

# NEW ERC FILE REQUEST FORM

Processor Initials: SPL Today's Date: 12/31/01

Company Name: Chevron USA Production Co.

Project#: 1010702 Yellow  Orange

ERC#'s S-1605-2

Original Facility Number (s): S-49

Year ERC Issued: 2001

Description Shutdown of 3 IC engines

Location: Sec NE17 T 305 R 22E

Folder size: Regular  Pocket

Return file to permit processor: Yes  No



San Joaquin Valley  
Air Pollution Control District

Southern Regional Office • 2700 M Street, Suite 275 • Bakersfield, CA 93301-2370

## Emission Reduction Credit Certificate S-1605-2

ISSUED TO: CHEVRON USA INC

ISSUED DATE: December 17, 2001

LOCATION OF  
REDUCTION: 17Z Gas Plant

SECTION: NE17 TOWNSHIP: 30S RANGE: 22E

For NO<sub>x</sub> Reduction In The Amount Of:

Quarter 1	Quarter 2	Quarter 3	Quarter 4
5,672 lbs	7,143 lbs	7,028 lbs	6,447 lbs

Conditions Attached

Method Of Reduction

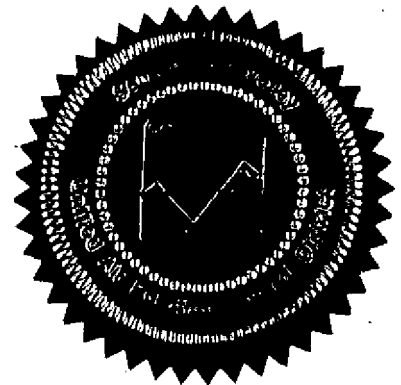
Shutdown of Entire Stationary Source

Shutdown of Emissions Units

Other

Shutdown of 3 lean-burn IC engines S-49-3, -4, -5

Use of these credits outside the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) is not allowed without express written authorization by the SJVUAPCD.



David L. Crow, Executive Director / APCO

  
Seyed Sadredin, Director of Permit Services

*Stephen Leonard 5-1010707*

The BAKERSFIELD CALIFORNIAN  
P.O. BOX 440  
BAKERSFIELD, CA **RECEIVED**

# PROOF OF PUBLICATION

DEC 26 2001

ADMIN. SERVICES  
SJVAPCD

SAN JOAQUIN VALLEY A.P.C.D.  
1990 E GETTYSBURG  
FRED BATES  
FRESNO CA 93726

Ad Number	620605	PO #	s-1010702
Edition	TBC	Run Times	1
Class Code	520	Legal Notices	
Start Date	12/26/01	Stop Date	12/26/01
Run Date(s)	12/26		
Billing Lines	27	Inches	2.25
Total Cost	57.78	Account	ISAN51
Billing Address	SAN JOAQUIN VALLEY A.P.C.D. 1990 E GETTYSBURG FRED BATES FRESNO CA 93726		
Solicitor I.D.:	C046		

STATE OF CALIFORNIA  
COUNTY OF KERN

I AM A CITIZEN OF THE UNITED STATES AND A RESIDENT OF THE COUNTY AFORESAID; I AM OVER THE AGE OF EIGHTEEN YEARS, AND NOT A PARTY TO OR INTERESTED IN THE ABOVE ENTITLED MATTER. I AM THE ASSISTANT PRINCIPAL CLERK OF THE PRINTER OF THE BAKERSFIELD CALIFORNIAN, A NEWSPAPER OF GENERAL CIRCULATION, PRINTED AND PUBLISHED DAILY IN THE CITY OF BAKERSFIELD COUNTY OF KERN.

AND WHICH NEWSPAPER HAS BEEN ADJUDGED A NEWSPAPER OF GENERAL CIRCULATION BY THE SUPERIOR COURT OF THE COUNTY OF KERN, STATE OF CALIFORNIA, UNDER DATE OF FEBRUARY 5, 1952, CASE NUMBER 57610; THAT THE NOTICE, OF WHICH THE ANNEXED IS A PRINTED COPY, HAS BEEN PUBLISHED IN EACH REGULAR AND ENTIRE ISSUE OF SAID NEWSPAPER AND NOT IN ANY SUPPLEMENT THEREOF ON THE FOLLOWING DATES, TO WIT:

12/26

ALL IN THE YEAR 2001

I CERTIFY (OR DECLARE) UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE AND CORRECT.

*Mavis Parks*

DATED AT BAKERSFIELD CALIFORNIA

*December 26, 2001*

First Text  
NOTICE OF FINAL ACTION FOR THE ISSUANCE

Ad Number 620605

**NOTICE OF FINAL ACTION FOR THE ISSUANCE OF EMISSION REDUCTION CREDITS**

NOTICE IS HEREBY GIVEN that the Air Pollution Control Officer has issued Emission Reduction Credits (ERCs) to Chevron USA Production Company for emission reductions generated by the shutdown of three 650 hp gas-fired internal combustion engines at the 172 Gas Plant near McKittrick, CA. The quantity of ERCs issued is 26,290 pounds per year of nitro-  
gen oxides.

No comments were received following the District's preliminary decision on this project. The application Review for Project 03-1010702 is available for public inspection at the SAN JOAQUIN VALLEY UNITED AIR POLLUTION CONTROL DISTRICT, 2700 N. STREET, SUITE 275, BAKERSFIELD, CA 93301.



San Joaquin Valley  
Air Pollution Control District

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DEC 24 2001

SAN JOAQUIN VALLEY UNIFIED  
APCD-SOUTHERN REGION

December 19, 2001

W. A. Brommelsiek  
Chevron USA Production Company  
PO Box 1392  
Bakersfield, CA 93302

**RE: Notice of Final Action - Emission Reduction Credits  
Project Number: S-1010702**

Dear Mr. Brommelsiek:

The Air Pollution Control Officer has issued Emission Reduction Credits (ERCs) to Chevron USA Production Company for emission reduction generated by the shutdown of three 650 bhp gas-fired internal combustion engines, at the 17Z Gas Plant near McKittrick, CA. The quantity of ERCs issued is 26,290 pounds per year of nitrogen oxides.

Enclosed are copies of the ERC Certificates and a copy of the notice of final action to be published approximately three days from the date of this letter.

Notice of the District's preliminary decision to issue the ERC Certificates was published on November 15, 2001. The District's analysis of the proposal was also sent to CARB and US EPA Region IX on November 9, 2001. No comments were received following the District's preliminary decision on this project.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Thomas Goff at (661) 326-6900.

Sincerely,

Seyed Sadredin  
Director of Permit Services

SS:SPL/cp  
Enclosures

c: Thomas Goff, Permit Services Manager

David L. Crow  
Executive Director/Air Pollution Control Officer

Northern Region Office  
4230 Kiernan Avenue, Suite 130  
Modesto, CA 95356-9322  
(209) 557-6400 • FAX (209) 557-6475

Central Region Office  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
(559) 230-6000 • FAX (559) 230-6061

Southern Region Office  
2700 M Street, Suite 275  
Bakersfield, CA 93301-2370  
(661) 326-6900 • FAX (661) 326-6985



San Joaquin Valley  
Air Pollution Control District

December 19, 2001

Gerardo C. Rios (AIR 3)  
Acting Chief, Permits Office  
Air Division  
U.S. E.P.A. - Region IX  
75 Hawthorne Street  
San Francisco, CA 94105

**RE: Notice of Final Action - Emission Reduction Credits  
Project Number: S-1010702**

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Enclosures

c: Thomas Goff, Permit Services Manager

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Executive Director/Air Pollution Control Officer

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San Joaquin Valley  
Air Pollution Control District

December 19, 2001

Mike Tollstrup, Chief  
Project Assessment Branch  
Stationary Source Division  
California Air Resources Board  
PO Box 2815  
Sacramento, CA 95812-2815

**RE: Notice of Final Action - Emission Reduction Credits  
Project Number: S-1010702**

Dear Mr. Tollstrup:

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Director of Permit Services

SS:SPL/cpl  
Enclosures

c: Thomas Goff, Permit Services Manager

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Executive Director/Air Pollution Control Officer

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Bakersfield Californian

**NOTICE OF FINAL ACTION  
FOR THE ISSUANCE OF  
EMISSION REDUCTION CREDITS**

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The application review for Project #S-1010702 is available for public inspection at the **SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 2700 'M' STREET SUITE 275, BAKERSFIELD, CA 93301.**

5.L -



San Joaquin Valley  
Air Pollution Control District

November 9, 2001

RECEIVED

NOV 13 2001

W. A. Brommelsiek  
Chevron USA Production Company  
PO Box 1392  
Bakersfield, CA 93302

S. JOAQUIN VALLEY UNIFIED  
APCD-SOUTHERN REGION

**Re: Notice of Preliminary Decision - Emission Reduction Credits  
Project Number: S-1010702**

Dear Mr. Brommelsiek:

Enclosed for your review and comment is the District's analysis of Chevron USA Production Company's application for Emission Reduction Credits (ERCs) resulting from the shutdown of three 650 bhp gas-fired I.C. engines, at the 17Z Gas Plant near McKittrick, CA.. The quantity of ERCs proposed for banking is 26,290 pounds per year of nitrogen oxides.

The notice of preliminary decision for this project will be published approximately three days from the date of this letter. Please submit your written comments on this project within the 30-day public comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. If you have any questions regarding this matter, please contact Mr. Stephen Leonard of Permit Services at (661) 326-6962.

Sincerely,

Seyed Sadredin  
Director of Permit Services

SS:SPL/cp  
Enclosures

c: Thomas Goff, Permit Services Manager

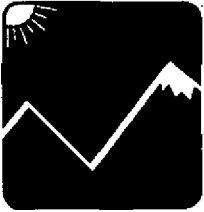
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Executive Director/Air Pollution Control Officer

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San Joaquin Valley  
Air Pollution Control District

November 9, 2001

Mike Tollstrup, Chief  
Project Assessment Branch  
Stationary Source Division  
California Air Resources Board  
PO Box 2815  
Sacramento, CA 95812-2815

**Re: Notice of Preliminary Decision - Emission Reduction Credits  
Project Number: S-1010702**

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Director of Permit Services

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Enclosure

c: Thomas Goff, Permit Services Manager

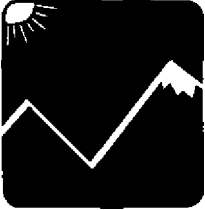
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Executive Director/Air Pollution Control Officer

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San Joaquin Valley  
Air Pollution Control District

November 9, 2001

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Acting Chief, Permits Office  
Air Division  
U.S. E.P.A. - Region IX  
75 Hawthorne Street  
San Francisco, CA 94105

**Re: Notice of Preliminary Decision - Emission Reduction Credits  
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Seyed Sadredin  
Director of Permit Services

SS:SPL/cp  
Enclosure

c: Thomas Goff, Permit Services Manager

David L. Crow  
Executive Director/Air Pollution Control Officer

Bakersfield Californian  
S-1010702

**NOTICE OF PRELIMINARY DECISION  
FOR THE PROPOSED ISSUANCE OF  
EMISSION REDUCTION CREDITS**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Unified Air Pollution Control District solicits public comment on the proposed issuance of Emission Reduction Credits (ERCs) to Chevron USA Production Company for the shutdown of three 650 bhp gas-fired I.C. engines, at the 17Z Gas Plant near McKittrick, CA.. The quantity of ERCs proposed for banking is 26,290 pounds per year of nitrogen oxides.

The analysis of the regulatory basis for these proposed actions, Project #S-1010702, is available for public inspection at the District office at the address below. Written comments on this project must be submitted within 30 days of the publication date of this notice to **SEYED SADREDIN, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 2700 'M' STREET SUITE 275, BAKERSFIELD, CA 93301.**

The BAKERSFIELD CALIFORNIAN  
P.O. BOX 440  
BAKERSFIELD, CA 93302

# PROOF OF PUBLICATION

**RECEIVED**

9 2001

ADMIN. SERVICES  
SJVUPCD

SAN JOAQUIN VALLEY A.P.C.D.  
1990 E GETTYSBURG  
FRED BATES  
FRESNO CA 93726

Ad Number	601534	PO #	#S-1010702
Edition	TBC	Run Times	1
Class Code	520	Legal Notices	
Start Date	11/15/01	Stop Date	11/15/01
Run Date(s)	11/15		
Billing Lines	33	Inches	2.75
Total Cost	52.47	Account	1SAN51
Billing Address	SAN JOAQUIN VALLEY A.P.C.D. 1990 E GETTYSBURG FRED BATES FRESNO CA 93726		
Solicitor I.D.:	C010		

STATE OF CALIFORNIA  
COUNTY OF KERN

I AM A CITIZEN OF THE UNITED STATES AND A RESIDENT OF THE COUNTY AFORESAID: I AM OVER THE AGE OF EIGHTEEN YEARS, AND NOT A PARTY TO OR INTERESTED IN THE ABOVE ENTITLED MATTER. I AM THE ASSISTANT PRINCIPAL CLERK OF THE PRINTER OF THE BAKERSFIELD CALIFORNIAN, A NEWSPAPER OF GENERAL CIRCULATION, PRINTED AND PUBLISHED DAILY IN THE CITY OF BAKERSFIELD COUNTY OF KERN,

AND WHICH NEWSPAPER HAS BEEN ADJUDGED A NEWSPAPER OF GENERAL CIRCULATION BY THE SUPERIOR COURT OF THE COUNTY OF KERN, STATE OF CALIFORNIA, UNDER DATE OF FEBRUARY 5, 1952, CASE NUMBER 57610; THAT THE NOTICE, OF WHICH THE ANNEXED IS A PRINTED COPY, HAS BEEN PUBLISHED IN EACH REGULAR AND ENTIRE ISSUE OF SAID NEWSPAPER AND NOT IN ANY SUPPLEMENT THEREOF ON THE FOLLOWING DATES, TO WIT:

11/15

ALL IN THE YEAR 2001

I CERTIFY (OR DECLARE) UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE AND CORRECT.

DATED AT BAKERSFIELD CALIFORNIA

First Text  
NOTICE OF PRELIMINARY DECISION FOR THE P

Ad Number 601534

NOTICE OF PRELIMINARY DECISION FOR THE PROPOSED ISSUANCE OF EMISSION REDUCTION CREDITS

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Unified Air Pollution Control District solicits public comment on the proposed issuance of Emission Reduction Credits (ERCs) to Chevron USA Production Company for the shutdown of three 650 bhp gas-fired I.C. engines, at the 177 Gas Plant near McKittrick, CA. The quantity of ERCs proposed for banking is 26,290 pounds per year of nitrogen oxides.

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**RECEIVED**

NOV 28 2001

SAN JOAQUIN VALLEY UNIFIED  
APCD-SOUTHERN REGION

To: SAN JOAQUIN VALLEY A From: Bakersfield Californian 11/09/01 11:44am Page: 001

The Bakersfield Californian  
1707 Eye Street  
Bakersfield, CA 93301

Date: 11/9/01 11:40:18AM

To: SAN JOAQUIN VALLEY A.P.C.D.  
Phone: 559-230-6000  
Fax: 559-230-6061

From: Elaine Paul  
Phone: 661-395-7243  
Fax: 661-395-7540

11/9/01

Customer Information  
SAN JOAQUIN VALLEY A.P.C.D.  
1990 E GETTYSBURG  
FRED BATES  
PRESNO, CA 93726

*Attn: Stephens Leonard*

Here is a proof of your ad. Please check the ad carefully and call with any corrections.

Notes:

Ad Information:

This ad will run in Classification: Legal Notices  
Ad Depth in Lines: 33  
Total Price: \$52.47  
Ad Number: 601534

This Ad will run in the following paper(s)  
Non-Publishing Publication  
Run Dates: 11/15/01  
The Bakersfield Californian  
Run Dates: 11/15/01

This Fax is Magnified: 2 X

RECEIVED

NOV 9 2001

SAN JOAQUIN VALLEY UNIFIED  
APCD-SOUTHERN REGION

**NOTICE OF PRELIMINARY  
DECISION FOR THE PROPOSED  
ISSUANCE OF EMISSION  
REDUCTION CREDITS**

NOTICE IS HEREDY GIVEN that the San Joaquin Valley Unified Air Pollution Control District solicits public comment on the proposed issuance of Emission Reduction Credits (ERCs) to Chevron USA Production Company for the shutdown of three 650 bhp gas-fired I.C. engines, at the 17Z Gas Plant near McKittrick, CA. The quantity of ERCs proposed for banking is 26,290 pounds per year of nitrogen oxides.

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November 15, 2001 (#601534)



San Joaquin Valley  
Air Pollution Control District

[DATE TO BE SENT]

W. A. Brommelsiek  
Chevron USA Production Company  
PO Box 1392  
Bakersfield, CA 93302

**Re: Notice of Preliminary Decision - Emission Reduction Credits**  
**Project Number: S-1010702**

Dear Mr. Brommelsiek:

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Sincerely,

**DRAFT**

Seyed Sadredin  
Director of Permit Services

SS:spl  
Enclosures  
c: Thomas Goff, Permit Services Manager

David L. Crow  
Executive Director/Air Pollution Control Officer

---

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[www.valleyair.org](http://www.valleyair.org)

Southern Region Office  
2700 M Street, Suite 275  
Bakersfield, CA 93301-2373  
(661) 326-6900 • FAX (661) 326-6985



San Joaquin Valley  
Air Pollution Control District

[DATE TO BE SENT]

Mike Tollstrup, Chief  
Project Assessment Branch  
Stationary Source Division  
California Air Resources Board  
PO Box 2815  
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David E. Crow  
Executive Director/Air Pollution Control Officer

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San Joaquin Valley  
Air Pollution Control District

[DATE TO BE SENT]

Gerardo C. Rios (AIR 3)  
Acting Chief, Permits Office  
Air Division  
U.S. E.P.A. - Region IX  
75 Hawthorne Street  
San Francisco, CA 94105

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c: Thomas Goff, Permit Services Manager

David L. Crow  
Executive Director/Air Pollution Control Officer

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EMISSION REDUCTION CREDITS**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Unified Air Pollution Control District solicits public comment on the proposed issuance of Emission Reduction Credits (ERCs) to Chevron USA Production Company for the shutdown of three 650 bhp gas-fired I.C. engines, at the 17Z Gas Plant near McKittrick, CA.. The quantity of ERCs proposed for banking is 26,290 pounds per year of nitrogen oxides.

The analysis of the regulatory basis for these proposed actions, Project #S-1010702, is available for public inspection at the District office at the address below. Written comments on this project must be submitted within 30 days of the publication date of this notice to **SEYED SADREDIN, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 2700 'M' STREET SUITE 275, BAKERSFIELD, CA 93301.**

NORTHERN REGION

CENTRAL REGION

SOUTHERN REGION

## ERC/PUBLIC NOTICE CHECK LIST

PROJECT #s: S-1010702

MODEM FILE NAME: s0049, 1010702 PBC

√ √  
REQST. COMPL.

— — ERC TRANSFER OF PREVIOUSLY BANKED CREDITS  
√ — ERC PRELIMINARY PUBLIC NOTICE  
— — ERC FINAL PUBLIC NOTICE  
— — NSR/CEQA PRELIMINARY PUBLIC NOTICE  
— — NSR/CEQA FINAL PUBLIC NOTICE

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### ENCLOSED DOCUMENTS REQUIRE:

— — Enter Correct Date, Print All Documents from Modemed File and Obtain Directors Signature

√ — Send **PRELIMINARY** Notice Letters to CARB, EPA and Applicant;  
Including the Following Attachments:  
    √ Application Evaluation  
    √ Other Public Notice

√ — Send **PRELIMINARY** Public Notice for Publication to Bakersfield Californian

√ — Send Signed Copies of **PRELIMINARY** Notice Letters to Regional Office  
Attn: Stephen Leonard

— — Director's Signature and District Seal Embossed on ERC Certificates

— — Director's Signature on Cover Letter and Mail Cover Letter & ERC  
Certificates by Certified Mail to:  
    — Applicant:  
    — Applicant and Additional Addressees (see cover letters)  
    — Other

— — Send Copies of Signed and Seal Embossed ERC Certificates and Signed  
cover letter to Regional Office Attn:

— — Other Special Instructions (please specify): \_\_\_\_\_

Date Completed [DATE COMPLETED] /By [SELECT SUPERVISOR]

---

Date Added to Seyed Directory:

Upon Completion FAX to Regional Office Attn:

**Chevron U.S.A. Production Company**  
San Joaquin Valley Business Unit  
P. O. Box 1392  
Bakersfield, CA 93302  
Tel 661-633-4455  
Fax 661-633-4450  
wbro@chevron.com

**W. A. Brommelsiek**  
Health, Environment, and Safety Manager

October 23, 2001

**ChevronTexaco**

Mr. Stephen Leonard  
Senior Air Quality Engineer  
San Joaquin Valley Air Pollution Control District  
2700 "M" Street, Suite 275  
Bakersfield, CA 93301

**RECEIVED**

**OCT 24 2001**

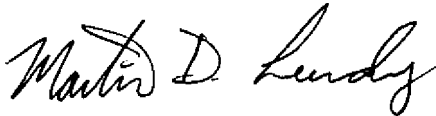
SAN JOAQUIN VALLEY UNIFIED  
APCD-SOUTHERN REGION

Dear Mr. Leonard,

Attached please find the fuel data from March 1999 through April 2001 for the 17Z Gas Plant Engines as you requested to complete the ERC application. Additionally, a sample of the 17Z Gas Plant Fired Equipment Run Logs are attached for your information.

Please contact Martin Lundy at (661) 633-4458 if you have any questions. Thank you for your patience in this matter.

Sincerely,



W. A. Brommelsiek

Attachments

### Fuel Usage for K-1A (S-49-3)

Month	Fuel Meter Reading (MCF)		
	g of Month	End of Month	Total
Apr-99	23,625	26,647	3,022
May-99	26,647	29,801	3,154
Jun-99	29,801	33,152	3,351
Jul-99	33,152	36,211	3,059
Aug-99	36,211	39,478	3,267
Sep-99	39,478	42,972	3,494
Oct-99	42,972	46,460	3,488
Nov-99	46,460	49,788	3,328
Dec-99	49,788	52,929	3,141
Jan-00	52,929	56,386	3,457
Feb-00	56,386	59,517	3,131
Mar-00	59,517	63,029	3,512
Apr-00	63,029	66,368	3,339
May-00	66,368	69,901	3,533
Jun-00	69,901	72,732	2,831
Jul-00	72,732	75,473	2,741
Aug-00	75,473	78,834	3,361
Sep-00	78,834	81,818	2,984
Oct-00	81,818	85,100	3,282
Nov-00	85,100	87,607	2,507
Dec-00	87,607	89,102	1,495
Jan-01	89,102	89,143	41
Feb-01	89,143	90,047	904
Mar-01	90,047	91,752	1,705

### Fuel Usage for K-1B (S-49-4)

Month	Fuel Meter Reading (MCF)		
	Beginning of Month	End of Month	Total
Apr-99	19,551	22,090	2,539
May-99	22,090	24,636	2,546
Jun-99	24,636	27,540	2,904
Jul-99	27,540	30,177	2,637
Aug-99	30,177	33,233	3,056
Sep-99	33,233	36,181	2,948
Oct-99	36,181	39,134	2,953
Nov-99	39,134	42,037	2,903
Dec-99	42,037	44,583	2,546
Jan-00	44,583	47,585	3,002
Feb-00	47,585	49,604	2,019
Mar-00	49,604	52,462	2,858
Apr-00	52,462	56,004	3,542
May-00	56,004	59,155	3,151
Jun-00	59,155	61,507	2,352
Jul-00	61,507	63,949	2,442
Aug-00	63,949	66,738	2,789
Sep-00	66,738	69,451	2,713
Oct-00	69,451	72,213	2,762
Nov-00	72,213	74,183	1,970
Dec-00	74,183	76,040	1,857
Jan-01	76,040	78,383	2,343
Feb-01	78,383	80,389	2,006
Mar-01	80,389	82,679	2,290

## Fuel Usage for K-1C (S-49-5)

Month	Fuel Meter Reading (MCF)		
	Beginning of Month	End of Month	Total
Apr-99	23,073	25,765	2,692
May-99	25,765	28,793	3,028
Jun-99	28,793	31,964	3,171
Jul-99	31,964	34,554	2,590
Aug-99	34,554	38,053	3,499
Sep-99	38,053	41,265	3,212
Oct-99	41,265	44,505	3,240
Nov-99	44,505	47,600	3,095
Dec-99	47,600	50,664	3,064
Jan-00	50,664	53,965	3,301
Feb-00	53,965	56,853	2,888
Mar-00	56,853	60,100	3,247
Apr-00	60,100	63,281	3,181
May-00	63,281	66,787	3,506
Jun-00	66,787	69,437	2,650
Jul-00	69,437	72,041	2,604
Aug-00	72,041	75,186	3,145
Sep-00	75,186	78,258	3,072
Oct-00	78,258	81,410	3,152
Nov-00	81,410	84,184	2,774
Dec-00	84,184	85,804	1,620
Jan-01	85,804	88,464	2,660
Feb-01	88,464	90,106	1,642
Mar-01	90,106	92,371	2,265

# 17Z Gas Plant Fired Equipment Run Log

Date: S-1-99

Day Operator C. A. ZAMES  
Night Operator D. SMITH

### Compressors

Shift	Equipment	Speed	Discharge Temps				Comp Oil Press	Wtr Temp	Eng Oil Press	Eng Oil Temp	Turbo Int.	Turbo Dischg	Cat. In	Fuel Prev. Read	Fuel Today Read	Fuel Burned	Hours On	Hours Off
			#1	#2	#3	#4												
Day	K1A	900	150	160	165	160	42	160	48	160	49	54		21647	22622	115	12	0
	K1B	899	135	140	75	150	38	170	48	165	50	52		22090	22191	101	12	0
	K1C	902	140	150	80	140	53	165	50	170	54	56		25765	25860	115	12	0
	17Z UC 11	360					53	150	50	120				60	57	57	24	0
	17Z P108					DOWN										0	0	24
	17Z UC 12	320	225	235	260		46	145	48	130				56	52	52	24	0
	8Z NEMU #1		220	220	225	218	40	106									24	0
	8Z NEMU #2				DOWN												0	24
Night	K1A	905	165	170	75	170	40	160	45	160	54	50					12	0
	K1B	900	150	145	75	170	35	170	44	165	52	50					12	0
	K1C	903	165	155	85	150	55	165	47	168	56	54					12	0

### K Units Refrigeration

Shift	Equipment	1st Stg		2nd Stg		Ethane		Ethane		
		1st Stg Temp	1st Stg Intake Press	1st Stg Dischg Press	2nd Stg Temp	2nd Stg Intake Press	2nd Stg Dischg Press	Ethane Int Press	Ethane Dischg Press	
Day	K Units		8	45		45	135		198	465
Night	K Units		8	40		40	135		198	465

### Furnace - Reboiler - Emergency Generator

Shift	Equipment	Fuel Prev. Read	Fuel Today Read	Fuel Burned	Hours On	Hours Off
K-8					0	24
K-2	7577	7607	30	24	0	

### Circulating Pumps

Shift	Equipment	Engine Oil		Ren Flow	Mtr Eng.	Pump Oil		Cool. Wtr. Level	Cat. Temp.	O2 Sensor	Fuel Prev. Read	Fuel Today Read	Fuel Burned	Hours On	Hours Off
		Press	Temp			Oil	Oil								
Day	P-3													0	24
	P-2													0	24
	P-10A	45	130	14"	4030						34158	34197	39	12	0
	P-10B	45	145	15"	9704						64778	64816	38	12	0
	P-10C	45	140	15"	1024						10175	10215	40	12	0
Night	P-3														
	P-2														
	P-10A	45	130	14"	4031.0									12	0
	P-10B	47	150	14"	9704.4									12	0
	P-10C	47	140	15"	1024.9									12	0

### Fire Pumps

Fire #	Hours On	Hours Off
Fire #2	0	24

Remarks \_\_\_\_\_



# 17Z Gas Plant Fired Equipment Run Log

Date: 5-31-99

Day Operator OLLIE  
Night Operator CAZARES

### Compressors

Shift	Equipment	Discharge Temps				Comp Oil Press	Wtr Temp	Eng Oil Press	Eng Oil Temp	Turbo Int.	Turbo Dischg	Cat. In	Fuel Prev. Read	Fuel Today Read	Fuel Burned	Hours On	Hours Off
		#1	#2	#3	#4												
Day	K1A	DOWN															
	K1B	887	155	160	90	175	35	165	49	160	53	52	2975	2980	50	0	12
	K1C	880	150	170	90	160	50	165	49	170	56	54	2455	2463	83	12	0
	17Z UC 11	880	150	170	90	160	50	165	49	170	56	54	28762	28793	91	12	0
	17Z P108	351	250	255	185	250	50	180	50	180			64	63	63	24	0
	17Z UC 12	DOWN															
	8Z NEMU #1	ELECT	212	218	218	218	40									24	0
	8Z NEMU #2	5AB	250	250	240	240	40	160	40				47	48	48	24	0
Night	K1A	DOWN														0	12
	K1B	887	155	160	90	170	35	165	49	160	53	52				12	0
	K1C	880	150	170	90	160	50	165	49	170	56	54				12	0

### K Units Refridgeration

Shift	Equipment	1st Stg		2nd Stg		Ethane Int Press	Ethane Dischg Press
		1st Stg Intake Temp	1st Stg Dischg Press	2nd Stg Intake Temp	2nd Stg Dischg Press		
Day	K Units	30	44	44	135	200	465
Night	K Units	30	44	44	135	203	465

### Furnace - Reboiler - Emergency Generator

Shift	Equipment	Fuel Prev. Read	Fuel Today Read	Fuel Burned	Hours On	Hours Off
	K-8	0	0	0	0	24
	K-2	8435	8461	26	24	0

### Circulating Pumps

Shift	Equipment	Engine Oil		Ren Flow	Pump Oil	Pump Cool. Level	Cat. Temp.	O2 Sensor	Fuel Prev. Read	Fuel Today Read	Fuel Burned	Hours On	Hours Off	
		Press	Temp											
Day	P-3	ELECT ON												12
	P-2	ELECT ON												12
	P-10A	45	130	14	4084	=	=	=	35242	35275	33	12	0	
	P-10B	49	160	15	970B	=	=	=	15952	15990	38	12	0	
	P-10C	48	145	16	1642	=	=	=	19459	19485	36	12	0	
Night	P-3	ELECT ON												0
	P-2	ELECT ON												0
	P-10A	45	130	14	=	=	=	=				12	0	
	P-10B	49	160	15	=	=	=	=				12	0	
	P-10C	48	130	15	=	=	=	=				12	0	

