Maxs	Benzene	No. of Mins	No. of Maxs	Biphenyl	No. of Mins	No. of Maxs	Cresols (mixed)	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	4	5	Typ.	59	59	Typ.	4	4	Typ.	0	5	Typ.	34	35
611	Oct-92	Q1,2,6,7	Isomerate	4	B	3			ND			ND								
612																				
613	*Cat. Isomer'zn*		*Isobutane*																	
614	Sep-92	J2	19	1	A	3														
615	Sep-92	J2	20	1	A	3														
616	Oct-92	J3	50	1	A	3														
617																				
618	*Spent caustic*		*Spent caustic*																	
619	Sep-92	J1	26	1	A	0														
620	Sep-92	J1	27	1	A	0														
621	Jan-88	Y2	R1200	1	C	1												2.4		
622	Jan-88	Y3	R1200	1	C	1												*0.05*		
623																				
624	*Sulfur Plant*		*Fuel Gas*																	
625	Sep-92	J1	28	1	A	5														
626	Sep-92	J2	21	1	A	5														
627	Oct-92	J3	51	1	A	6														
628	Sep-92	J4	41	1	A	5														
629	Aug-92	J5	26	1	A	5														
630	Dec-92	P1	SWS OVHD Gas	1	B	1														
631	Jul-93	V1	SRU-WSTHTBGAS	1	A	14			*3E-07*			6.6E-05			NA			NA		
632	Sep-93	V2	SRU- TRFG	1	A	14			*4E-08*			*3E-08*			NA			NA		
633	Jan-88	Y2	R1600	1	C	2			0.17											
634	Jan-88	Y3	R1600	1	C	2			*0.005*											
635																				
636	*S.W. Stripper*		*Stripped Sour Water*																	
637	Oct-90	P1	Sour Water	1	A	1														
638	Jul-93	V1	SRU-FC	1	A	14			*2E-07*			2.8E-06			NA			NA		
639	Jul-93	V1	SRU-STRFLX	1	A	14			*2E-07*			9.3E-07			NA			NA		
640	Sep-93	V2	SRU-STPRFX	1	A	14			*3E-05*			*1E-05*			NA			NA		
641	Nov-90	V4	SRU-FSWS	1	A	15			ND			0.00067			*5E-05*			NA		
642																				

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	A	B	C	D	E	N	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
	Date Sampled	Site Coding	Sample id	No. of Analyses	Quality Coding	No. Data Values	Cumene	No. of Mins	No. of Maxs	Ethylbenzene	No. of Mins	No. of Maxs	Ethylene Gycol	No. of Mins	No. of Maxs	n-Hexane	No. of Mins	No. of Maxs	Hydrogen Sulfide	No. of Mins
	Count =	742	Site Use Only	1076	742	5404	Typ.	49	49	Typ.	0	1	Typ.	22	25	Typ.	2	2	Typ.	2
611	Oct-92	Q1,2,6,7	Isomerate	4	B	3	ND									5.42				
612																				
613	*Cat. Isomer'zn*		*Isobutane*																	
614	Sep-92	J2	19	1	A	3														
615	Sep-92	J2	20	1	A	3														
616	Oct-92	J3	50	1	A	3														
617																				
618	*Spent caustic*		*Spent caustic*																	
619	Sep-92	J1	26	1	A	0														
620	Sep-92	J1	27	1	A	0														
621	Jan-88	Y2	R1200	1	C	1														
622	Jan-88	Y3	R1200	1	C	1														
623																				
624	*Sulfur Plant*		*Fuel Gas*																	
625	Sep-92	J1	28	1	A	5														
626	Sep-92	J2	21	1	A	5										1.81465				
627	Oct-92	J3	51	1	A	6										0.71474				
628	Sep-92	J4	41	1	A	5										0.36421				
629	Aug-92	J5	26	1	A	5										0.6186				
630	Dec-92	P1	SWS OVHD Gas	1	B	1													0.4	
631	Jul-93	V1	SRU-WSTHTBGAS	1	A	14	*4E-07*			*4E-07*			NA			*4E-07*			NA	
632	Sep-93	V2	SRU- TRFG	1	A	14	*4E-07*			*3E-07*			NA			*4E-07*			NA	
633	Jan-88	Y2	R1600	1	C	2													*0.001*	
634	Jan-88	Y3	R1600	1	C	2													*0.001*	
635																				
636	*S.W. Stripper*		*Stripped Sour Water*																	
637	Oct-90	P1	Sour Water	1	A	1													0	
638	Jul-93	V1	SRU-FC	1	A	14	*3E-07*			*3E-07*			NA			*3E-07*			NA	
639	Jul-93	V1	SRU-STRFLX	1	A	14	*3E-07*			*3E-07*			NA			*3E-07*			NA	
640	Sep-93	V2	SRU-STPRFX	1	A	14	*1E-05*			0.00027			NA			0.00067			NA	
641	Nov-90	V4	SRU-FSWS	1	A	15	*5E-05*			*5E-05*			NA			*5E-05*			NA	
642																				

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	A	B	C	D	E	N	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Methanol	No. of Mins	No. of Maxs	MEK	No. of Mins	No. of Maxs	MTBE	No. of Mins	No. of Maxs	Naphthalene	No. of Mins	No. of Maxs	Phenol
2	Count =	742	Site Use Only	1076	742	5404	1	Typ.	0	0	Typ.	8	7	Typ.	60	49	Typ.	3	2	Typ.
611	Oct-92	Q1,2,6,7	Isomerate	4	B	3											ND			
612																				
613	*Cat. Isomer'zn*		*Isobutane*																	
614	Sep-92	J2	19	1	A	3														
615	Sep-92	J2	20	1	A	3														
616	Oct-92	J3	50	1	A	3														
617																				
618	*Spent caustic*		*Spent caustic*																	
619	Sep-92	J1	26	1	A	0														
620	Sep-92	J1	27	1	A	0														
621	Jan-88	Y2	R1200	1	C	1														
622	Jan-88	Y3	R1200	1	C	1														
623																				
624	*Sulfur Plant*		*Fuel Gas*																	
625	Sep-92	J1	28	1	A	5														
626	Sep-92	J2	21	1	A	5														
627	Oct-92	J3	51	1	A	6														
628	Sep-92	J4	41	1	A	5														
629	Aug-92	J5	26	1	A	5														
630	Dec-92	P1	SWS OVHD Gas	1	B	1														
631	Jul-93	V1	SRU-WSTHTBGAS	1	A	14		*0.001*			NA			NA			*4E-07*			NA
632	Sep-93	V2	SRU- TRFG	1	A	14		NA			NA			NA			*8E-07*			NA
633	Jan-88	Y2	R1600	1	C	2														
634	Jan-88	Y3	R1600	1	C	2														
635																				
636	*S.W. Stripper*		*Stripped Sour Water*																	
637	Oct-90	P1	Sour Water	1	A	1														
638	Jul-93	V1	SRU-FC	1	A	14		*0.0006*			NA			NA			*3E-07*			NA
639	Jul-93	V1	SRU-STRFLX	1	A	14		*0.0007*			NA			NA			*3E-07*			NA
640	Sep-93	V2	SRU-STPRFX	1	A	14		NA			NA			NA			*1E-05*			NA
641	Nov-90	V4	SRU-FSWS	1	A	15		*5E-05*			NA			NA			*5E-05*			NA
642																				

	A	B	C	D	E	N	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR
	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	Styrene	No. of Mins	No. of Maxs	1,2,4 TMB	No. of Mins	No. of Maxs	2,2,4 TMP	No. of Mins	No. of Maxs	Toluene	No. of Mins	No. of Maxs
	Count =	742	Site Use Only	1076	742	5404	6	6	Typ.	51	51	Typ.	12	12	Typ.	54	54	Typ.	53	85
611	Oct-92	Q1,2,6,7	Isomerate	4	B	3						ND			0.01			ND		
612																				
613	Cat. Isomer'zn		Isobutane																	
614	Sep-92	J2	19	1	A	3														
615	Sep-92	J2	20	1	A	3														
616	Oct-92	J3	50	1	A	3														
617																				
618	Spent caustic		Spent caustic																	
619	Sep-92	J1	26	1	A	0														
620	Sep-92	J1	27	1	A	0														
621	Jan-88	Y2	R1200	1	C	1														
622	Jan-88	Y3	R1200	1	C	1														
623																				
624	Sulfur Plant		Fuel Gas																	
625	Sep-92	J1	28	1	A	5														
626	Sep-92	J2	21	1	A	5														
627	Oct-92	J3	51	1	A	6														
628	Sep-92	J4	41	1	A	5														
629	Aug-92	J5	26	1	A	5														
630	Dec-92	P1	SWS OVHD Gas	1	B	1														
631	Jul-93	V1	SRU-WSTHTBGAS	1	A	14			NA			NA			4E-07			4.1E-05		
632	Sep-93	V2	SRU- TRFG	1	A	14			NA			3.3E-05			1.8E-05			9.8E-06		
633	Jan-88	Y2	R1600	1	C	2														
634	Jan-88	Y3	R1600	1	C	2														
635																				
636	S.W. Stripper		Stripped Sour Water																	
637	Oct-90	P1	Sour Water	1	A	1														
638	Jul-93	V1	SRU-FC	1	A	14			NA			NA			3E-07			2.4E-06		
639	Jul-93	V1	SRU-STRFLX	1	A	14			NA			NA			3E-07			6.7E-07		
640	Sep-93	V2	SRU-STPRFX	1	A	14			NA			3E-05			2E-05			0.00053		
641	Nov-90	V4	SRU-FSWS	1	A	15			NA			5E-05			5E-05			0.00056		
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Refine.. rocess and Product Stream Speciation — *For TAC R.. ew Only* — ND shown as half detect limit in italics

	A	B	C	D	E	N	BS	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Xylenes (mixed)	No. of Mins	No. of Maxs	Ethane	No. of Mins	No. of Maxs	Ethylene	No. of Mins	No. of Maxs	Propane	No. of Mins	No. of Maxs	Propylene	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	0	0	Typ.	1	1	Typ.	1	2	Typ.	2	2	Typ.	8
611	Oct-92	Q1,2,6,7	Isomerate	4	B	3	0.02												ND	
612																				
613	*Cat. Isomer'zn*		*Isobutane*																	
614	Sep-92	J2	19	1	A	3				0.22557						1.73281				
615	Sep-92	J2	20	1	A	3				0.07847						0.56005				
616	Oct-92	J3	50	1	A	3				0.66771						8.35624				
617																				
618	*Spent caustic*		*Spent caustic*																	
619	Sep-92	J1	26	1	A	0														
620	Sep-92	J1	27	1	A	0														
621	Jan-88	Y2	R1200	1	C	1														
622	Jan-88	Y3	R1200	1	C	1														
623																				
624	*Sulfur Plant*		*Fuel Gas*																	
625	Sep-92	J1	28	1	A	5				21.8296			18.5725			6.6521			7.0605	
626	Sep-92	J2	21	1	A	5				16.2815						25.5362			0.06328	
627	Oct-92	J3	51	1	A	6				19.8013			4.93183			17.7386			1.39597	
628	Sep-92	J4	41	1	A	5				18.2765			3.97661			30.1078				
629	Aug-92	J5	26	1	A	5				26.7645						21.2721			0.0181	
630	Dec-92	P1	SWS OVHD Gas	1	B	1							ND						ND	
631	Jul-93	V1	SRU-WSTHTBGAS	1	A	14	8E-07			NA			*3E-07*			*3E-07*			*3E-07*	
632	Sep-93	V2	SRU- TRFG	1	A	14	2.8E-05			NA			0.00719			*3E-08*			0.0015	
633	Jan-88	Y2	R1600	1	C	2														
634	Jan-88	Y3	R1600	1	C	2														
635																				
636	*S.W. Stripper*		*Stripped Sour Water*																	
637	Oct-90	P1	Sour Water	1	A	1														
638	Jul-93	V1	SRU-FC	1	A	14	2E-06			NA			*2E-07*			*2E-07*			*2E-07*	
639	Jul-93	V1	SRU-STRFLX	1	A	14	4E-07			NA			*2E-07*			*2E-07*			*2E-07*	
640	Sep-93	V2	SRU-STPRFX	1	A	14	2.7E-05			NA			*2E-05*			*2E-05*			*2E-05*	
641	Nov-90	V4	SRU-FSWS	1	A	15	0.0001			NA			*5E-05*			*5E-05*			*5E-05*	
642																				

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	A	B	C	D	E	N	CH	CI
	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Butane
2	Count =	742	*Site Use Only*	1076	742	6404	8	Typ.
611	Oct-92	Q1,2,6,7	Isomerate	4	B	3		
612								
613	*Cat. Isomer'zn*		*Isobutane*					
614	Sep-92	J2	19	1	A	3		38.885
615	Sep-92	J2	20	1	A	3		53.1326
616	Oct-92	J3	50	1	A	3		14.7698
617								
618	*Spent caustic*		*Spent caustic*					
619	Sep-92	J1	26	1	A	0		
620	Sep-92	J1	27	1	A	0		
621	Jan-88	Y2	R1200	1	C	1		
622	Jan-88	Y3	R1200	1	C	1		
623								
624	*Sulfur Plant*		*Fuel Gas*					
625	Sep-92	J1	28	1	A	5		0.52536
626	Sep-92	J2	21	1	A	5		4.54555
627	Oct-92	J3	51	1	A	6		4.72379
628	Sep-92	J4	41	1	A	5		5.09113
629	Aug-92	J5	26	1	A	5		0.61743
630	Dec-92	P1	SWS OVHD Gas	1	B	1		
631	Jul-93	V1	SRU-WSTHTBGAS	1	A	14		*3E-07*
632	Sep-93	V2	SRU- TRFG	1	A	14		1.4E-05
633	Jan-88	Y2	R1600	1	C	2		
634	Jan-88	Y3	R1600	1	C	2		
635								
636	*S.W. Stripper*		*Stripped Sour Water*					
637	Oct-90	P1	Sour Water	1	A	1		
638	Jul-93	V1	SRU-FC	1	A	14		*2E-07*
639	Jul-93	V1	SRU-STRFLX	1	A	14		*2E-07*
640	Sep-93	V2	SRU-STPRFX	1	A	14		0.02747
641	Nov-90	V4	SRU-FSWS	1	A	15		*5E-05*
642								

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	A	B	C	D	E	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	1,3 Butadiene	No. of Mins	No. of Maxs	Benzene	No. of Mins	No. of Maxs	Biphenyl	No. of Mins	No. of Maxs	Cresols (mixed)	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	4	5	Typ.	59	59	Typ.	4	4	Typ.	0	5	Typ.	34	35
643	*Amine Treating*		*Treated olefinic*																	
644	Sep-92	J1	29	1	A	6														
645	Sep-92	J1	30	1	A	7			0.17554											
646	Sep-92	J2	22	1	A	7			0.43315											
647																				
648	*Amine Treating*		*Sour Gas*																	
649	Sep-92	J1	31	1	A	5														
650	Sep-92	J1	32	1	A	3														
651	Oct-92	J3	52	1	A	5														
652	Aug-92	J5	27	1	A	4														
653	Oct-90	P1	Acid Gas	1	B	1														
654	Jul-93	V1	SRU-AG	1	A	14			*3E-07*			0.00022			NA			NA		
655	Jul-93	V1	SRU-RAM	1	A	14			*2E-07*			6E-06			NA			NA		
656	Sep-93	V2	SRU-AAG	1	A	14			*4E-08*			2.8E-05			NA			NA		
657	Sep-93	V2	SRU-RICHAMIN	1	A	14			*3E-05*			*1E-05*			NA			NA		
658	Mar-94	V3	SRU-AMINEGAS	1	A	10			NA			NA			NA			NA		
659	Mar-94	V3	SRU-LAMINE	1	A	13			NA			*0.0004*			NA			NA		
660	Mar-94	V3	SRU-RAMINE	1	A	9			NA			*0.0004*			NA			NA		
661	Mar-94	V3	SRU-SOURGAS	1	A	10			NA			NA			NA			NA		
662																				
663	*Naphtha Pretreat*		*Desulf. naphtha*																	
664	Sep-92	J1	33	1	A	8						2.712								
665	Sep-92	J2	23	1	A	6						1.581								
666	Oct-92	J3	53	1	A	5						3.169								
667	Aug-92	J4	42	1	A	9						1.376								
668	Aug-92	J5	28	1	A	7						0.534								
669	Aug-92	J5	29	1	A	8						0.728								
670	Oct-90	P1	Reformer Feed	1	A	6			NP			2.75			NA			ND		
671	Dec-89	Q2	WGT AVG light naphtha	1	B	0														
672	Oct-92	Q1,2,6,7	Naphtha Desulf	4	B	6			ND			ND								
673	Oct-92	Q1,2,6,7	Hydrofined Naphtha	4	B	8			ND			0.17								
674	Oct-92	Q1,2,6,7	Light Reformate	4	B	8			ND			2.2								

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Refine Process and Product Stream Speciation — For TAC Review Only — ND shown as half detect limit in italics

	A	B	C	D	E	N	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Cumene	No. of Mins	No. of Maxs	Ethylbenzene	No. of Mins	No. of Maxs	Ethylene Glycol	No. of Mins	No. of Maxs	n-Hexane	No. of Mins	No. of Maxs	Hydrogen Sulfide	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	6404	Typ.	49	49	Typ.	0	1	Typ.	22	25	Typ.	2	2	Typ.	2
643	*Amine Treating*		*Treated olefinic*																	
644	Sep-92	J1	29	1	A	6										0.04332				
645	Sep-92	J1	30	1	A	7										0.03495				
646	Sep-92	J2	22	1	A	7										0.01617				
647																				
648	*Amine Treating*		*Sour Gas*																	
649	Sep-92	J1	31	1	A	5										0.35728				
650	Sep-92	J1	32	1	A	3														
651	Oct-92	J3	52	1	A	6													0.00904	
652	Aug-92	J5	27	1	A	4										0.82798				
653	Oct-90	P1	Acid Gas	1	B	1													0.86	
654	Jul-93	V1	SRU-AG	1	A	14	*4E-07*			*4E-07*			NA			1E-06			NA	
655	Jul-93	V1	SRU-RAM	1	A	14	*3E-07*			*3E-07*			NA			*3E-07*			NA	
656	Sep-93	V2	SRU-AAG	1	A	14	*4E-07*			*3E-07*			NA			*4E-07*			NA	
657	Sep-93	V2	SRU-RICHAMIN	1	A	14	0.00027			*1E-05*			NA			*2E-05*			NA	
658	Mar-94	V3	SRU-AMINEGAS	1	A	10	*0.0002*			NA			NA			*0.0002*			NA	
659	Mar-94	V3	SRU-LAMINE	1	A	13	*1E-05*			*0.0004*			NA			*1E-05*			NA	
660	Mar-94	V3	SRU-RAMINE	1	A	9	NA			*0.0004*			NA			NA			NA	
661	Mar-94	V3	SRU-SOURGAS	1	A	10	*0.0002*			NA			NA			0.0934			NA	
662																				
663	*Naphtha Pretreat*		*Desulf. naphtha*																	
664	Sep-92	J1	33	1	A	8	0.129			0.971						5.946				
665	Sep-92	J2	23	1	A	6				0.616						5				
666	Oct-92	J3	53	1	A	5				0.48						10.798				
667	Aug-92	J4	42	1	A	9	0.14			0.754						4.895				
668	Aug-92	J5	28	1	A	7	0.108			0.703						2.384				
669	Aug-92	J5	29	1	A	8	0.098			0.707						2.393				
670	Oct-90	P1	Reformer Feed	1	A	6	NA			9.2			NP			NA			NP	
671	Dec-89	Q2	WGT AVG light naphtha	1	B	0														
672	Oct-92	Q1,2,6,7	Naphtha Desulf	4	B	6	ND			2.2						0.4				
673	Oct-92	Q1,2,6,7	Hydrofined Naphtha	4	B	8	0.13			0.83						0.83			.	
674	Oct-92	Q1,2,6,7	Light Reformate	4	B	8	0.7			5.7						0.5				

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	A	B	C	D	E	N	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Methanol	No. of Mins	No. of Maxs	MEK	No. of Mins	No. of Maxs	MTBE	No. of Mins	No. of Maxs	Naphthalene	No. of Mins	No. of Maxs	Phenol
2	Count =	742	*Site Use Only*	1076	742	5404	1	Typ.	0	0	Typ.	8	7	Typ.	50	49	Typ.	3	2	Typ.
643	*Amine Treating*		*Treated olefinic*																	
644	Sep-92	J1	29	1	A	6														
645	Sep-92	J1	30	1	A	7														
646	Sep-92	J2	22	1	A	7														
647																				
648	*Amine Treating*		*Sour Gas*																	
649	Sep-92	J1	31	1	A	5														
650	Sep-92	J1	32	1	A	3														
651	Oct-92	J3	52	1	A	5														
652	Aug-92	J5	27	1	A	4														
653	Oct-90	P1	Acid Gas	1	B	1														
654	Jul-93	V1	SRU-AG	1	A	14		*0.001*			NA			NA			*4E-07*			NA
655	Jul-93	V1	SRU-RAM	1	A	14		*0.0007*			NA			NA			8E-07			NA
656	Sep-93	V2	SRU-AAG	1	A	14		NA			NA			NA			*8E-07*			NA
657	Sep-93	V2	SRU-RICHAMIN	1	A	14		NA			NA			NA			0.00067			NA
658	Mar-94	V3	SRU-AMINEGAS	1	A	10		*0.0002*			NA			NA			NA			NA
659	Mar-94	V3	SRU-LAMINE	1	A	13		*1E-05*			NA			NA			*0.0004*			NA
660	Mar-94	V3	SRU-RAMINE	1	A	9		NA			NA			NA			*0.0004*			NA
661	Mar-94	V3	SRU-SOURGAS	1	A	10		*0.0002*			NA			NA			NA			NA
662																				
663	*Naphtha Pretreat*		*Desulf. naphtha*																	
664	Sep-92	J1	33	1	A	8														
665	Sep-92	J2	23	1	A	6														
666	Oct-92	J3	53	1	A	5														
667	Aug-92	J4	42	1	A	9														
668	Aug-92	J5	28	1	A	7														
669	Aug-92	J5	29	1	A	8														
670	Oct-90	P1	Reformer Feed	1	A	6		NP			NP			NP			0.1			ND
671	Dec-89	Q2	WGT AVG light naphtha	1	B	0														
672	Oct-92	Q1,2,6,7	Naphtha Desulf	4	B	6											3			
673	Oct-92	Q1,2,6,7	Hydrofined Naphtha	4	B	8											ND			
674	Oct-92	Q1,2,6,7	Light Reformate	4	B	8											1.2			

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	A	B	C	D	E	N	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	Styrene	No. of Mins	No. of Maxs	1,2,4 TMB	No. of Mins	No. of Maxs	2,2,4 TMP	No. of Mins	No. of Maxs	Toluene	No. of Mins	No. of Maxs
2	Count =	742	Site Use Only	1076	742	5404	6	6	Typ.	51	51	Typ.	12	12	Typ.	54	54	Typ.	53	85
643	*Amine Treating*		*Treated olefinic*																	
644	Sep-92	J1	29	1	A	6														
645	Sep-92	J1	30	1	A	7														
646	Sep-92	J2	22	1	A	7														
647																				
648	*Amine Treating*		*Sour Gas*																	
649	Sep-92	J1	31	1	A	5														
650	Sep-92	J1	32	1	A	3														
651	Oct-92	J3	52	1	A	5														
652	Aug-92	J5	27	1	A	4														
653	Oct-90	P1	Acid Gas	1	B	1														
654	Jul-93	V1	SRU-AG	1	A	14			NA			NA			*4E-07*			0.00032		
655	Jul-93	V1	SRU-RAM	1	A	14			NA			NA			*3E-07*			5.2E-06		
656	Sep-93	V2	SRU-AAG	1	A	14			NA			*5E-07*			*6E-07*			1.1E-05		
657	Sep-93	V2	SRU-RICHAMIN	1	A	14			NA			*3E-05*			*2E-05*			0.00133		
658	Mar-94	V3	SRU-AMINEGAS	1	A	10			NA			NA			NA			0.1622		
659	Mar-94	V3	SRU-LAMINE	1	A	13			NA			NA			NA			*1E-05*		
660	Mar-94	V3	SRU-RAMINE	1	A	9			NA			NA			NA			NA		
661	Mar-94	V3	SRU-SOURGAS	1	A	10			NA			NA			NA			*0.0002*		
662																				
663	*Naphtha Pretreat*		*Desulf. naphtha*																	
664	Sep-92	J1	33	1	A	8						0.751						7.061		
665	Sep-92	J2	23	1	A	6						0.112						7.56		
666	Oct-92	J3	53	1	A	5												5.111		
667	Aug-92	J4	42	1	A	9						0.989						3.486		
668	Aug-92	J5	28	1	A	7						0.943						3.722		
669	Aug-92	J5	29	1	A	8						0.931						3.607		
670	Oct-90	P1	Reformer Feed	1	A	6			NP			4.6			NA			3.5		
671	Dec-89	Q2	WGT AVG light naphtha	1	B	0														
672	Oct-92	Q1,2,6,7	Naphtha Desulf	4	B	6						7			ND			2		
673	Oct-92	Q1,2,6,7	Hydrofined Naphtha	4	B	8						0.54			0.01			2.12		
674	Oct-92	Q1,2,6,7	Light Reformate	4	B	8						8.5			ND			11.2		

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	A	B	C	D	E	N	BS	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Xylenes (mixed)	No. of Mins	No. of Maxs	Ethane	No. of Mins	No. of Maxs	Ethylene	No. of Mins	No. of Maxs	Propane	No. of Mins	No. of Maxs	Propylene	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	0	0	Typ.	1	1	Typ.	1	2	Typ.	2	2	Typ.	8
643	*Amine Treating*		*Treated olefinic*																	
644	Sep-92	J1	29	1	A	6				14.6394			0.0141			48.659			0.13749	
645	Sep-92	J1	30	1	A	7				0.90229			0.10805			12.3029			31.3619	
646	Sep-92	J2	22	1	A	7				0.05641			0.00526			7.54539			12.8601	
647																				
648	*Amine Treating*		*Sour Gas*																	
649	Sep-92	J1	31	1	A	5				4.67962						11.7009			0.0268	
650	Sep-92	J1	32	1	A	3				18.4839						41.5708				
651	Oct-92	J3	52	1	A	5				0.02607			0.0081			0.01274			0.06079	
652	Aug-92	J5	27	1	A	4				19.2985						7.79597				
653	Oct-90	P1	Acid Gas	1	B	1							ND						ND	
654	Jul-93	V1	SRU-AG	1	A	14	8E-07			NA			*3E-07*			*3E-07*			*3E-07*	
655	Jul-93	V1	SRU-RAM	1	A	14	4E-07			NA			*2E-07*			*2E-07*			*2E-07*	
656	Sep-93	V2	SRU-AAG	1	A	14	7.6E-07			NA			9E-06			*3E-08*			9.5E-05	
657	Sep-93	V2	SRU-RICHAMIN	1	A	14	5.3E-05			NA			0.0008			*2E-05*			0.02107	
658	Mar-94	V3	SRU-AMINEGAS	1	A	10	0.0000			*0.0002*			*0.0002*			*0.0002*			*0.0002*	
659	Mar-94	V3	SRU-LAMINE	1	A	13	0.0008			*0.0001*			*0.0001*			*0.0001*			*0.0001*	
660	Mar-94	V3	SRU-RAMINE	1	A	9	0.0008			*0.0001*			*0.0001*			*0.0001*			*0.0001*	
661	Mar-94	V3	SRU-SOURGAS	1	A	10	0.0000			*0.0002*			*0.0002*			0.1228			0.121	
662																				
663	*Naphtha Pretreat*		*Desulf. naphtha*																	
664	Sep-92	J1	33	1	A	8	3.33													
665	Sep-92	J2	23	1	A	6	5.306													
666	Oct-92	J3	53	1	A	5	1.615													
667	Aug-92	J4	42	1	A	9	2.909									0.379				
668	Aug-92	J5	28	1	A	7	3.835													
669	Aug-92	J5	29	1	A	8	3.697													
670	Oct-90	P1	Reformer Feed	1	A	6	4.5			NP			NP			NP			NP	
671	Dec-89	Q2	WGT AVG light naphtha	1	B	0														
672	Oct-92	Q1,2,6,7	Naphtha Desulf	4	B	6	13.4												ND	
673	Oct-92	Q1,2,6,7	Hydrofined Naphtha	4	B	8	2.25												ND	
674	Oct-92	Q1,2,6,7	Light Reformate	4	B	8	20.5												ND	

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	A	B	C	D	E	N	CH	CI
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Butane
2	Count =	742	*Site Use Only*	1076	742	5404	8	Typ.
643	*Amine Treating*		*Treated olefinic*					
644	Sep-92	J1	29	1	A	6		13.9067
645	Sep-92	J1	30	1	A	7		5.56184
646	Sep-92	J2	22	1	A	7		13.586
647								
648	*Amine Treating*		*Sour Gas*					
649	Sep-92	J1	31	1	A	5		3.35476
650	Sep-92	J1	32	1	A	3		26.6091
651	Oct-92	J3	52	1	A	5		
652	Aug-92	J5	27	1	A	4		0.11168
653	Oct-90	P1	Acid Gas	1	B	1		
654	Jul-93	V1	SRU-AG	1	A	14		*3E-07*
655	Jul-93	V1	SRU-RAM	1	A	14		*2E-07*
656	Sep-93	V2	SRU-AAG	1	A	14		*3E-08*
657	Sep-93	V2	SRU-RICHAMIN	1	A	14		*2E-05*
658	Mar-94	V3	SRU-AMINEGAS	1	A	10		*0.0002*
659	Mar-94	V3	SRU-LAMINE	1	A	13		*0.0001*
660	Mar-94	V3	SRU-RAMINE	1	A	9		*0.0001*
661	Mar-94	V3	SRU-SOURGAS	1	A	10		0.091
662								
663	*Naphtha Pretreat*		*Desulf. naphtha*					
664	Sep-92	J1	33	1	A	8		0.582
665	Sep-92	J2	23	1	A	6		
666	Oct-92	J3	53	1	A	5		
667	Aug-92	J4	42	1	A	9		0.393
668	Aug-92	J5	28	1	A	7		
669	Aug-92	J5	29	1	A	8		1.281
670	Oct-90	P1	Reformer Feed	1	A	6		NA
671	Dec-89	Q2	WGT AVG light naphtha	1	B	0		
672	Oct-92	Q1,2,6,7	Naphtha Desulf	4	B	6		
673	Oct-92	Q1,2,6,7	Hydrofined Naphtha	4	B	8		
674	Oct-92	Q1,2,6,7	Light Reformate	4	B	8		

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	A	B	C	D	E	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	1,3 Butadiene	No. of Mins	No. of Maxs	Benzene	No. of Mins	No. of Maxs	Biphenyl	No. of Mins	No. of Maxs	Cresols (mixed)	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	4	5	Typ.	59	59	Typ.	4	4	Typ.	0	5	Typ.	34	35
675	Oct-92	Q1,2,6,7	Heavy Reformate	4	B	9			ND			2.54								
676	Dec-89	Q2	No 2 CRU	4	B	15				2.4	4.2	4.5							0.1	0.3
677	Dec-89	Q2	ARU	3	B	16				6.2	8.3	5.7							ND	0.3
678	Dec-89	Q2	No 1 CRU 2nd stage	3	B	14				2.2	7.9	6.8							<.1	ND
679	Jun-93	Q3	Reformate	2	A	7						5.99								
680	Apr-93	Q1	Reformate	2	C	9						3.39								
681																				
682	*Cat. Reformer*		*Reformate*																	
683	Post 199	F1	REFORMATE	1	B	6				3	6.5									
684	Post 199	F2	CR-3 REFORMATE	1	A	5						14								
685	Post 199	F2	PLAT 2 REFORMATE	1	A	3														
686	Post 199	F3	REFORMATE	1	B	13				3.5	3.8									
687	Post 199	F4	REFORMATE	1	A	7				3	3.1									
688	Post 199	F4	REFORMATE	10	A	4				2.5	4.3									
689	93-'94	F5	LT. & HEAVY PLAT.	1	A	2														
690	1990	F6	REFORMATE	1	B	4			*0.05*			2.3								
691	Post 199	F7	HVY REFORMATE 1&2	1	B	7						5.7							0.08	0.6
692	Post 199	F7	LT. REFORMATE 3	1	B	5						20								
693	Sep-92	J1	34	1	A	10						9.242								
694	Sep-92	J1	35	1	A	6														
695	Sep-92	J1	36	1	A	7						12.687								
696	Sep-92	J2	24	1	A	8						4.64								
697	Oct-92	J3	54	1	A	8						15.289								
698	Oct-92	J3	55	1	A	8						4.806								
699	Oct-92	J3	56	1	A	8						11.161								
700	Oct-92	J3	57	1	A	5														
701	Oct-92	J3	58	1	A	9						1.097								
702	Oct-92	J3	59	1	A	9						0.106								
703	Aug-92	J4	43	1	A	9						6.917								
704	Aug-92	J4	44	1	A	9						3.763								
705	Aug-92	J4	45	1	A	3														
706	Aug-92	J4	46	1	A	7						10.657								

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	A	B	C	D	E	N	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Cumene	No. of Mins	No. of Maxs	Ethylbenzene	No. of Mins	No. of Maxs	Ethylene Glycol	No. of Mins	No. of Maxs	n-Hexane	No. of Mins	No. of Maxs	Hydrogen Sulfide	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	49	49	Typ.	0	1	Typ.	22	25	Typ.	2	2	Typ.	2
675	Oct-92	Q1,2,6,7	Heavy Reformate	4	B	9	0.34			4.23						0.63				
676	Dec-89	Q2	No 2 CRU	4	B	15	ND	3.6	3.8	3.7										
677	Dec-89	Q2	ARU	3	B	16	0.23	3.2	3.4	3.3										
678	Dec-89	Q2	No 1 CRU 2nd stage	3	B	14	0.12	1.9	3	2.6										
679	Jun-93	Q3	Reformate	2	A	7				3.98						1.99				
680	Apr-93	Q1	Reformate	2	C	9	0.97			3.73						3.9				
681																				
682	*Cat. Reformer*		*Reformate*																	
683	Post 199	F1	REFORMATE	1	B	6				3.4										
684	Post 199	F2	CR-3 REFORMATE	1	A	5				3.15						5.32				
685	Post 199	F2	PLAT 2 REFORMATE	1	A	3				4.06						0.98				
686	Post 199	F3	REFORMATE	1	B	13	0.27	3.3	3.4							1.5				
687	Post 199	F4	REFORMATE	1	A	7				8.6						3.8				
688	Post 199	F4	REFORMATE	10	A	4														
689	93-'94	F5	LT. & HEAVY PLAT.	1	A	2														
690	1990	F6	REFORMATE	1	B	4														
691	Post 199	F7	HVY REFORMATE 1&2	1	B	7				8.1						1.6				
692	Post 199	F7	LT. REFORMATE 3	1	B	5				2.1						5.9				
693	Sep-92	J1	34	1	A	10	0.155			2.44						3.111				
694	Sep-92	J1	35	1	A	6	0.525			7.583										
695	Sep-92	J1	36	1	A	7				0.568						4.06				
696	Sep-92	J2	24	1	A	8	0.243			4.088						1.959				
697	Oct-92	J3	54	1	A	8				1.576						5.693				
698	Oct-92	J3	55	1	A	8	0.269			4.831						3.191				
699	Oct-92	J3	56	1	A	8	0.158			3.881						3.569				
700	Oct-92	J3	57	1	A	5	0.723			2.802										
701	Oct-92	J3	58	1	A	9	0.347			2.274						0.264				
702	Oct-92	J3	59	1	A	9	0.572			2.609										
703	Aug-92	J4	43	1	A	9	0.289			3.231						2.226				
704	Aug-92	J4	44	1	A	9	0.364			4.152						1.784				
705	Aug-92	J4	45	1	A	3	0.813													
706	Aug-92	J4	46	1	A	7				0.181						4.927				

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	A	B	C	D	E	N	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Methanol	No. of Mins	No. of Maxs	MEK	No. of Mins	No. of Maxs	MTBE	No. of Mins	No. of Maxs	Naphthalene	No. of Mins	No. of Maxs	Phenol
2	Count =	742	*Site Use Only*	1076	742	5404	1	Typ.	0	0	Typ.	8	7	Typ.	50	49	Typ.	3	2	Typ.
675	Oct-92	Q1,2,6,7	Heavy Reformate	4	B	9											0.22			
676	Dec-89	Q2	No 2 CRU	4	B	16									ND	0.8	0.53			
677	Dec-89	Q2	ARU	3	B	16									0.6	0.6	0.6			
678	Dec-89	Q2	No 1 CRU 2nd stage	3	B	14									0.1	ND	0.37			
679	Jun-93	Q3	Reformate	2	A	7											0.06			
680	Apr-93	Q1	Reformate	2	C	9											0.8			
681																				
682	*Cat. Reformer*		*Reformate*																	
683	Post 199	F1	REFORMATE	1	B	6														
684	Post 199	F2	CR-3 REFORMATE	1	A	5														
685	Post 199	F2	PLAT 2 REFORMATE	1	A	3														
686	Post 199	F3	REFORMATE	1	B	13									0.1	0.67				
687	Post 199	F4	REFORMATE	1	A	7														
688	Post 199	F4	REFORMATE	10	A	4														
689	93-'94	F5	LT. & HEAVY PLAT.	1	A	2														
690	1990	F6	REFORMATE	1	B	4														
691	Post 199	F7	HVY REFORMATE 1&2	1	B	7														
692	Post 199	F7	LT. REFORMATE 3	1	B	5														
693	Sep-92	J1	34	1	A	10											0.248			
694	Sep-92	J1	35	1	A	6											0.781			
695	Sep-92	J1	36	1	A	7														
696	Sep-92	J2	24	1	A	8														
697	Oct-92	J3	54	1	A	8														
698	Oct-92	J3	55	1	A	8														
699	Oct-92	J3	56	1	A	8														
700	Oct-92	J3	57	1	A	5											2.069			
701	Oct-92	J3	58	1	A	9											0.944			
702	Oct-92	J3	59	1	A	9											1.177			
703	Aug-92	J4	43	1	A	9											0.812			
704	Aug-92	J4	44	1	A	9											0.882			
705	Aug-92	J4	45	1	A	3											2.197			
706	Aug-92	J4	46	1	A	7														

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	A	B	C	D	E	N	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR
	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	Styrene	No. of Mins	No. of Maxs	1,2,4 TMB	No. of Mins	No. of Maxs	2,2,4 TMP	No. of Mins	No. of Maxs	Toluene	No. of Mins	No. of Maxs
	Count =	742	*Site Use Only*	1076	742	5404	6	6	Typ.	51	51	Typ.	12	12	Typ.	54	54	Typ.	53	85
575	Oct-92	Q1,2,6,7	Heavy Reformate	4	B	9						7.2			0.05			18.98		
576	Dec-89	Q2	No 2 CRU	4	B	15				5	7.2	6.85						13.65		
577	Dec-89	Q2	ARU	3	B	16				5.5	6.1	5.7						20		
578	Dec-89	Q2	No 1 CRU 2nd stage	3	B	14				3.9	5.1	4.47						16.6		
579	Jun-93	Q3	Reformate	2	A	7						3.38			ND			32.24		
580	Apr-93	Q1	Reformate	2	C	9			0.09						1.38			14.31		
581																				
582	*Cat. Reformer*		*Reformate*																	
583	Post 199	F1	REFORMATE	1	B	6										18	28			
584	Post 199	F2	CR-3 REFORMATE	1	A	5												31.46		
585	Post 199	F2	PLAT 2 REFORMATE	1	A	3														
586	Post 199	F3	REFORMATE	1	B	13						6.8				18	21		21	23
587	Post 199	F4	REFORMATE	1	A	7										18	19			
588	Post 199	F4	REFORMATE	10	A	4										18	26			
589	93-'94	F5	LT. & HEAVY PLAT.	1	A	2						ND				13	34			
590	1990	F6	REFORMATE	1	B	4												18		
591	Post 199	F7	HVY REFORMATE 1&2	1	B	7												14.4		
592	Post 199	F7	LT. REFORMATE 3	1	B	5												26		
593	Sep-92	J1	34	1	A	10						2.365						17.144		
594	Sep-92	J1	35	1	A	6						7.867						19.995		
595	Sep-92	J1	36	1	A	7												16.602		
596	Sep-92	J2	24	1	A	8						3.936						23.31		
597	Oct-92	J3	54	1	A	8						0.644						20.238		
598	Oct-92	J3	55	1	A	8						3.057						16.815		
599	Oct-92	J3	56	1	A	8						2.41						22.394		
700	Oct-92	J3	57	1	A	5						12.671								
701	Oct-92	J3	58	1	A	9			0.128			9.666						5.688		
702	Oct-92	J3	59	1	A	9						14.2			0.27			10.242		
703	Aug-92	J4	43	1	A	9						5.252						21.036		
704	Aug-92	J4	44	1	A	9						6.174						15.351		
705	Aug-92	J4	45	1	A	3														
706	Aug-92	J4	46	1	A	7												27.993		

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	A	B	C	D	E	N	BS	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Xylenes (mixed)	No. of Mins	No. of Maxs	Ethane	No. of Mins	No. of Maxs	Ethylene	No. of Mins	No. of Maxs	Propane	No. of Mins	No. of Maxs	Propylene	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	0	0	Typ.	1	1	Typ.	1	2	Typ.	2	2	Typ.	8
675	Oct-92	Q1,2,6,7	Heavy Reformate	4	B	9	24.36												ND	
676	Dec-89	Q2	No 2 CRU	4	B	15	23.28													
677	Dec-89	Q2	ARU	3	B	16	19.27													
678	Dec-89	Q2	No 1 CRU 2nd stage	3	B	14	15.87													
679	Jun-93	Q3	Reformate	2	A	7	24.95													
680	Apr-93	Q1	Reformate	2	C	9	16.77													
681																				
682	*Cat. Reformer*		*Reformate*																	
683	Post 199	F1	REFORMATE	1	B	6	24													
684	Post 199	F2	CR-3 REFORMATE	1	A	5	17.45													
685	Post 199	F2	PLAT 2 REFORMATE	1	A	3	18.05													
686	Post 199	F3	REFORMATE	1	B	13														
687	Post 199	F4	REFORMATE	1	A	7	17													
688	Post 199	F4	REFORMATE	10	A	4														
689	93-'94	F5	LT. & HEAVY PLAT.	1	A	2														
690	1990	F6	REFORMATE	1	B	4	18													
691	Post 199	F7	HVY REFORMATE 1&2	1	B	7	28													
692	Post 199	F7	LT. REFORMATE 3	1	B	5	11													
693	Sep-92	J1	34	1	A	10	10.608									0.681				
694	Sep-92	J1	35	1	A	6	34.427													
695	Sep-92	J1	36	1	A	7	1.921									1.517				
696	Sep-92	J2	24	1	A	8	25.07													
697	Oct-92	J3	54	1	A	8	7.761									0.09				
698	Oct-92	J3	55	1	A	8	18.331													
699	Oct-92	J3	56	1	A	8	17.102													
700	Oct-92	J3	57	1	A	5	14.42													
701	Oct-92	J3	58	1	A	9	9.533													
702	Oct-92	J3	59	1	A	9	15.522													
703	Aug-92	J4	43	1	A	9	16.263													
704	Aug-92	J4	44	1	A	9	21.23													
705	Aug-92	J4	45	1	A	3	0.584													
706	Aug-92	J4	46	1	A	7	0.082									0.404				

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	A	B	C	D	E	N	CH	CI
	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Butane
	Count =	742	*Site Use Only*	1076	742	5404	8	Typ.
675	Oct-92	Q1,2,6,7	Heavy Reformate	4	B	9		
676	Dec-89	Q2	No 2 CRU	4	B	15		
677	Dec-89	Q2	ARU	3	B	16		
678	Dec-89	Q2	No 1 CRU 2nd stage	3	B	14		
679	Jun-93	Q3	Reformate	2	A	7		
680	Apr-93	Q1	Reformate	2	C	9		
681								
682	*Cat. Reformer*		*Reformate*					
683	Post 199	F1	REFORMATE	1	B	6		
684	Post 199	F2	CR-3 REFORMATE	1	A	5		
685	Post 199	F2	PLAT 2 REFORMATE	1	A	3		
686	Post 199	F3	REFORMATE	1	B	13		
687	Post 199	F4	REFORMATE	1	A	7		
688	Post 199	F4	REFORMATE	10	A	4		
689	93-'94	F5	LT. & HEAVY PLAT.	1	A	2		
690	1990	F6	REFORMATE	1	B	4		
691	Post 199	F7	HVY REFORMATE 1&2	1	B	7		
692	Post 199	F7	LT. REFORMATE 3	1	B	5		
693	Sep-92	J1	34	1	A	10		7.016
694	Sep-92	J1	35	1	A	6		
695	Sep-92	J1	36	1	A	7		10.715
696	Sep-92	J2	24	1	A	8		0.424
697	Oct-92	J3	54	1	A	8		4.809
698	Oct-92	J3	55	1	A	8		0.226
699	Oct-92	J3	56	1	A	8		0.787
700	Oct-92	J3	57	1	A	5		
701	Oct-92	J3	58	1	A	9		
702	Oct-92	J3	59	1	A	9		0.153
703	Aug-92	J4	43	1	A	9		0.732
704	Aug-92	J4	44	1	A	9		0.282
705	Aug-92	J4	45	1	A	3		
706	Aug-92	J4	46	1	A	7		5.464

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	A	B	C	D	E	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	1,3 Butadiene	No. of Mins	No. of Maxs	Benzene	No. of Mins	No. of Maxs	Biphenyl	No. of Mins	No. of Maxs	Cresols (mixed)	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	4	5	Typ.	59	59	Typ.	4	4	Typ.	0	5	Typ.	34	35
707	Aug-92	J5	30	1	A	9						6.714								
708	Aug-92	J5	31	1	A	4						11.145								
709	Aug-92	J5	32	1	A	8						0.582								
710	Oct-90	P1	Reformate #1 Ref.	1	A	6			NP			2.6			NA			NP		
711	Jul-93	V1	REF1-LR/LRGGP	1	A	14			*0.0003*			11.6704			NA			NA		
712	Jul-93	V1	REF1-HR/HRGGP	1	A	14			*0.0002*			0.82573			NA			NA		
713	Jul-93	V1	REF2-DF	1	A	14			*0.0003*			4.52776			NA			NA		
714	Jul-93	V1	REF2-TR	1	A	14			*0.0002*			4.90968			NA			NA		
715	Sep-93	V2	REF-TOTREF	1	A	14			*3E-05*			2.58293			NA			NA		
716	Mar-94	V3	REF-REFORM	1	A	13			NA			3.90093			NA			NA		
717	Nov-90	V4	REF-LGHTREF	1	A	15			NA			8.0646			*5E-05*			NA		
718	Nov-90	V4	REF-TOTRF	1	A	15			NA			5.95			0.0016			NA		
719	1987	W2	CR21	1	A	4						5.9								
720	Jan-88	Y1	R7500	1	B	6						14.4846								
721	Jan-88	Y3	R7500	1	B	4						8.61715								
722																				
723	*Cat. Reformer*		*Reformate gas*																	
724	Post 199	F3	REFORMATE GAS	1	B	2						0.68								
725	Post 199	F4	STAB. VENT GAS	1	A	4			0.02			0.55								
726	Sep-92	J2	25	1	A	6														
727	Oct-92	J3	60	1	A	5														
728	Aug-92	J4	47	1	A	6			0											
729	Aug-92	J5	33	1	A	5														
730	Oct-90	P1	Rel to F #2 Reformer	1	A	0			NP			NP			NP			NP		
731	Sep-93	V2	REF-DEPEN-OVHDV	1	A	14			*4E-08*			2E-05			NA			NA		
732	Sep-93	V2	ARO-LPFG	1	A	14			1.8E-06			*2E-07*			NA			NA		
733																				
734	*Aromatics Extract*		*Benzene*																	
735	Post 199	F2	BEU	1	B	0														
736	Oct-92	J3	61	1	A	1						99.994								
737	Feb-92	P1	UDEX Extract	1	A	4			NP			6								
738	Jan-88	Y1	R0102	1	B	3						99.9909								

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	A	B	C	D	E	N	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Cumene	No. of Mins	No. of Maxs	Ethylbenzene	No. of Mins	No. of Maxs	Ethylene Gycol	No. of Mins	No. of Maxs	n-Hexane	No. of Mins	No. of Maxs	Hydrogen Sulfide	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	49	49	Typ.	0	1	Typ.	22	25	Typ.	2	2	Typ.	2
707	Aug-92	J5	30	1	A	9	0.249			3.256						3.413				
708	Aug-92	J5	31	1	A	4										5.655				
709	Aug-92	J5	32	1	A	8	0.393			5.802										
710	Oct-90	P1	Reformate #1 Ref.	1	A	6	NA			5.4			NP			NA			NP	
711	Jul-93	V1	REF1-LR/LRGGP	1	A	14	*0.0005*			0.0064			NA			2.453			NA	
712	Jul-93	V1	REF1-HR/HRGGP	1	A	14	0.61684			3.99019			NA			0.0496			NA	
713	Jul-93	V1	REF2-DF	1	A	14	0.56437			4.18799			NA			3.78209			NA	
714	Jul-93	V1	REF2-TR	1	A	14	0.43077			3.98462			NA			3.14562			NA	
715	Sep-93	V2	REF-TOTREF	1	A	14	0.21147			1.78387			NA			2.14541			NA	
716	Mar-94	V3	REF-REFORM	1	A	13	1.2508			3.25053			NA			3.89708			NA	
717	Nov-90	V4	REF-LGHTREF	1	A	15	0.0571			4.2985			NA			4.8729			NA	
718	Nov-90	V4	REF-TOTRF	1	A	15	0.36			3.21			NA			3.59			NA	
719	1987	W2	CR21	1	A	4				4.3										
720	Jan-88	Y1	R7500	1	B	6	0.02142			0.06693										
721	Jan-88	Y3	R7500	1	B	4	ND			0.03009										
722																				
723	*Cat. Reformer*		*Reformate gas*																	
724	Post 199	F3	REFORMATE GAS	1	B	2										1.1				
725	Post 199	F4	STAB. VENT GAS	1	A	4								0.6	1.2					
726	Sep-92	J2	25	1	A	6										0.02239				
727	Oct-92	J3	60	1	A	5														
728	Aug-92	J4	47	1	A	6										1.76856				
729	Aug-92	J5	33	1	A	5										0.86695				
730	Oct-90	P1	Rel to F #2 Reformer	1	A	0	NP			NP			NP			NP			NP	
731	Sep-93	V2	REF-DEPEN-OVHDV	1	A	14	*4E-07*			*3E-07*			NA			*4E-07*			NA	
732	Sep-93	V2	ARO-LPFG	1	A	14	*3E-07*			*2E-07*			NA			0.00033			NA	
733																				
734	*Aromatics Extract*		*Benzene*																	
735	Post 199	F2	BEU	1	B	0														
736	Oct-92	J3	61	1	A	1														
737	Feb-92	P1	UDEX Extract	1	A	4				10										
738	Jan-88	Y1	R0102	1	B	3	ND			ND										

	A	B	C	D	E	N	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Methanol	No. of Mins	No. of Maxs	MEK	No. of Mins	No. of Maxs	MTBE	No. of Mins	No. of Maxs	Naphthalene	No. of Mins	No. of Maxs	Phenol
2	Count =	742	*Site Use Only*	1076	742	5404	1	Typ.	0	0	Typ.	8	7	Typ.	50	49	Typ.	3	2	Typ.
707	Aug-92	J5	30	1	A	9											0.422			
708	Aug-92	J5	31	1	A	4														
709	Aug-92	J5	32	1	A	8											0.855			
710	Oct-90	P1	Reformate #1 Ref.	1	A	6		NP			NP			NP			4.7			NP
711	Jul-93	V1	REF1-LR/LRGGP	1	A	14		*0.001*			NA			NA			*0.0005*			NA
712	Jul-93	V1	REF1-HR/HRGGP	1	A	14		*0.0007*			NA			NA			0.97679			NA
713	Jul-93	V1	REF2-DF	1	A	14		*0.001*			NA			NA			1.10866			NA
714	Jul-93	V1	REF2-TR	1	A	14		*0.0007*			NA			NA			1.08448			NA
715	Sep-93	V2	REF-TOTREF	1	A	14		NA			NA			NA			0.27126			NA
716	Mar-94	V3	REF-REFORM	1	A	13		*0.0003*			NA			NA			0.01983			NA
717	Nov-90	V4	REF-LGHTREF	1	A	15		*5E-05*			NA			NA			*5E-05*			NA
718	Nov-90	V4	REF-TOTRF	1	A	15		*5E-05*			NA			NA			0.25			NA
719	1987	W2	CR21	1	A	4														
720	Jan-88	Y1	R7500	1	B	6											ND			
721	Jan-88	Y3	R7500	1	B	4											ND			
722																				
723	*Cat. Reformer*		*Reformate gas*																	
724	Post 199	F3	REFORMATE GAS	1	B	2														
725	Post 199	F4	STAB. VENT GAS	1	A	4														
726	Sep-92	J2	25	1	A	6														
727	Oct-92	J3	60	1	A	5														
728	Aug-92	J4	47	1	A	6														
729	Aug-92	J5	33	1	A	5														
730	Oct-90	P1	Rel to F #2 Reformer	1	A	0		NP			NP			NP			NP			NP
731	Sep-93	V2	REF-DEPEN-OVHDV	1	A	14		NA			NA			NA			*8E-07*			NA
732	Sep-93	V2	ARO-LPFG	1	A	14		NA			NA			NA			*6E-07*			NA
733																				
734	*Aromatics Extract*		*Benzene*																	
735	Post 199	F2	BEU	1	B	0														
736	Oct-92	J3	61	1	A	1														
737	Feb-92	P1	UDEX Extract	1	A	4														
738	Jan-88	Y1	R0102	1	B	3											ND			

