

## ZEDI ACCESS-NEW ALARM MANAGER

### Key Benefits

- Added Alarm Acknowledgement across all Devices (including Smart-Alek)
- Workflow Improvements, reducing nuisance alarming
- Improved Reporting/Exporting Capability
- New Alarm Dashboards
  - Current Alarms
  - Alarm History
  - Configure Alarms

### Previous Version

| zedi               |                            |                 |                  |                           |           |  |
|--------------------|----------------------------|-----------------|------------------|---------------------------|-----------|--|
| Current Alarm      | Alarm History              | Configure Alarm | Contact Schedule | Help                      |           |  |
| [All]              | <a href="#">Get Alarms</a> |                 |                  |                           |           |  |
|                    | Location Name              | Sensor Name     | Error Type       | Reading Time              | Value     |  |
| <b>Acknowledge</b> | North Dakota--             | Pump Status     | Low              | 2015-09-28 17:17:10 (CDT) | OFF (0 -) |  |
|                    | North Dakota->             | Motor Status    | Low              | 2014-11-14 10:36:47 (CST) | OFF (0 -) |  |
|                    | North Dakota->             | Pump Status     | Low              | 2014-11-14 10:36:47 (CST) | OFF (0 -) |  |
|                    | North Dakota->             | Voltage         | Low              | 2013-12-30 02:44:30 (CST) | 6 V       |  |

### Enhanced Version

The new look of the Current Alarms page gives you Search Criteria and the ability to filter by alarm type. Group by location also lets you order locations as they appear in the well tree hierarchy. In addition you can now review your most current alarms or alternatively your oldest using the date drop down. Clicking on the well name expands to reveal sensor data and what sensor(s) is alarming. Easily move to configure the alarm or review history right from the location with the drop down menu to the right (see below screen shot in yellow highlight).

Review these enhanced versions next.

The screenshot shows the 'Alarm' page with a search bar containing 'Search Criteria' and 'All Alarm Type'. A table of alarm history is displayed below, with columns for Date, Sensor, Alarm, Value, and Set Point. A 'Date' dropdown menu is highlighted with a green circle.

| Date   | Sensor                | Alarm     | Value      | Set Point     |
|--|-----------------------|-----------|------------|---------------|
| 031-05W5 > 06-13   |                       |           |            |               |
| <ul style="list-style-type: none"> <li>Condensate Volume: 0 m3</li> <li>Hours on Flow: 3.29 hrs</li> <li>Volume: 1.76 E3M3</li> <li>Differential Pressure: 61 kPa</li> <li>Orifice Diameter: 2.54 cm</li> <li>Flowing Temperature: 10.31 °C</li> <li>RTU Voltage: 12.98 V</li> <li>Gas Flow Rate: 211 E3M3/Day</li> <li>Static Pressure: 103422 kPa</li> </ul> |                       |           |            |               |
| 2015-11-04 09:05:00 (MST)  | Static Pressure       | High High | 103422 kPa | 103421.35 kPa |
| Transfer > 10-06   |                       |           |            |               |
| 2015-10-30 04:00:00 (MDT)  | Differential Pressure | High      | 131 kPa    | 130 kPa       |
| MacKay > 05-17   |                       |           |            |               |
| 2015-10-29 16:59:28 (MDT)  | Flowing Temperature   | Low Low   | 0 °C       | 0 °C          |
| 031-05W5 > 06-13   |                       |           |            |               |
| 2015-10-29 12:00:00 (MDT)  | Differential Pressure | High      | 61 kPa     | 60 kPa        |

## Understanding your Enhanced Alarm History Page

The new look and updated Alarm History page will give you the ability to search by specific criteria, filter by date range, filter by alarm type and export to Excel.