### Fire Pumps

Fire #	Hours On	Hours Off
	Fire #1	0
Fire #2	0	24

Remarks \_\_\_\_\_

# 17Z Gas Plant Fired Equipment Run Log

Date: 6-1-99

Day Operator OLLIE  
Night Operator \_\_\_\_\_

### Compressors

Shift	Equipment	Speed	Discharge Temps				Comp Oil Press	Wtr Temp	Eng Oil Press	Eng Oil Temp	Turbo Int.	Turbo Dischg	Cat. In	Fuel Prev. Read	Fuel Today Read	Fuel Burned	Hours On	Hours Off
			#1	#2	#3	#4												
Day	K1A		DOWN											29801	29815	14	5	9
	K1B	913	125	155	110	125	35	165	49	165	52	52		24636	24711	95	12	0
	K1C	940	175	220	90	260	50	165	49	170	56	54		28793	28896	105	12	0
	17Z UC 11	392	215	210	225	280	50	170	50	120				63	63	63	24	0
	17Z P108																0	24
	17Z UC 12																0	24
	8Z NEMU #1																0	24
	8Z NEMU #2																0	24
Night	K1A																12	0
	K1B	900	170	150	80	170	39	160	45	155	56	51					12	0
	K1C	915	175	160	80	180	50	160	50	120	36	34					12	0

### K Units Refrigeration

Shift	Equipment	1st Stg		2nd Stg		Ethane		Ethane	
		Intake Temp	Dischg Press	Intake Temp	Dischg Press	Intake Press	Dischg Press	Intake Temp	Dischg Press
Day	K Units	28	42	42	135	195	155		
Night	K Units	18	38	38	135	195	155		

### Furnace - Reboiler - Emergency Generator

Shift	Equipment	Fuel Prev. Read	Fuel Today Read	Fuel Burned	Hours On	Hours Off
K-8				5	0	24
K-2	841	8482	27	24	0	

### Circulating Pumps

Shift	Equipment	Engine		Ren Vac.	Pump	Pump Wtr. Level	Cat. Temp.	O2 Sensor	Fuel Prev. Read	Fuel Today Read	Fuel Burned	Hours On	Hours Off
		Oil Press	Engine Temp										
Day	P-3											0	12
	P-2											0	12
	P-10A	46	135	14	4088				15225	15227	35	12	0
	P-10B	48	160	15	9708				15990	16026	36	12	0
	P-10C	47	150	15	1042				19495	1951	36	12	0
Night	P-3											0	12
	P-2											0	12
	P-10A	46	135	14								12	0
	P-10B	48	160	15								12	0
	P-10C	47	150	15								12	0

### Fire Pumps

Fire #	Hours On	Hours Off
	Fire #1	0
Fire #2	0	24

Remarks \_\_\_\_\_

# 17Z Gas Plant Fired Equipment Log

Date: 6-30-99

Day Operator: BRUNNENBERG  
Night Operator: BANUELOS

## Compressors

Shift	Equipment	Speed	Discharge Temperatures				Comp Oil Press	Water Temp	Eng Oil Press	Eng Oil Temp	Turbo Int.	Turbo Dischg	Cat. In	Cat. Out	Fuel Prev. Read	Fuel Today Read	Fuel Used	Hours On	Hours Off
			#1	#2	#3	#4													
Day	K1A	921	185	185	85	185	35	175	45	165	50	40			33677	33152	73	12	0
	K1B	950	190	175	100	200	25	180	50	170	50	40			27470	27540	70	12	0
	K1C	950	180	190	100	180	50	180	50	180	52	38			31883	31764	81	12	0
	17Z UC 11	377	265	265	275	280	15	190	50	145					67.8	63.5	67.8	24	0
	17Z P108	DN																0	24
	17Z UC 12	310	250	280	300		50		50						33.6	52.8	35.6	24	0
	8Z NEMU #1		210	245	230	240												24	0
Night	K1A	950	175	170	80	170	35	170	45	160	54	49							
	K1B	960	170	175	90	180	25	175	50	170	52	51							
	K1C	970	170	175	90	175	50	175	50	180	54	50							

## K Units Refrigeration Furnace-Glycol Reboiler-Utility Generator

Shift	Equipment	1st Stg		2nd Stg		Ethane		Ethane		Fuel Prev. Read	Fuel Today Read	Fuel Used	Hours On	Hours Off	O2 Sensor	
		1st Stg Intake Temp	1st Stg Intake Press	1st Stg Disch. Press	2nd Stg Intake Temp	2nd Stg Intake Press	2nd Stg Disch. Press	Ethane Int Temp	Ethane Disch. Press							
Day	K Units		24	50	50	140	80	200	460	F-1	543	481.7	545	24	0	118
Night	K Units		14	44	68	44	130	64	198	K-2	9330	9362	32	24	0	
										K-8	DN			0	24	

## Circulating Pumps Fire Pumps

Shift	Equipment	Engine		Ren Flow Mtr	Pump Eng. Oil	Pump Cool.		Cat. Temp.	O2 Sensor	Fuel Prev. Read	Fuel Today Read	Fuel Used	Hours On	Hours Off	Seals ok?	Hours On	Hours Off
		Oil Press	Water Temp			Water Level	Water Level										
Day	P-3												0	12	✓		
	P-2												0	12	✓		
	P-10A	45	160	12	4161	✓	✓	✓	977	917	36933	36977	44	12	✓		
	P-10B	53	180	15	9712	✓	✓	✓	867	883	17101	17142	41	12	✓		
	P-10C	45	160	14	10885	✓	✓	✓	1012	906	20624	20670	46	12	✓		
Night	P-3												0	12	✓		
	P-2												0	12	✓		
	P-10A	45	150	12		✓	✓	✓	961	912			12	0	✓		
	P-10B	52	175	14		✓	✓	✓	874	885			12	0	✓		
	P-10C	45	160	14		✓	✓	✓	1028	907			12	0	✓		

Fire #1 0 24  
Fire #2 0 24

Remarks

68

## Stephen Leonard

---

**From:** Lundy, Martin (MLUN) [MLUN@chevrontexaco.com]  
**Sent:** Tuesday, October 23, 2001 2:19 PM  
**To:** 'steve.leonard@valleyair.org'  
**Subject:** 17Z Fuel Data



17Z Gas Plant Monthly  
Fuel.xls...

As promised (albeit a long time ago), here is the electronic copy of the data. I input it myself into the spreadsheet, so if there's anyone to blame for inputting errors, it is me. However, I was very careful, so hopefully there aren't any problems. I'll forward paper copies and a sample of the data sheets that I was getting the information from.

Please call me if you have any questions.

<<17Z Gas Plant Monthly Fuel.xls>>

Martin Lundy  
ChevronTexaco  
Chevron U.S.A. Production Company  
Environmental and Safety  
(661) 633-4458  
E-Mail: mlun@chevron.com

## Stephen Leonard

---

**From:** Lundy, Martin (MLUN) [MLUN@chevrontexaco.com]  
**Sent:** Friday, October 12, 2001 3:49 PM  
**To:** 'steve.leonard@valleyair.org'  
**Subject:** FW: title V

Steve,

I promise that the data is coming. I will get the information to you on October 22. I am out of the office next week.

Martin Lundy  
Chevron U.S.A. Production Company  
Environmental and Safety  
(661) 633-4458  
E-Mail: mlun@chevron.com

> -----Original Message-----

> From: Glendening, Leann (RLGL)  
> Sent: Friday, October 12, 2001 2:27 PM  
> To: Lundy, Martin (MLUN)  
> Subject: title V

>  
> Marty, it's taking me longer than I thought to copy. I'll finish them up  
> and put in the mail Monday before noon and you should get them in your  
> afternoon mail. Thanks.

>  
> Leann Glendening  
> Chevron Cymric Office  
> (661)392-4707

> All that I need He will always be,  
> All that I need till His face I see;  
> All that I need through eternity,  
> Jesus is all I need.

>

**TELEPHONE CONVERSATION**

**DATE: 8/16/01**

**TIME: 3:00 p**

**PROJECT: 1010702**

**WITH: Martin Lundy**

**TITLE: EH&S specialist**

**TELEPHONE NUMBER: 633-4458**

**COMPANY: Chevron**

**APCD REPRESENTATIVE: Stephen P. Leonard**

**TITLE: AQE II**

**SUBJECT OF CONVERSATION: Response to fuel use questions**

**SUMMARY OF CONVERSATION:**

Mr. Lundy called to say he received my faxes and he agrees that there are problems with the fuel use data as submitted. He will look into it.

**TELEPHONE CONVERSATION**

**DATE: 8/21/01**

**TIME: 2:00 p**

**PROJECT: 1010702**

**WITH: Martin Lundy**

**TITLE: EH&S specialist**

**TELEPHONE NUMBER: 633-4458**

**COMPANY: Chevron**

**APCD REPRESENTATIVE: Stephen P. Leonard**

**TITLE: AQE II**

**SUBJECT OF CONVERSATION: Response to fuel use questions**

**SUMMARY OF CONVERSATION:**

Mr. Lundy called to say that the readings taken of the fuel use may have been the "instantaneous" fuel use rate of the meter and when extrapolated to reflect the run time, it gives exaggerated values for fuel use. He will contact the accountants and 17Z gas plant personnel to see if there is some form of totalizing meter for the engines or a better way to extrapolate the data to reflect the actual daily use of the engines.

TELEPHONE CONVERSATION

DATE: 10/11/01 TIME: 2:00

PROJECT: 1010702

WITH: Martin Lundy

TITLE: AQS

TELEPHONE NUMBER: 633-4458

COMPANY: Chevron

APCD REPRESENTATIVE: Stephen P. Leonard

TITLE: AQE II

SUBJECT OF CONVERSATION: Fuel use records

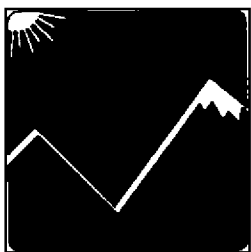
SUMMARY OF CONVERSATION:

Mr. Lundy said he ~~is~~ has reviewed fuel use records from totalizing meters for the three engines.

I asked if he can provide monthly records of fuel use.

He replied yes.





San Joaquin Valley  
Unified Air Pollution Control District

Southern Region - 2700 "M" Street, Suite 275, Bakersfield, California 93301  
Phone: (805) 862-5200 FAX: (805) 862-5201

# FAX TRANSMITTAL SHEET

Date: August 16, 2001

From: Stephen P. Leonard - Permit Services

To: Martin Lundy Chevron USA  
Name Company

Fax No.: 633-4423

Total Pages (including cover page): 7

Comments: **RE: 1999 Fuel use data for 650 bhp compressor engines at 17Z gas plant**

While reviewing the 1999 fuel use data associated with the 650 bhp compressor engines associated with ERC project 1010702, I have found instances where the reported amount of fuel consumed could not be burned in a 650 bhp engine in the run times reported, even when considering only 30% efficiency for IC engines. The following dates have questionable data:

**S-49-3**

7/16, 7/27, 7/30, 8/12, 9/3, 10/6, 12/16.

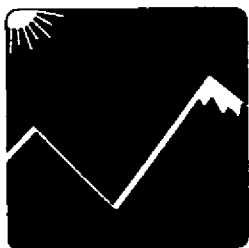
**S-49-4**

7/17, 8/13, 8/31, 11/30, 12/1, 12/31.

**S-49-5**

8/1, 8/2.

Please explain.



San Joaquin Valley  
Unified Air Pollution Control District

Southern Region - 2700 "M" Street, Suite 275, Bakersfield, California 93301  
Phone: (805) 862-5200 FAX: (805) 862-5201

# FAX TRANSMITTAL SHEET

Date: August 16, 2001

From: Stephen P. Leonard - Permit Services

To: Martin Lundy Chevron USA  
Name Company

Fax No.: 633-4423

Total Pages (including cover page): 18

Comments: **RE: 2000 Fuel use data for 650 bhp compressor engines at 17Z gas plant**

While reviewing the 2000 fuel use data associated with the 650 bhp compressor engines associated with ERC project 1010702, I have found instances where the reported amount of fuel consumed could not be burned in a 650 bhp engine in the run times reported, even when considering only 30% efficiency for IC engines. The following dates have questionable data:

**S-49-3**

2/27, 3/9, 4/19, 4/23, 4/26, 6/25, 7/9, 7/11, 7/14, 7/15, 7/16, 7/29, 7/31, 9/5, 9/27, 10/23, 10/29, 12/6, 12/18.

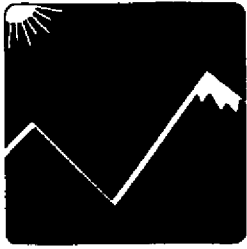
**S-49-4**

2/21, 3/9, 4/6, 4/7, 4/8, 4/9, 4/10, 4/11, 4/12, 4/13, 4/28, 5/2, 5/3, 5/4, 5/9, 7/10, 7/14, 7/15, 7/16, 7/18, 10/28, 11/24, 12/18.

**S-49-5**

2/19, 2/27, 3/9, 5/19, 5/20, 5/28, 6/9, 6/25, 7/10, 7/13, 7/20, 10/10.

Please explain.



San Joaquin Valley  
Unified Air Pollution Control District

Southern Region - 2700 "M" Street, Suite 275, Bakersfield, California 93301  
Phone: (805) 862-5200 FAX: (805) 862-5201

# FAX TRANSMITTAL SHEET

Date: August 16, 2001

From: Stephen P. Leonard - Permit Services

To: Martin Lundy Chevron USA  
Name Company

Fax No.: 633-4423

Total Pages (including cover page): 8

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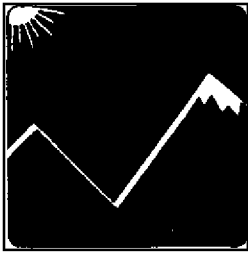
2/24, 2/27, 3/7, 3/10, 3/20, 3/21, 3/27, 4/1, 4/21, 4/26, 5/8,

**S-49-4**

2/1, 3/8, 3/19, 4/11, 4/16

**S-49-5**

1/10, 2/14, 2/23, 2/26, 2/28, 3/7, 4/6, 4/10



San Joaquin Valley  
Unified Air Pollution Control District

Southern Region - 2700 "M" Street, Suite 275, Bakersfield, California 93301  
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2/24, 2/27, 3/7, 3/10, 3/20, 3/21, 3/27, 4/1, 4/21, 4/26, 5/8,

**S-49-4**

2/1, 3/8, 3/19, 4/11, 4/16

**S-49-5**

1/10, 2/14, 2/23, 2/26, 2/28, 3/7, 4/6, 4/10

## Stephen Leonard

---

**From:** Lundy, Martin (MLUN) [MLUN@chevron.com]  
**Sent:** Monday, August 27, 2001 5:29 PM  
**To:** 'Stephen Leonard'  
**Subject:** RE: ERC project 1010702, 17Z gas plant

Thanks Steve. I met with the gas plant engineer today and will meet with the gas office assistant this week. There may be a master meter that we can reference for the plant. I will also confirm the fuel data from the hand written data sheets was entered correctly.

Martin Lundy  
Chevron U.S.A. Production Company  
Environmental and Safety  
(661) 633-4458  
E-Mail: mlun@chevron.com

> -----Original Message-----  
> From: Stephen Leonard [SMTP:Steve.Leonard@valleyair.org]  
> Sent: Monday, August 27, 2001 5:14 PM  
> To: 'mlun@chevron.com'  
> Subject: ERC project 1010702, 17Z gas plant  
>  
> I've finished the Application Review write-up for the 17Z Gas Plant  
> engines.  
> All I need now is to enter the historical actual emissions. Of course,  
> that  
> will take fuel use data.....  
>  
> To meet the District's timeline requirements for an ERC banking project,  
> this needs to go to public notice by October 1, 2001. Allowing 2 weeks  
> for  
> review that gives about three weeks to have good data entered and the  
> project submitted for review.  
>  
> Stephen P. Leonard  
> San Joaquin Valley Air  
> Pollution Control District  
> ph: (661) 326-6962  
> fax: (661) 326-6985  
> e-mail: steve.leonard@valleyair.org  
>

## Stephen Leonard

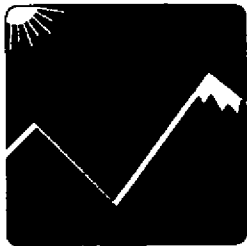
---

**From:** Stephen Leonard  
**Sent:** Monday, August 27, 2001 5:14 PM  
**To:** 'mlun@chevron.com'  
**Subject:** ERC project 1010702, 17Z gas plant

I've finished the Application Review write-up for the 17Z Gas Plant engines. All I need now is to enter the historical actual emissions. Of course, that will take fuel use data.....

To meet the District's timeline requirements for an ERC banking project, this needs to go to public notice by October 1, 2001. Allowing 2 weeks for review that gives about three weeks to have good data entered and the project submitted for review.

*Stephen P. Leonard*  
San Joaquin Valley Air  
Pollution Control District  
ph: (661) 326-6962  
fax: (661) 326-6985  
e-mail: [steve.leonard@valleyair.org](mailto:steve.leonard@valleyair.org)



San Joaquin Valley  
Unified Air Pollution Control District

Southern Region - 2700 "M" Street, Suite 275, Bakersfield, California 93301  
Phone: (805) 862-5200 FAX: (805) 862-5201

# FAX TRANSMITTAL SHEET

Date: August 16, 2000

From: Stephen P. Leonard - Permit Services

To: Martin Lundy Chevron USA  
Name Company

Fax No.: 633-4423

Total Pages (including cover page): 18

Comments: **RE: 2000 Fuel use data for 650 bhp compressor engines at 17Z gas plant**

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2/27, 3/9, 4/19, 4/23, 4/26, 6/25, 7/9, 7/11, 7/14, 7/15, 7/16, 7/29, 7/31, 9/5, 9/27, 10/23, 10/29, 12/6, 12/18.

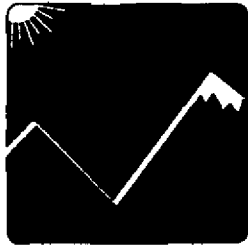
**S-49-4**

2/21, 3/9, 4/6, 4/7, 4/8, 4/9, 4/10, 4/11, 4/12, 4/13, 4/28, 5/2, 5/3, 5/4, 5/9, 7/10, 7/14, 7/15, 7/16, 7/18, 10/28, 11/24, 12/18.

**S-49-5**

2/19, 2/27, 3/9, 5/19, 5/20, 5/28, 6/9, 6/25, 7/10, 7/13, 7/20, 10/10.

Please explain.



San Joaquin Valley  
Unified Air Pollution Control District

Southern Region - 2700 "M" Street, Suite 275, Bakersfield, California 93301  
Phone: (805) 862-5200 FAX: (805) 862-5201

# FAX TRANSMITTAL SHEET

Date: August 16, 1999

From: Stephen P. Leonard - Permit Services

To: Martin Lundy Chevron USA  
Name Company

Fax No.: 633-4423

Total Pages (including cover page): 7

Comments: **RE: 1999 Fuel use data for 650 bhp compressor engines at 17Z gas plant**

While reviewing the 1999 fuel use data associated with the 650 bhp compressor engines associated with ERC project 1010702, I have found instances where the reported amount of fuel consumed could not be burned in a 650 bhp engine in the run times reported, even when considering only 30% efficiency for IC engines. The following dates have questionable data:

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7/16, 7/27, 7/30, 8/12, 9/3, 10/6, 12/16.

**S-49-4**

7/17, 8/13, 8/31, 11/30, 12/1, 12/31.

**S-49-5**

8/1, 8/2.

Please explain.





San Joaquin Valley  
Air Pollution Control District

September 20, 2001

**Certified Mail**

W. A. Brommelsiek, E & S Manager  
Chevron U.S.A. Production Company, Inc.  
P.O. Box 1392  
Bakersfield, CA 93302

**Re: Notice of Intent to Deny Application - Emission Reduction Credits  
Project Number: 1010702**

Dear Mr. Brommelsiek:

During processing of your application for Emission Reduction Credit (ERC) for the shutdown of three 650 bhp gas-fired I.C. engines at your 17Z Gas Plant near McKittrick, CA., the District identified discrepancies in the fuel use data submitted with your application (see attached August 16, 2001 fax correspondences). Although Chevron explained the discrepancy and indicated that corrected data would be submitted in a timely manner, the District has not received the requested information as of the date of this letter.

If the requested items are not received by the District within 15 days, this office may deny your application for ERC. Receipt of the requested information, however, will enable the District to proceed with the processing of your application.

Thank you for your cooperation in this matter. Should you have any questions, please contact Mr. Thomas Goff at (661) 326-6900.

Sincerely,

Seyed Sadredin  
Director of Permit Services

Thomas E. Goff, P.E.  
Permit Services Manager

spl  
Enclosures

David L. Crow  
Executive Director/Air Pollution Control Officer

---

Northern Region Office  
4230 Kiernan Avenue, Suite 130  
Modesto, CA 95356-9322  
(209) 557-6400 • FAX (209) 557-6475

Central Region Office  
1990 East Gettysburg Avenue  
Fresno, CA 93726-0244  
(559) 230-6000 • FAX (559) 230-6061  
[www.valleyair.org](http://www.valleyair.org)

Southern Region Office  
2700 M Street, Suite 275  
Bakersfield, CA 93301-2373  
(661) 326-6900 • FAX (661) 326-6985



First-Class Mail  
Postage & Fees Paid  
USPS  
Permit No. G-10

SPL 9/24/01 1010702

• Sender: Please print your name, address, and ZIP+4 in this box •

San Joaquin Valley Air Pollution Control District  
2700 M Street, Suite 276  
Bakersfield, CA 93301

RECEIVED

SEP 27 2001

SAN JOAQUIN UNIFIED  
APCD-SOUTHERN REGION

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

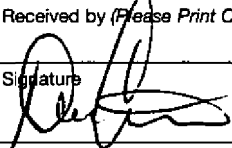
1. Article Addressed to:  
 WA Brommelsiek  
 E+S Manager  
 Chevron USA Prod Co  
 PO Box 1392  
 Bakersfield, CA  
 93302

2. Article Number (Copy from service label)  
 7099 3400 0007 5007 6492

PS Form 3811, July 1999

**COMPLETE THIS SECTION ON DELIVERY**

A. Received by (Please Print Clearly) \_\_\_\_\_ B. Date of Delivery 9/20/01

C. Signature   Agent  
 Addressee

D. Is delivery address different from item 1?  Yes  
 If YES, enter delivery address below:  No

3. Service Type  
 Certified Mail  Express Mail  
 Registered  Return Receipt for Merchandise  
 Insured Mail  C.O.D.

4. Restricted Delivery? (Extra Fee)  Yes

7099 3400 0007 5007 6492

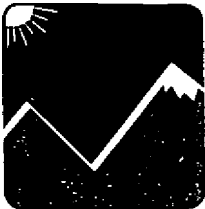
**U.S. Postal Service**  
**CERTIFIED MAIL RECEIPT**  
(Domestic Mail Only; No Insurance Coverage Provided)

Article Sent To:  
SPL 9/24/01 1010702

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
<b>Total Postage &amp; Fees</b>	<b>\$</b>

Postmark Here

Name (Please Print Clearly) (to be completed by mailer)  
 WA Brommelsiek  
 Street, Apt. No., or PO Box No.  
 Chevron  
 City, State, ZIP+4



San Joaquin Valley  
Air Pollution Control District

August 1, 2001

W. A. Brommelsiek, E & S Manager  
Chevron U.S.A. Production Company, Inc.  
P.O. Box 1392  
Bakersfield, CA 93302

**Re: Notice of Receipt of Complete Application - Emission Reduction Credits  
Project Number: 1010702**

Dear Mr. Brommelsiek:

The District has completed a preliminary review of your application for Emission Reduction Credits (ERCs) resulting from the shutdown of three 650 bhp gas-fired I.C. engines at your 17Z Gas Plant near McKittrick, CA.

Based on this preliminary review, the application appears to be complete. However, during processing of your application, the District may request additional information to clarify, correct, or otherwise supplement, the information on file.

Pursuant to District Rule 3010, section 3.0, your application may be subject to an hourly Engineering Evaluation Fee. If the applicable fees exceed the submitted application filing fee, the District will notify you at the conclusion of our review.

Thank you for your cooperation. Should you have any questions, please contact Mr. Thomas Goff at (661) 362-6900.

Sincerely,

Seyed Sadredin  
Director of Permit Services

  
Thomas E. Goff, P.E.  
Permit Services Manager

spl

David L. Crow  
Executive Director/Air Pollution Control Officer

---

Northern Region Office  
4230 Kiernan Avenue, Suite 130  
Modesto, CA 95356-9322  
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Southern Region Office  
2700 M Street, Suite 275  
Bakersfield, CA 93301-2373  
(661) 326-6900 • FAX (661) 326-6985



**Chevron**

**Chevron U.S.A. Production Company**  
P.O. Box 1392  
Bakersfield, CA 93302

July 18, 2001

**William A. Brommelsiek**  
Manager - Health, Environmental & Safety  
San Joaquin Valley Business Unit  
Phone 661 633 4455

Mr. Tom Goff, Permit Services Manager  
San Joaquin Valley Air Pollution Control District  
2700 M. Street, Suite 275  
Bakersfield, California 93301

Re: Application for ERCs from 17Z Gas Plant Engines K1-A, B, and C

Dear Mr. Goff:

Enclosed is an application for Emission Reduction Credits for NOx emissions from three natural gas fired I.C. engines that were taken out of service at Chevron's 17Z Gas Plant prior to the final Rule 4701 compliance date. Also enclosed is a check in the amount of \$650.00 in payment of the District's filing fee.

Subsection 5.3 of Rule 4701 states that an engine taken out of service in lieu of compliance with the emission requirements of subsection 5.1.1 and 5.1.2 is not eligible to receive emission reduction credits (ERC). This subsection was carried over from previous versions of Rule 4701 (see attached amendments dated 10/20/94 and 3/16/95) which allowed facilities to operate engines uncontrolled until 5/31/99. Engines that were listed in the compliance plan to receive this compliance date extension were allowed to emit more than the limits in Section 5.2 (10/20/94 and 3/16/95 versions), but were required to be permanently removed from service by May 31, 1999. Our understanding was that the intent of subsection 5.3 was to prevent facilities from getting ERCs for equipment that received this compliance date extension from the requirements in subsection 5.2.

The 17Z Gas Plant engines (SJVAPCD Nos. S-49-3, S-49-4, and S-49-5) were in compliance with the Section 5.1.2 (12/19/96 version) limits before May 31, 1995; therefore, these engines did not receive the compliance date extension. Since they were not taken out of service to comply with subsections 5.1.1 and 5.1.2 (12/19/96 version), Chevron believes these engines are eligible for emissions reduction credits. Because they had already met those RACT limits, they were subsequently scheduled to comply with the Section 5.1.3 (12/19/96 version) BARCT limits by May 31, 2001.

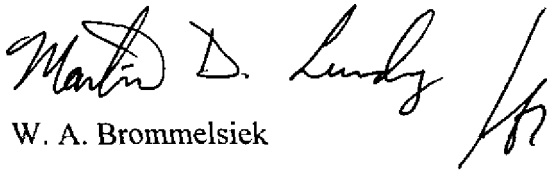
Application for ERCs from Gas Plant Engines K1-A, B, and C  
July 18, 2001

Originally, these engines were scheduled to be retrofitted with air/fuel ratio controllers to comply with Section 5.1.3. After a careful analysis, it was determined that the engines would be replaced by electric motors due to operational reliability and lower maintenance costs instead of retrofitting the engines with the air/fuel ratio controllers.

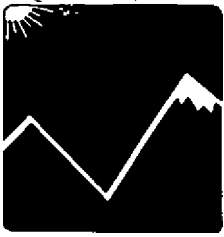
Chevron is applying for ERCs at the Best Available Retrofit Control Technology (BARCT) emission rate of 75 ppmv at 15% O<sub>2</sub> for lean burn engines as specified in Rule 4701, subsection 5.1.3 (Table 3) effective May 31, 2001.

Please contact Martin Lundy at (661) 633-4458 or Bob Langner (WZI Inc.) at (661) 633-4064 if you have any questions.

Sincerely,

  
W. A. Brommelsiek

Enclosure



# San Joaquin Valley Unified Air Pollution Control District

5-1605-2

RECEIVED

**APPLICATION FOR:**

**JUL 19 2001**

- EMISSION REDUCTION CREDIT (ERC)  
 CONSOLIDATION OF ERC CERTIFICATES

- ERC WITHDRAWAL  
 ERC TRANSFER OF OWNERSHIP

SAN JOAQUIN VALLEY UNIFIED  
APCD - SOUTHERN REGION

**1. ERC TO BE ISSUED TO:**  
 CHEVRON U.S.A. PRODUCTION CO.

---

**2. MAILING ADDRESS:**  
 Street/P.O. Box: P.O. BOX 1392  
 City: BAKERSFIELD State: CA Zip Code: 93302

---

**3. LOCATION OF REDUCTION:**  
 Street: 17Z Gas Plant  
 City: \_\_\_\_\_  
NE /4 Section: 17 Township: 30S Range: 22E

**4. DATE OF REDUCTION:**  
 May 31, 2001

---

**5. PERMIT NO(S):** S-49-3, S-49-4, & S-49-5      **EXISTING ERC NO(S):**

---

**6. METHOD RESULTING IN EMISSION REDUCTION:**  
 SHUTDOWN       RETROFIT       PROCESS CHANGE       OTHER  
**DESCRIPTION:** Shut down of three natural gas fired I.C. "K" engines at Chevron's 17Z gas plant.  
 (Use additional sheets if necessary)

---

**7. REQUESTED ERC's (In Pounds Per Calendar Quarter):**

	VOC	NO <sub>x</sub>	CO	PM <sub>10</sub>	SO <sub>x</sub>	OTHER
1ST Quarter		5518				
2nd Quarter		4943				
3rd Quarter		5917				
4th Quarter		5962				

---

**9. SIGNATURE OF APPLICANT:** *Walter D. Lundy*      **TYPE OR PRINT TITLE OF APPLICANT:**  
 MANAGER, E&S

---

**10. TYPE OR PRINT NAME OF APPLICANT:** W.A. BROMMELSIEK      **DATE:** 7-19-01      **TELEPHONE NO:** (661) 633-4458

FOR APCD USE ONLY:

DATE STAMP <b>PAID</b> JUL 20 2001 SAN JOAQUIN VALLEY UNIFIED APCD - SOUTHERN REGION	<b>FILING FEE RECEIVED: \$</b> <u>650-</u>	PM 7/19 CK 21440599
	<b>DATE PAID:</b> <u>7/20/01</u>	
<b>PROJECT NO.:</b> <u>1010702</u>		<b>FACILITY ID.:</b> <u>5-49</u>

**SUPPLEMENTAL INFORMATION**

**APPLICATION FOR EMISSION REDUCTION CREDITS**

**Facility Name:** Chevron USA, Inc.  
17Z Gas Plant

**Mailing Address:** P.O. Box 1392  
Bakersfield, CA 93302

**Contact Name:** Martin Lundy (661) 633-4458

**Permit #:** S-49-3, -4, and -5

RECEIVED

JUL 19 2001

SAN JOAQUIN VALLEY UNIFIED  
APCD-SOUTHERN REGION

**I. SUMMARY**

Chevron USA Inc. is applying for Emission Reduction Credits (ERC) for oxides of nitrogen (NOx) resulting from the permanent shutdown of the three natural gas fired I.C. engines located its 17Z gas plant which were subject to Permits to Operate S-49-3, -4, and -5. Each of the engines was a 650 hp, natural gas fired, Waukesha lean burn engine driving a compressor.

