

PROVINCE OF BRITISH COLUMBIA  
Ministry of Justice  
Emergency Management BC / Office of the Fire Commissioner

FIRE REPORT - **STRUCTURE**INCIDENT NUMBER: **CSY 2018 09 17 13 11**

Location of Incident: **13083 116 AVE  
SURREY BC**

# of Occupants (At time of fire): **3**      # of Injured: **0**      # of Deaths: **0**      Total Dollar Loss Estimate: **s.21**

Related to Wildland Interface Fire: **NO**      Property Value: **\$500,000**      Content Value: **s.21**      Total Value at Risk: **s.21**

**Code Name :      Code Description**

PROPERTY COMPLEX : 6900 INDUSTRIAL MANUFACTURING  
PROPERTY CLASSIFICATION : 5730 VEHICLE REPAIR GARAGE, VEHICLE PAINT/POWDER COATING SHOP. (E  
GENERAL CONSTRUCTION : 4000 NON-COMBUSTIBLE CONSTRUCTION - EXPOSED STEEL  
BUILDING HEIGHT : 0010 1 STORY ABOVE GRADE  
GROUND FLOOR AREA : 2000 101 TO 500M2 (1077 - 5382FT2)  
YEAR OF CONSTRUCTION : 2001 2001  
MANUAL FIRE PROTECTION : 4000 EXTINGUISHER ONLY  
OUTSIDE FIRE PROTECTION : 1000 PUBLIC HYDRANT PROTECTION & FIRE DEPARTMENT  
SPRINKLER PROTECTION : 7000 NO SPRINKLER PROTECTION  
AUTOMATIC FIRE ALARM SYSTE : 1000 NO FIRE ALARM SYSTEM  
SMOKE ALARM OPERATION : 9900 NO SMOKE ALARM INSTALLED  
INITIAL DETECTION : 7000 VISUAL SIGHTING OR OTHER MEANS OF PERSONAL DETECTION (E.G. S  
TRANSMISSION OF ALARM : 1000 911  
FIRE SERVICE : 3000 COMPOSITE - CAREER & VOLUNTEER/PAID-ON-CALL FIRE DEPARTMENT  
INCIDENT : 1000 FIRE - FIRE DEPARTMENT ATTENDED  
ACTION TAKEN : 3000 EXTINGUISHED BY FIRE DEPARTMENT  
METHOD OF FIRE CONTROL : 4300 38MM/42MM (1 1/2"/1 3/4") HOSE - 2 OR MORE HAND LINES  
FIRE ORIGIN, LEVEL : 3000 GROUND FLOOR, GRADE LEVEL OR GRADE TO 3M (10FT)  
FIRE ORIGIN, AREA : 9980 EXPOSURE - INCLUDING SMOKE DAMAGE  
EXTENT OF FIRE : 6000 EXTENDED BEYOND PROPERTY OF ORIGIN  
EXTENT OF DAMAGE : 6000 EXTENDED BEYOND BUILDING OF ORIGIN  
IGNITING OBJECT : 8900 EXPOSURE - UNCLASSIFIED (DESCRIBE)  
FUEL OR ENERGY : 8000 EXPOSURE FIRE  
FORM OF HEAT : 4000 DIRECT FLAME  
MATERIAL FIRST IGNITED : 6300 PROPANE - INCLUDES BUTANE, LIQUEFIED PETROLEUM GASES  
ACT OR OMISSION : 7900 HUMAN FAILING - UNCLASSIFIED (DESCRIBE)

Investigating Officer	L AFC Badge #	Telephone	ReportDate
SHEEL, DANIEL	1810	604-543-6700	2018-09-27

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FIRE REPORT - **STRUCTURE**  
(PRODUCT/EQUIPMENT)  
INCIDENT NUMBER: **CSY 2018 09 17 13 11**

