

PIONEER

NATURAL RESOURCES

received 02/25/2014
Facility 427440
Water Gathering System
Variance report

February 24, 2014

Mr. Matt Lepore.
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Suite 801
Denver, Colorado 80203

Pioneer Natural Resources USA, Inc.
1401 17th Street, Suite 1200
Denver, Colorado 80202
Tel: (303) 298-8100 Fax: (303) 298-7800

RE: 2013 1101(e)(1) Variance report

Dear Mr. Lepore:

Pioneer Natural Resources USA, Inc. ("Pioneer") is submitting this letter in compliance with the conditions of approval of a variance to COGCC rule 1101(e)(1). This variance, document 200338696, was approved on 3/1/12. Pioneer has completed the installation of pressure transducers on 135 wells in strategic locations throughout the field. These transducers are linked to our SCADA system and they monitor pressure on the gathering system and initiate shut-down of the pump on the well if pressure spikes or other conditions are met. These sensors also aid in the operation of the wells and ensure that we operate our 800 mile water gathering system within manufacturing and best engineering limits.

DATE	LOCATION	ROOT CAUSE	WHY SYSTEM DID NOT PREVENT AND ACTION TAKEN
1/1/13	RAINBOW 21-16	FROZEN 2" VALVE ON GATHERING	MODERATE PRESSURE SYSTEM – SENSOR IS PLANNED FOR INSTALLATION DURING 2014 PROGRAM
1/2/13	Widow Woman Canyon Gathering	VALVE TRANSITION FAILURE DUE TO POOR INSTALLATION	HIGH PRESSURE WAS NOT REACHED AT WELL. ANNUAL TESTING WOULD HAVE RESULTED IN SPILL.
1/12/13	BLADERUNNER 23-21	CLOSED VALVE – HUMAN ERROR	FOLLOWING REPAIR OF LEAK AT DISCHARGE POINT VALVE WAS LEFT CLOSED. PIPELINE HAD JUST BE TESTED HOURS BEFORE
1/17/13	FRODO 33-12	FROZEN GAS ELIMINATOR	GAS BUSTER CANNOT BE TESTED WITHOUT REMOVING FROM GROUND. IN 2013 INSTITUTED INSPECTION.
1/20/13	BIGHORN SHEEP GATHERING	BAD FUSE ON UNMARKED PIPELINE	PIPELINE WAS INSTALLED BY PREVIOUS OPERATOR AND WAS NOT MARKED OR MAPPED.
1/28/13	PCW 21-10	BREAK ON WEAK DR13 PIPE	HIGH PRESSURE WAS NOT REACHED AT WELL. ANNUAL TESTING WOULD HAVE RESULTED IN SPILL.
2/21/13	GALLOWAY 32-13	FROZEN 2" VALVE ON GATHERING	MODERATE PRESSURE SYSTEM – SENSOR IS PLANNED FOR INSTALLATION DURING 2014 PROGRAM
3/6/13	CARMELLA 24-11	FROZEN 2" VALVE ON GATHERING	MODERATE PRESSURE SYSTEM – SENSOR IS PLANNED FOR INSTALLATION DURING 2014 PROGRAM
5/7/13	LORENCITO 9-36	FUSE FAILURE ON GATHERING PIPELINE	SENSOR WAS INSTALLED BUT LOW PRESSURE PROGRAM WAS NOT YET DEVELOPED. PLANNED FOR 2014 PROGRAM. ANNUAL TESTING WOULD HAVE RESULTED IN SPILL.
8/27/13	SPINACH 43-8	FUSE FAILURE ON GATHERING PIPELINE	MODERATE PRESSURE SYSTEM – SENSOR IS PLANNED FOR INSTALLATION DURING 2014 PROGRAM.
9/23/13	ESCAPE 13-21	FUSE FAILURE ON GATHERING PIPELINE	MODERATE PRESSURE SYSTEM – SENSOR IS PLANNED FOR INSTALLATION DURING 2014 PROGRAM
10/29/13	PCW 23-3	FUSE FAILURE ON GATHERING PIPELINE	MODERATE PRESSURE SYSTEM – SENSOR IS PLANNED FOR INSTALLATION DURING 2014 PROGRAM. TESTING WOULD HAVE RESULTED IN SPILL
12/17/13	VECTOR 33-23	FUSE FAILURE ON GATHERING PIPELINE	MODERATE PRESSURE SYSTEM – SENSOR IS PLANNED FOR INSTALLATION DURING 2014 PROGRAM. TESTING WOULD HAVE RESULTED IN SPILL