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	A	B	C	D	E	N	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	Styrene	No. of Mins	No. of Maxs	1,2,4 TMB	No. of Mins	No. of Maxs	2,2,4 TMP	No. of Mins	No. of Maxs	Toluene	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	6	6	Typ.	51	51	Typ.	12	12	Typ.	54	54	Typ.	53	86
07	Aug-92	J5	30	1	A	9						4.572						20.679		
708	Aug-92	J5	31	1	A	4												19.161		
709	Aug-92	J5	32	1	A	8						7.646			0.598			21.907		
710	Oct-90	P1	Reformate #1 Ref.	1	A	6			NP			12			NA			16.7		
711	Jul-93	V1	REF1-LR/LRGGP	1	A	14			NA			NA			*0.0005*			6.5944		
712	Jul-93	V1	REF1-HR/HRGGP	1	A	14			NA			NA			*0.0003*			6.27042		
713	Jul-93	V1	REF2-DF	1	A	14			NA			NA			*0.0005*			8.27283		
714	Jul-93	V1	REF2-TR	1	A	14			NA			NA			*0.0003*			6.6126		
715	Sep-93	V2	REF-TOTREF	1	A	14			NA			1.26349			0.39668			5.06404		
716	Mar-94	V3	REF-REFORM	1	A	13			NA			NA			NA			15.5359		
717	Nov-90	V4	REF-LGHTREF	1	A	15			NA			0.0016			0.0148			22.6078		
718	Nov-90	V4	REF-TOTRF	1	A	15			NA			5.49			0.01			16.72		
719	1987	W2	CR21	1	A	4												18.7		
20	Jan-88	Y1	R7500	1	B	6						0.29451						19.4913		
21	Jan-88	Y3	R7500	1	B	4						ND						24.5931		
722																				
723	*Cat. Reformer*		*Reformate gas*																	
724	Post 199	F3	REFORMATE GAS	1	B	2														
725	Post 199	F4	STAB. VENT GAS	1	A	4														
726	Sep-92	J2	25	1	A	6														
727	Oct-92	J3	60	1	A	5														
728	Aug-92	J4	47	1	A	6														
729	Aug-92	J5	33	1	A	5														
730	Oct-90	P1	Rel to F #2 Reformer	1	A	0			NP			NP			NP			NP		
731	Sep-93	V2	REF-DEPEN-OVHDV	1	A	14			NA			*4E-07*			*6E-07*			1.6E-05		
732	Sep-93	V2	ARO-LPFG	1	A	14			NA			*3E-07*			*4E-07*			0.00041		
733																				
734	*Aromatics Extract*		*Benzene*																	
735	Post 199	F2	BEU	1	B	0														
736	Oct-92	J3	61	1	A	1														
737	Feb-92	P1	UDEX Extract	1	A	4												52.8		
738	Jan-88	Y1	R0102	1	B	3						ND						0.00913		

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	A	B	C	D	E	N	BS	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Xylenes (mixed)	No. of Mins	No. of Maxs	Ethane	No. of Mins	No. of Maxs	Ethylene	No. of Mins	No. of Maxs	Propane	No. of Mins	No. of Maxs	Propylene	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	0	0	Typ.	1	1	Typ.	1	2	Typ.	2	2	Typ.	8
707	Aug-92	J5	30	1	A	9	16.944													
708	Aug-92	J5	31	1	A	4														
709	Aug-92	J5	32	1	A	8	29.817													
710	Oct-90	P1	Reformate #1 Ref.	1	A	6	21			NP			NP			NP			NP	
711	Jul-93	V1	REF1-LR/LRGGP	1	A	14	0.0112			NA			*0.0003*			*0.0003*			*0.0003*	
712	Jul-93	V1	REF1-HR/HRGGP	1	A	14	10.5996			NA			*0.0002*			*0.0002*			*0.0002*	
713	Jul-93	V1	REF2-DF	1	A	14	14.1467			NA			*0.0003*			*0.0003*			*0.0003*	
714	Jul-93	V1	REF2-TR	1	A	14	11.1353			NA			*0.0002*			*0.0002*			*0.0002*	
715	Sep-93	V2	REF-TOTREF	1	A	14	5.91626			NA			*3E-05*			*3E-05*			*3E-05*	
716	Mar-94	V3	REF-REFORM	1	A	13	15.0894			*7E-05*			*7E-05*			*7E-05*			*7E-05*	
717	Nov-90	V4	REF-LGHTREF	1	A	15	20.0378			NA			0.0013			0.0002			0.0002	
718	Nov-90	V4	REF-TOTRF	1	A	15	16.07			NA			*5E-05*			*5E-05*			*5E-05*	
719	1987	W2	CR21	1	A	4	19.7													
720	Jan-88	Y1	R7500	1	B	6	2.35609													
721	Jan-88	Y3	R7500	1	B	4	0.03693													
722																				
723	*Cat. Reformer*		*Reformate gas*																	
724	Post 199	F3	REFORMATE GAS	1	B	2														
725	Post 199	F4	STAB. VENT GAS	1	A	4														
726	Sep-92	J2	25	1	A	6				11.415			0.01458			39.6009			0.1312	
727	Oct-92	J3	60	1	A	5				6.56739			0.00577			34.1187			0.09519	
728	Aug-92	J4	47	1	A	6				15.1333						22.7113			0.0411	
729	Aug-92	J5	33	1	A	5				18.0489						23.1182			0.047	
730	Oct-90	P1	Rel to F #2 Reformer	1	A	0	NP			NA			NA			NA			ND	
731	Sep-93	V2	REF-DEPEN-OVHDV	1	A	14	7.5E-07			NA			*3E-08*			*3E-08*			0.00298	
732	Sep-93	V2	ARO-LPFG	1	A	14	5.6E-07			NA			*2E-08*			0.00015			*2E-08*	
733																				
734	*Aromatics Extract*		*Benzene*																	
735	Post 199	F2	BEU	1	B	0														
736	Oct-92	J3	61	1	A	1														
737	Feb-92	P1	UDEX Extract	1	A	4	31.4													
738	Jan-88	Y1	R0102	1	B	3	0.0015													

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	A	B	C	D	E	N	CH	CI
	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Butane
	Count =	742	Site Use Only	1076	742	5404	8	Typ.
707	Aug-92	J5	30	1	A	9		0.169
708	Aug-92	J5	31	1	A	4		2.014
709	Aug-92	J5	32	1	A	8		
710	Oct-90	P1	Reformate #1 Ref.	1	A	6		NA
711	Jul-93	V1	REF1-LR/LRGGP	1	A	14		*0.0003*
712	Jul-93	V1	REF1-HR/HRGGP	1	A	14		*0.0002*
713	Jul-93	V1	REF2-DF	1	A	14		*0.0003*
714	Jul-93	V1	REF2-TR	1	A	14		*0.0002*
715	Sep-93	V2	REF-TOTREF	1	A	14		*2E-05*
716	Mar-94	V3	REF-REFORM	1	A	13		0.7878
717	Nov-90	V4	REF-LGHTREF	1	A	15		0.0003
718	Nov-90	V4	REF-TOTRF	1	A	15		*5E-05*
719	1987	W2	CR21	1	A	4		
720	Jan-88	Y1	R7500	1	B	6		
721	Jan-88	Y3	R7500	1	B	4		
722								
723	*Cat. Reformer*		*Reformate gas*					
724	Post 199	F3	REFORMATE GAS	1	B	2		
725	Post 199	F4	STAB. VENT GAS	1	A	4		
726	Sep-92	J2	25	1	A	6		18.9221
727	Oct-92	J3	60	1	A	5		29.7618
728	Aug-92	J4	47	1	A	6		10.2801
729	Aug-92	J5	33	1	A	5		9.67954
730	Oct-90	P1	Rel to F #2 Reformer	1	A	0		NA
731	Sep-93	V2	REF-DEPEN-OVHDV	1	A	14		0.00327
732	Sep-93	V2	ARO-LPFG	1	A	14		3.1E-05
733								
734	*Aromatics Extract*		*Benzene*					
735	Post 199	F2	BEU	1	B	0		
736	Oct-92	J3	61	1	A	1		
737	Feb-92	P1	UDEX Extract	1	A	4		
738	Jan-88	Y1	R0102	1	B	3		

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	A	B	C	D	E	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	1,3 Butadiene	No. of Mins	No. of Maxs	Benzene	No. of Mins	No. of Maxs	Biphenyl	No. of Mins	No. of Maxs	Cresols (mixed)	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	4	5	Typ.	59	59	Typ.	4	4	Typ.	0	5	Typ.	34	35
739																				
740	*Aromatics Extract*		*Toluene*																	
741	Post 199	F2	ACU	1	B	1														
742	Aug-92	J4	48	1	A	4														
743	Jan-88	Y1	R0101	1	B	2						*0.001*								
744	Jan-88	Y3	R0101	1	B	4						0.59069								
745																				
746	*Aromatics Extract*		*Xylenes*																	
747	Aug-92	J4	49	1	A	4														
748																				
749	*Aromatics Extract*		*Heavy Aromatics*																	
750	Post 199	F2	CYCLOSOL U. CS53	1	B	1														
751	Oct-92	J3	62	1	A	4														
752	Oct-92	Q1,2,6,7	Aromatics Ref	4	B	7			ND			5.7								
753	Sep-93	V2	ARO-EXTR	1	A	14			*2E-08*			0.00682			NA			NA		
754	Sep-93	V2	ARO-IUF	1	A	14			*3E-05*			0.65557			NA			NA		
755	Jan-88	Y1	R0102/3/6	3	B	14				ND	ND	ND							0.991	99.9907
756																				
757	*Various Units*		*Slop Oil*																	
758	Post 199	F1	SLOP OIL	1	B	4						1								
759	Post 199	F2	REF SLOP OIL	1	B	4						0.73								
760	Post 199	F4	SLOP OIL	1	A	5						0.6								
761	Post 199	F7	SLOP OIL	1	B	6						0.1								
762	Sep-92	J1	37	1	A	0														
763	Oct-92	J3	63	1	A	8						0.878								
764	Oct-92	J3	64	1	A	9						0.128								
765	Aug-92	J4	50	1	A	10						0.433			0.178					
766	Aug-92	J5	34	lop	HL	2														
767	Aug-92	J5	35	lop	HL	11						1.135								
768	Feb-92	P1	Slop Oil Unfinished	1	A	6			NP			0.009			NA			NP		
769	Apr-93	Q1	Slop Oil	2	C	11						0.95						1.45		
770	**Distribution of Refined Products**																			

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Refin rocess and Product Stream Speciation — *For TAC . ew Only* — ND shown as half detect limit .alics

	A	B	C	D	E	N	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Cumene	No. of Mins	No. of Maxs	Ethylbenzene	No. of Mins	No. of Maxs	Ethylene Glycol	No. of Mins	No. of Maxs	n-Hexane	No. of Mins	No. of Maxs	Hydrogen Sulfide	No. of Mins
738	Count =	742	*Site Use Only*	1076	742	5404	Typ.	49	49	Typ.	0	1	Typ.	22	25	Typ.	2	2	Typ.	2
739																				
740	*Aromatics Extract*	*Toluene*																		
741	Post 199	F2	ACU	1	B	1														
742	Aug-92	J4	48	1	A	4				5.479										
743	Jan-88	Y1	R0101	1	B	2	ND													
744	Jan-88	Y3	R0101	1	B	4	ND			0.16215										
745																				
746	*Aromatics Extract*	*Xylenes*																		
747	Aug-92	J4	49	1	A	4	0.59			16.084										
748																				
749	*Aromatics Extract*	*Heavy Aromatics*																		
750	Post 199	F2	CYCLOSOL U. CS53	1	B	1	1.7													
751	Oct-92	J3	62	1	A	4										5.902				
752	Oct-92	Q1,2,6,7	Aromatics Ref	4	B	7	0.23			3.3						ND				
753	Sep-93	V2	ARO-EXTR	1	A	14	*2E-07*			*2E-07*			NA			*2E-07*			NA	
754	Sep-93	V2	ARO-IUF	1	A	14	*2E-05*			*2E-05*			NA			5.02948			NA	
755	Jan-88	Y1	R0102/3/6	3	B	14	50.4909	ND	3.82577	3.82577										
756																				
757	*Various Units*	*Slop Oil*																		
758	Post 199	F1	SLOP OIL	1	B	4														
759	Post 199	F2	REF SLOP OIL	1	B	4				0.45										
760	Post 199	F4	SLOP OIL	1	A	5				0.25										
761	Post 199	F7	SLOP OIL	1	B	6				0.9						1.2				
762	Sep-92	J1	37	1	A	0														
763	Oct-92	J3	63	1	A	8				1.252						3.625				
764	Oct-92	J3	64	1	A	9				0.281						0.257				
765	Aug-92	J4	50	1	A	10				0.167						1.179				
766	Aug-92	J5	34	lop	HL	2														
767	Aug-92	J5	35	lop	HL	11	0.093			0.84						2.724				
768	Feb-92	P1	Slop Oil Unfinished	1	A	6	NA			0.01			NA			NA			NA	
769	Apr-93	Q1	Slop Oil	2	C	11	0.17			1.38						1.42				
770	**Distribution of Refined Products**																			

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	A	B	C	D	E	N	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Methanol	No. of Mins	No. of Maxs	MEK	No. of Mins	No. of Maxs	MTBE	No. of Mins	No. of Maxs	Naphthalene	No. of Mins	No. of Maxs	Phenol
2	Count =	742	*Site Use Only*	1076	742	5404	1	Typ.	0	0	Typ.	8	7	Typ.	50	49	Typ.	3	2	Typ.
739																				
740	*Aromatics Extract*		*Toluene*																	
741	Post 199	F2	ACU	1	B	1														
742	Aug-92	J4	48	1	A	4														
743	Jan-88	Y1	R0101	1	B	2														
744	Jan-88	Y3	R0101	1	B	4											ND			
745																				
746	*Aromatics Extract*		*Xylenes*																	
747	Aug-92	J4	49	1	A	4														
748																				
749	*Aromatics Extract*		*Heavy Aromatics*																	
750	Post 199	F2	CYCLOSOL U. CS53	1	B	1														
751	Oct-92	J3	62	1	A	4											0.101			
752	Oct-92	Q1,2,6,7	Aromatics Ref	4	B	7											0.6			
753	Sep-93	V2	ARO-EXTR	1	A	14		NA			NA			NA			*4E-07*			NA
754	Sep-93	V2	ARO-IUF	1	A	14		NA			NA			NA			*2E-05*			NA
755	Jan-88	Y1	R0102/3/6	3	B	14									ND	0.02766	0.028			
756																				
757	*Various Units*		*Slop Oil*																	
758	Post 199	F1	SLOP OIL	1	B	4														
759	Post 199	F2	REF SLOP OIL	1	B	4														
760	Post 199	F4	SLOP OIL	1	A	5											1.8			
761	Post 199	F7	SLOP OIL	1	B	6											ND			
762	Sep-92	J1	37	1	A	0														
763	Oct-92	J3	63	1	A	8														
764	Oct-92	J3	64	1	A	9											0.18			
765	Aug-92	J4	50	1	A	10											0.525			
766	Aug-92	J5	34	lop	HL	2											0.088			
767	Aug-92	J5	35	lop	HL	11											0.208			
768	Feb-92	P1	Slop Oil Unfinished	1	A	6		NA			NP			NA			1.391			NP
769	Apr-93	Q1	Slop Oil	2	C	11								0.76						0.09
770	**Distribution of Refined Products**																			

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Refinc Process and Product Stream Speciation For TAC ew Only ND shown as half detect limit . alics

	A	B	C	D	E	N	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	Styrene	No. of Mins	No. of Maxs	1,2,4 TMB	No. of Mins	No. of Maxs	2,2,4 TMP	No. of Mins	No. of Maxs	Toluene	No. of Mins	No. of Maxs
2	Count =	742	Site Use Only	1076	742	5404	6	6	Typ.	51	51	Typ.	12	12	Typ.	54	54	Typ.	53	85
739																				
740	*Aromatics Extract*		*Toluene*																	
741	Post 199	F2	ACU	1	B	1												100		
742	Aug-92	J4	48	1	A	4						0.3						83.248		
743	Jan-88	Y1	R0101	1	B	2												100		
744	Jan-88	Y3	R0101	1	B	4						ND						99.1893		
745																				
746	*Aromatics Extract*		*Xylenes*																	
747	Aug-92	J4	49	1	A	4												0.191		
748																				
749	*Aromatics Extract*		*Heavy Aromatics*																	
750	Post 199	F2	CYCLOSOL U. CS53	1	B	1														
751	Oct-92	J3	62	1	A	4						0.586								
752	Oct-92	Q1,2,6,7	Aromatics Ref	4	B	7						5.7			ND			20		
753	Sep-93	V2	ARO-EXTR	1	A	14			NA			*3E-07*			*3E-07*			0.00388		
754	Sep-93	V2	ARO-IUF	1	A	14			NA			*3E-05*			*2E-05*			*2E-05*		
755	Jan-88	Y1	R0102/3/6	3	B	14				ND	4.187	4.187				0.009	37.43	18.72	ND	30.7905
756																				
757	*Various Units*		*Slop Oil*																	
758	Post 199	F1	SLOP OIL	1	B	4									0.5			7		
759	Post 199	F2	REF SLOP OIL	1	B	4												2.7		
760	Post 199	F4	SLOP OIL	1	A	5												2.8		
761	Post 199	F7	SLOP OIL	1	B	6						0.05						0.8		
762	Sep-92	J1	37	1	A	0														
763	Oct-92	J3	63	1	A	8						0.847						3.741		
764	Oct-92	J3	64	1	A	9						0.802			0.099			0.912		
765	Aug-92	J4	50	1	A	10						0.507			0.157			1.53		
766	Aug-92	J5	34	lop	HL	2														
767	Aug-92	J5	35	lop	HL	11						1.194						4.816		
768	Feb-92	P1	Slop Oil Unfinished	1	A	6			NP			0.3156			NA			0.0717		
769	Apr-93	Q1	Slop Oil	2	C	11			0.59						0.7			3.77		
770	**Distribution of Refined Products**																			

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	A	B	C	D	E	N	BS	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Xylenes (mixed)	No. of Mins	No. of Maxs	Ethane	No. of Mins	No. of Maxs	Ethylene	No. of Mins	No. of Maxs	Propane	No. of Mins	No. of Maxs	Propylene	No. of Mins
2	Count =	742	Site Use Only	1076	742	5404	Typ.	0	0	Typ.	1	1	Typ.	1	2	Typ.	2	2	Typ.	8
739																				
740	*Aromatics Extract*		*Toluene*																	
741	Post 199	F2	ACU	1	B	1														
742	Aug-92	J4	48	1	A	4	6.928													
743	Jan-88	Y1	R0101	1	B	2														
744	Jan-88	Y3	R0101	1	B	4	0.05791													
745																				
746	*Aromatics Extract*		*Xylenes*																	
747	Aug-92	J4	49	1	A	4	77.89													
748																				
749	*Aromatics Extract*		*Heavy Aromatics*																	
750	Post 199	F2	CYCLOSOL U. CS53	1	B	1														
751	Oct-92	J3	62	1	A	4	0.371													
752	Oct-92	Q1,2,6,7	Aromatics Ref	4	B	7	19.27												ND	
753	Sep-93	V2	ARO-EXTR	1	A	14	4.4E-07			NA			*2E-08*			*2E-08*			*2E-08*	
754	Sep-93	V2	ARO-IUF	1	A	14	3.1E-05			NA			*2E-05*			0.00137			*2E-05*	
755	Jan-88	Y1	R0102/3/6	3	B	14	30.7905													
756																				
757	*Various Units*		*Slop Oil*																	
758	Post 199	F1	SLOP OIL	1	B	4	6													
759	Post 199	F2	REF SLOP OIL	1	B	4	3.2													
760	Post 199	F4	SLOP OIL	1	A	5	6.6													
761	Post 199	F7	SLOP OIL	1	B	6	3.3													
762	Sep-92	J1	37	1	A	0														
763	Oct-92	J3	63	1	A	8	3.773									0.097				
764	Oct-92	J3	64	1	A	9	1.496													
765	Aug-92	J4	50	1	A	10	0.786													
766	Aug-92	J5	34	lop	HL	2	0.343													
767	Aug-92	J5	35	lop	HL	11	4.638									0.145			0.13379	
768	Feb-92	P1	Slop Oil Unfinished	1	A	6	0.1076			NP			NP			NP			NP	
769	Apr-93	Q1	Slop Oil	2	C	11	3.29													
770	**Distribution of Refined Products**																			

1	A	B	C	D	E	N	CH	CI
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Butane
2	Count =	742	Site Use Only	1076	742	5404	8	Typ.
739								
740	*Aromatics Extract*		*Toluene*					
741	Post 199	F2	ACU	1	B	1		
742	Aug-92	J4	48	1	A	4		
743	Jan-88	Y1	R0101	1	B	2		
744	Jan-88	Y3	R0101	1	B	4		
745								
746	*Aromatics Extract*		*Xylenes*					
747	Aug-92	J4	49	1	A	4		
748								
749	*Aromatics Extract*		*Heavy Aromatics*					
750	Post 199	F2	CYCLOSOL U. CS53	1	B	1		
751	Oct-92	J3	62	1	A	4		
752	Oct-92	Q1,2,6,7	Aromatics Ref	4	B	7		
753	Sep-93	V2	ARO-EXTR	1	A	14		1.4E-06
754	Sep-93	V2	ARO-IUF	1	A	14		0.02673
755	Jan-88	Y1	R0102/3/6	3	B	14		
756								
757	*Various Units*		*Slop Oil*					
758	Post 199	F1	SLOP OIL	1	B	4		
759	Post 199	F2	REF SLOP OIL	1	B	4		
760	Post 199	F4	SLOP OIL	1	A	5		
761	Post 199	F7	SLOP OIL	1	B	6		
762	Sep-92	J1	37	1	A	0		
763	Oct-92	J3	63	1	A	8		0.551
764	Oct-92	J3	64	1	A	9		0.128
765	Aug-92	J4	50	1	A	10		0.195
766	Aug-92	J5	34	lop	HL	2		
767	Aug-92	J5	35	lop	HL	11		1.438
768	Feb-92	P1	Slop Oil Unfinished	1	A	6		NA
769	Apr-93	Q1	Slop Oil	2	C	11		
770	**Distribution of Refined Products**							

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Refine rocess and Product Stream Speciation — For TAC . ew Only — ND shown as half detect limit . .alics

	A	B	C	D	E	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	1,3 Butadiene	No. of Mins	No. of Maxs	Benzene	No. of Mins	No. of Maxs	Biphenyl	No. of Mins	No. of Maxs	Cresols (mixed)	No. of Mins	No. of Maxs
2	Count =	742	Site Use Only	1076	742	5404	4	5	Typ.	59	59	Typ.	4	4	Typ.	0	5	Typ.	34	35
771	*Kerosine Treating*		*Commercial Jet Fuel*																	
772	93-'94	F5	JET A	1	A	2				ND	<0.01									
773	Post 199	F7	JET A/KEROSENE	1	B	4														
774	Sep-92	J1	38	1	A	8						2.077								
775	Sep-92	J1	39	1	A	6									0.287					
776	Sep-92	J2	26	2	A	24				0.621	0.624	0.62							0.177	0.205
777	Sep-92	J2	27	2	A	18							0.294	0.299	0.2965					
778	Oct-92	J3	65	1	A	4									0.122					
779	Oct-92	J3	66	3	A	17							1.63	1.85	1.74					
780	Aug-92	J4	51	2	A	14									0.11					
781	Aug-92	J4	52	2	A	15				2.91	2.805	2.8575								
782	Feb-92	P1	JFA	1	A	5			NP			NP			NA			ND		
783	Oct-92	Q1,2,6,7	Jet A	4	B	8			ND			0.01								
784	Jun-93	Q3	ANS Jet	2	A	6						ND								
785	Apr-93	Q1	Jet Kero	2	C	8						0.01			0.1			0.1		
786	Dec-89	Q2	AVGSS 100LL 148TK	4	B	9				0.1	ND	0.15							ND	ND
787	Nov-90	V4	ST-JET	1	A	15			NA			0.01			0.2051			NA		
788	Jul-93	V1	TNK-6	1	A	13			*0.0002*			0.01827			NA			NA		
789	Jul-93	V1	TNK-7	1	A	13			*0.0002*			0.02066			NA			NA		
790	Sep-93	V2	TNK-KERO	1	A	14			*2E-05*			*1E-05*			NA			NA		
791																				
792	*Gasoline Blending*		*Conventional Gasoline*																	
793	Post 199	F1	UNLEADED GASLN	1	A	10				1.8	2.5									
794	Post 199	F2	RU(OXY/NOXY)	1	A	4						1.1								
795	Post 199	F2	SR	1	A	4						0.99								
796	Post 199	F2	SU(OXY/NOXY)	1	A	4						0.99								
797	Post 199	F2	GASLN (Sats Gas Plant)	1	A	3						2.6								
798	Post 199	F3	RU	1	C	7						0.91								
799	Post 199	F3	RU	1	B	7						2.1								
800	Post 199	F3	SR	1	C	5						0.98								
801	Post 199	F3	SU	1	C	6						1.2								
802	Post 199	F3	SU	1	B	7						2.1								

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	A	B	C	D	E	N	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Cumene	No. of Mins	No. of Maxs	Ethylbenzene	No. of Mins	No. of Maxs	Ethylene Glycol	No. of Mins	No. of Maxs	n-Hexane	No. of Mins	No. of Maxs	Hydrogen Sulfide	No. of Mins
	Count =	742	*Site Use Only*	1076	742	5404	Typ.	49	49	Typ.	0	1	Typ.	22	25	Typ.	2	2	Typ.	2
771	*Kerosine Treating*		*Commercial Jet Fuel*																	
772	93-'94	F5	JET A	1	A	2								ND	<0.01					
773	Post 199	F7	JET A/KEROSENE	1	B	4	0.09			0.4										
774	Sep-92	J1	38	1	A	8	0.129			0.97						3.823				
775	Sep-92	J1	39	1	A	6				0.138										
776	Sep-92	J2	26	2	A	24	0.191	0.28	0.37	0.325				2.59	2.706	2.648				
777	Sep-92	J2	27	2	A	18		0.08	0.082	0.08										
778	Oct-92	J3	65	1	A	4														
779	Oct-92	J3	66	3	A	17				0.143						0.099				
780	Aug-92	J4	51	2	A	14		0.082	0.083	0.083										
781	Aug-92	J4	52	2	A	15		0.142	0.21	0.176				7.328	9.314	8.321				
782	Feb-92	P1	JFA	1	A	5	NA			0.6			NP			NA			NP	
783	Oct-92	Q1,2,6,7	Jet A	4	B	8	0.18			0.08						0.01				
784	Jun-93	Q3	ANS Jet	2	A	5				0.67						ND				
785	Apr-93	Q1	Jet Kero	2	C	8	0.1			0.3										
786	Dec-89	Q2	AVGSS 100LL 148TK	4	B	9	0	<.1	<.1	0.05										
787	Nov-90	V4	ST-JET	1	A	15	0.03			0.1			NA			0.01			NA	
788	Jul-93	V1	TNK-6	1	A	13	0.04629			0.05624			NA			0.10518			NA	
789	Jul-93	V1	TNK-7	1	A	13	0.27192			0.06273			NA			0.07048			NA	
790	Sep-93	V2	TNK-KERO	1	A	14	0.02181			0.12747			NA			*2E-05*			NA	
791																				
792	*Gasoline Blending*		*Conventional Gasoline*																	
793	Post 199	F1	UNLEADED GASLN	1	A	10		0.9	1.8											
794	Post 199	F2	RU(OXY/NOXY)	1	A	4									2.7					
795	Post 199	F2	SR	1	A	4									1.6					
796	Post 199	F2	SU(OXY/NOXY)	1	A	4									1.2					
797	Post 199	F2	GASLN (Sats Gas Plant)	1	A	3										4.8				
798	Post 199	F3	RU	1	C	7	0.06			0.78										
799	Post 199	F3	RU	1	B	7	0.1			1.7						2.6				
800	Post 199	F3	SR	1	C	5	0.072			0.92										
801	Post 199	F3	SU	1	C	6	0.14			1.5										
802	Post 199	F3	SU	1	B	7	0.14			2.1						1.1				

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Refine rocess and Product Stream Speciation — *For TAC . .ew Only* — ND shown as half detect limit ..alics

	A	B	C	D	E	N	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Methanol	No. of Mins	No. of Maxs	MEK	No. of Mins	No. of Maxs	MTBE	No. of Mins	No. of Maxs	Naphthalene	No. of Mins	No. of Maxs	Phenol
2	Count =	742	*Site Use Only*	1076	742	6404	1	Typ.	0	0	Typ.	8	7	Typ.	50	49	Typ.	3	2	Typ.
771	*Kerosine Treating*		*Commercial Jet Fuel*																	
772	93-'94	F5	JET A	1	A	2														
773	Post 199	F7	JET A/KEROSENE	1	B	4														
774	Sep-92	J1	38	1	A	8														
775	Sep-92	J1	39	1	A	6											0.459			
776	Sep-92	J2	26	2	A	24														
777	Sep-92	J2	27	2	A	18									0.37	0.51	0.44			
778	Oct-92	J3	65	1	A	4											0.836			
779	Oct-92	J3	66	3	A	17									0.385	0.938	0.548			
780	Aug-92	J4	51	2	A	14									0.697	0.706	0.7015			
781	Aug-92	J4	52	2	A	16											0.229			
782	Feb-92	P1	JFA	1	A	5		NP			NP			NP			0.33			ND
783	Oct-92	Q1,2,6,7	Jet A	4	B	8											0.14			
784	Jun-93	Q3	ANS Jet	2	A	6											0.67			
785	Apr-93	Q1	Jet Kero	2	C	8											ND			0.1
786	Dec-89	Q2	AVGSS 100LL 148TK	4	B	9									<.1	<.1	0.05			
787	Nov-90	V4	ST-JET	1	A	15		*5E-05*			NA			NA			0.98			NA
788	Jul-93	V1	TNK-6	1	A	13		NA			NA			NA			1.0924			NA
789	Jul-93	V1	TNK-7	1	A	13		NA			NA			NA			2.26047			NA
790	Sep-93	V2	TNK-KERO	1	A	14		NA			NA			NA			0.03867			NA
791																				
792	*Gasoline Blending*		*Conventional Gasoline*																	
793	Post 199	F1	UNLEADED GASLN	1	A	10														
794	Post 199	F2	RU(OXY/NOXY)	1	A	4								3.3						
795	Post 199	F2	SR	1	A	4								4.4						
796	Post 199	F2	SU(OXY/NOXY)	1	A	4								6.1						
797	Post 199	F2	GASLN (Sats Gas Plant)	1	A	3														
798	Post 199	F3	RU	1	C	7											0.49			
799	Post 199	F3	RU	1	B	7											0.46			
800	Post 199	F3	SR	1	C	5														
801	Post 199	F3	SU	1	C	6											ND			
802	Post 199	F3	SU	1	B	7											0.67			

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Refine[illegible]rocess and Product Stream Speciation — *For TAC [illegible]ew Only* — ND shown as half detect limit [illegible]alics

	A	B	C	D	E	N	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR
	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	Styrene	No. of Mins	No. of Maxs	1,2,4 TMB	No. of Mins	No. of Maxs	2,2,4 TMP	No. of Mins	No. of Maxs	Toluene	No. of Mins	No. of Maxs
	Count =	742	*Site Use Only*	1076	742	5404	6	6	Typ.	51	51	Typ.	12	12	Typ.	54	54	Typ.	53	85
771	*Kerosine Treating*		*Commercial Jet Fuel*																	
772	93-'94	F5	JET A	1	A	2				*0.005*	<0.01							0.04		
773	Post 199	F7	JET A/KEROSENE	1	B	4												0.19		
774	Sep-92	J1	38	1	A	8						0.82						7.706		
775	Sep-92	J1	39	1	A	6						1.094						0.249		
776	Sep-92	J2	26	2	A	24				2.225	2.5	2.3625				1.657	1.685	1.671	5.38	6.313
777	Sep-92	J2	27	2	A	18				1.148	1.708	1.428				0.177	0.179	0.178	0.983	1.202
778	Oct-92	J3	65	1	A	4						0.621								
779	Oct-92	J3	66	3	A	17				0.272	0.674	0.501				0.123	0.135	0.129	0.301	0.379
780	Aug-92	J4	51	2	A	14				0.139	0.422	0.2805						0.092	0.287	0.311
781	Aug-92	J4	52	2	A	16						0.2				3.473	4.932	4.2025		
782	Feb-92	P1	JFA	1	A	5			NP			1.1			NA			0.8		
783	Oct-92	Q1,2,6,7	Jet A	4	B	8						0.24			ND			0.1		
784	Jun-93	Q3	ANS Jet	2	A	5						1.56			ND			0.54		
785	Apr-93	Q1	Jet Kero	2	C	8												0.1		
786	Dec-89	Q2	AVGSS 100LL 148TK	4	B	9				<.1	0.1	0.06							<.1	0.2
787	Nov-90	V4	ST-JET	1	A	15			NA			0.81			*5E-05*			0.11		
788	Jul-93	V1	TNK-6	1	A	13			NA			NA			*0.0006*			0.1341		
789	Jul-93	V1	TNK-7	1	A	13			NA			NA			*0.0006*			0.15217		
790	Sep-93	V2	TNK-KERO	1	A	14			NA			0.33349			0.00133			0.0059		
791																				
792	*Gasoline Blending*		*Conventional Gasoline*																	
793	Post 199	F1	UNLEADED GASLN	1	A	10							1.2	1.5		8.1	14.3		12.5	12.7
794	Post 199	F2	RU(OXY/NOXY)	1	A	4												11		
795	Post 199	F2	SR	1	A	4												17		
796	Post 199	F2	SU(OXY/NOXY)	1	A	4												14		
797	Post 199	F2	GASLN (Sats Gas Plant)	1	A	3												0.47		
798	Post 199	F3	RU	1	C	7									2.3			3.8		
799	Post 199	F3	RU	1	B	7												9.4		
800	Post 199	F3	SR	1	C	5									2.3			ND		
801	Post 199	F3	SU	1	C	6									3.3			8.7		
802	Post 199	F3	SU	1	B	7												13		

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	A	B	C	D	E	N	BS	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Xylenes (mixed)	No. of Mins	No. of Maxs	Ethane	No. of Mins	No. of Maxs	Ethylene	No. of Mins	No. of Maxs	Propane	No. of Mins	No. of Maxs	Propylene	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	0	0	Typ.	1	1	Typ.	1	2	Typ.	2	2	Typ.	8
771	*Kerosine Treating*		*Commercial Jet Fuel*																	
772	93-'94	F5	JET A	1	A	2														
773	Post 199	F7	JET A/KEROSENE	1	B	4	0.87													
774	Sep-92	J1	38	1	A	8	3.526													
775	Sep-92	J1	39	1	A	6	0.757													
776	Sep-92	J2	26	2	A	24	5.8465													0.292
777	Sep-92	J2	27	2	A	18	1.0925													
778	Oct-92	J3	65	1	A	4	0.212													
779	Oct-92	J3	66	3	A	17	0.317													
780	Aug-92	J4	51	2	A	14	0.299													
781	Aug-92	J4	52	2	A	15	0.231													
782	Feb-92	P1	JFA	1	A	6	1.065			NP			NP			NP			NP	
783	Oct-92	Q1,2,6,7	Jet A	4	B	8	0.33												ND	
784	Jun-93	Q3	ANS Jet	2	A	5	4.48													
785	Apr-93	Q1	Jet Kero	2	C	8	0.7													
786	Dec-89	Q2	AVGSS 100LL 148TK	4	B	9	0.19													
787	Nov-90	V4	ST-JET	1	A	15	0.75			NA			*5E-05*			*5E-05*			*5E-05*	
788	Jul-93	V1	TNK-6	1	A	13	0.45699			NA			*0.0002*			*0.0002*			*0.0002*	
789	Jul-93	V1	TNK-7	1	A	13	0.59446			NA			*0.0002*			*0.0002*			*0.0002*	
790	Sep-93	V2	TNK-KERO	1	A	14	0.20723			NA			*2E-05*			*2E-05*			*2E-05*	
791																				
792	*Gasoline Blending*		*Conventional Gasoline*																	
793	Post 199	F1	UNLEADED GASLN	1	A	10														
794	Post 199	F2	RU(OXY/NOXY)	1	A	4														
795	Post 199	F2	SR	1	A	4														
796	Post 199	F2	SU(OXY/NOXY)	1	A	4														
797	Post 199	F2	GASLN (Sats Gas Plant)	1	A	3														
798	Post 199	F3	RU	1	C	7	4.9													
799	Post 199	F3	RU	1	B	7	11													
800	Post 199	F3	SR	1	C	5	5.7													
801	Post 199	F3	SU	1	C	6	9.6													
802	Post 199	F3	SU	1	B	7	14													

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	A	B	C	D	E	N	CH	CI
	Date Sampled	Site Coding	Sample id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Butane
	Count =	742	Site Use Only	1076	742	5404	8	Typ.
771	*Kerosine Treating*		*Commercial Jet Fuel*					
772	93-'94	F5	JET A	1	A	2		
773	Post 199	F7	JET A/KEROSENE	1	B	4		
774	Sep-92	J1	38	1	A	8		4.195
775	Sep-92	J1	39	1	A	6		
776	Sep-92	J2	26	2	A	24	0.301	0.2965
777	Sep-92	J2	27	2	A	18		
778	Oct-92	J3	65	1	A	4		
779	Oct-92	J3	66	3	A	17		
780	Aug-92	J4	51	2	A	14		
781	Aug-92	J4	52	2	A	15		
782	Feb-92	P1	JFA	1	A	5		NP
783	Oct-92	Q1,2,6,7	Jet A	4	B	8		
784	Jun-93	Q3	ANS Jet	2	A	5		
785	Apr-93	Q1	Jet Kero	2	C	8		
786	Dec-89	Q2	AVGSS 100LL 148TK	4	B	9		
787	Nov-90	V4	ST-JET	1	A	15		*5E-05*
788	Jul-93	V1	TNK-6	1	A	13		*0.0002*
789	Jul-93	V1	TNK-7	1	A	13		0.00325
790	Sep-93	V2	TNK-KERO	1	A	14		*2E-05*
791								
792	*Gasoline Blending*		*Conventional Gasoline*					
793	Post 199	F1	UNLEADED GASLN	1	A	10		
794	Post 199	F2	RU(OXY/NOXY)	1	A	4		
795	Post 199	F2	SR	1	A	4		
796	Post 199	F2	SU(OXY/NOXY)	1	A	4		
797	Post 199	F2	GASLN (Sats Gas Plant)	1	A	3		
798	Post 199	F3	RU	1	C	7		
799	Post 199	F3	RU	1	B	7		
800	Post 199	F3	SR	1	C	5		
801	Post 199	F3	SU	1	C	6		
802	Post 199	F3	SU	1	B	7		

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	A	B	C	D	E	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	1,3 Butadiene	No. of Mins	No. of Maxs	Benzene	No. of Mins	No. of Maxs	Biphenyl	No. of Mins	No. of Maxs	Cresols (mixed)	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	4	5	Typ.	59	59	Typ.	4	4	Typ.	0	5	Typ.	34	35
803	Post 199	F4	NATURAL GASOLINE	1	A	7						3.1								
804	Post 199	F4	RU	1	A	7						1.3								
805	Post 199	F4	SR	1	A	6						1.3								
806	Post 199	F4	SUPER UNL.	1	A	7						1.2								
807	Post 199	F4	FIN. GASOLINE	1	A	7						2								
808	93-'94	F5	RU	1	A	4						3.9								
809	93-'94	F5	SU	1	A	4						2.3								
810	10&11/93	F7	RU	9	A	31				0.45	1.1	0.82							0.09	0.21
811	10&11/93	F7	SR	11	A	30				0.55	2.6	1							0.12	0.22
812	10&11/93	F7	SU	10	A	31				0.82	1.6	1.1							0.21	0.3
813	Post 199	F7	RU	1	B	8						1.76								
814	Post 199	F7	SR	1	B	8						1.43								
815	Post 199	F7	SU	1	B	8						1.49								
816	Sep-92	J1	40	3	A	30				0.52	2.79	0.54								0.11
817	Sep-92	J2	28	5	A	30				2.025	4.078	2.49								
818	Oct-92	J3	67	3	A	31				0.238	0.401	0.38								
819	Aug-92	J4	53	4	A	30				0.344	4.256	2.1955							0.111	0.22
820	Aug-92	J5	36	3	A	31				1.014	3.191	2.545								
821	Feb-92	P1	Clear	1	A	6			ND			2			NA			ND		
822	Oct-92	Q1,2,6,7	Unleaded Gasoline	4	B	9			ND			1.69								
823	Apr-93	Q1	Conventional Gasoline	2	C	3						2								
824	Dec-89	Q2	Motor Alky 475 TK	4	B	8						0.53							ND	<.1
825	Dec-89	Q2	WGT Avg Alky Prods	1	B	7						0.53								
826	Dec-89	Q2	Avg Blend. Mo. Gasoline	1	B	7						2.3								
827	Mar-94	V3	TK-LORV/GAS	1	A	13			NA			4.1153			NA			NA		
828	Mar-94	V3	TK-TCC/GAS	1	A	13			NA			0.03713			NA			NA		
829	Jul-93	V1	TNK-8	1	A	13			*0.0002*			2.15973			NA			NA		
830	Jul-93	V1	TNK-9	1	A	13			*0.0002*			2.26111			NA			NA		
831	Sep-93	V2	TNK-REGGAS	1	A	14			0.00309			0.4204			NA			NA		
832	Sep-93	V2	TNK-PRMGAS	1	A	14			*3E-05*			0.1637			NA			NA		
833	Jan-88	Y1	00351/00364	2	B	21				7.139	7.16	7.1495							0.18156	0.21011
834	Jan-88	Y2	00351/00342/00364	3	B	21				2.06	3.291	2.348							0.083	0.207

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	A	B	C	D	E	N	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Cumene	No. of Mins	No. of Maxs	Ethylbenzene	No. of Mins	No. of Maxs	Ethylene Glycol	No. of Mins	No. of Maxs	n-Hexane	No. of Mins	No. of Maxs	Hydrogen Sulfide	No. of Mins
	Count =	742	*Site Use Only*	1076	742	5404	Typ.	49	49	Typ.	0	1	Typ.	22	25	Typ.	2	2	Typ.	2
803	Post 199	F4	NATURAL GASOLINE	1	A	7				1.5						0.1				
804	Post 199	F4	RU	1	A	7				2.3						2.1				
805	Post 199	F4	SR	1	A	6				2.7						6				
806	Post 199	F4	SUPER UNL.	1	A	7				3.1						2.1				
807	Post 199	F4	FIN. GASOLINE	1	A	7				2						ND				
808	93-'94	F5	RU	1	A	4										0.4				
809	93-'94	F5	SU	1	A	4										0.05				
810	10&11/93	F7	RU	9	A	31	0.17	0.84	2	0.18				0.46	1.52	0.9				
811	10&11/93	F7	SR	11	A	30	0.17	1.1	2.3	0.17				ND	1.5	1.3				
812	10&11/93	F7	SU	10	A	31	0.24	2.1	2.6	2.3				0.4	1.2	0.95				
813	Post 199	F7	RU	1	B	8	0.62			1.88						2.4				
814	Post 199	F7	SR	1	B	8	0.3			1.96						2.01				
815	Post 199	F7	SU	1	B	8	0.15			2.26						1.23				
816	Sep-92	J1	40	3	A	30	0.11	0.62	1.1	1				1.05	2.47	1.69				
817	Sep-92	J2	28	5	A	30	0.084	0.5	1.474	0.883				2.662	4.287	3.542				
818	Oct-92	J3	67	3	A	31	0.111	0.654	0.975	0.833				0.207	1.765	0.902				
819	Aug-92	J4	53	4	A	30	0.173	0.486	0.792	0.5685				0.327	2.175	1.3175				
820	Aug-92	J5	36	3	A	31	0.163	0.481	1.146	0.737				1.2	3.854	2.324				
821	Feb-92	P1	Clear	1	A	6	NA			1.97			NP			NA			NP	
822	Oct-92	Q1,2,6,7	Unleaded Gasoline	4	B	9	0.1			1.69						1.75				
823	Apr-93	Q1	Conventional Gasoline	2	C	3	0.75													
824	Dec-89	Q2	Motor Alky 475 TK	4	B	8	0.01	ND	ND	0										
825	Dec-89	Q2	WGT Avg Alky Prods	1	B	7	0.01			0.05										
826	Dec-89	Q2	Avg Blend. Mo. Gasoline	1	B	7	0.02			1.87										
827	Mar-94	V3	TK-LORV/GAS	1	A	13	0.94542			3.74591			NA			1.66443			NA	
828	Mar-94	V3	TK-TCC/GAS	1	A	13	0.83083			0.03988			NA			7.22148			NA	
829	Jul-93	V1	TNK-8	1	A	13	0.16161			1.6923			NA			4.15597			NA	
830	Jul-93	V1	TNK-9	1	A	13	0.17366			1.80683			NA			3.75826			NA	
831	Sep-93	V2	TNK-REGGAS	1	A	14	0.12228			1.20711			NA			1.2953			NA	
832	Sep-93	V2	TNK-PRMGAS	1	A	14	0.13269			1.19419			NA			1.43708			NA	
833	Jan-88	Y1	00351/00364	2	B	21	0.1958	1.29888	1.39375	1.3463										
834	Jan-88	Y2	00351/00342/00364	3	B	21	0.149	1.959	3.112	2.229										

1	A	B	C	D	E	N	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Methanol	No. of Mins	No. of Maxs	MEK	No. of Mins	No. of Maxs	MTBE	No. of Mins	No. of Maxs	Naphthalene	No. of Mins	No. of Maxs	Phenol
2	Count =	742	*Site Use Only*	1076	742	5404	1	Typ.	0	0	Typ.	8	7	Typ.	50	49	Typ.	3	2	Typ.
803	Post 199	F4	NATURAL GASOLINE	1	A	7								0.5			0.1			
804	Post 199	F4	RU	1	A	7								0.5						
805	Post 199	F4	SR	1	A	6								ND			0.1			
806	Post 199	F4	SUPER UNL.	1	A	7								6.1						
807	Post 199	F4	FIN. GASOLINE	1	A	7								2			0.7			
808	93-'94	F5	RU	1	A	4														
809	93-'94	F5	SU	1	A	4														
810	10&11/93	F7	RU	9	A	31						ND	*0.05*	*0.05*	ND	0.84	0.75			
811	10&11/93	F7	SR	11	A	30						ND	*0.05*	4.6	ND	1.1	0.54			
812	10&11/93	F7	SU	10	A	31						ND	16	13	ND	0.6	0.45			
813	Post 199	F7	RU	1	B	8								0.12						
814	Post 199	F7	SR	1	B	8								1.99						
815	Post 199	F7	SU	1	B	8								4.63						
816	Sep-92	J1	40	3	A	30										0.17	0.14			
817	Sep-92	J2	28	5	A	30									0.11	0.224	0.171			
818	Oct-92	J3	67	3	A	31						4.35	5.914	5.132	0.276	0.644	0.533			
819	Aug-92	J4	53	4	A	30									0.588	1.008	0.7055			
820	Aug-92	J5	36	3	A	31						0.211	4.701	0.696	0.111	0.486	0.121			
821	Feb-92	P1	Clear	1	A	6		NA			NP			NP			0.66			ND
822	Oct-92	Q1,2,6,7	Unleaded Gasoline	4	B	9								0.2						
823	Apr-93	Q1	Conventional Gasoline	2	C	3								0.3						
824	Dec-89	Q2	Motor Alky 475 TK	4	B	8						<.1	<.1	0.05						
825	Dec-89	Q2	WGT Avg Alky Prods	1	B	7								0.05						
826	Dec-89	Q2	Avg Blend. Mo. Gasoline	1	B	7								0.26						
827	Mar-94	V3	TK-LORV/GAS	1	A	13		*0.0003*			NA			NA			0.02098			NA
828	Mar-94	V3	TK-TCC/GAS	1	A	13		*7E-05*			NA			NA			0.04501			NA
829	Jul-93	V1	TNK-8	1	A	13		NA			NA			NA			1.05536			NA
830	Jul-93	V1	TNK-9	1	A	13		NA			NA			NA			0.96076			NA
831	Sep-93	V2	TNK-REGGAS	1	A	14		NA			NA			NA			0.16161			NA
832	Sep-93	V2	TNK-PRMGAS	1	A	14		NA			NA			NA			0.2801			NA
833	Jan-88	Y1	00351/00364	2	B	21									0.20871	0.27514	0.2419			
834	Jan-88	Y2	00351/00342/00364	3	B	21									0.124	0.195	0.176			

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Refine[illegible]rocess and Product Stream Speciation — For TAC[illegible]ew Only — ND shown as half detect limit ... [illegible]alics

A	B	C	D	E	N	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	Styrene	No. of Mins	No. of Maxs	1,2,4 TMB	No. of Mins	No. of Maxs	2,2,4 TMP	No. of Mins	No. of Maxs	Toluene	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	6	6	Typ.	51	51	Typ.	12	12	Typ.	54	54	Typ.	53	85
803	Post 199	F4	NATURAL GASOLINE	1	A	7												*0.05*		
804	Post 199	F4	RU	1	A	7						1.6						*0.05*		
805	Post 199	F4	SR	1	A	6												6.6		
806	Post 199	F4	SUPER UNL.	1	A	7						7.3						8		
807	Post 199	F4	FIN. GASOLINE	1	A	7						2.2						6.8		
808	93-'94	F5	RU	1	A	4						4.8						10		
809	93-'94	F5	SU	1	A	4						7.4						9.8		
810	10&11/93	F7	RU	9	A	31	*0.025*	0.13	0.07	1	3.5	2	1.5	3.4	3.1	3.1	6.2	5.3	3.4	7.4
811	10&11/93	F7	SR	11	A	30	0.04	0.17	0.09	1.7	3.9	2.5	2.2	3.3	2.8	3.1	16	6	5.6	9.1
812	10&11/93	F7	SU	10	A	31	0.05	0.09	0.07	2.5	5.8	3.3	2.8	3.9	3.3	6.9	13	8	7.9	10
813	Post 199	F7	RU	1	B	8									1.74			8.1		
814	Post 199	F7	SR	1	B	8									1.91			10.7		
815	Post 199	F7	SU	1	B	8									1.39			15.59		
816	Sep-92	J1	40	3	A	30				0.87	1.29	1.1	0.23	13.1	11.9	1.95	5.76	2.98	2.99	5.12
817	Sep-92	J2	28	5	A	30				ND	2.415	0.979	1.168	3.981	1.649	5.543	12.327	9.344	2.793	9.215
818	Oct-92	J3	67	3	A	31				2.244	4.049	2.282	1.149	12.133	6.641	2.783	6.998	2.978	3.402	5.251
819	Aug-92	J4	53	4	A	30				2.77	6.955	5.715	1.404	8.094	2.39	7.811	15.097	12.598	2.21	3.467
820	Aug-92	J5	36	3	A	31				0.697	4.421	1.14	0.332	0.399	0.348	5.157	6.054	5.575	2.591	5.766
821	Feb-92	P1	Clear	1	A	6			NP			4.8			NA			8.7		
822	Oct-92	Q1,2,6,7	Unleaded Gasoline	4	B	9						2.72			0.33			3.99		
823	Apr-93	Q1	Conventional Gasoline	2	C	3														
824	Dec-89	Q2	Motor Alky 475 TK	4	B	8				ND	<.1	0.03						9.88	<.1	0.2
825	Dec-89	Q2	WGT Avg Alky Prods	1	B	7						0.12						9.98		
826	Dec-89	Q2	Avg Blend. Mo. Gasoline	1	B	7						3.35						9.1		
827	Mar-94	V3	TK-LORV/GAS	1	A	13			NA			NA			NA			15.4782		
828	Mar-94	V3	TK-TCC/GAS	1	A	13			NA			NA			NA			5.69319		
829	Jul-93	V1	TNK-8	1	A	13			NA			NA			2.79589			4.60648		
830	Jul-93	V1	TNK-9	1	A	13			NA			NA			2.71923			4.7209		
831	Sep-93	V2	TNK-REGGAS	1	A	14			NA			3.64054			0.62456			1.84671		
832	Sep-93	V2	TNK-PRMGAS	1	A	14			NA			3.63889			0.08553			6.91098		
833	Jan-88	Y1	00351/00364	2	B	21				1.56885	1.78771	1.67828				4.188	4.476	4.3322	4.97969	5.06285
834	Jan-88	Y2	00351/00342/00364	3	B	21				1.855	4.315	2.999				7.399	13.719	12.456	9.025	14.217