The permits to operate were surrendered on May 31, 2001 (Attachment A). Subsection 5.3 of Rule 4701 states that an engine taken out of service in lieu of compliance with the emission requirements of subsection 5.1.1 and 5.1.2 is not eligible to receive emission reduction credits (ERC). This subsection was carried over from previous versions of Rule 4701 which allowed facilities to operate engines uncontrolled until 5/31/99. Engines that were listed in the compliance plan to receive this compliance date extension were allowed to emit more than the limits in Section 5.2 (10/20/94 and 3/16/95 versions), but were required to be permanently removed from service by May 31, 1999. Chevron believes that the intent of subsection 5.3 was to prevent facilities from getting ERCs for equipment that received this compliance date extension from the requirements of subsection 5.2.

The 17Z Gas Plant engines (SJVAPCD Nos. S-49-3, S-49-4, and S-49-5) were in compliance with the Section 5.1.2 (12/19/96 version) limits before May 31, 1995; therefore, these engines did not receive the compliance date extension. Since they were not taken out of service to comply with subsections 5.1.1 and 5.1.2 (12/19/96 version), Chevron believes these engines are eligible for emissions reduction credits.

Chevron is applying for ERCs at the Best Available Retrofit Control Technology (BARCT) emission rate of 75 ppmv at 15% O<sub>2</sub> for lean burn engines as specified in Rule 4701, subsection 5.1.3 effective May 31, 2001.

## II. APPLICABLE RULES

Rule 2201 – New and Modified Stationary Source Review (June 15, 1995)

Rule 2301 - Emission Reduction Credit Banking (December 17, 1992)

Rule 4701 - Internal Combustion Engines (November 12, 1998)

## III. LOCATION OF REDUCTION

The engines are located at Chevron's 17Z gas plant near the town of McKittrick. The gas plant is located in Section 17Z, T30S, R22E, MDBM.

## VII. ERC CALCULATIONS

Emissions have been quantified based on the amount of natural gas burned during the baseline period. The baseline period for this application is the previous eight calendar quarters. The three engines are identical and emissions are being quantified at the BARCT rate. Therefore, only one calculation has been performed for the combined fuel use of all three engines.

Each engine was equipped with a fuel meter. The fuel meters were read on a daily basis and the data was entered in a hand held electronic device and compiled in an Excel spreadsheet. The fuel use data is contained in Attachment B. The quarterly fuel use during the baseline period is summarized in the following table:

	1 <sup>st</sup> Qtr MMscf	2 <sup>nd</sup> Qtr MMscf	3 <sup>rd</sup> Qtr MMscf	4 <sup>th</sup> Qtr MMscf
S-49-3, -4, -5 (1999)			29.091	24.471
S-49-3, -4, -5 (2000)	26.012	27.798	26.042	21.006
S-49-3, -4, -5 (2001)	16.079	9.906		
TOTAL	42.091	37.704	55.133	45.477
Qtr Average	21.045	18.852	27.567	22.739

Rule 2201, section 6.5.2 states that Actual Emissions Reductions (AER) resulting from the shutdown of an emissions unit are equal to the Historical Actual Emissions (HAE) for the unit prior to shutdown. HAE is defined in Rule 2201, section 6.2.1 as, "... emissions having actually occurred based on source tests or calculated using actual fuel consumption..." AER as been calculated at the BARCT level of 75 ppmv NOx at 15% O<sub>2</sub> based on fuel used during the baseline period, fuel heating value and EPA F factor. The fuel heating value and EPA F factor were obtained from a fuel sample taken at Chevron's 17Z gas plant during a January 2000 source test a gas plant heater (Attachment C). The pertinent data is shown below:



Gross Calorific Value, Dry (Btu/scf)	1062.5	Aeros Laboratory ID 013100-04 (1/26/00)
EPA F-Factor at 60° F (dscf/MMBtu)	8514	Aeros Laboratory ID 013100-04 (1/26/00)

AER have been quantified for each quarter at the BARCT level as follows:

$$\text{Lb-NOx/Qtr} = (75/10^6) \times \text{MMscf/Qtr} \times \text{Btu/scf} \times (\text{dscf/MMBtu}) \times (46 \text{ lb/lb-mole}) \times (\text{lb-mole}/379.5 \text{ scf}) \times [20.9/((20.9-15))]$$

Sample Calculation - NOx 1<sup>st</sup> Qtr

$$\text{Lb-NOx/Qtr} = (75/10^6) \times 21.045 \text{ MMscf/Qtr} \times 1062.5 \text{ Btu/scf} \times (8514 \text{ dscf/MMBtu}) \times (46 \text{ lb/lb-mole}) \times (\text{lb-mole}/379.5 \text{ scf}) \times [20.9/((20.9-15))]$$

$$\text{Lb-NOx/Qtr} = 6,131$$

Per Rule 2201, Section 6.5, ERC certificates may be issued after a 10% air quality improvement deduction from the AER. The AER, air quality improvement deduction and amount of bankable ERCs are shown below:

	1 <sup>st</sup> Qtr (lb-NOx)	2 <sup>nd</sup> Qtr (lb-NOx)	3 <sup>rd</sup> Qtr (lb-NOx)	4 <sup>th</sup> Qtr (lb-NOx)
AER	6,131	5,492	6,574	6,624
Less 10% air quality improvement	613	549	657	662
Bankable ERC	5,518	4,943	5,917	5,962

**VIII. COMPLIANCE WITH RULES AND REGULATIONS**

**Rule 2201 - New and Modified Stationary Source Review**

The Actual Emission Reductions and amount of the Emission Reduction Credit certificates were calculated pursuant to the rule. Compliance is expected.

**Rule 2301 - Emission Reduction Credit Banking**

The calculated actual emission reductions are the result of the permanent shutdown of three natural gas fired I.C. engines. The Permits to Operate for the two engines were surrendered. Therefore, the resulting Emission Reduction Credits are real, permanent, quantifiable, surplus, and enforceable. Compliance with the rule is expected.

**Rule 4701 - Internal Combustion Engines**

This rule limits NOx and CO emissions from I.C. engines. The source test results indicate that the engines were operating in compliance with the rule.

*Supplemented 3/16/95*

**RULE 4701 STATIONARY INTERNAL COMBUSTION ENGINES - REASONABLY AVAILABLE CONTROL TECHNOLOGY (Adopted May 21, 1992; Amended December 17, 1992; Amended October 20, 1994; Amended March 16, 1995)**

**1.0 Purpose**

The purpose of this rule is to limit the emissions of nitrogen oxides (NO<sub>x</sub>) and carbon monoxide (CO) from stationary internal combustion engines.

**2.0 Applicability**

**2.1** The provisions of this rule are applicable to the following:

**2.1.1** Any natural gas fired stationary internal combustion engine in the Central and Western Kern County Fields that is rated at greater than 50 brake horsepower.

**2.1.2** Any gaseous, diesel, or other liquid-fueled stationary internal combustion engine that is:

**2.1.2.1** rated at greater than 50 brake horsepower, and

**2.1.2.2** part of a major NO<sub>x</sub> source, and

**2.1.2.3** located outside of the area west of Interstate Highway 5 in Fresno, Kern, or Kings county.

**2.2** The requirements of this rule shall not constitute applicable State Implementation Plan requirements pursuant to section 182(f) of the federal Clean Air Act for units located west of Interstate Highway 5 in Fresno, Kern, or Kings county. This section does not relieve owners/operators from complying with any applicable provision of this rule.

**3.0 Definitions**

**3.1 Cyclic Loaded Engine:** An engine that under normal operating conditions varies in shaft load by 40% or more of rated brake horsepower during recurrent periods of 30 seconds or less or is used to power an oil well reciprocating pump unit.

**3.2 Diesel Engine:** Any compression ignited internal combustion engine that is operated with an exhaust stream oxygen concentration of four (4) percent by volume, or greater without add-on controls.

**3.3 Gaseous Fuel:** Any fuel which is a gas at standard conditions including but not limited to natural gas, methane, ethane, propane, butane and liquified petroleum gas (LPG).

- 3.4 **Lean-Burn Engine:** Any gas spark ignited internal combustion engine that is operated with an exhaust stream oxygen concentration of four (4) percent by volume, or greater without add-on controls. Engines listed as lean-burn on their Permit to Operate (PTO) shall be considered lean-burn engines.
- 3.5 **Location:** Any single site at a building, structure, facility, or installation.
- 3.6 **Major NOx Source:** Any major source as defined in Rule 2201 (New and Modified Stationary Source Review Rule), with a potential to emit 50 tons or more per year of NOx.
- 3.7 **Portable Internal Combustion Engine:** An internal combustion engine that is not a stationary internal combustion engine as defined in section 3.0.
- 3.8 **Rated Brake Horsepower:** The continuous brake horsepower rating specified for the engine by the manufacturer and listed on the nameplate of the unit, regardless of any derating, unless limited by the engine's Permit to Operate (PTO).
- 3.9 **Rich-Burn Engine:** Any spark ignited internal combustion engine that is operated with an exhaust stream oxygen concentration of less than 4 percent by volume before add-on controls. For engines using a catalyst, the exhaust gas oxygen content shall be determined from the uncontrolled exhaust stream before the catalyst.
- 3.10 **Stationary Internal Combustion Engine (engine):** Any spark or compression ignited internal combustion engine that is attached to a foundation at a location or is portable and operated at the location for more than 12 consecutive months, not including engines used for self-propulsion.

#### 4.0 Exemptions

- 4.1 The provisions of this rule do not apply to engines used directly and exclusively for agricultural operations necessary for the growing of crops or raising of fowl or animals.
- 4.2 Except for the administrative requirements of section 6.5, the provisions of this rule shall not apply to:
  - 4.2.1 Emergency standby engines that are used exclusively for non-utility electric power generation or any other emergency engines as approved by the APCO that do not operate more than 200 hours per calendar year for non-emergency purposes and are not used in conjunction with any utility voluntary demand reduction program.

- 4.2.2 Engines used exclusively for fire fighting services and flood control.
- 4.2.3 Laboratory engines used in research and testing.
- 4.2.4 Engines operated for purposes of performance verification and testing.
- 4.2.5 Gas turbine engines.
- 4.2.6 Portable internal combustion engines.
- 4.2.7 Engines using other fuels during natural gas curtailment that are normally fired with natural gas fuel. This exemption is limited to 336 cumulative hours of operation per calendar year.

5.0 Requirements

5.1 The owner/operator of any stationary internal combustion engine shall not operate such engine under load in such a manner that results in emissions exceeding the following limits:

Engine Type	NOx	CO
Rich-Burn	9.5 g/bhp-hr or 640 ppmv	2000 ppmv
Lean-Burn	10.1 g/bhp-hr or 740 ppmv	2000 ppmv
Diesel Fired	9.6 g/bhp-hr or 700 ppmv	2000 ppmv

where: g/bhp-hr = grams per brake horsepower hour  
 Nox = oxides of nitrogen, calculated as equivalent NO<sub>2</sub>  
 CO = carbon monoxide  
 ppmv = parts per million by volume at 15% Oxygen on a dry basis.

5.2 Owners/operators of natural gas fired engines in the Central and Western Kern County Fields excluding cyclic loaded engines, and owners/operators of engines not meeting the NOx levels required in section 5.1 by May 31, 1995, shall not operate such engine under load in such a manner that results in emissions exceeding the following emission limits:

Engine Type	NOx (ppmv)	CO (ppmv)
Rich-Burn	90	2000
Lean-Burn	150	2000
Diesel Fired	600	2000

where: ppmv = parts per million by volume at 15% Oxygen on a dry basis  
 Nox = oxides of nitrogen, calculated as equivalent NO<sub>2</sub>  
 CO = carbon monoxide

Or,

5.2.1 for rich-burn engines, the exhaust NOx emission concentrations are reduced by at least 90% after add-on controls in the initial tests for engineering evaluation purposes after installation or replacement, and are maintained to reduce emissions by at least 80% thereafter;

5.2.2 for lean-burn engines, the exhaust NOx emission concentrations are reduced by at least 80% after add-on controls in the initial tests for engineering evaluation purposes after installation or replacement, and are maintained to reduce emissions by at least 70% thereafter;

5.2.3 for diesel fired engines, the exhaust NOx emission concentrations are reduced by at least 30% after add-on controls in the initial tests for engineering evaluation purposes after installation or replacement, and are maintained to reduce emissions by at least 20% thereafter.

5.3 In lieu of compliance with the emission limits of sections 5.1 or 5.2, an owner/operator of any internal combustion engine may elect to replace the engine with an electric motor or permanently remove it from service in accordance with the applicable compliance schedule specified in section 7.5. NOx emission reductions achieved by the electrification or shutdown of an engine shall not be available for emission reduction credit (ERC).

Emission measurements for engines using CEMs shall be averaged over not less than 15 consecutive minutes of engine operation.

## 5.4 Monitoring Equipment

The owner/operator of any engine subject to the provisions of this rule shall:

5.4.1 Install, operate and maintain controls as recommended by the emission control system supplier and as approved by the APCO to ensure compliance with the emission limitations of this rule; or

5.4.2 Use analytical equipment and procedures, as recommended by the APCO, maintained in good working order, which indicate:

5.4.2.1 For rich-burn engines:

5.4.2.1.1 exhaust gas NOx and CO emission concentrations;  
or

5.4.2.1.2 air to fuel ratio, or other parameter settings, within tolerance limits as recommended by the emission control system supplier and as approved by the APCO.

5.4.2.2 For lean-burn engines using an ammonia injection emission control system:

5.4.2.2.1 exhaust gas NOx concentration; or

5.4.2.2.2 flow rate of reducing liquids or gases added to the exhaust gases in the operation of catalyst NOx reduction systems or other parameter settings as specified by the emission control system supplier.

## 6.0 Administrative Requirements

### 6.1 Emission Control Plan

The owner/operator of any engine subject to the provisions of this rule shall submit to the APCO an emissions control plan of all actions to be taken to satisfy the requirements of section 5.0.

6.1.1 Such plan shall contain a list that provides the following for each stationary internal combustion engine:

6.1.1.1 Permit to Operate number

6.1.1.2 engine manufacturer

- 6.1.1.3 model designation
- 6.1.1.4 rated brake horsepower
- 6.1.1.5 type of fuel and type of ignition
- 6.1.1.6 combustion type: rich-burn or lean-burn

6.1.2 Such plan shall identify the type of emission controls to be applied to each engine, and a construction/removal schedule, or shall provide support documentation sufficient to demonstrate that the engine is in compliance with the emission limits of this rule.

## 6.2 Recordkeeping

The owner/operator of any stationary internal combustion engine subject to the provisions of this rule shall maintain an engine operating log that includes on a monthly basis, the total hours of operation and the type and quantity of fuel used. This information shall be maintained for a period of two years and submitted to the APCO upon request.

## 6.3 Compliance Testing

6.3.1 Except those engines utilizing Continuous Emission Monitoring systems (CEMs), the owner/operator of any stationary internal combustion engine subject to the provisions of this rule, shall demonstrate compliance with the requirements of Section 5.0 at least once every 8760 hours of operation. Test results submitted to the District from an engine that represent a group of engines in terms of rated brake horsepower, engine make and series, operational conditions, fuel used, and control method, shall satisfy these requirements, provided this group of engines is owned and operated by a single owner/operator. Selection of representative engines to be tested shall be approved in writing by the APCO prior to testing.

6.3.2 Engines utilizing Continuous Emission Monitoring systems (CEMs) shall demonstrate compliance with the requirements of section 5.0 at least once every 17,520 hours of operation.

## 6.4 Test Methods

Compliance with the requirements of section 5.0 shall be determined in accordance with the following test procedures:

- 6.4.1 Oxides of nitrogen- EPA Method 7E, or ARB Method 100.
- 6.4.2 Carbon monoxide- EPA Method 10, or ARB Method 100.
- 6.4.3 Stack gas oxygen- EPA Method 3 or 3A, or ARB Method 100.

## 6.5 Exempt engines

Any owner/operator claiming an exemption under section 4.2 shall:

6.5.1 submit support documentation identifying reasons for the exemption. Such documentation shall contain a list that provides the following for each stationary internal combustion engine:

- 6.5.1.1 Permit to Operate number
- 6.5.1.2 engine manufacturer
- 6.5.1.3 model designation
- 6.5.1.4 rated brake horsepower
- 6.5.1.5 type of fuel and type of ignition

6.5.2 maintain annual operating records and/or support documentation necessary to claim exemption. This information shall be maintained for two years and submitted to the APCO upon request.

6.5.3 Any owner/operator of an emergency standby engine claiming exemption under section 4.2.1, shall comply with the requirements of section 5.0 before resuming the operation of the engine on a routine, non-standby basis, and in accordance with the compliance schedule set in section 7.4.

## 7.0 Compliance Schedule

7.1 By March 20, 1995, owners/operators of engines subject to the provisions of this rule shall submit to the APCO an emission control plan pursuant to Section 6.1, or support documentation for each exempt engine, pursuant to Section 6.5.

7.2 Natural gas fired engines in Central and Western Kern County Fields excluding cyclic loaded engines:

7.2.1 Owners/operators of rich-burn engines rated at greater than 50 and less than 200 brake horsepower, and lean-burn engines rated at greater than 50 and less than 500 brake horsepower, shall comply with the following schedule:

7.2.1.1 By March 20, 1995, submit a complete application for an Authority to Construct (ATC) as necessary.

7.2.1.2 By December 31, 1995, demonstrate full compliance with the emission limits of Section 5.2.



- 7.2.2 Owners/operators of all other engines shall submit documentation demonstrating compliance with the emission limits of Section 5.2 by March 20, 1995.
- 7.3 Engines outside Central and Western Kern County Fields, liquid-fueled engines and LPG engines operating on those fuels on October 20, 1994 in Central and Western Kern County Fields, and cyclic loaded engines in the Central and Western Kern County Fields:
- 7.3.1 Owners/operators of engines complying with the emission limits of Section 5.1, shall meet the following schedule:
- 7.3.1.1 By March 20, 1995, submit a complete application for an Authority to Construct (ATC) as necessary.
- 7.3.1.2 By May 31, 1995, demonstrate full compliance with the requirements of this rule.
- 7.3.2 Owners/operators of engines complying with the emission limits of Section 5.2, shall meet the following schedule:
- 7.3.2.1 By May 31, 1995, submit a complete application for an Authority to Construct (ATC) for all modifications to meet the requirements of this rule.
- 7.3.2.2 By May 31, 1997, except for engines subject to section 7.3.2.3 shall demonstrate full compliance with the requirements of this rule.
- 7.3.2.3 By May 31, 1999, engines operated by a public water district, shall demonstrate full compliance with the requirements of this rule.
- 7.4 Any owner/operator of an engine which becomes subject to the emission limits of this rule through loss of exemption, shall:
- 7.4.1 Within 30 days from loss of exemption, submit a complete application for an Authority to Construct for all modifications to meet the requirements of this rule.
- 7.4.2 Within 12 months from loss of exemption, demonstrate full compliance with the requirements of this rule.

7.5 Any owner/operator who elects to replace an engine with an electric motor or remove it permanently from service as specified in section 5.3, shall:

7.5.1 submit a complete application for an Authority to Construct for conversion to electric power no later than May 31, 1997;

7.5.2 have the engine removed from service by May 31, 1999.

8.0 Alternative Emission Control

8.1 An owner/operator may achieve compliance with Section 5.2 by substituting equivalent  $\text{NO}_x$  emissions reductions obtained by controlling of existing engines at the same stationary source provided the applicant submits an Alternative Emission Control Plan that is enforceable by the District and receives approval in writing of such plan from the APCO prior to implementation.

8.2 Where emission reductions are to be accomplished through the use of a non-catalytic control device that will not degrade over the life of the device, compliance with Section 5.2.1 shall be demonstrated if the device can maintain emission reduction by at least 80 percent notwithstanding the control technology's inability to meet the initial 90 percent reduction required by such Section.

8.3 The Alternative Emission Control Plan shall:

8.3.1 Contain, as a minimum, in addition to requirements of Section 6.1 of this rule, all data, records, and other information necessary to determine eligibility of the engines for alternative emission control, including but not limited to:

8.3.1.1 list of engines subject to alternative emission control;

8.3.1.2 daily average and maximum hours of utilization for such engines; and

8.3.1.3 estimated emission level for such engines with and without  $\text{NO}_x$  emission controls.

8.3.2 Present the methodology for estimation of equivalency of emission reductions under the proposed Alternative Emission Control Plan as compared to either the emission reductions required by the applicable rules or to actual emission, whichever is less.

- 8.4 Demonstrate to the satisfaction of the APCO that the difference between the emissions allowable by existing regulations and any lower actual emissions will not be used to increase emissions from the same or another source.
- 8.5 Demonstrate that the permit units subject to the specified rule emission limitations are in compliance with or on an approved schedule for compliance with all applicable District rules.
- 8.6 Submit an updated or modified Alternative Emission Control Plan:
  - 8.6.1 Prior to modification of the engine(s) subject to alternative emission control; or
  - 8.6.2 When new or amended specified rules are adopted which regulate the emissions of any air contaminant from the engine(s) subject to alternative emission control.

RULE 4701 STATIONARY INTERNAL COMBUSTION ENGINES - REASONABLY AVAILABLE CONTROL TECHNOLOGY (Adopted May 21, 1992, Amended December 17, 1992, Amended October 20, 1994)

1.0 Purpose

The purpose of this rule is to limit the emissions of nitrogen oxides (NO<sub>x</sub>) and carbon monoxide (CO) from stationary internal combustion engines.

2.0 Applicability

The provisions of this rule are applicable to the following:

- 2.1 Any natural gas fired stationary internal combustion engine in the Central and Western Kern County Fields that is rated at greater than 50 brake horsepower, and
- 2.2 Any gaseous, diesel, or other liquid-fueled stationary internal combustion engine that is rated at greater than 50 brake horsepower, and part of a major NO<sub>x</sub> source.

3.0 Definitions

- 3.1 Cyclic Loaded Engine: An engine that under normal operating conditions varies in shaft load by 40% or more of rated brake horsepower during recurrent periods of 30 seconds or less or is used to power an oil well reciprocating pump unit.
- 3.2 Diesel Engine: Any compression ignited internal combustion engine that is operated with an exhaust stream oxygen concentration of four (4) percent by volume, or greater without add-on controls.
- 3.3 Gaseous Fuel: Any fuel which is a gas at standard conditions including but not limited to natural gas, methane, ethane, propane, butane and liquified petroleum gas (LPG).
- 3.4 Lean-Burn Engine: Any gas spark ignited internal combustion engine that is operated with an exhaust stream oxygen concentration of four (4) percent by volume, or greater without add-on controls. Engines listed as lean-burn on their Permit to Operate (PTO) shall be considered lean-burn engines.
- 3.5 Location: Any single site at a building, structure, facility, or installation.
- 3.6 Major NO<sub>x</sub> Source: Any major source as defined in Rule 2201 (New and Modified Stationary Source Review Rule), with a potential to emit 50 tons or more per year of NO<sub>x</sub>.

- 3.7 Portable Internal Combustion Engine: An internal combustion engine that is not a stationary internal combustion engine as defined in section 3.0.
- 3.8 Rated Brake Horsepower: The continuous brake horsepower rating specified for the engine by the manufacturer and listed on the nameplate of the unit, regardless of any derating, unless limited by the engine's Permit to Operate (PTO).
- 3.9 Rich-Burn Engine: Any spark ignited internal combustion engine that is operated with an exhaust stream oxygen concentration of less than 4 percent by volume before add-on controls. For engines using a catalyst, the exhaust gas oxygen content shall be determined from the uncontrolled exhaust stream before the catalyst.
- 3.10 Stationary Internal Combustion Engine (engine): Any spark or compression ignited internal combustion engine that is attached to a foundation at a location or is portable and operated at the location for more than 12 consecutive months, not including engines used for self-propulsion.

#### 4.0 Exemptions

- 4.1 The provisions of this rule do not apply to engines used directly and exclusively for agricultural operations necessary for the growing of crops or raising of fowl or animals.
- 4.2 Except for the administrative requirements of section 6.5, the provisions of this rule shall not apply to:
  - 4.2.1 Emergency standby engines that are used exclusively for non-utility electric power generation or any other emergency engines as approved by the APCO that do not operate more than 200 hours per calendar year for non-emergency purposes and are not used in conjunction with any utility voluntary demand reduction program.
  - 4.2.2 Engines used exclusively for fire fighting services and flood control.
  - 4.2.3 Laboratory engines used in research and testing.
  - 4.2.4 Engines operated for purposes of performance verification and testing.
  - 4.2.5 Gas turbine engines.
  - 4.2.6 Portable internal combustion engines.

4.2.7 Engines using other fuels during natural gas curtailment that are normally fired with natural gas fuel. This exemption is limited to 336 cumulative hours of operation per calendar year.

5.0 Requirements

5.1 The owner/operator of any stationary internal combustion engine shall not operate such engine under load in such a manner that results in emissions exceeding the following limits:

Engine Type	NOx	CO
Rich-Burn	9.5 g/bhp-hr or 640 ppmv	2000 ppmv
Lean-Burn	10.1 g/bhp-hr or 740 ppmv	2000 ppmv
Diesel Fired	9.6 g/bhp-hr or 700 ppmv	2000 ppmv

where: g/bhp-hr = grams per brake horsepower hour  
 NOx = oxides of nitrogen, calculated as equivalent NO<sub>2</sub>  
 CO = carbon monoxide  
 ppmv = parts per million by volume at 15% Oxygen on a dry basis.

5.2 Owners/operators of natural gas fired engines in the Central and Western Kern County Fields excluding cyclic loaded engines, and owners/operators of engines not meeting the NOx levels required in section 5.1 by May 31, 1995, shall not operate such engine under load in such a manner that results in emissions exceeding the following emission limits:

Engine Type	NOx (ppmv)	CO (ppmv)
Rich-Burn	90	2000
Lean-Burn	150	2000
Diesel Fired	600	2000

where: ppmv = parts per million by volume at 15% Oxygen on a dry basis  
NO<sub>x</sub> = oxides of nitrogen, calculated as equivalent NO<sub>2</sub>  
CO = carbon monoxide

Or,

- 5.2.1 for rich-burn engines, the exhaust NO<sub>x</sub> emission concentrations are reduced by at least 90% after add-on controls in the initial tests for engineering evaluation purposes after installation or replacement, and are maintained to reduce emissions by at least 80% thereafter;
  - 5.2.2 for lean-burn engines, the exhaust NO<sub>x</sub> emission concentrations are reduced by at least 80% after add-on controls in the initial tests for engineering evaluation purposes after installation or replacement, and are maintained to reduce emissions by at least 70% thereafter;
  - 5.2.3 for diesel fired engines, the exhaust NO<sub>x</sub> emission concentrations are reduced by at least 30% after add-on controls in the initial tests for engineering evaluation purposes after installation or replacement, and are maintained to reduce emissions by at least 20% thereafter.
- 5.3 In lieu of compliance with the emission limits of sections 5.1 or 5.2, an owner/operator of any internal combustion engine may elect to replace the engine with an electric motor or permanently remove it from service in accordance with the applicable compliance schedule specified in section 7.5. NO<sub>x</sub> emission reductions achieved by the electrification or shutdown of an engine shall not be available for emission reduction credit (ERC).

Emission measurements for engines using CEMs shall be averaged over not less than 15 consecutive minutes of engine operation.

#### 5.4 Monitoring Equipment

The owner/operator of any engine subject to the provisions of this rule shall:

- 5.4.1 Install, operate and maintain controls as recommended by the emission control system supplier and as approved by the APCO to ensure compliance with the emission limitations of this rule; or
- 5.4.2 Use analytical equipment and procedures, as recommended by the APCO, maintained in good working order, which indicate:
  - 5.4.2.1 For rich-burn engines:

- 5.4.2.1.1 exhaust gas NOx and CO emission concentrations; or
- 5.4.2.1.2 air to fuel ratio, or other parameter settings, within tolerance limits as recommended by the emission control system supplier and as approved by the APCO.
- 5.4.2.2 For lean-burn engines using an ammonia injection emission control system:
  - 5.4.2.2.1 exhaust gas NOx concentration; or
  - 5.4.2.2.2 flow rate of reducing liquids or gases added to the exhaust gases in the operation of catalyst NOx reduction systems or other parameter settings as specified by the emission control system supplier.

## 6.0 Administrative Requirements

### 6.1 Emission Control Plan

The owner/operator of any engine subject to the provisions of this rule shall submit to the APCO an emissions control plan of all actions to be taken to satisfy the requirements of section 5.0.

6.1.1 Such plan shall contain a list that provides the following for each stationary internal combustion engine:

- 6.1.1.1 permit to Operate number
- 6.1.1.2 engine manufacturer
- 6.1.1.3 model designation
- 6.1.1.4 rated brake horsepower
- 6.1.1.5 type of fuel and type of ignition
- 6.1.1.6 combustion type: rich-burn or lean-burn

6.1.2 Such plan shall identify the type of emission controls to be applied to each engine, and a construction/removal schedule, or shall provide support documentation sufficient to demonstrate that the engine is in compliance with the emission limits of this rule.



## 6.2 Recordkeeping

The owner/operator of any stationary internal combustion engine subject to the provisions of this rule shall maintain an engine operating log that includes on a monthly basis, the total hours of operation and the type and quantity of fuel used. This information shall be maintained for a period of two years and submitted to the APCO upon request.

## 6.3 Compliance Testing

6.3.1 Except those engines utilizing Continuous Emission Monitoring systems (CEMs), the owner/operator of any stationary internal combustion engine subject to the provisions of this rule, shall demonstrate compliance with the requirements of Section 5.0 at least once every 8760 hours of operation. Test results submitted to the District from an engine that represent a group of engines in terms of rated brake horsepower, engine make and series, operational conditions, fuel used, and control method, shall satisfy these requirements, provided this group of engines is owned and operated by a single owner/operator. Selection of representative engines to be tested shall be approved in writing by the APCO prior to testing.

6.3.2 Engines utilizing Continuous Emission Monitoring systems (CEMs) shall demonstrate compliance with the requirements of section 5.0 at least once every 17,520 hours of operation.

## 6.4 Test Methods

Compliance with the requirements of section 5.0 shall be determined in accordance with the following test procedures:

6.4.1 Oxides of nitrogen- EPA Method 7E, or ARB Method 100.

6.4.2 Carbon monoxide- EPA Method 10, or ARB Method 100.

6.4.3 Stack gas oxygen- EPA Method 3 or 3A, or ARB Method 100.

## 6.5 Exempt engines

Any owner/operator claiming an exemption under section 4.2 shall:

6.5.1 submit support documentation identifying reasons for the exemption. Such documentation shall contain a list that provides the following for each stationary internal combustion engine:

6.5.1.1 permit to Operate number

- 6.5.1.2 engine manufacturer
- 6.5.1.3 model designation
- 6.5.1.4 rated brake horsepower
- 6.5.1.5 type of fuel and type of ignition

6.5.2 maintain annual operating records and/or support documentation necessary to claim exemption. This information shall be maintained for two years and submitted to the APCO upon request.

6.5.3 Any owner/operator of an emergency standby engine claiming exemption under section 4.2.1, shall comply with the requirements of section 5.0 before resuming the operation of the engine on a routine, non-standby basis, and in accordance with the compliance schedule set in section 7.4.

