



02157030

State of Colorado

Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303)894-2100 Fax: (303)894-2109



SUNDRY NOTICE

Submit original plus one copy. This form is to be used for general, technical and environmental sundry information. For proposed or completed operations, describe in full on Technical Information Page (Page 2 of this form.) Identify well or other facility by API Number or by OGCC Facility ID. Operator shall send an informational copy of all sundry notices for wells located in High Density Areas to the Local Government Designee (Rule 603b.)

1. OGCC Operator Number: <u>96850</u>	4. Contact Name: <u>Karolina Blaney</u>	Complete the Attachment Checklist OP OGCC
2. Name of Operator: <u>WPX Energy Rocky Mountain LLC</u>	Phone: <u>970 683 2295</u>	
3. Address: <u>1058 County Road 215</u>	Fax: <u>970 285 9573</u>	
City: <u>Parachute</u> State: <u>CO</u> Zip: <u>81635</u>		
5. API Number: <u>05-NA</u>	OGCC Facility ID Number: <u>427583</u>	Survey Plat
6. Well/Facility Name: _____	7. Well/Facility Number: <u>Spruce Creek 14-4-794</u>	Directional Survey
8. Location (Qtr/Tr, Sec, Twp, Rng, Meridian): <u>SWSW S4 T7S R94W 6th pm</u>		Surface Eqpm Diagram
9. County: <u>Garfield</u>	10. Field Name: <u>Rulison</u>	Technical Info Page
11. Federal, Indian or State Lease Number: _____		Other

General Notice

<input type="checkbox"/> CHANGE OF LOCATION: Attach New Survey Plat (a change of surface qtr/qtr is substantive and requires a new permit) Change of Surface Footage from Exterior Section Lines: <table border="1"><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr></table> Change of Surface Footage to Exterior Section Lines: <table border="1"><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr></table> Change of Bottomhole Footage from Exterior Section Lines: <table border="1"><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr></table> Change of Bottomhole Footage to Exterior Section Lines: <table border="1"><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr></table> attach directional survey Bottomhole location Qtr/Tr, Sec, Twp, Rng, Mer _____ Latitude _____ Distance to nearest property line _____ Distance to nearest bldg, public rd, utility or RR _____ Longitude _____ Distance to nearest lease line _____ Is location in a High Density Area (rule 603b)? Yes/No _____ Ground Elevation _____ Distance to nearest well same formation _____ Surface owner consultation date: _____																																																																	
GPS DATA: Date of Measurement _____ PDOP Reading _____ Instrument Operator's Name _____																																																																	
<input type="checkbox"/> CHANGE SPACING UNIT Formation _____ Formation Code _____ Spacing order number _____ Unit Acreage _____ Unit configuration _____	<input type="checkbox"/> Remove from surface bond Signed surface use agreement attached																																																																
<input type="checkbox"/> CHANGE OF OPERATOR (prior to drilling): Effective Date: _____ Plugging Bond: <input type="checkbox"/> Blanket <input type="checkbox"/> Individual	<input type="checkbox"/> CHANGE WELL NAME _____ NUMBER _____ From: _____ To: _____ Effective Date: _____																																																																
<input type="checkbox"/> ABANDONED LOCATION: Was location ever built? <input type="checkbox"/> Yes <input type="checkbox"/> No Is site ready for inspection? <input type="checkbox"/> Yes <input type="checkbox"/> No Date Ready for Inspection: _____	<input type="checkbox"/> NOTICE OF CONTINUED SHUT IN STATUS Date well shut in or temporarily abandoned: _____ Has Production Equipment been removed from site? <input type="checkbox"/> Yes <input type="checkbox"/> No MIT required if shut in longer than two years. Date of last MIT _____																																																																
<input type="checkbox"/> SPUD DATE: _____	<input type="checkbox"/> REQUEST FOR CONFIDENTIAL STATUS (6 mos from date casing set)																																																																
<input type="checkbox"/> SUBSEQUENT REPORT OF STAGE, SQUEEZE OR REMEDIAL CEMENT WORK *submit cbl and cement job summaries <table border="1"> <tr> <th>Method used</th> <th>Cementing tool setting/perf depth</th> <th>Cement volume</th> <th>Cement top</th> <th>Cement bottom</th> <th>Date</th> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>		Method used	Cementing tool setting/perf depth	Cement volume	Cement top	Cement bottom	Date																																																										
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<input type="checkbox"/> RECLAMATION: Attach technical page describing final reclamation procedures per Rule 1004. Final reclamation will commence on approximately _____ <input type="checkbox"/> Final reclamation is completed and site is ready for inspection.																																																																	

