San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

JUL 05 2012

Jimmy E. Leal
Pros, Incorporated
PO Box 20996
Bakersfield, CA 93390

Re: Notice of Preliminary Decision - Authority to Construct
Project Number: S-1121582

Mr. Leal:

Enclosed for your review and comment is the District's analysis of Pros, Incorporated's application for an Authority to Construct for four (4) 288 MMscf/year portable well testing operations, at various unspecified location with the San Joaquin Valley Unified Control District.

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. Steve Davidson of Permit Services at (661) 392-5618.

Sincerely,

David Warner
Director of Permit Services

DW: SDD/cm

Enclosures

Seyed Sadredin
Executive Director/Air Pollution Control Officer

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4800 Enterprise Way
Modesto, CA 95356-8718
Tel: (209) 557-6400 FAX: (209) 557-6475

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www.valleyair.org www.healthyairliving.com

San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

JUL 05 2012

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 - Authority to Construct
Project Number: S-1121582

Dear Mr. Tollstrup:

Enclosed for your review and comment is the District's analysis of Pros, Incorporated's application for an Authority to Construct for four (4) 288 MMscf/year portable well testing operations, at various unspecified location with the San Joaquin Valley Unified Control District.

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.

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www.valleyair.org www.healthyairliving.com

Bakersfield Californian

**NOTICE OF PRELIMINARY DECISION
FOR THE PROPOSED ISSUANCE OF
AN AUTHORITY TO CONSTRUCT**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Unified Air Pollution Control District solicits public comment on the proposed issuance of Authority to Construct to Pros, Incorporated for four (4) 288 MMscf/year portable well testing operations, at various unspecified location with the San Joaquin Valley Unified Control District.

The analysis of the regulatory basis for this proposed action, Project #S-1121582, is available for public inspection at http://www.valleyair.org/notices/public_notices_idx.htm and 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 **DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 34946 FLYOVER COURT, BAKERSFIELD, CA 93308.**

San Joaquin Valley Air Pollution Control District
Authority to Construct Application Review
Portable Well Test Flare

Facility Name:	PROS, Inc.	Date:	June 9, 2012
Mailing Address:	3400 Patton Way	Engineer:	Steve Davidson
	Bakersfield, CA 93390	Lead Engineer:	Richard Karrs
Contact Person:	James Leal		
Telephone:	661-589-5400/Wkd: 661-343-2842		
Fax:	661-589-5228		
E-Mail:	jimmy@proswelltesting.com		
Application #(s):	S-7045-16-0, '-17-0, '-18-0, and '-19-0		
Project #:	S-1121582		
Deemed Complete:	June 4, 2012		

I. Proposal

PROS, Inc. (PROS) has requested an Authority to Construct permit for four (4) 288 MMscf/year portable well testing operations. The flares will be operated at various unspecified locations throughout the San Joaquin Valley District.

Though included under the same facility number (S-7045), each of the well test flares operated by PROS is a separate stationary source and may not be operated at the same location as any other PROS permit unit. Therefore, each flare will be considered a stationary source.

II. Applicable Rules

Rule 2201 New and Modified Stationary Source Review Rule (4/21/11)
Rule 2520 Federally Mandated Operating Permits (6/21/01)
Rule 4001 New Source Performance Standards (4/14/99)
Rule 4002 National Emissions Standards for Hazardous Air Pollutants (5/20/04)
Rule 4101 Visible Emissions (2/17/05)
Rule 4102 Nuisance (12/17/92)
Rule 4201 Particulate Matter Concentration (12/17/92)
Rule 4301 Fuel Burning Equipment (12/17/92)
Rule 4311 Flares (6/18/09)
Rule 4801 Sulfur Compounds (12/17/92)
CH&SC 41700 Health Risk Assessment
CH&SC 42301.6 School Notice
Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

III. Project Location

The equipment will be located at various unspecified locations within the District. The equipment will not be located within 1,000 feet of the outer boundary of a K-12 school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

IV. Process Description

After drilling petroleum production wells, the wells are tested to establish flow rates and pressure. The well test flare is equipped with a propane pilot, automatic ignition system, and will combust gas produced during well testing. The flare will also be used to combust excess gas vented during drilling mud recirculation (mitigate gas kicks).

Diagrams of the flare and well testing operation are included in **Attachment I**.

V. Equipment Listing

S-7045-16-0: WELL TESTING OPERATION WITH PORTABLE 1.0 MMSCF/DAY FLARE WITH OPTIONAL USE AIR-ASSIST, TWO OR THREE-PHASE TEST SEPARATOR, AND GAS SCRUBBER OPERATED AT VARIOUS UNSPECIFIED LOCATIONS

S-7045-17-0: WELL TESTING OPERATION WITH PORTABLE 1.0 MMSCF/DAY FLARE WITH OPTIONAL USE AIR-ASSIST, TWO OR THREE-PHASE TEST SEPARATOR, AND GAS SCRUBBER OPERATED AT VARIOUS UNSPECIFIED LOCATIONS

S-7045-18-0: WELL TESTING OPERATION WITH PORTABLE 1.0 MMSCF/DAY FLARE WITH OPTIONAL USE AIR-ASSIST, TWO OR THREE-PHASE TEST SEPARATOR, AND GAS SCRUBBER OPERATED AT VARIOUS UNSPECIFIED LOCATIONS

S-7045-19-0: WELL TESTING OPERATION WITH PORTABLE 1.0 MMSCF/DAY FLARE WITH OPTIONAL USE AIR-ASSIST, TWO OR THREE-PHASE TEST SEPARATOR, AND GAS SCRUBBER OPERATED AT VARIOUS UNSPECIFIED LOCATIONS

VI. Emission Control Technology Evaluation

PROS operates multiple well testing operations for various oil production companies' exploration wells. PROS does not participate in the production of oil or gas and is therefore not considered part of the oil and gas stationary source (based on the standard industrial classification code).

Flares typically operate at 99% control efficiency for VOC. The well test flares being authorized by this project are equipped with a shroud to reduce flame visibility, improve thermal destruction efficiency, and to prevent down drafts from extinguishing the flame.

Rule 1020, Section 3.46 excludes air pollution abatement operations from the definition of "source operation". The wells being tested by PROS are considered the emissions units with the flare being designed to control the VOC and H_2S emissions from the well; therefore, the flare is considered an air pollution abatement operation and is not an emissions unit (the flare still requires a permit per Rule 2010 §2.0). The testing operation may be subject to BACT but the flare (control device) selected as BACT is not.

The flares will operate with a continuous propane fueled pilot light. The flares are equipped with an air assist system which only needs to be used to eliminate smoking.

Manufacturer's information on the flare is included in **Attachment II**.

VII. General Calculations

A. Assumptions

- The maximum quantity of gas combusted in each flare is 1.0 MMscf/day, 288 MMscf/yr (proposed)
- Heating value of flared gas is 1,000 Btu/scf (proposed and APR 1720)
- The flared natural gas will have a H_2S content less than 5 gr/100 scf, measured as sulfur (proposed)
- Fugitive emissions are considered to be negligible compared to combustion VOC emissions from the flare.
- Flow rate of propane pilot gas is 45 scf/hr however pilot gas combustion emissions are assumed to be negligible when compared to emissions resulting from combustion of produced gas.

B. Emission Factors

Flare Emission Factors		
	lb/MMBtu	Source
NO_X	0.068	FYI 83 (AP 42 Sec 13.5)
*SO_X	0.0143	Mass Balance Equation
PM_{10}	0.008	FYI 83 (AP 42 Sec 13.5), Applicant Proposed
CO	0.37	FYI 83 (AP 42 Sec 13.5)
VOC	0.063	FYI 83 (AP 42 Sec 13.5)

$$* \frac{5\,gr \cdot S}{100\,dscf}\left(\frac{dscf}{1{,}000\,Btu}\right)\frac{10^6\,Btu}{MMBtu}\left(\frac{1\,lb}{7{,}000\,gr}\right)\frac{64\,lb \cdot SO_2}{32\,lb \cdot S} = 0.0143\frac{lb \cdot SO_2}{MMBtu}$$

C. Calculations

1. Pre-Project Potential to Emit (PE1)

Since these are new emissions units, PE1 = 0 for all pollutants.