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LOG #	: 177918		
ITEM TYPE	: NOT GIVEN		
ITEM DESCRIPTION	:		
MAKE	: DAYS	CERT. AGENCY1	:
MODEL	: ROSS	CERT. AGENCY2	:
YEAR	:	CERT. AGENCY3	:
LICENSE NO.	:	CERT. AGENCY4	:
SERIAL NO.	:	CERT. AGENCY5	:
MAKE	: DAYS		

COMMENTS :

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Investigating Officer	LAFC Badge #	Telephone	ReportDate
SHEEL, DANIEL	1810	604-543-6700	2018-09-27

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FIRE REPORT - **STRUCTURE** (NARRATIVE)

INCIDENT NUMBER: **CSY 2018 09 17 13 11**

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**Remarks:**

EXPOSURE FIRE. SEMI TRUCK OWNER BY s.22 , FIRE DAMAGED INSIDE BUILDING.

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SHEEL, DANIEL	1810	604-543-6700	2018-09-27

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FIRE REPORT - **STRUCTURE** (NAMES)INCIDENT NUMBER: **CSY 2018 09 17 13 11**

Name no. : 1  
Name : 579140, BC LTD  
Address : 0

Name Status : OWNER  
Phone :

Claims Adjuster Name :  
Claims Adjuster Firm :  
Claim Number :  
Insurance Company :  
Policy Number :

## LOSS ESTIMATES:

Property Loss : **s.21**Content Loss : **s.21**Total Loss **s.21**

REMARKS:

Investigating Officer : LAFC Badge #  
SHEEL, DANIEL : 1810

Telephone :  
604-543-6700

ReportDate :  
2018-09-27



PROVINCE OF BRITISH COLUMBIA  
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Emergency Management BC / Office of the Fire Commissioner

FIRE REPORT - **OUTDOOR**INCIDENT NUMBER: **CSY 2018 09 17 13 05**

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Location of Incident: **13083 116 AVE  
SURREY BC**

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# of Occupants (At time of fire): **0**      # of Injured: **1**      # of Deaths: **0**      Total Dollar Loss Estimate **s.21**

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Related to Wildland Interface Fire: **NO**      Property Value: **\$0**      Content Value: **s.21**      Total Value at Risk: **s.21**

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Code Name :	Code Description
PROPERTY CLASSIFICATION :	7420 PACKAGED PETROLEUM PRODUCTS STORAGE
TRANSMISSION OF ALARM :	1000 911
FIRE SERVICE :	3000 COMPOSITE - CAREER & VOLUNTEER/PAID-ON-CALL FIRE DEPARTMENT
INCIDENT :	1000 FIRE - FIRE DEPARTMENT ATTENDED
ACTION TAKEN :	3000 EXTINGUISHED BY FIRE DEPARTMENT
METHOD OF FIRE CONTROL :	4300 38MM/42MM (1 1/2"/1 3/4") HOSE - 2 OR MORE HAND LINES
FIRE ORIGIN, AREA :	9600 FUEL DISPENSING AREA
EXTENT OF FIRE :	6000 EXTENDED BEYOND PROPERTY OF ORIGIN
IGNITING OBJECT :	7700 TORCH - OTHER THAN CUTTING, WELDING - INCLUDES PLUMBER'S FUR
FUEL OR ENERGY :	4200 FUEL GAS - PROPANE
FORM OF HEAT :	4000 DIRECT FLAME
MATERIAL FIRST IGNITED :	6300 PROPANE - INCLUDES BUTANE, LIQUEFIED PETROLEUM GASES
ACT OR OMISSION :	7900 HUMAN FAILING - UNCLASSIFIED (DESCRIBE)

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Investigating Officer	LAFC Badge #	Telephone	ReportDate
SHEEL, DANIEL	1810	604-543-6700	2018-09-28

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FIRE REPORT - **OUTDOOR**  
(PRODUCT/EQUIPMENT)  
INCIDENT NUMBER: **CSY 2018 09 17 13 05**