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	A	B	C	D	E	N	BS	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Xylenes (mixed)	No. of Mins	No. of Maxs	Ethane	No. of Mins	No. of Maxs	Ethylene	No. of Mins	No. of Maxs	Propane	No. of Mins	No. of Maxs	Propylene	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	0	0	Typ.	1	1	Typ.	1	2	Typ.	2	2	Typ.	8
803	Post 199	F4	NATURAL GASOLINE	1	A	7	1.5													
804	Post 199	F4	RU	1	A	7	4.6													
805	Post 199	F4	SR	1	A	6	6													
806	Post 199	F4	SUPER UNL.	1	A	7	7.2													
807	Post 199	F4	FIN. GASOLINE	1	A	7	6.2													
808	93-'94	F5	RU	1	A	4														
809	93-'94	F5	SU	1	A	4														
810	10&11/93	F7	RU	9	A	31	6.6													
811	10&11/93	F7	SR	11	A	30	7.4													
812	10&11/93	F7	SU	10	A	31	8.6													
813	Post 199	F7	RU	1	B	8	5.8													
814	Post 199	F7	SR	1	B	8	5.55													
815	Post 199	F7	SU	1	B	8	6.32													
816	Sep-92	J1	40	3	A	30	4.43								0.11	0.112				0.5
817	Sep-92	J2	28	5	A	30	5.363							0.088	0.115	0.1015				1.599
818	Oct-92	J3	67	3	A	31	4.236													3.669
819	Aug-92	J4	53	4	A	30	2.637													0.348
820	Aug-92	J5	36	3	A	31	3.877													3.056
821	Feb-92	P1	Clear	1	A	6	10.18			NP			NP			NP			NP	
822	Oct-92	Q1,2,6,7	Unleaded Gasoline	4	B	9	8.14												ND	
823	Apr-93	Q1	Conventional Gasoline	2	C	3														
824	Dec-89	Q2	Motor Alky 475 TK	4	B	8	0.13													
825	Dec-89	Q2	WGT Avg Alky Prods	1	B	7	0.4													
826	Dec-89	Q2	Avg Blend. Mo. Gasoline	1	B	7	11.11													
827	Mar-94	V3	TK-LORV/GAS	1	A	13	19.1105			*1E-05*			*1E-05*			*1E-05*			*1E-05*	
828	Mar-94	V3	TK-TCC/GAS	1	A	13	0.24144			*1E-05*			*1E-05*			*1E-05*			*1E-05*	
829	Jul-93	V1	TNK-8	1	A	13	7.74926			NA			*0.0002*			0.05262			*0.0002*	
830	Jul-93	V1	TNK-9	1	A	13	8.03329			NA			*0.0002*			0.04416			*0.0002*	
831	Sep-93	V2	TNK-REGGAS	1	A	14	4.85973			NA			*2E-05*			0.00537			*2E-05*	
832	Sep-93	V2	TNK-PRMGAS	1	A	14	4.60181			NA			*2E-05*			0.10685			*2E-05*	
833	Jan-88	Y1	00351/00364	2	B	21	5.02127													
834	Jan-88	Y2	00351/00342/00364	3	B	21	10.058													

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	A	B	C	D	E	N	CH	CI
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Butane
2	Count =	742	*Site Use Only*	1076	742	5404	8	Typ.
803	Post 199	F4	NATURAL GASOLINE	1	A	7		
804	Post 199	F4	RU	1	A	7		
805	Post 199	F4	SR	1	A	6		
806	Post 199	F4	SUPER UNL.	1	A	7		
807	Post 199	F4	FIN. GASOLINE	1	A	7		
808	93-'94	F5	RU	1	A	4		
809	93-'94	F5	SU	1	A	4		
810	10&11/93	F7	RU	9	A	31		
811	10&11/93	F7	SR	11	A	30		
812	10&11/93	F7	SU	10	A	31		
813	Post 199	F7	RU	1	B	8		
814	Post 199	F7	SR	1	B	8		
815	Post 199	F7	SU	1	B	8		
816	Sep-92	J1	40	3	A	30	8.22	2.694
817	Sep-92	J2	28	5	A	30	11.198	5.353
818	Oct-92	J3	67	3	A	31	6.826	4.876
819	Aug-92	J4	53	4	A	30	1.233	0.575
820	Aug-92	J5	36	3	A	31	6.279	4.846
821	Feb-92	P1	Clear	1	A	6		NA
822	Oct-92	Q1,2,6,7	Unleaded Gasoline	4	B	9		
823	Apr-93	Q1	Conventional Gasoline	2	C	3		
824	Dec-89	Q2	Motor Alky 475 TK	4	B	8		
825	Dec-89	Q2	WGT Avg Alky Prods	1	B	7		
826	Dec-89	Q2	Avg Blend. Mo. Gasoline	1	B	7		
827	Mar-94	V3	TK-LORV/GAS	1	A	13		1.1557
828	Mar-94	V3	TK-TCC/GAS	1	A	13		3.73154
829	Jul-93	V1	TNK-8	1	A	13		3.5157
830	Jul-93	V1	TNK-9	1	A	13		2.77839
831	Sep-93	V2	TNK-REGGAS	1	A	14		2.93557
832	Sep-93	V2	TNK-PRMGAS	1	A	14		3.09548
833	Jan-88	Y1	00351/00364	2	B	21		
834	Jan-88	Y2	00351/00342/00364	3	B	21		

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	A	B	C	D	E	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	1,3 Butadiene	No. of Mins	No. of Maxs	Benzene	No. of Mins	No. of Maxs	Biphenyl	No. of Mins	No. of Maxs	Cresols (mixed)	No. of Mins	No. of Maxs
1	Count =	742	*Site Use Only*	1076	742	6404	4	5	Typ.	59	59	Typ.	4	4	Typ.	0	5	Typ.	34	35
835	Jan-88	Y3	00364/00351	2	B	21				0.734	0.753	0.743							0.102	0.212
836	Aug-94	Y4	014F0401	3	B	23				2.13	3.143	2.971								
837																				
838	*Gasoline Blending*		*Aviation Gasoline*																	
839	Post 199	F7	AVIATION GASOLINE	1	B	6						1.4								
840	Apr-93	Q1	Aviation Gasoline	2	C	8						0.51						0.05		
841	Dec-89	Q2	WGT AVG Aviation Gas	1	B	7						0.52								
842	Apr-93	Q1	Jet Naphtha	2	C	8						1.62						0.16		
843																				
844	*Gasoline Blending*		*Reformulated Gasoline*																	
845	Post 199	F2	SU_E	1	A	4						0.9								
846	Post 199	F3	SU_E	1	C	6						1.3								
847	Feb-92	P1	EC- 1	1	A	7			ND			1.02			NA			ND		
848	Apr-93	Q1	*Conventional w/MTBE*	2	C	4						1.73								
849	Oct-92	Q1,2,6,7	Unleaded RFG	4	B	9			ND			0.85								
850	Oct-92	Q1,2,6,7	Unleaded RFG	4	B	8			ND			0.74								
851	Oct-92	Q1,2,6,7	Unleaded Prem RF	4	B	9			ND			0.9								
852	Oct-92	Q1,2,6,7	Unleaded Prem	4	B	9			ND			1.32								
853																				
854	*Distillate Blending*		*Diesel Fuel*																	
855	93-'94	F5	FO #2	1	A	0				ND	<0.01									
856	Sep-92	J1	41	1	A	3														
857	Sep-92	J1	42	1	A	5														
858	Sep-92	J2	29	2	A	11							0.255	0.27	0.2625					
859	Oct-92	J3	68	1	A	4									0.147					
860	Aug-92	J4	54	1	A	3														
861	Feb-92	P1	Diesel 0.05	1	A	6			NP			0.0008			NA			NP		
862	Oct-92	Q1,2,6,7	Diesel	4	B	6			ND			ND								
863	Apr-94	Q1	Heating Oil	2	B	14				ND	0.005	0.003			0.03			0.05	0.02	ND
864	Apr-93	Q1	Diesel Fuel	2	C	6						0.005			0.03			0.05		
865	Mar-94	V3	TK-LSUL/DIESEL	1	A	13			NA			*0.0002*			NA			NA		
866	Jul-93	V1	TNK-2 Diesel	1	A	13			*0.0002*			0.00785			NA			NA		

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	A	B	C	D	E	N	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Cumene	No. of Mins	No. of Maxs	Ethylbenzene	No. of Mins	No. of Maxs	Ethylene Glycol	No. of Mins	No. of Maxs	n-Hexane	No. of Mins	No. of Maxs	Hydrogen Sulfide	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	49	49	Typ.	0	1	Typ.	22	25	Typ.	2	2	Typ.	2
835	Jan-88	Y3	00364/00351	2	B	21	0.157	1.404	2.456	1.93										
836	Aug-94	Y4	014F0401	3	B	23		1.296	1.908	1.5				1.034	2.996	2.959				1.98
837																				
838	*Gasoline Blending*		*Aviation Gasoline*																	
839	Post 199	F7	AVIATION GASOLINE	1	B	6				3.7						1.1				
840	Apr-93	Q1	Aviation Gasoline	2	C	8	0.06			0.43						0.12				
841	Dec-89	Q2	WGT AVG Aviation Gas	1	B	7	0.02			0.25										
842	Apr-93	Q1	Jet Naphtha	2	C	8	0.23			0.42						5.67				
843																				
844	*Gasoline Blending*		*Reformulated Gasoline*																	
845	Post 199	F2	SU_E	1	A	4										1.4				
846	Post 199	F3	SU_E	1	C	6	0.16			1.8										
847	Feb-92	P1	EC- 1	1	A	7	NA			0.66			NP			NA			NP	
848	Apr-93	Q1	*Conventional w/MTBE*	2	C	4	0.65													
849	Oct-92	Q1,2,6,7	Unleaded RFG	4	B	9	0.12			1.52						1.8				
850	Oct-92	Q1,2,6,7	Unleaded RFG	4	B	8	0.03			1.34						1.72				
851	Oct-92	Q1,2,6,7	Unleaded Prem RF	4	B	9	0.06			0.8						0.81				
852	Oct-92	Q1,2,6,7	Unleaded Prem	4	B	9	0.12			1.45						1.07				
853																				
854	*Distillate Blending*		*Diesel Fuel*																	
855	93-'94	F5	FO #2	1	A	0								ND	<0.01					
856	Sep-92	J1	41	1	A	3														
857	Sep-92	J1	42	1	A	5				0.183										
858	Sep-92	J2	29	2	A	11														
859	Oct-92	J3	68	1	A	4														
860	Aug-92	J4	54	1	A	3														
861	Feb-92	P1	Diesel 0.05	1	A	6	NA			0.034			NP			NA			NP	
862	Oct-92	Q1,2,6,7	Diesel	4	B	6	0.02			0.02						ND				
863	Apr-94	Q1	Heating Oil	2	B	14	0.11	0.02	ND	0.11										
864	Apr-93	Q1	Diesel Fuel	2	C	6	ND			ND										
865	Mar-94	V3	TK-LSUL/DIESEL	1	A	13	0.16565			*0.0002*			NA			*3E-05*			NA	
866	Jul-93	V1	TNK-2 Diesel	1	A	13	0.01627			0.02846			NA			0.02635			NA	

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Refin[illegible] rocess and Product Stream Speciation — *For TAC[illegible] ew Only* — ND shown as half detect limi[illegible] alics

	A	B	C	D	E	N	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Methanol	No. of Mins	No. of Maxs	MEK	No. of Mins	No. of Maxs	MTBE	No. of Mins	No. of Maxs	Naphthalene	No. of Mins	No. of Maxs	Phenol
2	Count =	742	*Site Use Only*	1076	742	5404	1	Typ.	0	0	Typ.	8	7	Typ.	50	49	Typ.	3	2	Typ.
835	Jan-88	Y3	00364/00351	2	B	21									0.266	0.416	0.341			
836	Aug-94	Y4	014F0401	3	B	23	3.344	2.04									0.499			
837																				
838	*Gasoline Blending*		*Aviation Gasoline*																	
839	Post 199	F7	AVIATION GASOLINE	1	B	6											2.3			
840	Apr-93	Q1	Aviation Gasoline	2	C	8											0.1			
841	Dec-89	Q2	WGT AVG Aviation Gas	1	B	7											0.05			
842	Apr-93	Q1	Jet Naphtha	2	C	8											0.33			
843																				
844	*Gasoline Blending*		*Reformulated Gasoline*																	
845	Post 199	F2	SU_E	1	A	4								6.1						
846	Post 199	F3	SU_E	1	C	6											ND			
847	Feb-92	P1	EC- 1	1	A	7		NA			NP			6.11			0.45			ND
848	Apr-93	Q1	*Conventional w/MTBE*	2	C	4								15.81			0.26			
849	Oct-92	Q1,2,6,7	Unleaded RFG	4	B	9											0.21			
850	Oct-92	Q1,2,6,7	Unleaded RFG	4	B	8											ND			
851	Oct-92	Q1,2,6,7	Unleaded Prem RF	4	B	9											0.05			
852	Oct-92	Q1,2,6,7	Unleaded Prem	4	B	9											0.08			
853																				
854	*Distillate Blending*		*Diesel Fuel*																	
855	93-'94	F5	FO #2	1	A	0														
856	Sep-92	J1	41	1	A	3											0.412			
857	Sep-92	J1	42	1	A	5											0.507			
858	Sep-92	J2	29	2	A	11											0.3			
859	Oct-92	J3	68	1	A	4											0.248			
860	Aug-92	J4	54	1	A	3											0.356			
861	Feb-92	P1	Diesel 0.05	1	A	6		NP			NP			NP			0.1397			NP
862	Oct-92	Q1,2,6,7	Diesel	4	B	6								0.06						
863	Apr-94	Q1	Heating Oil	2	B	14								ND	0.0607	0.1237	0.0922			
864	Apr-93	Q1	Diesel Fuel	2	C	6								ND						0.26
865	Mar-94	V3	TK-LSUL/DIESEL	1	A	13		*3E-05*			NA			NA			0.001			NA
866	Jul-93	V1	TNK-2 Diesel	1	A	13		NA			NA			NA			0.53627			NA

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	A	B	C	D	E	N	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	Styrene	No. of Mins	No. of Maxs	1,2,4 TMB	No. of Mins	No. of Maxs	2,2,4 TMP	No. of Mins	No. of Maxs	Toluene	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	6	6	Typ.	51	51	Typ.	12	12	Typ.	54	54	Typ.	53	85
835	Jan-88	Y3	00364/00351	2	B	21				2.536	5.417	3.976				4.703	6.054	5.379	6.98	11.803
836	Aug-94	Y4	014F0401	3	B	23				2.372	3.174	2.773			7.091	7.859	9.913	8.639	5.421	7.464
837																				
838	*Gasoline Blending*		***Aviation Gasoline***																	
839	Post 199	F7	AVIATION GASOLINE	1	B	6												9.4		
840	Apr-93	Q1	Aviation Gasoline	2	C	8												7.33		
841	Dec-89	Q2	WGT AVG Aviation Gas	1	B	7						0.5						10.39		
842	Apr-93	Q1	Jet Naphtha	2	C	8												3.62		
843																				
844	*Gasoline Blending*		*Reformulated Gasoline*																	
845	Post 199	F2	SU_E	1	A	4												14		
846	Post 199	F3	SU_E	1	C	6									3.8			9.2		
847	Feb-92	P1	EC- 1	1	A	7			NP			2.2			NA			2.07		
848	Apr-93	Q1	*Conventional w/MTBE*	2	C	4														
849	Oct-92	Q1,2,6,7	Unleaded RFG	4	B	9						3.11			0.05			6.79		
850	Oct-92	Q1,2,6,7	Unleaded RFG	4	B	8						2.78			0.11			6.08		
851	Oct-92	Q1,2,6,7	Unleaded Prem RF	4	B	9						1.67			0.94			3.74		
852	Oct-92	Q1,2,6,7	Unleaded Prem	4	B	9						2.85			0.59			7.12		
853																				
854	*Distillate Blending*		*Diesel Fuel*																	
855	93-'94	F5	FO #2	1	A	0				ND	<0.01					ND	<0.01			
856	Sep-92	J1	41	1	A	3						0.525								
857	Sep-92	J1	42	1	A	5						1.124						0.289		
858	Sep-92	J2	29	2	A	11				0.526	0.815	0.6705						0.08	0.342	0.366
859	Oct-92	J3	68	1	A	4						0.151								
860	Aug-92	J4	54	1	A	3						0.16								
861	Feb-92	P1	Diesel 0.05	1	A	6			NP			0.1324			NP			0.035		
862	Oct-92	Q1,2,6,7	Diesel	4	B	6						0.12			ND			0.02		
863	Apr-94	Q1	Heating Oil	2	B	14						0.12						0.06		
864	Apr-93	Q1	Diesel Fuel	2	C	6												0.0011		
865	Mar-94	V3	TK-LSUL/DIESEL	1	A	13			NA			NA			NA			0.17885		
866	Jul-93	V1	TNK-2 Diesel	1	A	13			NA			NA			*0.0006*			0.05426		

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	A	B	C	D	E	N	BS	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG
1	Date Sampled	Site Coding	Sample id	No. of Analyses	Quality Coding	No. Data Values	Xylenes (mixed)	No. of Mins	No. of Maxs	Ethane	No. of Mins	No. of Maxs	Ethylene	No. of Mins	No. of Maxs	Propane	No. of Mins	No. of Maxs	Propylene	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	0	0	Typ.	1	1	Typ.	1	2	Typ.	2	2	Typ.	8
35	Jan-88	Y3	00364/00351	2	B	21	9.392													
836	Aug-94	Y4	014F0401	3	B	23	5.695													
837																				
838	*Gasoline Blending*		***Aviation Gasoline***																	
839	Post 199	F7	AVIATION GASOLINE	1	B	6	8.2													
840	Apr-93	Q1	Aviation Gasoline	2	C	8	2.2													
841	Dec-89	Q2	WGT AVG Aviation Gas	1	B	7	1.5													
842	Apr-93	Q1	Jet Naphtha	2	C	8	1.58													
843																				
844	*Gasoline Blending*		*Reformulated Gasoline*																	
845	Post 199	F2	SU_E	1	A	4														
846	Post 199	F3	SU_E	1	C	6	11													
847	Feb-92	P1	EC- 1	1	A	7	3.33			NP			NP			NP			NP	
848	Apr-93	Q1	*Conventional w/MTBE*	2	C	4														
849	Oct-92	Q1,2,6,7	Unleaded RFG	4	B	9	8.43												ND	
850	Oct-92	Q1,2,6,7	Unleaded RFG	4	B	8	7.39												ND	
851	Oct-92	Q1,2,6,7	Unleaded Prem RF	4	B	9	4.89												ND	
852	Oct-92	Q1,2,6,7	Unleaded Prem	4	B	9	8.8												ND	
853																				
854	*Distillate Blending*		*Diesel Fuel*																	
855	93-'94	F5	FO #2	1	A	0														
856	Sep-92	J1	41	1	A	3	0.334													
857	Sep-92	J1	42	1	A	5	1.1													
858	Sep-92	J2	29	2	A	11	0.354													
859	Oct-92	J3	68	1	A	4	0.111													
860	Aug-92	J4	54	1	A	3	0.112													
861	Feb-92	P1	Diesel 0.05	1	A	6	0.155			NP			NP			NP			NP	
862	Oct-92	Q1,2,6,7	Diesel	4	B	6	0.25												ND	
863	Apr-94	Q1	Heating Oil	2	B	14	0.135													
864	Apr-93	Q1	Diesel Fuel	2	C	6	0.002													
865	Mar-94	V3	TK-LSUL/DIESEL	1	A	13	0.00048			*1E-05*			*1E-05*			*1E-05*			*1E-05*	
866	Jul-93	V1	TNK-2 Diesel	1	A	13	0.27163			NA			*0.0002*			*0.0002*			*0.0002*	

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	A	B	C	D	E	N	CH	CI
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Butane
2	Count =	742	*Site Use Only*	1076	742	5404	8	Typ.
835	Jan-88	Y3	00364/00351	2	B	21		
836	Aug-94	Y4	014F0401	3	B	23		
837								
838	*Gasoline Blending*		*Aviation Gasoline*					
839	Post 199	F7	AVIATION GASOLINE	1	B	6		
840	Apr-93	Q1	Aviation Gasoline	2	C	8		
841	Dec-89	Q2	WGT AVG Aviation Gas	1	B	7		
842	Apr-93	Q1	Jet Naphtha	2	C	8		
843								
844	*Gasoline Blending*		*Reformulated Gasoline*					
845	Post 199	F2	SU_E	1	A	4		
846	Post 199	F3	SU_E	1	C	6		
847	Feb-92	P1	EC- 1	1	A	7		NA
848	Apr-93	Q1	*Conventional w/MTBE*	2	C	4		
849	Oct-92	Q1,2,6,7	Unleaded RFG	4	B	9		
850	Oct-92	Q1,2,6,7	Unleaded RFG	4	B	8		
851	Oct-92	Q1,2,6,7	Unleaded Prem RF	4	B	9		
852	Oct-92	Q1,2,6,7	Unleaded Prem	4	B	9		
853								
854	*Distillate Blending*		*Diesel Fuel*					
855	93-'94	F5	FO #2	1	A	0		
856	Sep-92	J1	41	1	A	3		
857	Sep-92	J1	42	1	A	5		
858	Sep-92	J2	29	2	A	11		
859	Oct-92	J3	68	1	A	4		
860	Aug-92	J4	54	1	A	3		
861	Feb-92	P1	Diesel 0.05	1	A	6		NP
862	Oct-92	Q1,2,6,7	Diesel	4	B	6		
863	Apr-94	Q1	Heating Oil	2	B	14		
864	Apr-93	Q1	Diesel Fuel	2	C	6		
865	Mar-94	V3	TK-LSUL/DIESEL	1	A	13		*1E-05*
866	Jul-93	V1	TNK-2 Diesel	1	A	13		*0.0002*

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Refine rocess and Product Stream Speciation — *For TAC . .ew Only* — ND shown as half detect limit . . .alics

	A	B	C	D	E	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	1,3 Butadiene	No. of Mins	No. of Maxs	Benzene	No. of Mins	No. of Maxs	Biphenyl	No. of Mins	No. of Maxs	Cresols (mixed)	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	4	5	Typ.	59	59	Typ.	4	4	Typ.	0	5	Typ.	34	35
867	Jul-93	V1	TNK-3 Diesel	1	A	13			*0.0002*			0.00726			NA			NA		
868	Sep-93	V2	TNK-#2Diesel	1	A	14			*2E-05*			0.0071			NA			NA		
869																				
870	*Distillate Blending*		*Home Heating Oil*																	
871	Sep-92	J1	43	2	A	16														
872	Sep-92	J2	30	2	A	13									0.103					
873	Oct-92	J3	69	3	A	13							0.108	0.178	0.131					
874	Aug-92	J4	55	1	A	5									0.251					
875	Aug-92	J4	56	1	A	4									0.24					
876	Aug-92	J5	37	1	A	3														
877																				
878	*Lube Unit*		*Solvent-refined Lubes*																	
879	Post 199	F3	LUBE CRUDE	1	C	0														
880	Aug-92	J4	57	3	A	0														
881																				
882	*Lube Unit*		*Hydro-refined Lubes*																	

	A	B	C	D	E	N	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Cumene	No. of Mins	No. of Maxs	Ethylbenzene	No. of Mins	No. of Maxs	Ethylene Gycol	No. of Mins	No. of Maxs	n-Hexane	No. of Mins	No. of Maxs	Hydrogen Sulfide	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	49	49	Typ.	0	1	Typ.	22	25	Typ.	2	2	Typ.	2
867	Jul-93	V1	TNK-3 Diesel	1	A	13	0.02067			0.0219			NA			0.07389			NA	
868	Sep-93	V2	TNK-#2Diesel	1	A	14	0.00397			0.02912			NA			0.02094			NA	
869																				
870	*Distillate Blending*		*Home Heating Oil*																	
871	Sep-92	J1	43	2	A	15		0.09	0.1	0.095										
872	Sep-92	J2	30	2	A	13														
873	Oct-92	J3	69	3	A	13														
874	Aug-92	J4	55	1	A	5														
875	Aug-92	J4	56	1	A	4														
876	Aug-92	J5	37	1	A	3														
877																				
878	*Lube Unit*		*Solvent-refined Lubes*																	
879	Post 199	F3	LUBE CRUDE	1	C	0														
880	Aug-92	J4	57	3	A	0														
881																				
882	*Lube Unit*		*Hydro-refined Lubes*																	

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Refine rocess and Product Stream Speciation *For TAC . .ew Only* ND shown as half detect limit ..alics

	A	B	C	D	E	N	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD
	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Methanol	No. of Mins	No. of Maxs	MEK	No. of Mins	No. of Maxs	MTBE	No. of Mins	No. of Maxs	Naphthalene	No. of Mins	No. of Maxs	Phenol
	Count =	742	*Site Use Only*	1076	742	5404	1	Typ.	0	0	Typ.	8	7	Typ.	50	49	Typ.	3	2	Typ.
867	Jul-93	V1	TNK-3 Diesel	1	A	13		NA			NA			NA			0.51577			NA
868	Sep-93	V2	TNK-#2Diesel	1	A	14		NA			NA			NA			0.02214			NA
869																				
870	*Distillate Blending*		*Home Heating Oil*																	
871	Sep-92	J1	43	2	A	15									0.72	0.77	0.745			
872	Sep-92	J2	30	2	A	13									0.234	0.264	0.249			
873	Oct-92	J3	69	3	A	13									0.119	0.232	0.125			
874	Aug-92	J4	55	1	A	6											0.666			
875	Aug-92	J4	56	1	A	4											0.474			
876	Aug-92	J5	37	1	A	3											0.46			
877																				
878	*Lube Unit*		*Solvent-refined Lubes*																	
879	Post 199	F3	LUBE CRUDE	1	C	0														
880	Aug-92	J4	57	3	A	0														
881																				
882	*Lube Unit*		*Hydro-refined Lubes*																	

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Refine rocess and Product Stream Speciation *For TAC , .ew Only* ND shown as half detect limit ... ..alics

	A	B	C	D	E	N	BE	BF	BG	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Mins	No. of Maxs	Styrene	No. of Mins	No. of Maxs	1,2,4 TMB	No. of Mins	No. of Maxs	2,2,4 TMP	No. of Mins	No. of Maxs	Toluene	No. of Mins	No. of Maxs
2	Count =	742	*Site Use Only*	1076	742	5404	6	6	Typ.	51	51	Typ.	12	12	Typ.	54	54	Typ.	53	55
867	Jul-93	V1	TNK-3 Diesel	1	A	13			NA			NA			*0.0006*			0.04803		
868	Sep-93	V2	TNK-#2Diesel	1	A	14			NA			0.13598			0.01949			0.03995		
869																				
870	*Distillate Blending*		*Home Heating Oil*																	
871	Sep-92	J1	43	2	A	15				0.77	1.07	0.92				0.14	0.16	0.15	0.55	0.56
872	Sep-92	J2	30	2	A	13				0.364	0.954	0.659				0.096	0.105	0.1005	0.412	0.467
873	Oct-92	J3	69	3	A	13				0.102	0.169	0.132						0.098	0.095	0.12
874	Aug-92	J4	55	1	A	5						0.383						0.084		
875	Aug-92	J4	56	1	A	4						0.254								
876	Aug-92	J5	37	1	A	3						0.227								
877																				
878	*Lube Unit*		*Solvent-refined Lubes*																	
879	Post 199	F3	LUBE CRUDE	1	C	0														
880	Aug-92	J4	57	3	A	0														
881																				
882	*Lube Unit*		*Hydro-refined Lubes*																	

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	A	B	C	D	E	N	BS	BU	BV	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	Xylenes (mixed)	No. of Mins	No. of Maxs	Ethane	No. of Mins	No. of Maxs	Ethylene	No. of Mins	No. of Maxs	Propane	No. of Mins	No. of Maxs	Propylene	No. of Mins
2	Count =	742	*Site Use Only*	1076	742	5404	Typ.	0	0	Typ.	1	1	Typ.	1	2	Typ.	2	2	Typ.	8
867	Jul-93	V1	TNK-3 Diesel	1	A	13	0.23486			NA			*0.0002*			*0.0002*			*0.0002*	
868	Sep-93	V2	TNK-#2Diesel	1	A	14	0.06775			ND			*2E-05*			0.00096			*2E-05*	
869																				
870	*Distillate Blending*		*Home Heating Oil*																	
871	Sep-92	J1	43	2	A	16	0.555													
872	Sep-92	J2	30	2	A	13	0.4395													
873	Oct-92	J3	69	3	A	13	0.102													
874	Aug-92	J4	55	1	A	5	0.305													
875	Aug-92	J4	56	1	A	4	0.129													
876	Aug-92	J5	37	1	A	3	0.27													
877																				
878	*Lube Unit*		*Solvent-refined Lubes*																	
879	Post 199	F3	LUBE CRUDE	1	C	0														
880	Aug-92	J4	57	3	A	0														
881																				
882	*Lube Unit*		*Hydro-refined Lubes*																	

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	A	B	C	D	E	N	CH	CI
1	Date Sampled	Site Coding	Sample Id	No. of Analyses	Quality Coding	No. Data Values	No. of Maxs	Butane
2	Count =	742	*Site Use Only*	1076	742	5404	8	Typ.
867	Jul-93	V1	TNK-3 Diesel	1	A	13		*0.0002*
868	Sep-93	V2	TNK-#2Diesel	1	A	14		0.01227
869								
870	*Distillate Blending*		*Home Heating Oil*					
871	Sep-92	J1	43	2	A	15		
872	Sep-92	J2	30	2	A	13		
873	Oct-92	J3	69	3	A	13		
874	Aug-92	J4	55	1	A	5		
875	Aug-92	J4	56	1	A	4		
876	Aug-92	J5	37	1	A	3		
877								
878	*Lube Unit*		*Solvent-refined Lubes*					
879	Post 199	F3	LUBE CRUDE	1	C	0		
880	Aug-92	J4	57	3	A	0		
881								
882	*Lube Unit*		*Hydro-refined Lubes*					

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Appendix 1

Section 7

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PRELIMINARY DATA REVIEW

The database and summary table were reviewed by the participants as described in Section 3. The following are observations and conclusions derived from this study:

- The data collected represents:
  - ⇒ 20+ refinery process and treating units
  - ⇒ 50+ process streams
  - ⇒ 8 oil companies
  - ⇒ 31 US refineries
  - ⇒ 18 HAPs
  - ⇒ 6 accidental release compounds
  - ⇒ 1000+ stream samples
  - ⇒ 6000+ analytical measurements
- Many HAPs are not present in many of these streams at detectable levels (25 to 30% NDs)
- There is relative abundance of data for some HAPs in light process streams. This is not unexpected since there are relatively fewer compounds present when the carbon number is small. It is relatively easy to determine some of the more volatile HAPs in these light streams and data on HAPs such as benzene and other aromatics have been obtained for process reasons or environmental concern.
- There is a relative lack of data for many HAPs in streams heavier than gasoline range. As previously discussed, streams heavier than gasoline are more complex and are produced to meet bulk properties specifications.
- Much of the variation in refinery stream speciation is natural, due to different crude oils being processed as well as differences in processing conditions. Therefore, for any given stream, a validated range of species composition values may be more useful for emission estimates than the use of any single median or average value.
- Some variation in refinery stream composition may be due to site differences in reporting levels or in analytical interpretation. Additional differences are most likely due to inconsistencies in allocation of process unit streams between sites. Further simplification may be needed to universally define a more workable block flow refinery diagram for emissions estimations.
- Even though the results of this study have some limitations, the compiled and statistically evaluated data are more representative and more useful than the type of data used to date. The results of this study can be used in the following applications:
  - ⇒ gasoline distribution MACT comments
  - ⇒ refinery MACT negotiations
  - ⇒ definition of intermediate streams for MACT applicability
  - ⇒ emissions speciation estimates for Title V compliance
  - ⇒ other permitting activities

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STATISTICAL ANALYSIS

The objective of this speciation study was reporting the "most likely value" for the concentration of a species in a specific stream from a specific process unit. Reaching this objective was a multiple step process involving:

- Submission and consolidation of over 6,000 data points
- Review and analysis of the consistency of the data
- Statistical analysis to develop the most likely value
- Testing the validity of the statistical methods used
- Reconciliation of the statistical output

Submission and Consolidation of the Data

The process stream observations reported in Section 6 of this document are the raw data for the Refinery Process and Product Stream Speciation Project. These are the data submitted by the individual participants, who were requested to submit for each stream the observed concentration of each species or the fact that it was non-detected if an analysis had been made. If multiple analyses had been made for a stream, a minimum and maximum observed concentration and a "typical concentration" were to be reported. The submissions for all the participants were then consolidated into the process stream and species categories defined in Section 4, and initially reviewed and corrected by the participants. In Section 6, the non-detects are reported at one-half the detection limit when the detection limit was specified.

Consistency Analysis of the Data

In reviewing the Section 6 data for the statistical analysis, some of the numbers appeared anomalous. Some of the original submissions had been consolidated into the wrong stream-species classification; some submissions, while reporting concentrations for multi-ring HAP's, did not include data for the range of species being statistically analyzed; some of the submissions, while from streams within the process unit, were not from one of the limited number of process streams defined in Section 4 which were to be considered in the analysis; and some submissions were not consistent with expected process stream compositions. Accordingly, the raw data reported in Section 6 were further reviewed and modified as described below before preparing the statistical analysis.

Only the process stream observations were modified. While the crude supply stream and the product streams have data sets and individual data points which are questionable, a larger variability in the compositions of these streams is expected and no acceptable criteria for rejecting any of the observations was identified. Fortunately, many observations were submitted for the crude stream and the product streams and it is expected that the most likely value determined for these streams will not be greatly affected by retaining the few questionable data sets or individual data points.

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The review identified 174 streams, some 30% of the process streams, where typical concentration data was either not reported for the range being statistically analyzed, was classified in the wrong process stream category or where the data was questioned and subsequently eliminated. The categories considered in this review and the contributions from the supplying companies which the modifications affected are given in the following table.

Supplying Company	F	J	P	Q	V	W	Y	Totals
No data in the analysis range	3	30	2	1				**36**
Deleted - Improper process category			2	4	19	1		**26**
Deleted ALL for questionable data		6	3	4	28	1	1	**43**
Selectively deleted data points	6	9	2	8	11	10	9	**55**
Data sets moved				10			4	**14**
Totals	**9**	**45**	**9**	**27**	**58**	**12**	**14**	**174**

Data sets labeled "no data in the analysis range" are sets where no typical concentration value is reported in Section 6 or where the only reported typical concentration data is for species which are outside the range included in the statistical analysis. The raw data in Section 6 for some data sets include a minimum and maximum reported concentration for some species but no typical concentration value. Lacking a typical concentration value, the data for these species in the affected data sets were not included in the statistical analysis.

"Improper process category" are data sets which appear to have been placed in the wrong process stream category, either when they were initially submitted or during the consolidation of the overall database. These were deleted because information was not available to enable them to be moved. Where data included with the submission was sufficient to move these data sets to another process stream category, they are reported under "data sets moved."

Questionable data points included data points which appeared to be inconsistent for the process stream category and data points whose values were significantly skewing the remaining data points in the category. The general guideline used for removing questionable data in this review was: If less than four (4) questionable data points, the individual questioned data points were removed and labeled "selectively deleted data points"; if four (4) or greater questionable data points, the entire data set was removed and labeled "deleted ALL for questionable data". In those cases where the stream category contained a large number of data sets, a questionable value was sometimes retained rather than being discarded, expecting that the most likely value would not be greatly affected because of the large data population.

A listing of all the findings from this review and any modifications which resulted will be found in Table 1 of this sub-section.

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Statistical Analysis To Develop the Most Likely Value

For each refinery unit, refinery stream, and species, the most likely value was determined for the reported "typical concentrations" of the species in weight percent. This section describes the statistical methods that were used to determine this value. All the computations were done using the SAS System. The data input to the SAS system was the modified set described above.

Whenever a sufficient number of quantifiable data points were reported, the median value of a lognormal distribution fitted to the species data was used as the most likely value for the species.

In a lognormal distribution, the natural logs of the measured values can be represented by a normal distribution, an easy distribution for manipulation and presentation. Many studies with hydrocarbon measurements have used the lognormal distribution to establish a conservative estimate of the most likely value. While no statistical distribution could perfectly represent all the data in this study, experiences of previous studies and validity checks provide ample justification for choosing the lognormal distribution for this study.

Much of the speciation data submitted by the participants was reported as "less than the detection limit" with the value of the detection limit specified. Detection limits varied by the reporting refinery. It was decided that 0.01 weight percent was a typical minimum value for a detection limit for hydrocarbon measurement. Therefore, all detection limits that were reported as being less than 0.01 weight percent were assigned the value of 0.01 weight percent. This is a more conservative approach than that used by the U.S. Environmental Protection Agency where non-detects are valued at one-half the detection limit. The values used in this analysis to develop the most likely estimate of the concentration of the species accordingly ranged from a low of 0.01 weight percent to a high of 100 weight percent.

The determination of the most likely value utilized three pieces of information for every reported measurement for a specific unit, stream, and species:

- **quantitative number** (either a reported concentration value or the detection limit)
- **detection limit indicator** to designate whether the observation was a quantified value or a non-detect at a specified detection limit
- **weighting factor** based on the number of tests supporting the reported value and on the quality of the data.

Many of the measurements were reported as averages of a number of tests. More tests for a measurement result in a higher weight for the measurement. The participants also reported a measurement quality code for the data, A, B, or C, where A was highest quality. The reader is referred to the Analytical Discussion in this section for more details on the quality indicators. Higher quality also results in a higher weight for a measurement.

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The following procedure was used to define the weighting factor for each reported value for a species for each unit and each stream:

- if quality code="A," then weight = sqrt(number of tests)
- if quality code="B," then weight = 0.8*sqrt(number of tests)
- if quality code="C," then weight = 0.6*sqrt(number of tests)

These weights, the reported typical concentration values, and the non-detect codes were used with a statistical procedure, maximum likelihood estimation, to fit a lognormal distribution to the available concentration values for each unit, stream, and species whenever there were three or more quantified values. The median value obtained from the distribution is reported as the most likely value (MLV).

The SAS statistical procedure used for the fitted distribution could not be used if there were not sufficient quantified values for a unit, stream and species. When three or fewer quantified values were available, the most likely value (MLV) was determined by default, based on how many quantified values (numquant) actually were reported and on the value of the observations, using the following rules:

Observations	Numquant	Calculation Procedure for MLV
<4	0	MLV = 0.01 (the non-detect value)
<4	1 or 2	If D_{max} = 0.01, then MLV = 0.01 (the non-detect value); otherwise, MLV = $\exp((\log(D_{min})+\log(D_{max}))/2)$ Where D_{max} is the maximum reported observed value and D_{min} is the minimum reported observed value Note that where the number of observations exceeds the numquants, D_{min} is by the definition of a non-detect = 0.01
<4	3	If D_{max} = 0.01, then MLV = 0.01, (the non-detect value); otherwise, MLV calculated using the maximum likelihood estimation procedure
>=4	0	MLV = 0.01 (the non-detect value)
>=4	1	MLV = $\exp(((OBS-1)*\log(D_{min})+\log(D_{max}))/ OBS)$ Note that D_{min} is by the definition of a non-detect = 0.01
>=4	2 or 3	MLV calculated using the maximum likelihood estimation procedure

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Even with these limitations, there were situations where the maximum likelihood estimation procedure did not give reasonable values. If the estimation procedure resulted in an estimated MLV that was less than 0.01, the most likely value was set to 0.01.

The Summary Stream Composition Report (Section 5) lists the following quantities for each unit and stream for which there was at least one occurrence of the species:

OBS - number of data observations reported

NUMQUANT - number of data that were quantified, i.e. not non-detects

DMIN - minimum numerical data value, ND if non-detect or if reported below the non-detect threshold

DMAX - maximum numerical data value, ND if non-detect or if reported below the non-detect threshold

MLV - 50th percentile for fitted lognormal distribution, or a default value according to the rules listed above.

The most likely value (MLV) is the primary result from the data analysis and is the recommended value to use for estimating the species concentration from a particular unit and stream. The Summary Stream Composition Data Report (Section 5) lists the most likely value by unit and stream for all species for which at least one measured value (real or non-detect) was reported in this study. If a species is not on the list, there never was any occurrence of that species reported for that unit and that stream.

Testing the Validity of the Statistical Methods Used

The applicability of the lognormal distribution to the data for this study was evaluated by comparing the observations to a fitted lognormal distribution. If the plotted points approximate a straight line on a log axis versus a percentile axis, then the lognormal distribution can be considered to be adequate. As an example, the fit of the natural logs of the observed concentration values for benzene from the crude oil stream in the supply system is shown in Figure 1 of this sub-section.

Reconciliation of the Statistical Summary Output

In reviewing the output of the statistical summary it was observed in a few cases that the numquant reported was less than the apparent number of quantified data points in the raw data table, Section 6. This is because the raw data table includes observations which are numerically greater than 0.01 weight percent, but which, rightly or wrongly, were labeled as non-detects. In the Summary Stream Composition tables in Section 5, these values are properly classified as non-detects and therefore are not included in the numquant count. A listing of the lines in the raw data of Section 6 with such observations is shown in Table 2 of this subsection under the title NUMQUANT Reconciliation.

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Table 1
Findings and Modifications Resulting From The Review

Line No.	Process Stream	Site	Action - Deleted unless indicated otherwise	Reason For Action
96	Atmos Dist-LGO	V2n	ALL	Low (all ND's)
97	Atmos Dist-LGO	V3	xylenes	High (marked diesel)
106	Atmos Dist-Kero	F7	ALL	No data in range
109	Atmos Dist-Kero	J3	ALL	No data in range
111	Atmos Dist-Kero	J4	ALL	No data in range
112	Atmos Dist-Kero	J4	ALL	No data in range
122	Atmos Dist-Kero	W1	TMB, xylenes	High
123	Atmos Dist-Kero	W1	TMB, tolune, xylenes	High
125	Atmos Dist-Kero	W1	TMB, xylenes	High
126	Atmos Dist-Kero	W1	TMB, xylenes	High
128	Atmos Dist-Kero	Y2	toluene	Low (ND)
145	Atmos Dist-HN	V1	ALL	5 Lows
146	Atmos Dist-HN	V2	ALL	5 Lows
154	Atmos Dist-HN	Y3	Bz, EtBz, toluene, xylenes	4 Lows
161	Atmos Dist-SRN	F3	xylenes	Low
163	Atmos Dist-SRN	F5	ALL	No data in range
177	Atmos Dist-SRN	J4	xylenes	Low
186	Atmos Dist-SRN	Q3	EtBz, xylenes	Low (ND)
196	Atmos Dist-SRN	Y1	xylenes	Low
197	Atmos Dist-SRN	Y3	EtBz, tolune, xylenes	Low
198	Atmos Dist-SRN	Y3	xylenes	Low
209	Atmos Dist-Lt Ends	J3	Ethylene, H_2S	Low C2, High H_2S
211	Atmos Dist-Lt Ends	Q1,2,6,7	ALL	Category (marked condensate)
214	Atmos Dist-Lt Ends	V4	hexane	Low
216	Atmos Dist-Lt Ends	W1	benzene, hexane, H_2S	Low
222	Atmos Dist-Lt Ends	W1	toluene	High
225	Atmos Dist-Lt Ends	W1	toluene	High
229	Vac Resid	J4	ALL	No data in range
230	Vac Resid	J4	ALL	No data in range
231	Vac Resid	J4	ALL	No data in range
232	Vac Resid	J4	ALL	No data in range
233	Vac Resid	P1	ALL	No data in range
236	Vac HGO	J3	ALL	No data in range
237	Vac HGO	J3	ALL	No data in range
238	Vac HGO	J4	ALL	No data in range
239	Vac HGO	J5	ALL	No data in range
240	Vac HGO	P1	ALL	No data in range
244	Vac- LVGO	J3	ALL	No data in range
245	Vac- LVGO	J5	ALL	No data in range
248	Vac- LVGO	V1	ALL	5 Highs
259	Asphalt	J4	ALL	No data in range
272	Resid Hydro	J3	ALL	No data in range
280	Coker GO	J3	ALL	No data in range
297	Coker HN	Q1,2,6,7	benzene,xylenes	High
298	Coker HN	V2	ALL	5 Lows
306	Coker LN	J3	hexane	High
310	Coker LN	V1	xylenes	High
312	Coker LN	W1	hexane,toluene, xylenes	High

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Line No.	Process Stream	Site	Action - Deleted unless indicated otherwise	Reason For Action
319	Coker-Unsat Gas	P1	propylene	High
320	Coker-Unsat Gas	V1	ALL	All gas values low
339	Cat Hydro H Dist	W1	hexane	High
343	Cat Hydro -L Dist	Q1,2,6,7	EtBz, xylenes	Low
345	Cat Hydro -L Dist	V1	toluene	Low
346	Cat Hydro -L Dist	V2	ALL	5 Lows
347	Cat Hydro -L Dist	Y2	ALL	6 Lows
354	Cat Hydro HN	J3	xylenes	High
357	Cat Hydro HN	V2	ALL	5 Lows
360	Cat Hydro LN	F3	hexane, xylenes	Low
361	Cat Hydro LN	F4	EtBz	Low
366	Cat Hydro LN	V2	ALL	5 Lows
367	Cat Hydro LN	Y3	EtBz, toluene, xylenes	Low
371	Cat Hydro Sat Gas	V1	ALL	Low gas values
372	Cat Hydro Sat Gas	V1	ALL	Low gas values
373	Cat Hydro Sat Gas	V2	ALL	Low gas values
374	Cat Hydro Sat Gas	V2	ALL	Low gas values
375	Cat Hydro Sat Gas	V2	ALL	Low gas values
376	Cat Hydro Sat Gas	W1	ALL	category - no gas streams data
379	FCC Feed	J3	ALL	No data in range
380	FCC Feed	J3	ALL	No data in range
381	FCC Feed	J4	ALL	No data in range
382	FCC Feed	J4	ALL	No data in range
383	FCC Feed	J5	ALL	No data in range
387	FCC Feed	V3	ALL	vapor feed descriptor
391	FCC DCO	J1	ALL	No data in range
392	FCC DCO	J2	ALL	No data in range
393	FCC DCO	J2	ALL	No data in range
394	FCC DCO	J3	ALL	No data in range
395	FCC DCO	J4	ALL	No data in range
396	FCC DCO	J4	ALL	No data in range
397	FCC DCO	J5	ALL	No data in range
401	FCC HGO	J1	ALL	Low
403	FCC HGO	J4	ALL	Low
405	FCC HGO	P1	ALL	5 Lows
409	FCC HGO	V1	ALL	5 Lows
412	FCC HGO	V2	ALL	6 Lows
413	FCC HGO	V3	ALL	5 Lows
414	FCC HGO	W1	ALL	4 Lows
427	FCC LGO	P1	ALL	2 of 2 lows
428	FCC LGO	Q1,2,6,7	xylenes	High
429	FCC LGO	Q3	TMB, naphthalene	Low
431	FCC LGO	V1	Bz, tolune, xylenes	Low
433	FCC LGO	V2	ALL	7 Lows
434	FCC LGO	V3	xylenes	Low
435	FCC LGO	V4	Bz, biphenyl, hexane	Low
436	FCC LGO	V4	Biphenyl, naphthalene	Low
440	FCC LGO	Y1	naphthalene	Low
442	FCC LGO	Y3	naphthalene	Low
446	FCC Gasoline	F1	toluene	Low
460	FCC Gasoline	J2	ALL	not part of set

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Line No.	Process Stream	Site	Action - Deleted unless indicated otherwise	Reason For Action
462	FCC Gasoline	J3	toluene	Low
467	FCC Gasoline	P1	toluene, Et,Bz	Low
469	FCC Gasoline	Q1,2,6,7	ALL	4 lows, 1 high
470	FCC Gasoline	Q1,2,6,7	cumene	High
471	FCC Gasoline	Q3	xylenes	Low
473	FCC Gasoline	V1	ALL	all ND's
474	FCC Gasoline	V1	ALL	all ND's
476	FCC Gasoline	V2	ALL	all low values
477	FCC Gasoline	V2	ALL	all low values
478	FCC Gasoline	V2	ALL	all low values
479	FCC Gasoline	V2	ALL	all low values
480	FCC Gasoline	V2	hexane	Low
485	FCC Gasoline	W1	TMB, xylenes	High
495	FCC unsat gas	V2	ALL	all low gas values
515	FCC olefins	J1	ALL	category - no olefins
520	FCC olefins	J5	ALL	category- no olefins
521	FCC olefins	V2	ALL	all low gas values
531	HDS naphtha	Q1,2,6,7	ALL	too many ND's
532	HDS naphtha	Q2	ALL	category - marked pentane
533	HDS naphtha	Q2	ALL	category - marked pentane
534	HDS naphtha	Y3	ALL	category
539	HDS kerosene	Q1,2,6,7	ALL	4 highs
547	HDS diesel	Q1,2,6,7	ALL	4 highs
556	Alkylate	F2	xylenes	Reported error
568	Alkylate	Q1,2,6,7	Moved to new alky group	category (not C4 olefin feed)
569	Alkylate	Q1,2,6,7	Moved to new alky group	category (not C4 olefin feed)
570	Alkylate	Q1,2,6,7	Moved to new alky group	category (not C4 olefin feed)
572	Alkylate	V4	Moved to new alky group	category (not C4 olefin feed)
573	Alkylate	Y1	Moved to new alky group	category (not C4 olefin feed)
574	Alkylate	Y2	Moved to new alky group	category (not C4 olefin feed)
575	Alkylate	Y3	Moved to new alky group	category (not C4 olefin feed)
584	Alkylation Butane	V1	ALL	category -no gas data values
589	Alkylation LPG	P1	ALL	no gas data values
590	Alkylation LPG	Q1,2,6,7	propylene	High
601	Sat Gas Plant	V1	ALL	category -no gas data values
602	Sat Gas Plant	V1	ALL	category -no gas data values
603	Sat Gas Plant	V2	ALL	category -no gas data values
604	Sat Gas Plant	V2	ALL	category -no gas data values
631	SRU Fuel Gas	V1	ALL	category -no gas data values
632	SRU Fuel Gas	V2	ALL	category -no gas data values
644	Amine Treat Olefins	J1	propylene	category (low)
651	Amine Treat Sour Gas	J3	ALL	all low gas values
654	Amine Treat Sour Gas	V1	ALL	category -no gas data values
655	Amine Treat Sour Gas	V1	ALL	category -no gas data values
656	Amine Treat Sour Gas	V2	ALL	category -no gas data values
657	Amine Treat Sour Gas	V2	ALL	category -no gas data values
658	Amine Treat Sour Gas	V3	ALL	category -no gas data values
659	Amine Treat Sour Gas	V3	ALL	category -no gas data values
660	Amine Treat Sour Gas	V3	ALL	category -no gas data values
661	Amine Treat Sour Gas	V3	ALL	category -no gas data values
671	Naphtha Pretreat	Q2	ALL	No data in range

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Line No.	Process Stream	Site	Action - Deleted unless indicated otherwise	Reason For Action
672	Naphtha Pretreat	Q1,2,6,7	ALL	High
674	Naphtha Pretreat	Q1,2,6,7	Moved to Reformate	category (labeled reformate)
675	Naphtha Pretreat	Q1,2,6,7	Moved to Reformate	category (labeled reformate)
676	Naphtha Pretreat	Q2	Moved to Reformate	category (labeled reformate)
677	Naphtha Pretreat	Q2	Moved to Reformate	category (labeled reformate)
678	Naphtha Pretreat	Q2	Moved to Reformate	category (labeled reformate)
679	Naphtha Pretreat	Q3	Moved to Reformate	category (labeled reformate)
680	Naphtha Pretreat	Q1	Moved to Reformate	category (labeled reformate)
689	Reformate	F5	TMB	marked ND
695	Reformate	J1	EtBz, xylenes	Low
705	Reformate	J4	Xylenes	Low
706	Reformate	J4	EtBz, xylenes	Low
711	Reformate	V1	Cumene, EtBz, xylenes	Low
717	Reformate	V4	TMB	Low
721	Reformate	Y3	EtBz, xylenes	Low
731	Reformer Gas	V2	ALL	gas values all ND's
732	Reformer Gas	V2	ALL	gas values all ND's
737	Arom Xtract - Bz	P1	ALL	category
751	Arom Xtract - Hvy	J3	ALL	3 of 4 low
753	Arom Xtract - Hvy	V2	ALL	category - no heavy aromatics
754	Arom Xtract - Hvy	V2	ALL	category - no heavy aromatics
755	Arom Xtract - Hvy	Y1	cumene	High value, >100% total for set
768	Slop Oil	P1	ALL	4 of 6 low
879	Lube	F3	ALL	No data in range
880	Lube	J4	ALL	No data in range

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Table 2

NUMQUANT Reconciliation

Line No.	Refinery Unit	Refinery stream	Species (Section 6 value)
558	Alkylation	Alkylate	Benzene (0.025)
			Hexane (0.05)
559	Alkylation	Alkylate	Benzene (0.05)
262	Asphalt Plant	Used Solvent	Hexane (0.05)
347*	Cat. Hydrocracker	Light HC Distillate	TMB (0.015)
690	Cat. Reformer	Reformate	Butadiene (0.05)
622	Caustic Treating	Spent Caustic	Crseols (0.05)
279	Coker	Coker Gas Oil	Benzene (0.025)
			Butadiene (0.05)
277, 278	Coker	Coker Gas Oil	Butadiene (0.05)
289	Coker	Coker Heavy Naphtha	Butadiene (0.05)
305	Coker	Coker Light Naphtha	Butadiene (0.05)
			Xylenes (0.05)
454	Fluid Cat Cracker	Cracked Gasoline	Butadiene (0.050
420	Fluid Cat Cracker	Light Cat Gas Oil	Benzene (0.05)
810	Gasoline Blending	Conventional Gasoline	MTBE (0.05)
803, 804	Gasoline Blending	Conventional Gasoline	Toluene (0.05)
16	Supply System	Crude Oil	Cumene (0.05)

- Note: Stream No. 347 was eliminated from the statistical analysis in the modifications shown in Table 1

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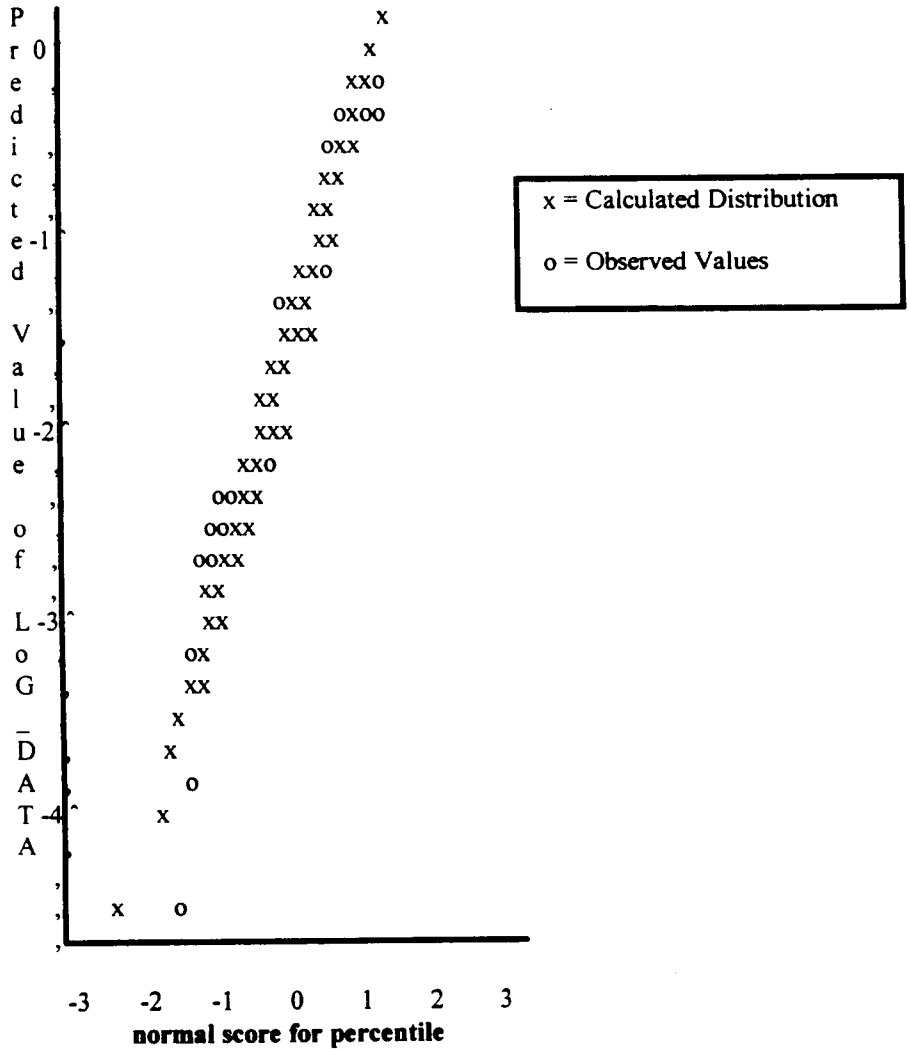
Figure 1

PERF Refinery Stream Hydrocarbon Speciation

Refinery_Unit=Supply System Refinery_Stream=Crude Oil Species='Benzene'

Lognormal Probability Plot



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Appendix 2

Section 8

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APPENDIX 2: DETAILS OF DATA HANDLING PROCEDURES

ANALYTICAL ISSUES

This study includes only existing data available at the time the study was conducted. There were no additional samples collected or new data acquired. Thus, the quality of analytical data is variable.