Technical Engineering/Environmental Notice

<input type="checkbox"/> Notice of Intent Approximate Start Date: _____	<input checked="" type="checkbox"/> Report of Work Done Date Work Completed: <u>7-1-2012</u>
Details of work must be described in full on Technical Information Page (Page 2 must be submitted.)	
<input type="checkbox"/> Intent to Recomplete (submit form 2) <input type="checkbox"/> Change Drilling Plans <input type="checkbox"/> Gross Interval Changed? <input type="checkbox"/> Casing/Cementing Program Change	<input type="checkbox"/> Request to Vent or Flare <input type="checkbox"/> Repair Well <input type="checkbox"/> Rule 502 variance requested <input checked="" type="checkbox"/> Other: <u>Form 15 COAs + 3 year lifespan</u> for Spills and Releases
<input type="checkbox"/> E&P Waste Disposal <input type="checkbox"/> Beneficial Reuse of E&P Waste <input type="checkbox"/> Status Update/Change of Remediation Plans	

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.

Signed: Karolina Blaney Date: 7-19-2012 Email: Karolina.Blaney@WPXEnergy.com
 Print Name: Karolina Blaney Title: Environmental Specialist

COGCC Approved: Daniel Rulison Date: 4-22-13
 CONDITIONS OF APPROVAL, IF ANY: Location Assessment Specialist



TECHNICAL INFORMATION PAGE



FOR OGCC USE ONLY

RECEIVED

APR 22 2013

COGCC

1. OGCC Operator Number: 96850 API Number: _____
2. Name of Operator: WPX Energy Rocky Mountain LLC OGCC Facility ID # 427583
3. Well/Facility Name: _____ Well/Facility Number: Spruce Creek 14
4. Location (QtrQtr, Sec, Twp, Rng, Meridian): SWSW S4 T7S R94W 6th pm

This form is to be completed whenever a Sundry Notice is submitted requiring detailed report of work to be performed or completed. This form shall be transmitted within 30 days of work completed as a "subsequent" report and must accompany Form 4, page 1.

5. DESCRIBE PROPOSED OR COMPLETED OPERATIONS

In accordance with the Spruce Creek 14-4-794 Pit Permit Form 15 conditions of approval (see attached), WPX Energy is submitting the following documents in order to stay in compliance:

- COA 22 - Hydrotest monitoring report
- COA 27 - list of disposal facilities:

Facility Name	Permit #
GM 14-36	159262
GM 523-36	159266
GM 923-1D	159295
GM 943-1D	159296
GM 931-1D	159297
GM 239-36	159369
RMV 215-21	159388
Parachute C E&P WMF	149015
Rulison C E&P WMF	149006

In order to report completion of construction and liner installation at the Spruce Creek 14-4-794 Multi-well completions pit, thereby starting the 3-year lifespan of this Form 15 permitted pit, WPX Energy is submitting the following documents:

- Lange Containment Systems Inc Reports

Pit Permit Good Through 7-1-2015

Form 15

FORM

15

Rev 6/99

PIT ID: PT7199

01642078

State of Colorado

Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 (303)894-2100 Fax: (303)894-2109



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FEB 2 - 2012

COGCC

EARTHEN PIT REPORT/PERMIT

This form is to be used for both reporting and permitting pits. Rule 903 describes when a Permit with prior approval, or a Report within 30 days, is required for pits. Submit required attachments and forms.

Complete the
Attachment Checklist

FORM SUBMITTED FOR:

☐ Pit Report☒ Pit Permit

Operator OGCC	
Detailed Site Plan	<input checked="" type="checkbox"/>
Topo Map w/ Pit Location	<input checked="" type="checkbox"/>
Water Analysis (Form 25)	<input checked="" type="checkbox"/>
Source Wells (Form 26)	<input checked="" type="checkbox"/>
Pit Design Plan & Cross Sec	<input checked="" type="checkbox"/>
Design Calculations	<input checked="" type="checkbox"/>
Sensitive Area Determ.	<input checked="" type="checkbox"/>
Mud Program	<input checked="" type="checkbox"/>
Form 2A	<input checked="" type="checkbox"/>

OGCC Operator Number: 96850

Name of Operator: Williams Production RMT

Address: 1058 County Rd 215

City: Parachute State: CO Zip: 81635

Contact Name and Telephone:

Karolina Blaney

No: (970) 589-0743

Fax: (970) 285-9573

API Number (of associated well): NA

OGCC Facility ID (of other associated facility): FORM 2A H

Pit Location (Qtr Qtr, Sec, Twp, Rng, Meridian): SWSW S4 T7S R94W 6pm

Latitude: 39.460272 Longitude: 107.901133 County: Garfield

Pit Use: ☒ Production ☐ Drilling (Attach mud program) ☒ Special Purpose (Describe Use): Multi-WellPit Type: ☒ Lined ☐ Unlined Surface Discharge Permit: ☐ Yes ☒ NoOffsite disposal of pit contents: ☐ Injection ☐ Commercial Pit/Facility Name: SPRUCE CREEK Pit/Facility No: 14-4-714

Attach Form 26 to identify Source Wells and Form 25 to provide Produced Water Analysis results.

Existing Site Conditions

Is the location in a "Sensitive Area?" ☒ Yes ☐ No Attach data used for determination.

Distance (in feet) to nearest surface water: 386 ground water: 210 water wells: 266

LAND USE (or attach copy of Form 2A if previously submitted for associated well) Select one which best describes land use:

Crop Land: ☒ Irrigated ☐ Dry Land ☐ Improved Pasture ☐ Hay Meadow ☐ CRPNon-Crop Land: ☒ Rangeland ☐ Timber ☐ Recreational ☐ Other (describe):Subdivided: ☐ Industrial ☐ Commercial ☐ Residential

SOILS (or attach copy of Form 2A if previously submitted for associated well)

Soil map units from USNRCS survey: Sheet No: Soil Complex/Series No: 69

Soils Series Name: Potts Horizon thickness (in inches): A: 0-4 ; B: 4-28 ; C: 28-60

Soils Series Name: Ildefonso Horizon thickness (in inches): A: 0-8 ; B: 8-60 ; C:

Attach detailed site plan and topo map with pit location.

Pit Design and Construction

Size of pit (feet): Length: 440 Width: 180 Depth: 16

Calculated pit volume (bbls): 95,000 Daily Inflow rate (bbls/day): varies

Daily disposal rates (attach calculations): Evaporation: 145 bbls/day Percolation: none bbls/day

Type of liner material: See attached specifications Thickness: See attached specifications

Attach description of proposed design and construction (include sketches and calculations).

Method of treatment of produced water prior to discharge into pit (separator, heater treater, other): gravity separation tanks

Is pit fenced? ☒ Yes ☐ No Is pit netted? ☒ Yes ☐ No

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct, and complete.

Print Name: Karolina Blaney

Signed: Karolina Blaney

Title: Environmental Specialist

Date: 12/6/2011

OGCC Approved: David Kulis

Title: Location Assessment Specialist

Date: 02/15/2012

CONDITIONS OF APPROVAL, IF ANY:

FACILITY NUMBER: 427583

**Williams Production RMT, Spruce Creek Production Pit 14-4-794, SWSW Sec 4
T7S R94W, Garfield County, Form 2A (#400231362); Form 15 Pit Permit
Conditions of Approval, Pit Facility Number: 427583**

COA 90 - Notify COGCC Oil and Gas Location Assessment (OGLA) Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us) and the COGCC Field Inspection Supervisor for Northwest Colorado (Shaun Kellerby; email shaun.kellerby@state.co.us) 48 hours prior to start of construction of the pad and pit.

COA 22 - After installation of the uppermost liner and prior to operating the pit, the synthetic liner(s) shall be tested by filling the pit with at least 12 feet of fresh and/or produced water, measured from the base of the pit (not to exceed the 2-foot freeboard requirement). The operator shall monitor the pit for leaks for a period of 72 hours prior to draining the pit and commencing operations. The leak detection system must also be monitored during the entire test. Operator shall notify the COGCC Oil and Gas Location Assessment (OGLA) Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us) 48 hours prior to start of the hydrotest. Hydrotest monitoring results must be maintained by the operator for the life of the pit and provided to COGCC prior to using the pit.

COA 67 - In lieu of conducting an initial hydrostatic test of the pit, the operator can monitor fluid levels in the pit continuously using a minimum of two pressure transducers located at the upgradient and downgradient ends of the pit (based on the original topographic profile). These pressure transducers should be linked to the operator's SCADA system such that they can be remotely monitored. In addition, the pit liner will be marked at the two foot freeboard depth line so that operations personnel (as well as COGCC inspectors) can easily verify that the required fluid free board is being maintained. The electronically collected water level measurement data shall be used to confirm changes in pit inflow and outflow during operations based on estimates from truck and/or pipeline delivery or removal activities. Any abnormalities that are noticed during operations will be reported to the operator's field supervisor immediately so that any necessary follow-up can be scheduled.