2. Post Project Potential to Emit (PE2)

The potential to emit for each flare is calculated as follows, and summarized in the table below (all units have identical daily and annual emissions):

$PE2_{day}$ = 1 (MMscf/day) * 1,000 (MMBtu/MMscf) * EF (lb/MMBtu)
$PE2_{year}$ = 288 (MMscf/yr) * 1,000 (MMBtu/MMscf) * EF (lb/MMBtu)

Post Project Potential to Emit (PE2)		
	Daily Emissions (lb/day)	Annual Emissions (lb/year)
NO_X	68.0	19,584
SO_X	14.3	4118
PM_{10}	8.0	2304
CO	370.0	106,560
VOC	63.0	18,144

The emissions profile is included in **Attachment III**.

3. Pre-Project Stationary Source Potential to Emit (SSPE1)

Pursuant to Section 4.9 of District Rule 2201, the Pre-Project Stationary Source Potential to Emit (SSPE1) is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site.

Since the well testing operation is considered a new stationary source, there are no valid ATCs, PTOs, or ERCs at the Stationary Source; therefore, the SSPE1 will be equal to zero.

4. Post Project Stationary Source Potential to Emit (SSPE2)

Pursuant to Section 4.10 of District Rule 2201, the Post Project Stationary Source Potential to Emit (SSPE2) is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the Stationary Source and the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site.

Since the flare is considered its own stationary source, the SSPE2 calculated below contains only its emissions.

Post Project Stationary Source Potential to Emit [SSPE2] (lb/year)					
	NO_X	SO_X	PM_{10}	CO	VOC
Each Unit	19,584	4118	2304	106,560	18,144
Post Project SSPE (SSPE2)	19,584	4118	2304	106,560	18,144

5. Major Source Determination

Pursuant to Section 3.23 of District Rule 2201, a Major Source is a stationary source with post-project emissions or a Post Project Stationary Source Potential to Emit (SSPE2), equal to or exceeding one or more of the following threshold values. However, Section 3.23.2 states, "for the purposes of determining major source status, the SSPE2 shall not include the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site."

Major Source Determination (lb/year)					
	NO_X	SO_X	PM_{10}	CO	VOC
Pre-Project SSPE (SSPE1)	0	0	0	0	0
Post Project SSPE (SSPE2)	19,584	4118	2304	106,560	18,144
Major Source Threshold	20,000	140,000	140,000	200,000	20,000
Major Source?	No	No	No	No	No

As seen in the table above, each flare by itself is not an existing Major Source and also is not becoming a Major Source as a result of this project.

6. Baseline Emissions (BE)

The BE calculation (in lbs/year) is performed pollutant-by-pollutant for each unit within the project, to calculate the QNEC and if applicable, to determine the amount of offsets required.

Pursuant to Section 3.7 of District Rule 2201, BE = Pre-project Potential to Emit for:

- Any unit located at a non-Major Source,
- Any Highly-Utilized Emissions Unit, located at a Major Source,
- Any Fully-Offset Emissions Unit, located at a Major Source, or
- Any Clean Emissions Unit, located at a Major Source.

otherwise,

BE = Historic Actual Emissions (HAE), calculated pursuant to Section 3.22 of District Rule 2201.

Since these flares are new emissions units, BE = PE1 = 0 for all pollutants.

7. SB 288 Major Modification

SB 288 Major Modification is defined in 40 CFR Part 51.165 as "*any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act.*"

As discussed in Section VII.C.5 above, the facility is not a Major Source for NO_X, SO_X, PM_{10}, CO, or VOC emissions; therefore, the project does not constitute a SB 288 Major Modification for NO_X, SO_X, PM_{10}, CO, or VOC emissions.

8. Federal Major Modification

As discussed in Section VII.C.6 above, the facility is not a Major Source for NO_X, SO_X, PM_{10}, CO, or VOC emissions; therefore, the project does not constitute a Federal Major Modification for NO_X, SO_X, PM_{10}, CO, or VOC emissions.

9. Quarterly Net Emissions Change (QNEC)

The QNEC is calculated solely to establish emissions that are used to complete the District's PAS emissions profile screen.

QNEC (lb/qtr) = PE2 (lb/qtr) – QBE (lb/qtr)

Quarterly NEC			
Pollutant	PE2 (lb/qtr)	QBE (lb/qtr)	QNEC (lb/qtr)
NO_x	4896	0	4896
SO_x	1030	0	1030
PM_{10}	576	0	576
CO	26,640	0	26,640
VOC	4536	0	4536

VIII. Compliance

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

Rule 1020, Section 3.46 excludes air pollution abatement operations from the definition of "source operation". The proposed well testing operation is considered the emissions units with the flare the control device for VOC and H_2S emissions from

the well; therefore, the flare is considered an air pollution abatement operation, not an emissions unit, and therefore is not subject to BACT.

B. Offsets

1. Offset Applicability

Pursuant to Section 4.5.3, offset requirements shall be triggered on a pollutant by pollutant basis and shall be required if the Post Project Stationary Source Potential to Emit (SSPE2) equals to or exceeds the offset threshold levels in Table 4-1 of Rule 2201.

The following table compares the post-project facility-wide annual emissions in order to determine if offsets will be required for this project.

Offset Determination (lb/year)					
	NO_X	SO_X	PM_{10}	CO	VOC
Post Project SSPE (SSPE2)	19,584	4118	2304	106,560	18,144
Offset Threshold	20,000	54,750	29,200	200,000	20,000
Offsets triggered?	No	No	No	No	No

2. Quantity of Offsets Required

As seen above, the SSPE2 is not greater than the offset thresholds for all the pollutants; therefore offset calculations are not necessary and offsets will not be required for this project.

C. Public Notification

1. Applicability

Public noticing is required for:
a. New Major Sources, Federal Major Modifications, and SB288 Major Modifications,
b. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
c. Any project which results in the offset thresholds being surpassed, and/or
d. Any project with an SSIPE of greater than 20,000 lb/year for any pollutant.

a. New Major Sources, Federal Major Modifications, and SB288 Major Modifications

New Major Sources are new facilities, which are also Major Sources. As shown in Section VII.C.5 above, the SSPE2 is not greater than the Major Source threshold for any pollutant. Therefore, public noticing is not required for this project for new Major Source purposes.

As demonstrated in VII.C.7 and C.8, this project does not constitute a SB 288 or Federal Major Modification; therefore, public noticing for SB 288 or Federal Major Modification purposes is not required.

b. PE > 100 lb/day

The PE2 for this new unit is compared to the daily PE Public Notice thresholds in the following table:

PE > 100 lb/day Public Notice Thresholds			
Pollutant	PE2 (lb/day)	Public Notice Threshold	Public Notice Triggered?
NO_X	68.0	100 lb/day	Yes
SO_X	14.3	100 lb/day	No
PM_{10}	8.0	100 lb/day	No
CO	370.0	100 lb/day	Yes
VOC	63.0	100 lb/day	No

Therefore, public noticing for PE > 100 lb/day purposes is required.

c. Offset Threshold

The following table compares the SSPE1 with the SSPE2 (typical of all flares in this project) in order to determine if any offset thresholds have been surpassed with this project.

Offset Threshold				
Pollutant	SSPE1 (lb/year)	SSPE2 (lb/year)	Offset Threshold	Public Notice Required?
NO_X	0	19,584	20,000 lb/year	No
SO_X	0	4118	54,750 lb/year	No
PM_{10}	0	2304	29,200 lb/year	No
CO	0	106,560	200,000 lb/year	No
VOC	0	18,144	20,000 lb/year	No

As detailed above, there were no thresholds surpassed with this project; therefore public noticing is not required for offset purposes.

d. SSIPE > 20,000 lb/year

Public notification is required for any permitting action that results in a Stationary Source Increase in Permitted Emissions (SSIPE) of more than 20,000 lb/year of any affected pollutant. According to District policy, the SSIPE is calculated as the Post Project Stationary Source Potential to Emit (SSPE2) minus the Pre-Project Stationary Source Potential to Emit (SSPE1), i.e. SSIPE = SSPE2 – SSPE1. The values for SSPE2 and SSPE1 are calculated according to Rule 2201, Sections 4.9 and

4.10, respectively. The SSIPE is compared to the SSIPE Public Notice thresholds in the following table:

Stationary Source Increase in Permitted Emissions [SSIPE] – Public Notice					
Pollutant	SSPE2 (lb/year)	SSPE1 (lb/year)	SSIPE (lb/year)	SSIPE Public Notice Threshold	Public Notice Required?
NO_x	19,584	0	19,584	20,000 lb/year	No
SO_x	4118	0	4118	20,000 lb/year	No
PM_{10}	2304	0	2304	20,000 lb/year	No
CO	106,560	0	106,560	20,000 lb/year	Yes
VOC	18,144	0	18,144	20,000 lb/year	No

As demonstrated above, the SSIPE for CO was greater than 20,000 lb/year; therefore public noticing for SSIPE purposes is required.