Sources of Data

The data were obtained by each participant from a variety of sources including:

- inventories and databases from individual refineries
- composition data provided by major refineries to EPA in 1992 as required in Section 114 of the Clean Air Act Amendments
- data obtained for a variety of purposes by refinery and research laboratories
- data acquired specifically for emission inventories as well as data acquired for operational purposes

Analytical Methods

The most commonly used analytical techniques to determine individual components in complex mixtures involve gas chromatographic methods with a variety of detectors including flame ionization (universal detector), photoionization (selective to aromatics) and mass spectrometry (ability to match fragm0entation pattern to a library for identification). Most of the data were obtained from analyses of these types. The analytical methods included those in use at refineries and research laboratories for characterization of petroleum hydrocarbons. Some of the analyses were performed at contract laboratories experienced with the analysis of environmental samples (such as soil and water) but limited in experience with analysis of target compounds in hydrocarbon samples.

Data Quality

Because of the variable sources of the data and the fact that most of the data were not obtained with this particular use as a data quality objective, the participants agreed to apply EPA's "FIRE" (Factor Information Retrieval) data coding to the data to provide a level of confidence in the data quality. Each company assigned a code for each datapoint before inclusion in this database using the data quality codes of "A" through "D" as defined in FIRE plus "EJ" for engineering judgment. The codes indicate the following level of data quality:

A When tests are performed by a sound methodology and are reported in enough detail for adequate validation

B When tests are performed by a generally sound methodology but lack enough detail for adequate validation

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C When tests are based on an untested or new methodology or are lacking a significant amount of background data

D When tests are based on a generally unaccepted method but the method may provide an order of magnitude value for the source

EJ Engineering judgment. Best estimates based on process knowledge. Included in the database for information purposes but NOT included in the statistical evaluation of the data

Reporting Limits

Hydrocarbon matrices are very complex samples containing hundreds and even thousands of individual components. As the carbon number increases, the number of potential individual species increases dramatically. The number of isomers containing only carbon and hydrogen atoms increases dramatically with carbon number. For example, there are only 5 possible isomers of paraffins with carbon number 6 whereas there are nearly 63 trillion isomers of paraffins with carbon number 40. Therefore, it is extremely difficult to achieve reporting limits as low as those reported for environmental samples such as soil and water. The best estimated lowest concentration for any individual species that can be expected from analysis of these neat hydrocarbon mixtures is approximately 0.01%.

There were a large number of data reported as not detected. The data provider was asked to include the method reporting limit, if known. This resulted in a variable reporting limit for the data, some of which appeared to be not possible to achieve with hydrocarbon matrices. This situation made data evaluation difficult. Some reporting limits were obviously the best the laboratory can achieve in a clean water sample. The data with very low (ppm) reporting limits were obtained when samples were analyzed at commercial environmental labs and it does not reflect a true reporting limit for these samples. The participants agreed to 0.01% as a more realistic reporting limit.

Available Data

There is a relative abundance of data for the light streams for many of the HAPS. This is due to the fact that the number of isomers is small and they can be easily analyzed by gas chromatography. As the carbon number range increases, the number of isomers increases, and the streams are heavier in composition and may eventually be too heavy to be analyzed using gas chromatography. In addition, the intended use for most refinery intermediates and products is performance based, not compound specific, therefore, there are not much data available for any single refinery or company.

During the data gathering process, it became obvious that another difficulty was in putting the data to the proper stream. A refinery may have a light, medium and heavy description for its hydrocrackate but there are only two designations in the spreadsheet. Thus, there may be some skewness of the data.

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Data Limitations

There is no universal speciation of intermediate refinery streams or products. The limitations in the data arise from the fact that there are variabilities in the crude oil composition and refinery operations. Additional limitations are due to diversity of the process units and to inconsistencies in stream naming/definitions.

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Appendix 3

Section 9
Graphical Presentation of the Data

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This section includes the plots of the observed and calculated data values by species for each unit and each stream.

The vertical axis is plotted using a logarithmic scale. The Most Likely Values are shown with the indicator symbol "**M**." Observed data values are indicated by open circles, if they are quantified (i.e., are **not** non-detect.) If a non-detect was reported with a detection limit greater than 0.010, the detection limit is plotted with the special symbol "**#**." Multiple points with identical values generate only a single value on the plots.

Note, that, if the detection limit was 0.010 or if any observation or detection limit was reported as less than 0.010, the value is not shown on the plots. This was done to reduce potential confusion caused by overprinting of non-detect and most likely value indicators. However, it can, for some data sets, create the misapprehension that the plotted Most Likely Value is less than the lowest observed value . This is never the case, which the reader can confirm by comparing the actual data values in the process stream observations in Section 6.

Of the 24 possible species for each unit and stream, not all of them ever appeared for any specific unit and stream.

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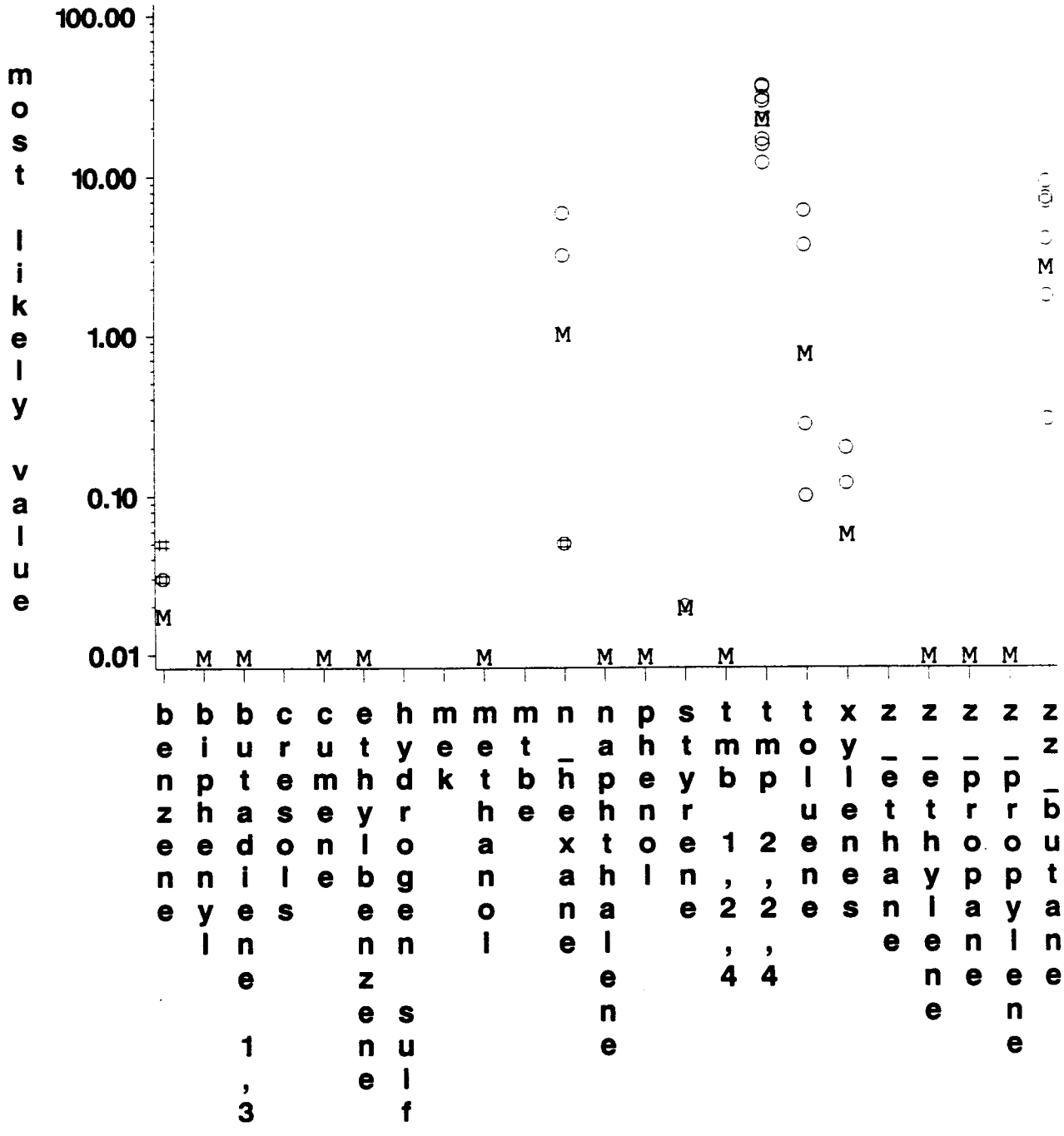
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Alkylation REF_STRM= Alkylate—C4 Olefin F



PLOT M M M most likely value ○ ○ ○ concentration wt %
⌗ ⌗ ⌗ ND

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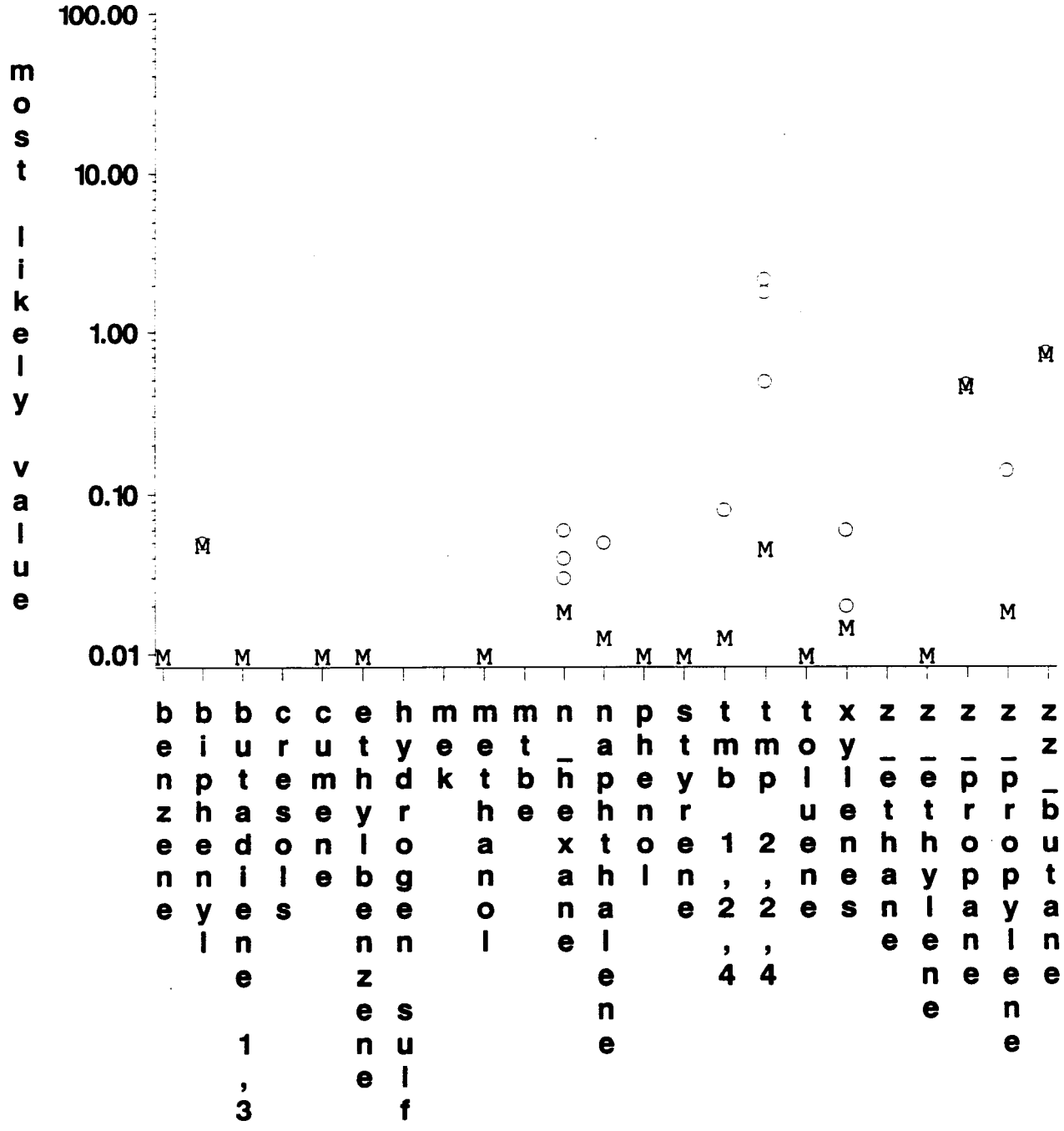
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Alkylation REF_STRM= Alkylate—not C4 Olef



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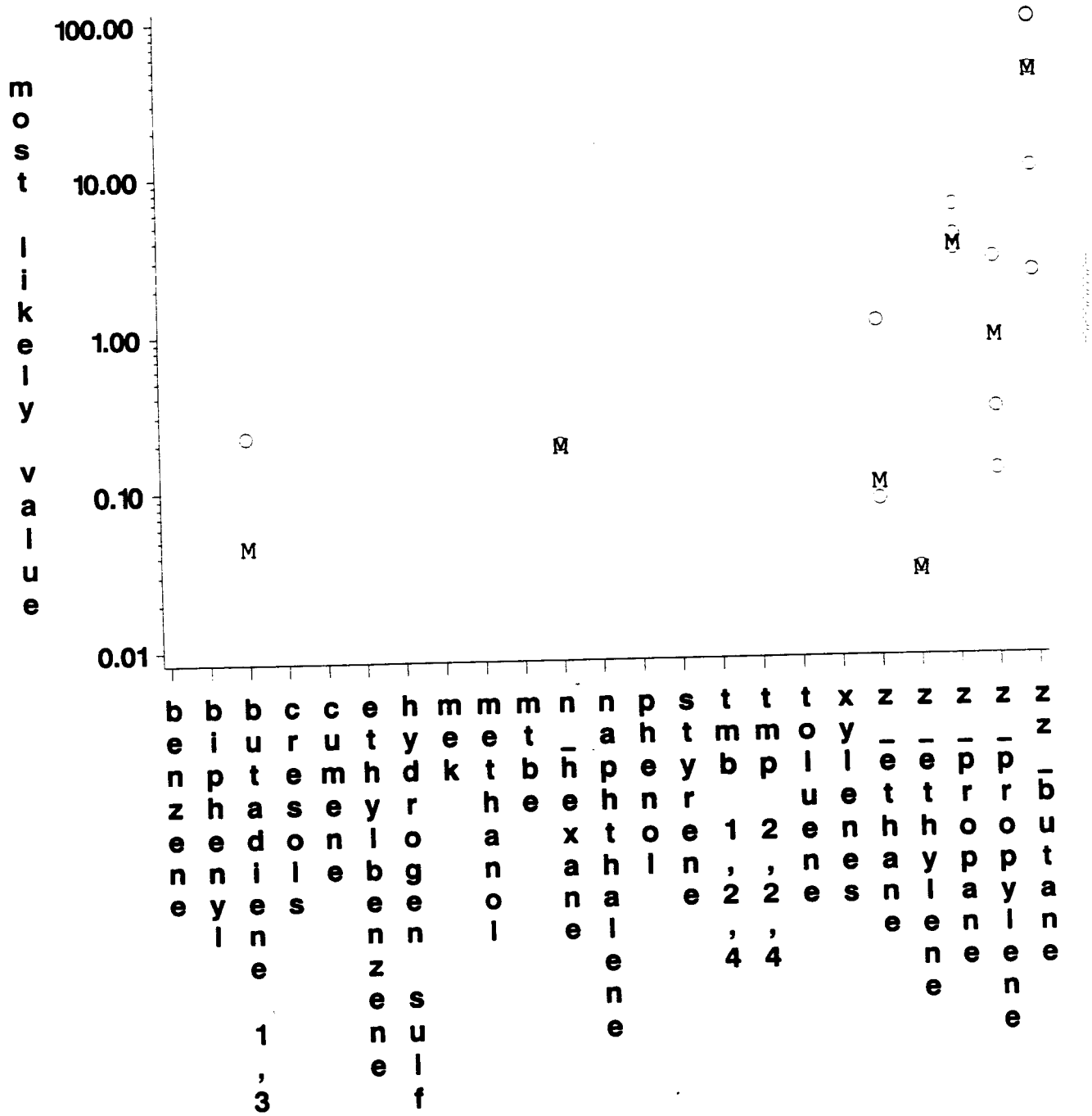
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Alkylation REF_STRM= Butane



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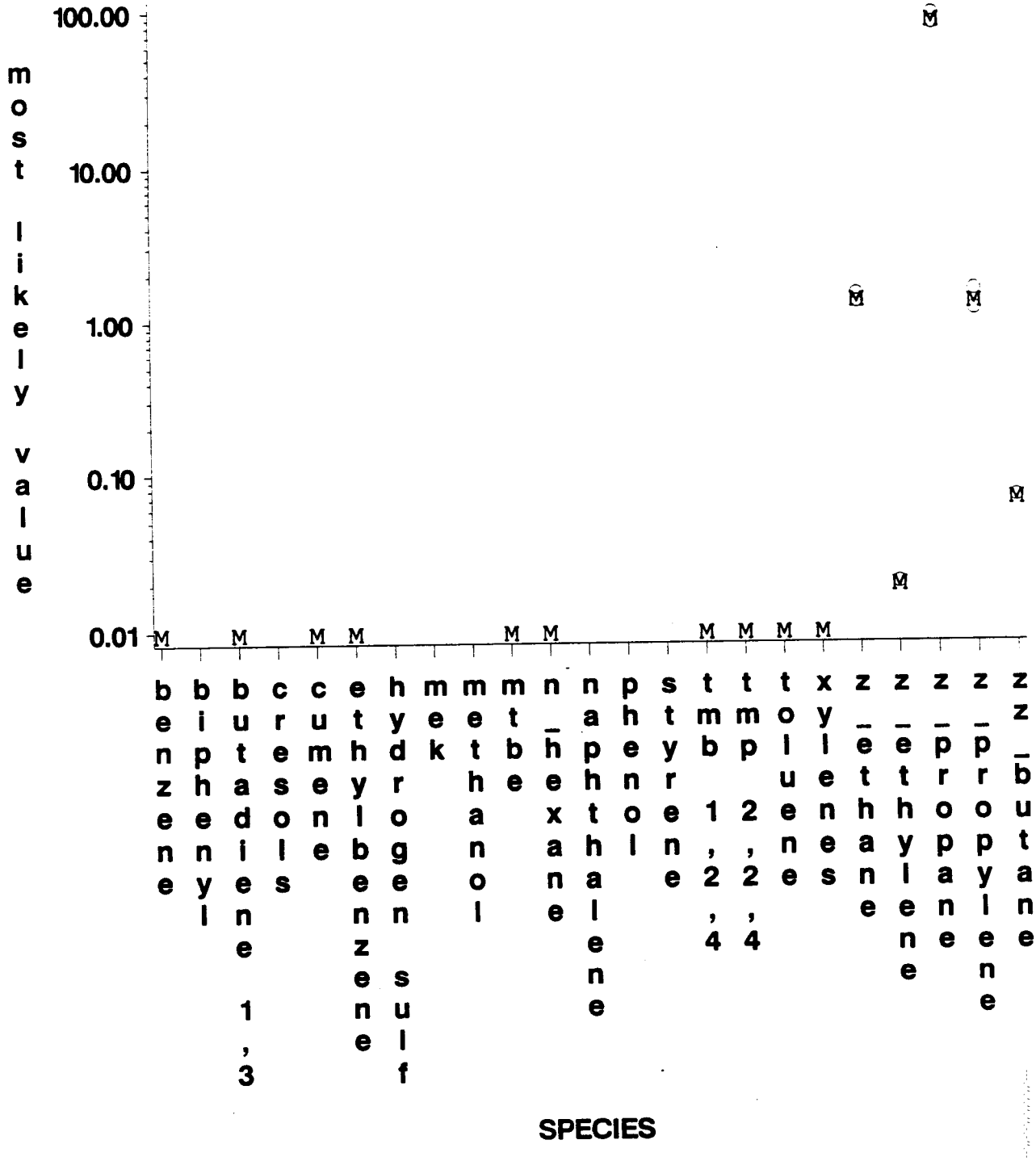
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Alkylation REF_STRM= LPG



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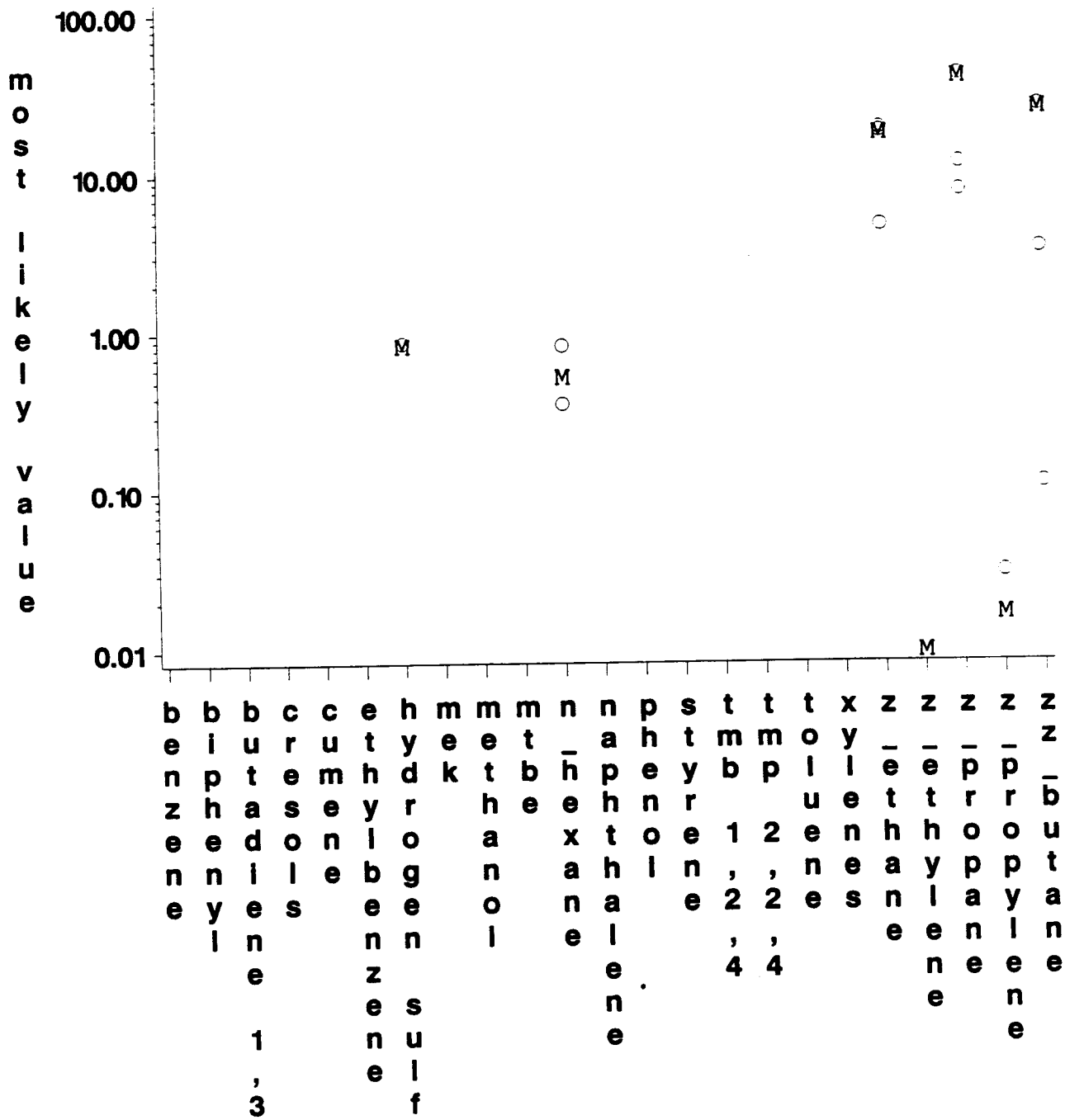
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Amine Treating REF_STRM= Sour Gas



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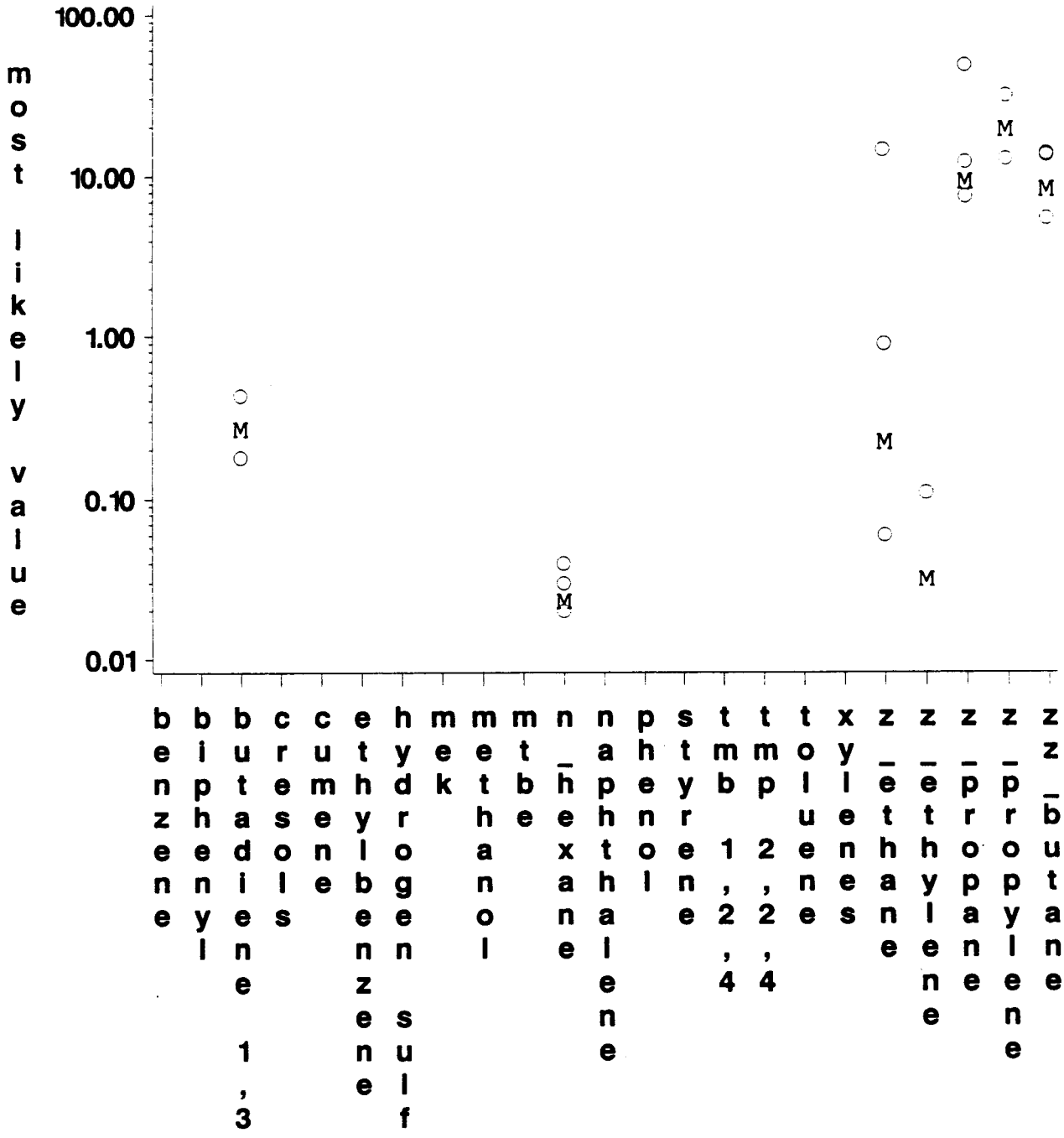
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Amine Treating REF_STRM= Treated olefinic



PLOT M M M most likely value ○ ○ ○ concentration wt %
ND

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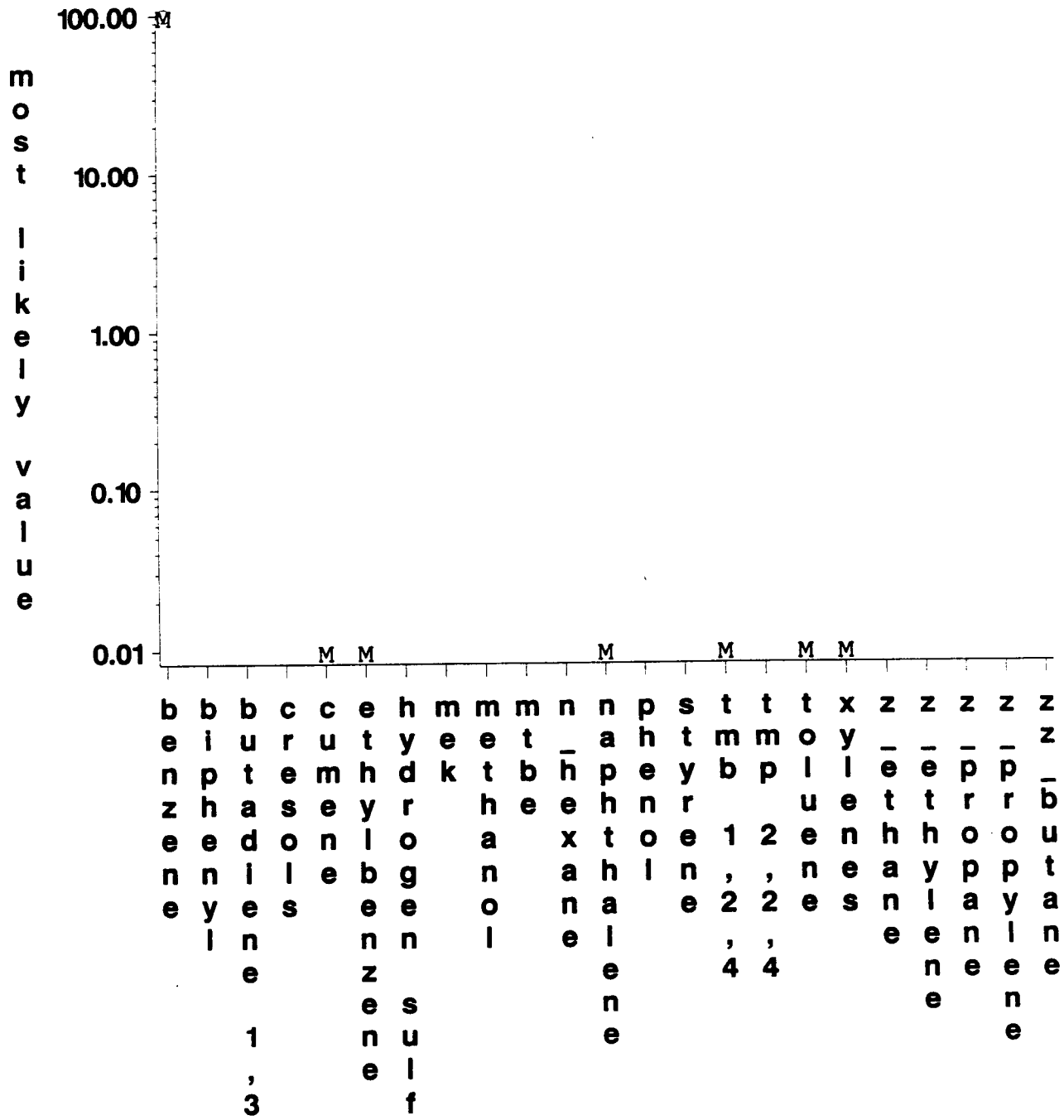
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Aromatics Extract REF_STRM= Benzene



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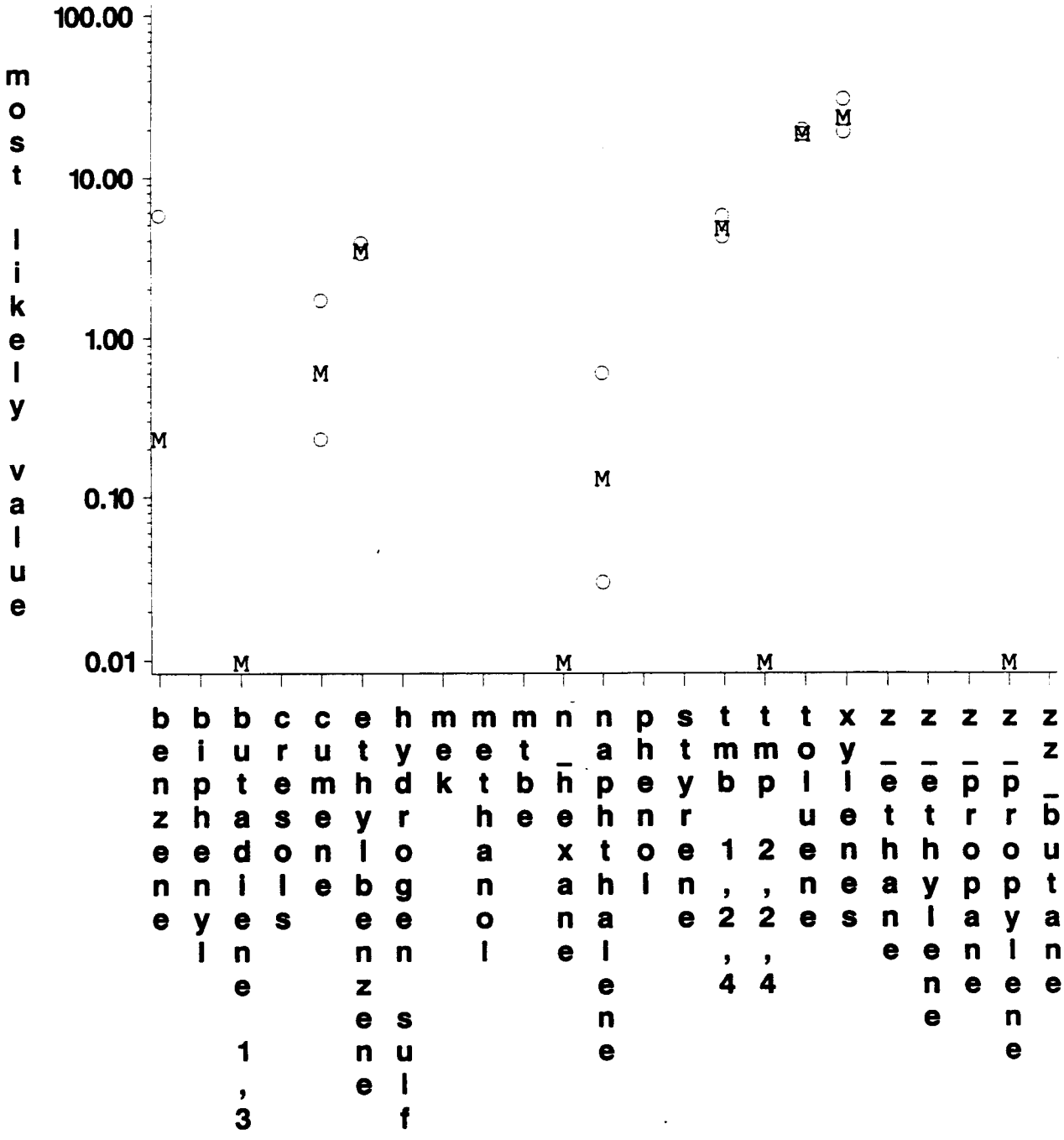
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Aromatics Extract REF_STRM= Heavy Aromatics



PLOT M M M most likely value ○ ○ ○ concentration wt %
ND

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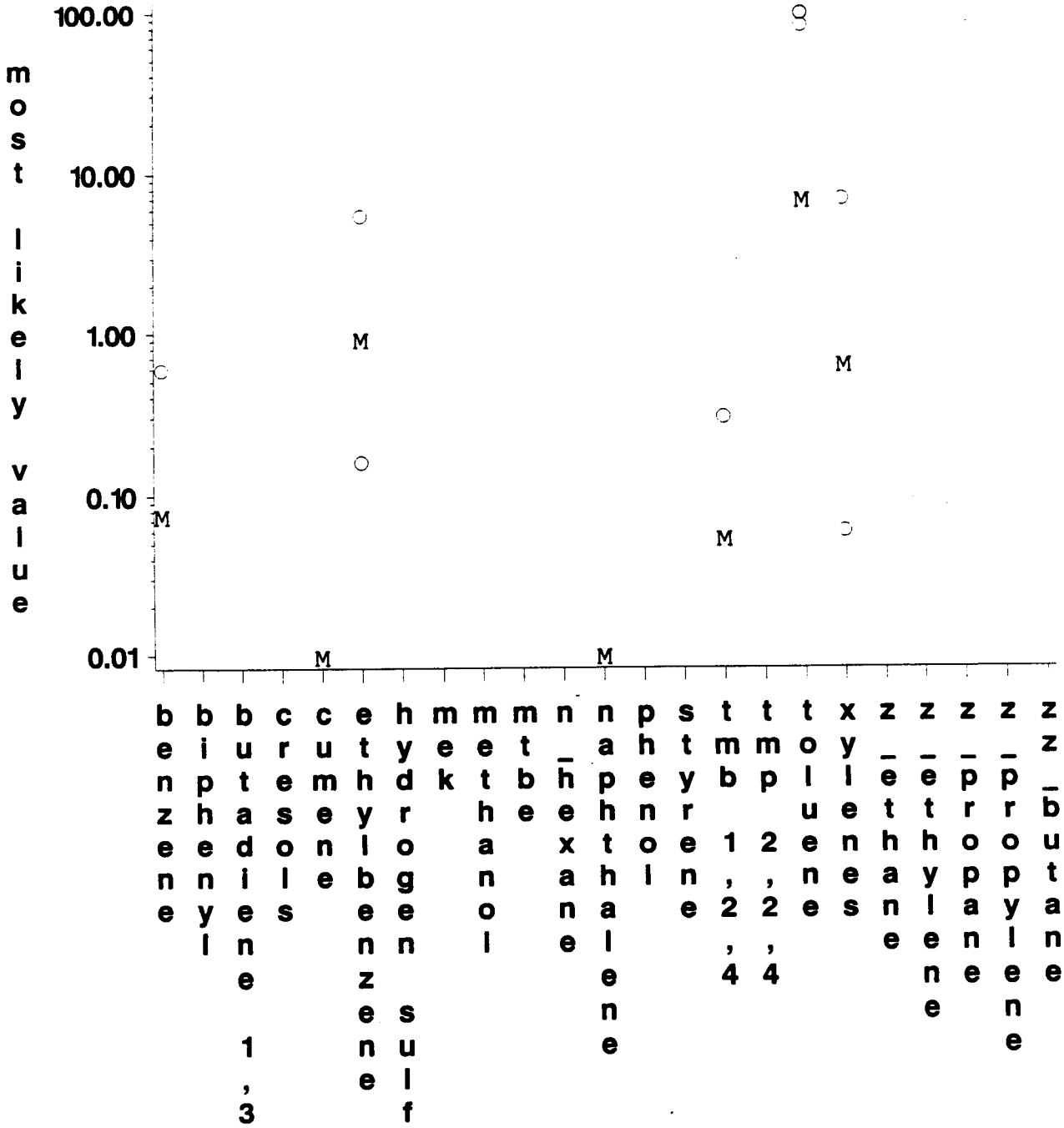
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Aromatics Extract REF_STRM= Toluene



PLOT M M M most likely value ○ ○ ○ concentration wt %
¤ ¤ ¤ ND

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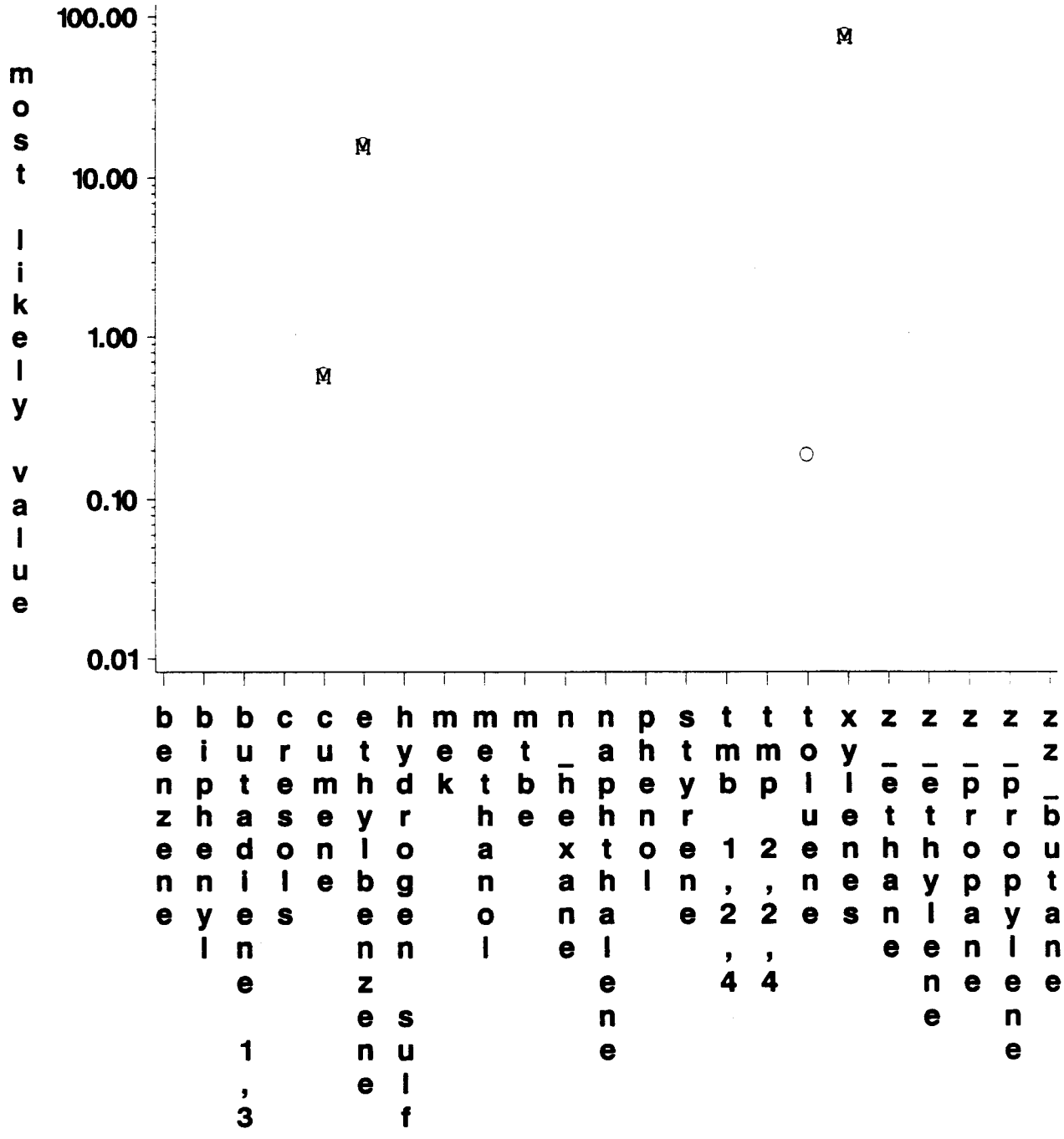
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Aromatics Extract REF_STRM= Xylenes



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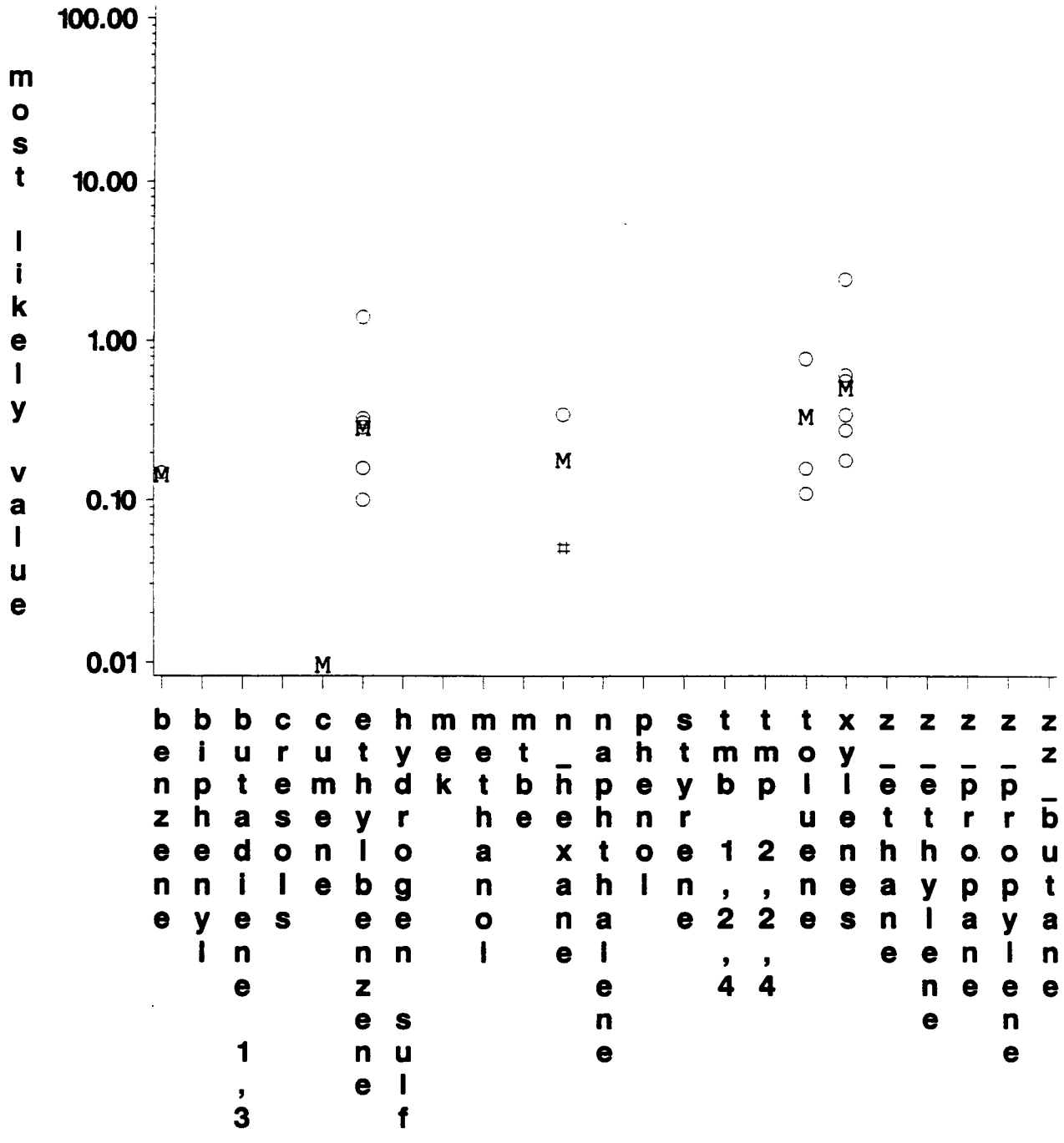
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Asphalt Plant REF_STRM= Used Solvent



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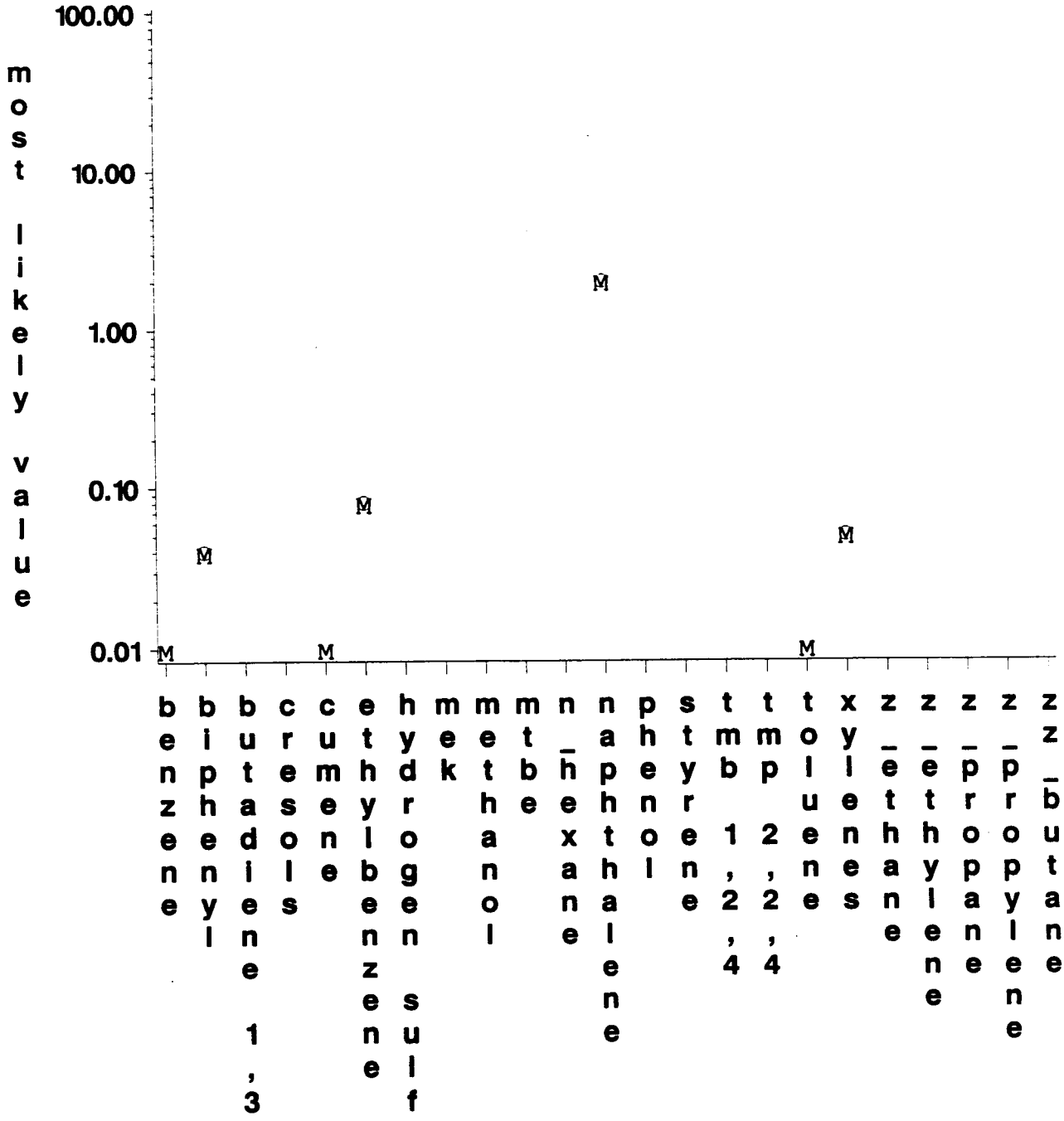
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Atm. Distillation REF_STRM= Atm. Resid.