The screenshot shows the 'Alarm' page with search criteria and a date range filter. A dropdown menu for 'All Alarm Type' is open, showing options like 'Low Low / High High', 'Low / High', 'RTU', 'Clear status', 'Acknowledged', and 'Others'. The table below shows alarm history with columns for Date, Sensor, Status, Value, and Set Point.

| Date                      | Sensor                | Status | Value      | Set Point  |
|---------------------------|-----------------------|--------|------------|------------|
| Conventional              |                       |        |            |            |
| 2015-10-28 13:16:48 (MDT) | Casing Temperature    | Test   | 0 °C       |            |
| Conventional              |                       |        |            |            |
| 2015-10-27 10:45:00 (MDT) | Gas Flow Rate         | Low    | 0 E3M3/Day | 0 E3M3/Day |
| 2015-10-27 10:30:00 (MDT) | Differential Pressure | High   | 62 kPa     | 60 kPa     |

## Understanding your Enhanced Configure Alarm page

The Alarm Configuration page allows you to configure an alarm based on the sensor selected. Once the sensor is selected the Configure screen will open for you to set parameters and contacts. You can also search by sensor names and measurement types on this page if the sensor list is extensive.

The screenshot shows the Zedi Alarm Configuration interface. At the top, there's a navigation bar with 'Admin', 'Data', and 'Reports' menus. Below that, a breadcrumb trail shows 'Alarm' with sub-tabs for 'Current', 'History', and 'Configure'. A search bar is present with a 'Search' button and a 'Manage Contact Schedule' button. The main content area is divided into sections for 'Location' and 'Device Type'. A pagination control shows page numbers 1 through 10. Below this, there's a search filter for 'Sensor name contains...' and a dropdown for 'All measurement types'. The sensor list is organized into columns: 'Differential Pressure' (Set in kPa), 'Flowing Temperature' (Set in °C), 'Gas Flow Rate' (Set in E3M3/Day), 'RTU Voltage' (Set in V), and 'Static Pressure' (Disabled). Each sensor entry includes High (HH), High (H), Low (L), and Low (LL) thresholds. A red arrow points to the 'Differential Pressure' sensor, which is highlighted with a red box.

## Understanding the Configure Alarm Sensor Panel

Alarms that are not enabled are shown in greyed out text with a strikethrough as shown below. An icon at the bottom left hand corner indicates the alarm contact set up for that alarm, User, Group, Contact Schedule or No Contact are the available options. Simply hover over the icon to view which one is selected.

**Gas Flow Rate**

Set (E3M3/Day)

|    |     |
|----|-----|
| HH | 0   |
| H  | 200 |
| L  | 0   |
| LL | 0   |

Contact Schedule

User

Group

No Contact

|  |  |  |  |
|--|--|--|--|
|  |  |  |  |
|--|--|--|--|

Contact group: 05-34 Alarm

### Enhanced Configure Page

Set your alarm parameters easily and quickly with the new 7 day trend graph in the configure screen. Use the graph to configure more accurate set points based on the normal trending of the well to help mitigate nuisance alarming.

**Gas Flow Rate** ×

Configuration Message Contact

| Enable                              | Alarm | Set (E3M3/Day)                   | Reset (E3M3/Day)                 |
|-------------------------------------|-------|----------------------------------|----------------------------------|
| <input checked="" type="checkbox"/> | High  | <input type="text" value="100"/> | <input type="text" value="100"/> |
| <input checked="" type="checkbox"/> | Low   | <input type="text" value="0"/>   | <input type="text" value="0"/>   |

Zedi Access 7-day sensor graph (Raw)

Date (GMT-07:00)

## Company Alarm Configuration Report

The Company Alarm Configuration report (under Data Export) shows all the alarm settings that are configured for the entire company. In addition to the alarm settings, the report includes alarm notification contacts. This may be used to manage alarm (enable/disable) settings, alarm set points and alarm notification contacts.

