

**WORKER RUN OVER WITH GRADER**

Type of Incident: Fatality

Date of Incident: May 27, 2010

## TABLE OF CONTENTS

| SECTION | TITLE  | PAGE NUMBER |
|---------|--|-------------|
| 1.0     | DATE AND TIME OF INCIDENT                                  | 3           |
| 2.0     | NAME & ADDRESS OF PRINCIPAL PARTIES                        | 3           |
| 2.1     | Owner  | 3           |
| 2.2     | Prime Contractor / Employer                                | 3           |
| 2.3     | Workers  | 3           |
| 3.0     | DESCRIPTION OF PRINCIPAL PARTIES                           | 3           |
| 3.1     | Owner  | 3           |
| 3.2     | Prime Contractor / Employer                                | 3           |
| 3.3     | Workers  | 4           |
| 4.0     | LOCATION OF INCIDENT                                       | 4           |
| 5.0     | EQUIPMENT, MATERIAL AND OBSERVATIONS                       | 4           |
| 5.1     | Equipment and Material                                     | 4           |
| 5.2     | Observations   | 4           |
| 6.0     | NARRATIVE DESCRIPTION OF INCIDENT                          | 5           |
| 7.0     | ANALYSIS   | 6           |
| 7.1     | Direct Cause   | 6           |
| 7.2     | Contributing Factors                                       | 6           |
| 8.0     | FOLLOW-UP/ ACTION TAKEN                                    | 6           |
| 8.1     | Employment and Immigration, Occupational Health and Safety | 6           |
| 8.2     | Industry   | 7           |
| 8.3     | Additional Measures  | 7           |
| 9.0     | SIGNATURES   | 8           |
| 10.0    | ATTACHMENTS  | 8           |

**SECTION 1.0 DATE AND TIME OF INCIDENT**

1.1 The incident occurred on May 27, 2010 at approximately 12:40 a.m.

**SECTION 2.0 NAME AND ADDRESS OF PRINCIPAL PARTIES**

**2.1 Owner**

2.1.1 Secure Energy Inc.  
1201, 333 – 7 Avenue SW  
Calgary, AB T2P 2Z1

**2.2 Prime Contractor / Employer**

2.2.1 M. Pidherney's Trucking Ltd.  
6 Gateway Boulevard  
Gateway Subdivision  
Clearwater County, Alberta

**2.3 Workers**

2.3.1 Supervisor ( )

2.3.2 Grader Operator

**SECTION 3.0 DESCRIPTION OF PRINCIPAL PARTIES**

**3.1 Owner:**

3.1.1 Secure Energy Inc. (Secure Energy Services) is a Canadian company that provides solid and liquid waste treatment and disposal services for the oil and gas industry in British Columbia and Alberta. The company also provides crude oil emulsion treatment, clean oil terminaling, along with crude oil marketing and storage. The company employs over 100 workers. Secure Energy Inc. owns the Willesden Green Class II Oilfield Landfill. The landfill provides for the secure disposal of non-dangerous oilfield solid wastes such as drill cuttings, drilling muds, residual solids from tank clean-outs and residual solids from treatment processes.

**3.2 Prime Contractor / Employer**

3.2.1 M. Pidherney's Trucking Ltd. provides road construction, concrete, water and sewer installation, environmental, solid material transfer, aggregate sales and specialty equipment services. The company employs over 400 workers.

### **3.3 Workers**

3.3.1 The Supervisor ( ) was employed by M. Pidherney's Trucking to provide nightshift supervision to the crew working at the Willesden Green Class II Oilfield Landfill. He had 30 years experience supervising and operating heavy equipment. It was his first night shift as the shift supervisor.

3.3.2 The Grader Operator ( ) was an experienced heavy duty equipment operator. He had 25 years experience operating graders, scrapers, and dozers. He started operating graders 7 years ago. The Grader Operator ( ) wore bifocal glasses and a baseball cap which limited his vision.

## **SECTION 4.0 LOCATION OF INCIDENT**

4.1 The incident occurred at the Willesden Green Class II Landfill located at SE-23-43-07-W5 (Reference Attachment A – Map, and Reference Attachment B – Photographs 1, 2, 3 and 4).

## **SECTION 5.0 EQUIPMENT, MATERIAL AND OBSERVATIONS**

### **5.1 Equipment and Material**

5.1.1 The grader involved in the incident was a John Deere 872D Grader. It was a six wheel drive grader that weighed approximately 19,200 kilograms. The estimated weight on the front axels, based on the manufacturer's specifications was 5,200 kilograms or 2,600 kilograms per wheel (Reference Attachment B – Photograph 5).