## 7.0 Compliance Schedule

7.1 By March 20, 1995, owners/operators of engines subject to the provisions of this rule shall submit to the APCO an emission control plan pursuant to Section 6.1, or support documentation for each exempt engine, pursuant to Section 6.5.

7.2 Natural gas fired engines in Central and Western Kern County Fields excluding cyclic loaded engines:

7.2.1 Owners/operators of rich-burn engines rated at greater than 50 and less than 200 brake horsepower, and lean-burn engines rated at greater than 50 and less than 500 brake horsepower, shall comply with the following schedule:

7.2.1.1 By March 20, 1995, submit a complete application for an Authority to Construct (ATC) as necessary.

7.2.1.2 By December 31, 1995, demonstrate full compliance with the emission limits of Section 5.2.

7.2.2 Owners/operators of all other engines shall submit documentation demonstrating compliance with the emission limits of Section 5.2 by March 20, 1995.

7.3 Engines outside Central and Western Kern County Fields, liquid-fueled engines and LPG engines operating on those fuels on October 20, 1994 in Central and Western Kern County Fields, and cyclic loaded engines in the Central and Western Kern County Fields:

- 7.3.1 Owners/operators of engines complying with the emission limits of Section 5.1, shall meet the following schedule:
  - 7.3.1.1 By March 20, 1995, submit a complete application for an Authority to Construct (ATC) as necessary.
  - 7.3.1.2 By May 31, 1995, demonstrate full compliance with the requirements of this rule.
- 7.3.2 Owners/operators of engines complying with the emission limits of Section 5.2, shall meet the following schedule:
  - 7.3.2.1 By May 31, 1995, submit a complete application for an Authority to Construct (ATC) for all modifications to meet the requirements of this rule.
  - 7.3.2.2 By May 31, 1997, except for engines subject to section 7.3.2.3 shall demonstrate full compliance with the requirements of this rule.
  - 7.3.2.3 By May 31, 1999, engines operated by a public water district, shall demonstrate full compliance with the requirements of this rule.
- 7.4 Any owner/operator of an engine which becomes subject to the emission limits of this rule through loss of exemption, shall:
  - 7.4.1 Within 30 days from loss of exemption, submit a complete application for an Authority to Construct for all modifications to meet the requirements of this rule.
  - 7.4.2 Within 12 months from loss of exemption, demonstrate full compliance with the requirements of this rule.
- 7.5 Any owner/operator who elects to replace an engine with an electric motor or remove it permanently from service as specified in section 5.3, shall:
  - 7.5.1 submit a complete application for an Authority to Construct for conversion to electric power no later than May 31, 1997;
  - 7.5.2 have the engine removed from service by May 31, 1999.

8.0 Alternative Emission Control

- 8.1 An owner/operator may achieve compliance with Section 5.2 by substituting equivalent NO<sub>x</sub> emissions reductions obtained by controlling of existing engines at the same stationary source provided the applicant submits an Alternative Emission Control Plan that is enforceable by the District and receives approval in writing of such plan from the APCO prior to implementation.
- 8.2 Where emission reductions are to be accomplished through the use of a non-catalytic control device that will not degrade over the life of the device, compliance with Section 5.2.1 shall be demonstrated if the device can maintain emission reduction by at least 80 percent notwithstanding the control technology's inability to meet the initial 90 percent reduction required by such Section.
- 8.3 The Alternative Emission Control Plan shall:
- 8.3.1 Contain, as a minimum, in addition to requirements of Section ~~6.1~~ ~~5-3~~ of this rule, all data, records, and other information necessary to determine eligibility of the engines for alternative emission control, including but not limited to:
- 8.3.1.1 list of engines subject to alternative emission control;
- 8.3.1.2 daily average and maximum hours of utilization for such engines; and
- 8.3.1.3 estimated emission level for such engines with and without NO<sub>x</sub> emission controls.
- 8.3.2 Present the methodology for estimation of equivalency of emission reductions under the proposed Alternative Emission Control Plan as compared to either the emission reductions required by the applicable rules or to actual emission, whichever is less.
- 8.4 Demonstrate to the satisfaction of the APCO that the difference between the emissions allowable by existing regulations and any lower actual emissions will not be used to increase emissions from the same or another source.
- 8.5 Demonstrate that the permit units subject to the specified rule emission limitations are in compliance with or on an approved schedule for compliance with all applicable District rules.

8.6 Submit an updated or modified Alternative Emission Control Plan:

8.6.1 Prior to modification of the engine(s) subject to alternative emission control; or

8.6.2 When new or amended specified rules are adopted which regulate the emissions of any air contaminant from the engine(s) subject to alternative emission control.

**ATTACHMENT A**  
**Surrender of Permit to Operate S-49-3, -4, and -5**



**Chevron**

Chevron U.S.A. Production Company  
P.O. Box 1392  
Bakersfield, CA 93302

**William A. Brommelsiek**  
Manager - Health, Environmental & Safety  
San Joaquin Valley Business Unit  
Phone 661 633 4455

RECEIVED

MAY 31 2001

SAN JOAQUIN VALLEY UNIFIED  
APCD-SOUTHERN REGION

May 30, 2001

Mr. Tom Goff, Permit Services Manager  
San Joaquin Valley Air Pollution Control District  
2700 M. Street, Suite 275  
Bakersfield, California 93301

Re: Surrender of Permits to Operate

Dear Mr. Goff:

Chevron is hereby surrendering Permits to Operate S-49-3, S-49-4, and S-49-5 (copies attached). The subject permits are for three 650 bhp, Waukesha, lean burn, gas fired, internal combustion engines located at Chevron's 17Z gas plant. The engines have been taken out of service.

The effective date of surrender is May 31, 2001. Please contact Martin Lundy at (661) 633-4458 if you have any questions.

Sincerely,

W. A. Brommelsiek

**ATTACHMENT B**  
**Fuel Use Information**



2001 Fuel Use

	K-1A	K-1B	K-1C	Total
1st Qtr	2630	6691	6584	15905
2nd Qtr	3854	1265	4787	9906
Total	6484	7956	11371	25811

Date	Area	Loc	EquipType	Desc	PermitNo	DownHours	RunHours	DailyFuelUse	Qtr Fuel
1/1/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
1/2/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
1/3/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
1/4/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
1/5/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
1/6/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
1/7/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
1/8/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
1/9/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
1/10/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	7	17	23	159
1/11/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	10	14	21	176
1/12/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
1/13/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
1/14/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
1/15/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
1/16/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
1/17/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
1/18/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
1/19/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
1/20/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
1/21/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
1/22/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
1/23/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
1/24/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
1/25/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
1/26/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
1/27/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
1/28/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
1/29/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
1/30/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
1/31/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
2/1/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
2/2/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	70	344
2/3/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	12	12	35	344
2/4/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
2/5/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
2/6/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
2/7/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
2/8/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
2/9/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
2/10/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
2/11/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
2/12/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
2/13/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
2/14/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	11	13	8	72.5
2/15/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	91	447
2/16/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	101	496
2/17/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	90	442
2/18/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	96	471
2/19/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	91	447
2/20/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	103	506
2/21/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	12	12	41	403
2/22/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	
2/23/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	16	8	27	358
2/24/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	18	6	66	1296
2/25/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0	

Bhp/hr Produced

159  
176

344  
344

72.5  
447  
496  
442  
471  
447  
506  
403  
358  
1296

2/26/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	0	
2/27/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	14	10	62	731
2/28/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	0	
3/1/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	73	}
3/2/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	80	
3/3/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	96	
3/4/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	93	
3/5/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	85	
3/6/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	96	}
3/7/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	16	8	95	
3/8/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	4	20	0	?
3/9/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	103	
3/10/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	12	12	85	835
3/11/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	0	
3/12/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	0	
3/13/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	23	1	5	589
3/14/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	0	
3/15/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	21	3	12	471
3/16/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	0	
3/17/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	0	
3/18/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	0	
3/19/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	73	
3/20/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	13	12	107	1051
3/21/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	1	31	3652
3/22/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	18	6	16	314
3/23/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	6	18	14	91
3/24/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	84	
3/25/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	90	
3/26/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	22	2	2	
3/27/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	16	8	82	1207
3/28/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	85	
3/29/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	2	22	93	
3/30/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	96	
3/31/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	109	2630
4/1/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	20	4	112	3299
4/2/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	92	
4/3/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	20	4	21	619
4/4/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	0	
4/5/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	0	
4/6/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	0	
4/7/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	0	
4/8/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	0	
4/9/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	0	
4/10/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	0	
4/11/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	0	
4/12/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	1	
4/13/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	0	
4/14/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	16	8	0	
4/15/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	31	
4/16/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	13	12	5	
4/17/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	91	
4/18/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	100	
4/19/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	104	
4/20/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	102	
4/21/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	12	12	69	677
4/22/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	90	
4/23/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	92	

BHP produced/hr

4/24/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	90	
4/25/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	9	15	56	
4/26/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	9	15	101	793 -
4/27/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	73	
4/28/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	93	
4/29/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	91	
4/30/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	92	
5/1/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	96	
5/2/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	94	
5/3/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	95	
5/4/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	95	
5/5/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	96	
5/6/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	3	21	87	
5/7/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	101	
5/8/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	8.1	15.9	98	721 -
5/9/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	90	
5/10/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	94	
5/11/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	102	
5/12/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	86	
5/13/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	94	
5/14/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	101	
5/15/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	5.5	18.5	103	655 -
5/16/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	72	
5/17/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	95	
5/18/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	113	
5/19/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	95	
5/20/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	86	
5/21/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	4	20	93	
5/22/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	87	
5/23/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	91	
5/24/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	98	
5/25/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	86	
5/26/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	0	
5/27/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	0	
5/28/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	0	
5/29/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	0	
5/30/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	0	
5/31/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	0	
6/1/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24			3854
6/2/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24			
6/3/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24			
6/4/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24			
6/5/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24			
6/6/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24			
6/7/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24			
6/8/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24			
6/9/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24			
6/10/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24			
6/11/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24			
6/12/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24			
6/13/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24			
6/14/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24			
6/15/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24			
6/16/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24			
6/17/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24			
6/18/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24			
6/19/2001	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24			







12/8/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24
12/9/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24
12/10/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24
12/11/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24
12/12/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24
12/13/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24
12/14/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24
12/15/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24
12/16/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24
12/17/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24
12/18/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24
12/19/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24
12/20/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24
12/21/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24
12/22/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24
12/23/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24
12/24/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24
12/25/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24
12/26/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24
12/27/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24
12/28/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24
12/29/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24
12/30/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24
12/31/2001	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24

1596.9

6484



Date	Area	Loc	EquipType	Desc	PermitNo	DownHours	RunHours	DailyFuelUse	Qtr Fuel
1/1/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	75	
1/2/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	79	
1/3/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	72	
1/4/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	73	
1/5/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	74	
1/6/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	77	
1/7/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	74	
1/8/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	82	
1/9/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	78	
1/10/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	80	
1/11/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		8	16	48	
1/12/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	74	
1/13/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	82	
1/14/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	82	
1/15/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	80	
1/16/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	80	
1/17/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	76	
1/18/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	74	
1/19/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	75	
1/20/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	78	
1/21/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	71	
1/22/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	83	
1/23/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	66	
1/24/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	74	
1/25/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	83	
1/26/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	12	
1/27/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	75	
1/28/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	73	
1/29/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		3	21	74	
1/30/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	82	
1/31/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	87	
2/1/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		18	6	57	
2/2/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		22	2	10	
2/3/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	72	
2/4/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	75	
2/5/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	39	
2/6/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	76	
2/7/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	80	
2/8/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	63	
2/9/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	71	
2/10/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	74	
2/11/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		6	18	79	
2/12/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		6	18	54	
2/13/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		8	16	46	
2/14/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	73	
2/15/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	85	
2/16/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	82	
2/17/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	76	
2/18/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	81	
2/19/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	76	
2/20/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	89	
2/21/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	81	
2/22/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	81	
2/23/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	107	
2/24/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	79	
2/25/2001	CY	CYMRIC 17Z	BOOSTER	K-1B S-49-4		0	24	84	

*644/hr  
produced*

*119 -*

2/26/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	68	
2/27/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	66	
2/28/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	82	
3/1/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	81	
3/2/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	79	
3/3/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	85	
3/4/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	84	
3/5/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	77	
3/6/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	84	
3/7/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	82	
3/8/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	20	4	85	2503 -
3/9/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	24	0	0	
3/10/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	10	14	72	619
3/11/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	71	
3/12/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	80	
3/13/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	102	
3/14/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	102	
3/15/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	95	
3/16/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	95	
3/17/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	53	
3/18/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	9	16	82	
3/19/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	18	6	36	706 -
3/20/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	16	8	0	- 2
3/21/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	64	
3/22/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	101	
3/23/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	77	
3/24/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	85	
3/25/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	90	
3/26/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	95	
3/27/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	87	
3/28/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	83	
3/29/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	85	
3/30/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	84	
3/31/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	96	6691
4/1/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	100	
4/2/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	61	
4/3/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	82	
4/4/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	90	
4/5/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	68	
4/6/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	84	
4/7/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	86	
4/8/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	87	
4/9/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	86	
4/10/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	95	
4/11/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	19	5	0	- 2
4/12/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	81	
4/13/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	85	
4/14/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	89	
4/15/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	0	24	84	
4/16/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	12	13	87	758 -
4/17/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	24	0	0	
4/18/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	24	0	0	
4/19/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	24	0	0	
4/20/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	24	0	0	
4/21/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	24	0	0	
4/22/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	24	0	0	
4/23/2001	CY	CYMRIC 17Z BOOSTER K-1B S-49-4	24	0	0	









12/8/2001	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24
12/9/2001	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24
12/10/2001	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24
12/11/2001	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24
12/12/2001	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24
12/13/2001	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24
12/14/2001	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24
12/15/2001	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24
12/16/2001	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24
12/17/2001	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24
12/18/2001	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24
12/19/2001	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24
12/20/2001	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24
12/21/2001	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24
12/22/2001	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24
12/23/2001	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24
12/24/2001	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24
12/25/2001	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24
12/26/2001	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24
12/27/2001	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24
12/28/2001	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24
12/29/2001	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24
12/30/2001	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24
12/31/2001	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24

2346

7956

Date	Area	Loc	EquipType	Desc	PermitNo	DownHours	RunHours	DailyFuelUse	Qtr Fuel
1/1/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	88	
1/2/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	93	
1/3/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	76	
1/4/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	85	
1/5/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	88	
1/6/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	90	
1/7/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	85	
1/8/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	95	
1/9/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	89	
1/10/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	17	7	89	1498 —
1/11/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	8	16	33	
1/12/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	81	
1/13/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	91	
1/14/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	93	
1/15/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	81	
1/16/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	93	
1/17/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	89	
1/18/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	84	
1/19/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	86	
1/20/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	89	
1/21/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	81	
1/22/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	98	
1/23/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	76	
1/24/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	85	
1/25/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	89	
1/26/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	70	
1/27/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	83	
1/28/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	80	
1/29/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	3	21	82	
1/30/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	96	
1/31/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	101	
2/1/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	68	
2/2/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	84	
2/3/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	80	
2/4/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	79	
2/5/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	106	
2/6/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	92	
2/7/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	90	
2/8/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	75	
2/9/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	83	
2/10/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	81	
2/11/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	6	18	83	
2/12/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	6	18	60	
2/13/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	8	16	54	
2/14/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	13	11	77	825 —
2/15/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24	0	0	
2/16/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24	0	0	
2/17/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24	0	0	
2/18/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24	0	0	
2/19/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24	0	0	
2/20/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24	0	0	
2/21/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	51	
2/22/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	50	
2/23/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	4	20	132	777 —
2/24/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	6	18	25	
2/25/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	93	

Bhp Produced  
hr

1498 —

825 —

777 —



2/26/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	12	12	76
2/27/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	10	14	16
2/28/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	19	5	92
3/1/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	21	3	14
3/2/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24	0	0
3/3/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24	0	0
3/4/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24	0	0
3/5/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24	0	0
3/6/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24	0	0
3/7/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	8	16	0
3/8/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	87
3/9/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	100
3/10/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	1	23	86
3/11/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	82
3/12/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	89
3/13/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	1	23	108
3/14/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	108
3/15/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	108
3/16/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	110
3/17/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	62
3/18/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	90
3/19/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	94
3/20/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	95
3/21/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	100
3/22/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	100
3/23/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	87
3/24/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	94
3/25/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	100
3/26/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	104
3/27/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	97
3/28/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	91
3/29/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	95
3/30/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	92
3/31/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	105
4/1/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	83
4/2/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24	0	0
4/3/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24	0	0
4/4/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24	0	0
4/5/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	13	11	38
4/6/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	23	1	6
4/7/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	73
4/8/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	93
4/9/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	95
4/10/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	19	5	0
4/11/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24	0	0
4/12/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	91
4/13/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	95
4/14/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	95
4/15/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	92
4/16/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	95
4/17/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	88
4/18/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	93
4/19/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	93
4/20/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	98
4/21/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	71
4/22/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	89
4/23/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	88

Bhp/hr Produced

746 —

2168 —

0 - 8

6584

707 —

0 - ?

Bhp/hr produced

4/24/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	87
4/25/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	9	15	54
4/26/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	1	23	90
4/27/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	87
4/28/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	87
4/29/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	87
4/30/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	88
5/1/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	90
5/2/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	94
5/3/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	90
5/4/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	93
5/5/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	91
5/6/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	3	21	83
5/7/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	93
5/8/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	92
5/9/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	90
5/10/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	91
5/11/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	97
5/12/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	82
5/13/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	91
5/14/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	94
5/15/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	6	19	96
5/16/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	67
5/17/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	92
5/18/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	2	22	99
5/19/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	89
5/20/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	79
5/21/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	4	20	92
5/22/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	2	22	79
5/23/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	83
5/24/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	96
5/25/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	83
5/26/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	114
5/27/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	74
5/28/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	102
5/29/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	87
5/30/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	111
5/31/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	15.5	9	17
6/1/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24		
6/2/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24		
6/3/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24		
6/4/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24		
6/5/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24		
6/6/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24		
6/7/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24		
6/8/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24		
6/9/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24		
6/10/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24		
6/11/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24		
6/12/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24		
6/13/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24		
6/14/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24		
6/15/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24		
6/16/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24		
6/17/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24		
6/18/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24		
6/19/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24		

4787







12/8/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24
12/9/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24
12/10/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24
12/11/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24
12/12/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24
12/13/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24
12/14/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24
12/15/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24
12/16/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24
12/17/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24
12/18/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24
12/19/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24
12/20/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24
12/21/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24
12/22/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24
12/23/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24
12/24/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24
12/25/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24
12/26/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24
12/27/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24
12/28/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24
12/29/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24
12/30/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24
12/31/2001	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24

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Fuel Use 2000

	S-49-3 K-1A	S-49-4 K-1B	S-49-5 K-1C	Qtr Total
1st Qtr	9844	6569	9599	26012
2nd Qtr	9736	8960	9102	27798
3rd Qtr	9175	7951	8916	26042
4th Qtr	7175	6331	7500	21006
Total	35930	29811	35117	100858

Date	Area	Loc	EquipType	Desc	PermitNo	Equip ID	DownHours	RunHours	DailyFuelUse	Qtr fuel use
1/1/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	100	
1/2/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	106	
1/3/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	113	
1/4/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	118	
1/5/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		2	22	123	658
1/6/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	81	
1/7/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	126	
1/8/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	112	
1/9/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	113	
1/10/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	83	
1/11/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	128	
1/12/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	70	
1/13/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	113	
1/14/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	113	
1/15/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	112	
1/16/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	110	
1/17/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	122	
1/18/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	140	687
1/19/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	110	
1/20/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	126	
1/21/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	110	
1/22/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	135	662
1/23/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	97	
1/24/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	102	
1/25/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	116	
1/26/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	113	
1/27/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	129	
1/28/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	120	
1/29/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	118	
1/30/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	93	
1/31/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	113	
2/1/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	120	
2/2/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	130	
2/3/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	115	
2/4/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	110	
2/5/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		2	22	96	
2/6/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	120	
2/7/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	110	
2/8/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	119	
2/9/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	121	
2/10/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	136	667
2/11/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	126	
2/12/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	128	
2/13/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	116	
2/14/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	110	
2/15/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	109	
2/16/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	110	
2/17/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	136	667
2/18/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	100	
2/19/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	101	
2/20/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		2	22	111	
2/21/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	105	
2/22/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	120	
2/23/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	130	
2/24/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	111	
2/25/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3		0	24	112	



Produced  
Bhp/hr

2/26/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	112
2/27/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	12	12	118
2/28/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0
2/29/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0
3/1/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	85
3/2/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	100
3/3/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	115
3/4/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	86
3/5/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	115
3/6/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	105
3/7/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	119
3/8/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	79
3/9/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	9	15	109
3/10/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	75
3/11/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	107
3/12/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	116
3/13/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	110
3/14/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	101
3/15/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	119
3/16/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	97
3/17/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	118
3/18/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	110
3/19/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	107
3/20/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	113
3/21/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	102
3/22/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	98
3/23/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	107
3/24/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	112
3/25/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	100
3/26/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	130
3/27/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	112
3/28/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	105
3/29/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	81
3/30/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	123
3/31/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	91
4/1/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	112
4/2/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	75
4/3/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	133
4/4/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	93
4/5/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	105
4/6/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	121
4/7/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	109
4/8/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	121
4/9/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	116
4/10/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	119
4/11/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	115
4/12/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	115
4/13/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	114
4/14/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	137
4/15/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	84
4/16/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	122
4/17/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	128
4/18/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	85
4/19/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	148
4/20/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	71
4/21/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	113
4/22/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	112

1158 -

856 -

9844

672

726 -

Bhp/hr produced

4/23/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	147	721-
4/24/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	123	
4/25/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	118	
4/26/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	8	16	114	839-
4/27/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	99	
4/28/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	110	
4/29/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	100	
4/30/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	110	
5/1/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	116	
5/2/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	118	
5/3/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	112	
5/4/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	108	
5/5/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	117	
5/6/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	118	
5/7/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	112	
5/8/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	118	
5/9/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	112	
5/10/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	116	
5/11/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	114	
5/12/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	118	
5/13/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	128	
5/14/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	119	
5/15/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	97	
5/16/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	126	
5/17/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	105	
5/18/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	125	
5/19/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	141	692
5/20/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	120	
5/21/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	78	
5/22/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	120	
5/23/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	105	
5/24/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	114	
5/25/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	120	
5/26/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	2	23	93	
5/27/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	100	
5/28/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	112	
5/29/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	114	
5/30/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	117	
5/31/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	116	
6/1/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	119	
6/2/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	117	
6/3/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	129	
6/4/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	93	
6/5/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	0	
6/6/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	0	
6/7/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	0	
6/8/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	0	
6/9/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	177	
6/10/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	107	
6/11/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	7	17	72	
6/12/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	2	22	71	
6/13/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	110	
6/14/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	108	
6/15/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	102	
6/16/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	112	
6/17/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	109	
6/18/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	109	

6/19/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	123
6/20/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	107
6/21/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	113
6/22/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	85
6/23/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	96
6/24/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	100
6/25/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	155
6/26/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	94
6/27/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	100
6/28/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	111
6/29/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	108
6/30/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	111
7/1/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	97
7/2/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	108
7/3/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	109
7/4/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	92
7/5/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	116
7/6/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	115
7/7/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	102
7/8/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	126
7/9/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	18	6	83
7/10/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	20	4	18
7/11/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	12	12	0
7/12/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	3	21	92
7/13/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	100
7/14/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	12	12	96
7/15/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	12	12	96
7/16/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	21	3	31
7/17/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	0
7/18/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	18	6	28
7/19/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	78
7/20/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	101
7/21/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	106
7/22/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	103
7/23/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	128
7/24/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	3	21	100
7/25/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	112
7/26/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	99
7/27/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	100
7/28/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	122
7/29/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	14.5	9.5	0
7/30/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	89
7/31/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	13	11	84
8/1/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	86
8/2/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	98
8/3/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	109
8/4/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	113
8/5/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	104
8/6/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	107
8/7/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	114
8/8/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	108
8/9/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	117
8/10/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	6.25	18	105
8/11/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	81
8/12/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	110
8/13/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	107
8/14/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	108

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899 -

687

Bhp/hr produced

8/15/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	115
8/16/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	113
8/17/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	110
8/18/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	111
8/19/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	111
8/20/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	114
8/21/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	115
8/22/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	117
8/23/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	4	20	104
8/24/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	134
8/25/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	85
8/26/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	106
8/27/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	110
8/28/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	111
8/29/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	112
8/30/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	111
8/31/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	115
9/1/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	132
9/2/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	104
9/3/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	129
9/4/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	122
9/5/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	146
9/6/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	99
9/7/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	81
9/8/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	108
9/9/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	110
9/10/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	112
9/11/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	112
9/12/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	117
9/13/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	107
9/14/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	107
9/15/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	113
9/16/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	4	20	106
9/17/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	84
9/18/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	91
9/19/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	1	23	69
9/20/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	104
9/21/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	99
9/22/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	101
9/23/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	138
9/24/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	115
9/25/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	111
9/26/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	76
9/27/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	16.5	7.5	108
9/28/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	110
9/29/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	98
9/30/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	74
10/1/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	111
10/2/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	114
10/3/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	100
10/4/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	116
10/5/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	104
10/6/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	118
10/7/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	103
10/8/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	116
10/9/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	107
10/10/2000	CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	133

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Bhp/hr  
produced

10/11/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	105
10/12/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	101
10/13/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	100
10/14/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	103
10/15/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	110
10/16/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	112
10/17/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	102
10/18/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	110
10/19/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	114
10/20/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	112
10/21/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	106
10/22/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	109
10/23/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	5.25	19	110
10/24/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	1	23	87
10/25/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	103
10/26/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	108
10/27/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	1	23	90
10/28/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	113
10/29/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	19	5	84
10/30/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	102
10/31/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	89
11/1/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	127
11/2/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	88
11/3/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	117
11/4/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	98
11/5/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	105
11/6/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	102
11/7/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	87
11/8/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	107
11/9/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	107
11/10/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	89
11/11/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	103
11/12/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	0
11/13/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	50
11/14/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	93
11/15/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	91
11/16/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	105
11/17/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	84
11/18/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	110
11/19/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	67
11/20/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	3	21	88
11/21/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	28
11/22/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	0
11/23/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	0
11/24/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	24	0	0
11/25/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	77
11/26/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	83
11/27/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	87
11/28/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	98
11/29/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	83
11/30/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	102
12/1/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	106
12/2/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	57
12/3/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	106
12/4/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	4	20	94
12/5/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	0	24	78
12/6/2000	CY	CYMRIC 17Z BOOSTER K-1A S-49-3	23	1	96

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BHA/air  
produced

12/7/2000 CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	4
12/8/2000 CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	90
12/9/2000 CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	91
12/10/2000 CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	93
12/11/2000 CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	104
12/12/2000 CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	92
12/13/2000 CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	88
12/14/2000 CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	68
12/15/2000 CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	85
12/16/2000 CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	89
12/17/2000 CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	0	24	84
12/18/2000 CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	23	1	82
12/19/2000 CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0
12/20/2000 CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0
12/21/2000 CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0
12/22/2000 CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0
12/23/2000 CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0
12/24/2000 CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0
12/25/2000 CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0
12/26/2000 CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0
12/27/2000 CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0
12/28/2000 CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0
12/29/2000 CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0
12/30/2000 CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0
12/31/2000 CY	CYMRIC 17Z	BOOSTER	K-1A	S-49-3	24	0	0
					<b>7905</b>		<b>35930</b>

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**35930**

Date	Area	Loc	EquipType	Desc	PermitNo	Equip ID	DownHours	RunHours	DailyFuelUse	Qtr fuel
1/1/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	107	
1/2/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	71	
1/3/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	99	
1/4/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	103	
1/5/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	110	
1/6/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	70	
1/7/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	110	
1/8/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	110	
1/9/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	83	
1/10/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	72	
1/11/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	112	
1/12/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		2	22	80	
1/13/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	93	
1/14/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	99	
1/15/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	96	
1/16/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	92	
1/17/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	102	
1/18/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	122	
1/19/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	96	
1/20/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	108	
1/21/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	99	
1/22/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	99	
1/23/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	81	
1/24/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	97	
1/25/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	104	
1/26/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	100	
1/27/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	115	
1/28/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	115	
1/29/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	115	
1/30/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	90	
1/31/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	66	
2/1/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		12	12	0	
2/2/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	0	
2/3/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	0	
2/4/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		1	23	0	
2/5/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	0	
2/6/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	0	
2/7/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	0	
2/8/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	0	
2/9/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		2	22	0	
2/10/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		4	20	0	
2/11/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		2	22	0	
2/12/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	0	
2/13/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	0	
2/14/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	0	
2/15/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		24	0	50	
2/16/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		24	0	0	
2/17/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		24	0	0	
2/18/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		24	0	0	
2/19/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	50	
2/20/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	75	
2/21/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		12	12	76	
2/22/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		6	18	47	
2/23/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	88	
2/24/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		3	21	76	
2/25/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4		0	24	78	

Bhp/hr produced

746 —

2/26/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	75
2/27/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	12	12	80
2/28/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24	0	0
2/29/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24	0	0
3/1/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	60
3/2/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	91
3/3/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	102
3/4/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	80
3/5/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	101
3/6/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	82
3/7/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	106
3/8/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	74
3/9/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	9	15	97
3/10/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	65
3/11/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	92
3/12/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	101
3/13/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	95
3/14/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	89
3/15/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	106
3/16/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	86
3/17/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	103
3/18/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	95
3/19/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	93
3/20/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	98
3/21/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	89
3/22/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	83
3/23/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	95
3/24/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	104
3/25/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	91
3/26/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	121
3/27/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	104
3/28/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	89
3/29/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	70
3/30/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	113
3/31/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	83
4/1/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	96
4/2/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	90
4/3/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	120
4/4/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	87
4/5/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	110
4/6/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	148
4/7/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	153
4/8/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	166
4/9/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	153
4/10/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	164
4/11/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	166
4/12/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	163
4/13/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	153
4/14/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	130
4/15/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	72
4/16/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	105
4/17/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	110
4/18/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	73
4/19/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	131
4/20/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	58
4/21/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	96
4/22/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	93

Bhp/hr  
produced

762-

6569

726-  
751-  
815-  
751-  
805-  
815-  
800-  
751-



Bhp/hr  
produced

4/23/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	99
4/24/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	102
4/25/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	100
4/26/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	8	16	100
4/27/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	124
4/28/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	152
4/29/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	120
4/30/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	110
5/1/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	115
5/2/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	154
5/3/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	140
5/4/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	8	16	95
5/5/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	105
5/6/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	128
5/7/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	103
5/8/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	3	21	99
5/9/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	12	12	83
5/10/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	93
5/11/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	87
5/12/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	93
5/13/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	102
5/14/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	99
5/15/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	84
5/16/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	104
5/17/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	85
5/18/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	100
5/19/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	115
5/20/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	115
5/21/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	44
5/22/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	99
5/23/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	87
5/24/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	95
5/25/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	104
5/26/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	77
5/27/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	90
5/28/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	91
5/29/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	95
5/30/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	94
5/31/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	94
6/1/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	97
6/2/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	99
6/3/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	99
6/4/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	75
6/5/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24	0	0
6/6/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24	0	0
6/7/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24	0	0
6/8/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24	0	0
6/9/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	138
6/10/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	86
6/11/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	7	17	60
6/12/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	2	22	70
6/13/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	96
6/14/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	92
6/15/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	86
6/16/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	94
6/17/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	91
6/18/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	89