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LOG #	: 177921		
ITEM TYPE	: NOT GIVEN		
ITEM DESCRIPTION	:		
MAKE	: DODGE	CERT. AGENCY1	:
MODEL	: RAM	CERT. AGENCY2	:
YEAR	: 2013	CERT. AGENCY3	:
LICENSE NO.	:	CERT. AGENCY4	:
SERIAL NO.	:	CERT. AGENCY5	:
MAKE	: DODGE		

COMMENTS :

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Investigating Officer	LAFC Badge #	Telephone	ReportDate
SHEEL, DANIEL	1810	604-543-6700	2018-09-28

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FIRE REPORT - **OUTDOOR** (NARRATIVE)

INCIDENT NUMBER: **CSY 2018 09 17 13 05**

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**Remarks:**

SUMMARY SEE DETAILED REPORT IN OFFICE NOTES SECTION EXTERNAL SURVEY AND OBSERVATIONS - THE FIRE WAS HEAVILY INVOLVED IN THE REAR LEFT SIDE OF THE YARD, AND SPREAD TO THE STRUCTURE. THE RESULTING FIRE SPREAD TO NUMEROUS PROPANE TANKS THAT EXPLODED THOUGH OUT THE AREA. THE FIRE SPREAD FROM THE REAR YARD TO THE EXTERIOR OF THE STRUCTURE, MULTIPLE EXPLOSIONS AND FLYING PARTS OF PROPANE TANKS WERE OBSERVED AROUND THE SITE. INTERNAL SURVEY AND OBSERVATIONS - FIRE INVESTIGATOR SUSPECTS THE FIRE STARTED IN THE BACK LEFT YARD NEAR THE SHIPPING CONTAINER. THE FIRE SHOWED HEAVY DAMAGE NEAR THE SHIPPING CONTAINER. MULTIPLE PROPANE TANKS HAD FIRE AND EXPLOSION DAMAGE. THE PROPANE TANKS THOUGH OUT THE YARD HAD FIRE AND EXPLOSION DAMAGE. OBSERVED THAT FIRE SPREAD FROM THE AREA NEAR THE SHIPPING CONTAINER TO THE REST OF THE SITE. FIRE INVESTIGATOR OBSERVED A POSSIBLE TORCH NEAR THE SHIPPING CONTAINER. AFTER EXAMINATION AND DIGGING, THE AREA NEAR THE SHIPPING WAS FOUND TO BE HEAVILY DAMAGED BY THE FIRE. AREA OF ORIGIN/POINT OF ORIGIN - THE AREA OF ORIGIN/POINT OF ORIGIN WAS DETERMINED TO BE NEAR THE SHIPPING CONTAINER WITH A POSSIBLE PROPANE TANK LEAK. A POSSIBLE TORCH WAS FOUND IN THIS AREA. A WITNESS INDICATED THAT A PROPANE TORCH WAS USED TO REMOVE LABEL OFF PROPANE TANKS. IN THE AREA OF ORIGIN, THERE WERE NO MECHANICAL/ELECTRICAL COMPONENTS. THE INVESTIGATOR SUSPECTS A PROPANE TANK LEAKED AND CAME IN CONTACT WITH THE OPEN FLAME OF THE PROPANE TORCH USED BY A WORKER TO REMOVE PROPANE LABELS. ADDITIONAL PROPANE TORCHES WERE FOUND ON SITE. ELECTRICAL MECHANICAL SYSTEM - NO ELECTRICAL OR MECHANICAL EQUIPMENT WAS FOUND IN THE AREA. PROPANE - PROPANE'S VAPOR DENSITY, VAPOR PRESSURE, FLASH POINT, HEAT RELEASE RATES, AND EXPLOSIVE RANGE WILL BE DISCUSSED IN THE FOLLOWING SECTIONS. IT SHOULD BE NOTED THAT THE PROPANE PRODUCT THAT IS MANUFACTURED BY DIFFERENT COMPANIES WILL HAVE SLIGHTLY VARYING PHYSICAL AND CHEMICAL PROPERTIES. THE INFORMATION PROVIDED WAS OBTAINED FROM THE MATERIAL SAFETY DATA SHEET FOR SUPERIOR PROPANE, 32003-2. VAPOR DENSITY - VAPOR DENSITY IS THE PHYSICAL PROPERTY THAT DETERMINES HOW A GAS OR VAPOR MIXES WITH AIR AND