

PCS PHOSPHATE – SWIFT CREEK
CATHODIC PROTECTION SURVEY

MAY 2007

TABLE OF CONTENTS

CATHODIC TEST POINTS-----5

GAS PIPE CASING-----7

INTRODUCTION-----3

RECOMMENDATIONS-----4

RESULTS AND ANALYSIS-----3

STRUCTURE-TO-SOIL POTENTIAL DATA-----9

May, 2007

PCS Phosphate
Swift Creek Mining Plant
Post Office Box 300
White Springs, Florida 32096
ATTN: Mr. Hank Meyer
Project Representative

Swift Creek Mining Plant Effectiveness of Cathodic Protection Survey Underground Natural Gas System

INTRODUCTION

The annual cathodic protection survey was conducted for PCS Phosphate – Swift Mining Creek Plant during the month of May, 2007. During this survey, PCS Phosphate – Swift Creek Mining Plant natural gas system was inspected for the effectiveness of cathodic protection, as applied. The cathodic protection system for PCS Phosphate – Swift Creek Mining Plant consists essentially of Galvomag Magnesium anodes placed in various locations throughout the natural gas system.

RESULTS AND ANALYSIS

A total of 9 readings were taken during this survey. As can be seen by the structure-to-soil potential measurements and the enclosed data sheet, all of the readings obtained were indicative of cathodic protection. A structure-to-soil potential of 850 millivolts or more negative is the basis used in this report to confirm cathodic protection.

RECOMMENDATIONS

PCS Phosphate – Swift Creek Mining Plant Underground Natural Gas System May, 2007

The sacrificial anode arrangement designed to protect the coated and wrapped steel natural gas system is providing adequate current to afford cathodic protection to the steel distribution system. Structure-to-soil readings obtained from Cathodic Test Points and gas risers on the steel distribution system indicate complete cathodic protection. One [1] highway casing and Two [2] Railroad casings were inspected during this survey. All carrier casing pipes were found to be isolated from the natural gas piping.

Cathodic Test Point #3 is no longer in service due to severance of wires connecting the anode and steel gas main to the test point. Reconnection could not be established due to depth (approx. 18 feet) of the steel gas pipe. Cathodic Protection levels around the Swift Creek complex have decreased approximately 200 millivolts since the last CP survey, but continue to provide protection. The lowest readings obtained are at the inlet of the gas metering station.

At this time, the Natural Gas Distribution System for the PCS – Swift Creek complex is completely Cathodically Protected with no further action required. I trust the above information to be satisfactory and in sufficient detail, however, should you require additional information, please contact me.

Sincerely,

J. Scott Roberts
NACE C.P. Tester
Certification # 371

CATHODIC TEST POINTS

CATHODIC TEST POINTS
PCS Phosphates – Swift Creek Mining Plant
Underground Natural Gas System
May, 2007

CTP - #1

Black Anode Wire -1.300 MV
Black Gas Pipeline Wire -1.298 MV
White Casing Pipe Wire -0.565 MV

CTP - #2

White Anode Wire -1.412 MV
Black Gas Pipeline Wire -1.367 MV

CTP - #3

No Longer Used - Disconnected

STRUCTURE-TO-SOIL POTENTIALS
GAS PIPE CASINGS

STRUCTURE-TO-SOIL POTENTIAL - GAS PIPE CASINGS

PCS Phosphate – Swift Creek Mining Plant

Underground Natural Gas System

May, 2007

Railroad Casing - #1	-0.573
Railroad Casing - #2	-0.602
Highway Casing - #3	-0.509

STRUCTURE - TO - SOIL POTENTIAL DATA

STRUCTURE – TO – SOIL POTENTIAL DATA

PCS Phosphate – Swift Creek Mining Plant

Underground Natural Gas System

May, 2007

<u>Test Location</u>	<u>Energized Potentials Volts</u>
Gas Metering Station - Inlet	-0.882
Gas Metering Station – Outlet	-1.180
4" Gas Riser @ Plant	-1.452
2" Gas Riser @ Boiler Room	-1.335