The export report shows all the alarms that have occurred at a location or locations over a specified time range. In addition to alarm time, type and value the report includes alarm acknowledgement information showing who responded when and how.

|       | B      | D                            | E        | F      | G             | H | I               | J                 | K             |
|-------|--------|------------------------------|----------|--------|---------------|---|-----------------|-------------------|---------------|
| 13350 | 00/11- | Well Head Temperature 2      | High     | 80     | 70 C          |   | No Contact      |                   | 2013-12-24 11 |
| 13351 | 00/11- | Well Head Temperature 2      | Low      | -40    | -35 C         |   | No Contact      |                   | 2013-12-24 11 |
| 13352 | 02/09- | ESD from Host                | Low      | 0      | 1 -           |   | ContactSchedule | Answering Service | 2013-12-24 11 |
| 13353 | 02/09- | FT102 Low Flow Alarm         | Low      | 0      | 1 -           |   | No Contact      |                   | 2013-12-24 11 |
| 13354 | 02/09- | Gas Flow Rate                | High     | 200    | 190 E3M3/Day  |   | No Contact      |                   | 2013-12-24 11 |
| 13355 | 02/09- | Gas Flow Rate                | Low      | 30     | 35 E3M3/Day   |   | No Contact      |                   | 2013-12-24 11 |
| 13356 | 02/09- | Gas Flow Rate                | HighHigh | 240    | 230 E3M3/Day  |   | No Contact      |                   | 2013-12-24 11 |
| 13357 | 02/09- | Gas Flow Rate                | LowLow   | 0      | 1 E3M3/Day    |   | No Contact      |                   | 2013-12-24 11 |
| 13358 | 02/09- | Line Heater Flame Fail       | Low      | 0      | 1 -           |   | No Contact      |                   | 2013-12-24 11 |
| 13359 | 02/09- | Line Heater High Pressure    | Low      | 0      | 1 -           |   | No Contact      |                   | 2013-12-24 11 |
| 13360 | 02/09- | Line Heater Inlet Pressure   | Low      | 0      | 1.03 kPa      |   | ContactSchedule | Answering Service | 2013-12-24 11 |
| 13361 | 02/09- | Line Heater Low Pressure     | Low      | 0      | 1 -           |   | No Contact      |                   | 2013-12-24 11 |
| 13362 | 02/09- | Local ESD (PB) Status        | Low      | 0      | 1 -           |   | No Contact      |                   | 2013-12-24 11 |
| 13363 | 02/09- | RTU Voltage                  | Low      | 23     | 23.5 V        |   | No Contact      |                   | 2013-12-24 11 |
| 13364 | 02/09- | Sales Gas High High Pressure | Low      | 0      | 1 -           |   | No Contact      |                   | 2013-12-24 11 |
| 13365 | 02/09- | Sales Gas High Pressure      | Low      | 0      | 1 -           |   | No Contact      |                   | 2013-12-24 11 |
| 13366 | 02/09- | Sales Gas Low Low Pressure   | Low      | 0      | 1 -           |   | No Contact      |                   | 2013-12-24 11 |
| 13367 | 02/09- | Separator High Level         | Low      | 0      | 1 -           |   | No Contact      |                   | 2013-12-24 11 |
| 13368 | 02/09- | Separator High Pressure      | Low      | 0      | 1 -           |   | No Contact      |                   | 2013-12-24 11 |
| 13369 | 02/09- | Separator Low Level          | Low      | 0      | 1 -           |   | ContactSchedule | Answering Service | 2013-12-24 11 |
| 13370 | 02/09- | Static Pressure              | High     | 797.71 | 725.19 psi    |   | No Contact      |                   | 2013-12-24 11 |
| 13371 | 02/09- | Static Pressure              | Low      | 275.57 | 319.08 psi    |   | No Contact      |                   | 2013-12-24 11 |
| 13372 | 02/09- | Tanks High Level             | Low      | 0      | 1 -           |   | No Contact      |                   | 2013-12-24 11 |
| 13373 | 13-22- | Gas Flow Rate                | High     | 200    | 199 E3M3/Day  |   | No Contact      |                   | 2013-05-19 04 |
| 13374 | 13-22- | Gas Flow Rate                | Low      | 0      | 1 E3M3/Day    |   | No Contact      |                   | 2013-05-19 04 |
| 13375 | 102/11 | Differential Pressure        | High     | 522.42 | 522.42 in H2O |   | No Contact      |                   | 2013-12-24 11 |
| 13376 | 102/11 | Differential Pressure        | Low      | -20.09 | 0 in H2O      |   | No Contact      |                   | 2013-12-24 11 |