SPREADS. THE VAPOR DENSITY IS CALCULATED FROM THE CHEMICAL FORMULA OF THE FUEL OF INTEREST AND THE ATOMIC WEIGHTS OF ALL THE ELEMENTS INVOLVED. BY COUNTING UP THE ATOMIC WEIGHT OF ALL THE ELEMENTS PRESENT, THE MOLECULAR WEIGHT CAN BE DETERMINED. A RATIO OF THE MOLECULAR WEIGHT OF THE FUEL TO THAT OF AIR GIVES ITS RELATIVE DENSITY. THE VAPOR DENSITY OF AIR IS 1. IF A PRODUCT HAS A VAPOR DENSITY OF 2, IT IS HEAVIER THAN AIR AND WOULD COLLECT AT THE LOWEST POINT OF CONTAINMENT. IF A PRODUCT HAS A VAPOR DENSITY OF 0.5, IT IS LIGHTER THAN AIR AND WOULD COLLECT AT THE HIGHEST POINT OF CONTAINMENT. THE VAPOR DENSITY OF PROPANE IS 1.52; THEREFORE, PROPANE WILL SETTLE IN LOW AREAS OF CONTAINMENT. PROPANE IS HEAVIER THE AIR AND WILL TEND TO SETTLE THROUGH AIR TO A SIGNIFICANT DEGREE, ALSO RATHER LIGHT, DIFFUSION WILL CAUSE IT TO MIX WITH AIR RATHER RAPIDLY. VAPOR PRESSURE - VAPOR PRESSURE IS THE MEASURE OF THE TENDENCY OF A MATERIAL TO CHANGE INTO THE GASEOUS OR VAPOR STATE, AND IT INCREASES WITH TEMPERATURE. AS NOTED IN THE MSDS, VAPOR PRESSURE FOR PROPANE 1435 KPA (MAXIMUM) @37.8 C. EVAPORATION RATE : RAPID (GAS AT NORMAL AMBIENT CONDITIONS) FLASH POINT - THIS TERM IS BASIC TO THE DESCRIPTION OF MANY CONVENTIONAL FUELS SINCE IT CAN BE USED TO ASSESS THE FIRE HAZARD OF FLAMMABLE AND COMBUSTIBLE LIQUIDS UNDER VARIOUS CONDITIONS. THE FLASH POINT OF A MATERIAL IS THE LOWEST TEMPERATURE AT WHICH IT PRODUCES A FLAMMABLE VAPOR. A LIQUID FUEL MUST BE ABLE TO GENERATE A VAPOR IN SUFFICIENT QUANTITY TO REACH THE LOWER LIMIT OF FLAMMABILITY BEFORE IT CAN IGNITE WHEN EXPOSED TO A SOURCE OF IGNITION. THIS DOES NOT MEAN THAT THE VAPOR WILL IGNITE SPONTANEOUSLY AT THIS TEMPERATURE, BUT ONLY THAT IT CAN BE IGNITED BY A SOURCE OF FLAME OR LOCALIZED HEAT. THE FLASH POINT OF PROPANE IS -103.4 C EXPLOSIVE RANGE - THE PHYSICAL PROPERTY THAT DETERMINES WHETHER A VAPOR/AIR MIXTURE IS IGNITABLE IS ITS EXPLOSIVE RANGE. EVERY VAPOR/GAS/AIR MIXTURE HAS LIMITS OF CONCENTRATION BEYOND WHICH IT IS NOT IGNITABLE. IF THE VAPOR IS TOO CONCENTRATED, THERE IS NOT ENOUGH AIR MIXED INTO SUSTAIN A FLAME AND IS ABOVE ITS UPPER EXPLOSIVE LIMITS (UEL), ALSO KNOWN AS ITS UPPER FLAMMABILITY. IF TOO DILUTE, THERE IS NOT ENOUGH FUEL TO SUSTAIN AN ON-GOING REACTION, AND NO FIRE RESULTS. IT IS BELOW ITS LOWER EXPLOSIVE LIMIT (LEL) OR LOWER FLAMMABILITY LIMIT. THE AREA BETWEEN THOSE TWO LIMITS IS THE EXPLOSIVE RANGE FOR THE FUEL. THE EXPLOSIVE RANGE OF PROPANE RANGE IS 2.4% TO 9.5 %. HEAT RELEASE RATE OR HEAT OF COMBUSTION - HEAT RELEASE RATE (HRR) IS THE RATE AT WHICH FIRE RELEASES ENERGY - THIS IS ALSO KNOWN AS POWER. HRR IS MEASURED IN UNITS OF WATTS (W), WHICH IS AN INTERNATIONAL SYSTEM UNIT EQUAL TO ONE JOULE PER SECOND. DEPENDING ON THE SIZE OF THE FIRE, HRR IS ALSO MEASURED IN KILOWATTS (E