COA 23 - Operator must ensure 110 percent secondary containment for any volume of fluids contained at the water handling facility site during natural gas development activities and operations; including, but not limited to, construction of a berm or diversion dike, diversion/collection trenches within and/or outside of berms/dikes, site grading, or other comparable measures (i.e., best management practices (BMPs) associated with stormwater management) sufficiently protective of nearby surface water. Any berm constructed at the well pad location will be stabilized, inspected at regular intervals (at least every 14 days), and maintained in good condition.

COA 5 - Operator must implement best management practices to contain any unintentional release of fluids, including any fluids conveyed via buried or temporary surface pipelines.

COA 39 - No portion of any pit that will be used to hold liquids shall be constructed on fill material, unless the pit and fill slope are designed and certified by a professional engineer, subject to review and approval by the director prior to construction of the pit. The construction and lining of the pit shall be supervised by a professional engineer or their agent. The entire base of the pit must be in cut.

COA 47 - The production pit must be double-lined. The pit will also require a leak detection system (Rule 904.e).

COA 66 - Delivery and vacuum truck hoses will not be allowed to be placed directly onto the pit liner. Operator will construct a loading/unloading station located next to the pit, to deliver fluids to or remove fluids from the pit by truck. The loading/unloading station shall be designed and utilized to

prevent hoses from being dropped into the pits and dragged over the liner, which could lead to liner damage. The loading/unloading station will be the only permitted access for manual fluids transfers to or from the pit. Vehicles will not be allowed to approach the pit any closer than the loading/unloading station. Each station will have a catch basin in case a leak occurs while operations personnel are connecting or disconnecting hoses. Signs clearly marking the truck loading/unloading station shall be provided and maintained by the operator.

COA 48 - Operator must submit a professional engineer (PE) approved/stamped as-built drawing (plan view and cross-sections) of the production pit within 14 calendar days of construction.

COA 49 - The production pit must be fenced and netted. The operator must maintain the fencing and netting until the pit is closed in accordance with Rule 905. Closure of Pits, and Buried or Partially Buried Produced Water Vessels.

COA 11 - Operator shall pressure test pipelines in accordance with Rule 1101.e.(1) prior to putting into initial service any temporary surface pipelines or configuration of the permanent pipeline network.

COA 19 - This production pit will comply with **Rule 902. PITS - GENERAL AND SPECIAL RULES**. e. Pits used for a period of no more than three (3) years for storage, recycling, reuse, treatment, or disposal of E&P waste or fresh water, as applicable, may be permitted in accordance with **Rule 903** to service multiple wells.

COA 27 - Submit disposal facilities (wells, pits, landfills, etc.) for pit contents since none were provided on the Form 15, to COGCC via a Form 4 Sundry prior to disposal.

COA 20 - The operator will conduct baseline sampling of the domestic/irrigation water well (Permit No. 228041 - - 4508058-Williams Well, total depth of 210 feet bgs, depth to groundwater of 176 feet bgs, and a pumping rate of 8 gpm) located approximately 266 feet to the east-northeast, prior to pit operation. The operator may conduct additional groundwater monitoring at their own discretion. This water well will also be sampled every 12 months to evaluate potential impacts from pit operations. Laboratory analysis at a minimum will include the following: pH (lab), TDS, specific conductivity (lab, not resistivity), SAR calculation, Ca, K, Mg, Na, As, B, Ba, Cd, Cr, Cu, Fe, Mn, Pb, Se (all total recoverable), Br, Cl, F, SO₄, Alkalinity (Total, HCO₃ and CO₃ – all expressed as CaCO₃), BTEX (benzene, toluene, ethyl benzene, o-xylene, m- + p-xylene), MBAS, DRO, GRO, and field parameters including pH, temperature, and specific conductivity (SC) shall be recorded prior to collecting the sample for laboratory analysis. Field observations such as odor, water color, sediment, bubbles and effervesce shall also be included. Copies of all test results, field parameters and field observations described above shall be provided to the Director, LGD, and the water well owner within three (3) months of collecting the sample. The analytical data and surveyed sample location shall also be submitted to the Director in an electronic data deliverable format.