746 -

756 -  
687 -  
699 -

815 -

6/19/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	101
6/20/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	88
6/21/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	94
6/22/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	77
6/23/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	79
6/24/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	80
6/25/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	114
6/26/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	77
6/27/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	83
6/28/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	92
6/29/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	93
6/30/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	97
7/1/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	82
7/2/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	90
7/3/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	108
7/4/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	89
7/5/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	95
7/6/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	92
7/7/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	90
7/8/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	113
7/9/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	91
7/10/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	20	4	25
7/11/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	79
7/12/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	79
7/13/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	89
7/14/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	16	8	60
7/15/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	16	8	61
7/16/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	21	3	22
7/17/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24	0	0
7/18/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	22	2	25
7/19/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	76
7/20/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	85
7/21/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	88
7/22/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	86
7/23/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	110
7/24/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	4	20	89
7/25/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	95
7/26/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	80
7/27/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	82
7/28/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	103
7/29/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	71
7/30/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	78
7/31/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	97
8/1/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	72
8/2/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	81
8/3/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	89
8/4/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	91
8/5/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	84
8/6/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	89
8/7/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	95
8/8/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	89
8/9/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	96
8/10/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	6	18	87
8/11/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	76
8/12/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	92
8/13/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	90
8/14/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	88

*Bhp/hrs  
Produced*

8960

*736*

*883  
898  
864*

*1473*

8/15/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	95
8/16/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	92
8/17/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	91
8/18/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	94
8/19/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	94
8/20/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	94
8/21/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	93
8/22/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	96
8/23/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	99
8/24/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	108
8/25/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	68
8/26/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	88
8/27/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	93
8/28/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	93
8/29/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	94
8/30/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	93
8/31/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	95
9/1/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	110
9/2/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	86
9/3/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	107
9/4/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	100
9/5/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	119
9/6/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	80
9/7/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	67
9/8/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	91
9/9/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	92
9/10/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	95
9/11/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	93
9/12/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	96
9/13/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	90
9/14/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	89
9/15/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	94
9/16/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	89
9/17/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	89
9/18/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	85
9/19/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	8	16	85
9/20/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	3	21	62
9/21/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	88
9/22/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	91
9/23/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	109
9/24/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	97
9/25/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	94
9/26/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	64
9/27/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	94
9/28/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	86
9/29/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	92
9/30/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	88
10/1/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	94
10/2/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	87
10/3/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	91
10/4/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	98
10/5/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	88
10/6/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	5	19	80
10/7/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	88
10/8/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	96
10/9/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	89
10/10/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	113

10/11/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	88
10/12/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	84
10/13/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	86
10/14/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	88
10/15/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	91
10/16/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	92
10/17/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	86
10/18/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	91
10/19/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	93
10/20/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	91
10/21/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	87
10/22/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	98
10/23/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	93
10/24/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	84
10/25/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	87
10/26/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	88
10/27/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	1	23	87
10/28/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	167
10/29/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	5	19	73
10/30/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	1	23	82
10/31/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	74
11/1/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	6	18	83
11/2/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	70
11/3/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	99
11/4/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	86
11/5/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	89
11/6/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	89
11/7/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	89
11/8/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	89
11/9/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	91
11/10/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	84
11/11/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	87
11/12/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	92
11/13/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	44
11/14/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	80
11/15/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	79
11/16/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	97
11/17/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	73
11/18/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	99
11/19/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	60
11/20/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	80
11/21/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	80
11/22/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	86
11/23/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	73
11/24/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	12	12	75
11/25/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24	0	0
11/26/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24	0	0
11/27/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24	0	0
11/28/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24	0	0
11/29/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24	0	0
11/30/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24	0	0
12/1/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	69
12/2/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	85
12/3/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	87
12/4/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	8	16	88
12/5/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	77
12/6/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	3	21	94

*3hp/hr produced*

*819-*

*736-*

12/7/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24	0	0
12/8/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24	0	0
12/9/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24	0	0
12/10/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24	0	0
12/11/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24	0	0
12/12/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24	0	0
12/13/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24	0	0
12/14/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24	0	0
12/15/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24	0	0
12/16/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24	0	0
12/17/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	24	0	0
12/18/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	12	12	76
12/19/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	63
12/20/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	70
12/21/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	82
12/22/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	60
12/23/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	88
12/24/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	84
12/25/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	70
12/26/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	68
12/27/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	66
12/28/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	85
12/29/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	81
12/30/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	60
12/31/2000	CY	CYMRIC 17Z	BOOSTER	K-1B	S-49-4	0	24	70
						<b>7838</b>	<b>29811</b>	<b>6331</b>
								<b>29811</b>

*By/hr  
produced*

*746-*

Date	Area	Loc	EquipType	Desc	PermitNo	DownHours	RunHours	DailyFuelUse	Qtr fuel
1/1/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	120	
1/2/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	82	
1/3/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	113	
1/4/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	116	
1/5/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	124	
1/6/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	80	
1/7/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	125	
1/8/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	120	
1/9/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	101	
1/10/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	82	
1/11/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	127	
1/12/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	85	
1/13/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	101	
1/14/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	109	
1/15/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	106	
1/16/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		3	21	107	
1/17/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	103	
1/18/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	123	
1/19/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	88	
1/20/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	125	
1/21/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	115	
1/22/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	119	
1/23/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	94	
1/24/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	100	
1/25/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	112	
1/26/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	109	
1/27/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	124	
1/28/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	125	
1/29/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	120	
1/30/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	100	
1/31/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	76	
2/1/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	102	
2/2/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		1	23	113	
2/3/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		5	19	95	
2/4/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	102	
2/5/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	104	
2/6/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	109	
2/7/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	100	
2/8/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	110	
2/9/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	104	
2/10/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	123	
2/11/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	118	
2/12/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	118	
2/13/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	105	
2/14/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		1	23	99	
2/15/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	98	
2/16/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	100	
2/17/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	141	
2/18/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	110	
2/19/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	216	
2/20/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	108	
2/21/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	111	
2/22/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	111	
2/23/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	126	
2/24/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	95	
2/25/2000	CY	CYMRIC 17Z	BOOSTER	K-1C S-49-5		0	24	97	

bhp/hr  
produced

1060

2/26/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	100
2/27/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	12	12	106
2/28/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24	0	0
2/29/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24	0	0
3/1/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	85
3/2/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	100
3/3/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	115
3/4/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	86
3/5/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	115
3/6/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	105
3/7/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	119
3/8/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	79
3/9/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	9	15	109
3/10/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	75
3/11/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	107
3/12/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	116
3/13/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	110
3/14/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	101
3/15/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	119
3/16/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	97
3/17/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	118
3/18/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	110
3/19/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	107
3/20/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	113
3/21/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	102
3/22/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	98
3/23/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	107
3/24/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	112
3/25/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	100
3/26/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	130
3/27/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	112
3/28/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	105
3/29/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	81
3/30/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	123
3/31/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	91
4/1/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	102
4/2/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	97
4/3/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	128
4/4/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	85
4/5/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	91
4/6/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	115
4/7/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	105
4/8/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	115
4/9/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	108
4/10/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	111
4/11/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	108
4/12/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	106
4/13/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	107
4/14/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	131
4/15/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	84
4/16/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	123
4/17/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	131
4/18/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	76
4/19/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	141
4/20/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	65
4/21/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	106
4/22/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	101

Bhp/hr Produced

1040 -

856 -

9599

692 -

Bhp/hr Produced

4/23/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	111
4/24/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	114
4/25/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	112
4/26/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	8	16	53
4/27/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	91
4/28/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	99
4/29/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	105
4/30/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	100
5/1/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	86
5/2/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	1	23	107
5/3/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	108
5/4/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	102
5/5/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	109
5/6/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	2	22	104
5/7/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	95
5/8/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	1	23	110
5/9/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	100
5/10/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	105
5/11/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	100
5/12/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	110
5/13/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	2.5	22	108
5/14/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	91
5/15/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	92
5/16/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	3	21	108
5/17/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	105
5/18/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	3	21	131
5/19/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	203
5/20/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	145
5/21/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	127
5/22/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	125
5/23/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	115
5/24/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	112
5/25/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	136
5/26/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	100
5/27/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	110
5/28/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	8	16	107
5/29/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	2	22	62
5/30/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	3	21	103
5/31/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	2	22	90
6/1/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	2	22	79
6/2/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24		
6/3/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	129
6/4/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	5	19	66
6/5/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24	0	0
6/6/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24	0	0
6/7/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24	0	0
6/8/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24	0	0
6/9/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	165
6/10/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	93
6/11/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	7	17	69
6/12/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	2	22	83
6/13/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	107
6/14/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	126
6/15/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	99
6/16/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	108
6/17/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	106
6/18/2000 CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	101

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Bhp/hr Produced

6/19/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	114
6/20/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	99
6/21/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	107
6/22/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	89
6/23/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	89
6/24/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	95
6/25/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	143
6/26/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	90
6/27/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	95
6/28/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	106
6/29/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	116
6/30/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	101
7/1/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	96
7/2/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	104
7/3/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	106
7/4/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	103
7/5/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	107
7/6/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	100
7/7/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	103
7/8/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	129
7/9/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	104
7/10/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	20	4	29
7/11/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	89
7/12/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	1	23	78
7/13/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	11	13	91
7/14/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	115
7/15/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	12	12	116
7/16/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	21	3	32
7/17/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24	0	0
7/18/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	23	1	4
7/19/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24	0	0
7/20/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	12	12	69
7/21/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	100
7/22/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	99
7/23/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	125
7/24/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	4	20	97
7/25/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	111
7/26/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	92
7/27/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	94
7/28/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	112
7/29/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	114
7/30/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	91
7/31/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	90
8/1/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	9	15	59
8/2/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	85
8/3/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	96
8/4/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	108
8/5/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	100
8/6/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	101
8/7/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	109
8/8/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	102
8/9/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	110
8/10/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	6.25	18	98
8/11/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	76
8/12/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	104
8/13/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	102
8/14/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	101

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*Blp/hr Produced*

8/15/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	107
8/16/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	105
8/17/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	104
8/18/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	105
8/19/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	107
8/20/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	106
8/21/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	106
8/22/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	110
8/23/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	114
8/24/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	123
8/25/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	76
8/26/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	98
8/27/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	102
8/28/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	103
8/29/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	105
8/30/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	105
8/31/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	108
9/1/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	125
9/2/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	97
9/3/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	122
9/4/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	114
9/5/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	137
9/6/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	96
9/7/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	75
9/8/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	101
9/9/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	102
9/10/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	105
9/11/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	104
9/12/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	107
9/13/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	101
9/14/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	101
9/15/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	107
9/16/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	100
9/17/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	101
9/18/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	96
9/19/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	96
9/20/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	3	21	99
9/21/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	69
9/22/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	100
9/23/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	128
9/24/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	1.5	23	104
9/25/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	107
9/26/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	71
9/27/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	105
9/28/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	98
9/29/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	116
9/30/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	97
10/1/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	105
10/2/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	4	20	98
10/3/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	87
10/4/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	112
10/5/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	102
10/6/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	113
10/7/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	99
10/8/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	74
10/9/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	99
10/10/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	167

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10/11/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	101
10/12/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	103
10/13/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	98
10/14/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	99
10/15/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	105
10/16/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	104
10/17/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	97
10/18/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	104
10/19/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	1	23	106
10/20/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	104
10/21/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	102
10/22/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	103
10/23/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	107
10/24/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	98
10/25/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	104
10/26/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	98
10/27/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	1	23	97
10/28/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	106
10/29/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	7	17	79
10/30/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	1	23	88
10/31/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	82
11/1/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	117
11/2/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	79
11/3/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	105
11/4/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	93
11/5/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	95
11/6/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	96
11/7/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	98
11/8/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	96
11/9/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	99
11/10/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	92
11/11/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	95
11/12/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	98
11/13/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	51
11/14/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	91
11/15/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	92
11/16/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	112
11/17/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	86
11/18/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	119
11/19/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	74
11/20/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	98
11/21/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	83
11/22/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	91
11/23/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	87
11/24/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	90
11/25/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	91
11/26/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	84
11/27/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	87
11/28/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	99
11/29/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	85
11/30/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	99
12/1/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	69
12/2/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	85
12/3/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	87
12/4/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	4	20	88
12/5/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	0	24	77
12/6/2000	CY	CYMRIC 17Z BOOSTER K-1C S-49-5	3	21	94

12/7/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24	0	0	
12/8/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24	0	0	
12/9/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24	0	0	
12/10/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24	0	0	
12/11/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24	0	0	
12/12/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24	0	0	
12/13/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24	0	0	
12/14/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24	0	0	
12/15/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24	0	0	
12/16/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24	0	0	
12/17/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	24	0	0	
12/18/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	13	11	5	
12/19/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	67	
12/20/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	77	
12/21/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	89	
12/22/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	66	
12/23/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	97	
12/24/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	92	
12/25/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	76	
12/26/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	75	
12/27/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	73	
12/28/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	98	
12/29/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	99	
12/30/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	93	
12/31/2000	CY	CYMRIC 17Z	BOOSTER	K-1C	S-49-5	0	24	70	7500
						<b><u>7824</u></b>	<b><u>35117</u></b>		<b><u>35117</u></b>

Fuel Use 1999

	S-49-3	S-49-4	S-49-5	
	K1A	K1B	K1C	
	Mcf	Mcf	Mcf	
Jan	2905.1	2450.3	2834.4	
Feb	2830	2291	2512.8	
Mar	3007	2476	2938	24244.6 Qtr 1
Apr	3022	2643.5	2722	
May	3152	2557	2557	
Jun	3325	2892	3207	26077.5 Qtr 2
Jui	3474	3021	3256	
Aug	3293	3052	3381	
Sep	3446	2977	3191	29091.21 Qtr 3
Oct	3513	2966	2966	
Nov	3142	3166	2993	
Dec	3191	2616	2918	27471 Qtr 4
Total	38300.1	33108.01	35476.2	106884.3

PERMIT # S-49-3 EQUIP. ID Jul-99				PERMIT # S-49-4 EQUIP. ID Jul-99				PERMIT # S-49-5 EQUIP. ID Jul-99			
DATE	RUN HOURS	DOWN HOURS	DAILY FUEL USED MCF	DATE	RUN HOURS	DOWN HOURS	DAILY FUEL USED MCF	DATE	RUN HOURS	DOWN HOURS	DAILY FUEL USED MCF
1	24	0	<i>Bnd/w</i> 75	1	24	0	<i>Bnd/w</i> 78	1	24	0	88
2	24	0	122	2	24	0	97	2	24	0	110
3	18	6	91	3	18	6	78	3	18	6	74
4	24	0	104	4	24	0	98	4	24	0	109
5	24	0	129	5	24	0	134	5	24	0	140
6	24	0	107	6	21	3	78	6	24	0	90
7	24	0	94	7	24	0	85	7	24	0	89
8	24	0	118	8	24	0	106	8	24	0	93
9	24	0	114	9	24	0	102	9	23	1	101
10	24	0	101	10	24	0	88	10	24	0	97
11	24	0	105	11	24	0	97	11	24	0	105
12	24	0	112	12	24	0	97	12	24	0	105
13	24	0	126	13	24	0	97	13	24	0	105
14	24	0	92	14	24	0	97	14	24	0	105
15	24	0	89	15	24	0	97	15	24	0	105
16	24	0	<i>766</i> (156)	16	24	0	75	16	24	0	136
17	24	0	106	17	24	0	<i>761</i> (155)	17	24	0	96
18	24	0	117	18	24	0	101	18	24	0	105
19	24	0	115	19	24	0	104	19	24	0	105
20	24	0	113	20	24	0	105	20	24	0	106
21	24	0	129	21	23	1	97	21	24	0	109
22	24	0	136	22	23	1	97	22	24	0	125
23	24	0	113	23	24	0	100	23	24	0	103
24	24	0	102	24	24	0	88	24	24	0	92
25	24	0	113	25	24	0	97	25	21	3	102
26	24	0	122	26	24	0	105	26	24	0	94
27	24	0	<i>721</i> (147)	27	24	0	126	27	24	0	128
28	24	0	118	28	24	0	103	28	24	0	109
29	24	0	87	29	24	0	80	29	24	0	84
30	24	0	<i>707</i> (144)	30	18	6	90	30	24	0	124
31	24	0	77	31	24	0	66	31	24	0	122
TOTALS	738	6	3474	TOTALS	727	17	3021	TOTALS	734	10	3256

BOOSTER K-1A PERMIT # S-49-3 EQUIP. ID Aug-99			
DATE	RUN HOURS	DOWN HOURS	DAILY FUEL USED MCF
1	24	0	<i>Bhp/hr</i> 113
2	24	0	130
3	24	0	101
4	24	0	117
5	24	0	110
6	24	0	117
7	24	0	115
8	24	0	125
9	24	0	118
10	24	0	100
11	24	0	109
12	12	12	<i>942</i> <u>96</u>
13	0	24	0
14	0	24	0
15	24	0	104
16	24	0	115
17	24	0	115
18	24	0	120
19	24	0	112
20	24	0	104
21	24	0	111
22	24	0	112
23	24	0	108
24	24	0	110
25	24	0	114
26	24	0	133
27	24	0	113
28	24	0	118
29	24	0	132
30	24	0	101
31	24	0	120
TOTALS	684	60	3293

BOOSTER K-1B PERMIT # S-49-4 EQUIP. ID Aug-99			
DATE	RUN HOURS	DOWN HOURS	DAILY FUEL USED MCF
1	24	0	<i>Bhp/hr</i> 100
2	24	0	113
3	24	0	89
4	24	0	104
5	24	0	91
6	24	0	90
7	24	0	93
8	24	0	102
9	24	0	100
10	24	0	94
11	24	0	103
12	24	0	105
13	12	12	<i>923</i> <u>94</u>
14	24	0	101
15	24	0	88
16	24	0	92
17	24	0	101
18	24	0	100
19	24	0	95
20	24	0	96
21	24	0	99
22	24	0	102
23	24	0	93
24	24	0	98
25	24	0	115
26	24	0	112
27	24	0	95
28	24	0	98
29	24	0	109
30	23	1	85
31	12	12	<i>933</i> <u>95</u>
TOTALS	719	25	3052

BOOSTER K-1C PERMIT # S-49-5 EQUIP. ID Aug-99			
DATE	RUN HOURS	DOWN HOURS	DAILY FUEL USED MCF
1	15	9	<i>Bhp/hr</i> <u>107</u>
2	20	4	<i>840</i> <u>191</u>
3	24	0	98
4	24	0	115
5	24	0	100
6	24	0	115
7	24	0	107
8	24	0	114
9	24	0	108
10	23	1	101
11	24	0	107
12	24	0	110
13	24	0	106
14	24	0	112
15	24	0	95
16	24	0	104
17	24	0	102
18	24	0	107
19	24	0	106
20	24	0	100
21	24	0	107
22	24	0	106
23	21	3	103
24	24	0	96
25	24	0	107
26	24	0	125
27	24	0	105
28	24	0	106
29	24	0	119
30	24	0	92
31	24	0	110
TOTALS	727	17	3381

BOOSTER K-1A PERMIT # S-49-3 EQUIP. ID Sep-99			
DATE	RUN HOURS	DOWN HOURS	DAILY FUEL USED MCF
1	24	0	<i>Bhp/hr</i> 94
2	23	1	108
3	24	0	<i>736</i> (150)
4	24	0	79
5	24	0	79
6	24	0	133
7	24	0	101
8	24	0	132
9	24	0	108
10	24	0	128
11	24	0	130
12	21.5	2.5	90
13	24	0	115
14	22	2	108
15	24	0	118
16	24	0	121
17	24	0	102
18	24	0	124
19	24	0	124
20	24	0	124
21	24	0	118
22	24	0	118
23	24	0	117
24	24	0	121
25	24	0	114
26	24	0	113
27	24	0	117
28	24	0	108
29	24	0	114
30	24	0	138
TOTALS	714.5	5.5	3446

BOOSTER K-1B PERMIT # S-49-4 EQUIP. ID Sep-99			
DATE	RUN HOURS	DOWN HOURS	DAILY FUEL USED MCF
1	24	0	<i>Bhp/hr</i> 82
2	24	0	104
3	24	0	124
4	24	0	79
5	24	0	110
6	24	0	110
7	24	0	86
8	24	0	110
9	22.5	1.5	90
10	24	0	99
11	24	0	107
12	24	0	76
13	24	0	109
14	24	0	110
15	24	0	84
16	24	0	102
17	24	0	86
18	24	0	107
19	24	0	107
20	24	0	107
21	24	0	87
22	24	0	90
23	24	0	102
24	24	0	101
25	24	0	97
26	24	0	99
27	24	0	95
28	24	0	91
29	24	0	98
30	24	0	128
TOTALS	718.5	1.5	2977

BOOSTER K-1C PERMIT # S-49-5 EQUIP. ID Sep-99			
DATE	RUN HOURS	DOWN HOURS	DAILY FUEL USED MCF
1	24	0	90
2	24	0	112
3	24	0	85
4	24	0	87
5	24	0	87
6	24	0	120
7	20	4	94
8	24	0	106
9	24	0	99
10	24	0	116
11	24	0	119
12	24	0	78
13	24	0	120
14	24	0	99
15	24	0	113
16	24	0	112
17	24	0	94
18	24	0	117
19	24	0	117
20	24	0	117
21	24	0	100
22	24	0	87
23	24	0	90
24	24	0	114
25	24	0	100
26	24	0	102
27	24	0	103
28	24	0	103
29	24	0	109
30	24	0	131
TOTALS	716	4	3191



BOOSTER K-1A PERMIT # S-49-3 EQUIP. ID Oct-99				BOOSTER K-1B PERMIT # S-49-4 EQUIP. ID Oct-99				BOOSTER K-1C PERMIT # S-49-5 EQUIP. ID Oct-99			
DATE	RUN HOURS	DOWN HOURS	DAILY FUEL USED MCF	DATE	RUN HOURS	DOWN HOURS	DAILY FUEL USED MCF	DATE	RUN HOURS	DOWN HOURS	DAILY FUEL USED MCF
1	24	0	103	1	24	0	76	1	24	0	95
2	24	0	120	2	24	0	108	2	24	0	111
3	24	0	132	3	24	0	111	3	24	0	120
4	22	2	90	4	24	0	76	4	24	0	89
5	24	0	118	5	24	0	101	5	24	0	103
6	24	0	143	6	24	0	115	6	24	0	128
7	24	0	140	7	24	0	84	7	24	0	128
8	24	0	119	8	24	0	79	8	24	0	108
9	24	0	107	9	24	0	115	9	24	0	107
10	24	0	107	10	24	0	96	10	24	0	104
11	24	0	107	11	24	0	99	11	24	0	104
12	24	0	98	12	24	0	77	12	24	0	79
13	22	2	115	13	24	0	100	13	24	0	108
14	24	0	106	14	24	0	97	14	24	0	105
15	24	0	112	15	24	0	96	15	24	0	105
16	24	0	111	16	24	0	96	16	24	0	105
17	24	0	112	17	24	0	96	17	24	0	101
18	24	0	108	18	24	0	92	18	24	0	104
19	24	0	117	19	24	0	92	19	24	0	102
20	24	0	109	20	24	0	94	20	24	0	105
21	24	0	129	21	24	0	111	21	24	0	123
22	24	0	99	22	24	0	85	22	24	0	117
23	24	0	127	23	24	0	109	23	24	0	119
24	24	0	99	24	24	0	85	24	24	0	95
25	24	0	118	25	24	0	102	25	24	0	113
26	24	0	113	26	24	0	97	26	24	0	108
27	24	0	121	27	24	0	105	27	24	0	118
28	24	0	118	28	24	0	100	28	21	3	83
29	24	0	83	29	24	0	72	29	24	0	77
30	24	0	120	30	24	0	102	30	24	0	112
31	24	0	112	31	24	0	98	31	24	0	107
TOTALS	740	4	3513	TOTALS	744	0	2966	TOTALS	741	3	3263

Bhp/hr

702

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BOOSTER K-1A PERMIT # S-49-3 EQUIP. ID Nov-99				BOOSTER K-1B PERMIT # S-49-4 EQUIP. ID Nov-99				BOOSTER K-1C PERMIT # S-49-5 EQUIP. ID Nov-99			
DATE	RUN HOURS	DOWN HOURS	DAILY FUEL USED MCF	DATE	RUN HOURS	DOWN HOURS	DAILY FUEL USED MCF	DATE	RUN HOURS	DOWN HOURS	DAILY FUEL USED MCF
1	24	0	109	1	24	0	95	1	24	0	105
2	24	0	115	2	24	0	99	2	24	0	111
3	24	0	123	3	24	0	108	3	24	0	117
4	24	0	96	4	24	0	83	4	24	0	91
5	24	0	118	5	24	0	104	5	24	0	113
6	24	0	123	6	24	0	108	6	24	0	137
7	24	0	95	7	24	0	90	7	24	0	94
8	24	0	111	8	24	0	101	8	24	0	90
9	24	0	112	9	24	0	96	9	24	0	106
10	24	0	126	10	24	0	106	10	24	0	117
11	24	0		11	24	0	101	11	24	0	
12	24	0	91	12	24	0	79	12	24	0	87
13	24	0	130	13	24	0	114	13	24	0	125
14	24	0	127	14	24	0	127	14	24	0	125
15	24	0	66	15	24	0	66	15	12	12	48
16	24	0		16	24	0	89	16	24	0	112
17	24	0	119	17	24	0	119	17	24	0	112
18	24	0	120	18	24	0	120	18	24	0	112
19	24	0	171	19	24	0	171	19	24	0	116
20	24	0	123	20	24	0	123	20	24	0	109
21	24	0	89	21	24	0	89	21	24	0	81
22	24	0	119	22	24	0	119	22	24	0	99
23	24	0	104	23	24	0	104	23	24	0	107
24	24	0	94	24	24	0	94	24	24	0	89
25	24	0	111	25	24	0	111	25	24	0	98
26	24	0	95	26	22	2	95	26	24	0	83
27	24	0	111	27	24	0	111	27	24	0	97
28	24	0	109	28	24	0	109	28	24	0	95
29	24	0	122	29	24	0	122	29	24	0	107
30	23	1	113	30	12	12	113	30	24	0	100
TOTALS	719	1	3142	TOTALS	706	14	3166	TOTALS	708	12	2993

*bw/hr*

*1,110* (113)

BOOSTER K-1A PERMIT # S-49-3 EQUIP. ID Dec-99				BOOSTER K-1B PERMIT # S-49-4 EQUIP. ID Dec-99				BOOSTER K-1C PERMIT # S-49-5 EQUIP. ID Dec-99			
DATE	RUN HOURS	DOWN HOURS	DAILY FUEL USED MCF	DATE	RUN HOURS	DOWN HOURS	DAILY FUEL USED MCF	DATE	RUN HOURS	DOWN HOURS	DAILY FUEL USED MCF
1	24	0	109	1	0	24	111	1	24	0	100
2	24	0	91	2	0	24	0	2	24	0	93
3	24	0	129	3	9	15	0	3	24	0	98
4	24	0	120	4	24	0	84	4	24	0	90
5	24	0	105	5	24	0	91	5	24	0	97
6	24	0	103	6	24	0	89	6	24	0	94
7	22	2	73	7	24	0	63	7	24	0	70
8	24	0	105	8	24	0	106	8	24	0	118
9	24	0	92	9	24	0	180	9	24	0	95
10	22	2	102	10	22	2	93	10	22	2	99
11	24	0	80	11	24	0	93	11	24	0	99
12	24	0	90	12	24	0	92	12	24	0	99
13	24	0	94	13	24	0	86	13	24	0	96
14	24	0	102	14	24	0	97	14	24	0	106
15	12	12	0	15	24	0	97	15	24	0	102
16	24	0	196	16	24	0	115	16	19	5	112
17	24	0	95	17	24	0	87	17	21	3	85
18	24	0	122	18	24	0	108	18	24	0	103
19	24	0	120	19	24	0	106	19	24	0	109
20	24	0	112	20	24	0	91	20	24	0	96
21	24	0	110	21	24	0	94	21	24	0	95
22	24	0	110	22	24	0	95	22	24	0	95
23	24	0	112	23	24	0	88	23	24	0	91
24	24	0	110	24	24	0	90	24	24	0	90
25	24	0	71	25	24	0	72	25	24	0	91
26	24	0	115	26	24	0	112	26	24	0	127
27	24	0	85	27	24	0	62	27	24	0	77
28	24	0	112	28	24	0	61	28	24	0	77
29	24	0	111	29	24	0	72	29	24	0	97
30	24	0	107	30	24	0	89	30	24	0	102
31	24	0	108	31	24	0	92	31	24	0	104
TOTALS	728	16	3191	TOTALS	655	89	2616	TOTALS	734	10	2918

bhp/hr

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**ATTACHMENT C**  
**Fuel Analysis**

San Joaquin Valley Unified Air Pollution Control District

**Compliance Source Test Report**

for

**Chevron U.S.A. Production Company**

**Cymric 17Z Gas Plant  
Three IC Engines**

**Determination of Concentrations and Emissions of  
NOx and CO**

**Project 104-1777A**

**Tested November 10 & 12, 1999**



# AEROS ENVIRONMENTAL, INC.

## Summary Of Results

Chevron U.S.A. Production Company  
 Cymric 17Z Gas Plant  
 UC-11 IC Engine

Project 104-1777A  
 November 10, 1999  
 Permit No. S-2199-2-1

Pollutant	ppm	ppm @ 3% O <sub>2</sub>	ppm @ 15% O <sub>2</sub>	lb/hr	lb/MMBtu	Permit Limits
NOx	276.1	383.7	126.5	1.46	0.4614	
	255.3	357.0	117.7	1.36	0.4293	
	256.7	359.0	118.3	1.36	0.4317	
Mean	262.7	366.6	120.8	1.39	0.4408	2.67 lb/hr
CO	282.2	392.2	129.3	0.91	0.2871	
	280.3	392.0	129.2	0.91	0.2869	
	280.5	392.3	129.3	0.91	0.2871	
Mean	281.0	392.2	129.3	0.91	0.2870	N/A
Comments: _____						

# AEROS ENVIRONMENTAL, INC.

## Summary Of Results

Chevron U.S.A. Production Company  
 Cymric 17Z Gas Plant  
 P-108 IC Engine

Project 104-1777A  
 November 10, 1999  
 Permit No. S-2199-5-1

Pollutant	ppm	ppm @ 3% O <sub>2</sub>	ppm @ 15% O <sub>2</sub>	Permit Limits
NOx	126.4	108.8	35.9	
	120.1	103.5	34.1	
	104.4	90.0	29.7	
Mean	117.0	100.8	33.2	90 ppm @ 15% O <sub>2</sub>
CO	2393.8	2061.0	679.3	
	3021.4	2603.9	858.3	
	922.2	794.8	262.0	
Mean	2112.5	1819.9	599.9	2000 ppm @ 15% O <sub>2</sub>
Comments: _____				