Pioneer spent \$25,000 in 2013 implementing this system and spent \$151,000 on pressure reduction projects based on the pressure monitoring system. The pressure monitoring system initiated shut down of 46 wells at multiple times during 2013 when high pressure was detected. Pioneer believes that this system is effective at preventing pipeline failure and spills and plans to expand the system further in 2014 and to improve the logic of the system. Pioneer also plans on spending an additional \$120,000 on pressure reduction pipeline projects in 2014.

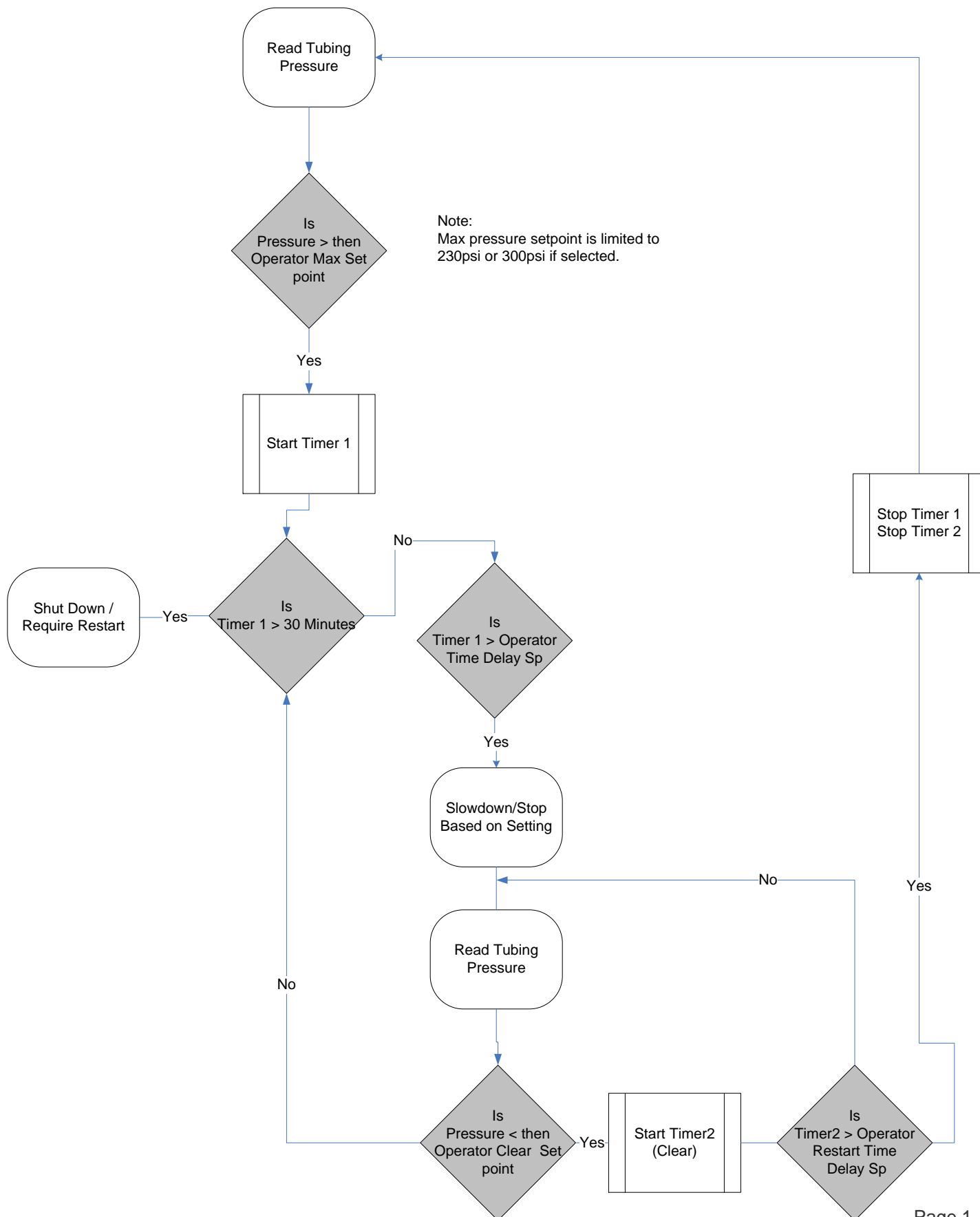
Each spill is investigated by an investigation team and they are reviewed monthly. The results of these investigations and the actions taken are presented to upper management quarterly. Several spills in 2013 were caused by poor installation of gas eliminators. Pioneer instituted an inspection of all 451 gas eliminators in the field and has made 14 repairs as a result.