COA 91 - At the time of pit closure, operator must submit disposal information via a Form 4 Sundry Notice to the COGCC Location Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us). The disposal method will need to be approved prior to operator starting pit closure. In addition, operator will collect a pit water sample and, at a minimum, analyze for the following parameters: pH; alkalinity; specific conductance; major cations/anions (chloride, fluoride, sulfate, sodium); total dissolved solids (TDS); BTEX/DRO; TPH; PAH's (including benzo[a]pyrene); and metals (arsenic, barium, calcium, chromium, iron, magnesium, selenium). At the time of closure/disposal of pit water, COGCC may require additional analytes, as appropriate.

Hydrostatic Test Results

Hydrostatic Pit Testing

Data Collection & Computation Form

Fox Engineering Solutions, Inc.



Pit Owner: WPX Energy Rocky Mountain, LLC
Pit Name: 14-4-794
COGCC Facility No. 427583
Pit Location: SW 1/4 SW 1/4 Section 4, T7S, R94W, 6th P.M.
 Latitude: N 39.460272° Longitude: W107.901133° (NAD83)
Reported Liner: 60/40 mil Polyethylene with GCL
Approximate Elevation: 6400 ft. msl
Test Conducted By: David Fox P.E., Fox Engineering Solutions, Inc.

Test Initiation:

Date: 6/18/2012
 Time: 9:20 AM
 Total Duration: 72 hours

Test Termination:

Date: 6/21/2012
 Time: 9:20 AM

	Length	Width	Area	Comments
Tributary Pit Liner Surface Area (ft ²):	-	-	56,075 ft. ²	Surveyed by Bookcliff Survey
Initial Pit Water Surface Area:	-	-	46881 ft. ²	Surveyed by Bookcliff Survey
Final Pit Water Surface Area:	-	-	46881 ft. ²	Surveyed by Bookcliff Survey
Average Pit Surface Area:			46,881 ft. ²	
Initial Pit Fluid Level:				6385.324 ft.
Final Pit Fluid Level:				<u>6385.253</u> ft
Difference				0.07 ft or
Est. Fluid Depth:	13 ft.			0.85 inches
Evaporation Pan Installed: Yes	Location: NE corner of pit	Measured Pan Evaporation:	1.68 inches	
		(During Test Duration)		
		Evaporation w/ Pan Coeff. 0.72	1.21 inches	
		(During Test Duration)		
Rain Gauge Installed: Yes	Location: NE corner of pit	Recorded Precipitation:	0.00 inches	
		Equiv. 72-Hour Precip. Inflow:	0.00 inches	
Other Inflow/Outflow:	Inflow (gal) 0	Equivalent Inflow:	0.00 inches	
	Outflow (gal) 0	Equivalent Outflow:	0.00 inches	
Calculated Fluid Level Change in Inches:	(+ indicates fluid level increased)			
	(Precipitation - 72% Pan Evaporation + Inflows - Outflows)			-1.21 inches
Measure Change in Inches:	(+ indicates fluid level increased)			-0.85 inches
Difference between Calculated and Measured Pit Fluid Level:	(With 72% Pan Evaporation)			0.36 inches

Summary: No observed loss in liner integrity. Fluid level drop was less than calculated evaporation/precipitation mass balance.

Weather: Mostly sunny with intermittent clouds. Temperatures 60° - 95°.

Liner and Pit Condition: Fluid level at approximate 13 ft depth. Liner is new and had just been installed.

Visible portion of liner, approximately the top 7 - 8 ft., had no visible tears, delamination or seam failures.

Leak detection sump dry at the initiation and termination of hydrotest.

Comments: Bookcliff Survey utilized a Trimble Total Station for required area and elevation measurements.

WPX Energy staff indicated that no fluids were transferred from or to the pit during the duration of the test.