2. Public Notice Action

As discussed above, public noticing is required for this project for CO emissions in excess of 100 lb/day and CO emissions in excess of 20,000 lb/yr. Therefore, public notice documents will be submitted to the California Air Resources Board (CARB) and a public notice will be published in a local newspaper of general circulation prior to the issuance of the ATC for this equipment.

D. Daily Emission Limits (DELs)

Daily Emissions Limitations (DELs) and other enforceable conditions are required by Section 3.15 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. Per Sections 3.15.1 and 3.15.2, the DEL must be contained in the latest ATC and contained in or enforced by the latest PTO and enforceable, in a practicable manner, on a daily basis. DELs are also required to enforce the applicability of BACT.

- Emission rates shall not exceed any of the following: 0.008 lb-PM10/MMBtu, 0.068 lb-NOx/MMBtu (as NO2), 0.063 lb-VOC/MMBtu, or 0.37 lb-CO/MMBtu. [District Rules 2201 and 4201]

- Sulfur compound concentration of gas flared shall not exceed 5 gr/100 scf. [District Rules 2201 and 4801]

- Daily and annual amounts of gas flared shall not exceed 0.27 MMscf/day or 54 MMscf/yr. [District Rules 2201 and 4102]

- Flare shall only be used to combust gas released during well testing. [District Rule 2201]

E. Compliance Assurance

1. Source Testing

Pursuant to District Policy APR 1705, source testing is not required to demonstrate compliance with Rule 2201.

2. Monitoring

Monitoring of visible emissions will be required to ensure the flare complies with the particulate matter limit. The following condition will be listed on the ATCs:

- Permittee shall inspect the flare in operation for visible emissions no less frequently than once every two weeks. If visible emissions are observed, corrective action shall be taken. If visible emissions persist, an EPA Method 9 test shall be performed within 72 hours. [District Rule 2201]

3. Recordkeeping

Recordkeeping is required to demonstrate compliance with the offset, public notification and daily emission limit requirements of Rule 2201. The following conditions will appear on the ATC:

- Permittee shall maintain accurate daily records indicating flare location, flared gas sulfur content at each location, and daily and annual rates of gas flared; and such records shall be made readily available for District inspection upon request for a minimum of 5 years. [District Rules 2201 and 4311]

- Permittee shall document compliance with well gas sulfur compound concentration limit by performing sulfur content analysis of well gas upon startup at each new location of operation of flare. [District Rule 2201]

4. Reporting

The facility is required to report the location at which the flare is operating. The following condition will be placed on the ATCs to show compliance with this section.

- Permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 2201]

F. Ambient Air Quality Analysis

Section 4.14.1 of this Rule requires that an ambient air quality analysis (AAQA) be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of an air quality standard. The Technical Services Division of the SJVAPCD conducted the required analysis. Refer to Appendix B of this document for the AAQA summary sheet.

The proposed location is in an attainment area for NO_X, SO_X, PM_{10}, and CO. As shown by the AAQA summary sheet the proposed equipment will not cause a violation of an air quality standard for NO_X, SO_X, PM_{10}, and CO.

Criteria Pollutant Modeling Results*

Diesel ICE	1 Hour	3 Hours	8 Hours.	24 Hours	Annual
CO	Pass	X	Pass	X	X
NO_x	Pass[1]	X	X	X	Pass
SO_x	Pass	Pass	X	Pass	Pass
PM_{10}	X	X	X	Pass[2]	Pass[2]
$PM_{2.5}$	X	X	X	Pass[2]	Pass[2]

*Results were taken from the attached PSD spreadsheet.
[1]The project was compared to the 1-hour NO2 National Ambient Air Quality Standard that became effective on April 12, 2010 using the District's approved procedures.
[2]The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2).

As shown, the calculated contribution of these flares will not exceed the EPA significance level. This project is not expected to cause or make worse a violation of an air quality standard.

Rule 2520 Federally Mandated Operating Permits

Since this facility's potential emissions do not exceed any major source thresholds of Rule 2201, this facility is not a major source, and Rule 2520 does not apply.

Rule 4001 New Source Performance Standards (NSPS)

This rule incorporates NSPS from Part 60, Chapter 1, Title 40, Code of Federal Regulations (CFR); and applies to all new sources of air pollution and modifications of existing sources of air pollution listed in 40 CFR Part 60. However, no subparts of 40 CFR Part 60 apply to produced gas fired flares.

Rule 4002 National Emission Standards for Hazardous Air Pollutants (NESHAPs)

This rule incorporates NESHAPs from Part 61, Chapter I, Subchapter C, Title 40, CFR and the NESHAPs from Part 63, Chapter I, Subchapter C, Title 40, CFR; and applies to all sources of hazardous air pollution listed in 40 CFR Part 61 or 40 CFR Part 63. However, no subparts of 40 CFR Part 61 or 40 CFR Part 63 apply to produced gas flaring operations.

Rule 4101 Visible Emissions

Per Section 5.0, no person shall discharge into the atmosphere emissions of any air contaminant aggregating more than 3 minutes in any hour which is as dark as or darker than Ringelmann 1 (or 20% opacity).

As the flare is equipped with air-assist and fired solely on produced gas, smokeless operation is expected and visible emissions are not expected to exceed Ringelmann 1 or 20% opacity. The following condition will be listed on the ATCs to ensure compliance with this rule:

- No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]

Rule 4102 Nuisance

Section 4.0 prohibits discharge of air contaminants which could cause injury, detriment, nuisance or annoyance to the public. Public nuisance conditions are not expected as a result of these operations, provided the equipment is well maintained. The following condition will be listed on the ATCs to ensure compliance:

- No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]

California Health & Safety Code 41700 (Health Risk Assessment)

District Policy APR 1905 – Risk Management Policy for Permitting New and Modified Sources specifies that for an increase in emissions associated with a proposed new source or modification, the District perform an analysis to determine the possible impact to the nearest resident or worksite.

According to the Technical Services Memo for this project (**Attachment IV**), the total facility prioritization score including this project was greater than one. Therefore, a health risk assessment was required to determine the short-term acute and long-term chronic exposure from this project.

The health risk for this project is shown below:

RMR Summary			
Categories	**0.042 MMSCF/hr Flares (Unit 16-0 through 19-0)[1]**	**Project Totals**	**Facility Totals**
Prioritization Score	0.61 (each)	2.44	N/A[1]
Acute Hazard Index	0.00 (each)[2,3]	0.00	N/A[1]
Chronic Hazard Index	0.00 (each)[2,3]	0.00	N/A[1]
Maximum Individual Cancer Risk (10^{-6})	0.53 (each)[2,3]	2.10	N/A[1]
T-BACT Required?	**No**		
Special Permit Conditions?	**Yes**		

[1] Each unit in this project is considered its own facility therefore the risk associated with this project will not be summed with other permitted units in this project or at this facility.
[2] Represents risk at 1,500 feet from nearest receptor.
[3] Scores reflect a 9-year exposure period.

The project is approvable without TBACT.

The following conditions will ensure ongoing compliance with the HRA:

Unit # 16-0 through 19-0

1. Unit may not operate within 1,600 feet of an off-worksite residential, off-worksite business receptor, or any other unit permitted under this facility.
2. No two flares will operate at the same time in the same location.
3. Unit will be limited to an annual fuel consumption of 288 MMSCF.
4. Operation at any specific location by this unit shall not exceed 1 year.

Rule 4201 Particulate Matter Concentration

Section 3.1 prohibits discharge of dust, fumes, or total particulate matter into the atmosphere from any single source operation in excess of 0.1 grain per dry standard cubic foot.

Emissions from the flare are the result of burning gaseous fuel only. Particulate emissions greater than 0.1 gr/dscf are not expected. The following condition will be listed on the ATCs to ensure compliance with this rule:

- Emission rates shall not exceed any of the following: 0.008 lb-PM10/MMBtu, 0.068 lb-NOx/MMBtu (as NO2), 0.063 lb-VOC/MMBtu, or 0.37 lb-CO/MMBtu. [District Rules 2201 and 4201]

Rule 4301 Fuel Burning Equipment

The purpose of this rule is to limit the emission of air contaminants from fuel burning equipment. Fuel burning equipment is defined in the rule as "any furnace, boiler, apparatus, stack, and all appurtenances thereto, used in the process of burning fuel for the primary purpose of producing heat or power by indirect heat transfer."

The purpose of the flare is not to produce heat or power by indirect heat transfer; therefore, Rule 4301 does not apply.