Submitted on behalf of Pioneer Natural Resources USA Inc.,



Steve Schreck
Staff Facilities Engineer

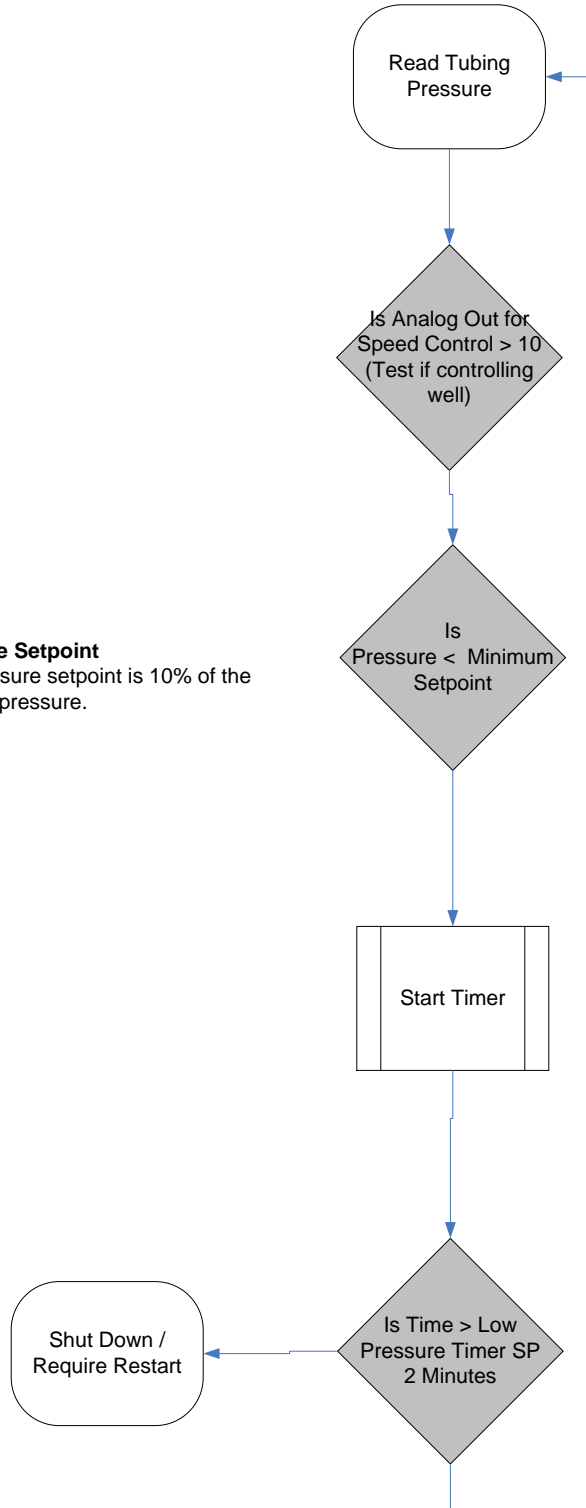
Tubing High Pressure



Tubing Low Pressure

Low Pressure Setpoint

The Low Pressure setpoint is 10% of the tubing restart pressure.



Cycle Operation

When enabled, the cycle timer will turn on and off the well based on the entered times. The on and off times must be greater or equal to 60 minutes.