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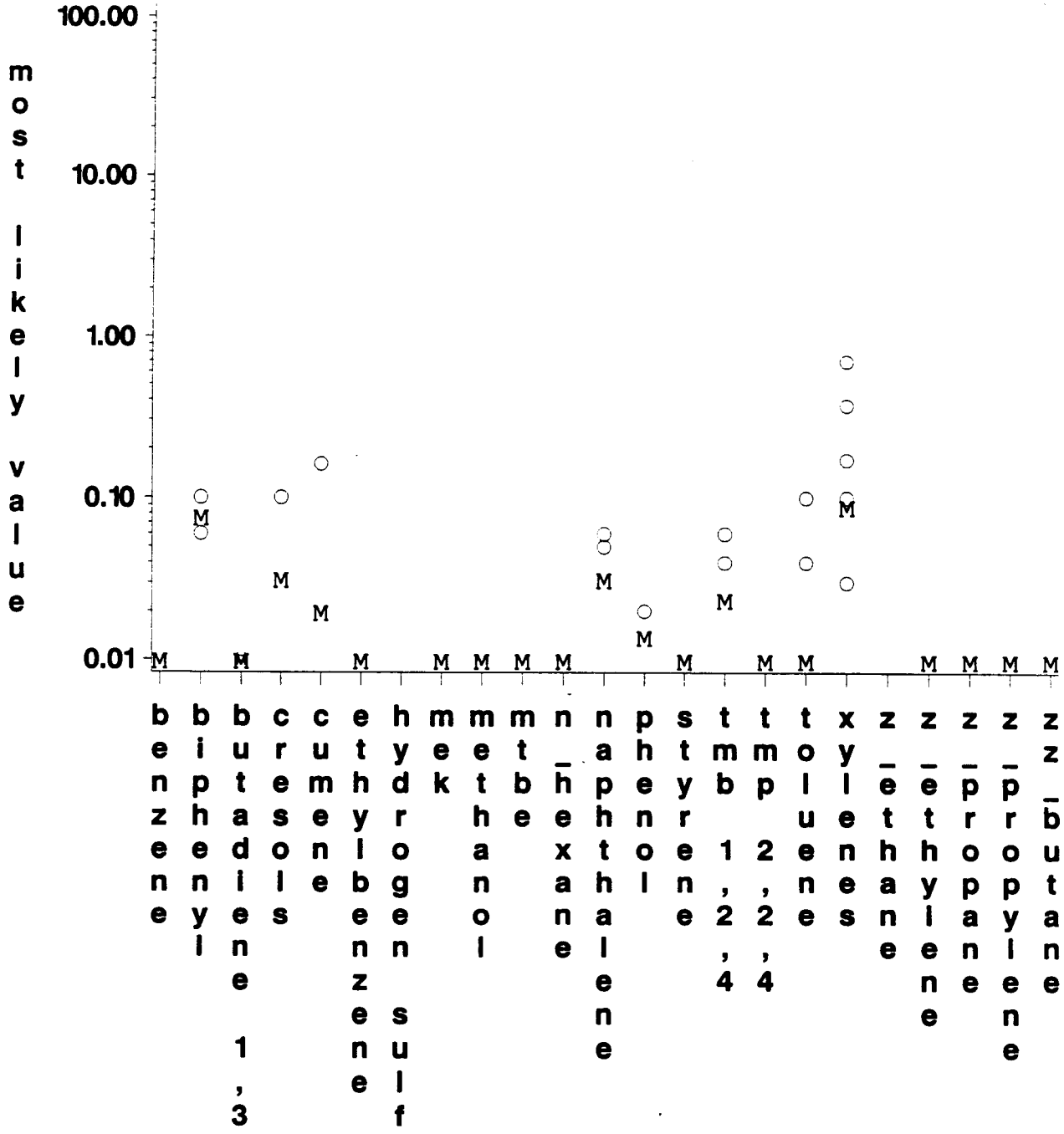
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Atm. Distillation REF_STRM= Heavy Atm. Gas Oil



PLOT M M M most likely value ○ ○ ○ concentration wt %

ND

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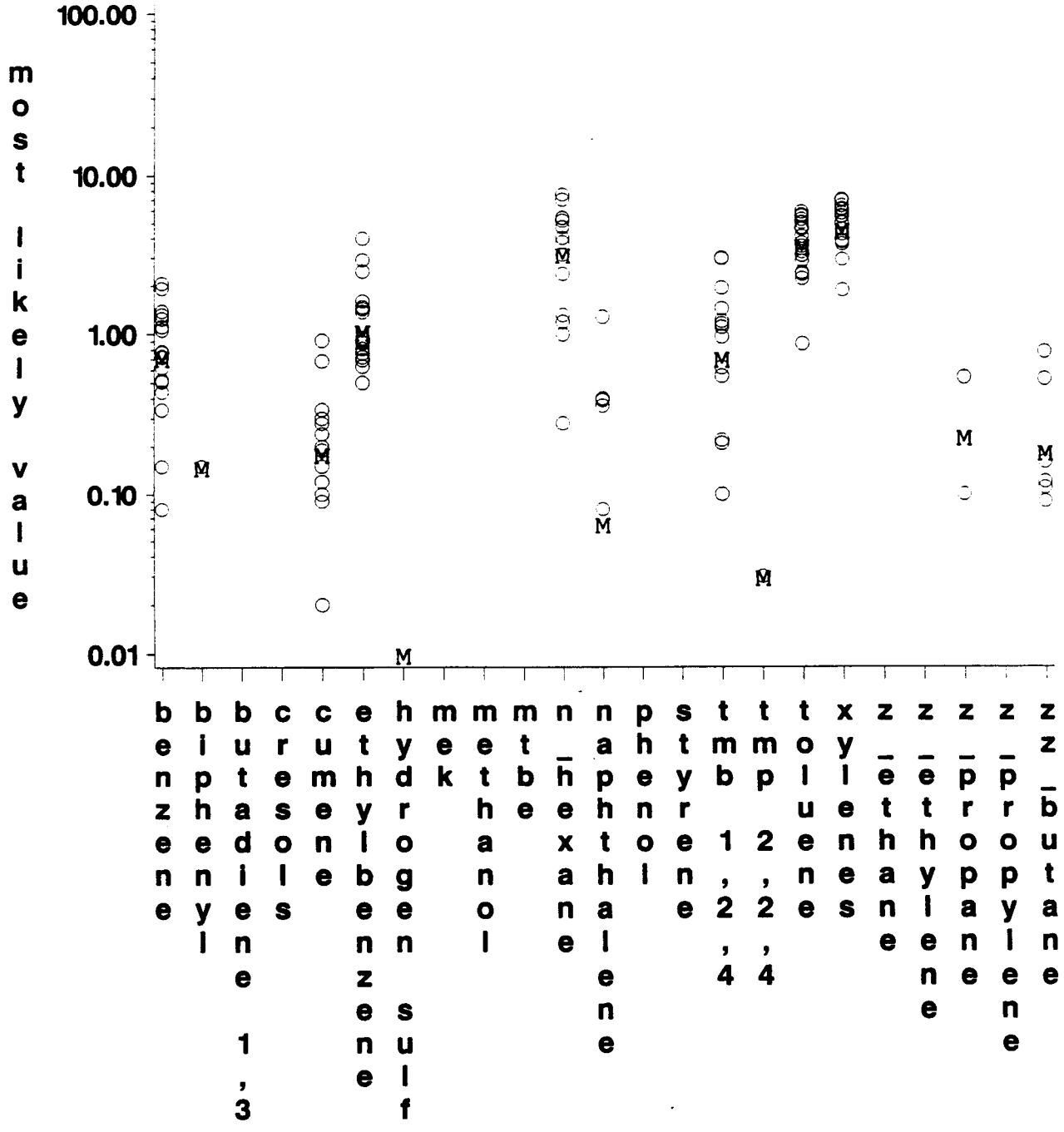
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Atm. Distillation REF_STRM= Heavy Naphtha



PLOT M M M most likely value ○ ○ ○ concentration wt %
ND

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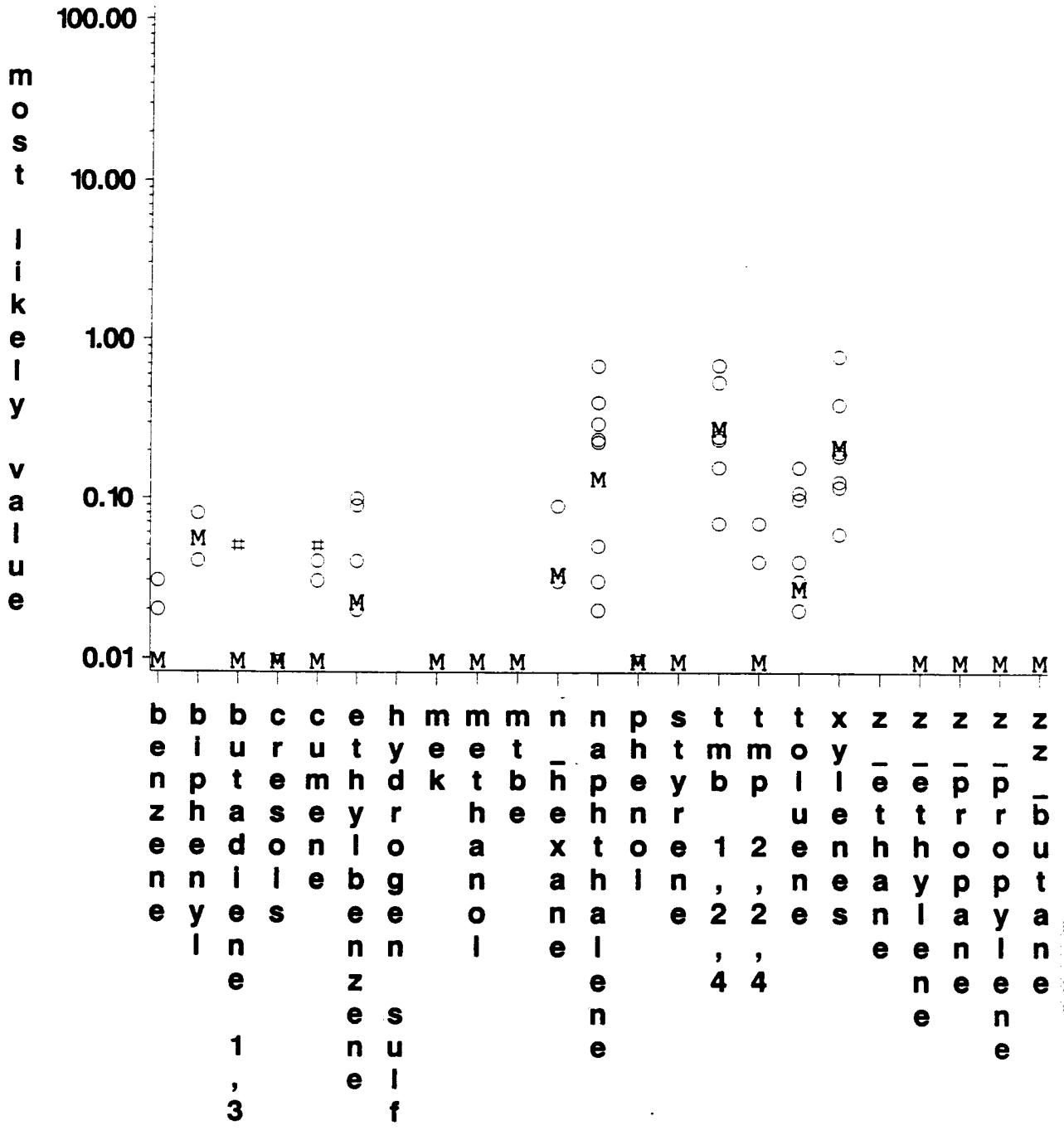
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Atm. Distillation REF_STRM= Light Atm. Gas Oil



PLOT M M M **most likely value** ○ ○ ○ **concentration wt %**
ND

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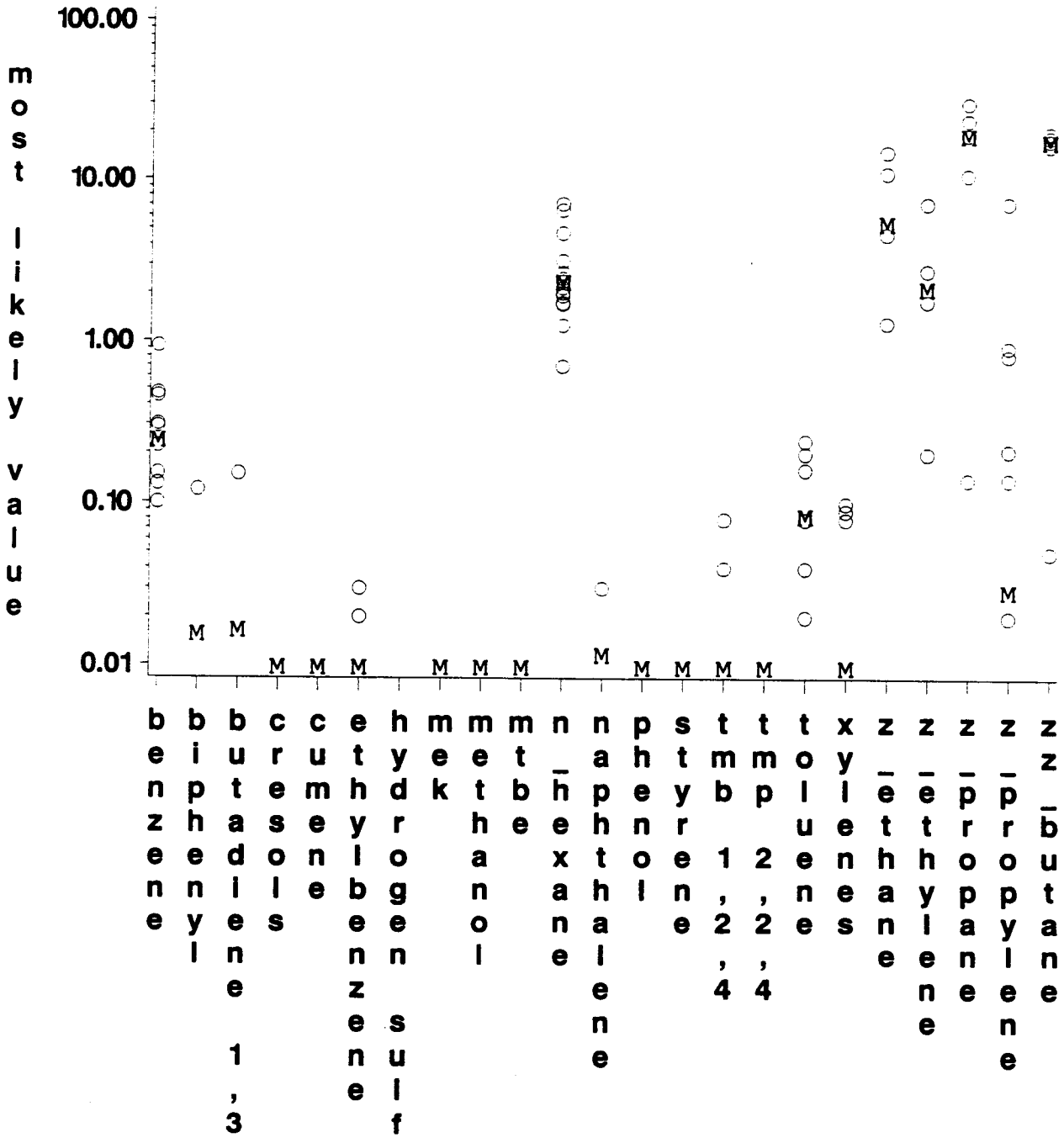
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Atm. Distillation REF_STRM= Light ends



PLOT M M M most likely value ○ ○ ○ concentration wt %
ND

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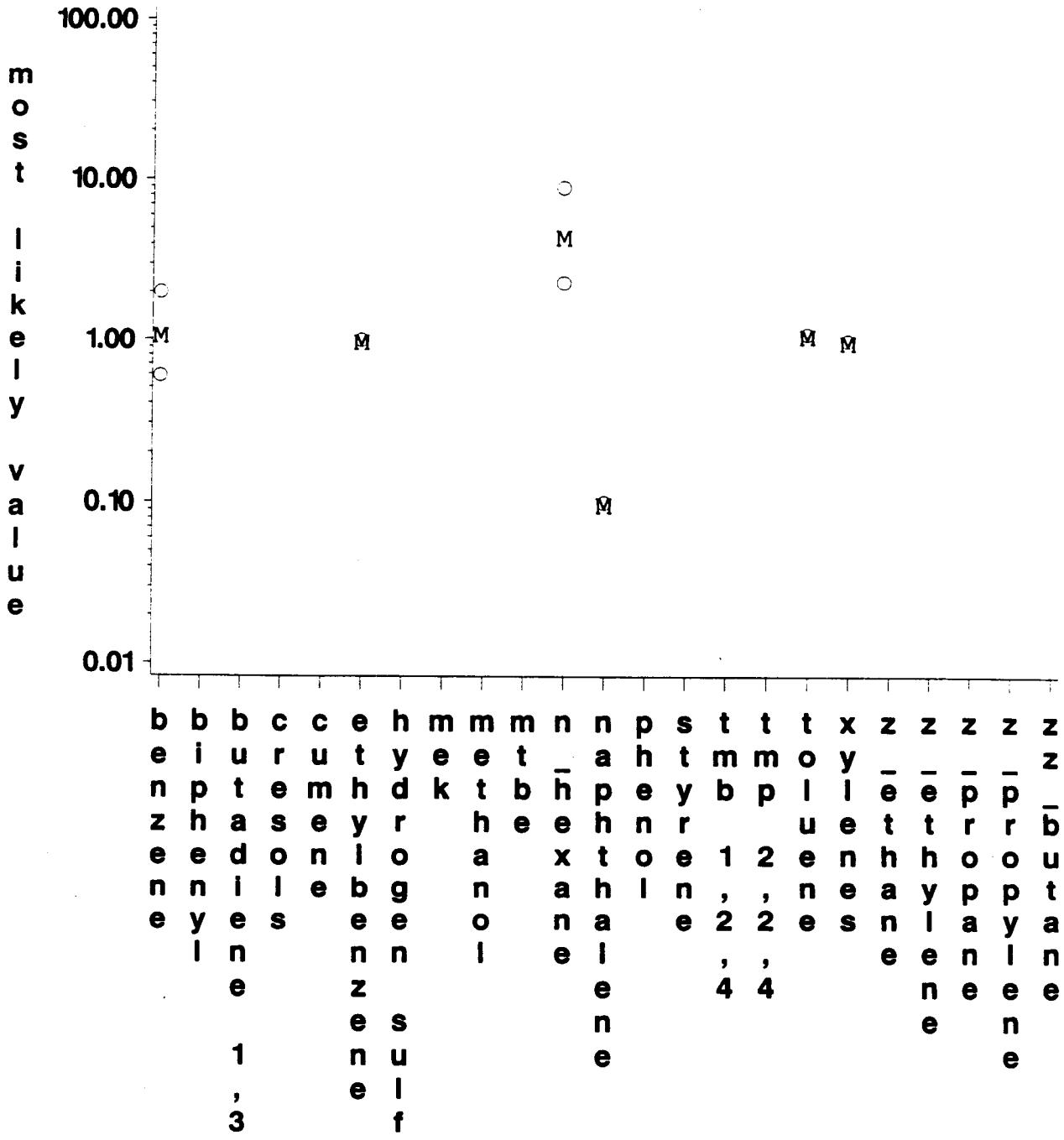
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Atm. Distillation REF_STRM= SR Gasoline



PLOT M M M most likely value ○ ○ ○ concentration wt %
ND

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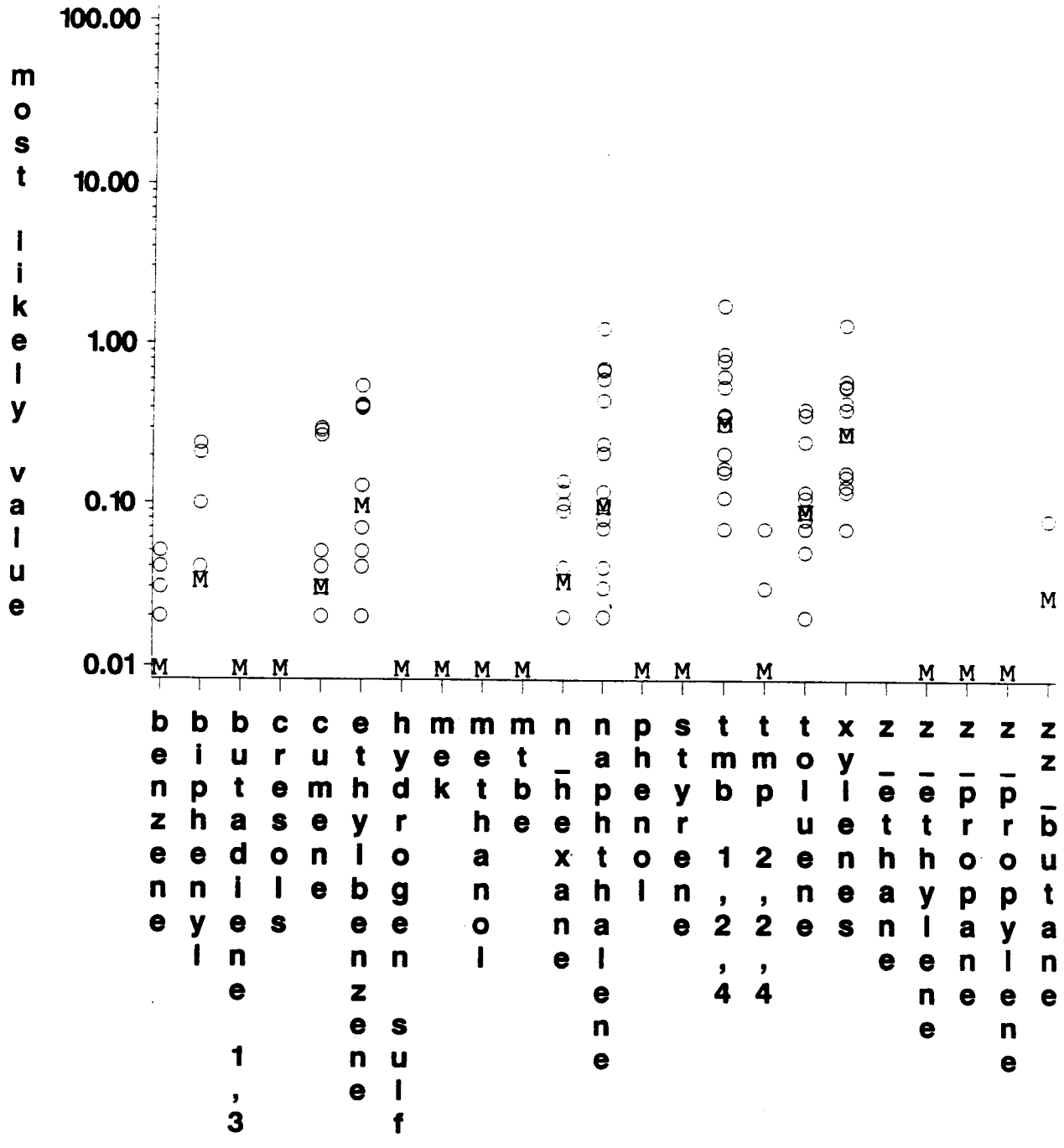
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Atm. Distillation REF_STRM= SR Kerosene



PLOT M M M most likely value ○ ○ ○ concentration wt %
ND

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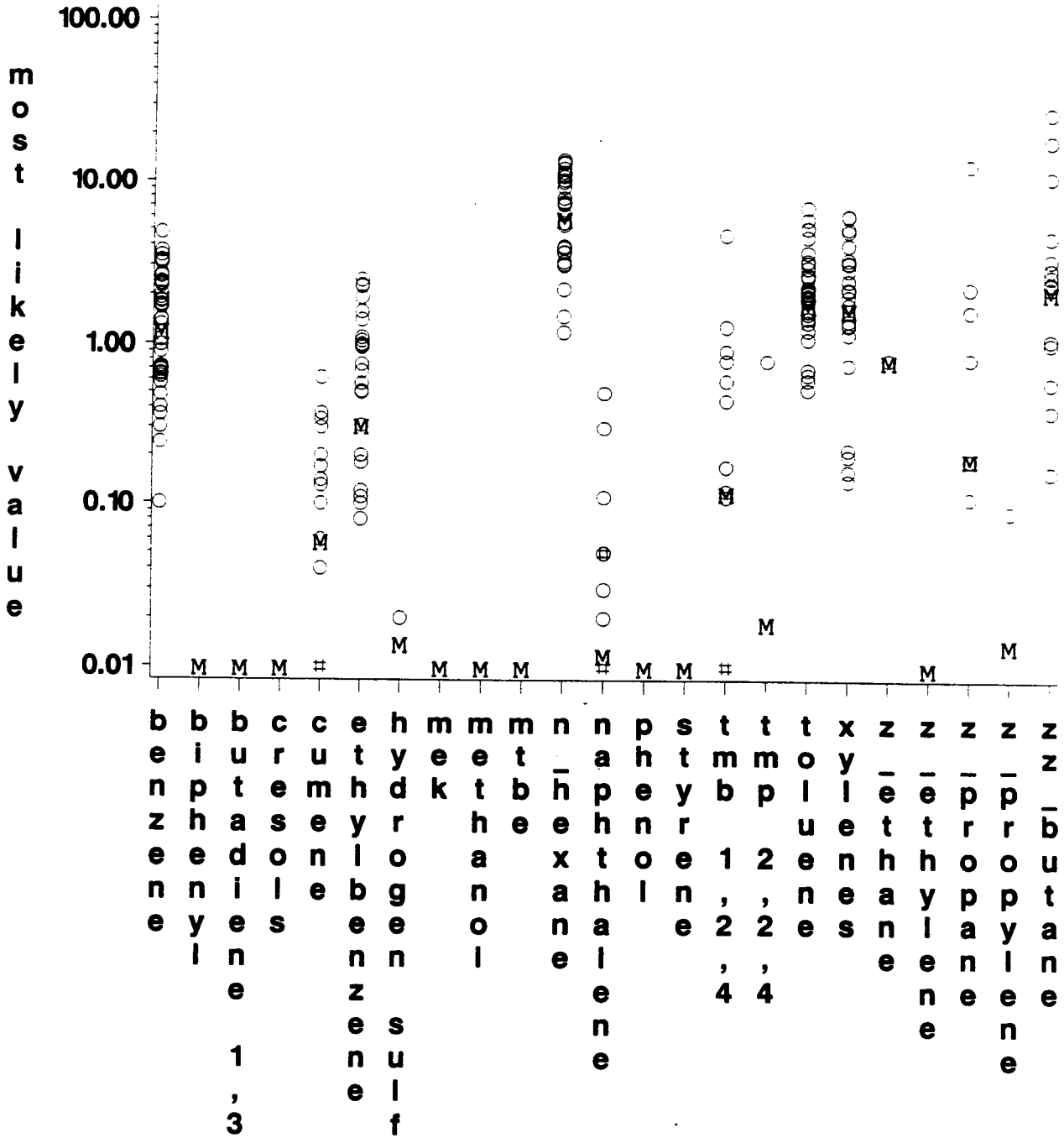
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Atm. Distillation REF_STRM= SR Naphtha



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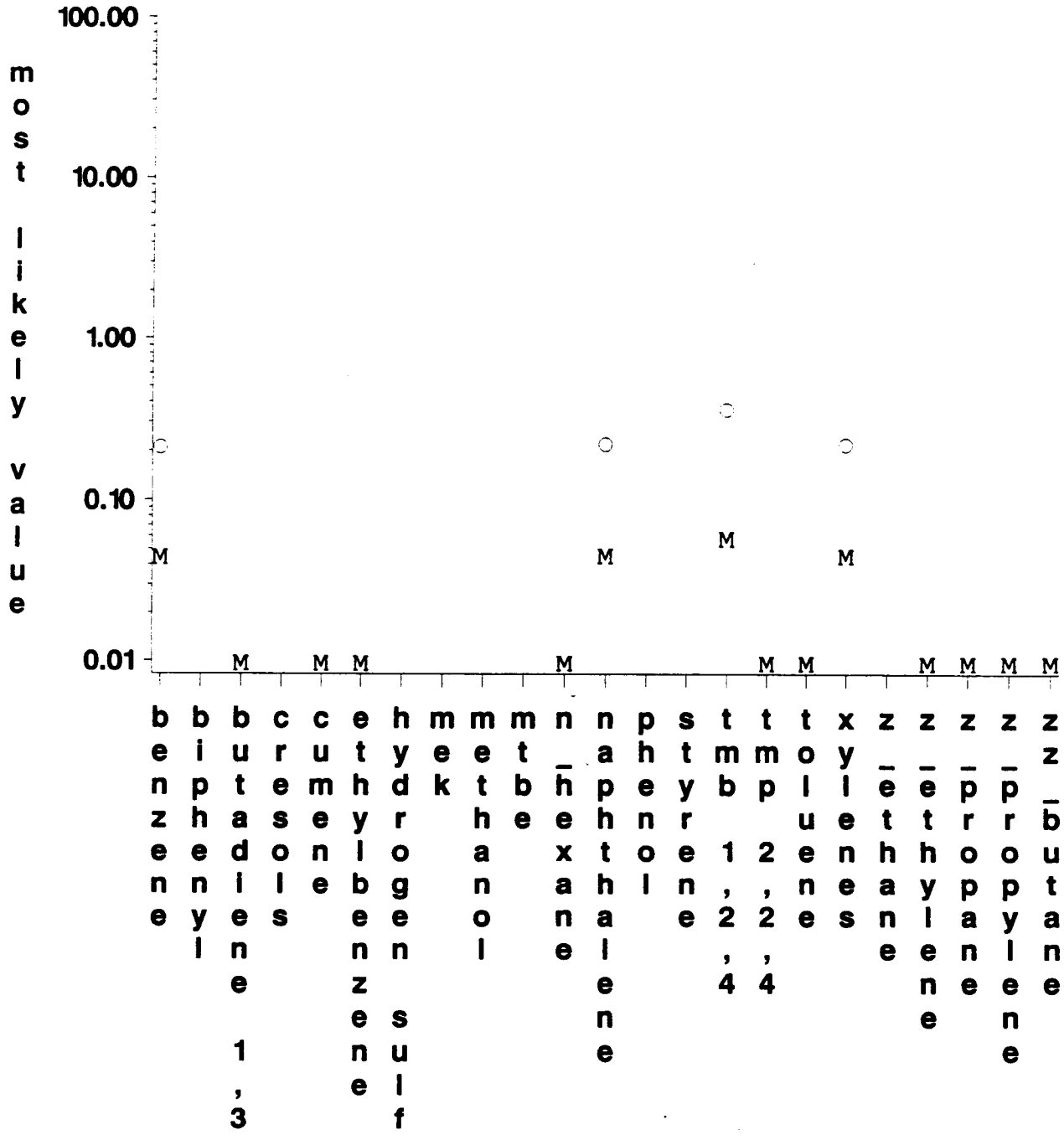
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Cat. Hydrocracker REF_STRM= Heavy H/C distilla



PLOT M M M **most likely value** ○ ○ ○ **concentration wt %**
ND

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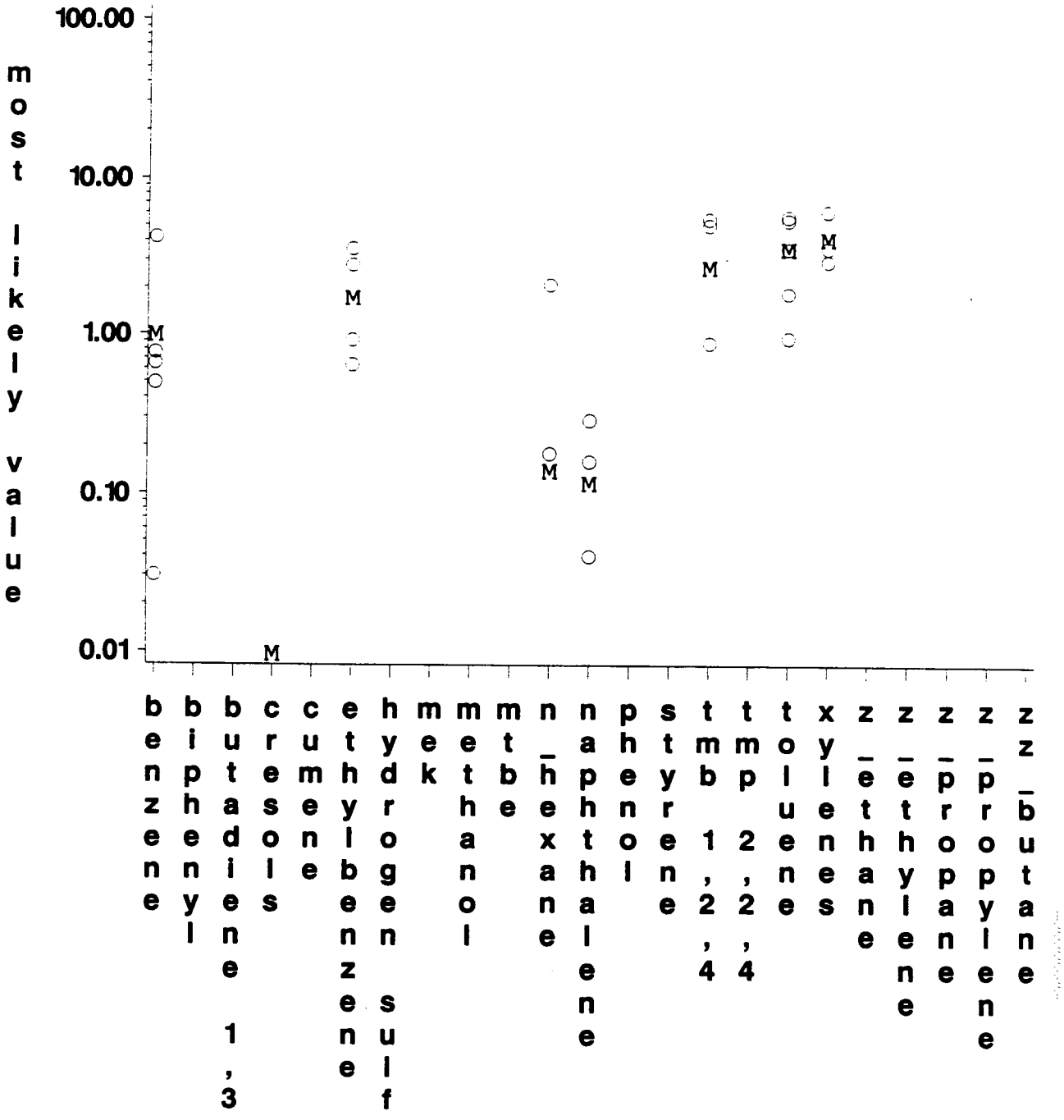
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Cat. Hydrocracker REF_STRM= Heavy H/C naphtha



PLOT M M M **most likely value** ○ ○ ○ **concentration wt %**
ND

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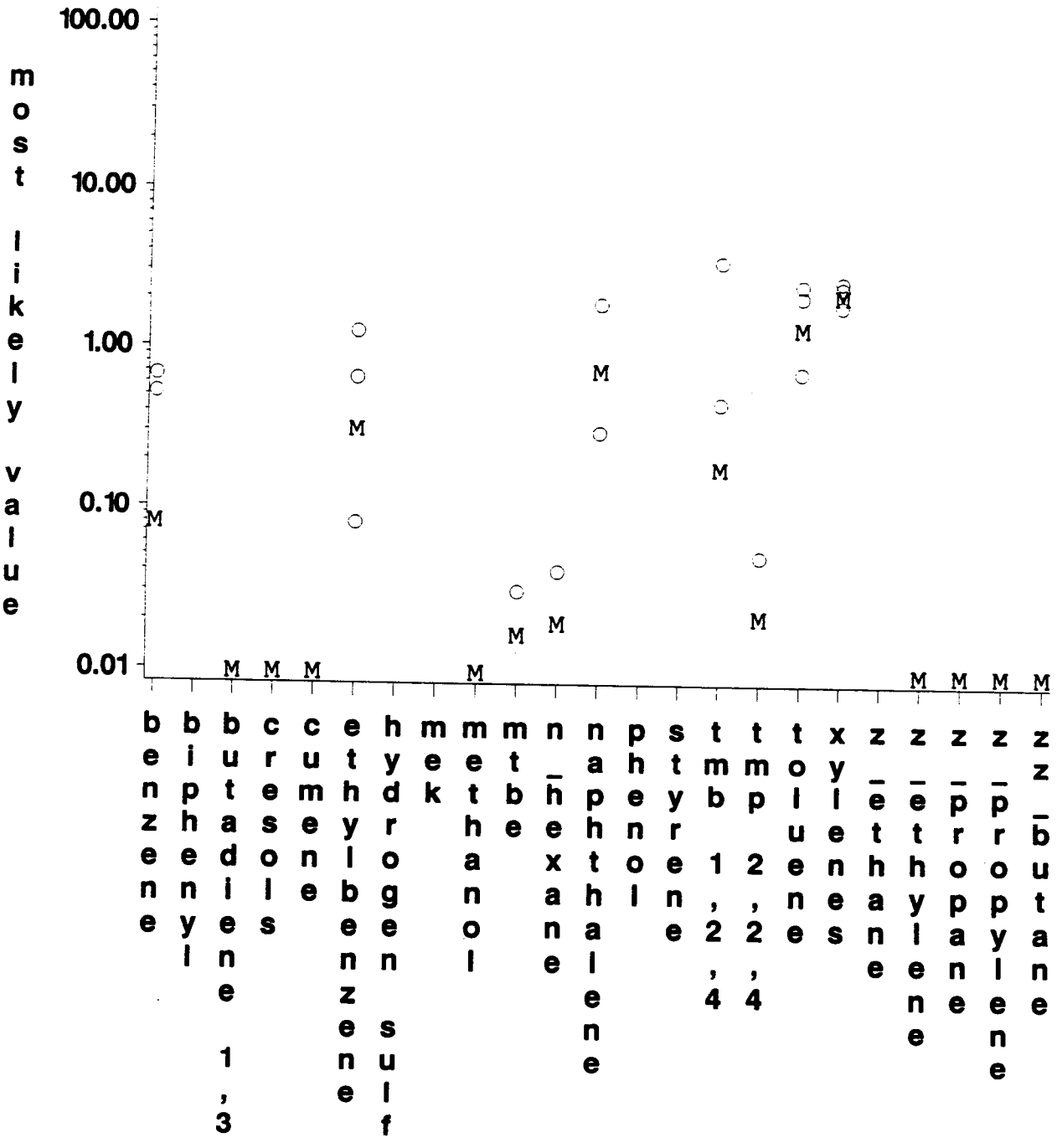
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Cat. Hydrocracker REF_STRM= Light H/C distillat



PLOT M M M most likely value ○ ○ ○ concentration wt %
ND

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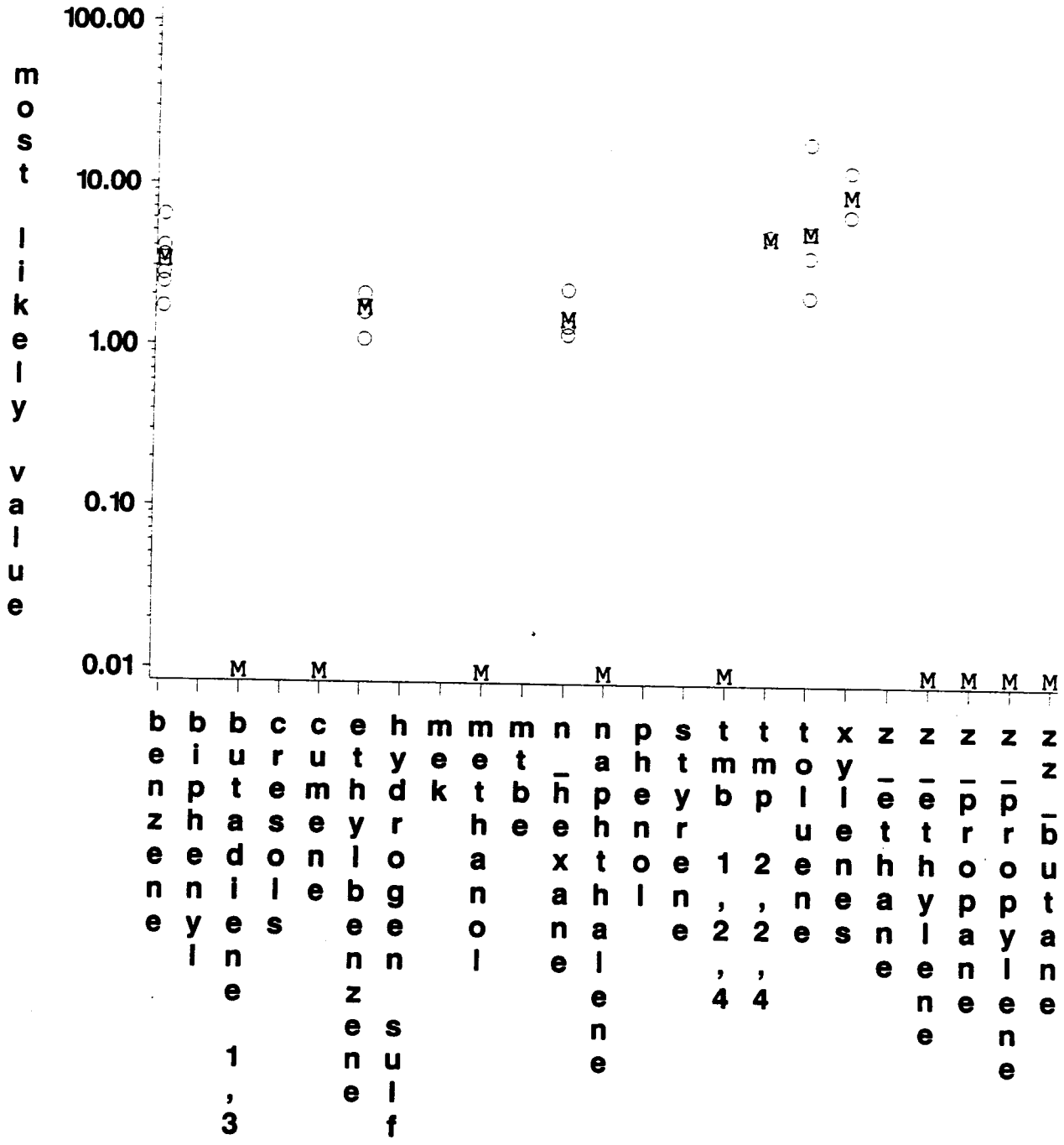
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Cat. Hydrocracker REF_STRM= Light H/C naphtha



PLOT M M M most likely value ○ ○ ○ concentration wt %

ND

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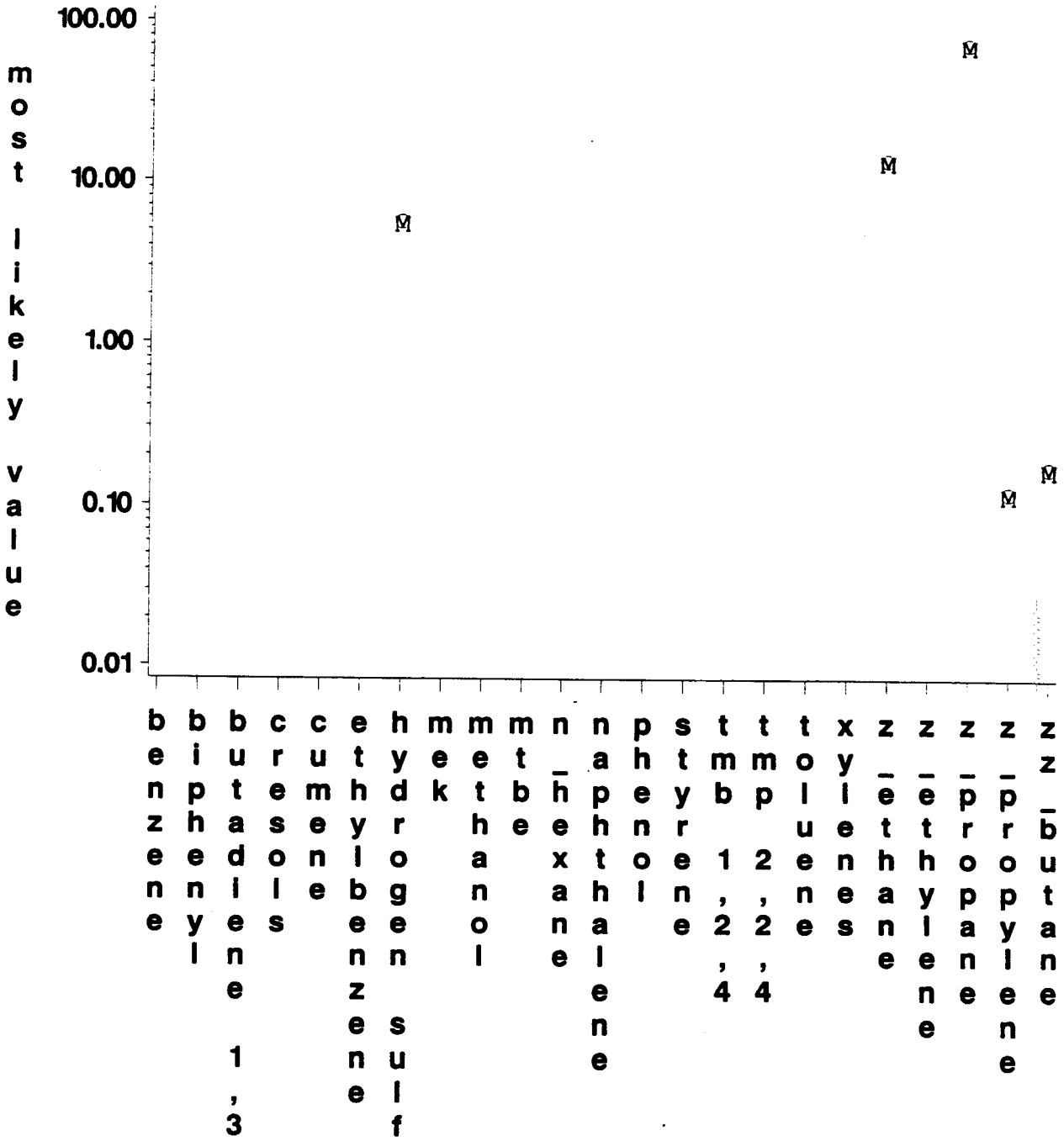
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Cat. Hydrocracker REF_STRM= Sat. Gas