Rule 4311 Flares

The purpose of this Rule is to limit the emissions of volatile organic compounds (VOC), oxides of nitrogen (NOx), and sulfur oxides (SOx) from the operation of flares.

Pursuant to Section 4.3, except for the recordkeeping requirements in Section 6.1.4 the requirements of this rule shall not apply to any stationary source that has the potential to emit, for all processes, less than ten (10.0) tons per year of VOC and less than ten (10.0) tons per year of NOx.

According to the SSPE2, these facilities (each individual flare) produces less than 10 tons each of NO_x and VOC, therefore only the recordkeeping requirements of Section 6.14 are applicable to this flare.

Section 6.1.4 requires that operators claiming an exemption pursuant to Section 4.3 shall record annual throughput, material usage, or other information necessary to demonstrate an exemption under that section.

To utilize this exemption, the facility-wide emissions of NO_x and VOC shall each remain below 10 tons. Since this evaluation has demonstrated that this facility's emissions are currently below the exemption's emissions limits (SSPE2 calculated previously) compliance with this exemption is expected. The following condition will ensure compliance:

- Permittee shall maintain accurate daily records indicating flare location, flared gas sulfur content at each location, and daily and annual rates of gas flared; and such records shall be made readily available for District inspection upon request for a minimum of 5 years. [District Rules 2201 and 4311]

Rule 4801 Sulfur Compounds

Rule 4801 requires that sulfur compound emissions (as SO_2) shall not exceed 0.2% by volume. Using the ideal gas equation, the proposed flare sulfur compound emissions are calculated as follows (using limits of 5 gr-S/100 dscf and 1,000 Btu/dscf):

$$\frac{5\,gr\cdot S}{100\,dscf}\left(\frac{1\,lb}{7{,}000\,gr}\right)\frac{lb\cdot mole}{32\,lb\cdot S}\left(\frac{379.5\,dscf}{lb\cdot mole}\right)\frac{dscf}{1{,}000\ Btu}\left(\frac{10^6\ Btu}{MMBtu}\right)\frac{MMBtu}{8{,}578\,dscf}=9.9\frac{parts}{million}$$

Since 9.9 ppmv is ≤ 2,000 ppmv, this flare is expected to comply with Rule 4801. Therefore, the following condition will be listed on the ATC to ensure compliance:

- Sulfur compound concentration of gas flared shall not exceed 5 gr/100 scf. [District Rules 2201 and 4801]

California Health & Safety Code 42301.6 (School Notice)

This transportable equipment will not be allowed to operate within 1,000 feet of a school. Therefore, pursuant to California Health and Safety Code 42301.6, a school notice is not required. The following condition will be listed on the permits to ensure compliance:

- The equipment shall not be located within 1000 ft. of any K-12 school. [CH&SC 42301.6]

California Environmental Quality Act (CEQA)

CEQA requires each public agency to adopt objectives, criteria, and specific procedures consistent with CEQA Statutes and the CEQA Guidelines for administering its responsibilities under CEQA, including the orderly evaluation of projects and preparation of environmental documents. The District adopted its *Environmental Review Guidelines* (ERG) in 2001. The basic purposes of CEQA are to:

- Inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities;
- Identify the ways that environmental damage can be avoided or significantly reduced;
- Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible; and

- Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

  The District performed an Engineering Evaluation (this document) for the proposed project and determined that all project specific emission unit(s) are exempt from Best Available Control Technology (BACT) requirements. Furthermore, the District conducted a Risk Management Review and concludes that potential health impacts are less than significant.

  Issuance of permits for emissions units not subject to BACT requirements and with health impact less than significant is a matter of ensuring conformity with applicable District rules and regulations and does not require discretionary judgment or deliberation. Thus, the District concludes that this permitting action constitutes a ministerial approval. Section 21080 of the Public Resources Code exempts from the application of CEQA those projects over which a public agency exercises only ministerial approval. Therefore, the District finds that this project is exempt from the provisions of CEQA.

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Issue ATCa S-7045-16-0, '-17-0, '-18-0, and '-19-0 subject to the permit conditions on the attached draft ATC in **Attachment V.**

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-7045-15-0	3020-02-H	41.6 MMBtu/hr	$1030.00
S-7045-15-0	3020-02-H	41.6 MMBtu/hr	$1030.00
S-7045-15-0	3020-02-H	41.6 MMBtu/hr	$1030.00
S-7045-15-0	3020-02-H	41.6 MMBtu/hr	$1030.00

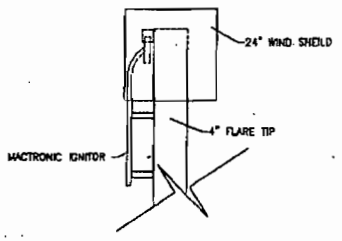
Attachments

I: Diagrams of the Flare and Well Testing Operation
II: Manufacturer's Information on Flare
III: Emissions Profile
IV: HRA
V: Draft ATC

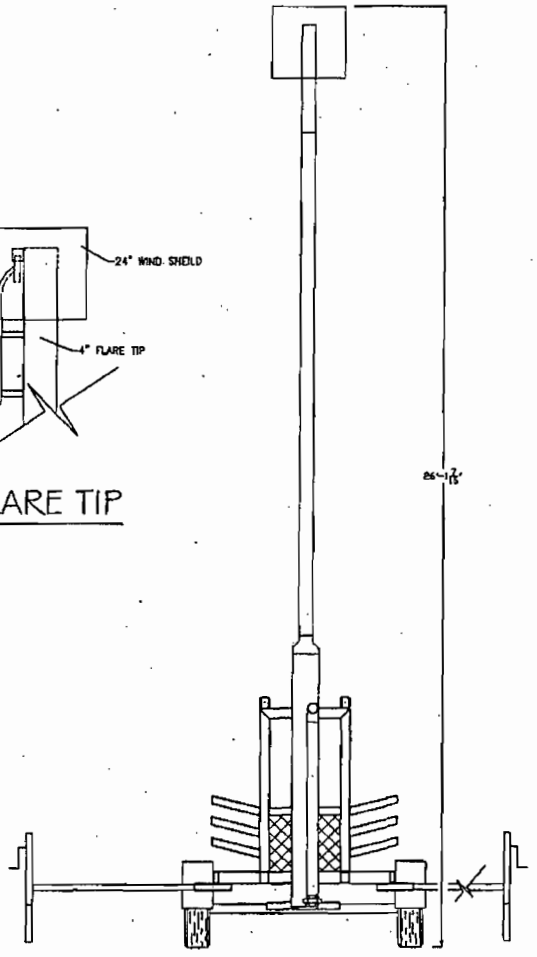
ATTACHMENT I

Diagrams of the Flare and Well Testing Operation

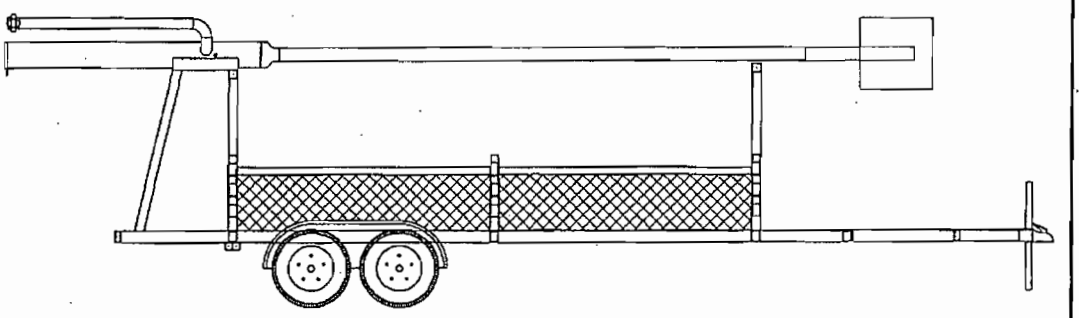
MANUFACTURE: PROS INCORPORATED
MODEL#: 740-01 THROUGH 740-14
TYPE: ELEVATED @ 25'-1" W/3" INLET
TYPE OF SERVICE: CONTINUOUS
RATED HEAT INPUT: 437.5 MMBTU/HOUR