5.1.2 The grader's front head lights illuminated the ground in front of the grader approximately 14 meters ahead of the front wheels (Reference Attachment B – Photograph 6).

5.1.3 The normal position of the grader operator when grading is to sit in the operator's seat and lean slightly to the side where the blade tip is visible. The grader operator would normally look down and monitor the blade tip while grading to check the depth of cut. The operator's view immediately in front of the grader was partially obstructed by the push block and angle indicator (Reference Photographs 7).

### **5.2 Observations**

5.2.1 The incident occurred a night. The only sources of illumination were the lights on the front of the grader, the lights on the front of the dozer and a light tower approximately 45 meters from the incident site.

- 5.2.2 The weather at the time of the incident was dry, and clear, with no fog, rain or inclement weather
- 5.2.3 The incident occurred on the first night shift after a long weekend.
- 5.2.4 There were eight lights on the front of the grader. Only four were turned on at the time of the incident.

## SECTION 6.0 NARRATIVE DESCRIPTION OF THE INCIDENT

- 6.1 The crew arrived at the landfill and a safety meeting was held. The Supervisor ( ) reviewed a near miss incident where a worker on foot was surprised by the presence of a scraper driving by as he stepped out from behind a rock truck. The crew was told to make eye contact with ground personnel before approaching equipment.
- 6.2 The crew was dispatched by the Supervisor ( ) to work on hauling earth products from a soil pit to a dump point on the northern edge of the landfill.
- 6.3 At approximately 11:00 p.m., the Supervisor ( ) re-assigned the Grader Operator ( ) from operating a D6R dozer to the 872D grader.
- 6.4 At approximately 12:00 a.m., the Supervisor ( ) changed the deployment of equipment from hauling to a dump point on the Northern edge of the landfill, to hauling clay product to a stockpile on the Southern edge of the landfill. The Grader Operator ( ) was stopped by the Supervisor ( ) and told to fill in the ruts on the new haul route.
- 6.5 The Supervisor ( ) moved a light plant to the south stockpile. The Supervisor ( ) then detached the light plant from his truck and got the attention of the Dozer Operator ( ) on the clay stockpile. The Dozer Operator ( ) stopped the dozer, dropped the blade and watched as the Supervisor ( ) started to walk towards the dozer.
- 6.6 The Grader Operator ( ) had made his way along the new haul route and was about 50 meters from the clay stock pile when he looked up. The Grader Operator ( ) did not see the Supervisor ( ).
- 6.7 The Grader Operator ( ) drove up on to the clay stockpile, raised the plow and stopped. When he looked up, he saw the Supervisor ( ) under the left front wheel of the grader. The Grader Operator ( ) immediately backed the grader off the Supervisor ( ) and shutdown

the grader. He then dismounted the grader and started first aid. The Dozer Operator ( ) and the Rock Truck Operator ( ) came to assist the Grader Operator ( ).

- 6.8 The Rock Truck Operator ( ) went for help while a second rock truck operator arrived and relieved the Grader Operator ( ) with first aid care.
- 6.9 The Rocky Mountain House Ambulance Service arrived and the Supervisor ( ) was treated on site and transported to the Rocky Mountain House Hospital and Care Center. The Supervisor ( ) was pronounced dead on arrival by the attending physician.

## **SECTION 7.0 ANALYSIS**

### **7.1 Direct Cause**

- 7.1.1 The Supervisor ( ) was crushed when he was run over by the left front wheel of the John Deere 872D Grader.

### **7.2 Contributing Factors**

- 7.2.1 The Grader Operator ( ) was wearing bifocal glasses and a baseball hat which limited his vision.
- 7.2.2 The employer did not have procedures in place for pedestrian workers operating around heavy equipment.
- 7.2.3 The Supervisor ( ) walked in the haul road ruts with his back to the John Deere 872D Grader.

## **SECTION 8.0 FOLLOW-UP/ ACTION TAKEN**

### **8.1 Employment and Immigration, Occupational Health and Safety**

- 8.1.1 On May 27, 2010, Occupational Health and Safety (OHS) was advised of a serious incident. OHS responded to the incident location with two Occupational Health and Safety Officers (OHSO) and started an investigation.
- 8.1.2 On May 27, 2010, OHS issued a client contact report to M. Pidherney's Trucking Ltd. with a Stop Work Order regarding all night time work where pedestrian workers may come into contact with powered mobile equipment. Orders were issued to investigate the incident and to provide OHS with information relevant to the investigation.
- 8.1.3 On June 8, 2010, OHS issued a client contact report to M. Pidherney's Trucking Ltd.

stating that they had complied with the Stop Work Order by providing OHS with a written procedure for pedestrian workers to follow during night operations.