PLOT M M M most likely value ○ ○ ○ concentration wt %

ND

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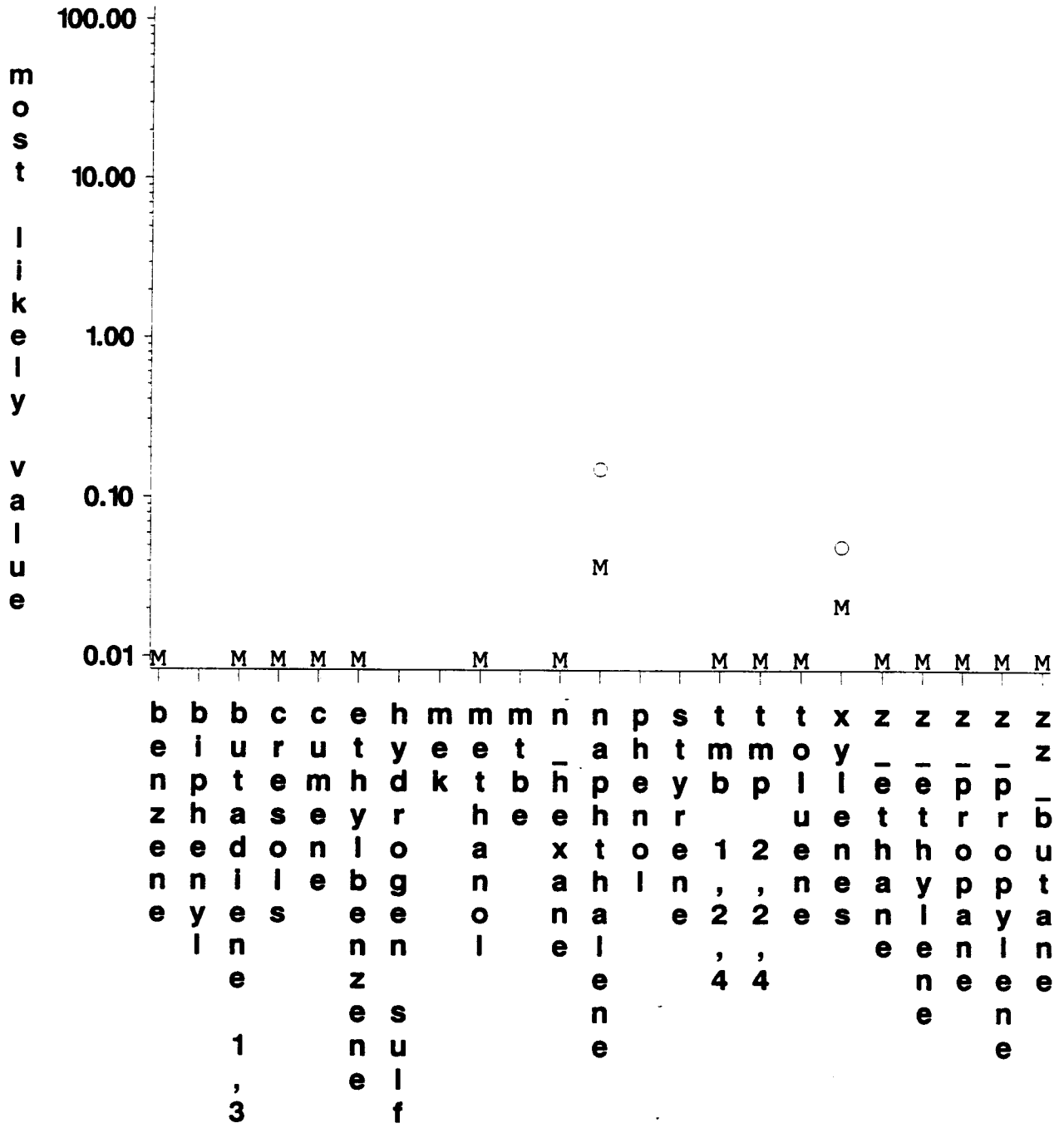
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Cat. Hydrotreater REF_STRM= Cat. Cracker Feed



PLOT M M M **most likely value** ○ ○ ○ **concentration wt %**
= # # **ND**

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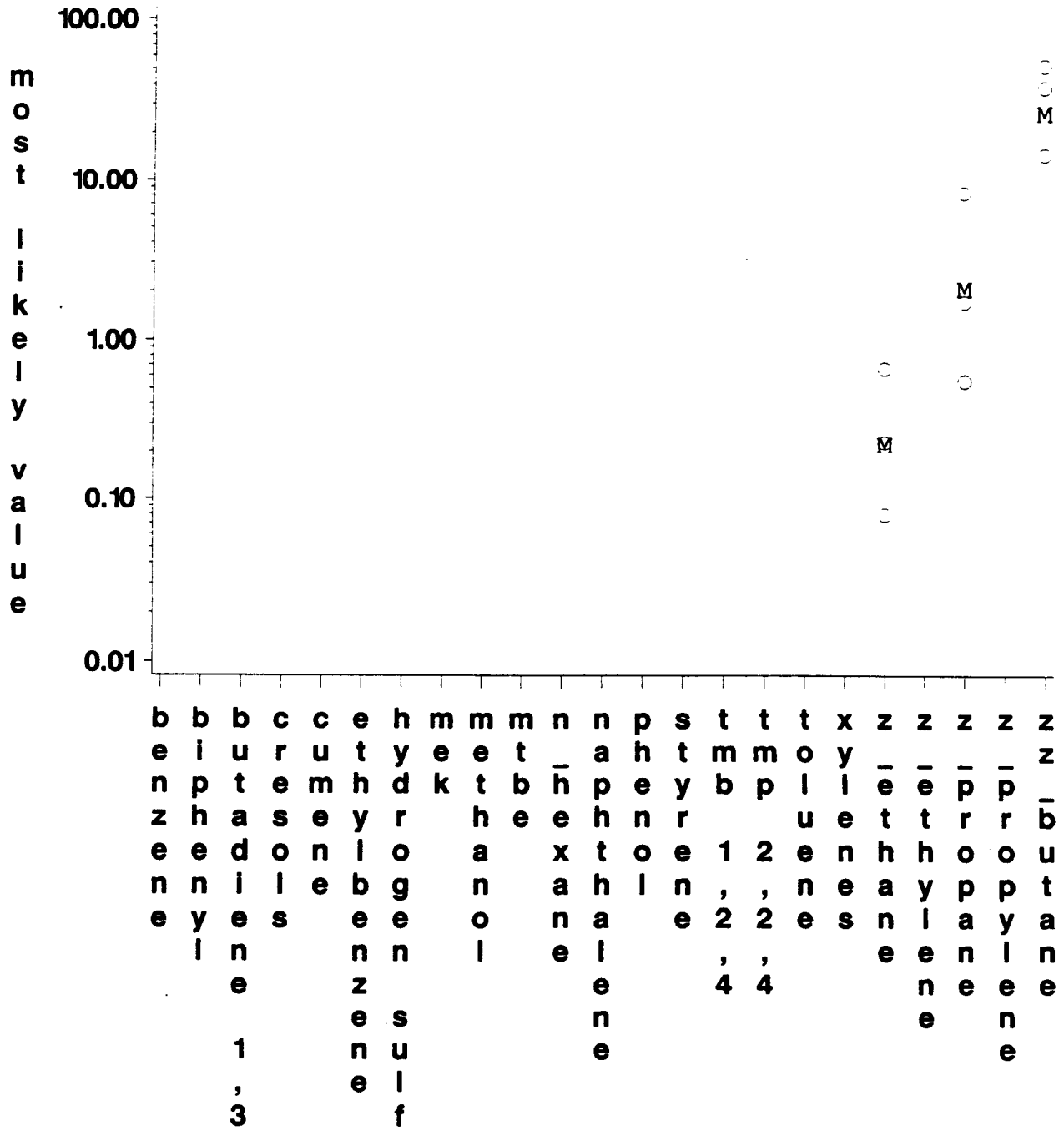
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Cat. Isomer'zn REF_STRM= Isobutane



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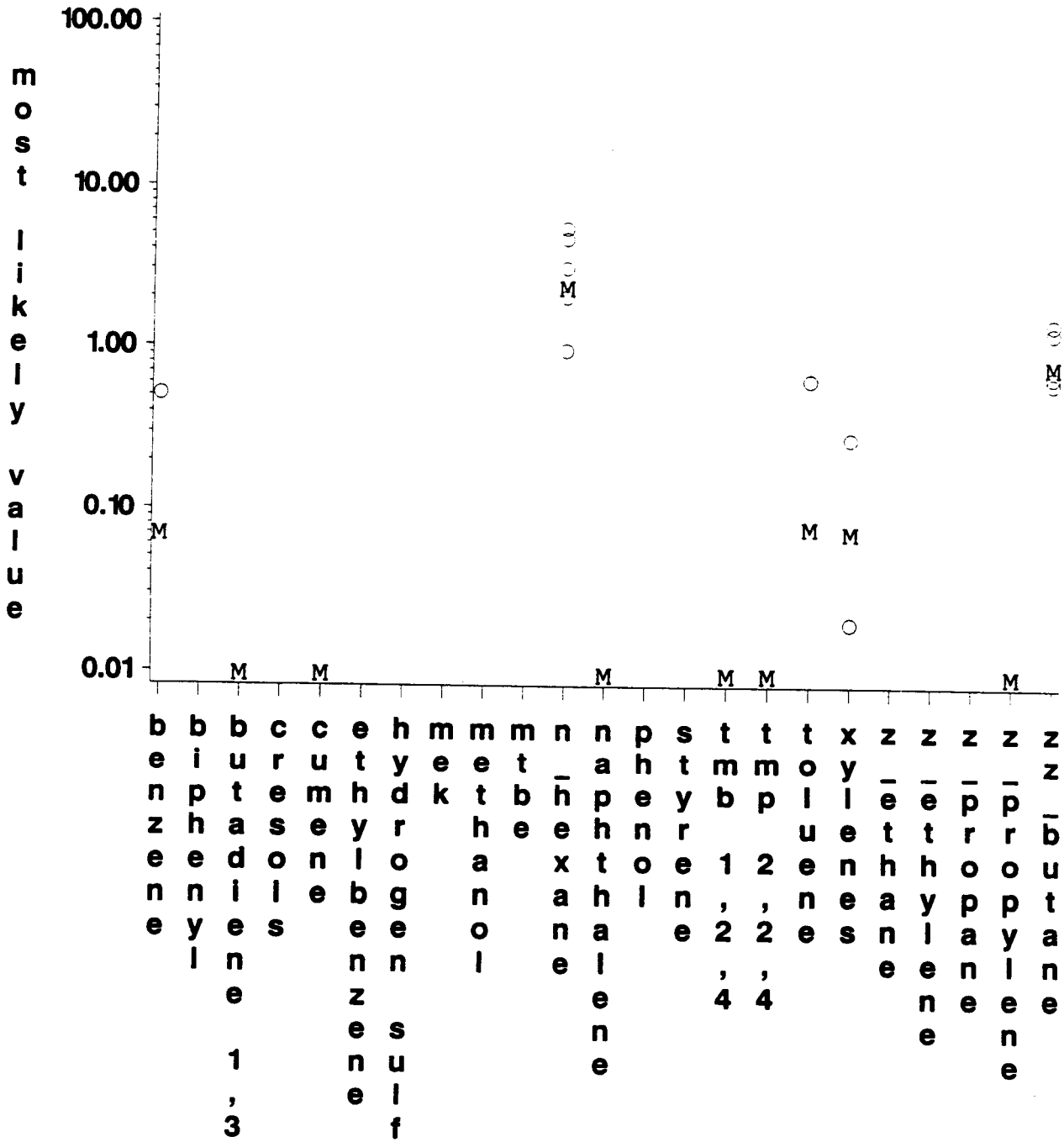
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Cat. Isomer'zn REF_STRM= Isom naphtha



PLOT M M M most likely value ○ ○ ○ concentration wt %
ND

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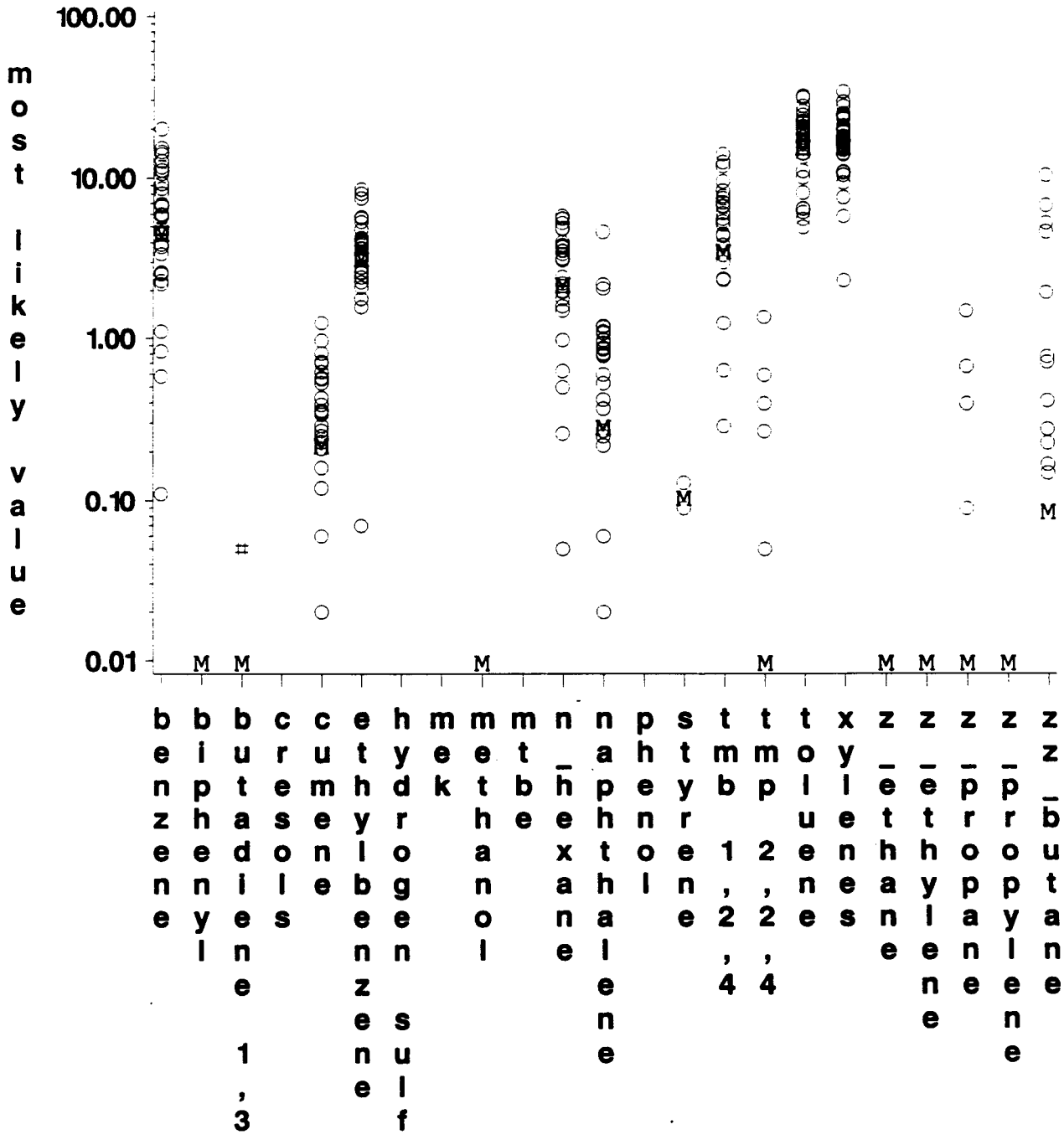
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Cat. Reformer REF_STRM= Reformate



PLOT M M M most likely value ○ ○ ○ concentration wt %
ND

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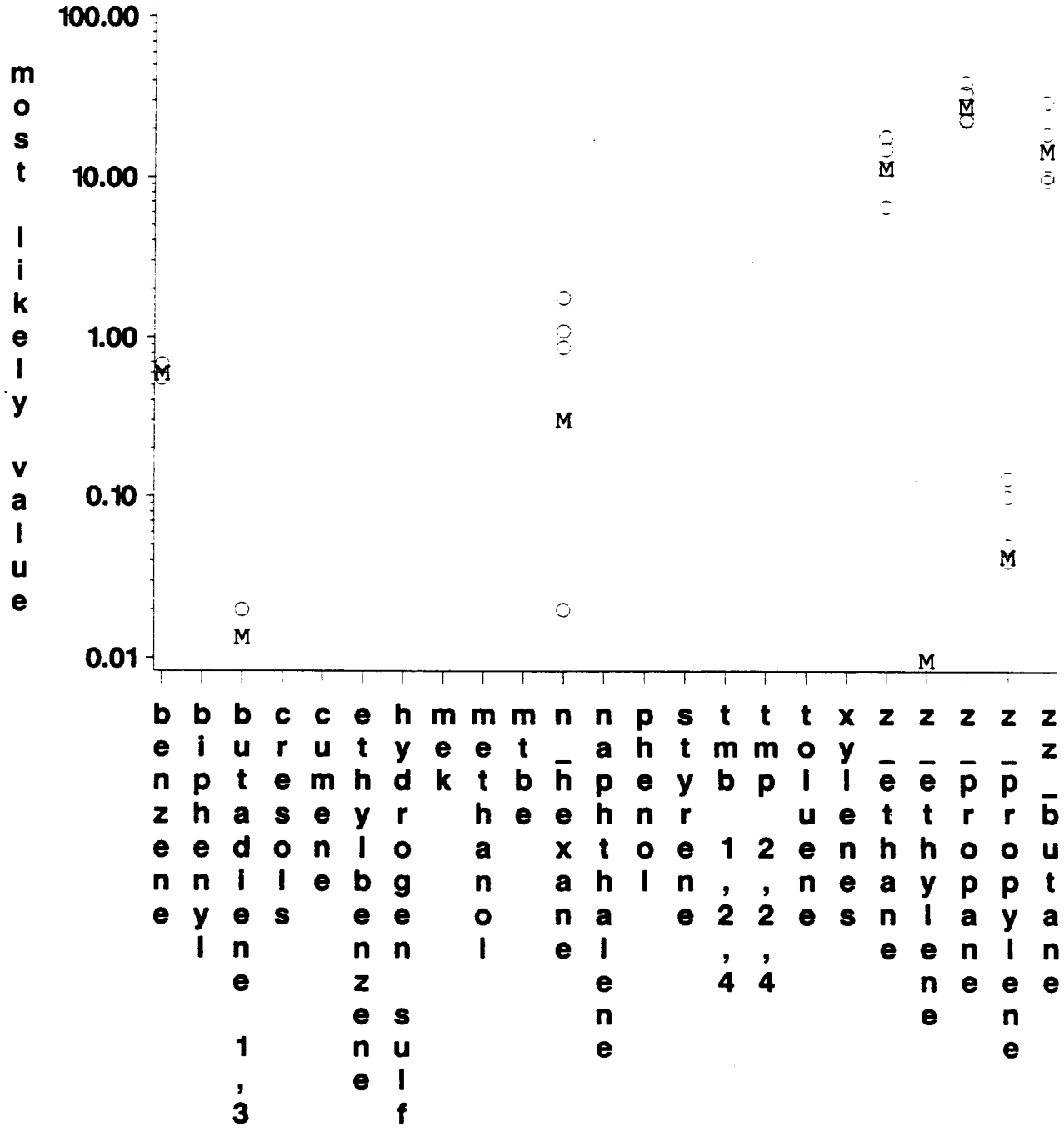
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Cat. Reformer REF_STRM= Reformate gas



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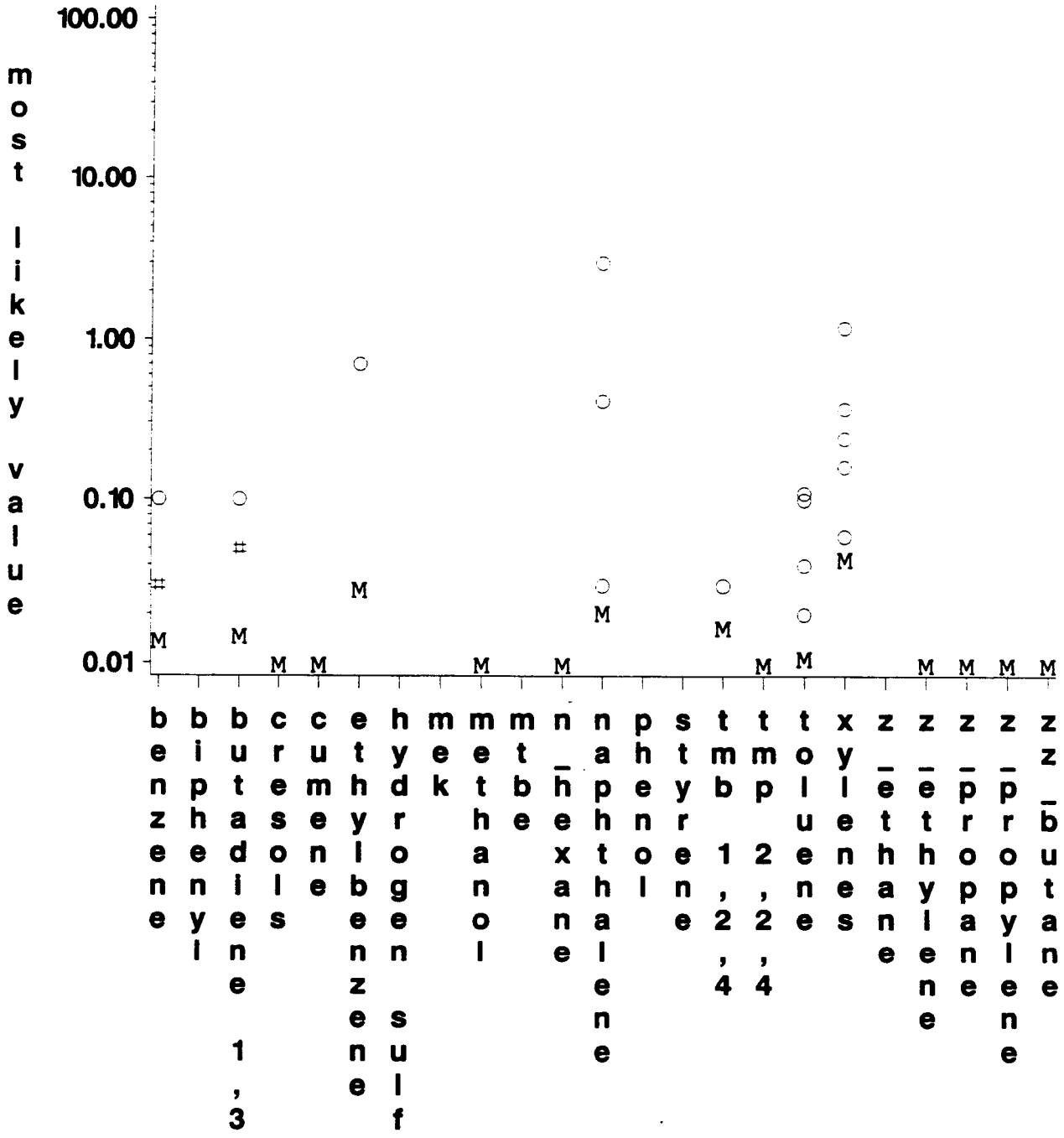
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Coker REF_STRM= Coker gas oil



PLOT M M M most likely value ○ ○ ○ concentration wt %
= # # # ND

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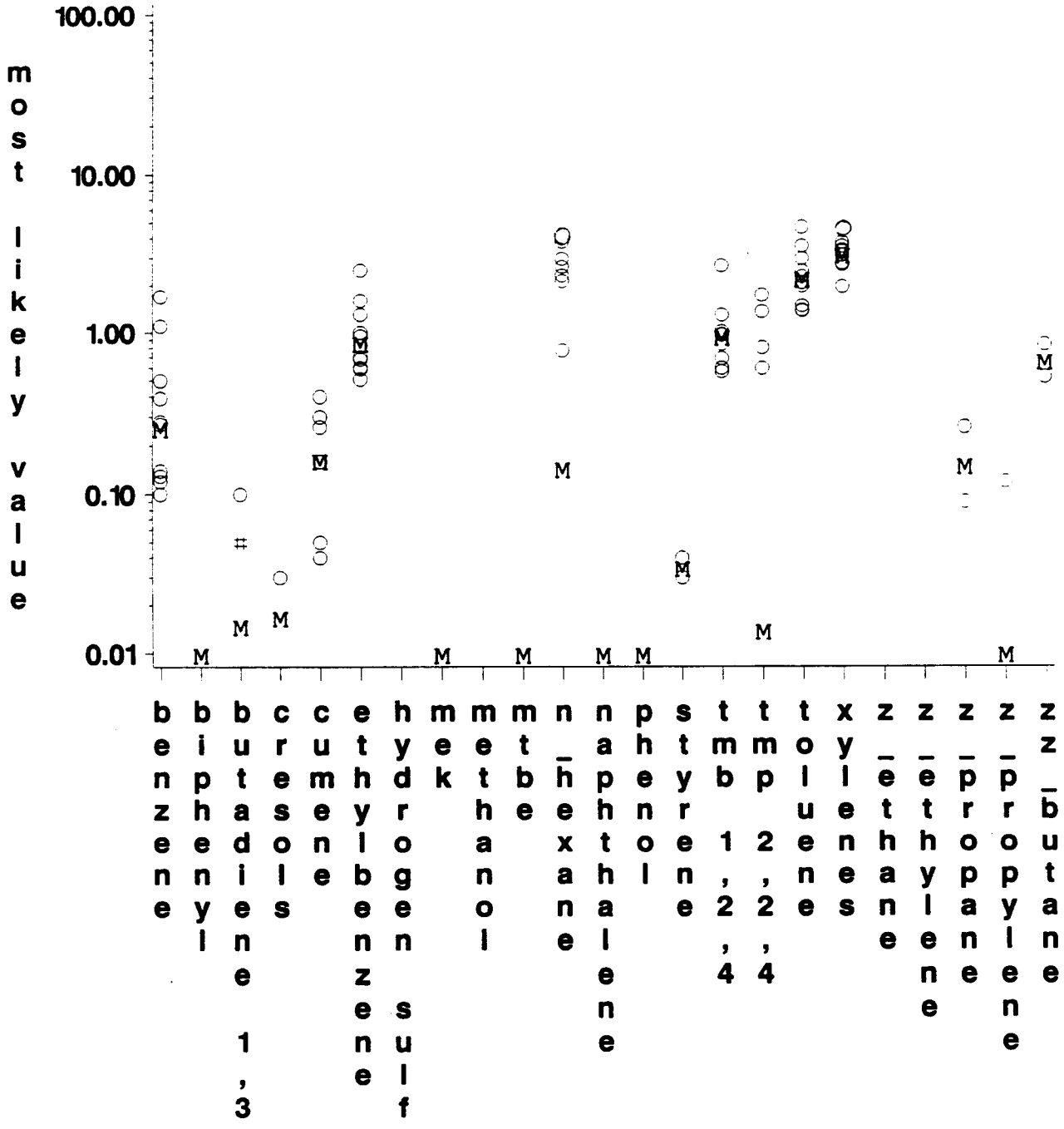
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Coker REF_STRM= Coker heavy naphtha



PLOT M M M most likely value ○ ○ ○ concentration wt %
ND

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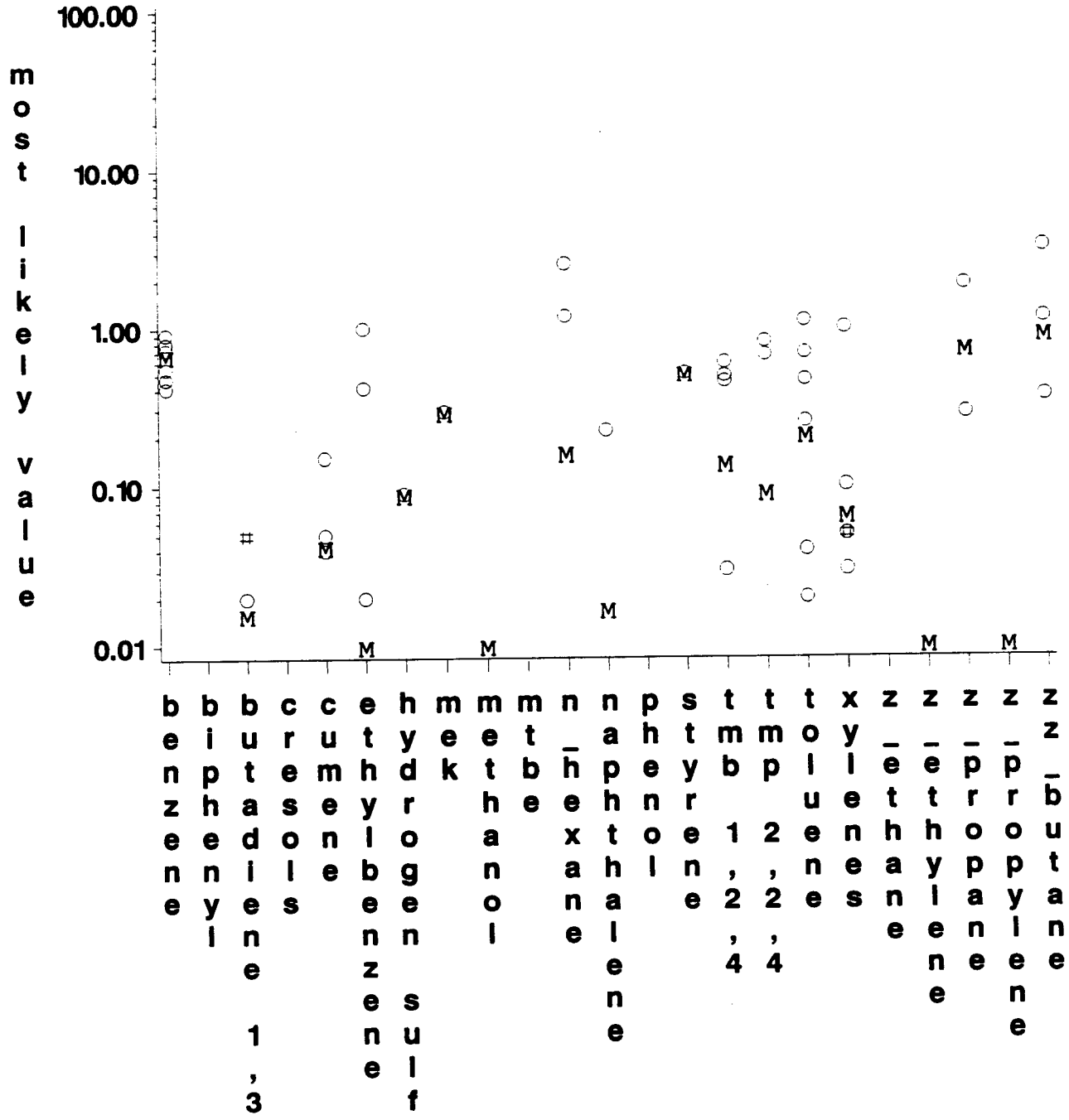
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Coker REF_STRM= Coker light naphtha



PLOT M M M most likely value ○ ○ ○ concentration wt %
ND

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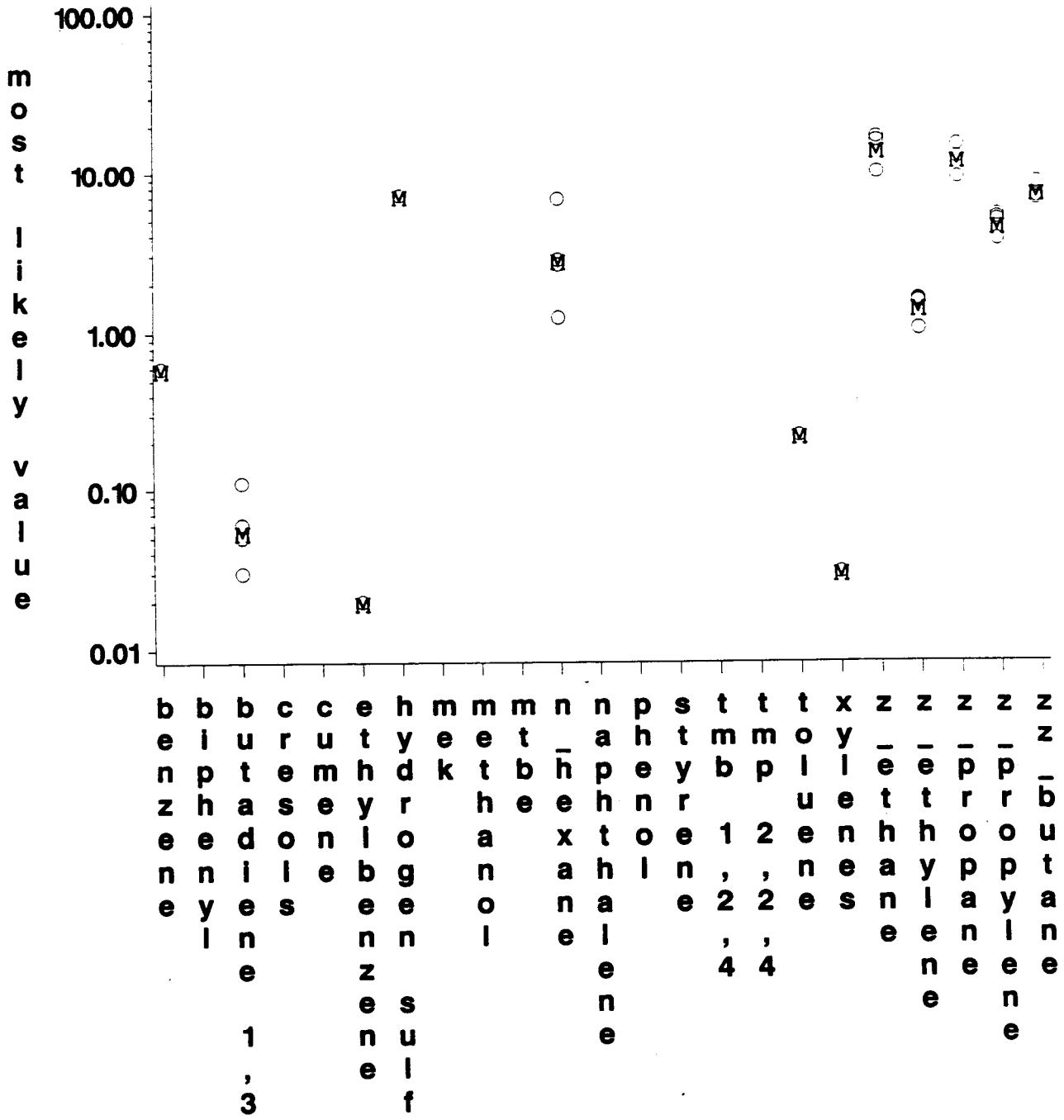
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Coker REF_STRM= Unsat. gas



PLOT M M M most likely value ○ ○ ○ concentration wt %
ND

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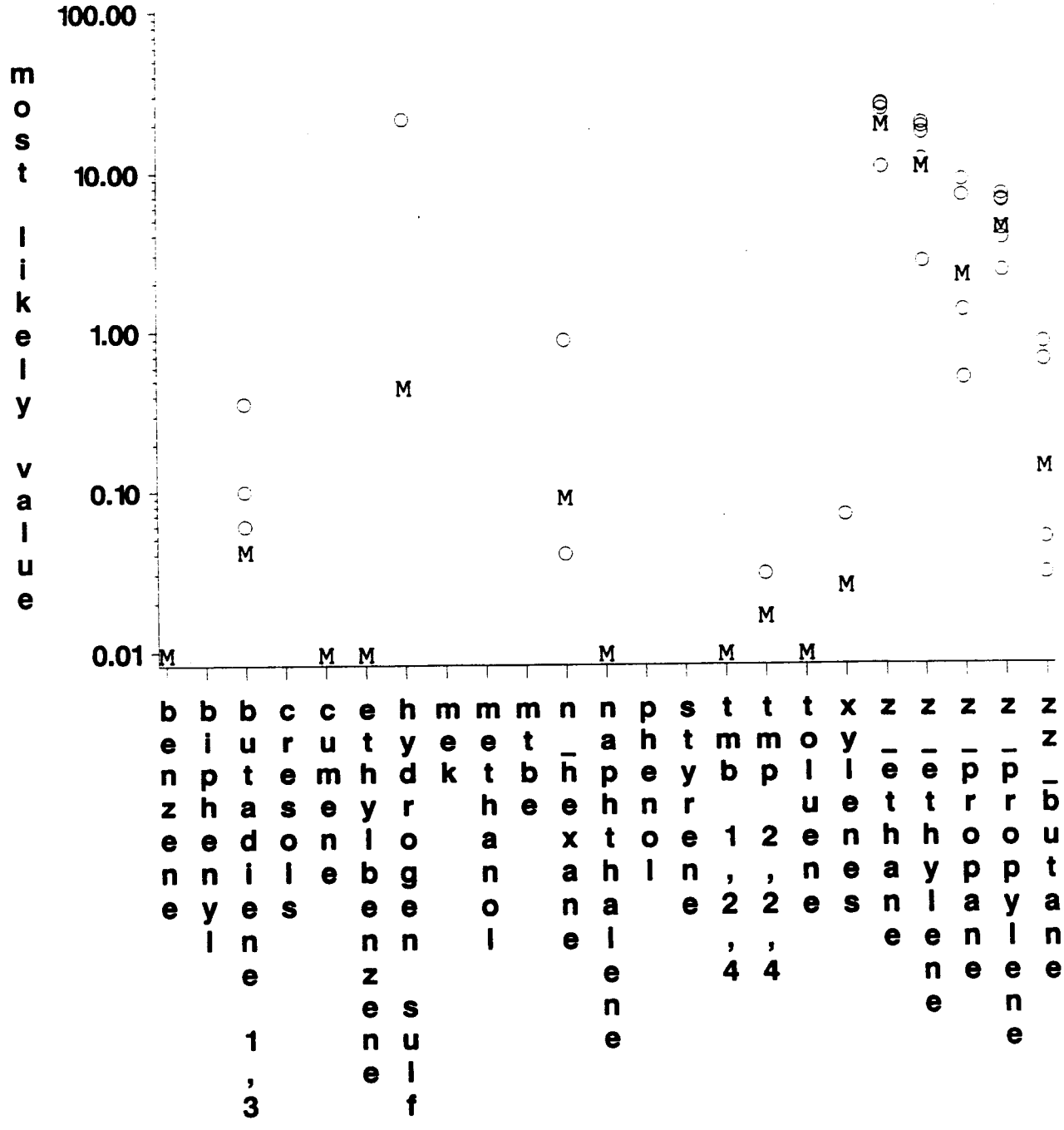
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Cracked Gas Plant REF_STRM= Fuel Gas



PLOT M M M most likely value ○ ○ ○ concentration wt %
ND

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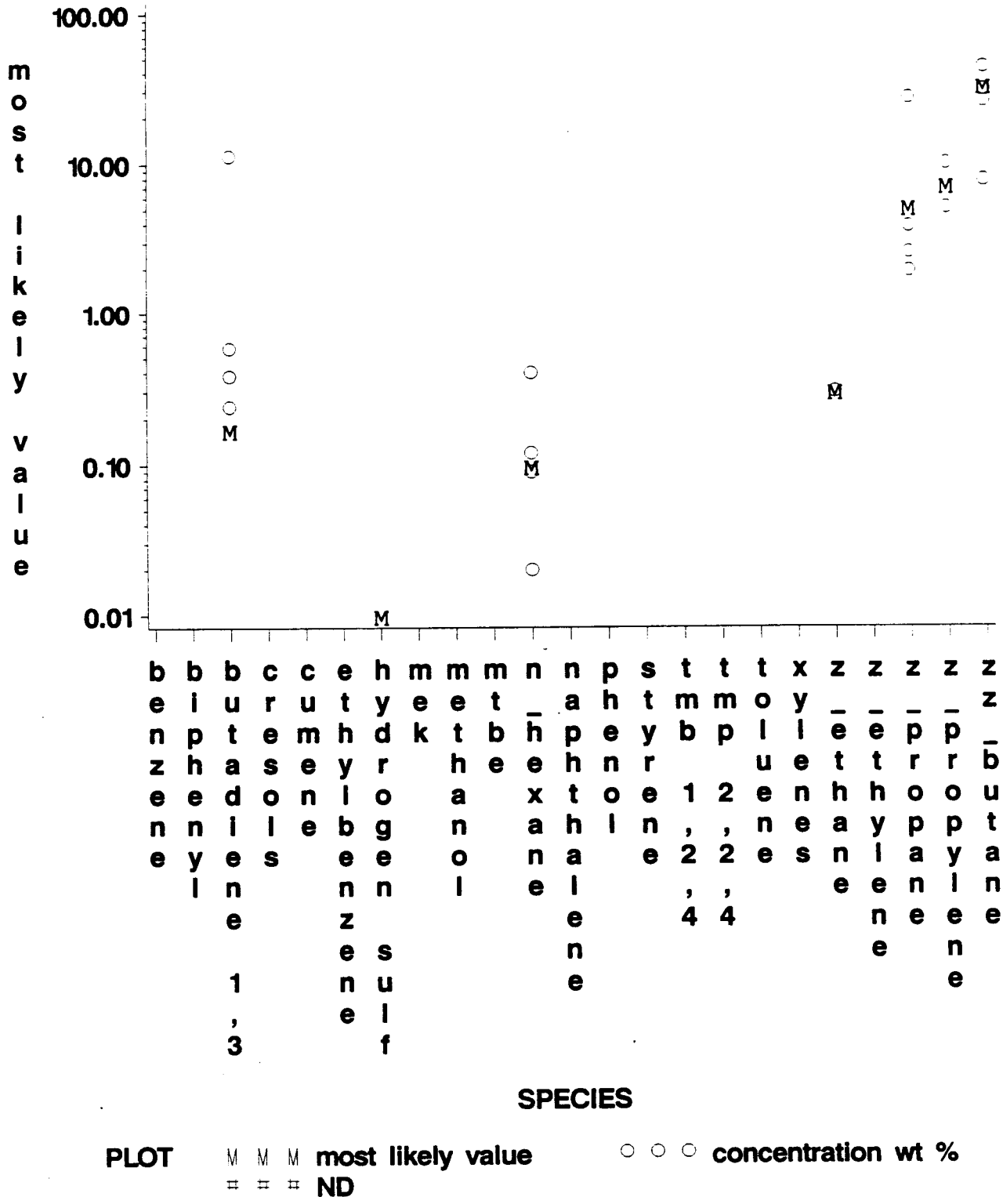
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Cracked Gas Plant REF_STRM= Olefins



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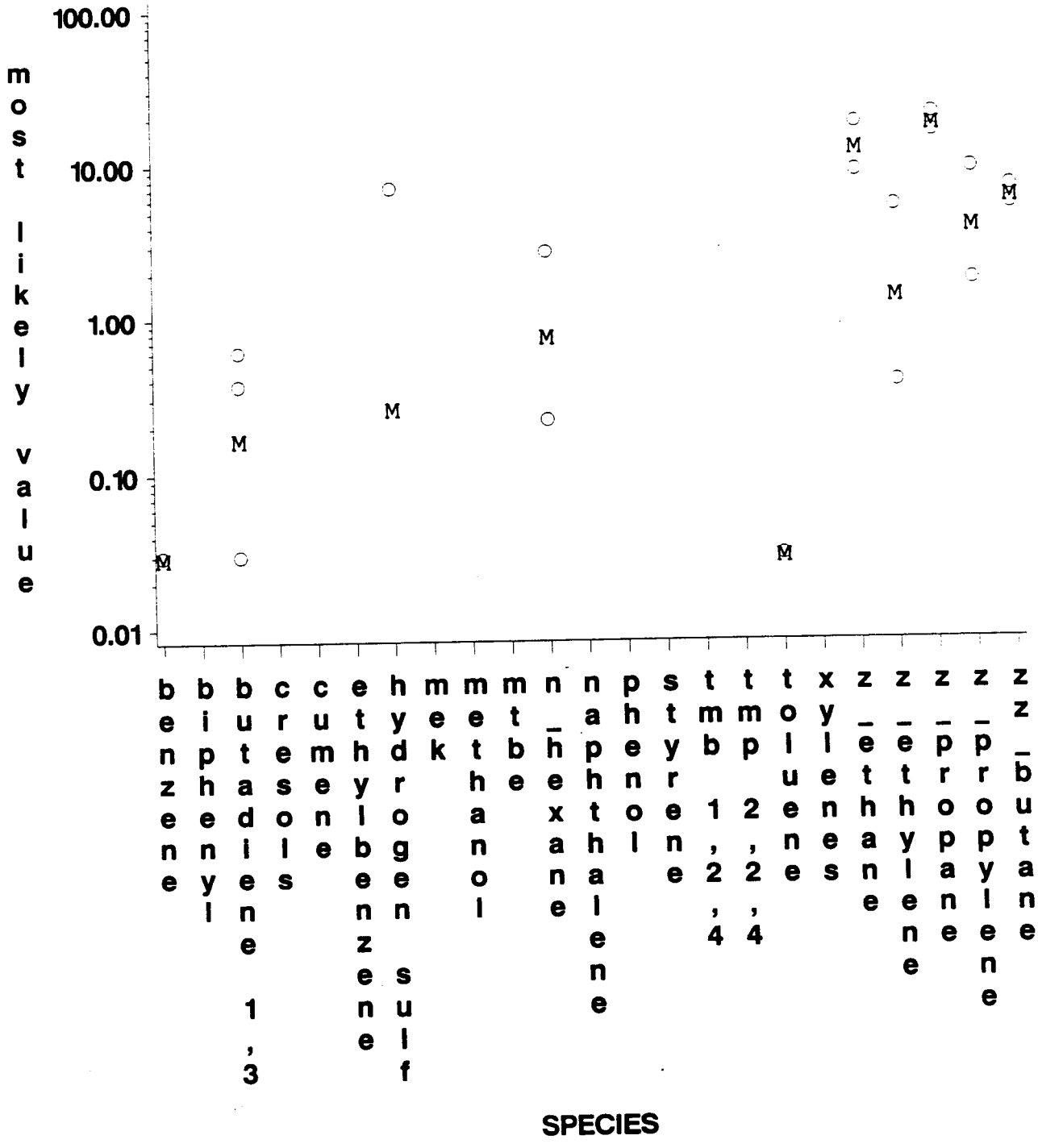
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Cracked Gas Plant REF_STRM= Sour Gas



PLOT M M M most likely value ○ ○ ○ concentration wt %
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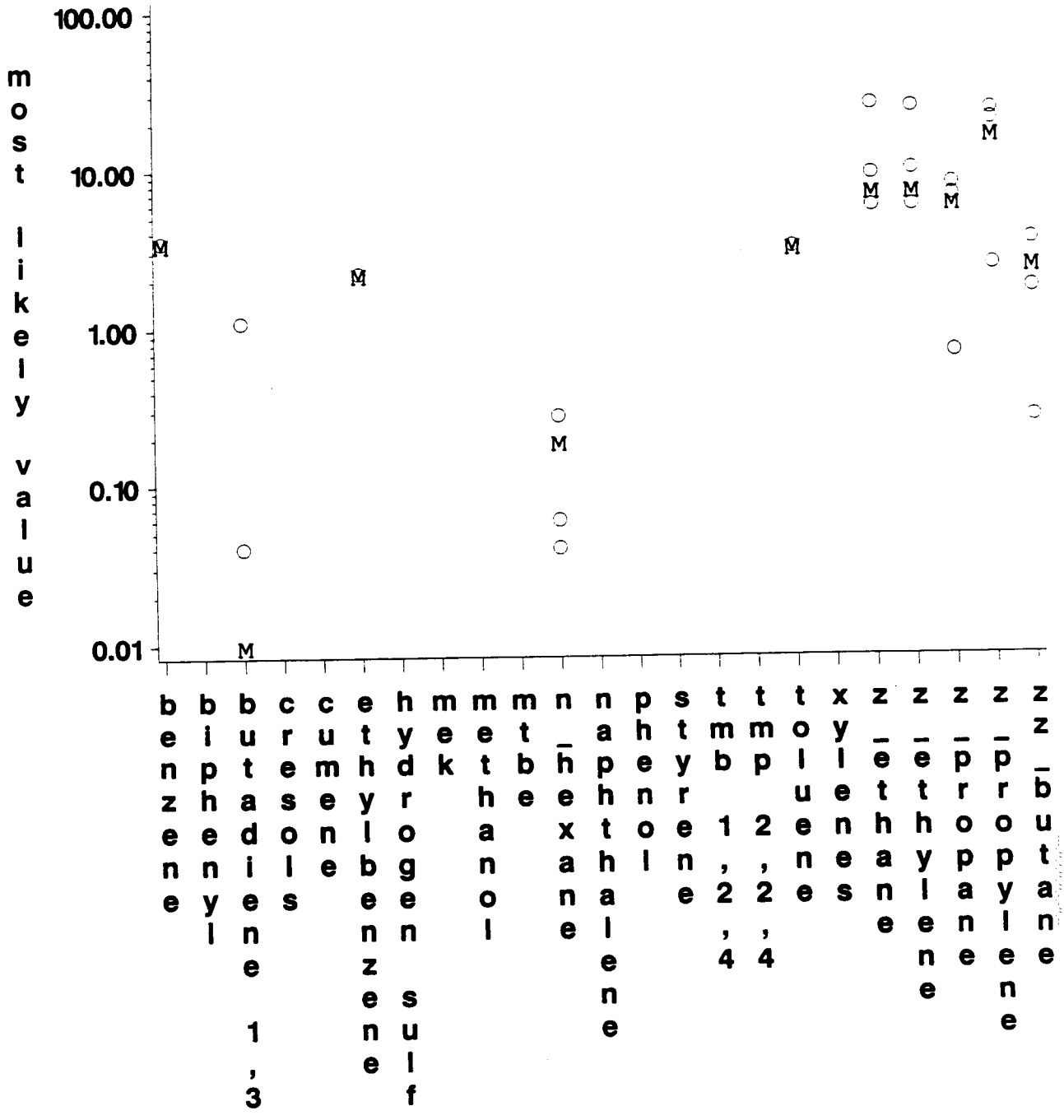
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Cracked Gas Plant REF_STRM= Unsat. Gas



PLOT M M M most likely value ○ ○ ○ concentration wt %
ND

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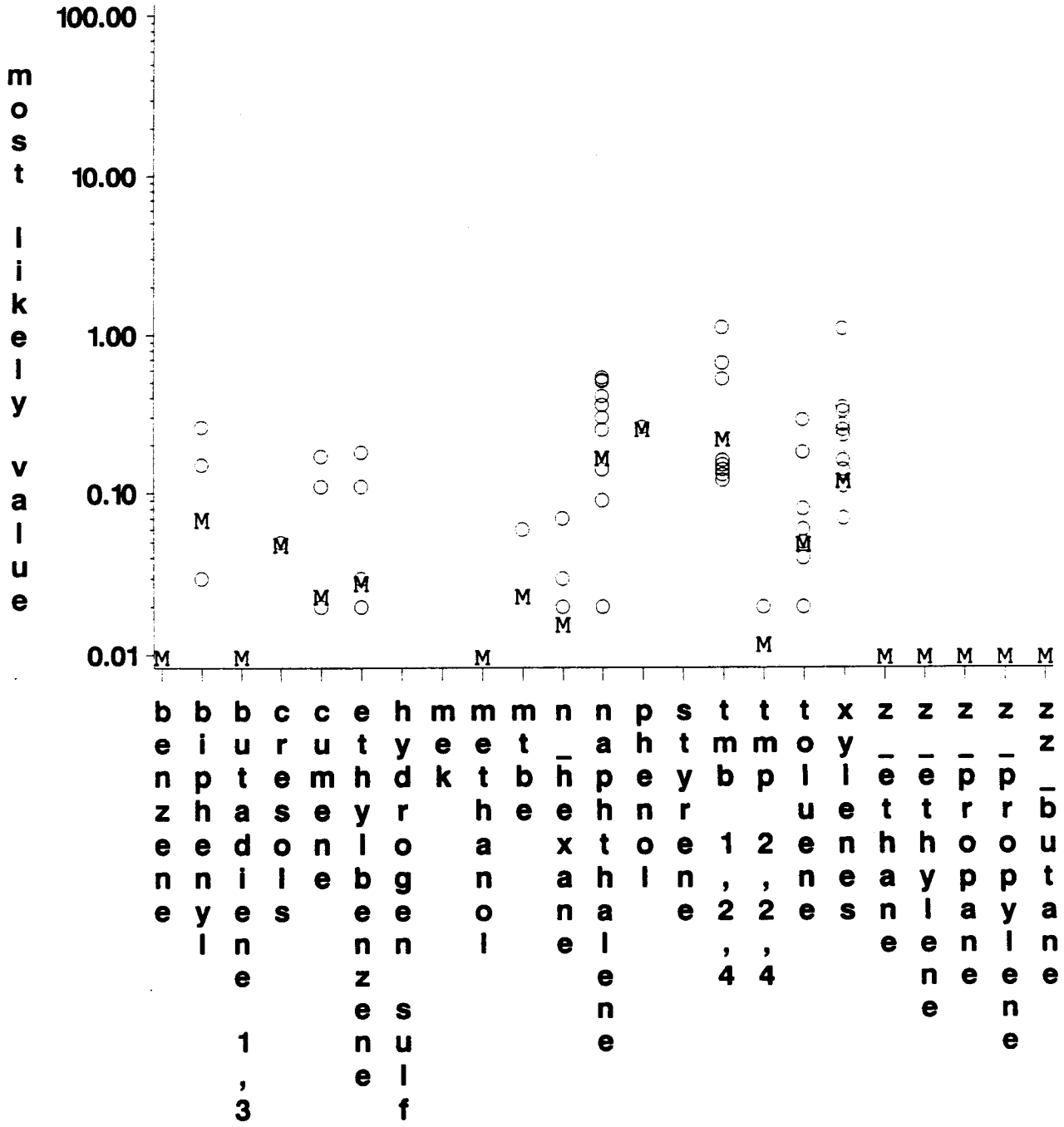
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Distillate Blending REF_STRM= Diesel Fuel