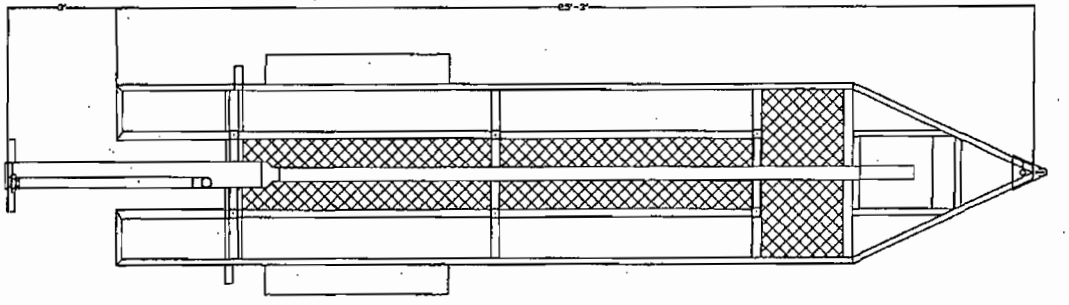
FLARE TIP



ELEVATION VIEW



SIDE VIEW

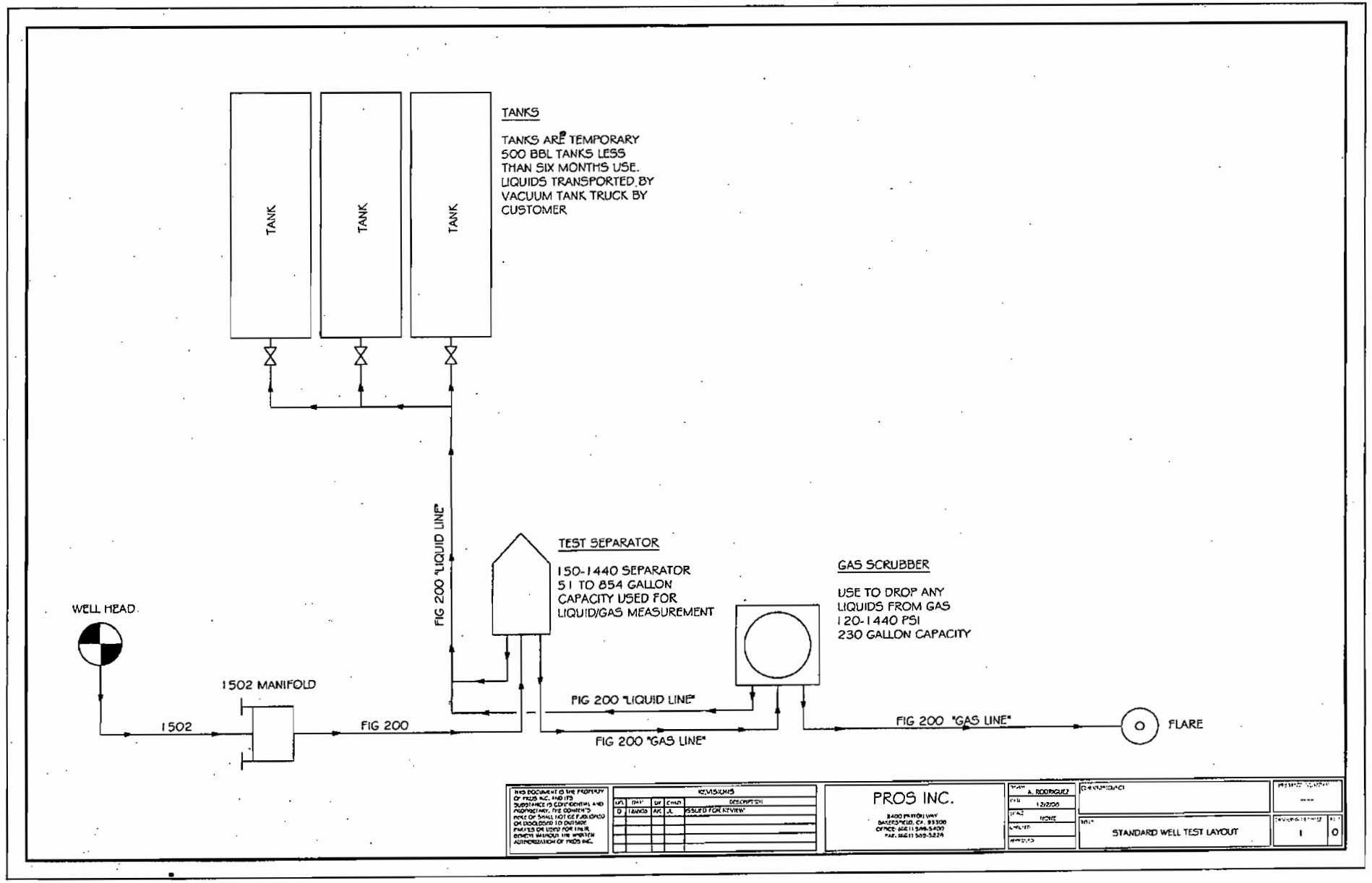


PLAN VIEW

REVISIONS				
NO	DATE	BY	CHKD	DESCRIPTION
0	3/09/06	AR	JL	ISSUED FOR REVIEW

PROS INC.
3400 PATTON WAY
BAKERSFIELD, CA. 93308
OFFICE: (661) 589-5400
FAX: (661) 589-5220
CELL: (661) 343-2042

DRAWN BY	A. RODRIGUEZ
DATE	3/09/06
SCALE	NONE
CHKD BY	
APPROVED	
CLIENT/PROJECT	PROS INC.
TITLE	GENERAL ARRANGEMENT
PROJECT NUMBER	FLTR-1
DRAWING NUMBER	1
REV	0


TANK
TANK
TANK
TANKS
TANKS ARE TEMPORARY
500 BBL TANKS LESS
THAN SIX MONTHS USE.
LIQUIDS TRANSPORTED BY
VACUUM TANK TRUCK BY
CUSTOMER
FIG 200 "LIQUID LINE"
TEST SEPARATOR
150-1440 SEPARATOR
51 TO 854 GALLON
CAPACITY USED FOR
LIQUID/GAS MEASUREMENT
GAS SCRUBBER
USE TO DROP ANY
LIQUIDS FROM GAS
120-1440 PSI
230 GALLON CAPACITY
WELL HEAD
1502 MANIFOLD
1502
FIG 200
FIG 200 "LIQUID LINE"
FIG 200 "GAS LINE"
FIG 200 "GAS LINE"
FLARE
PROS INC.
STANDARD WELL TEST LAYOUT

ATTACHMENT II

Manufacturer's Information on Flare

INSTALLATION, OPERATION AND MAINTENANCE MANUAL FOR THE SOLAR – RN-72-IDE FLARE IGNITION SYSTEM

Customer: ..... : PROS INCORPORATED

Location ..... : CALIFORNIA

P.O. #..... : 607-2061

Mactronic File #.....: 6547 Job # E100374

Date ..... : NOVEMBER, 2008

For Parts and Service please contact:

MACTRONIC ENERFLEX

ENERFLEX SYSTEMS LTD.

Red Deer, Alberta, Canada (403) 342-1822

1-800-36-FLARE (Canada & U.S.)

E1 374 "B" Manuals

This Flare Ignition System must be installed by qualified personnel in accordance with applicable Electrical Code and this Installation Manual.

TABLE OF CONTENTS

A) INSTALLATION OF THE MACTRONIC ENERGY EFFICIENT PILOT

Refer to DWG. # 6547-RT

1) Remove the **Mactronic** Pilot from the crate.
2) Mount C shaped bracket provided on flare tip.
3) Secure pilot in place using bolting provided.
4) Secure wiring harness provided and connect to control panel with twist lock cord connectors.
5) Connect regulated pilot gas supply to pilot.

B) CONTROL PANEL

All control panels are bench tested and are ready for hook up. All components are pre-set and in place. There should be no adjustments required.

The Solar Control Panel has two Modes of Operation:

HAND OPERATION

Hold Spring Loaded Switch One SW-1 In HAND Position for 1 second Ignitor will spark for period of time SW-1 is held on. If gas is present ignition will occur.

AUTO OPERATION

Turn Switch One SW-1 to AUTO Position. Ignitor will spark for 1 second every 30 seconds.

Please refer to **Section F - Drawings** Control Panel Wiring Diagram and the adjacent page for the Trouble Shooting Guide and Spare Parts List. **All Control Panels and Ignition Equipment are to be installed in a 'Standard Area' only unless the Control Panel comes in an Explosion Proof Enclosure.**

TROUBLE SHOOTING THE CONTROL PANEL

To check out the control panel operation refer to attached Dwg. 6547-CPW

1) The solar panel must be disconnected from the battery to get true readings. The solar panel, on a sunny day, when disconnected from the battery should put out 15V DC or more.

2) Check that the polarity on terminals **#2 and #3** on terminal block **TB1** are correct. (#2 - POSITIVE, #3 - NEGATIVE, 12 VDC).