- 8.1.4 On June 30, 2010, OHS issued a client contact report to M. Pidherney's Trucking Ltd. stating they had complied with the order to provide information as identified in the original client contact report.
- 8.1.5 On August 10, 2010, OHS issued a client contact report to M. Pidherney's Trucking Ltd. stating they had complied with the order to conduct an investigation into the incident.

## **8.2 Industry**

- 8.2.1 On May 27, 2010, M. Pidherney's Trucking Ltd. notified OHS about a serious incident where a worker was struck and run over by a grader.
- 8.2.2 On June 7, 2010, M. Pidherney's Trucking Ltd. supplied OHS with procedures that pedestrian workers are to follow during night operations at the Willesden Green Class II Landfill.
- 8.2.3 On June 25, 2010, M. Pidherney's Trucking Ltd. provided OHS with the information requested by OHS.
- 8.2.4 On July 30, 2010, M. Pidherney's Trucking Ltd. provided OHS with a copy of the report outlining the results of their investigation into the incident and the measures taken to prevent a re-occurrence.

## **8.3 Additional Measures**

- 8.3.1 No additional measures were taken.

**SECTION 9.0      SIGNATURES**

\_\_\_\_\_  
Paul Elkins, Lead Investigator

\_\_\_\_\_  
Date

\_\_\_\_\_  
Chuck Samphire, Reviewer

\_\_\_\_\_  
Date

\_\_\_\_\_  
Karen MacDonald, Director Southern Region

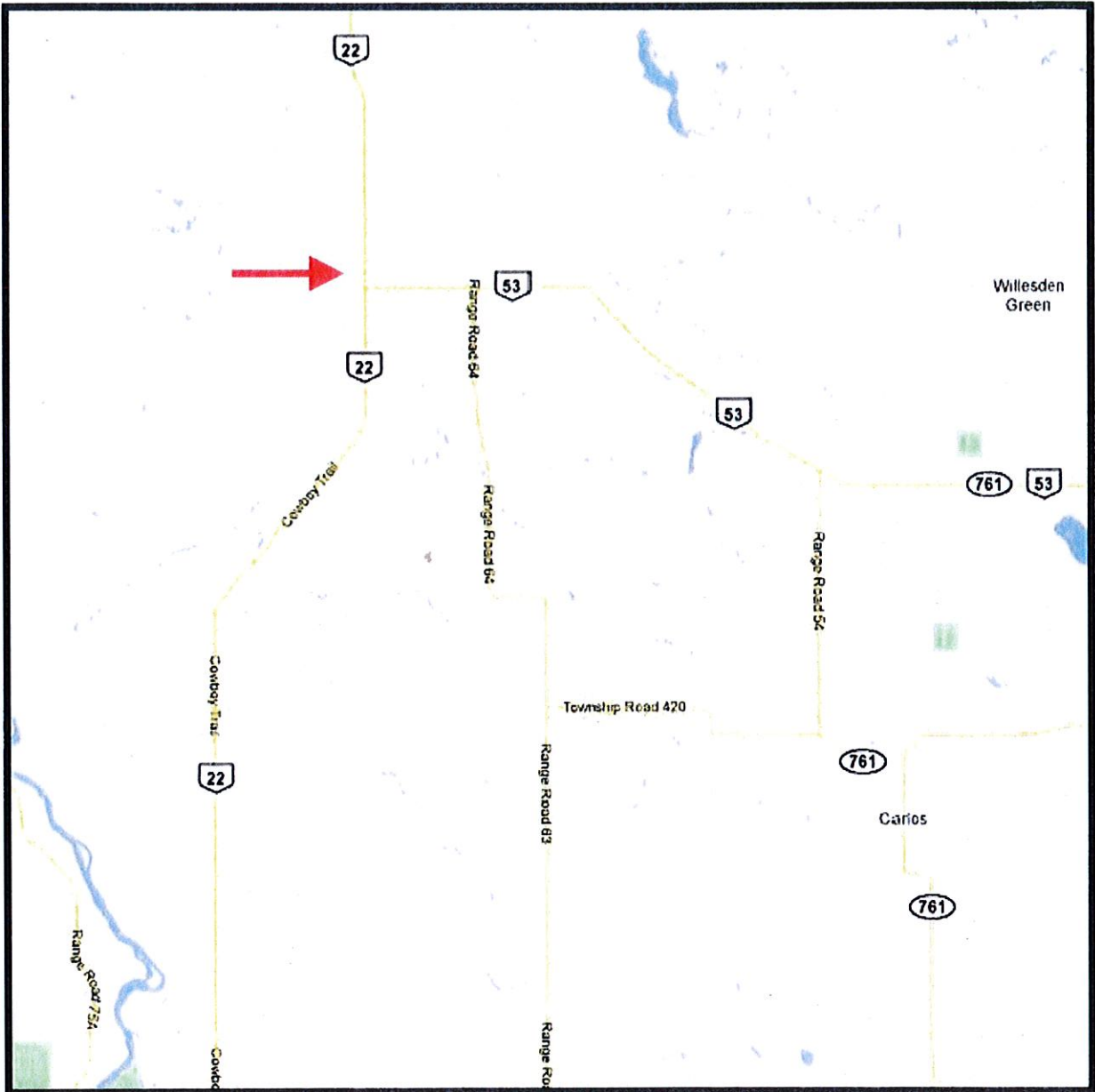
\_\_\_\_\_  
Date

**SECTION 10.0      ATTACHMENTS:**

Attachment A  
Attachment B

Map  
Photographs





Map – The arrow shows the approximate location of the incident.



**Photograph 1** – Shows the entrance to the Willesden Green Class II Landfill from Highway 22.  
The arrow shows the access on to the landfill site.

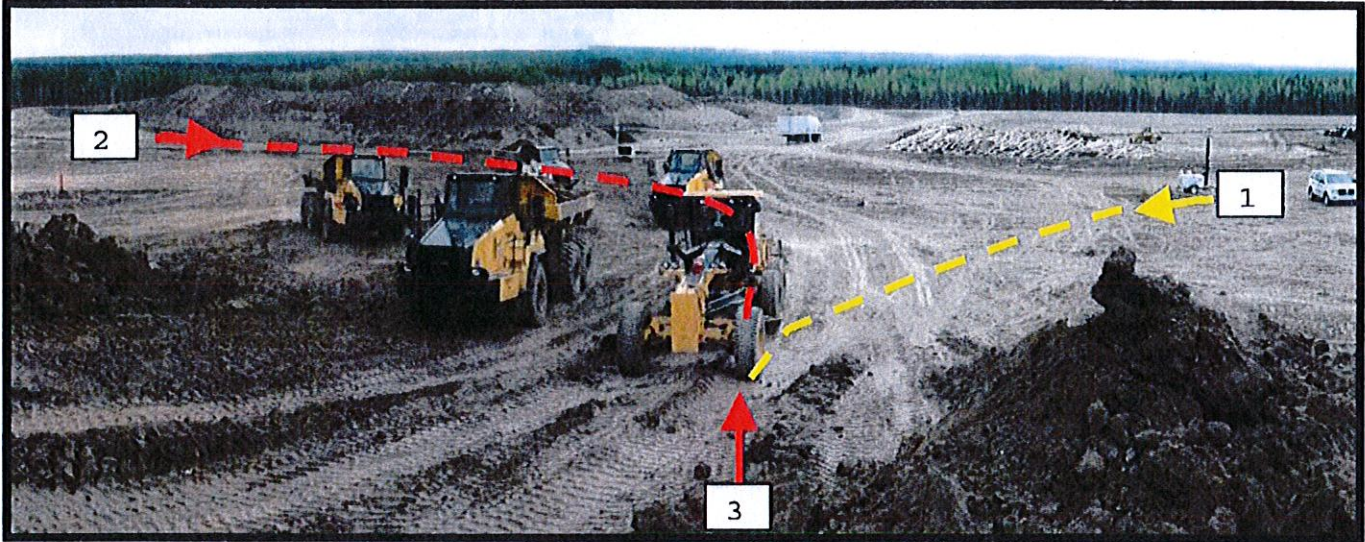


**Photograph 2** – Shows an overview of the incident site from the access road. The arrow shows the approximate location of the incident.