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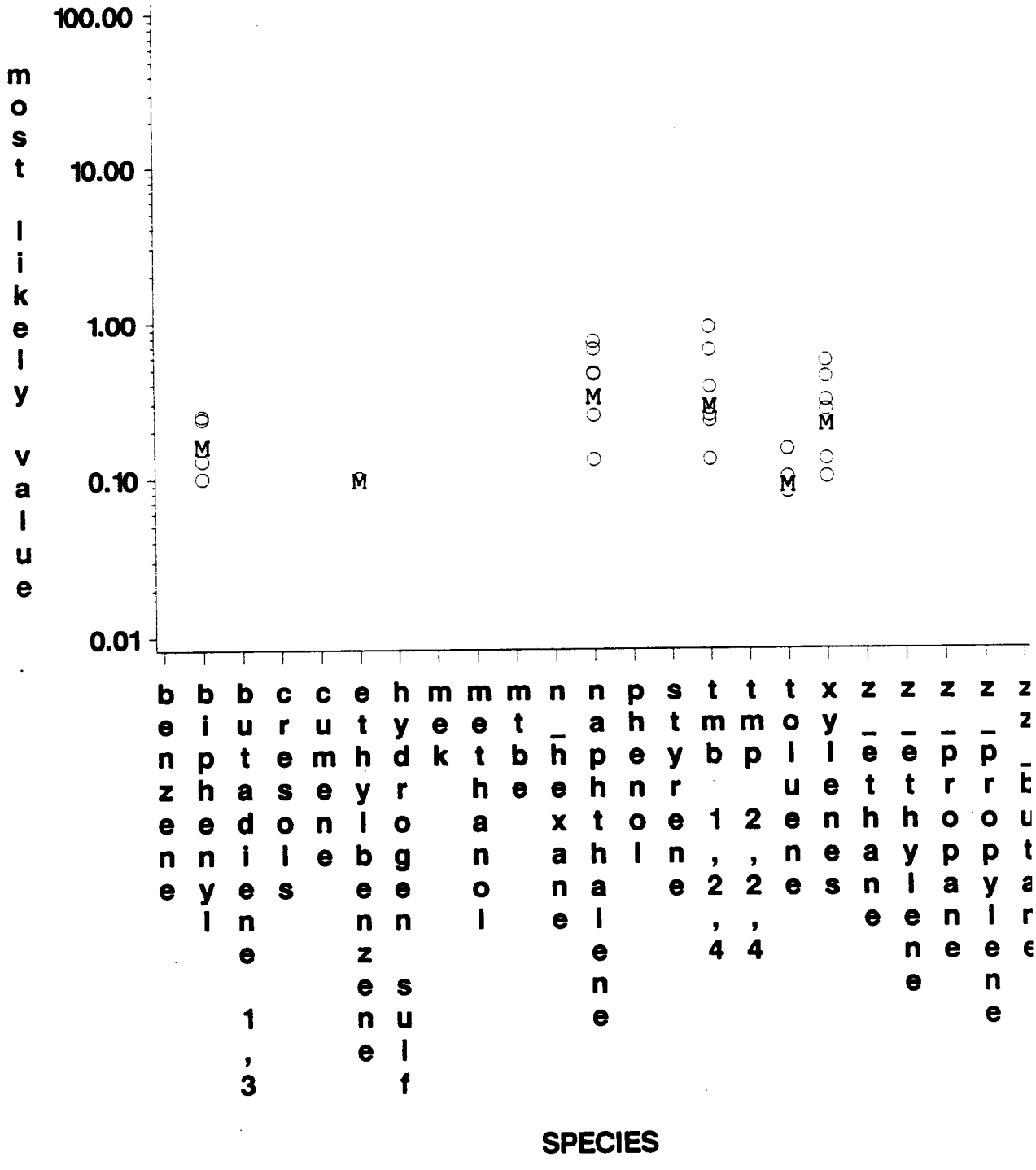
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Distillate Blending REF_STRM= Home Heating Oil



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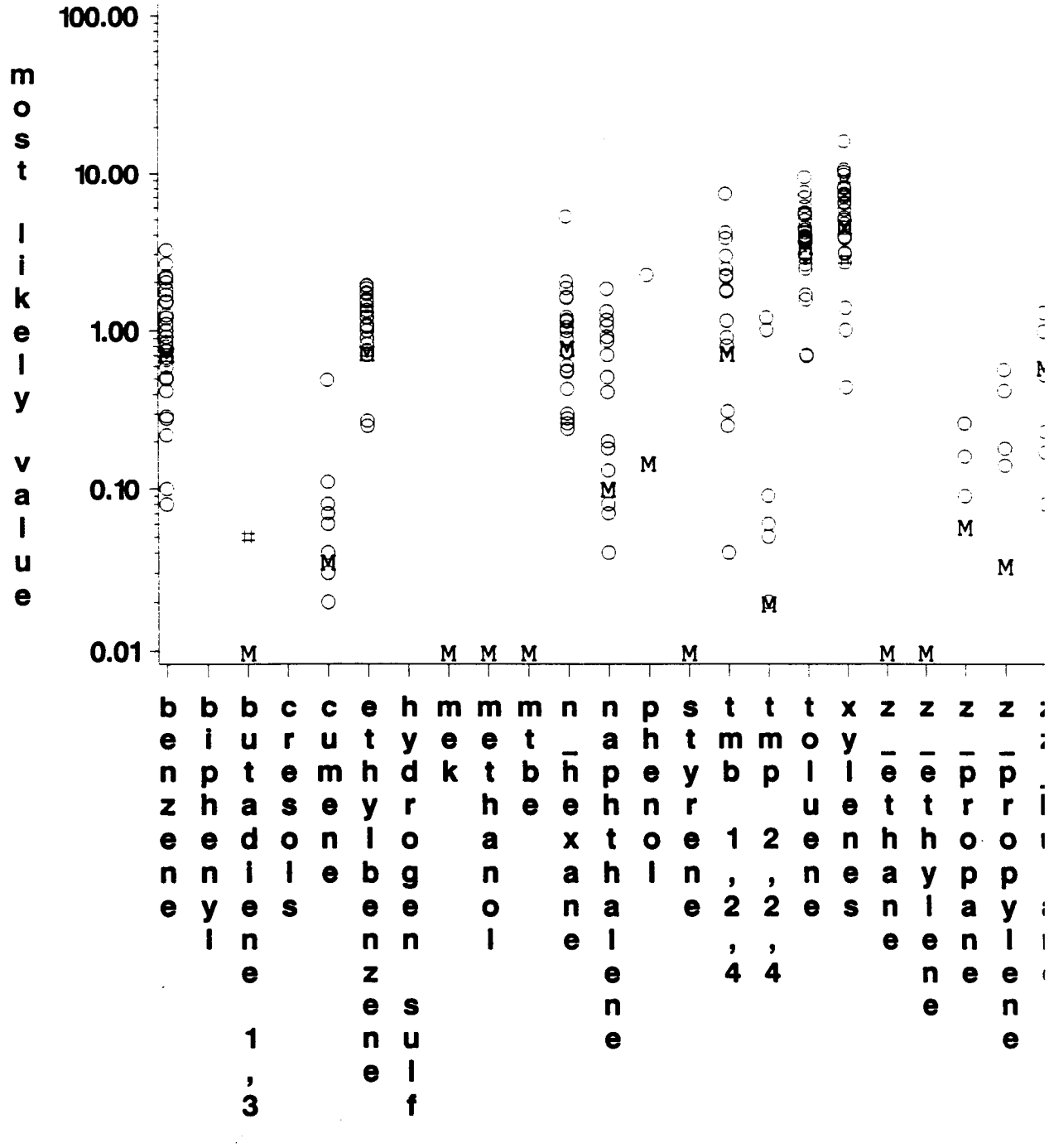
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Fluid Cat. Cracker REF_STRM= Cracked gasoline



PLOT M M M most likely value ○ ○ ○ concentration wt %
ND

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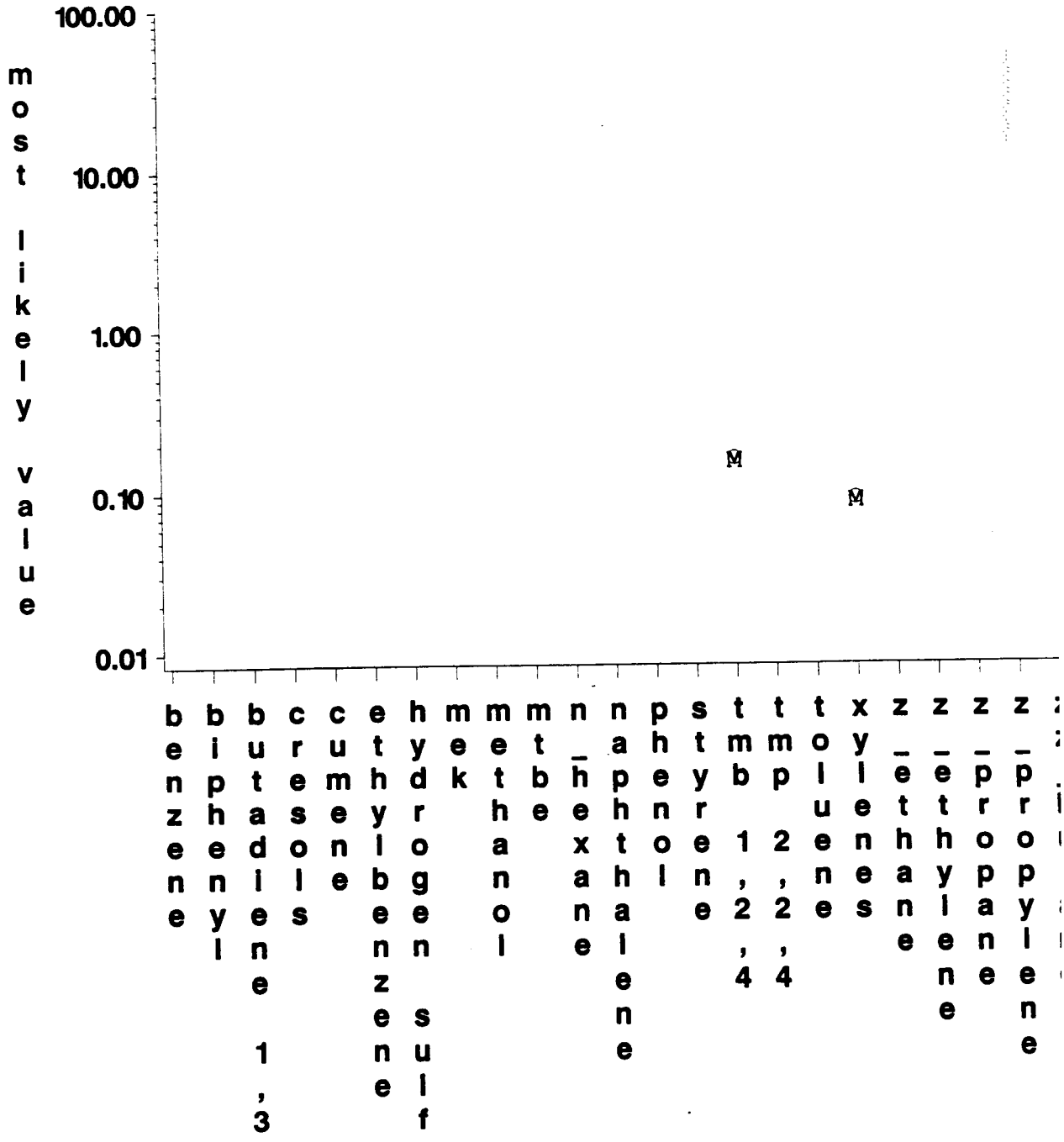
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Fluid Cat. Cracker REF_STRM= DCO



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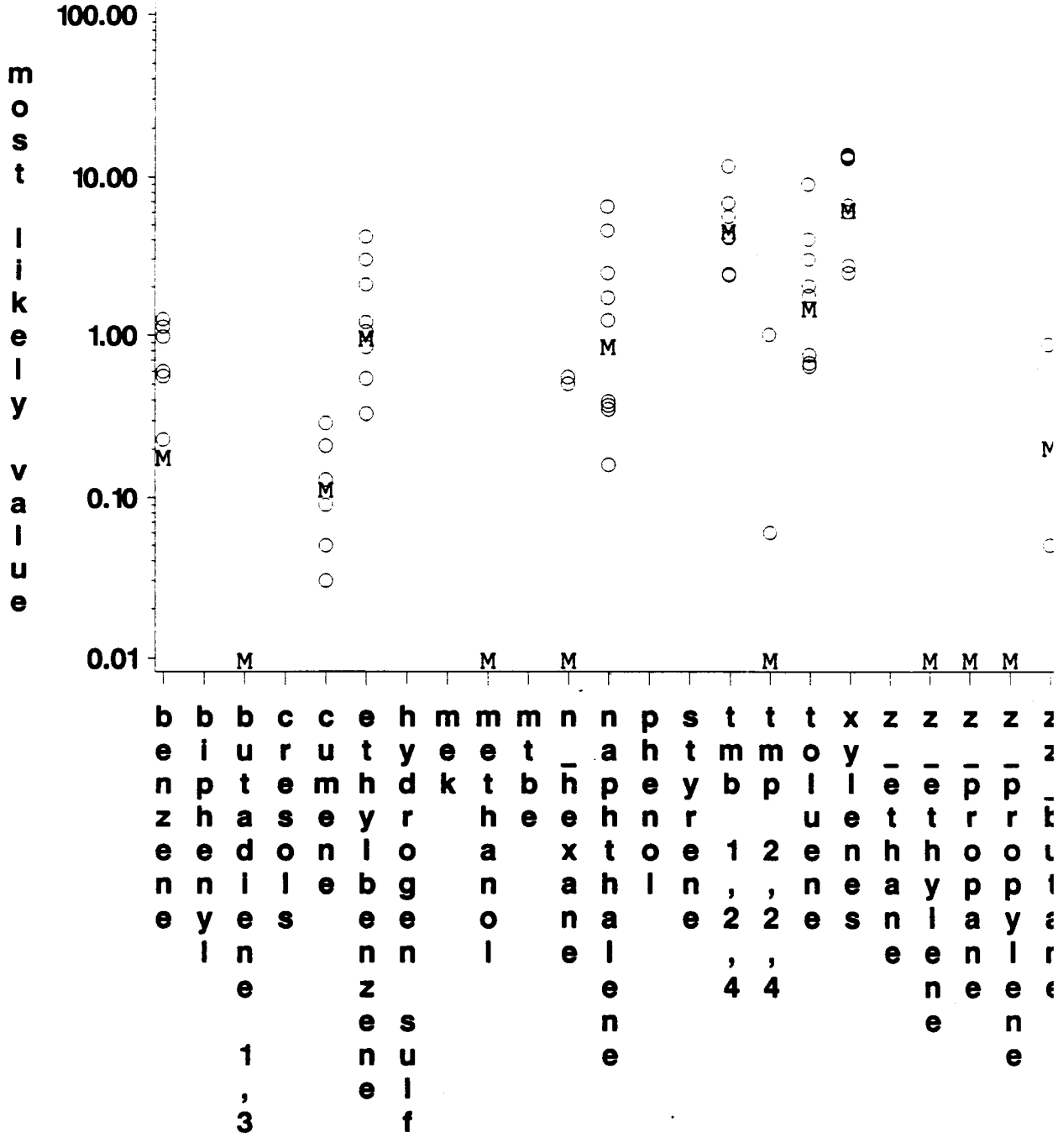
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Fluid Cat. Cracker REF_STRM= Heavy Cat. Gas Oil



PLOT M M M most likely value ○ ○ ○ concentration wt %
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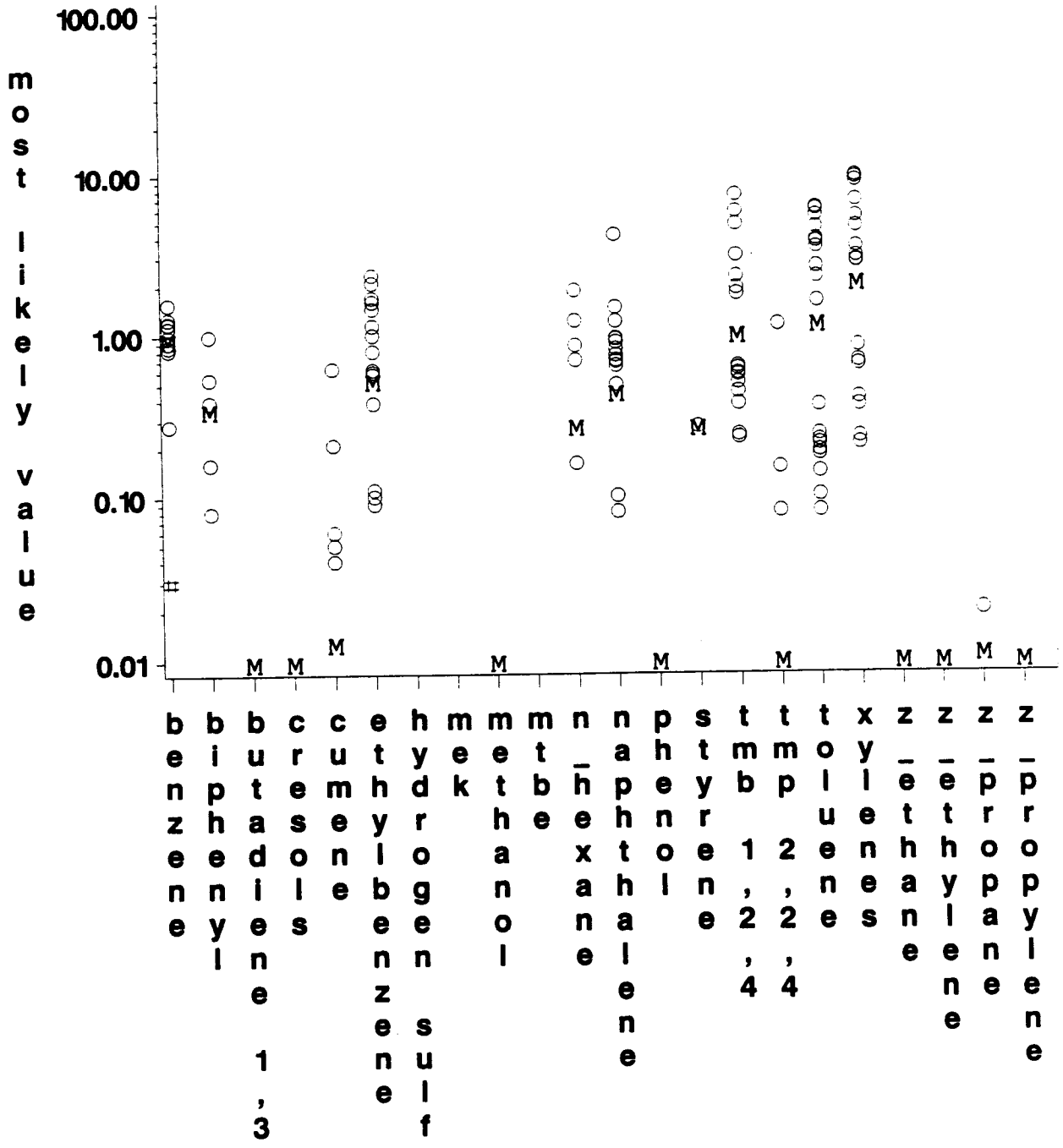
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Fluid Cat. Cracker REF_STRM= Light Cat. Gas Oil



PLOT M M M most likely value ○ ○ ○ concentration wt %
ND

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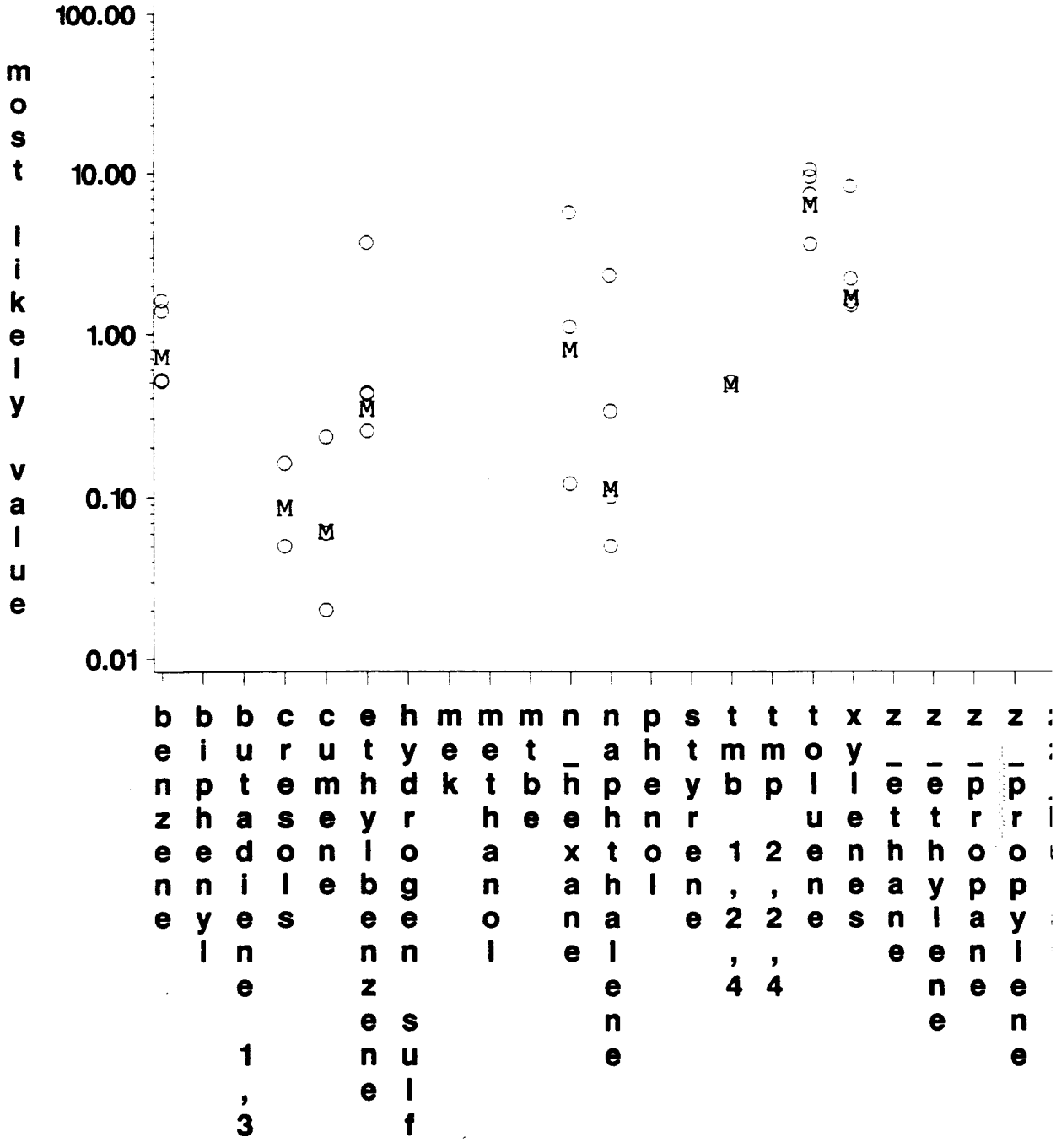
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Gasoline Blending REF_STRM= Aviation Gasoline



PLOT M M M most likely value ○ ○ ○ concentration wt %
ND

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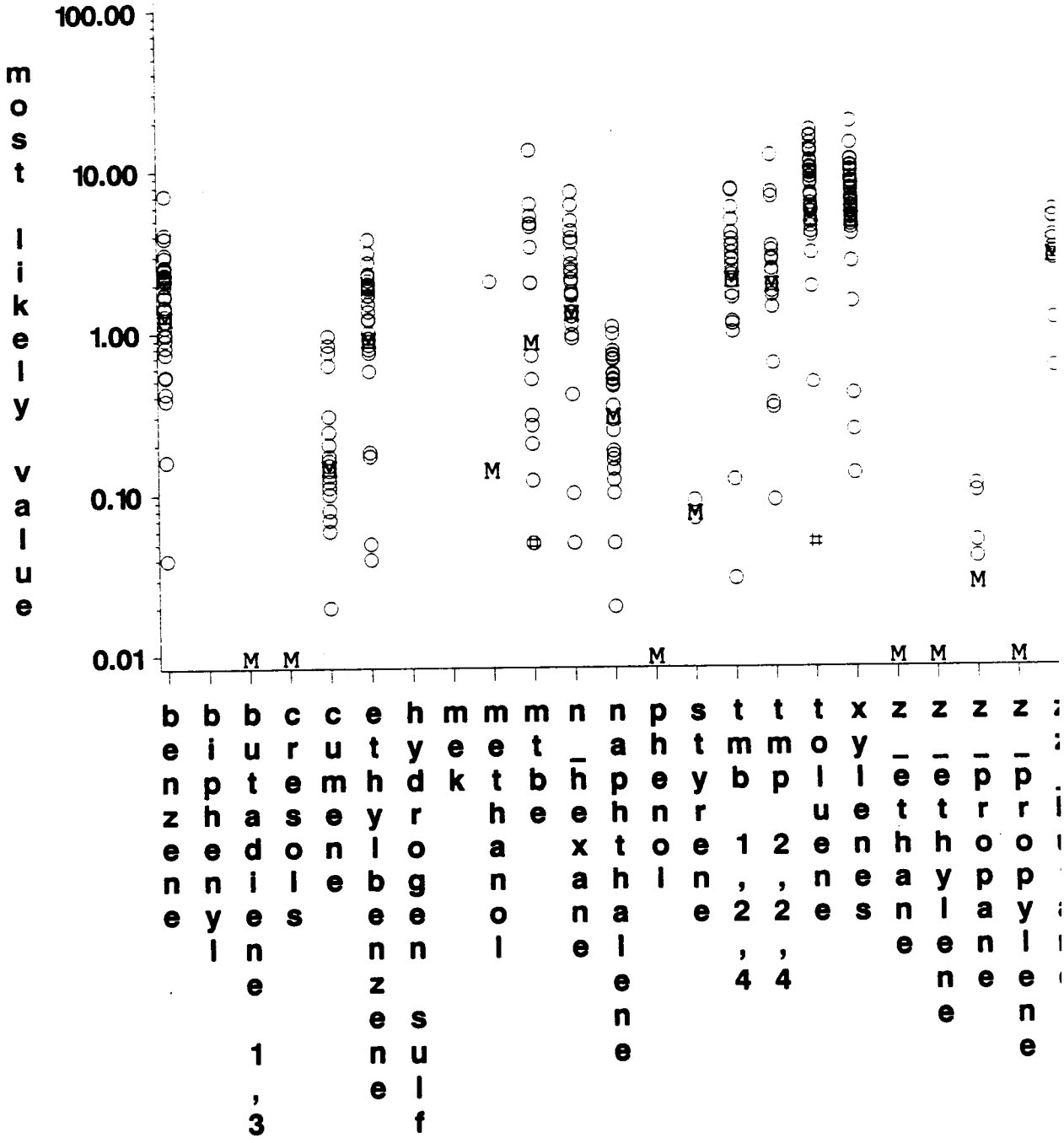
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Gasoline Blending REF_STRM= Conventional Gasolin



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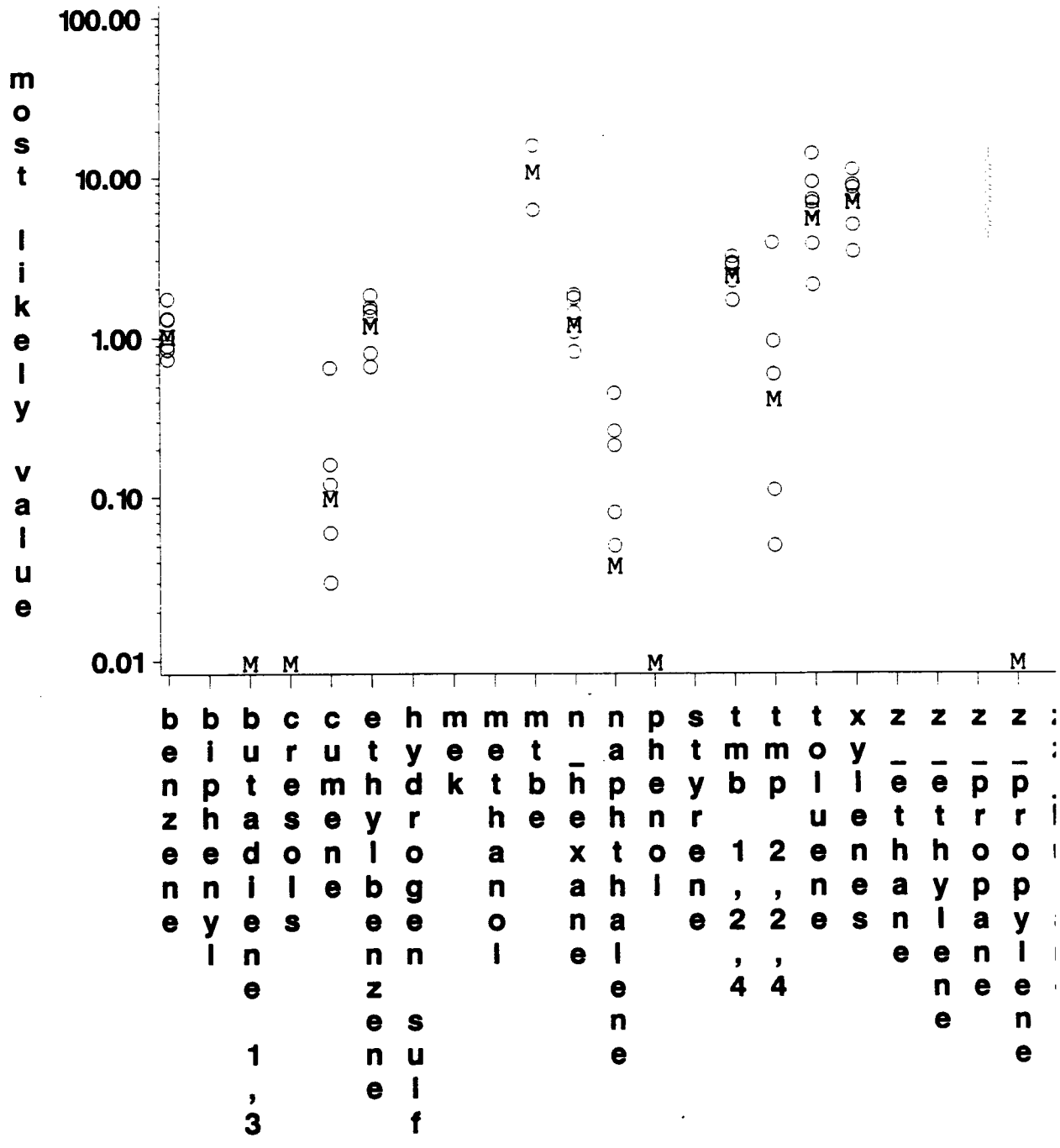
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Gasoline Blending REF_STRM= Reformulated Gasolin



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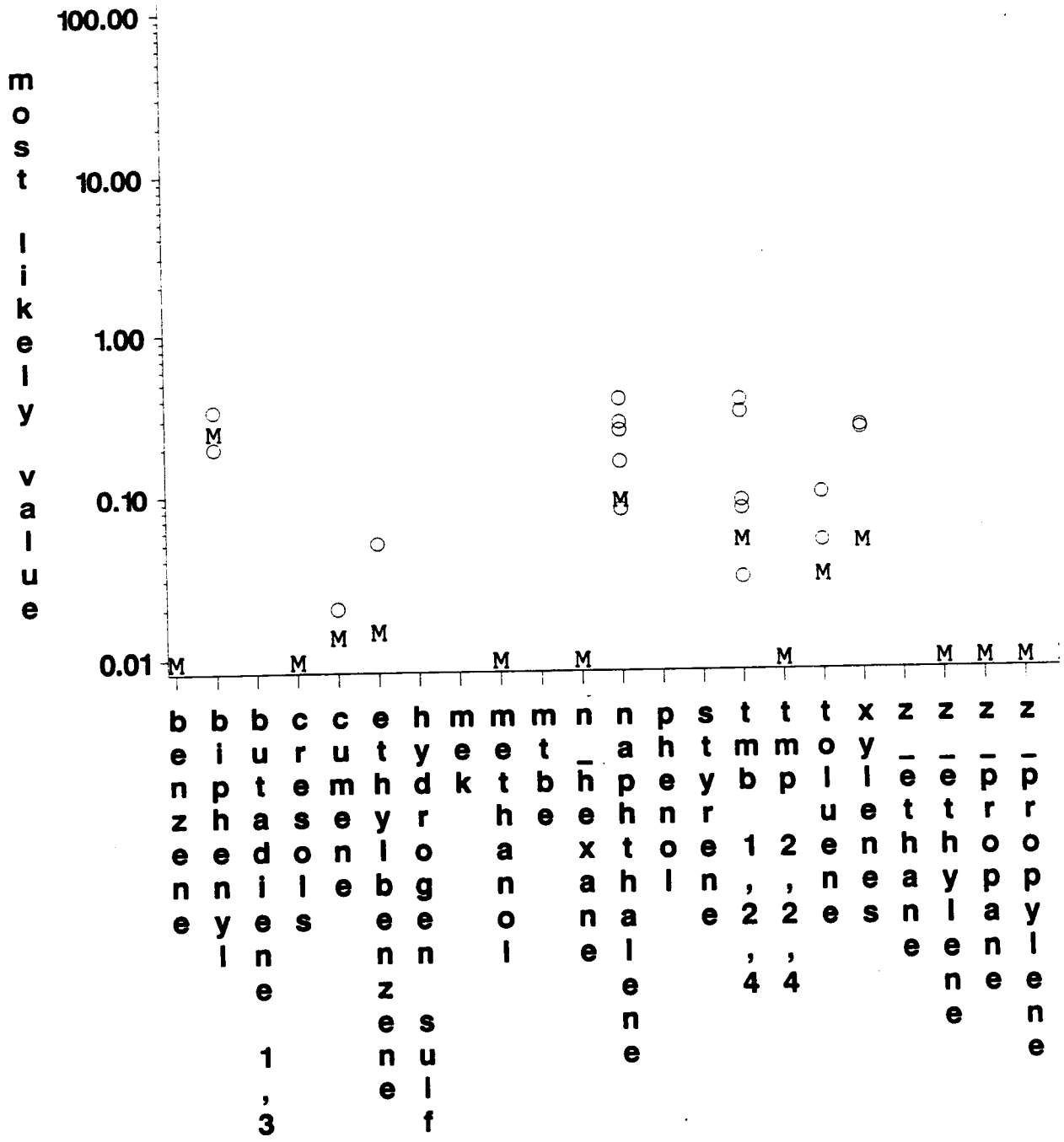
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Hydrodesulfur'zn REF_STRM= Diesel



PLOT M M M most likely value ○ ○ ○ concentration wt %
ND

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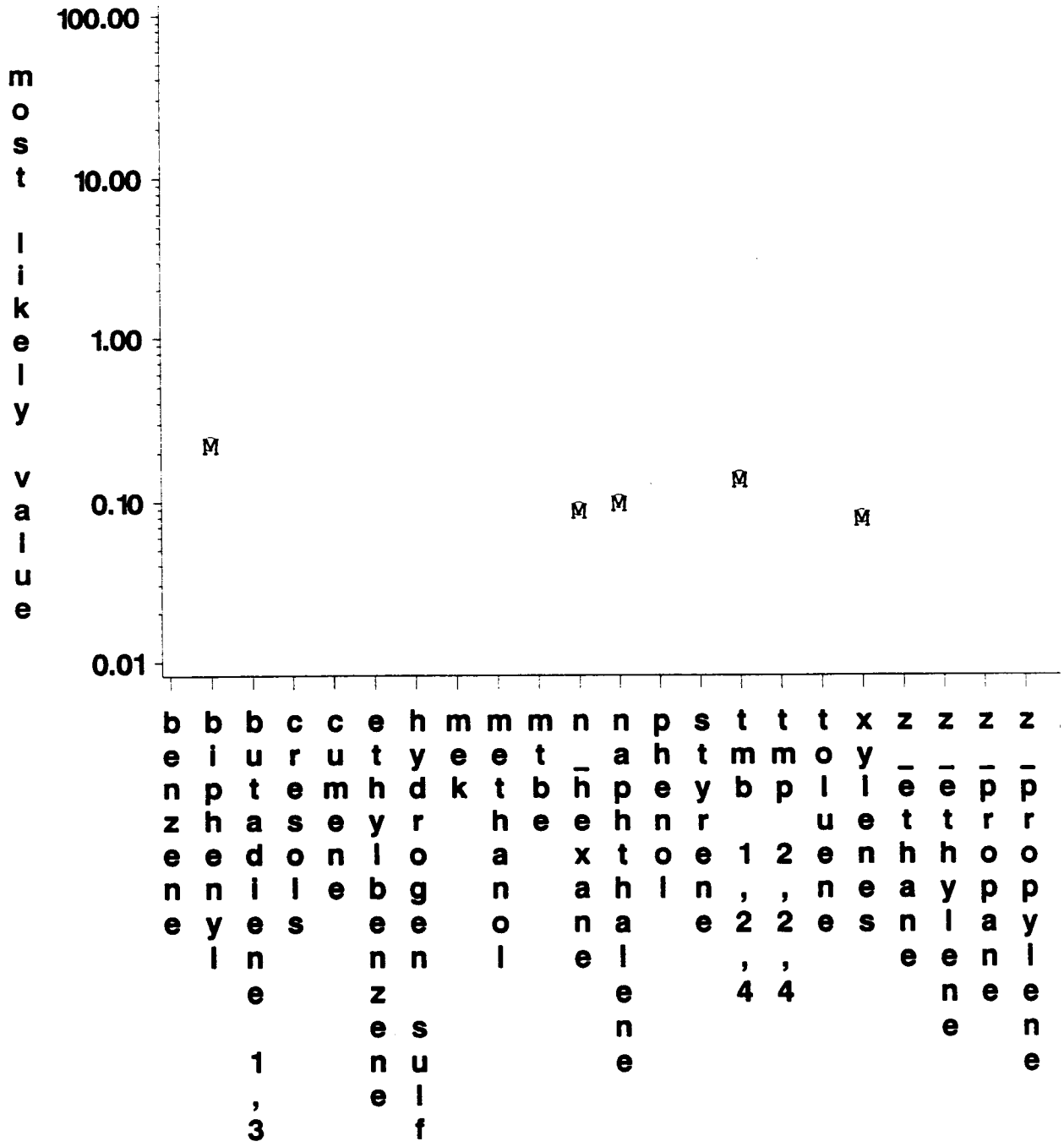
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Hydrodesulfur'zn REF_STRM= Heating Oil



PLOT M M M most likely value ○ ○ ○ concentration wt %
ND

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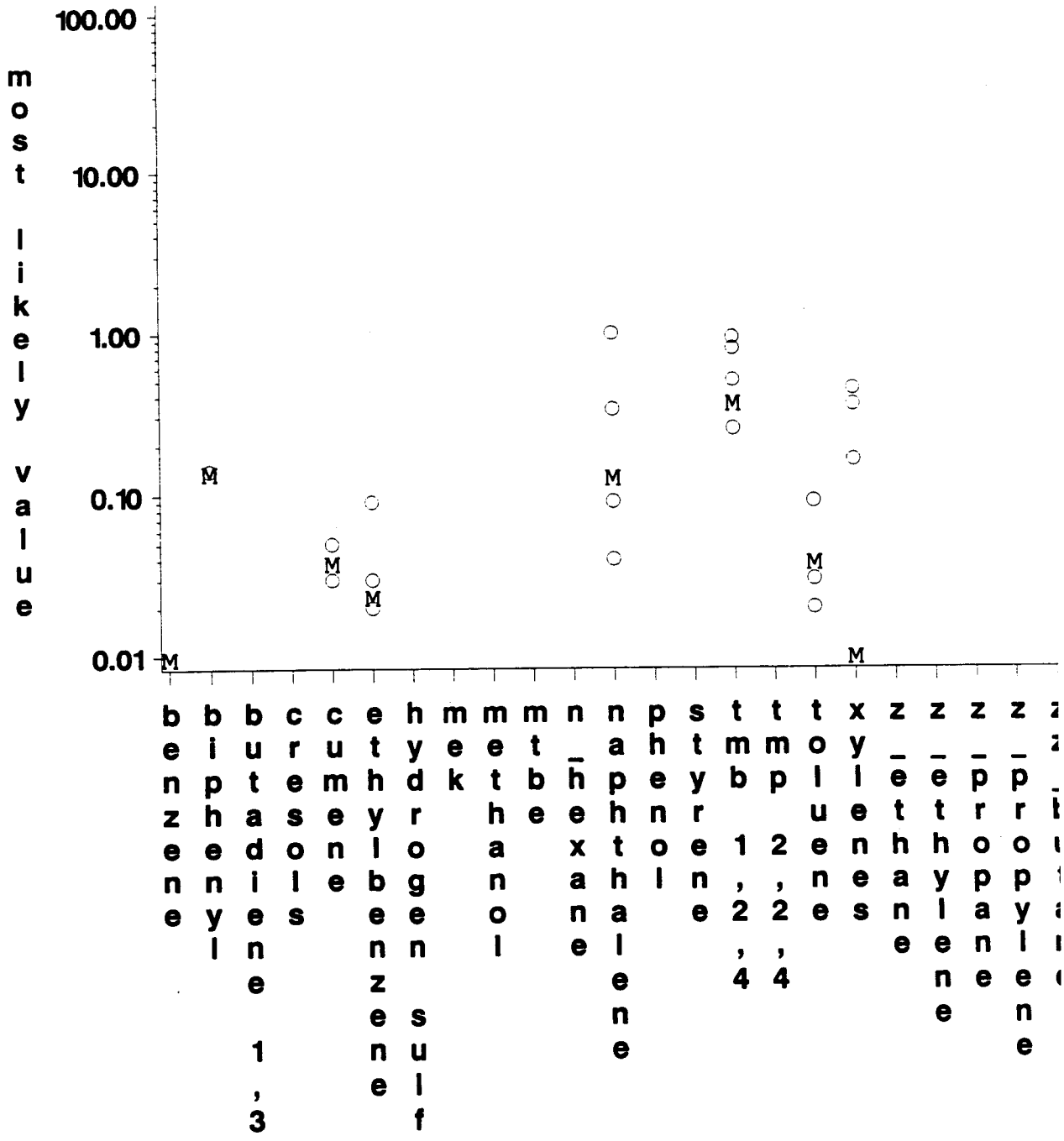
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Hydrodesulfur'zn REF_STRM= Jet / Kero



PLOT M M M most likely value ○ ○ ○ concentration wt %
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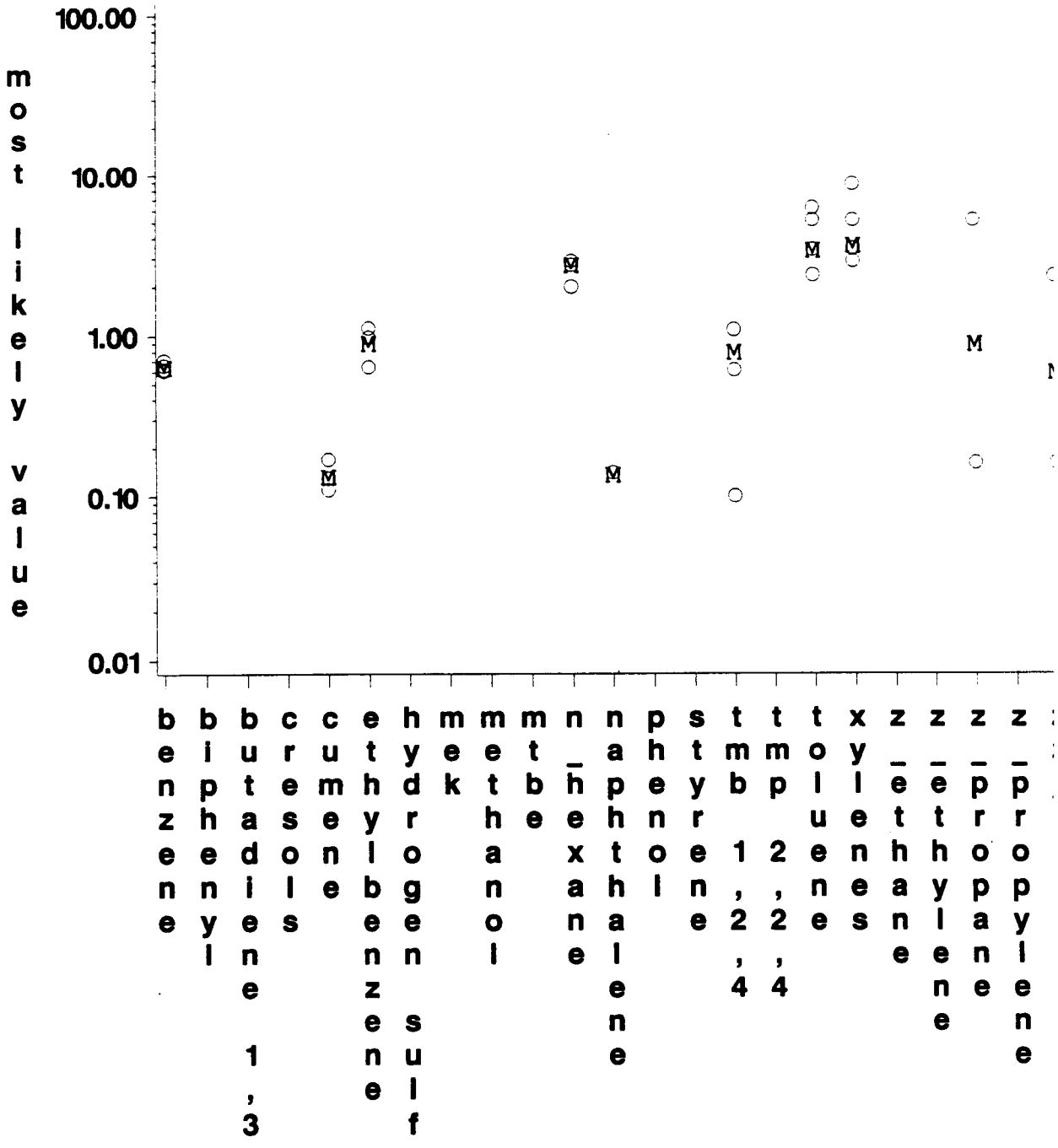
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Hydrodesulfur'zn REF_STRM= Naphtha



PLOT M M M most likely value ○ ○ ○ concentration wt %
ND

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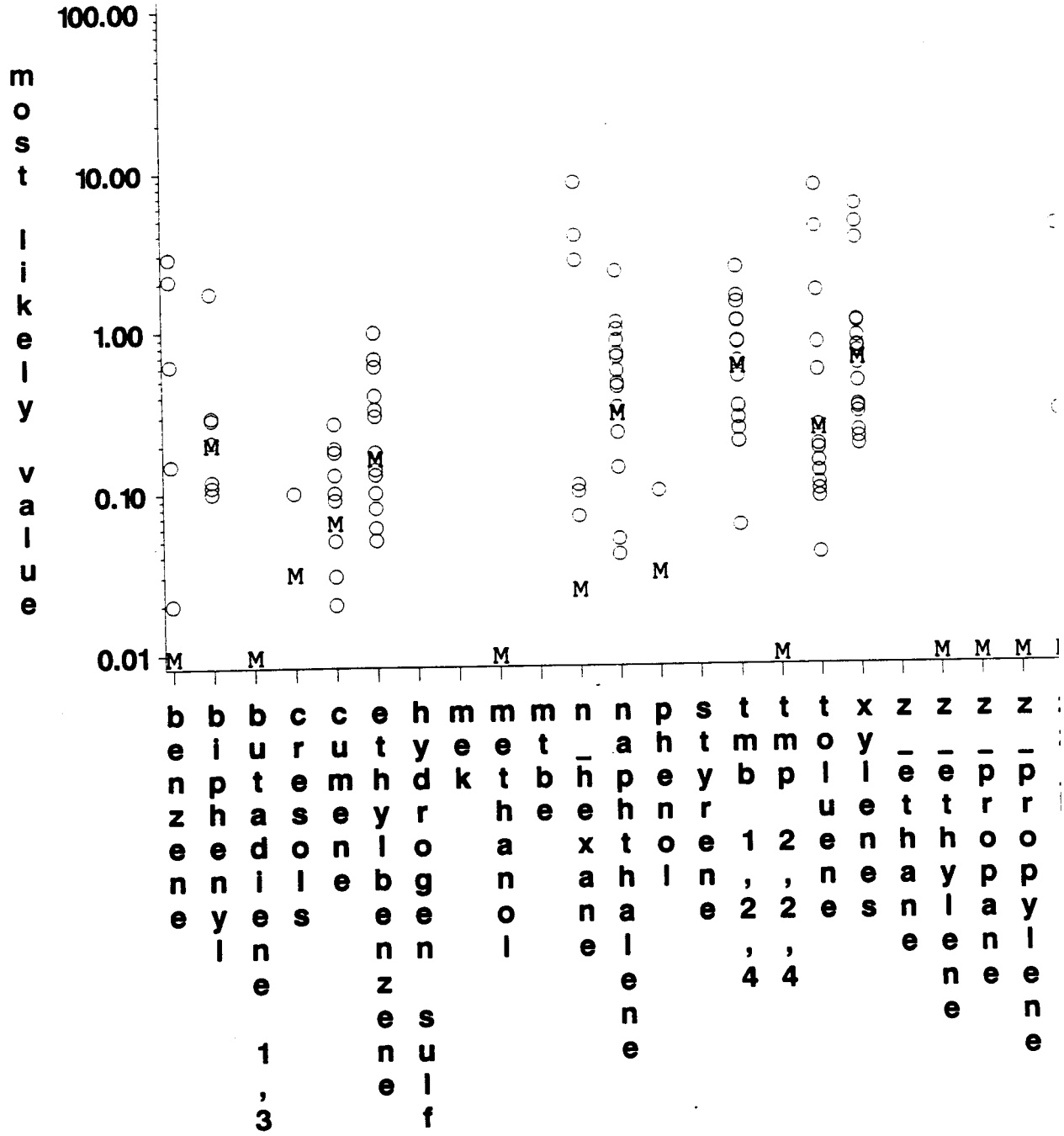
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Kerosine Treating REF_STRM= Commercial Jet Fuel