3) Check that there is at least 10.5 VDC at this point, when the HOA switch is held in the HAND position. If not, battery service or replacement is required.

4) Check green LED on the 'Mac II' card to see if it is lighting on each arc or lit continuously when HOA switch is held in HAND position. If the green LED is not lighting, then the card is not operating. Check the inter-connecting wires and replace the card if necessary.

5) Lower the Pilot Ignitor and check that the gap between the Spark Plug Ignitor tip and ground is 3/16". If the gap is too large, replace the I-18 Spark Plug Ignitor. **Be sure Control Panel is off and there is no power to the Ignitor during this procedure.**

6) If there is no arc present after completing the above, replace the **Transistor** and the **Isolation washer**. If, after replacement, there still is no arc, replace the **Coil** located in the Ignition Device Enclosure.

SPARE PARTS LIST

CONTROL PANEL

Part Description	Part Number
Transistor	ELEC-TRAN-NTE238
'Mac II' Card	ELEC-PCBO-PCBO2A
Key Switch	ELEC-SWIT-KEYED-3POS
Spark Plug Ignitor	ELEC-IGNI-004XI-18
Terminal Block	ELEC-TERM-16E
Fuse	ELEC-FUSE-OTM-10
Solar Panel	ELEC-SOLR-SX20U
Solar Charge Regulator	ELEC-SOLR-REG-ACS12/4

IGNITOR SPARE PARTS - MODEL: ELAS-IGNI-RN-72-IDE

Part Description	Part Number
Spark Plug Ignitor	ELEC-IGNI-004XI-18
Bushing	ELEC-BUSH-006X004MRSG
Coil	ELEC-COIL-UC15X

C) LIGHTING AND TROUBLE SHOOTING THE MACTRONIC PILOT

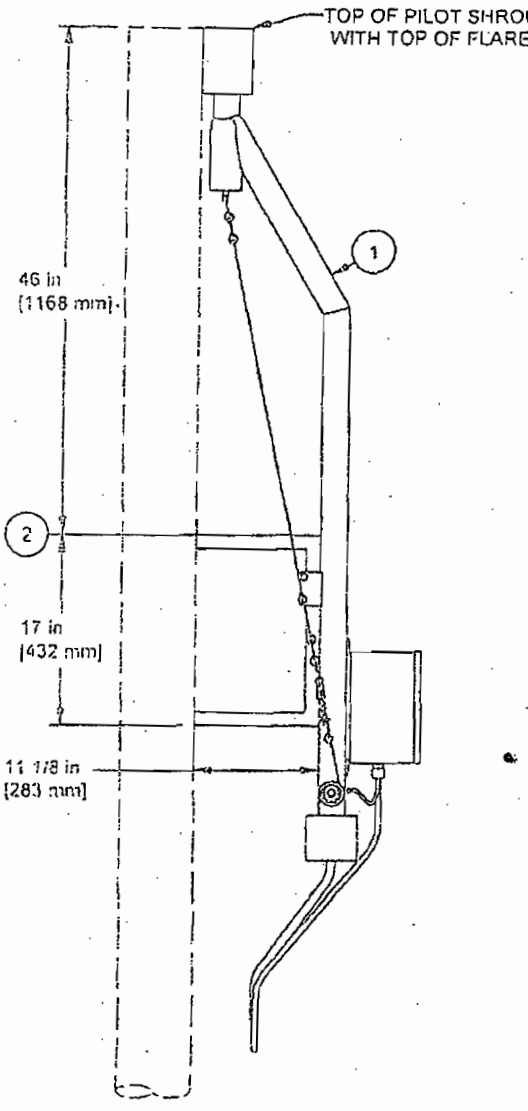
1) The **Mactronic** Energy Efficient Pilot requires a fuel gas supply at 3 to 5 PSIG. At this pressure the **Mactronic** Pilot will consume approximately 45 SCFH. Turn shutoff valve on and off to check pressure. Adjust regulator pressure up/down as necessary.
2) Once all equipment and pilot fuel gas supply is installed, the **Mactronic** Pilot can be ignited. Turn shutoff valve on and turn the control panel switch one [SW1] to AUTO. Pilot should ignite within 30 seconds while pilot fuel gas is purging pilot hose and control panel is arcing in sequence.
3) If the Pilot will not light or remain lit, check the following:
   - Is there pilot fuel gas to the regulator.
   - Is there a 3 – 5 PSIG reading on regulator gauge.
   - Are there any bends or twists in the pilot hose.
   - Disconnect the pilot hose from the base of the Pilot and check for pilot fuel gas. If gas is present, check to see if anything is plugging the unit and remove.
   - Check Pilot fuel supply to make sure no liquids are present.
   - Check to make sure there is a 3/16" to 1/4" gap between the high voltage Ignitor and the pilot deflector plate

   If Pilot will still not light or remain lit, contact one of Mactronic's Service Technicians at 1-800-36-FLARE.

D) DRAWINGS

6547-CPW	CONTROL PANEL WIRING DIAGRAM
6547-RT	PILOT INSTALLATION DRAWING

Parts List				
ITEM	DESCRIPTION	QTY	SIZE	MAT
1	PILOT/IGNITOR	1	MODEL: ELAS-IGNI-RN72-500	
2	STATIONARY CARRIER	1	1 1/4" SQ. TUBING	SA-36/44W



REVISION BLOCK			
REV:	DATE:	DESCRIPTION:	BY:
0	4-NOV-08	FABRICATION	JOW

MACTRONIC ENERFLEX
RED DEER, ALBERTA, CANADA

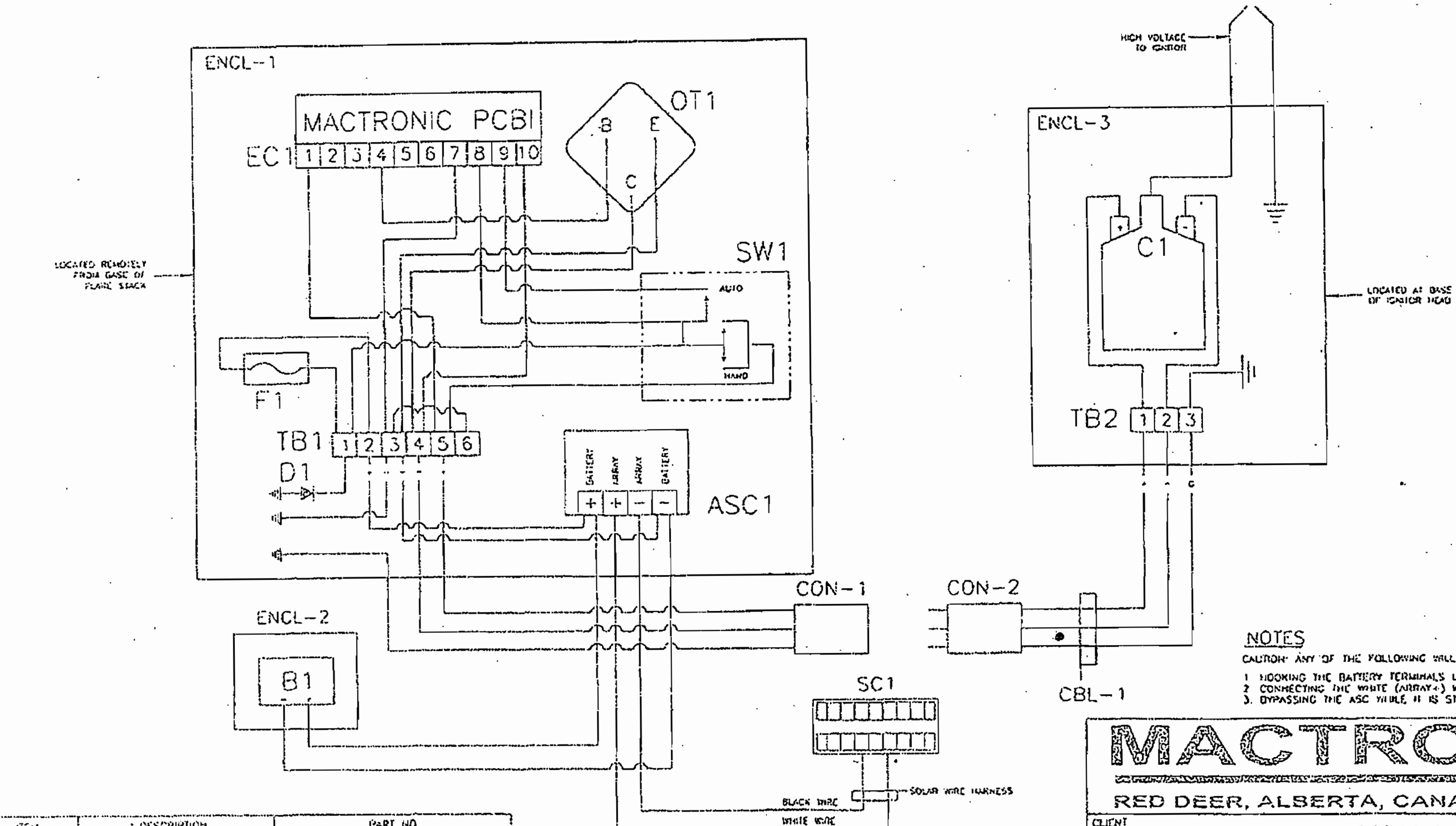
CLIENT: PROS INCORPORATED

LOCATION: CALIFORNIA | P.O. #: 607-2061

TAG #:

TITLE: PILOT INSTALLATION DRAWING

DRAWN BY: JOW	CHECKED BY:	DATE: 4-NOV-08	SHEET: 1 OF 1		
APP. BY:	PROJECT BY:	SCALE: AS SHOWN	SIZE: B	REV: 0	
JOB ORDER #: E100374	DRAWING #: 6547-RT				



NOTES

CAUTION: ANY OF THE FOLLOWING WILL DESTROY YOUR ASC !

1. HOOKING THE BATTERY TERMINALS UP BACKWARDS.
2. CONNECTING THE WHITE (ARRAY+) WIRE TO THE BATTERY.
3. BYPASSING THE ASC WHILE IT IS STILL INSTALLED IN THE SYSTEM.

ITEM	DESCRIPTION	PART NO
ENCL-1	CONTROL PANEL ENCLOSURE(NEMA3)	ELEC-ENCL-120x100x060N3MCS
EC-1	CONTROL BOARD	ELEC-PCBD-PCB02A
OT-1	TRANSISTOR	ELEC-TRAN-NTE238
F-1	FUSE	ELEC-FUSE-OTM-16
ENCL-2	BATTERY BOX	ELEC-ENCL-120x120x100N3MCS
C-1	COIL	ELEC-COIL-UC15X
ASC-1	SOLAR CHARGE REGULATOR	ELEC-SOLAR-REG-ASC12/4
B-1	BATTERY	ELEC-BATT-DC 12V
SC-1	SOLAR PANEL	ELEC-SPAN-SX20U
SW-1	KEYED SWITCH	ELEC-SWIT-KEYED-3POS
TB-1/2	TERMINAL BLOCK	ELEC-TERM-16C
ENCL-3	IGNITION DEVICE ENCLOSURE	ELEC-ENCL-100x100x060N3MCS
CBL-1	WIRING HARNESS 20 FT 3C x 14AWG	WIRE-GOST-14x3C
CON-1	TWIST LOCK CONNECTOR C/W WP BOOT	ELEC-CONN-HBL4729CCN/ELEC-BOOT-HBL60Z

LEGENDS
- - - - - - BY OTHERS
·········· CABLE

REVISION BLOCK

REV	DATE	DESCRIPTION	BY
0	4-NOV-08	FABRICATION	JOW

MACTRONIC ENERFLEX
RED DEER, ALBERTA, CANADA

CLIENT	PROS INCORPORATED		
LOCATION	CALIFORNIA	P.O. #	807-2061
		TAG #	
TITLE	CONTROL PANEL WIRING DIAGRAM		
DRAWN BY	JOW	CHECKED BY	[signature]
APP BY	[signature]	PROJECT BY	[signature]
DATE	4-NOV-08	SCALE	NTS
JOB ORDER #	E100374	DRAWING NUMBER	6547-CPW

ATTACHMENT III

Emissions Profile

Application Emissions

Permit #: S-7045-16-0	Last Updated
Facility: PROS INC	06/09/2012 DAVIDSOS

Equipment Pre-Baselined: NO

	NOX	SOX	PM10	CO	VOC
Potential to Emit (lb/Yr):	19584.0	4118.0	2034.0	106560.0	18144.0
Daily Emis. Limit (lb/Day)	86.0	14.3	8.0	63.0	63.0
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	4896.0	1030.0	576.0	4536.0	4536.0
Q2:	4896.0	1030.0	576.0	4536.0	4536.0
Q3:	4896.0	1030.0	576.0	4536.0	4536.0
Q4:	4896.0	1030.0	576.0	4536.0	4536.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Application Emissions

Permit #: S-7045-17-0	**Last Updated**
Facility: PROS INC	06/09/2012 DAVIDSOS

Equipment Pre-Baselined: NO

	NOX	SOX	PM10	CO	VOC
Potential to Emit (lb/Yr):	19584.0	4118.0	2034.0	106560.0	18144.0
Daily Emis. Limit (lb/Day)	68.0	14.3	8.0	370.0	63.0
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	4896.0	1030.0	576.0	26640.0	4536.0
Q2:	4896.0	1030.0	576.0	26640.0	4536.0
Q3:	4896.0	1030.0	576.0	26640.0	4536.0
Q4:	4896.0	1030.0	576.0	26640.0	4536.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Permit #: S-7045-18-0	**Last Updated**
Facility: PROS INC	06/09/2012 DAVIDSOS

Equipment Pre-Baselined: NO

	NOX	SOX	PM10	CO	VOC
Potential to Emit (lb/Yr):	19584.0	4118.0	2034.0	106560.0	18144.0
Daily Emis. Limit (lb/Day)	68.0	14.3	8.0	370.0	63.0
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	4896.0	1030.0	576.0	26640.0	4536.0
Q2:	4896.0	1030.0	576.0	26640.0	4536.0
Q3:	4896.0	1030.0	576.0	26640.0	4536.0
Q4:	4896.0	1030.0	576.0	26640.0	4536.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Application Emissions

Permit #: S-7045-19-0	Last Updated
Facility: PROS INC	06/09/2012 DAVIDSOS

Equipment Pre-Baselined: NO

	NOX	SOX	PM10	CO	VOC
Potential to Emit (lb/Yr):	19584.0	4118.0	2034.0	106560.0	18144.0
Daily Emis. Limit (lb/Day)	68.0	14.3	8.0	370.0	63.0
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	4896.0	1030.0	576.0	26640.0	4536.0
Q2:	4896.0	1030.0	576.0	26640.0	4536.0
Q3:	4896.0	1030.0	576.0	26640.0	4536.0
Q4:	4896.0	1030.0	576.0	26640.0	4536.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

ATTACHMENT IV

HRA/AAQA Summary

San Joaquin Valley Air Pollution Control District
Risk Management Review

To:	Ashley Dahlstrom – Permit Services
From:	Yu Vu – Technical Services
Date:	June 21, 2012
Facility Name:	PROS Inc.
Location:	Multiple Unspecified Locations
Application #(s):	S-7045-16-0 through 19-0
Project #:	S-1121582

A. RMR SUMMARY

RMR Summary			
Categories	**0.042 MMSCF/hr Flares (Unit 16-0 through 19-0)[1]**	**Project Totals**	**Facility Totals**
Prioritization Score	0.61 (each)	2.44	N/A[1]
Acute Hazard Index	0.00 (each)[2,3]	0.00	N/A[1]
Chronic Hazard Index	0.00 (each)[2,3]	0.00	N/A[1]
Maximum Individual Cancer Risk (10^{-6})	0.53 (each)[2,3]	2.10	N/A[1]
T-BACT Required?	**No**		
Special Permit Conditions?	**Yes**		

[1] Each unit in this project is considered its own facility therefore the risk associated with this project will not be summed with other permitted units in this project or at this facility.
[2] Represents risk at 1,500 feet from nearest receptor.
[3] Scores reflect a 9-year exposure period.

Proposed Permit Conditions

To ensure that human health risks will not exceed District allowable levels; the following permit conditions must be included for:

Unit # 16-0 through 19-0

5. Unit may not operate within 1,600 feet of an off-worksite residential, off-worksite business receptor, or any other unit permitted under this facility.
6. No two flares will operate at the same time in the same location.
7. Unit will be limited to an annual fuel consumption of 288 MMSCF.
8. Operation at any specific location by this unit shall not exceed 1 year.

B. RMR REPORT

I. Project Description

Technical Services received a request on June 5, 2012, to perform a Risk Management Review and Ambient Air Quality Analysis (AAQA) for a proposed installation of a well testing operation with four (4) 0.042 MMSCF/hr flares.