**Photograph 3** – Shows an overview of the incident site. The arrow shows the approximate location of the incident.

1. Approximates the path the Supervisor ( ) took when he walked to the D6R dozer
2. Approximates the route the Grader Operator ( ) travelled



**Photograph 4** – Shows an overview of the incident site. The arrow shows the approximate location of the incident.

1. Approximates the path the Supervisor ( ) took when he walked to the D6R dozer
2. Approximates the route the Grader Operator ( ) travelled
3. Approximate location where the grader contacted the Supervisor ( )



**Photograph 5** – Shows an overview of the incident site with the grader lights on and the light plant operating. The arrow shows the approximate location of the incident.



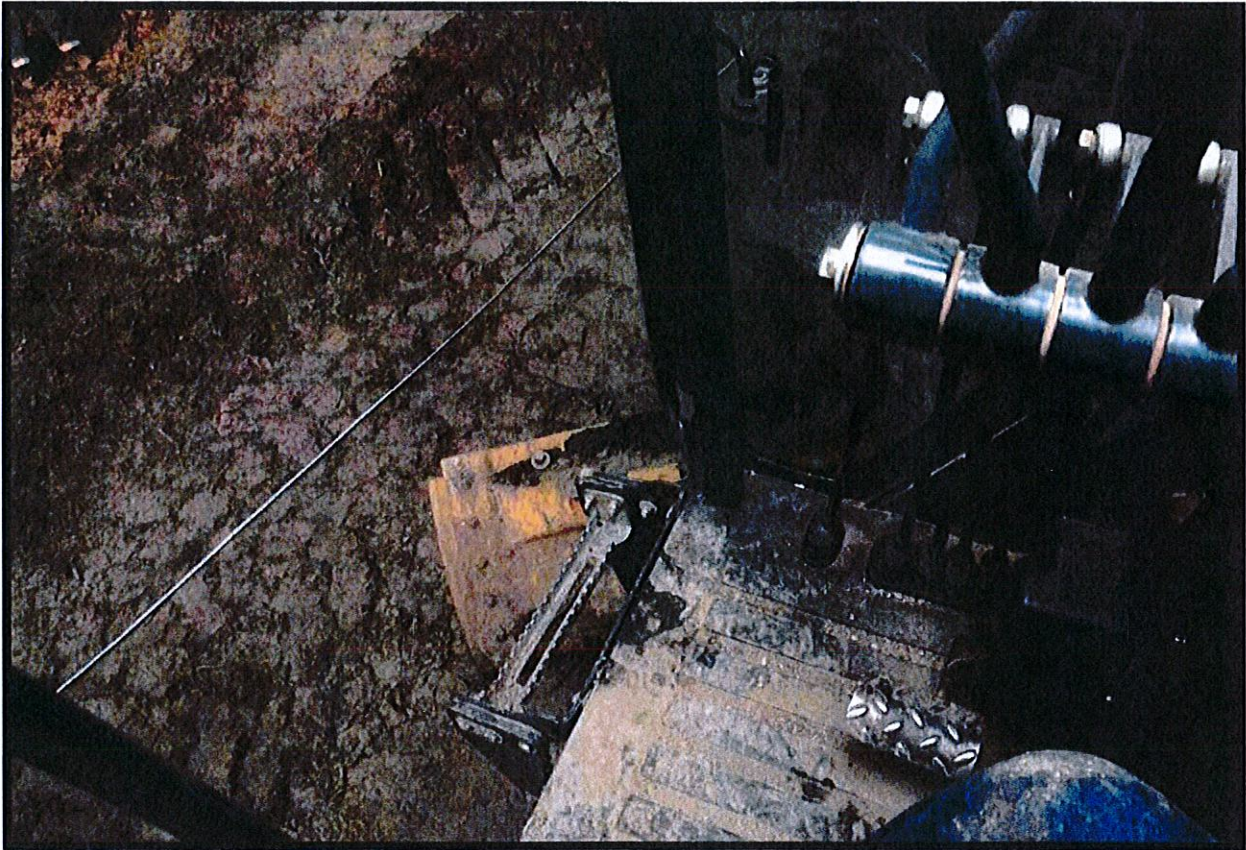
**Photograph 6** – Shows a side view of the incident site.

1. Approximate location where the Supervisor / \_\_\_\_\_ was contacted by the grader.
2. Approximate location where the grader head lights shine on the ground



**Photograph 7** – Shows the Grader Operator's ( ) view while leaning to the left during typical grading operations. The arrow shows the approximate location where the Supervisor ( ) was struck by the grader.





**Photograph 8** – Shows the Grader Operator's ( ) view while looking down at the grader blade. The front wheels are not visible while monitoring the blade tip.