PLOT M M M most likely value ○ ○ ○ concentration wt %
ND

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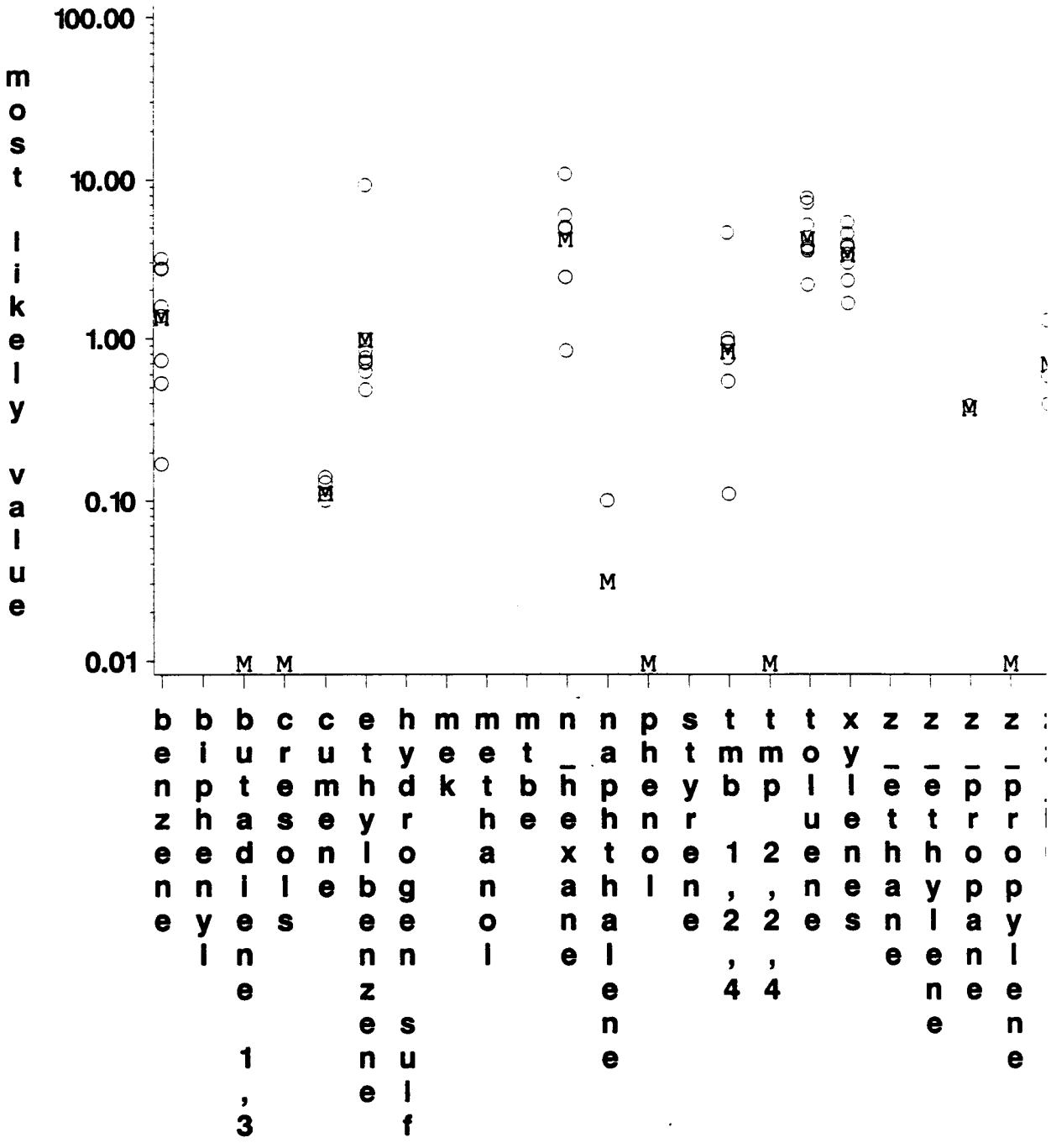
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Naphtha Pretreat REF_STRM= Desulf. naphtha



PLOT M M M most likely value ○ ○ ○ concentration wt %
ND

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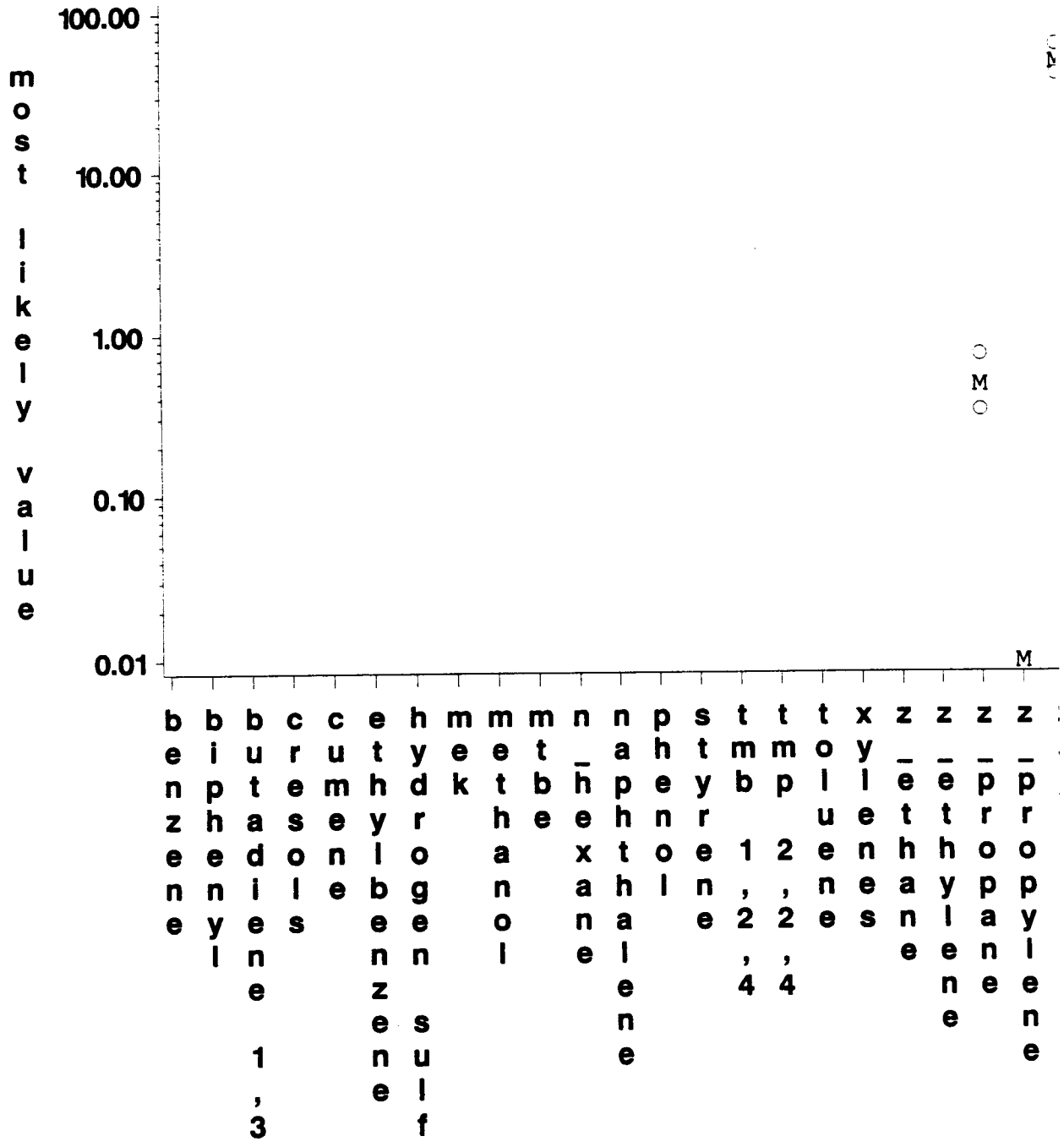
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Polymerization REF_STRM= Butane



PLOT M M M most likely value ○ ○ ○ concentration wt %
      # # # ND

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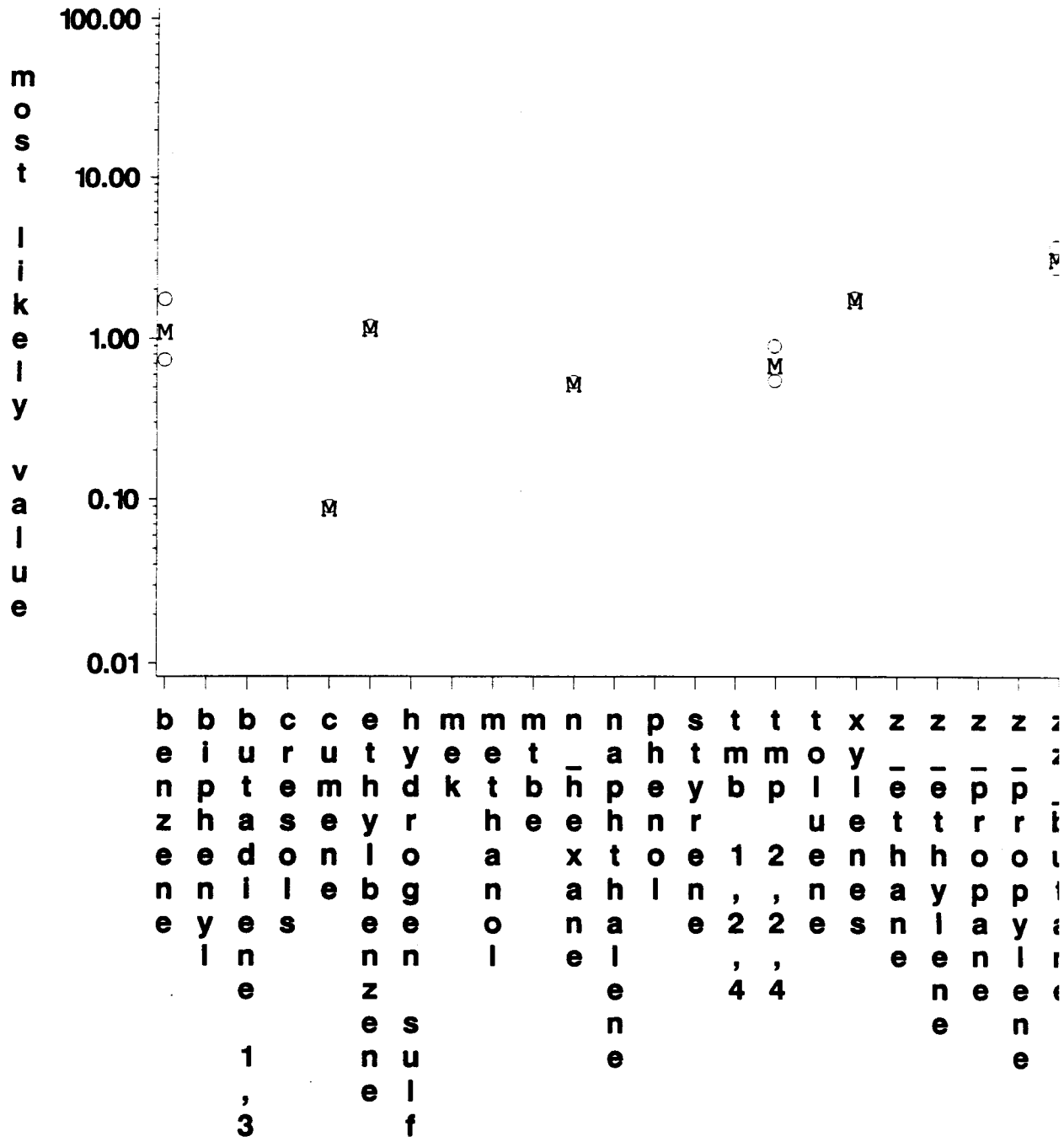
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Polymerization REF_STRM= Poly. naphtha



PLOT M M M most likely value ○ ○ ○ concentration wt %
ND

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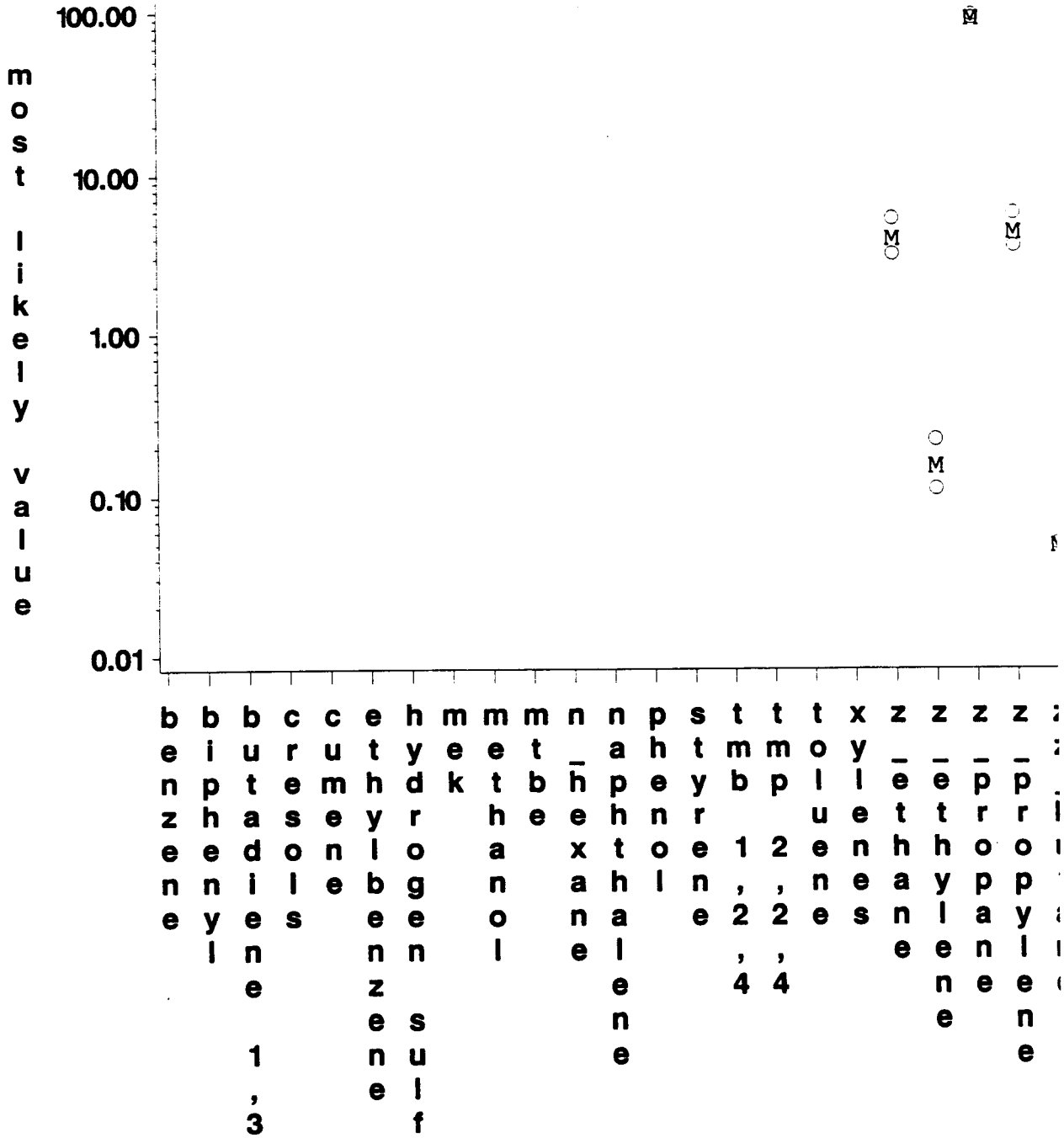
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Polymerization REF_STRM= Propane



PLOT M M M most likely value ○ ○ ○ concentration wt %
ND

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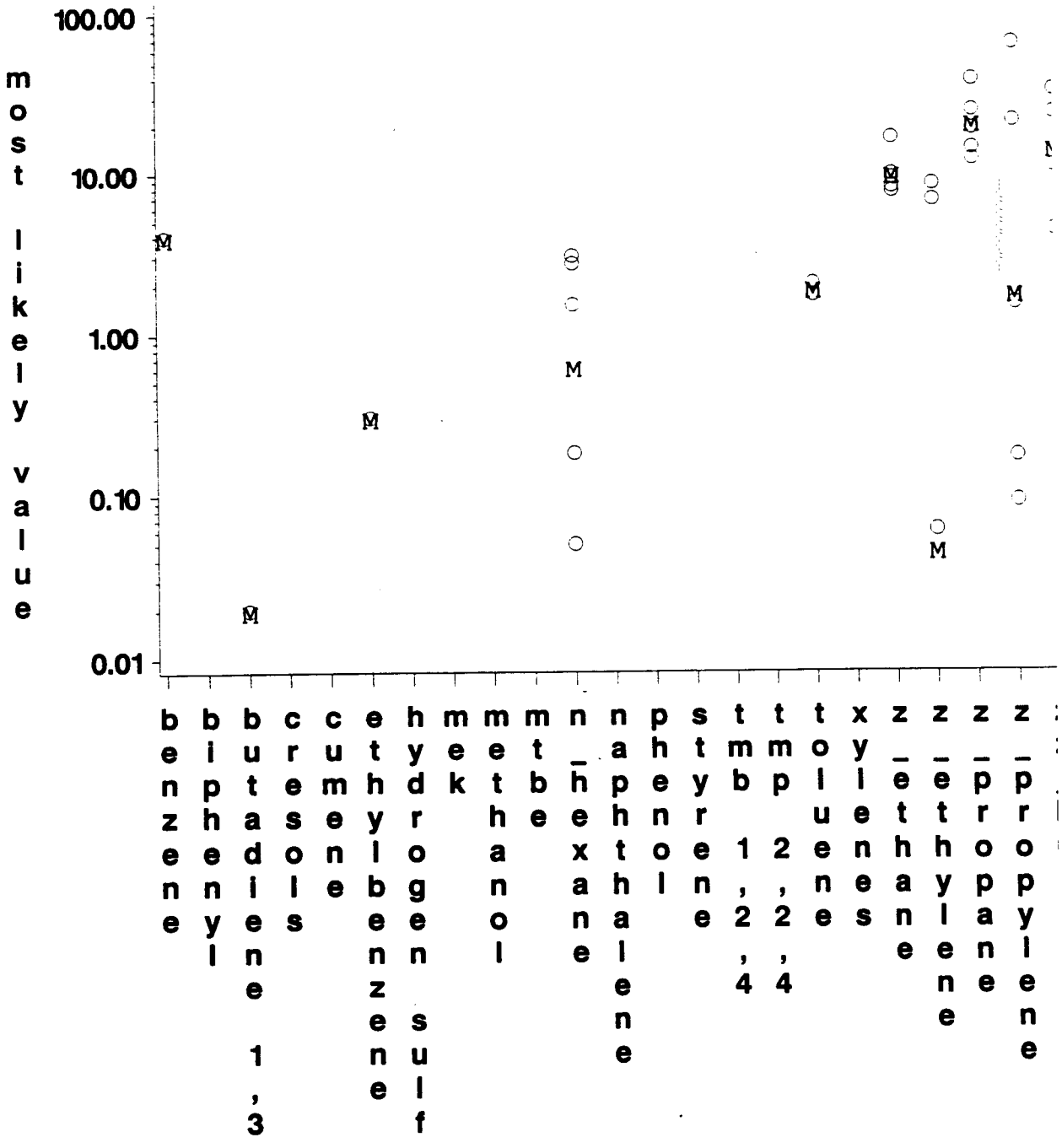
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Sat. Gas Plant REF_STRM= Sat. Gas

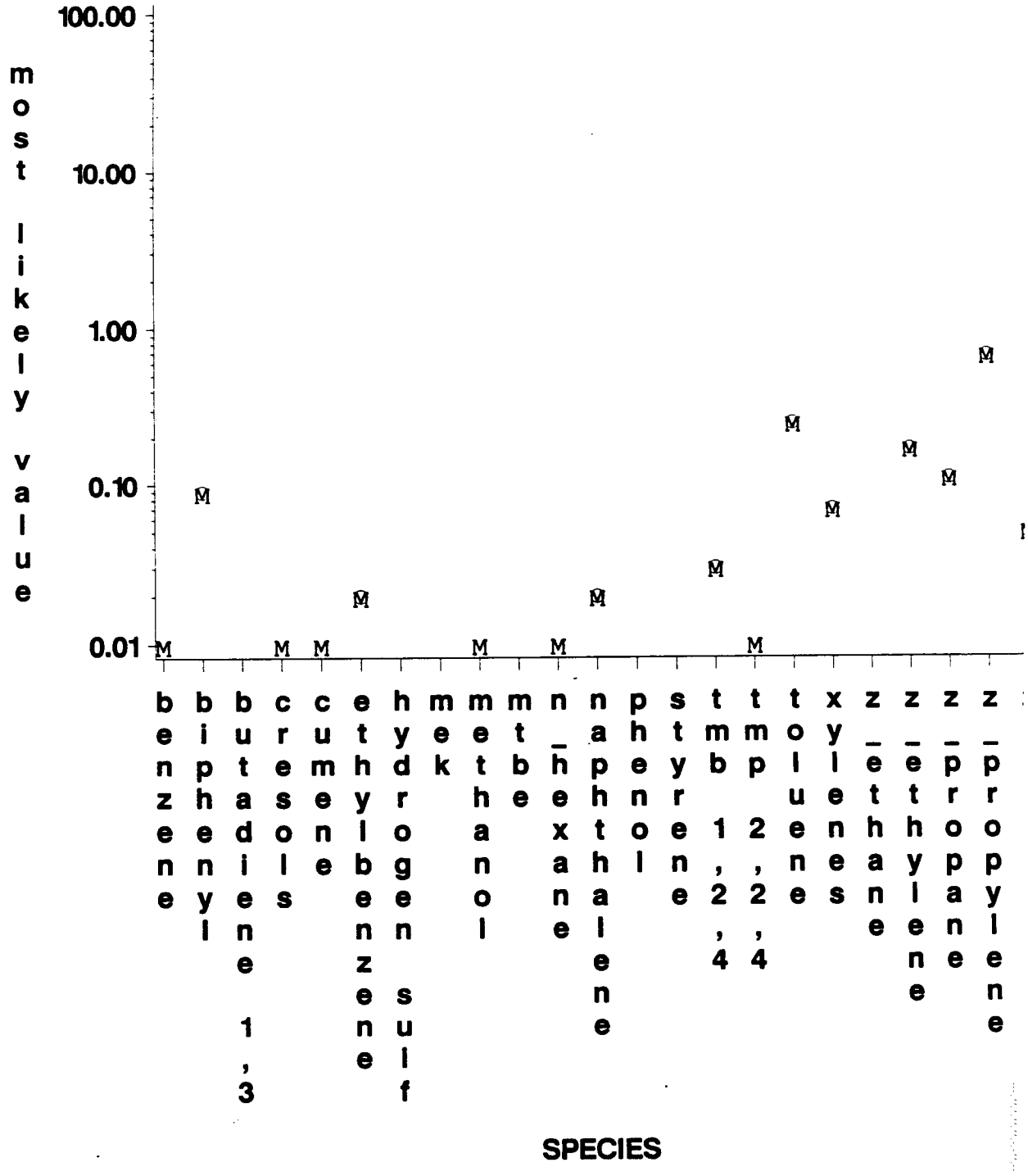


PLOT M M M most likely value ○ ○ ○ concentration wt %
ND

PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Vac. Distillation REF_STRM= Heavy Vacuum Gas Oil



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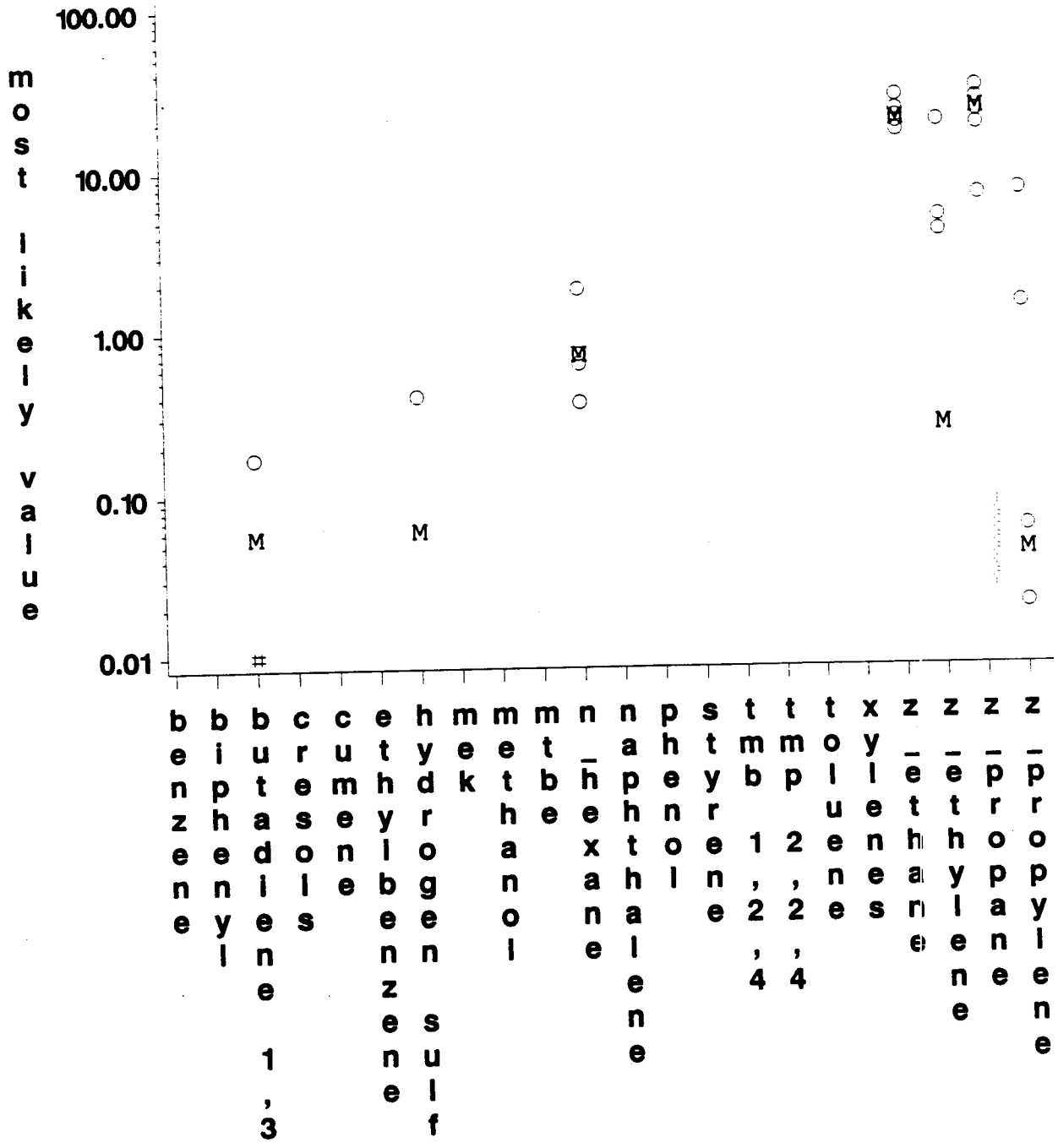
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Sulfur Plant REF_STRM= Fuel Gas

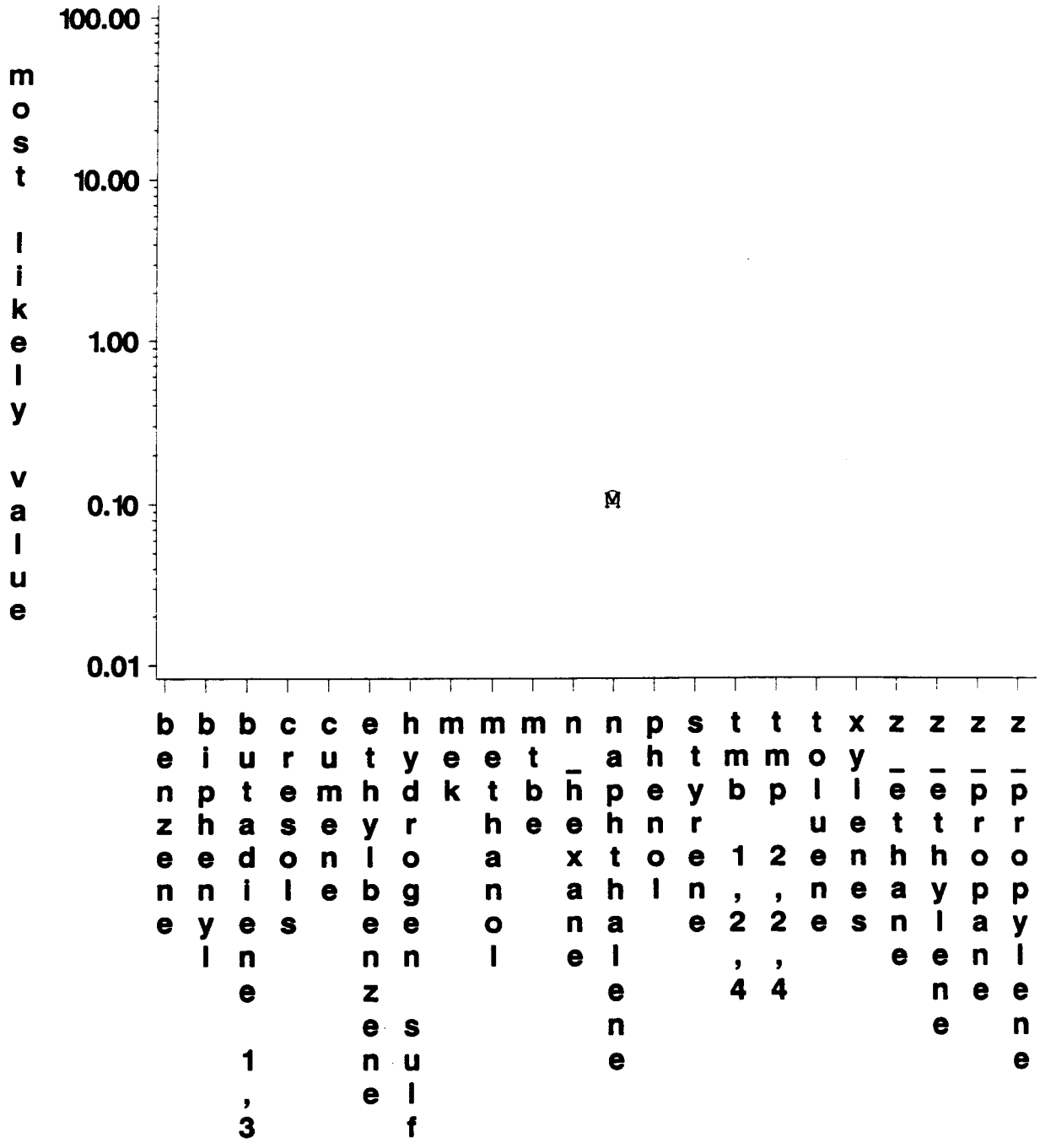


PLOT M M M most likely value ○ ○ ○ concentration wt %
ND

PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Vac. Distillation REF_STRM= Vac, naphtha



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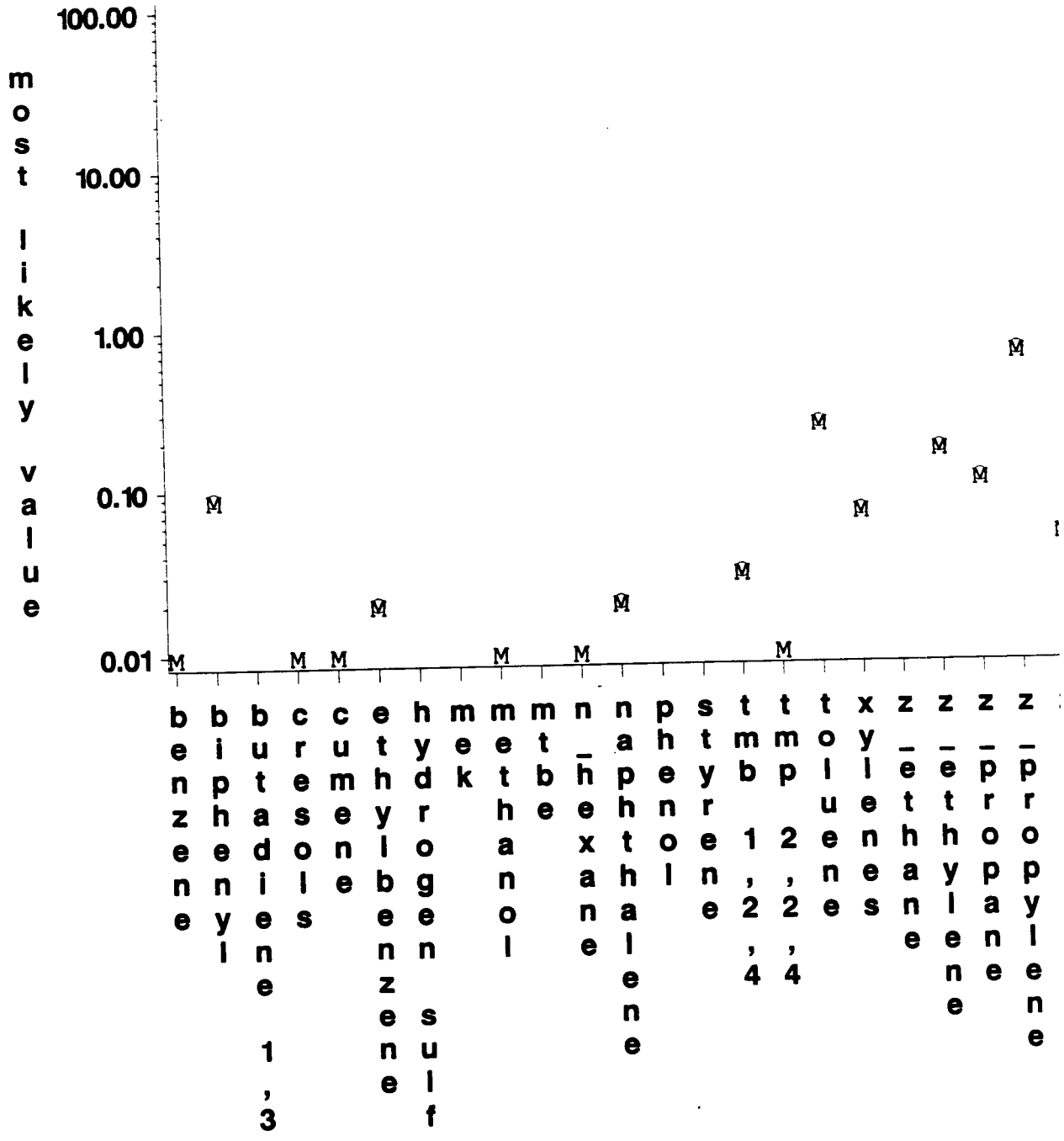
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Vac. Distillation REF_STRM= Heavy Vacuum Gas Oil

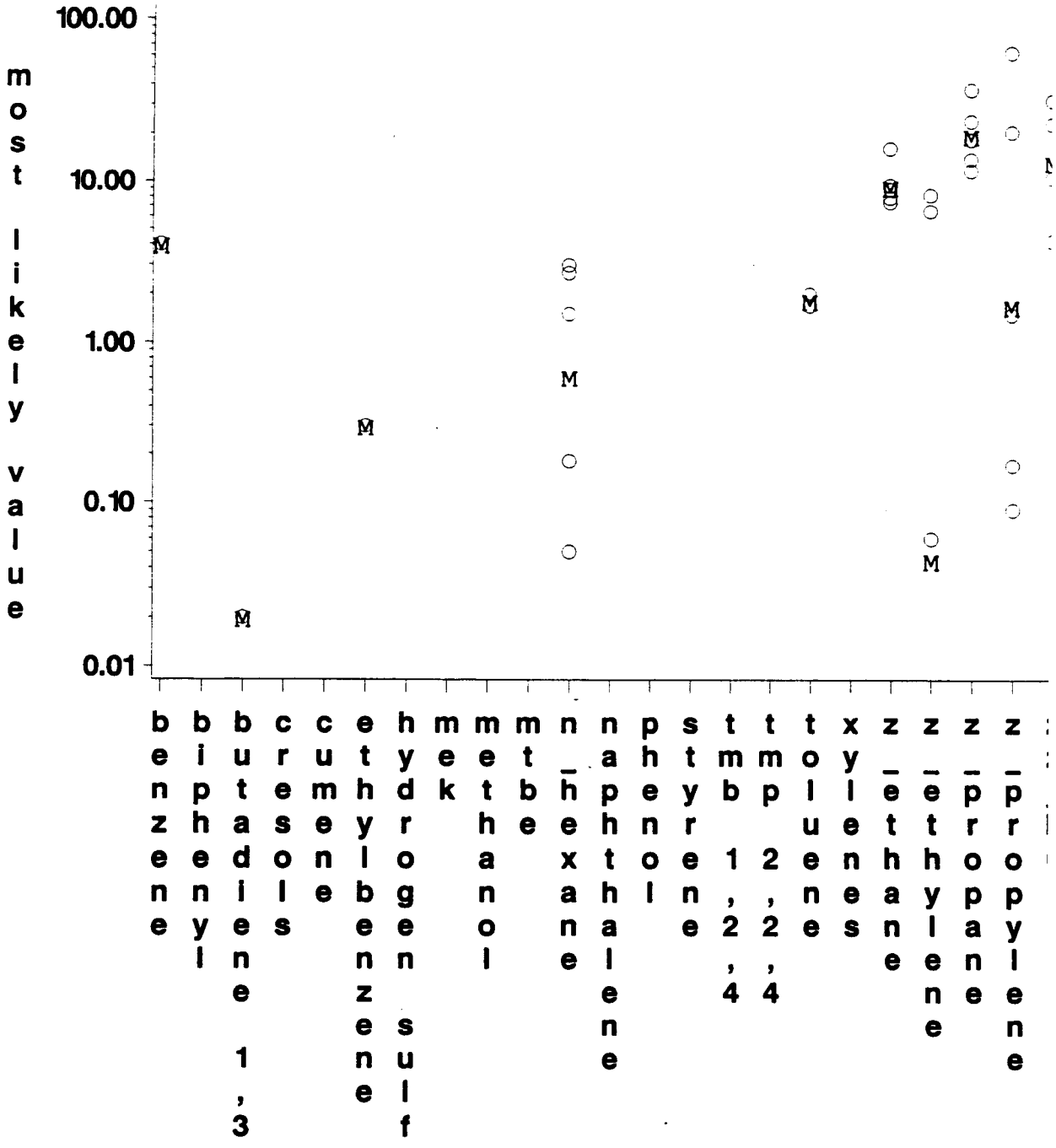


PLOT M M M most likely value ○ ○ ○ concentration wt %
ND

PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Sat. Gas Plant REF_STRM= Sat. Gas



PLOT M M M most likely value ○ ○ ○ concentration wt %
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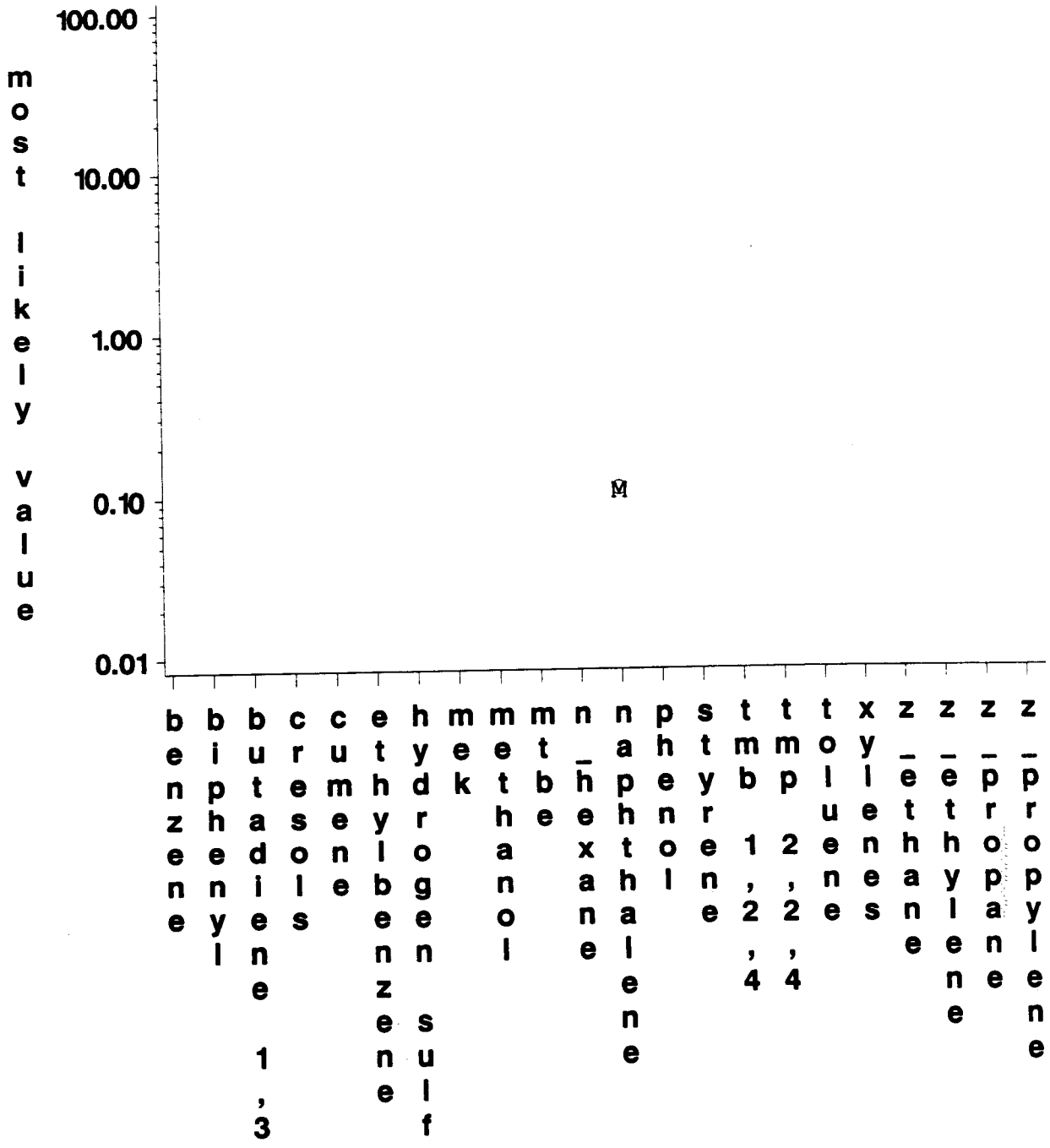
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

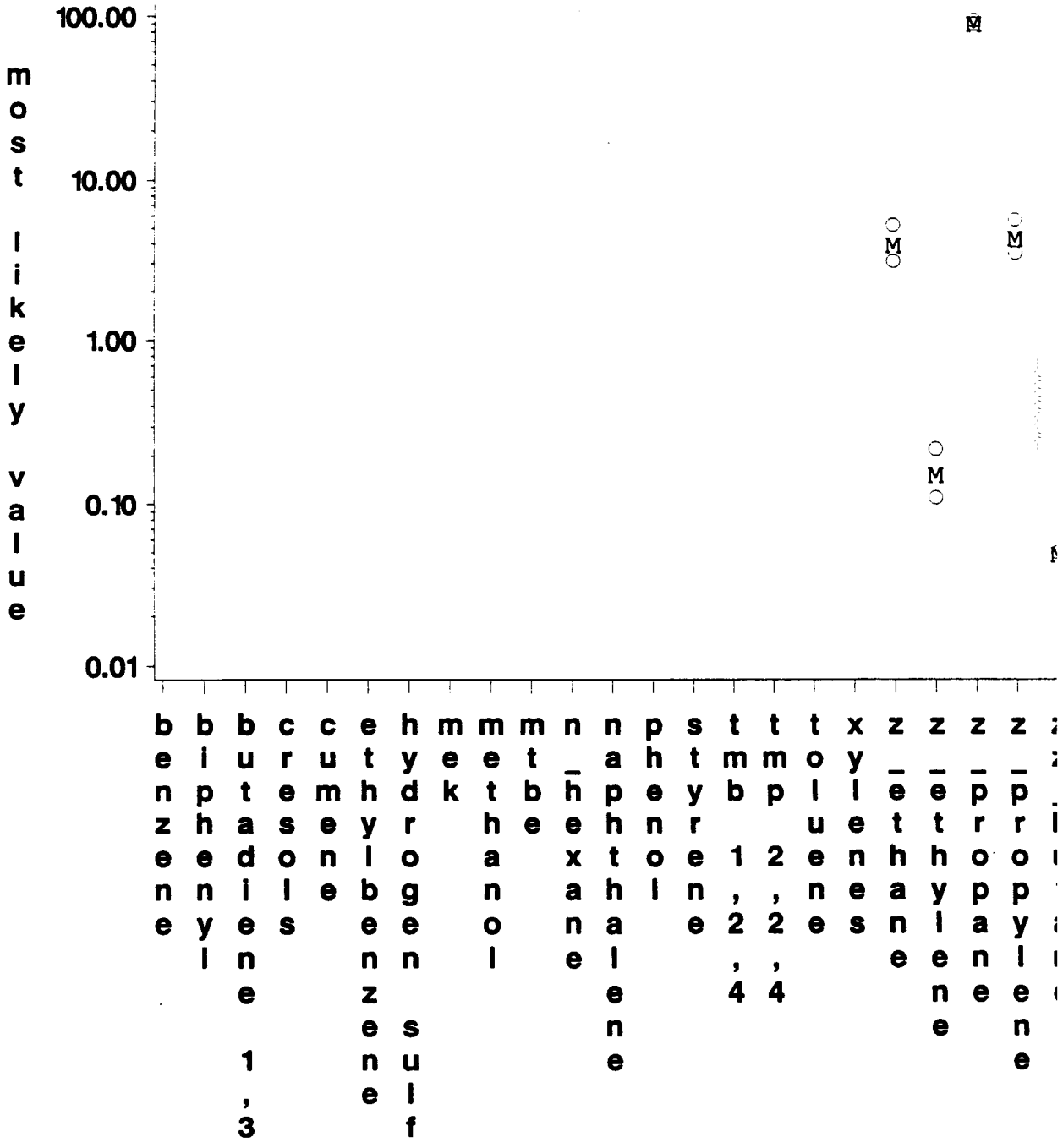
REF_UNIT= Vac. Distillation REF_STRM= Vac, naphtha



PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Polymerization REF_STRM= Propane



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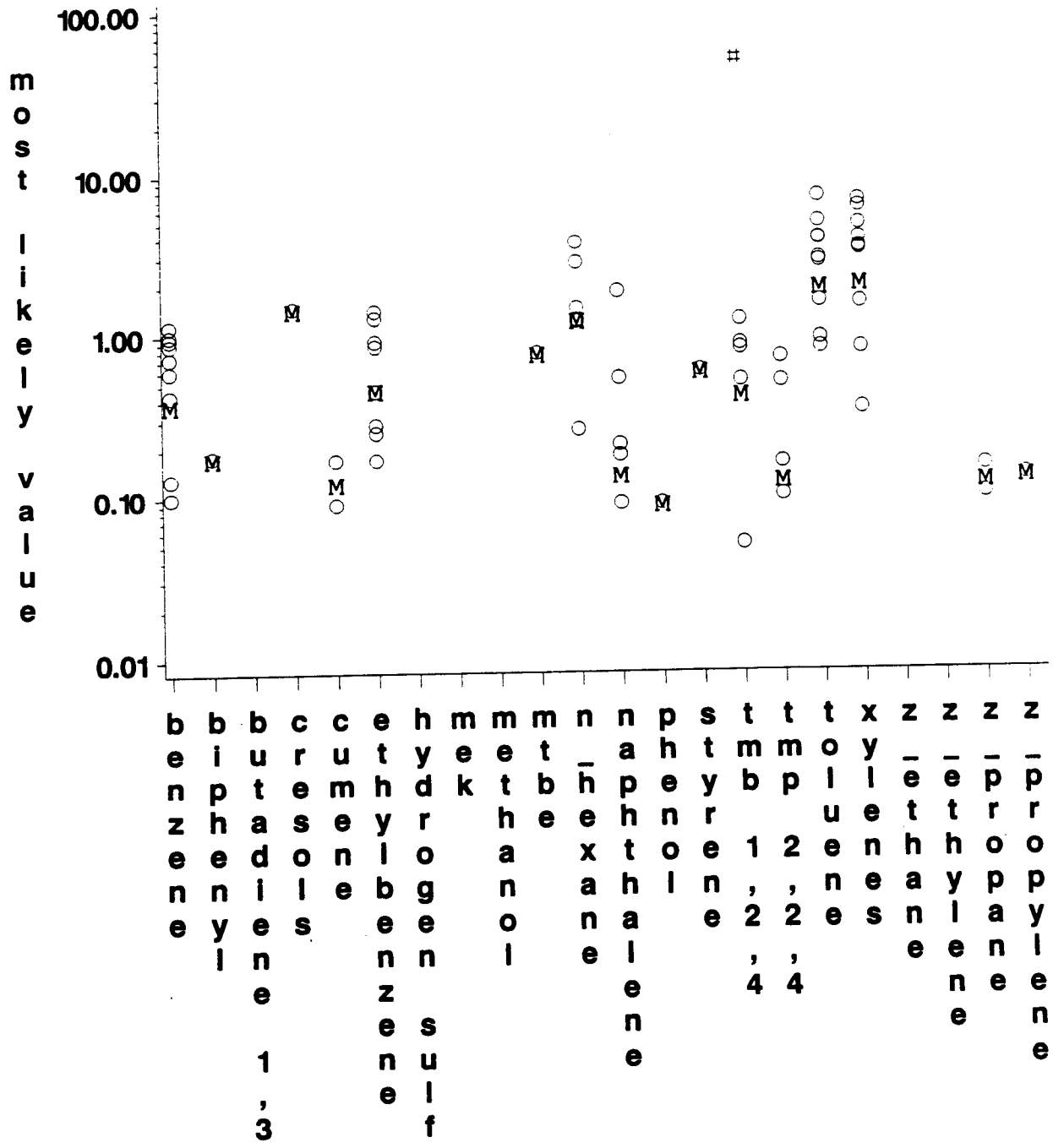
PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Various Units REF_STRM= Slop Oil

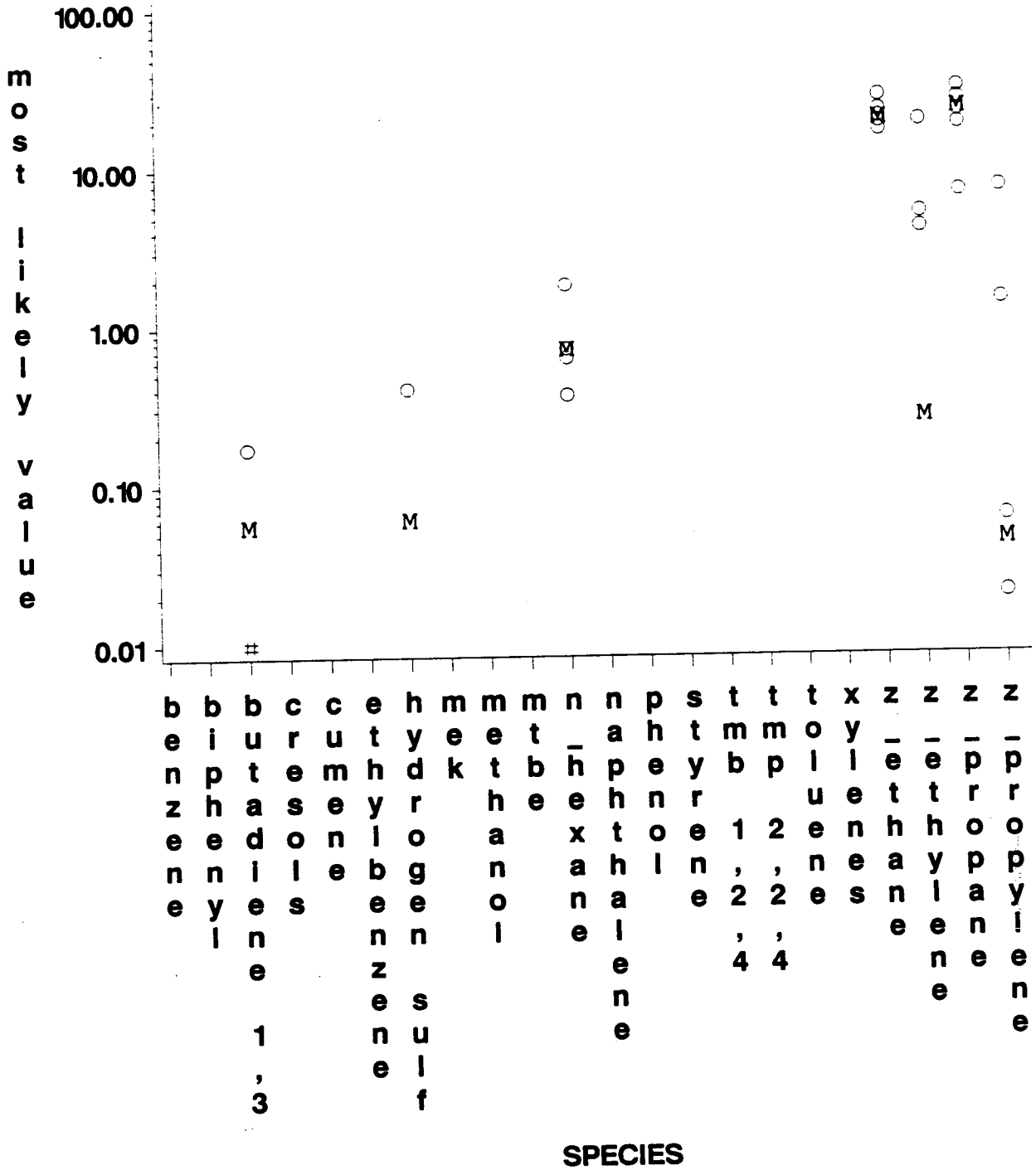


PLOT M M M most likely value ○ ○ ○ concentration wt %
ND

PERF Refinery Stream Hydrocarbon Speciation

Log Plot of Most Likely (Median) Value and Data by Species

REF_UNIT= Sulfur Plant REF_STRM= Fuel Gas



PLOT M M M most likely value ○ ○ ○ concentration wt %
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