Investigating Officer  
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FIRE REPORT - **OUTDOOR** (NAMES)INCIDENT NUMBER: **CSY 2018 09 17 13 05**

Name no. : 1  
Name : BRAR, BALJIT  
Address : 0

Name Status : OWNER  
Phone :

Claims Adjuster Name :  
Claims Adjuster Firm :  
Claim Number :  
Insurance Company :  
Policy Number :

## LOSS ESTIMATES:

Property Loss : \$0

Content Loss : **s.21**Total Loss : **s 21**

REMARKS:

Name no. : 2  
Name : **s.22**  
Address :  
SURREY BRITISH COLUMBIA

Name Status : OCCUPANT  
Phone :

Claims Adjuster Name :  
Claims Adjuster Firm :  
Claim Number :  
Insurance Company :  
Policy Number :

## LOSS ESTIMATES:

Property Loss : \$0

Content Loss : \$0

Total Loss : \$0

REMARKS:

Investigating Officer : LAFB Badge #  
SHEEL, DANIEL : 1810

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2018-09-28

PROVINCE OF BRITISH COLUMBIA  
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FIRE REPORT - **OUTDOOR** (CASUALTY)

INCIDENT NUMBER: **CSY 2018 09 17 13 05**

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CASUALTY NO : 1  
NAME **s.22**  
ADDRESS  
SURREY BRITISH COLUMBIA  
  
AGE : 65  
GENDER : M  
STATUS : CIVILIAN  
DATE OF DEATH :

**Code Name : Code Description**

NATURE OF CASUALTY : 004 - SERIOUS INJURY (HOSP. 3+ DAYS AND/OR OFF WORK 15+ DAYS)  
CONDITION OF CASUALTY : 014 - AWAKE OR NO PHYSICAL OR MENTAL IMPAIRMENT AT TIME OF FI  
ACTION OF CASUALTY : 021 - INJURED WHILE ATTEMPTING TO ESCAPE  
IGNITION OF CLOTHING : 031 - OUTER CLOTHING  
TYPE OF FABRIC IGNITED : 046 - MIXTURE OF FIBRES  
CAUSE OF FAILURE TO ESCAPE : 052 - TRAPPED BY RAPID SPREADING OF FIRE/SMOKE THROUGH HORIZO  
CAUSE OF INJURY/DEATH : 101 - BURNS RESULTING FROM FIRE AND FLAMES

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