II. Analysis

Technical Services performed a prioritization using the District's HEARTs database. Since the total facility prioritization score was greater than one, a refined health risk assessment was required. Emissions calculated using the District's "NG Flare – External Combustion" spreadsheet were input into the HEARTs database. The AERMOD model was used, with the parameters outlined below and meteorological data for 2005-2009 from Hanford to determine the dispersion factors (i.e., the predicted concentration or X divided by the normalized source strength or Q) for a receptor grid. These dispersion factors were input into the Hot Spots Analysis and Reporting Program (HARP) risk assessment module to calculate the chronic and acute hazard indices and the carcinogenic risk for the project.

The following parameters were used for the review:

Analysis Parameters Unit 16-0 through 19-0			
Source Type	Point	**Location Type**	Rural
Stack Height (m)	7.62	**Closest Receptor (m)**	457
Stack Diameter. (m)[1]	1.136	**Type of Receptor**	Residential
Stack Exit Velocity (m/s)[1]	20	**Max Hours per Year**	8760
Stack Exit Temp. (°K)[1]	1,273	**Fuel Type**	Natural Gas
Flare Rating (MMBtu/hr)	42		

[1] Calculated using FYI 69.

Technical Services also performed modeling for criteria pollutants CO, NOx, SOx and PM_{10}. The emission rates used for criteria pollutant modeling were 15.42 lb/hr CO, 2.83 lb/hr NOx, 0.60 lb/hr SOx, 0.33 lb/hr PM_{10}, and 0.33 lb/hr $PM_{2.5}$. The results from the Criteria Pollutant Modeling are as follows:

Criteria Pollutant Modeling Results*

Diesel ICE	1 Hour	3 Hours	8 Hours.	24 Hours	Annual
CO	Pass	X	Pass	X	X
NO_x	Pass[1]	X	X	X	Pass
SO_x	Pass	Pass	X	Pass	Pass
PM_{10}	X	X	X	Pass[2]	Pass[2]
$PM_{2.5}$	X	X	X	Pass[2]	Pass[2]

*Results were taken from the attached PSD spreadsheet.
[1]The project was compared to the 1-hour NO2 National Ambient Air Quality Standard that became effective on April 12, 2010 using the District's approved procedures.
[2]The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2).

III. Conclusion

The acute and chronic indices are below 1.0 and the cancer risk factor associated with the project is less than 1.0 in a million. **In accordance with the District's Risk Management Policy, the project is approved without Toxic Best Available Control Technology (T-BACT).**

To ensure that human health risks will not exceed District allowable levels; the permit conditions listed on page 1 of this report must be included for this proposed unit.

The emissions from the proposed equipment will not cause or contribute significantly to a violation of the State and National AAQS.

These conclusions are based on the data provided by the applicant and the project engineer. Therefore, this analysis is valid only as long as the proposed data and parameters do not change.

IV. Attachments

A. RMR request from the project engineer
B. Additional information from the applicant/project engineer
C. Toxic emissions summary
D. Prioritization score
E. Facility Summary
F. AAQA Summary

ATTACHMENT V

Draft ATC

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: S-7045-16-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: PROS INC
MAILING ADDRESS: P O BOX 20996
BAKERSFIELD, CA 93390-0996

LOCATION: VARIOUS LOCATIONS, SJVUAPCD

EQUIPMENT DESCRIPTION:
WELL TESTING OPERATION WITH PORTABLE 1.0 MMSCF/DAY FLARE WITH OPTIONAL USE AIR-ASSIST, TWO OR THREE-PHASE TEST SEPARATOR, AND GAS SCRUBBER OPERATED AT VARIOUS UNSPECIFIED LOCATIONS

CONDITIONS

1. The equipment shall not be located within 1000 ft. of any K-12 school. [CH&SC 42301.6]
2. Flare shall only be used to combust gas released during well testing. [District Rule 2201]
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 2201]
5. Operation at any specific location by this unit shall not exceed 1 year. [District Rule 4102]
6. Unit may not operate within 1,600 feet of an off-worksite residential, off-worksite business receptor, or any other unit permitted under this facility. [District Rule 4102]
7. No two flares shall operate at the same time in the same location. [District Rule 4102]
8. This permit shall not authorize the utilization of any IC engine, or other combustion device requiring a separate permit, for powering the air assist to the flare. [District Rule 2201]
9. The unit must not be located and operated at an existing facility or operation such that it becomes part of an existing stationary source as defined by District Rule 2201. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT. This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

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DAVID WARNER, Director of Permit Services
S-7045-16-0 : Jun 25 2012 3:42PM – DAVIDSOS : Joint Inspection NOT Required

10. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rules 2201 and 4101]
11. Flare shall be equipped with operational automatic re-ignition provisions. [District Rule 2201]
12. Gas line to flare shall be equipped with operational, volumetric flow rate indicator. [District Rule 2201]
13. Daily and annual amounts of gas flared shall not exceed 1.0 MMscf/day nor 288 MMscf/yr. [District Rules 2201 and 4102]
14. Sulfur compound concentration of gas flared shall not exceed 5 gr/100 scf. [District Rules 2201 and 4801]
15. Emission rates shall not exceed any of the following: 0.008 lb-PM10/MMBtu, 0.068 lb-NOx/MMBtu (as NO2), 0.063 lb-VOC/MMBtu, or 0.37 lb-CO/MMBtu. [District Rules 2201 and 4201]
16. The flare shall be operated according to the manufacturer's specifications, a copy of which shall be maintained on site. [District Rule 2201]
17. Permittee shall inspect the flare in operation for visible emissions no less frequently than once every two weeks. If visible emissions are observed, corrective action shall be taken. If visible emissions persist, an EPA Method 9 test shall be performed within 72 hours. [District Rule 2201]
18. Permittee shall document compliance with well gas sulfur compound concentration limit by performing sulfur content analysis of well gas upon startup at each new location of operation of flare. [District Rule 2201]
19. The following test methods shall be used for well gas sulfur content: ASTM D3246 or double GC for H2S and mercaptan. [District Rule 1081]
20. Permittee shall maintain accurate daily records indicating flare location, flared gas sulfur content at each location, and daily and annual rates of gas flared; and such records shall be made readily available for District inspection upon request for a minimum of 5 years. [District Rules 2201 and 4311]

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

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ISSUANCE DATE: DRAFT

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BAKERSFIELD, CA 93390-0996

LOCATION: VARIOUS LOCATIONS, SJVUAPCD

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WELL TESTING OPERATION WITH PORTABLE 1.0 MMSCF/DAY FLARE WITH OPTIONAL USE AIR-ASSIST, TWO OR THREE-PHASE TEST SEPARATOR, AND GAS SCRUBBER OPERATED AT VARIOUS UNSPECIFIED LOCATIONS

CONDITIONS

1. The equipment shall not be located within 1000 ft. of any K-12 school. [CH&SC 42301.6]
2. Flare shall only be used to combust gas released during well testing. [District Rule 2201]
3. {98} No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
4. Permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 2201]
5. Operation at any specific location by this unit shall not exceed 1 year. [District Rule 4102]
6. Unit may not operate within 1,600 feet of an off-worksite residential, off-worksite business receptor, or any other unit permitted under this facility. [District Rule 4102]
7. No two flares shall operate at the same time in the same location. [District Rule 4102]
8. This permit shall not authorize the utilization of any IC engine, or other combustion device requiring a separate permit, for powering the air assist to the flare. [District Rule 2201]
9. The unit must not be located and operated at an existing facility or operation such that it becomes part of an existing stationary source as defined by District Rule 2201. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

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San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: S-7045-18-0

ISSUANCE DATE: DRAFT

LEGAL OWNER OR OPERATOR: PROS INC
MAILING ADDRESS: P O BOX 20996
BAKERSFIELD, CA 93390-0996

LOCATION: VARIOUS LOCATIONS, SJVUAPCD

EQUIPMENT DESCRIPTION:
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CONDITIONS

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4. Permittee shall notify the District Compliance Division of each location at which the operation is located in excess of 24 hours. Such notification shall be made no later than 48 hours after starting operation at the location. [District Rule 2201]
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6. Unit may not operate within 1,600 feet of an off-worksite residential, off-worksite business receptor, or any other unit permitted under this facility. [District Rule 4102]
7. No two flares shall operate at the same time in the same location. [District Rule 4102]
8. This permit shall not authorize the utilization of any IC engine, or other combustion device requiring a separate permit, for powering the air assist to the flare. [District Rule 2201]
9. The unit must not be located and operated at an existing facility or operation such that it becomes part of an existing stationary source as defined by District Rule 2201. [District Rule 2201]

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San Joaquin Valley
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