# AEROS ENVIRONMENTAL, INC.

## Summary Of Results

Chevron USA Production Company  
 Cymric 17Z Gas Plant  
 P-10A IC Engine Retest

Project 104-1777A  
 November 12, 1999  
 Permit No. S-49-22-1

Pollutant	ppm	ppm @ 3% O <sub>2</sub>	ppm @ 15% O <sub>2</sub>	Permit Limits
NOx	28.2	24.2	8.0	90 ppm @ 15% O <sub>2</sub>
	32.3	27.7	9.1	
	39.1	33.5	11.0	
Mean	33.2	28.5	9.4	
CO	3741.6	3204.5	1056.2	
	4718.1	4040.9	1331.9	
	4835.4	4141.3	1365.0	
	Mean	4431.7	3795.6	1251.0
Comments: _____ <p style="text-align: center;"><i>See discussion regarding retest.</i></p>				





**Chevron U.S.A. Production Company**  
**Various I.C. Engines.**

**Project 104-1777**  
**Laboratory ID 111099-02**

Sample Description: Fuel Gas  
 Sampled by: Mike Gray

Date Sampled: November 10, 1999  
 Date Received: November 10, 1999  
 Date Reported: November 26, 1999

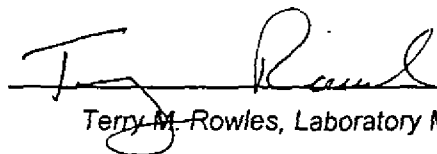
**Fuel Gas Analysis Results**

CONSTITUENT	MOLE %	WT. %	CHONS Wt. %
Carbon Dioxide	1.978	4.808	Carbon 72.87
Oxygen	0.030	0.053	Hydrogen 22.87
Nitrogen	0.462	0.715	Oxygen 3.55
Carbon Monoxide	0.000	0.000	Nitrogen 0.71
			Sulfur 0.00
Methane	87.902	77.895	H/C 0.314
Ethane	8.936	14.842	
Propane	0.693	1.687	
Isobutane	0.000	0.000	
N-Butane	0.000	0.000	
Isopentane	0.000	0.000	
N-Pentane	0.000	0.000	
Hexanes	0.000	0.000	
<b>Total(s)</b>	<b>100.000</b>	<b>100.000</b>	

Specific Gravity (Air = 1)	0.6251
Specific Volume (cf/lb)	20.96
Gross Calorific Value, Dry (Btu/cf)	1066.01
Gross Calorific Value, Wet (Btu/cf)	1044.83
Gross Calorific Value, Dry (Btu/lb)	22347.21
Net Calorific Value, Dry (Btu/cf)	962.44
Net Calorific Value, Wet (Btu/cf)	943.32
Compressability Factor "Z" @ 60° F, 1 atm	0.9975
<b>EPA F-Factor @ 68° F (DSCF/MMBtu)</b>	<b>8645</b>
<b>EPA F-Factor @ 60° F (DSCF/MMBtu)</b>	<b>8516</b>

References:

ASTM Methods D-1945-81 & D-3588-91

  
 Terry M. Rowles, Laboratory Manager

**"Professional Air Emissions Testing and Analytical Services"**

18829 Highway 65 • Bakersfield, CA 93308  
 (661) 391-0112 • (661) 391-0153 Fax

San Joaquin Valley Unified Air Pollution Control District

## Compliance Source Test Report

for

**Chevron U.S.A. Production Company**

**17Z Gas Plant and 36W Steam Drive Plant in Cymric  
One Heater and One Wet Scrubber**

**Heater:**

**Determination of Concentrations and Emissions of  
NOx and CO**

**Wet Scrubber:**

**Determination of Concentrations and Emissions of  
SO<sub>2</sub>**

**Project 104-1876**

**Tested January 26 & 27, 2000**



**AEROS ENVIRONMENTAL, INC.**

**Summary Of Results**

**Chevron U.S.A. Production Company  
Cymric 17Z Gas Plant  
Heater F-1**

**Project 104-1876  
January 26, 2000  
Permit No. S-49-1-1**

Pollutant	ppm	ppm @ 3% O <sub>2</sub>	ppm @ 15% O <sub>2</sub>	lb/hr	lb/MMBtu	Permit Limits
NOx	29.2	27.4	9.0	0.64	0.0329	30 ppm @ 3% O <sub>2</sub> or 0.036 lb/MMBtu
	29.6	27.7	9.1	0.64	0.0333	
	30.4	28.9	9.5	0.67	0.0347	
Mean	29.7	28.0	9.2	0.65	0.0336	
CO	424.0	397.8	131.1	5.62	0.2911	400 ppm @ 3% O <sub>2</sub>
	427.9	400.6	132.0	5.66	0.2932	
	268.5	254.8	84.0	3.60	0.1865	
Mean	373.5	351.1	115.7	4.96	0.2569	
Comments: _____						



Chevron U.S.A. Production Company  
 Heater F-1 5-49-1 17Z Gas Plant

Project 104-1876  
 Laboratory ID 013100-04

Sample Description: Fuel Gas  
 Sampled by: Armstrong Kaing


Date Sampled: January 26, 2000  
 Date Received: January 26, 2000  
 Date Reported: January 31, 2000

**Fuel Gas Analysis Results**

CONSTITUENT	MOLE %	WT. %	CHONS	Wt. %
Carbon Dioxide	1.930	4.710	Carbon	72.83
Oxygen	0.040	0.071	Hydrogen	22.92
Nitrogen	0.490	0.761	Oxygen	3.50
Carbon Monoxide	0.000	0.000	Nitrogen	0.76
			Sulfur	0.00
Methane	88.222	78.504	H/C	0.315
Ethane	8.788	14.658		
Propane	0.530	1.296		
Isobutane	0.000	0.000		
N-Butane	0.000	0.000		
Isopentane	0.000	0.000		
N-Pentane	0.000	0.000		
Hexanes	0.000	0.000		
<b>Total(s)</b>	<b>100.000</b>	<b>100.000</b>		

Specific Gravity (Air = 1)	0.6225
Specific Volume (cf/lb)	21.05
Gross Calorific Value, Dry (Btu/cf)	1062.51
Gross Calorific Value, Wet (Btu/cf)	1041.42
Gross Calorific Value, Dry (Btu/lb)	22366.41
Net Calorific Value, Dry (Btu/cf)	959.17
Net Calorific Value, Wet (Btu/cf)	940.13
Compressability Factor "Z" @ 60° F, 1 atm	0.9975
EPA F-Factor @ 68° F (DSCF/MMBtu)	8644
EPA F-Factor @ 60° F (DSCF/MMBtu)	8514

References:  
 ASTM Methods D-1945-81 & D-3588-91

  
 Terry M. Rowles, Laboratory Manager

**"Professional Air Emissions Testing and Analytical Services"**

18828 Highway 65 • Bakersfield, CA 93308  
 (861) 391-0112 • (861) 391-0153 Fax



San Joaquin Valley  
Air Pollution Control District

June 19, 2001

COPY

Mr. W.A. Brommelsiek  
Chevron USA Production  
PO Box 1392  
Bakersfield CA 93302

**Re: Cancellation of Permits to Operate S-49-3, '4 and '5**

Dear Mr. Brommelsiek :

Per your letter of May 30, 2001, the subject Permits to Operate for three 650 HP IC engines have been cancelled.

Cancellation of a Permit to Operate means:

- The equipment described must be out of service and rendered non-operational.
- Operating equipment without a Permit to Operate is a violation of District Rules and Regulations and is subject to enforcement action.
- Should you decide to place this equipment back into service at this or any other location within the District, you must first obtain an Authority to Construct from the District. Additional air pollution control equipment, more stringent emission limits, and emission offsets may be required.

Should you have any questions, please telephone Mr. Thomas Goff at (661) 326-6900.

Sincerely,

Seyed Sadredin  
Director of Permit Services

Thomas E. Goff, P.E.  
Permit Services Manager

BHS

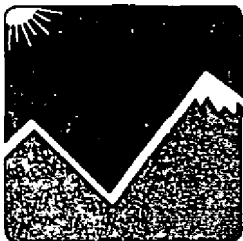
cc: Compliance Division

David L. Crow  
Executive Director/Air Pollution Control Officer

Northern Region Office  
4230 Kiernan Avenue, Suite 130  
Modesto, CA 95356-9322  
(209) 557-6400 • FAX (209) 557-6475

Central Region Office  
1990 East Gettysburg Avenue  
Fresno, CA 93726-0244  
(559) 230-6000 • FAX (559) 230-6061  
[www.valleyair.org](http://www.valleyair.org)

Southern Region Office  
2700 M Street, Suite 275  
Bakersfield, CA 93301-2373  
(661) 326-6900 • FAX (661) 326-6985



# San Joaquin Valley Unified Air Pollution Control District

January 26, 1998

Mr. W. A. Brommelsiek, Manager ESF & H  
Chevron U.S.A. Production Company - Western Business Unit  
P.O. Box 1392  
Bakersfield, CA 93302

COPY

**Re: Rule 4701 Emission Control Plan for Facility #S-49**

Dear Mr. Brommelsiek:

Your Rule 4701 Emission Control Plan for facility #S-49 (17-Z Gas Plant), dated December 19, 1997, has been received and reviewed by the San Joaquin Valley Air Pollution Control District.

Based on this review, the District has determined that the submittal satisfies the Emission Control Plan and the compliance schedule requirements of Rule 4701, Sections 6.1 and 7.0. Please notify the District in writing should there be any changes to the approved Emission Control Plan.

Thank you for your cooperation in this matter. Should you have any questions, please contact the District's Small Business Assistance (SBA) Office for assistance at (805) 862-8888.

Sincerely,

Seyed Sadredin  
Director of Permit Services

Thomas E. Goff, P.E.  
Permit Services Manager  
spl

c. Clif Calderwood, Compliance Division

David L. Crow

*Executive Director/Air Pollution Control Officer*

1999 Tuolumne Street, Suite 200 • Fresno, CA 93721 • (209) 497-1000 • FAX (209) 233-2057

---

#### Northern Region

4230 Kierman Avenue, Suite 130 • Modesto, CA 95356  
(209) 545-7000 • FAX (209) 545-8652

#### Central Region

1999 Tuolumne Street, Suite 200 • Fresno, CA 93721  
(209) 497-1000 • FAX (209) 233-2057

#### Southern Region

2700 M Street, Suite 275 • Bakersfield, CA 93301-2370  
(805) 862-5200 • FAX (805) 862-5201



**Chevron**

COPY

**Chevron U.S.A. Production Company**  
P.O. Box 1392  
Bakersfield, CA 93302

May 30, 2001

**William A. Brommelsiek**  
Manager – Health, Environmental & Safety  
San Joaquin Valley Business Unit  
Phone 661 633 4455

Mr. Tom Goff, Permit Services Manager  
San Joaquin Valley Air Pollution Control District  
2700 M. Street, Suite 275  
Bakersfield, California 93301

RECEIVED

MAY 31 2001

SAN JOAQUIN VALLEY UNIFIED  
APCD-SOUTHERN REGION

Re: Surrender of Permits to Operate

Dear Mr. Goff:

Chevron is hereby surrendering Permits to Operate S-49-3, S-49-4, and S-49-5 (copies attached). The subject permits are for three 650 bhp, Waukesha, lean burn, gas fired, internal combustion engines located at Chevron's 17Z gas plant. The engines have been taken out of service.

The effective date of surrender is May 31, 2001. Please contact Martin Lundy at (661) 633-4458 if you have any questions.

Sincerely,

W. A. Brommelsiek

# *Sun Joaquin Valley Unified Air Pollution Control District*

PERMIT UNIT: S-49-3-1

EXPIRATION DATE: 08/31/2003

SECTION: NE17 TOWNSHIP: 30S RANGE: 22E

## **EQUIPMENT DESCRIPTION:**

650 BHP GAS FIRED WAUKESHA LEAN BURN IC ENGINE #K-1A DRIVING A COMPRESSOR, S/N 104058

## **Permit Unit Requirements**

---

1. Valves, flanges and seals shall be maintained to prevent the emission of volatile organic compounds. [District Rule 4403]
2. NOx (as NO2) emission rate shall not exceed 3.02 lb/hr. [District NSR Rule]
3. Compliance with NOx and CO emission limits shall be demonstrated through source testing not less than once every 24 months, except as provided below. [District Rule 4701]
4. Once all engines have been initially tested, compliance with NOx and CO emission limits may be demonstrated by submission of annual source test results from one or more representative IC engines as approved by the APCO. [District Rule 4701]
5. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081]
6. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081]
7. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
8. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100 and stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081 and 4701]
9. Permittee shall maintain records of source test results, monitoring data, and other information deemed necessary by the APCO to demonstrate compliance with Rule 4701 for a period of two years and shall make such records readily available for District inspection upon request. [District Rules 1070, 4701]

**These terms and conditions are part of the facilitywide Permit to Operate.**



# *San Joaquin Valley Unified Air Pollution Control District*

PERMIT UNIT: S-49-4-1

EXPIRATION DATE: 08/31/2003

SECTION: NE17 TOWNSHIP: 30S RANGE: 22E

## **EQUIPMENT DESCRIPTION:**

650 BHP GAS FIRED WAUKESHA LEAN BURN IC ENGINE #K-1B DRIVING A COMPRESSOR, S/N 104055

## **Permit Unit Requirements**

---

1. Valves, flanges and seals shall be maintained to prevent the emission of volatile organic compounds. [District Rule 4403]
2. NO<sub>x</sub> (as NO<sub>2</sub>) emission rate shall not exceed 3.02 lb/hr. [District NSR Rule]
3. Compliance with NO<sub>x</sub> and CO emission limits shall be demonstrated through source testing not less than once every 24 months, except as provided below. [District Rule 4701]
4. Once all engines have been initially tested, compliance with NO<sub>x</sub> and CO emission limits may be demonstrated by submission of annual source test results from one or more representative IC engines as approved by the APCO. [District Rule 4701]
5. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081]
6. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081]
7. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
8. The following test methods shall be used: NO<sub>x</sub> (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100 and stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081 and 4701]
9. Permittee shall maintain records of source test results, monitoring data, and other information deemed necessary by the APCO to demonstrate compliance with Rule 4701 for a period of two years and shall make such records readily available for District inspection upon request. [District Rules 1070, 4701]

**These terms and conditions are part of the facilitywide Permit to Operate.**

# *San Joaquin Valley Unified Air Pollution Control District*

PERMIT UNIT: S-49-5-1

EXPIRATION DATE: 08/31/2003

SECTION: NE17 TOWNSHIP: 30S RANGE: 22E

## **EQUIPMENT DESCRIPTION:**

650 BHP GAS FIRED WAUKESHA LEAN BURN IC ENGINE #K-1C DRIVING A COMPRESSOR, S/N 104054

## **Permit Unit Requirements**

---

1. Valves, flanges and seals shall be maintained to prevent the emission of volatile organic compounds. [District Rule 4403]
2. NO<sub>x</sub> (as NO<sub>2</sub>) emission rate shall not exceed 3.02 lb/hr. [District NSR Rule]
3. Compliance with NO<sub>x</sub> and CO emission limits shall be demonstrated through source testing not less than once every 24 months, except as provided below. [District Rule 4701]
4. Once all engines have been initially tested, compliance with NO<sub>x</sub> and CO emission limits may be demonstrated by submission of annual source test results from one or more representative IC engines as approved by the APCO. [District Rule 4701]
5. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081]
6. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081]
7. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
8. The following test methods shall be used: NO<sub>x</sub> (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100 and stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081 and 4701]
9. Permittee shall maintain records of source test results, monitoring data, and other information deemed necessary by the APCO to demonstrate compliance with Rule 4701 for a period of two years and shall make such records readily available for District inspection upon request. [District Rules 1070, 4701]

**These terms and conditions are part of the facilitywide Permit to Operate.**

S-0049

COPY



Chevron U.S.A. Production Company  
P.O. Box 1392  
Bakersfield, CA 93302

December 19, 1997

Mr. David L. Crow  
San Joaquin Valley Unified APCD, Southern Region  
2700 "M" Street, Suite 275  
Bakersfield, CA 93301  
Attention: Mr. Thomas Goff

RECEIVED  
DEC 22 1997  
SANTA CLAY UNIFIED  
APCD-SOUTHERN REGION

**Re: Rule 4701 - I.C. Engines BARCT Compliance Plan**

Dear Mr. Goff,

Attached is the compliance plan for Chevron USA Production's stationary internal combustion engines affected by Rule 4701, as modified on December 19, 1996. The following information is included in the plan:

1. Compliance Plan Spreadsheet (§ 6.1.1).
2. Plan Options Description.
3. Documentation of Exempt Engines (§ 6.1.3).
4. Source Tests of Engines currently meeting BARCT limits (§ 6.1.2).
5. Previously submitted letter listing engines to be electrified or removed by May 31, 1999. (§ 7.5.1.1).

Necessary monitoring procedures will be submitted along with Authority to Construct (ATC) Applications (§ 5.4).

Section 6.1.2 of Rule 4701 requires the plan to include a construction/removal schedule. The following schedule will apply:


- ATC Applications for retrofits due by May 31, 2001, will be submitted by May 31, 1999.
- Construction/removal will commence approximately one (1) year after ATC Application submittal and will be completed by the compliance due date.

Note that Chevron may modify this plan in order to use proposed Rule 4501 for selected engines. Those will be evaluated on a case-by-case basis. Additionally, specified

compliance options may be modified as technological advances could change the viability of different emission control systems.

If you have any questions on this matter, please contact Roger Christy at (805) 633-4437.

Sincerely,



W. A. Brommelsiek

attachment

COMPLIANCE PLAN  
SPREADSHEET

2

PLAN OPTIONS DESCRIPTION

3

DOCUMENTATION  
OF  
EXEMPT ICE'S

4

SOURCE TESTS  
OF  
ICE'S MEETING BARCT LIMITS

5

NOTIFICATION LETTER  
TO  
REMOVE OR ELECTRIFY

SJVUAPCD #	Permit #	Description	Rating	Section	Manufacturer	Model	Fuel Type	Ignition Type	Rich/Lean	Current Control	Future Options
S-48-3-2	2041011	#1 (Clark RA-6)	600	1 C	Clark	RA-6	Nat. Gas	Spark	Lean	\$ 5.1.1/Tune-up	1,5, or 12
S-48-4-2	2041012	# 2 (Clark RA-6)	600	1 C	Clark	RA-6	Nat. Gas	Spark	Lean	\$ 5.1.1/Tune-up	1,5, or 12
S-48-5-2	2041013	# 3 (Clark RA-6)	600	1 C	Clark	RA-6	Nat. Gas	Spark	Lean	\$ 5.1.1/Tune-up	1,5, or 12
S-48-6-2	2041014	# 4 (Clark HRA-6-M)	660	1 C	Clark	HRA-6-M	Nat. Gas	Spark	Lean	\$ 5.1.1/Tune-up	1,5, or 12
S-48-7-2	2041015	# 5 (Clark HRA-6-M)	660	1 C	Clark	HRA-6-M	Nat. Gas	Spark	Lean	\$ 5.1.1/Tune-up	1,5, or 12
S-48-8-2	2041016	# 6 (Clark HRA-6-M)	660	1 C	Clark	HRA-6-M	Nat. Gas	Spark	Lean	\$ 5.1.1/Tune-up	1,5, or 12
S-48-9-3	2041017	# 12 (Clark HRA-6-M)	800	1 C	Clark	RA-8	Nat. Gas	Spark	Lean	\$ 5.1.1/Tune-up	1,5, or 12
S-48-10-3	2041018	# 16 (Clark HRA-6-M)	660	1 C	Clark	HRA-6-M	Nat. Gas	Spark	Lean	\$ 5.1.1/Tune-up	1,5, or 12
S-48-11-0	2041019	#K-2 (IRAND)	300	1 C	IRand	B-XVG	Nat. Gas	Spark	Lean	PSC	7, 10, or 1
S-48-12-0	2041087	# 15 (Clark)	330	1 C	Clark	HRA-32-M	Nat. Gas	Spark	Lean	Electrify 99	2
S-48-14-0	2041089	# 14 (Clark)	300	1 C	Clark	RA-32	Nat. Gas	Spark	Lean	Electrify 99	2
S-48-17-1	2041092	# A-2	63	1 C	Waukesha	140GK	Nat. Gas	Spark	Rich	Emergency Stat	11
S-48-18-1	2041093	# A-1	63	1 C	Waukesha	140GK	Nat. Gas	Spark	Rich	Emergency Stat	11
S-48-19-0	2041094	# 4-A	63	1 C	Waukesha	140GK	Nat. Gas	Spark	Rich	Emergency Stat	11
S-48-20-1	2041095	# A-3	63	1 C	Waukesha	140GK	Nat. Gas	Spark	Rich	Emergency Stat	11
S-48-22-0	2041102	1C Pli Emergency Generator	600	1 C	Cummins	KTA19GS2	Diesel	Compression	N/A	Emergency Stat	11
S-48-24-0	2041019	#K-3 (IRAND)	300	1 C	IRand	B-XVG	Nat. Gas	Spark	Lean	PSC	7, 10, or 1
S-49-3-0	2041024	# K-1A (Waukesha 104058)	650	17 Z	Waukesha	F3521GL	Nat Gas	Spark	Lean	Precombustion	8, 9, or 1
S-49-4-0	2041025	# K-1B (Waukesha 104055)	650	17 Z	Waukesha	F3521GL	Nat Gas	Spark	Lean	Precombustion	8, 9, or 1
S-49-5-0	2041026	# K-1C (Waukesha 104054)	650	17 Z	Waukesha	F3521GL	Nat Gas	Spark	Lean	Precombustion	8, 9, or 1
S-49-18-0	2041082	K-8 Emergency generator 17Z Pli	386	17 Z	Waukesha	F2894GU	Nat Gas	Spark	Rich	Emergency Stat	11
S-49-21-0	2041109	# Fire 1 (Waukesha 80232)	119	17 Z	Waukesha	F817GU	Nat Gas	Spark	Rich	Emergency Stat	4
S-49-22-0	2041110	# P-10A (Waukesha 100750)	157	17 Z	Waukesha	F1197GU	Nat Gas	Spark	Rich	NSCR 12/31/95	7 or 1
S-49-23-0	2041111	# P-10B (Waukesha 100751)	157	17 Z	Waukesha	F1197GU	Nat Gas	Spark	Rich	NSCR 12/31/95	7 or 1
S-49-24-0	2041112	# P-10C (Waukesha 705829)	157	17 Z	Waukesha	F1197GU	Nat Gas	Spark	Rich	NSCR 12/31/95	7 or 1
S-49-25-0	2041113	# P-2 (Waukesha 3407)	104	17 Z	Waukesha	140GZ	Nat Gas	Spark	Rich	NSCR 12/31/95	7 or 1
S-49-26-0	2041114	# P-3 (Waukesha 96935)	157	17 Z	Waukesha	F1197GU	Nat Gas	Spark	Rich	NSCR 12/31/95	7 or 1
S-49-28-0	2041123	# Fire 2 Emergency water pump	119	17 Z	Waukesha	145	Nat Gas	Spark	Rich	Emergency Stat	4
S-55-10-0	2041149	#M-804 (Caterpillar)	440	3	Caterpillar	3406B	Diesel	Compression	N/A	Emergency Stat	11
S-55-12-0	2041153	#P-802B (Cummins)	182	3	Cummins	6-BTA5	Diesel	Compression	N/A	Emergency Stat	11
S-57-2-0	2041060	#C-1 (Waukesha)	1100	32	Waukesha	7042GL	Nat. Gas	Spark	Lean	Precombustion	8, 9, or 1
S-57-3-0	2041061	#C-2 (Waukesha)	1100	32	Waukesha	7040GL	Nat Gas	Spark	Lean	Precombustion	8, 9, or 1
S-1127-240-1	4008635	KRWP Emergency Pump	350	9 KR	Detroit	7123-7000	Diesel	Compression	N/A	Emergency Stat	11
S-1128-305-0	4008738	Emergency generator at 36W Cogen	375	36 W	Caterpillar	3406DT	Diesel	Compression	N/A	Emergency Stat	11
S-1128-306-0	4008739	Emergency generator at 6Z Cogen	600	6 Z	Cummins	KTA1965T	Diesel	Compression	N/A	Emergency Stat	11

Plan Options Descriptions

Option #	Abbreviation	Detailed Description	Emission Levels (Ref.)	Compliance Schedule	
				Due Date	Reference
1	Elec.Repl	Replace controlled engine with Electric Motor @ CUSA Discretion.	NA	5/31/01	§ 7.5.2
2	Elec.99	Replace uncontrolled engine with Electric Motor or Shutdown.	NA	5/31/99	§ 5.3 and § 7.5.1
3	Shutdown	Shutdown and cancel PTO @ CUSA Discretion.	NA	Various	NA
4	Fire.Cntrl	Engines used exclusively for fire fighting services and flood control.	NA	Exempt	§ 4.2.2
5	Low.Use.51	PTO limited to 1000 hours per year.	§ 5.1.1	5/31/01	§ 3.11, § 5.2, & § 7.3.2 Sched. 3.a
6	Low.Use.52	PTO limited to 1000 hours per year.	§ 5.1.2	Various	§ 3.11 and § 5.2
7	NSCR	NonSelective Catalytic Reduction.	§ 5.1.3 Sched. 3.a.ii	5/31/01	§ 7.3.1 Sched. 2
8	PCC	PreCombustion Chamber.	§ 5.1.3 Sched. 3.b	5/31/01	Various
9	PCC_A/F	PreCombustion Chamber with Air/Fuel Ratio Control.	§ 5.1.3 Sched. 3.b	5/31/01	Various
10	PSC	PreStratified Charge.	§ 5.1.3 Sched. 3.b	5/31/01	Various
11	Standby	Limited to 200 hours non-emergency use and unlimited emergency use.	Various	Various	§ 4.2.1
12	PCC_2cyc.	PreCombustion Chamber modification for 2-cycle lean burn engines.	§ 5.1.3 Sched. 3.b	5/31/01	§ 7.3.2 Sched. 3.a

### Section 3

#### Documentation to Show Engine is Exempt

Attached are the following permits to Operate the show that the engines are permitted as emergency standby or used exclusively for fire fighting services and flood control (Sections 4.2.1 and 4.2.2)

SJVUAPCD No.	Permit No	Description
S-48-22-0	2041102	1C Plt Emergency Generator
S-49-18-0	2041082	K-8 Emergency generator 17Z Plt
S-49-21-0	2041109	# Fire 1 (Waukesha 80232)
S-49-28-0	2041123	# Fire 2 Emergency water pump
S-55-10-0	2041149	#M-804 (Caterpillar)
S-55-12-0	2041153	#P-802B (Cummins)
S-1127-240-1	4008635	Emergency Pump
S-1128-305-0	4008738	Emergency generator at 36W Cogen
S-1128-306-0	4008739	Emergency generator at 6Z Cogen
S-1128-307-0	4008740	26C Cogen Emergency Generator





San Joaquin Valley  
Unified Air Pollution Control District

## PERMIT TO OPERATE

PERMIT NO: S- 49-18-1

EXPIRATION DATE: 08/31/1998

LEGAL OWNER OR OPERATOR: CHEVRON U.S.A. INC  
MAILING ADDRESS: BOX 1392  
BAKERSFIELD, CA 93302

LOCATION: 17Z GAS PLANT, SECTION NE17 TOWNSHIP 30S RANGE 22E

EQUIPMENT DESCRIPTION:  
386 HP NATURAL GAS FIRED WAUKESHA IC ENGINE #K-8 POWERING EMERGENCY ELECTRICAL GENERATOR

### CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance.
2. Engine/generator unit shall only be used during electric utility power interruptions, District required emissions testing, or for periodic testing.
3. A record of engine operation elapsed time and dates of operation shall be maintained, retained on the premises for a period of at least two years, and made available for District inspection upon request.

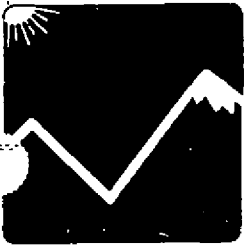
This Permit to Operate remains valid through the permit expiration date listed above, subject to payment of annual permit fees and compliance with permit conditions and all applicable local, state, and federal regulations. This permit is valid only at the location specified above, and becomes void upon any transfer of ownership or location. Any modification of the equipment or operation, as defined in District Rule 2201, will require a new permit. This permit shall be posted as prescribed in District Rule 2010.

DAVID L. CROW

Executive Director/APCO

Southern Regional Office \*2700 M Street, Suite 275 \*Bakersfield, California 93301 \*(805) 861-3682\* FAX (805) 861-2060

1995-10-3 - SPL



San Joaquin Valley  
Unified Air Pollution Control District

## PERMIT TO OPERATE

PERMIT NO: S- 49-21-1

EXPIRATION DATE: 08/31/1998

LEGAL OWNER OR OPERATOR: CHEVRON U.S.A. INC  
MAILING ADDRESS: BOX 1392  
BAKERSFIELD, CA 93302

LOCATION: 17Z GAS PLANT, SECTION 17 TOWNSHIP 30S RANGE 22E

**EQUIPMENT DESCRIPTION:**

119 BHP GAS FIRED WAUKESHA IC ENGINE # FIRE 1, S/N 80232 POWERING EMERGENCY FIREWATER PUMP

### CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance.
2. Unit shall only be used during electric firewater pump failure, District required emissions testing, or for periodic testing.
3. A record of engine operation elapsed time and dates of operation shall be maintained, retained on the premises for a period of at least two years, and made available for District inspection upon request.

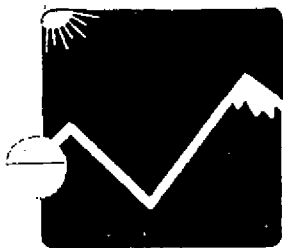
*This Permit to Operate remains valid through the permit expiration date listed above, subject to payment of annual permit fees and compliance with permit conditions and all applicable local, state, and federal regulations. This permit is valid only at the location specified above, and becomes void upon any transfer of ownership or location. Any modification of the equipment or operation, as defined in District Rule 2201, will require a new permit. This permit shall be posted as prescribed in District Rule 2010.*

**DAVID L. CROW**

Executive Director/APCO

Southern Regional Office \*2700 M Street, Suite 275 \*Bakersfield, California 93301 \*(805) 861-3682\* FAX (805) 861-2060

1993-10-1 - SPL



San Joaquin Valley  
Unified Air Pollution Control District

## PERMIT TO OPERATE

PERMIT NO: S- 49-28-1

EXPIRATION DATE: 08/31/1998

LEGAL OWNER OR OPERATOR: CHEVRON U.S.A. INC  
MAILING ADDRESS: BOX 1392  
BAKERSFIELD, CA 93302

LOCATION: 17Z GAS PLANT, SECTION 17 TOWNSHIP 30S RANGE 22E

### EQUIPMENT DESCRIPTION:

119 BHP GAS FIRED WAUKESHA MODEL 145 IC ENGINE # FIRE 2, S/N 81506 POWERING EMERGENCY FIREWATER PUMP

## CONDITIONS

1. No air contaminant shall be released into the atmosphere which causes a public nuisance.
2. Unit shall only be used during electric firewater pump failure, District required emissions testing, or for periodic testing.
3. A record of engine operation elapsed time and dates of operation shall be maintained, retained on the premises for a period of at least two years, and made available for District inspection upon request.

This Permit to Operate remains valid through the permit expiration date listed above, subject to payment of annual permit fees and compliance with permit conditions and all applicable local, state, and federal regulations. This permit is valid only at the location specified above, and becomes void upon any transfer of ownership or location. Any modification of the equipment or operation, as defined in District Rule 2201, will require a new permit. This permit shall be posted as prescribed in District Rule 2010.

DAVID L. CROW

Executive Director/APCO

Southern Regional Office \*2700 M Street, Suite 275 \*Bakersfield, California 93301 \*(805) 861-3682\* FAX (805) 861-2060

1995-11-27 - SPL

## Section 4

### Source Tests for Internal Combustion Engines Already in Compliance with Future Rule 4701 Emission Limits

The following source test cover sheets show that following equipment is in compliance with the emission limits established in Section 5.1 of Rule 4701 in conjunction with the compliance schedule per Section 7.0.

SJVUAPCD No.	Permit No	Description
S-48-11-0	2041085	#K-2 (IRAND)
S-48-24-0	2041086	#K-3 (IRAND)
S-49-3-0	2041024	# K-1A (Waukesha 104058)
S-49-4-0	2041025	# K-1B (Waukesha 104055)
S-49-5-0	2041026	# K-1C (Waukesha 104054)
S-49-22-0	2041110	# P-10A (Waukesha 100750)
S-49-23-0	2041111	# P-10B (Waukesha 100751)
S-49-24-0	2041112	# P-10C (Waukesha 705829)
S-49-25-0	2041113	# P-2 (Waukesha 3407)
S-49-26-0	2041114	# P-3 (Waukesha 96935)
S-57-2-0	2041060	#C-1 (Waukesha)
S-57-3-0	2041061	#C-2 (Waukesha)
S-2199-1-2	2041032	# UC 9 (White 18402)
S-2199-5-0	2041107	# P-108 (IRand 4AV164)
S-2199-6-0	2041108	# UC 12 (IRand 6BS275)
S-2199-15-0	2041083	#UC-14 (Waukesha 230754)
S-2199-18-0	2041042	#UC-13 (Waukesha 12215)
S-2199-20-0	2041097	# 1
S-2199-21-0	2041098	# 2
S-2199-27-0	2041120	# P-324 (Waukesha 46049)

There are two recent source tests that show an exceedance of the 50 ppmv @ 15% O<sub>2</sub> NO<sub>x</sub> emission limit that will be required after 5/31/01 (Units S-49-22-1 and S-2199-1-3). However, previous source tests (also included) for those same units do show that they can attain the new limit.

Although these source tests show that we can comply with the future emission limits, we reserve the right to select other controls in the future that also complies with the emission limits.

SUMMARY OF SOURCE TEST RESULTS

Company: Chevron U.S.A.  
 Test Date: 07/09/97  
 Location: 17Z Gas Plant

APCD No. S-49-3-1  
 Unit No. K1-A

EMISSIONS

POLLUTANT	Concentration		PPMv	@15% O2	lbs/hr	lb/MMBtu
	gr/scf	@12%				
Particulate						
Sulfate						lb/MMBtu as Sulfur
SO2 (wet)						lb/MMBtu as Sulfur
NOx as NO2 (dry)			74.4	40.4	0.66	
			77.5	42.2	0.68	
			<u>85.9</u>	<u>46.4</u>	<u>0.76</u>	
			79.3	43.0	0.70	
HC						
CO						
Comments:						
For SJVUAPCD Use Only:						

**SUMMARY OF SOURCE TEST RESULTS**

Company: Chevron U.S.A.  
 Test Date: 07/08/97  
 Location: 17Z Gas Plant

APCD No. S-49-4-1  
 Unit No. K1-B

**EMISSIONS**

POLLUTANT	Concentration		PPMv	@15% O2	lbs/hr	lb/MMBtu
	gr/scf	@12%				
Particulate						
Sulfate						lb/MMBtu as Sulfur
SO2 (wet)						lb/MMBtu as Sulfur
NOx as NO2 (dry)			80.4	43.2	0.70	
			77.7	41.8	0.68	
			<u>78.9</u>	<u>42.4</u>	<u>0.69</u>	
			79.0	42.5	0.69	
HC						
CO						

Comments:

For SJVUAPCD Use Only:

SUMMARY OF SOURCE TEST RESULTS

Company: Chevron U.S.A.  
 Test Date: 07/08/97  
 Location: 17Z Gas Plant

APCD No. S-49-5-1  
 Unit No. K1-C

EMISSIONS

POLLUTANT	Concentration		PPMv	@15% O2	lbs/hr	lb/MMBtu
	gr/scf	@12%				
Particulate						
Sulfate						lb/MMBtu as Sulfur
SO2 (wet)						lb/MMBtu as Sulfur
NOx as NO2 (dry)			48.9	27.7	0.41	
			48.8	27.6	0.41	
			<u>52.8</u>	<u>29.9</u>	<u>0.44</u>	
			50.1	28.4	0.42	
HC						
CO						
Comments:						
For SJVUAPCD Use Only:						

SUMMARY OF SOURCE TEST RESULTS

Company: Chevron U.S.A.  
 Test Date: 10-21-97  
 Location: 17Z Gas plant

APCD No. S-49-22-1  
 Unit No. P10-A

EMISSIONS

POLLUTANT	Concentration		PPMv	@15% O2	lbs/hr	Lb/MMbtu
	gr/scf	@12%				
Particulate						
Sulfate						Lb/MMbtu as Sulfur
Total Sulfur						Lb/MMbtu as Sulfur
NOx as NO2 (dry)			144	44.2		Lb/MMbtu
			186	57.4		
			<u>204</u>	<u>63.0</u>		
			178	54.9		
HC						
CO			2763	851.3		Lb/MMbtu
			6050	1870.8		
			<u>6250</u>	<u>1929.6</u>		
			5021	1550.6		
Comments:						
For SJVUAPCD Use Only:						



SUMMARY OF SOURCE TEST RESULTS

Company: Chevron U.S.A.  
 Test Date: 11-21-96

APCD No. S-49-22  
 Unit No. P10-A

EMISSIONS

POLLUTANT	Concentration		PPMv	@15% O2	lbs/hr	lb/MMbtu
	gr/scf	@12%				
Particulate						
Sulfate						lb/MMbtu as Sulfur
Total Sulfur						lb/MMbtu as Sulfur
NOx as NO2 (dry)			2.2	0.61		Lbs/MMbtu
			1.8	0.50		
			<u>5.5</u>	<u>1.56</u>		
			3.1	0.89		
HC						
CO			3040	860.4		Lbs/MMbtu
			4425	1252.5		
			<u>1045</u>	<u>295.8</u>		
			2837	802.9		
Comments:						
For SJVUAPCD Use Only:						

SUMMARY OF SOURCE TEST RESULTS

Company: Chevron U.S.A.  
 Test Date: 01/11/96

APCD No. S-49-22-1  
 Unit No. P-10-A

EMISSIONS

POLLUTANT	Concentration		PPMv	@15% O2	lb/hr	lb/MMBTU
	gr/scf	@12%				
Particulate						
Sulfate						lb/MMBtu as Sulfur
SO2 (wet)						lb/MMBtu as Sulfur
NOx as NO2 (dry)			1.0	0.3		lb/MMBtu
			0.5	0.1		
			<u>0.5</u>	<u>0.1</u>		
			0.7	0.2		
HC						
CO			2750.0	777.1		
			3050.0	861.8		
			<u>2375.0</u>	<u>671.1</u>		
			2725.0	770.0		
Comments:						
For SJVUAPCD Use Only:						

Company: Chevron U.S.A.  
 Test Date: 01/11/96

APCD No. S-49-24-1  
 Unit No. P10-C

EMISSIONS

POLLUTANT	Concentration		PPMv	@15% O2	lb/hr	lb/MMBTU
	gr/scf	@12%				
Particulate						
Sulfate						lb/MMBtu as Sulfur
SO2 (wet)						lb/MMBtu as Sulfur
NOx as NO2 (dry)			0.5	0.1		lb/MMBtu
			0.5	0.1		
			<u>0.5</u>	<u>0.1</u>		
			0.5	0.1		
HC						
CO			1400.0	395.6		
			1700.0	480.4		
			<u>1950.0</u>	<u>551.0</u>		
			1683.3	475.7		
Comments:						
For SJVUAPCD Use Only:						

SUMMARY OF SOURCE TEST RESULTS

Company: Chevron U.S.A.  
 Test Date: 10-21-97  
 Location: 17Z Gas plant

APCD No. S-49-25-1  
 Unit No. P-2

EMISSIONS

POLLUTANT	Concentration		PPMv	@15% O2	lbs/hr	Lb/MMbtu
	gr/scf	@12%				
Particulate						
Sulfate						Lb/MMbtu as Sulfur
Total Sulfur						Lb/MMbtu as Sulfur
NOx as NO2 (dry)			0.9	0.2		Lb/MMbtu
			0.9	0.2		
			<u>0.8</u>	<u>0.2</u>		
			0.9	0.2		
HC						
CO			1078	305.6		Lb/MMbtu
			760	215.6		
			<u>1363</u>	<u>386.5</u>		
			1067	302.6		
Comments:						
For SJVUAPCD Use Only:						

Company: Chevron U.S.A.  
 Test Date: 01/10/96

APCD No. S-49-26-1  
 Unit No. P-3

EMISSIONS

POLLUTANT	Concentration		PPMv	@15% O2	lb/hr	lb/MMBTU
	gr/scf	@12%				
Particulate						
Sulfate						lb/MMBtu as Sulfur
SO2 (wet)						lb/MMBtu as Sulfur
NOx as NO2 (dry)			0.8	0.2		lb/MMBtu
			0.5	0.1		
			<u>0.5</u>	<u>0.1</u>		
			0.6	0.2		
HC						
CO			2550.0	720.5		
			1075.0	303.8		
			<u>1100.0</u>	<u>310.8</u>		
			1575.0	445.0		
Comments:						
For SJVUAPCD Use Only:						



**Chevron U.S.A. Production Company**

P.O. Box 1392, Bakersfield, CA 93302

W. A. Brommelsiek  
Manager-Environmental, Safety, Fire & Health  
Western Business Unit

May 30, 1997

Mr. Tom Goff  
San Joaquin Valley Unified Air Pollution Control District  
2700 "M" Street, Suite 275  
Bakersfield, CA 93301

RE: NOTIFICATION OF INTENT TO ELECTRIFY ENGINES FOR RULE 4701

Dear Mr. Goff,

To comply with Section 7.5.1.1 of Rule 4701, Chevron U.S.A. Production Company hereby submits the attached list of internal combustion engines that we have removed from service or that we plan to remove from service by 5/31/99.

Please contact Martin Lundy at (805) 633-4458 if you have any questions. Thank you.

Sincerely,

A handwritten signature in cursive script that reads "Martin D. Lundy".

W. A. Brommelsiek

Attachment

# Chevron U.S.A. Production Company

## Engines to Be Removed or Electrified by 5/31/99

N/A

SJVUAPCD No.	KCAPCD No.	Description	Rating	Sec.	Manufacturer	Model	Fuel Type	Ignition Type	Rich/Lean	Control Method	Status
S-48-12-0	2041087	# 15	330	1 C	Clark	HHA-32-M	Nat. Gas	Spark	Lean	Electrify 99	To be electrified or removed by 5/31/99
S-48-13-0	2041088	# 13	300	1 C	Clark	MRA-32	Nat. Gas	Spark	Lean	Electrify 99	To be electrified or removed by 5/31/99
S-48-14-0	2041089	# 14	300	1 C	Clark	RA-32	Nat. Gas	Spark	Lean	Electrify 99	To be electrified or removed by 5/31/99
S-48-15-0	2041090	# 3-A	85	1 C	Ford	FL HD V8	Nat. Gas	Spark	Rich	NSCH 12/31/95	Removed or electrified as of 5/30/97
S-48-16-0	2041091	# 2-A	56	1 C	Waukesha	135GZU	Nat. Gas	Spark	Rich	NSCR 12/31/95	Removed or electrified as of 5/30/97
S-48-21-0	2041096	# 1-A	108	1 C	Waukesha	145GK	Nat. Gas	Spark	Rich	NSCR 12/31/95	Removed or electrified as of 5/30/97
S-1128-308-0	4008741	26C Oil Pit Water Pump	187	28 C	Roline	H884	Nat. Gas	Spark	Rich	Electrify 99	To be electrified or removed by 5/31/99
S-1128-320-0	4008755	# P-202B (Waukesha) @ #37	63	23 Z	Waukesha	140GK	Nat Gas	Spark	Rich	Electrify 99	To be electrified or removed by 5/31/99
S-2010-32-0	4008744	(Waukesha) #347	56	10 Z	Waukesha	135GZU	Nat Gas	Spark	Rich	Tune-up 5/31/95	Removed or electrified as of 5/30/97
S-2010-34-0	4008749	(Waukesha) #388	56	15 Z	Waukesha	135GZU	Nat Gas	Spark	Rich	Tune-up 5/31/95	Removed or electrified as of 5/30/97
S-2010-39-0	4008759	(Waukesha) #357X	56	25 Z	Waukesha	135GZU	Nat Gas	Spark	Rich	Tune-up 5/31/95	Removed or electrified as of 5/30/97
S-2010-41-0	4008762	(Waukesha) #533	108	25 Z	Waukesha	145GK	Nat Gas	Spark	Rich	Tune-up 5/31/95	Removed or electrified as of 5/30/97
S-2010-42-0	4008763	(Waukesha) #81 @ #48	56	23 Z	Waukesha	135GZU	Nat Gas	Spark	Rich	Tune-up 5/31/95	Removed or electrified as of 5/30/97
S-2010-43-0	4008764	(M&M) #22	88	25 Z	M&M		Nat Gas	Spark	Rich	Tune-up 5/31/95	Removed or electrified as of 5/30/97
S-2010-44-0	4008765	(Waukesha) #53B	108	6 Z	Waukesha	145GZU	Nat Gas	Spark	Rich	Tune-up 5/31/95	Removed or electrified as of 5/30/97
S-2010-45-0	4008769	(M&M) #71	128	27 Z	M&M		Nat Gas	Spark	Rich	Tune-up 5/31/95	Removed or electrified as of 5/30/97
S-2199-3-1	2041019	# 2	500	7 D	Clark	RA-6	Nat. Gas	Spark	Lean	Electrify 99	To be electrified or removed by 5/31/99
S-2199-7-0	2041034	# 1 (Clark 22705)	660	15 Z	Clark		Nat Gas	Spark	Lean	Electrify 99	Removed or electrified as of 5/30/97
S-2199-8-0	2041035	# 2 (Clark 22707)	660	15 Z	Clark		Nat Gas	Spark	Lean	Electrify 99	Removed or electrified as of 5/30/97
S-2199-9-0	2041103	# P-101 (IRand 4GV1650)	150	15 Z	IRand	XVG	Nat Gas	Spark	Rich	Electrify 99	Removed or electrified as of 5/30/97
S-2199-10-0	2041104	# P-109 (IRand 4GV1335)	150	15 Z	IRand	XVG	Nat Gas	Spark	Rich	Electrify 99	Removed or electrified as of 5/30/97
S-2199-11-0	2041105	# P-206 (Clark 50037)	350	15 Z	Clark	HMA-B	Nat Gas	Spark	Lean	Electrify 99	Removed or electrified as of 5/30/97
S-2199-12-0	2041106	# P-207 (Clark 39520)	300	15 Z	Clark	MA-B	Nat Gas	Spark	Lean	Electrify 99	Removed or electrified as of 5/30/97
S-2199-22-0	2041099	# 1	500	31 E	Clark	RA-5	Nat. Gas	Spark	Lean	Electrified	Removed or electrified as of 5/30/97
S-2199-23-0	2041116	# P-106 (IRand 4AV200)	150	1 Y	IRand	XVG	Nat Gas	Spark	Rich	Electrify 99	Removed or electrified as of 5/30/97
S-2199-24-0	2041117	# P-307 (Waukesha 73263B)	162	1 Y	Waukesha	6WAK	Nat Gas	Spark	Rich	Electrify 99	Removed or electrified as of 5/30/97
S-2199-25-0	2041118	# P-102 (IRand 4GV1354)	150	1 Y	IRand	XVG	Nat Gas	Spark	Rich	Electrify 99	Removed or electrified as of 5/30/97
S-2199-26-0	2041119	# P-202A (Clark 39558)	300	23 Z	Clark	MA-B	Nat Gas	Spark	Lean	Electrify 99	To be electrified or removed by 5/31/99
S-2199-28-0	2041121	# P-201A (Clark 39557)	300	25 Z	Clark	MA-B	Nat Gas	Spark	Lean	Electrify 99	To be electrified or removed by 5/31/99
S-2199-29-0	2041122	# P-201B (Waukesha 174896)	56	25 Z	Waukesha	13562	Nat Gas	Spark	Rich	Electrify 99	To be electrified or removed by 5/31/99
S-2199-31-0	2041125	# P-103 (IRand 4AV172)	150	27 W	IRand	XVG	Nat Gas	Spark	Rich	Electrify 99	To be electrified or removed by 5/31/99
S-2199-32-0	2041126	# P-323 (Waukesha 47603) OS	278	35 W	Waukesha	LRO	Nat Gas	Spark	Rich	Electrify 99	Removed or electrified as of 5/30/97
S-2199-33-0	2041127	# P-317 (Waukesha 56809)	162	35 Z	Waukesha	6WAKB	Nat Gas	Spark	Rich	Electrify 99	Removed or electrified as of 5/30/97
S-2199-34-0	2041128	# 1 (IRand BAJ288) NEMU Boost	240	8 Z	IRand	JVG	Nat Gas	Spark	Rich	Electrify 99	To be electrified or removed by 5/31/99
S-2199-35-0	2041129	# 2 (Clark 38512) NEMU Boost	226	8 Z	Clark	MA-B	Nat Gas	Spark	Lean	Electrify 99	Removed or electrified as of 5/30/97

INSPECTION

EXPIRATION DATE: 08/31/2003

LEGAL OWNER OR OPERATOR: CHEVRON USA INC  
MAILING ADDRESS: P O BOX 1392  
BAKERSFIELD, CA 93302

WORKSHEET

LOCATION: 17Z GAS PLANT  
CA

SECTION: NE17 TOWNSHIP: 30S RANGE: 22E

EQUIPMENT DESCRIPTION:  
650 BHP GAS FIRED WAUKESHA LEAN BURN IC ENGINE #K-1A DRIVING A COMPRESSOR, S/N 104058

### CONDITIONS

1. Valves, flanges and seals shall be maintained to prevent the emission of volatile organic compounds. [District Rule 4403]
2. NOx (as NO2) emission rate shall not exceed 3.02 lb/hr. [District NSR Rule] *150ppm @ 15%O2*
3. Compliance with NOx and CO emission limits shall be demonstrated through source testing not less than once every 24 months, except as provided below. [District Rule 4701]
4. Once all engines have been initially tested, compliance with NOx and CO emission limits may be demonstrated by submission of annual source test results from one or more representative IC engines as approved by the APCO. [District Rule 4701]
5. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081]
6. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081]
7. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
8. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100 and stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081 and 4701]
9. Permittee shall maintain records of source test results, monitoring data, and other information deemed necessary by the APCO to demonstrate compliance with Rule 4701 for a period of two years and shall make such records readily available for District inspection upon request. [District Rules 1070, 4701]



INSPECTION

EXPIRATION DATE: 08/31/2003

LEGAL OWNER OR OPERATOR: CHEVRON USA INC  
MAILING ADDRESS: P O BOX 1392  
BAKERSFIELD, CA 93302

LOCATION: 17Z GAS PLANT  
CA

SECTION: NE17 TOWNSHIP: 30S RANGE: 22E

EQUIPMENT DESCRIPTION:  
650 BHP GAS FIRED WAUKESHA LEAN BURN IC ENGINE #K-1B DRIVING A COMPRESSOR, S/N 104055

WORKSHEET

## CONDITIONS

1. Valves, flanges and seals shall be maintained to prevent the emission of volatile organic compounds. [District Rule 4403]
2. NOx (as NO2) emission rate shall not exceed 3.02 lb/hr. [District NSR Rule]
3. Compliance with NOx and CO emission limits shall be demonstrated through source testing not less than once every 24 months, except as provided below. [District Rule 4701]
4. Once all engines have been initially tested, compliance with NOx and CO emission limits may be demonstrated by submission of annual source test results from one or more representative IC engines as approved by the APCO. [District Rule 4701]
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INSPECTION

EXPIRATION DATE: 08/31/2003

LEGAL OWNER OR OPERATOR: CHEVRON USA INC  
MAILING ADDRESS: P O BOX 1392  
BAKERSFIELD, CA 93302

LOCATION: 17Z GAS PLANT  
CA

SECTION: NE17 TOWNSHIP: 30S RANGE: 22E

EQUIPMENT DESCRIPTION:  
650 BHP GAS FIRED WAUKESHA LEAN BURN IC ENGINE #K-1C DRIVING A COMPRESSOR, S/N 104054

WORKSHEET

### CONDITIONS

1. Valves, flanges and seals shall be maintained to prevent the emission of volatile organic compounds. [District Rule 4403]
2. NOx (as NO2) emission rate shall not exceed 3.02 lb/hr. [District NSR Rule]
3. Compliance with NOx and CO emission limits shall be demonstrated through source testing not less than once every 24 months, except as provided below. [District Rule 4701]
4. Once all engines have been initially tested, compliance with NOx and CO emission limits may be demonstrated by submission of annual source test results from one or more representative IC engines as approved by the APCO. [District Rule 4701]
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9. Permittee shall maintain records of source test results, monitoring data, and other information deemed necessary by the APCO to demonstrate compliance with Rule 4701 for a period of two years and shall make such records readily available for District inspection upon request. [District Rules 1070, 4701]

# ERC APPLICATION REVIEW

Project 1010702

**Facility Name:** Chevron USA, Inc.  
17Z Gas Plant  
**Mailing Address:** PO Box 1392  
Bakersfield, CA 93302

**Contact Name:** Martin Lundy, EH&S Specialist  
**Telephone:** (805) 633-4458

**Engineer:** Stephen P. Leonard, AQE II  
**Date:** October 26, 2001

**Reviewed By:** Allan Phillips, Supv. AQE  
**Date:** November 5, 2001

**Certificate #(s):** S-1605-2  
**Received:** July 19, 2001  
**Deemed Complete:** August 1, 2001

## I. SUMMARY:

Chevron USA Inc. is applying for Emission Reduction Credits (ERC) for oxides of nitrogen (NOx) resulting from the permanent shutdown of the three natural gas fired IC engines located at Chevron's 17Z gas plant in Western Kern County. The engines were subject to Permits to Operate (PTO's) S-49-3-1, '-4-1, and '-5-1. Each engine was a 650 hp, natural gas fired, Waukesha 4-cycle lean burn engine driving a compressor.

The PTO's were surrendered on May 31, 2001 (see Attachment A for copies of permits). The engines were operating in compliance with the emission limits specified in Rule 4701, subsection 5.1.2 prior to being taken out of service.

Chevron is applying for ERC's at the Best Available Retrofit Control Technology (BARCT) emission rate of 75 ppmv at 15% O<sub>2</sub> for lean burn engines as specified in Rule 4701, subsection 5.1.3 (Table 3) effective May 31, 2001.

The following emission reductions have been found to qualify for banking:

	<b>NO<sub>x</sub></b>
1st Quarter	5672
2nd Quarter	7143
3rd Quarter	7028
4th Quarter	6447

**II. APPLICABLE RULES:**

- A. Rule 2201: New and Modified Stationary Source Review Rule  
(Amended June 15, 1995)
- B. Rule 2301: Emission Reduction Credit Banking  
(Amended December 17, 1992)
- C. Rule 4701: Internal Combustion Engines  
(Amended November 12, 1998)

**III. PROJECT LOCATION:**

The engines are located at Chevron's 17Z gas plant near the town of McKittrick in western Kern County. The gas plant is located in NE ¼ Section 17, T30S, R22E, MDBM.

**IV. METHOD OF GENERATING REDUCTIONS:**

The Actual Emissions Reductions (AER) are being generated by the shutdown of three 650 bhp gas-fired 4-cycle lean burn IC engines. The applicant has surrendered PTO's S-49-3, '-4, and '-5 to the District prior to issuance of banking certificates in order to validate the emission reduction credits. As required by Rules 2201 & 2301, creditable emission reductions are to be based upon IC engine's operating history over the appropriate baseline period, and the use of acceptable emission factors, adjusted for any Rule 4701 emissions limitations.

**V. CALCULATIONS:**

**A. Assumptions and Emission Factors**

- Molecular weight of NO<sub>x</sub> (as NO<sub>2</sub>) = 46
- Natural gas heating value at 17Z Plant = 1062.5 BTU/scf (**See Attachment D**)
- Specific F factor measured = 8514 dscf/MMBtu (**See Attachment D**)
- The lower of either AP-42 emission factors for "Heavy-Duty Natural Gas-Fired Pipeline Compressor Engines", Section 3.2, Table 3.2-2 (1/95), District permit emission factors, District Rule 4701 requirements or actual source test data emission factors shall be utilized for calculating the IC engine's emissions for NO<sub>x</sub> during the baseline period. Historical actual emissions (HAE) of NO<sub>x</sub> must be discounted to the applicable levels of District Rule 4701, Table 3 (75 ppmv @ 15% O<sub>2</sub>), pursuant to Rule 2201, Section 6.2.1.

Emission factor source	NO <sub>x</sub> (ppmv @ 15% O <sub>2</sub> )
Source Test Data (May 9, 2000, Attachment C)	106
District Permits to Operate (3.02 lbs NO <sub>x</sub> /hr)	150
AP-42; Table 3.2-2 (0.026 lb NO <sub>x</sub> /hp-hr)	850
District Rule 4701, Table 3 (effective 5/31/01)	75

The NO<sub>x</sub> emission factor of 75 ppmv, corrected to 15% O<sub>2</sub>, from District Rule 4701 is the lowest of the emission factors compared and will be used to calculate historical actual emissions during the baseline period.

**B. Baseline Period Determination and Data**

The three IC engines were permanently shutdown and the Permits to Operate surrendered to the District on May 30, 2001. An application for emission reduction credits was submitted on July 19, 2001. Pursuant to Rule 2201, Section 3.7, the baseline period for used for calculating the AER for this project shall be either the two-year period immediately prior to the submission of the complete application, or another time period of at least two consecutive years within 5 years immediately prior to the submission of the complete application determined by the APCO as more representative of normal source operation. Prior to the surrender of the Permits to Operate on May 30, 2001, utilization of the engines declined through March 2001, at which point they remained idle until the official shutdown in May 2001. For engines which had not remained idle in the past, the period of no utilization prior to shutdown during the months of April 2001 and May 2001 is not considered representative of normal operation and is not included in the baseline period. The two year period baseline period is the two year period prior to the engines going offline; April 1999 through March 2001. To establish the baseline period emissions, fuel usage records of the three engines for the eight calendar quarters during the baseline period (2<sup>nd</sup> Quarter 1999 through 1<sup>st</sup> Quarter 2001) was supplied by the applicant. The monthly fuel usage was recorded by fuel gas meters for each of the IC engines.

Natural Gas Fuel Consumption (MMscf)

Year	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter
1999		26.4070	27.7620	27.7580
2000	27.4150	28.0850	25.8510	21.4190
2001	15.8560			
<b>Average</b>	<b>21.6355</b>	<b>27.2460</b>	<b>26.8065</b>	<b>24.5885</b>

See Attachment B for applicant supplied fuel usage summary page.

**C. Historical Actual Emissions**

Averaged Historical Actual Emissions (lbs NO<sub>x</sub>/qtr)

Based on average quarterly fuel consumption above and 75 ppmv @ 15% O<sub>2</sub>

$$\begin{aligned}
 \text{Lb NO}_x/\text{MMscf fuel burned} &= (75 \text{ dscf NO}_x/10^6 \text{ dscf exhaust})(20.9/[20.9-15])(8514 \text{ dscf} \\
 &\text{exhaust/MMBtu})(1062.5 \text{ MMBtu/MMscf})(\text{lb-mole NO}_x/379.5 \text{ dscf NO}_x)(46 \text{ lb NO}_x/\text{lb-mole NO}_x) \\
 &= (75/10^6)(1062.5)(8514)(46)(1/379.5)(20.9/5.9) \\
 &= (0.000075)(1062.5)(8514)(46)(0.0026385)(3.5423729) \\
 &= 291.3158898 \\
 &= \mathbf{291.3159 \text{ lb NO}_x/\text{MMscf fuel burned}}
 \end{aligned}$$

Year	1 <sup>st</sup> Quarter	2 <sup>nd</sup> Quarter	3 <sup>rd</sup> Quarter	4 <sup>th</sup> Quarter
Averaged fuel use (MMscf)	21.6355	27.2460	26.8065	24.5885
<b>Lbs NO<sub>x</sub></b>	<b>6302.77</b>	<b>7937.19</b>	<b>7809.16</b>	<b>7163.02</b>

**D. Actual Emissions Reductions**

AER quantified for ERC #S-1605-2 (lbs)

	NO <sub>x</sub>
1st Quarter	6303
2nd Quarter	7937
3rd Quarter	7809
4th Quarter	7163

**E. Air Quality Improvement Deduction (10% of AER)**

Air quality improvement deduction (lbs)

	<b>NO<sub>x</sub></b>
1st Quarter	630
2nd Quarter	794
3rd Quarter	781
4th Quarter	716

**F. Increases in Permitted Emissions (IPE)**

AER = HAE (for the unit prior to shutdown)

IPE = 0      Since the emissions units are shutdown, and the Permits to Operate have been surrendered to the District, the increase in permitted emissions for this project is zero.

**G. Bankable Emissions Reductions Credits**

Total creditable reductions qualified for banking (lbs)

	<b>NO<sub>x</sub></b>
1st Quarter	5672
2nd Quarter	7143
3rd Quarter	7028
4th Quarter	6447

**VI. COMPLIANCE:**

To be eligible for banking, emission reduction credits (ERC's) must be verified as being real, surplus, permanent, quantifiable and enforceable pursuant to District Rules 2201 and 2301. In addition, the application must be submitted within the timeframe specified in Rule 2301.

**A. Real**

The AER's quantified above were based on actual historical emissions, calculated from actual production data for the permit units, and accepted emission factors adjusted for District Rule 4701 requirements. The permit units are now shutdown and can no longer operate; therefore, the reductions are real.

**B. Enforceable**

The Permits to Operate have been surrendered prior to receiving emission reduction credit. Any future operation cannot be performed unless an enforceable Authority to Construct (ATC) is issued in compliance with the provisions of New and Modified Stationary Source Review Rule (Rule 2201). Thus the quantified AER's are enforceable.

**C. Quantifiable**

The AER's were calculated using District recognized emission factors and actual historical fuel consumption data from the appropriate baseline period; therefore, the AER's are quantifiable.

**D. Permanent**

The applicant has permanently shut down the IC engines and has surrendered the valid Permits to Operate to the District prior to receiving banking certificates. Therefore, emission reductions are permanent.

**E. Surplus**

The shutdown of these emissions unit was voluntary. The resulting surplus emission reductions are not mandated by any law, rule, regulation, agreement, or order of the District, State, or Federal Government. The surplus reductions are not attributed to a control measure either proposed, noticed for workshop, or contained in a State Implementation Plan.



Rule 4701, as amended November 12, 1998, requires NO<sub>x</sub> emissions for lean burn IC engines located in the westside to not exceed 75 ppmv NO<sub>x</sub> @ 15% O<sub>2</sub>, as of May 31, 2001. The HAE of NO<sub>x</sub> has been discounted for the required reduced emission levels of Rule 4701, Table 3 (75 ppmv @ 15% O<sub>2</sub>). The amount of ERC granted for this shutdown is only for the reduction surplus of this requirement.

Rule 4701, Section 5.3, states that an engine taken out of service in lieu of compliance with the emission requirements of subsections 5.1.1 and 5.1.2 is not eligible to receive emission reduction credit. This section was carried over from previous versions of Rule 4701 which allowed engines designated to be removed from service and replaced by an electric motor by 5/31/99 to operate at then existing emission levels until 5/31/99. The intent of Section 5.3 was to prevent facilities that utilized this compliance date extension from applying for ERC's after engines were replaced with electric motors.

The Chevron 17Z gas plant engines were in compliance with the Section 5.1.2 (Table 2) limits before May 31, 1995. Chevron received Authorities to Construct to install air-to-fuel ratio controllers to meet the emission levels of Section 5.1.3 (Table 3) in December, 1999. The Table 3 emissions compliance date was May 31, 2001. Prior to the Table 3 compliance deadline, Chevron decided to replace the engines with electric motors. Because the engines were not removed to avoid complying with the emissions levels specified in Rule 4701, Tables 1 and 2, and Chevron did not enjoy an extended period of noncompliance for a commitment of shutdown, Chevron is not prevented from applying for emission reduction credits for the shutdown of these engines. Chevron will only receive ERC for NO<sub>x</sub> at the 75 ppmv level which would be required for Table 3 compliance. At that level, the emission reductions are considered surplus.

#### **F. Timeliness**

The Permits to Operate were surrendered on May 31, 2001. The engines were operating in compliance with the emission limits specified in Rule 4701, subsection 5.1.2, prior to being taken out of service. The APCO had not determined that the IC engines had been removed or fallen into an inoperable or unmaintained condition such that startup would have required an investment exceeding 50% of the current replacement cost per Section 3.11 of Rule 2301.

Pursuant to Rule 2301, Section 4.2.3, an application for ERC must be filed no later than 180 days after the emission reductions have occurred, in which the approvability of the ERC application for the shutdown of the source is dependent upon the definition of "shutdown" per Rule 2301. District Policy NSR/ERC-7 defines "shutdown" for unpermitted sources as the permanent cessation of emissions from an emitting unit. For permitted sources, the date of shutdown shall be the date of the surrender of that unit's operating permit unless the APCO determines that the unit has been removed or fallen into an inoperable or unmaintained condition such that startup would require an investment exceeding 50% of the current replacement cost. In this case, the date of shutdown is the date the permits were surrendered

Therefore, the application is timely, and the date of shutdown has been determined to be May 31, 2001.

**VII. RECOMMENDATION:**

After public notice, comments and review, issue ERC Banking Certificates to Chevron USA Production Company for the amounts shown in the summary section on page 2 of this analysis.

# **ATTACHMENT A**

**Permits to Operate S-49-3, '4, '5**

INSPECTION

EXPIRATION DATE: 08/31/2003

LEGAL OWNER OR OPERATOR: CHEVRON USA INC  
MAILING ADDRESS: P O BOX 1392  
BAKERSFIELD, CA 93302

LOCATION: 17Z GAS PLANT  
CA

SECTION: NE17 TOWNSHIP: 30S RANGE: 22E

EQUIPMENT DESCRIPTION:  
650 BHP GAS FIRED WAUKESHA LEAN BURN IC ENGINE #K-1A DRIVING A COMPRESSOR, S/N 104058

WORKSHEET

## CONDITIONS

---

1. Valves, flanges and seals shall be maintained to prevent the emission of volatile organic compounds. [District Rule 4403]
2. NOx (as NO2) emission rate shall not exceed 3.02 lb/hr. [District NSR Rule]
3. Compliance with NOx and CO emission limits shall be demonstrated through source testing not less than once every 24 months, except as provided below. [District Rule 4701]
4. Once all engines have been initially tested, compliance with NOx and CO emission limits may be demonstrated by submission of annual source test results from one or more representative IC engines as approved by the APCO. [District Rule 4701]
5. Compliance demonstration (source testing) shall be by District witnessed, or authorized, sample collection by ARB certified testing laboratory. [District Rule 1081]
6. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified 30 days prior to any compliance source test, and a source test plan must be submitted for approval 15 days prior to testing. [District Rule 1081]
7. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
8. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100 and stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081 and 4701]
9. Permittee shall maintain records of source test results, monitoring data, and other information deemed necessary by the APCO to demonstrate compliance with Rule 4701 for a period of two years and shall make such records readily available for District inspection upon request. [District Rules 1070, 4701]

INSPECTION

EXPIRATION DATE: 08/31/2003

LEGAL OWNER OR OPERATOR: CHEVRON USA INC  
MAILING ADDRESS: P O BOX 1392  
BAKERSFIELD, CA 93302

WORKSHEET

LOCATION: 17Z GAS PLANT  
CA

SECTION: NE17 TOWNSHIP: 30S RANGE: 22E

**EQUIPMENT DESCRIPTION:**

650 BHP GAS FIRED WAUKESHA LEAN BURN IC ENGINE #K-1B DRIVING A COMPRESSOR, S/N 104055

## CONDITIONS

1. Valves, flanges and seals shall be maintained to prevent the emission of volatile organic compounds. [District Rule 4403]
2. NOx (as NO2) emission rate shall not exceed 3.02 lb/hr. [District NSR Rule]
3. Compliance with NOx and CO emission limits shall be demonstrated through source testing not less than once every 24 months, except as provided below. [District Rule 4701]
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9. Permittee shall maintain records of source test results, monitoring data, and other information deemed necessary by the APCO to demonstrate compliance with Rule 4701 for a period of two years and shall make such records readily available for District inspection upon request. [District Rules 1070, 4701]

INSPECTION

EXPIRATION DATE: 08/31/2003

LEGAL OWNER OR OPERATOR: CHEVRON USA INC  
MAILING ADDRESS: P O BOX 1392  
BAKERSFIELD, CA 93302

LOCATION: 17Z GAS PLANT  
CA

SECTION: NE17 TOWNSHIP: 30S RANGE: 22E

**EQUIPMENT DESCRIPTION:**

650 BHP GAS FIRED WAUKESHA LEAN BURN IC ENGINE #K-1C DRIVING A COMPRESSOR, S/N 104054

WORKSHEET

## CONDITIONS

---

1. Valves, flanges and seals shall be maintained to prevent the emission of volatile organic compounds. [District Rule 4403]
2. NOx (as NO2) emission rate shall not exceed 3.02 lb/hr. [District NSR Rule]
3. Compliance with NOx and CO emission limits shall be demonstrated through source testing not less than once every 24 months, except as provided below. [District Rule 4701]
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8. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100 and stack gas oxygen - EPA Method 3 or 3A or ARB Method 100. [District Rules 1081 and 4701]
9. Permittee shall maintain records of source test results, monitoring data, and other information deemed necessary by the APCO to demonstrate compliance with Rule 4701 for a period of two years and shall make such records readily available for District inspection upon request. [District Rules 1070, 4701]

## **ATTACHMENT B**

### **Actual Fuel Usage Summary and Example Engine Run Logs**

### Fuel Usage for K-1A (S-49-3)

Month	Fuel Meter Reading (MCF)		
	g of Month	End of Month	Total
Apr-99	23,625	26,647	3,022
May-99	26,647	29,801	3,154
Jun-99	29,801	33,152	3,351
Jul-99	33,152	36,211	3,059
Aug-99	36,211	39,478	3,267
Sep-99	39,478	42,972	3,494
Oct-99	42,972	46,460	3,488
Nov-99	46,460	49,788	3,328
Dec-99	49,788	52,929	3,141
Jan-00	52,929	56,386	3,457
Feb-00	56,386	59,517	3,131
Mar-00	59,517	63,029	3,512
Apr-00	63,029	66,368	3,339
May-00	66,368	69,901	3,533
Jun-00	69,901	72,732	2,831
Jul-00	72,732	75,473	2,741
Aug-00	75,473	78,834	3,361
Sep-00	78,834	81,818	2,984
Oct-00	81,818	85,100	3,282
Nov-00	85,100	87,607	2,507
Dec-00	87,607	89,102	1,495
Jan-01	89,102	89,143	41
Feb-01	89,143	90,047	904
Mar-01	90,047	91,752	1,705



### Fuel Usage for K-1B (S-49-4)

Month	Fuel Meter Reading (MCF)		
	Beginning of Month	End of Month	Total
Apr-99	19,551	22,090	2,539
May-99	22,090	24,636	2,546
Jun-99	24,636	27,540	2,904
Jul-99	27,540	30,177	2,637
Aug-99	30,177	33,233	3,056
Sep-99	33,233	36,181	2,948
Oct-99	36,181	39,134	2,953
Nov-99	39,134	42,037	2,903
Dec-99	42,037	44,583	2,546
Jan-00	44,583	47,585	3,002
Feb-00	47,585	49,604	2,019
Mar-00	49,604	52,462	2,858
Apr-00	52,462	56,004	3,542
May-00	56,004	59,155	3,151
Jun-00	59,155	61,507	2,352
Jul-00	61,507	63,949	2,442
Aug-00	63,949	66,738	2,789
Sep-00	66,738	69,451	2,713
Oct-00	69,451	72,213	2,762
Nov-00	72,213	74,183	1,970
Dec-00	74,183	76,040	1,857
Jan-01	76,040	78,383	2,343
Feb-01	78,383	80,389	2,006
Mar-01	80,389	82,679	2,290

## Fuel Usage for K-1C (S-49-5)

Month	Fuel Meter Reading (MCF)		
	Beginning of Month	End of Month	Total
Apr-99	23,073	25,765	2,692
May-99	25,765	28,793	3,028
Jun-99	28,793	31,964	3,171
Jul-99	31,964	34,554	2,590
Aug-99	34,554	38,053	3,499
Sep-99	38,053	41,265	3,212
Oct-99	41,265	44,505	3,240
Nov-99	44,505	47,600	3,095
Dec-99	47,600	50,664	3,064
Jan-00	50,664	53,965	3,301
Feb-00	53,965	56,853	2,888
Mar-00	56,853	60,100	3,247
Apr-00	60,100	63,281	3,181
May-00	63,281	66,787	3,506
Jun-00	66,787	69,437	2,650
Jul-00	69,437	72,041	2,604
Aug-00	72,041	75,186	3,145
Sep-00	75,186	78,258	3,072
Oct-00	78,258	81,410	3,152
Nov-00	81,410	84,184	2,774
Dec-00	84,184	85,804	1,620
Jan-01	85,804	88,464	2,660
Feb-01	88,464	90,106	1,642
Mar-01	90,106	92,371	2,265

# 17Z Gas Plant Fired Equipment Run Log

Date: 5-1-99

Day Operator C. AZARUS  
Night Operator D. SMITH

### Compressors

Shift	Equipment	Speed	Discharge Temps				Comp Oil Press	Wtr Temp	Eng Oil Press	Eng Oil Temp	Turbo Int.	Turbo Dischg	Cat. In	Fuel Prev. Read	Fuel Today Read	Fuel Burned	Hours On	Hours Off
			#1	#2	#3	#4												
Day	K1A	900	150	160	65	160	42	160	48	160	49	54		26647	26762	115	12	0
	K1B	899	135	140	75	150	38	170	48	165	50	52		22090	22191	101	12	0
	K1C	902	140	150	80	140	53	165	50	170	54	56		25765	25860	115	12	0
	17Z IIC 11	360					53	150	50	120				60	57	57	24	0
	17Z I'10B					DOWN										0	0	24
	17Z UC 12	320	225	225	260		46	145	48	130				56	52	52	24	0
	8Z NEMU #1		220	220	225	218	40	106									24	0
	8Z NEMU #2				DOWN												0	24
Night	K1A	905	165	170	75	170	40	160	45	160	54	50					12	0
	K1B	900	150	145	75	170	35	170	44	165	52	50					12	0
	K1C	903	165	155	85	150	55	165	47	168	56	54					12	0

### K Units Refrigeration

Shift	Equipment	1st Stg		2nd Stg		Ethane		Ethane	
		1st Stg Intake Temp	1st Stg Dischg Press	2nd Stg Intake Temp	2nd Stg Dischg Press	Ethane Int Press	Ethane Dischg Press	Ethane Int Press	Ethane Dischg Press
Day	K Units	8	43	45	135	198	465		
Night	K Units	8	40	40	135	198	465		

### Furnace - Reboiler - Emergency Generator

	Fuel Prev. Read	Fuel Today Read	Fuel Burned	Hours On	Hours Off
K-8	0	0	0	0	24
K-2	7577	7607	30	24	0

### Circulating Pumps

Shift	Equipment	Engine Oil		Engine Wtr Temp	Engine Vac.	Ren Flow	Mtr Eng.	Oil	Pump		Fuel Prev. Read	Fuel Today Read	Fuel Burned	Hours On	Hours Off
		Press	Temp						Wtr. Level	Cat. Temp.					
Day	P-3													0	24
	P-2													0	24
	P-10A	45	130	14"	40	30				34158	34197	39	12	0	
	P-10B	45	145	15"	9	04				64778	64816	38	12	0	
	P-10C	45	140	15"	10	24				10175	10215	40	12	0	
Night	P-3														
	P-2														
	P-10A	45	130	14"	40	31.0							12	0	
	P-10B	47	150	14"	9	04.4							12	0	
	P-10C	47	140	15"	10	24.5							12	0	

### Fire Pumps

	Hours On	Hours Off
	Fire #1	0
Fire #2	0	24

Remarks \_\_\_\_\_

# 17Z Gas Plant Fired Equipment Run Log

Date: 5-31-99

Day Operator OLLIE  
Night Operator CAZARES

### Compressors

Shift	Equipment	Speed	Discharge Temps				Comp Oil Press	Wtr Temp	Eng Oil Press	Eng Oil Temp	Turbo Int.	Turbo Dischg	Cat. In	Fuel Prev. Read	Fuel Today Read	Fuel Burned	Hours On	Hours Off
			#1	#2	#3	#4												
Day	K1A		DOWN											29251	29001	50	0	12
	K1B	887	155	160	90	175	35	165	49	160	53	52		24553	24636	83	12	0
	K1C	880	150	170	90	160	50	165	49	170	56	54		28702	28793	91	12	0
	17Z UC 11	351	250	255	185	255	50	150	50	120				64	63	63	24	0
	17Z P108													0	0	0	0	24
	17Z UC 12	DOWN												0	0	0	0	24
	8Z NEMU #1	ELECT	212	218	218	218	40							0	0	0	24	0
	8Z NEMU #2	528	250	250	250	240	40	160	40					47	48	48	24	0
Night	K1A																0	12
	K1B	887	155	160	90	170	35	165	49	160	53	52					12	0
	K1C	880	150	170	90	160	50	165	49	170	56	54					12	0

### K Units Refridgeration

Shift	Equipment	1st Stg		2nd Stg		Ethane Int	Ethane Dischg
		Temp	Press	Temp	Press		
Day	K Units	30	44	44	135	200	465
Night	K Units	30	44	44	135	203	465

### Furnace - Reboiler - Emergency Generator

Shift	Equipment	Fuel Prev. Read	Fuel Today Read	Fuel Burned	Hours On	Hours Off
K-8		0	0	0	0	24
K-2		8435	8461	26	24	0

### Circulating Pumps

Shift	Equipment	Engine Oil		Ren Flow	Pump Oil	Cool. Level	Cat. Temp.	O2 Sensor	Fuel Prev. Read	Fuel Today Read	Fuel Burned	Hours On	Hours Off
		Press	Temp										
Day	P-3											0	12
	P-2											0	12
	P-10A	45	130	14	4086				35242	35215	33	12	0
	P-10B	49	160	15	9708				15552	15540	38	12	0
	P-10C	48	145	14	1042				19459	19485	36	12	0
Night	P-3											0	12
	P-2											0	12
	P-10A	45	130	14								12	0
	P-10B	49	160	15								12	0
	P-10C	48	150	15								12	0

### Fire Pumps

Fire #	Hours On	Hours Off
	Fire #1	0
Fire #2	0	24

Remarks \_\_\_\_\_

# 17Z Gas Plant Fired Equipment Run Log

Date: 6-1-99

Day Operator Ollie  
Night Operator \_\_\_\_\_

### Compressors

Shift	Equipment	Speed	Discharge Temps				Comp Oil Press	Wtr Temp	Eng Oil Press	Eng Oil Temp	Turbo Int.	Turbo Dischg	Cat. In	Fuel Prev. Read	Fuel Today Read	Fuel Burned	Hours On	Hours Off
			#1	#2	#3	#4												
Day	K1A		DOWN															
	K1B	913	125	155	110	175	35	165	49	165	52	52		29801	29815	14	5	7
	K1C	940	175	220	90	200	50	165	49	170	56	54		24636	24711	95	12	0
	17Z UC 11	342	215	210	265	280	50	170	50	120				63	63	63	24	0
	17Z P108																	24
	17Z UC 12		DOWN started															
	8Z NEMU #1	Elect	212	210	210	210	40										24	0
	8Z NEMU #2	DOWN												40	0	0	24	0
Night	K1A	900	170	150	80	170	39	160	45	155	56	51					12	0
	K1B	910	175	160	90	175	50	165	49	170	53	52					12	0
	K1C	915	175	160	80	170	50	160	50	120	56	54					12	0

### K Units Refridgeration

Shift	Equipment	1st Stg		2nd Stg		Ethane		Ethane	
		Intake Temp	Dischg Press	Intake Temp	Dischg Press	Intake Press	Dischg Press	Intake Press	Dischg Press
Day	K Units	28	42	42	135	195	165		
Night	K Units	18	38	38	135	195	155		

### Furnace - Reboiler - Emergency Generator

Shift	Equipment	Fuel Prev. Read	Fuel Today Read	Fuel Burned	Hours On	Hours Off
K-8	0	0	0	0	24	0
K-2	846	846	27	24	0	0

### Circulating Pumps

Shift	Equipment	Engine		Ren Flow	Pump Oil	Cool.		Cat. Temp.	O2 Sensor	Fuel Prev. Read	Fuel Today Read	Fuel Burned	Hours On	Hours Off
		Oil Press	Wtr Temp			Wtr. Level	Eng. Oil Temp							
Day	P-3													
	P-2													
	P-10A	46	135	14	4088					15215	15227	35	12	0
	P-10B	48	160	15	9708					15990	16026	36	12	0
	P-10C	47	150	15	1042					19495	19531	36	12	0
Night	P-3												0	12
	P-2												0	12
	P-10A	46	135	14									12	0
	P-10B	48	160	15									12	0
	P-10C	47	150	15									12	0

### Fire Pumps

Fire #	Hours On	Hours Off
	Fire #1	0
Fire #2	0	24

Remarks \_\_\_\_\_

# 17Z Gas Plant Fired Equipment Log

Date: 6-30-74

Day Operator: B. ...  
Night Operator: BANUELOS

## Compressors

Shift Day	Equipment	Speed	Discharge Temperatures				Comp Oil Press	Water Temp	Eng Oil Press	Eng Oil Temp	Turbo Int.	Turbo Dischg	Cat. In	Cat. Out	Millivolts	Fuel Prev. Read	Fuel Today Read	Fuel Used	Hours On	Hours Off
			#1	#2	#3	#4														
Day	K1A	921	185	185	85	185	35	175	45	165	58	40				33571	33152	73	12	0
	K1B	950	190	175	100	200	25	180	50	170	58	40				27470	27540	70	12	0
	K1C	950	180	190	100	180	50	180	50	52	58				31883	31964	51	12	0	
	17Z UC 11	377	265	265	275	280	15	190	50	195						67.8	63.5	62.8	24	0
	17Z P108	DN																	0	0
	17Z UC 12	310	210	280	300		50		50							33.6	57.8	33.6	24	0
	8Z NEMU #1		210	215	230	210													0	0
Night	K1A	950	175	170	80	170	35	170	45	160	54	49								
	K1B	960	170	175	90	180	25	125	50	170	52	51								
	K1C	970	170	175	90	175	50	175	50	180	54	50								

## K Units Refrigeration      Furnace-Glycol Reboiler-Utility Generator

Shift Day	Equipment	1st Stg		1st Stg		2nd Stg		2nd Stg		Ethane		Ethane		Fuel Prev. Read	Fuel Today Read	Fuel Used	Hours On	Hours Off	O2 Sensor	
		1st Stg Temp	Intake Press	1st Stg Disch. Press	2nd Stg Temp	2nd Stg Intake Press	2nd Stg Disch. Press	Ethane Temp	Ethane Int. Press	Ethane Disch. Press										
Day	K Units		24	50	55	50	140	80	200	460				F-1	543	487.7	545	24	0	118
Night	K Units		14	44	68	44	135	64	198	460				K-2	936	936.2	32	24	0	
														K-8	DN			0	24	

## Circulating Pumps      Fire Pumps

Shift Day	Equipment	Engine		Ren Flow Mtr	Pump Eng. Oil	Pump Cool.		Cat. Temp.	O2 Sensor	Fuel Prev. Read	Fuel Today Read	Fuel Used	Hours On	Hours Off	Seals ok?	Hours On	Hours Off
		Oil Press	Water Temp			Water Level	Water Temp.										
Day	P-3												0	12	✓	Fire #1	24
	P-2												0	12	✓	Fire #2	24
	P-10A	45	160	12	4161	✓	✓	✓	977	917	36933	38777	44	12	✓		
	P-10B	53	180	15	9712	✓	✓	✓	867	883	17101	17142	41	12	✓		
	P-10C	45	160	14	1085	✓	✓	✓	1012	906	20624	20670	46	12	✓		
Night	P-3												0	12	✓		
	P-2												0	12	✓		
	P-10A	45	150	12		✓	✓	✓	961	912				12	0	✓	
	P-10B	53	175	14		✓	✓	✓	874	885				12	0	✓	
	P-10C	45	160	14		✓	✓	✓	1028	907				12	0	✓	

Remarks

# **ATTACHMENT C**

## **Source Test Data**

**AEROS ENVIRONMENTAL, INC.**

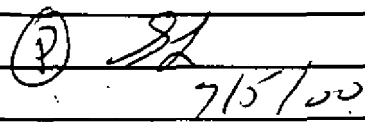
**Summary Of Results**

**COPY**

**Chevron U.S.A. Production Company  
Cymric 17Z Gas Plant  
I.C. Engine K-1B**

**Project 104-1978  
May 9, 2000  
Permit No. S-49-4-1**

Pollutant	ppm	ppm @ 3% O <sub>2</sub>	ppm @ 15% O <sub>2</sub>	lb/hr	lb/MMBtu	Permit Limits
NOx	196	312	103	1.66	0.3754	
	214	342	113	1.87	0.4114	
	195	313	103	1.70	0.3762	
Mean	202	322	106	1.74	0.3877	3.02 lb/hr
CO	729	1161	383	3.75	0.8499	
	735	1175	387	3.92	0.8600	
	727	1166	384	3.85	0.8537	
Mean	730	1167	385	3.84	0.8545	2000 ppm @ 15% O <sub>2</sub>
Comments: _____						


  
 7/5/00



SUMMARY OF SOURCE TEST RESULTS

Company: Chevron  
 Test Date: 5/14/99

APCD No. S-49-3-1  
 Unit No. K-1A

COPY

EMISSIONS

POLLUTANT	Concentration		PPMv	@ 15% O2	lb/hr
	gr/scf	@12%			
Particulate					
Sulfate					
Total Sulfur					
NOx as NO2 (dry)			221.33	114.89	1.95
			224.00	115.76	1.97
			<u>215.67</u>	<u>112.44</u>	<u>1.91</u>
			220.33	114.36	1.95
HC					
CO			629.33	326.66	3.38
			621.33	321.10	3.33
			<u>610.33</u>	<u>318.20</u>	<u>3.30</u>
			620.33	321.99	3.33
Comments:					
For SJVUAPCD Use Only:					

# **ATTACHMENT D**

## **Fuel Gas Analysis**



Chevron U.S.A. Production Company  
 Heater F-1 S-49-1 17Z Gas Plant

Project 104-1876  
 Laboratory ID 013100-04

Sample Description: Fuel Gas  
 Sampled by: Armstrong Kaing


Date Sampled: January 26, 2000  
 Date Received: January 26, 2000  
 Date Reported: January 31, 2000

**Fuel Gas Analysis Results**

CONSTITUENT	MOLE %	WT. %	CHONS	Wt. %
Carbon Dioxide	1.930	4.710	Carbon	72.83
Oxygen	0.040	0.071	Hydrogen	22.92
Nitrogen	0.490	0.761	Oxygen	3.50
Carbon Monoxide	0.000	0.000	Nitrogen	0.76
			Sulfur	0.00
Methane	88.222	78.504	H/C	0.315
Ethane	8.788	14.658		
Propane	0.530	1.296		
Isobutane	0.000	0.000		
N-Butane	0.000	0.000		
Isopentane	0.000	0.000		
N-Pentane	0.000	0.000		
Hexanes	0.000	0.000		
Total(s)	100.000	100.000		

Specific Gravity (Air = 1)	0.6225
Specific Volume (cf/lb)	21.05
Gross Calorific Value, Dry (Btu/cf)	1062.51
Gross Calorific Value, Wet (Btu/cf)	1041.42
Gross Calorific Value, Dry (Btu/lb)	22366.41
Net Calorific Value, Dry (Btu/cf)	959.17
Net Calorific Value, Wet (Btu/cf)	940.13
Compressability Factor "Z" @ 60° F, 1 atm	0.9975
EPA F-Factor @ 68° F (DSCF/MMBtu)	8644
EPA F-Factor @ 60° F (DSCF/MMBtu)	8514

References:  
 ASTM Methods D-1945-81 & D-3588-91

  
 Terry M. Rowles, Laboratory Manager

**"Professional Air Emissions Testing and Analytical Services"**

18828 Highway 65 • Bakersfield, CA 93308  
 (561) 391-0112 • (561) 391-0153 Fax

# ERC PROJECT ROUTING FORM

PROJECT NUMBER: 1010702

FACILITY ID: S-49

ERC CERTIFICATE NO's: S-1605-2

APPLICANT NAME: Chevron USA, Inc

MAILING ADDRESS: PO Box 1392, Bakersfield, CA 93302

PRELIMINARY REVIEW	ENGR	DATE	SUPR	DATE
A. Application Deemed Incomplete				
B. Application Deemed Complete	SPL	8/1/01	SE	8/6/01
120th Day for New Reduction Banking Projects:				
C. Application Pending Denial	SPL	9/20/01	AP	9-20-01
D. Application Denied				

ENGINEERING EVALUATION	INITIAL	DATE
E. Engineering Evaluation Complete	SPL	10/26/01
F. Supervising Engineer Approval	AP	11-5-01
G. Permit Services Regional Manager Approval		

DIRECTOR REVIEW: [ ] Not Required  Required

## PROJECTS REQUIRING PUBLIC NOTIFICATION

**--PRELIMINARY DECISION:**

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Date e-mailed to PSD Director.  
 Date of distribution to applicant, EPA, and CARB.  
 Date of contact with EPA regarding comments on project.  
 Date of contact with CARB regarding comments on project.

**--FINAL DECISION:**

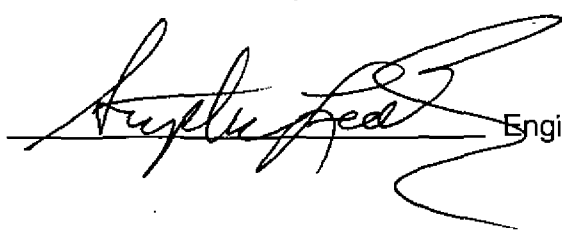
\_\_\_\_\_  
 \_\_\_\_\_

Date e-mailed to PSD Director.  
 Date of distribution to applicant, EPA, and CARB.

Facility #: S-49  
Project #: 1010702

**FINAL ERC PROJECT CHECKLIST**

- Application Review includes all items described in guidelines, all items appear in correct order, and all parts of analysis read logically.
- File folder request forms have been prepared.
- Draft ERC documents have been prepared.
- Applicant has been notified by telephone of all conditions appearing on ERC but not proposed in application.
- Breakdown of processing time form has been completed for ERC project subject to public noticing.
- All necessary draft Public Notices have been prepared.
- Facility NSR Balance/SSPE has been updated in Network Excel™ for onsite reductions.
- Project and Status records have been updated with any applicable dates, location, etc.
- Project Routing form has been prepared.
- Billing for Engineering Evaluation has been drafted.
- Necessary documents and analyses have been sent to District office for permitting Director's approval, comments, and signature.
- Copy of ERC's issued or cancelled have been photocopied for the Banking Coordinator.
- Copies of cancelled ERC's placed in project file which generated ERC's, replacing existing file copies.

 \_\_\_\_\_  
Engineer

\_\_\_\_\_ Reviewing Engineer



Due Date
1/16/2002

Amount Due
\$ 598.75

Amount Enclosed

ENGTIME  
49 S37298 12/17/2001

CHEVRON USA INC  
P O BOX 1392  
BAKERSFIELD, CA 93302

SJVAPCD  
2700 M Street, Suite 275  
Bakersfield, CA 93301-2370

FILE COPY

Facility ID
S49

Invoice Date
12/17/2001

Invoice Number
S37298

Invoice Type
Project: S1010702

CHEVRON USA INC  
17Z GAS PLANT  
, CA

**PROJECT NUMBER: 1010702**

ENGINEERING TIME FEES	\$ 598.75
LESS PREVIOUSLY PAID PROJECT FEES APPLIED TO THIS INVOICE.	\$ 0.00
<b>PROJECT FEES DUE (Enclosed is a detailed statement outlining the fees for each item.)</b>	<b>\$ 598.75</b>

**Invoice Detail**

Facility ID: S49

CHEVRON USA INC  
 17Z GAS PLANT  
 , CA

Invoice Nbr: S37298  
 Invoice Date: 12/17/2001  
 Page: 1

**Engineering Time Fees**

Project Nbr	Quantity	Rate	Description	Fee
S1010702	22.5 hours	\$ 55.50/h	Standard Engineering Time	\$ 1,248.75
			Less Credit For Application Filing Fees	(\$ 650.00)
			Standard Engineering Time SubTotal	\$ 598.75
			<b>Total Engineering Time Fees:</b>	<b>\$ 598.75</b>

FILE COPY