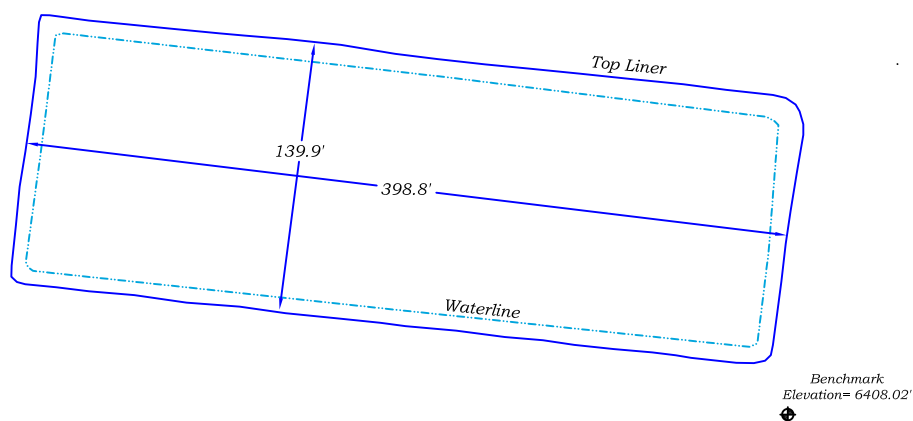
Evaporation pan placed within the fenced and netted area of the pit site.

Fox Engineering Solutions LLC

June 2011

HYDRO-TEST EXHIBIT

RWF 14-4-794 SPRUCE CREEK PIT



SCALE: 1"= 100'

RWF 14-4-794 SPRUCE CREEK PIT DETAILS

TEST @ 9:20 A.M.

TOP WATER ELEV. (JUNE 18, 2012)= 6385.324'

TOP WATER ELEV. (JUNE 21, 2012)= 6385.253'

TOP OF TRIBUTARY AREA SURFACE AREA = 56,075 sq. ft.

TOP WATER SURFACE AREA = 46,881 sq. ft.

TRIBUTARY AREA = 9194 sq. ft.

RWF 14-4-794 SPRUCE CREEK PIT LOCATION

SW1/4SW1/4 SECTION 4,
TOWNSHIP 7 SOUTH,
RANGE 94 WEST OF THE SIXTH P.M.

COSP NAD83 CENTRAL ZONE

LATITUDE: 39.460285°

LONGITUDE: -107.901132°



WPX Energy Rocky Mountain, LLC

136 East Third Street
Rifle, Colorado 81650
Ph. (970) 625-1330
Fax (970) 625-2773



Fox Engineering Solutions
670 Canyon Creek Dr.
Grand Junction, CO 81503

RWF 14-4-794
SPRUCE CREEK

DATE: 6/21/12
SHEET: 1 OF 1
PROJECT: HYDROTEST
DFT: WKK

Hydrostatic Testing Procedures for COGCC Earthen Pits

Vers. 6.0 12-15-11 ©



The purpose for hydrostatic testing earthen pits is to comply with COGCC approval conditions for verifying the fluid holding integrity of the pit lining system. These procedures are specific to existing or active earthen pits holding oil and gas related fluids including, but not limited to, produced water. During testing, the pit shall have fluid level as high as practical, without encroaching into the 2 ft. freeboard, and the test shall be conducted for a minimum of 72 hours, if practical. Visible portions of the liner, including the anchor trench and seams, shall be inspected for defects. The test shall be scheduled and coordinated with personnel to ensure that oil and gas activities do not interfere with the test. Testing procedures may be subject to changes as dictated by field and climatic factors. All personnel involved with testing, while onsite, shall comply with their respective EH&S requirements.

- If practical, a sign shall be placed in a conspicuous location during the test stating "Hydrostatic testing in Progress, Pit Closed to All Water Hauling Activities". Contact information shall also be placed on the sign.
- A semi-permanent datum elevation point shall be established at the pit location. The surface area of the water surface and the surface area of the liner area, tributary to the pit shall be measured. The date and time of each measurement shall be documented.
- The pit fluid level; fluid surface area; and the lined surface area, tributary to the pit, shall be measured and recorded at the beginning of the test. The pit fluid level shall be measured again at the end of the test. A survey grade total station shall be utilized for accuracy to capture this information. The date and time of measurements shall be documented.
- A 4" diameter official rain gauge with funnel inlet shall be installed at the pit site. Precipitation shall be recorded for the duration of the hydrostatic test.
- During ice-free periods, pan evaporation shall be measured during the duration of the test following the procedures established by the National Weather Service – NOAA in the document entitled "National Weather Service - Observing Handbook No. 2, dated July 1989. A Class A evaporation pan shall be placed at the site, or as near as practical, with evaporation measured per established procedures. During ice-over periods at the pit, evaporation is assumed negligible and evaporation measurements will not be taken.
- For the duration of the test, all inflows and outflows, such as truck and piped transfers, shall cease. If the cessation of inflows and outflows is not practical, all pit inflows and outflows shall be accurately metered and documented during the test. 24-hour surveillance monitoring may be warranted.
- If no precipitation has occurred during the test, compare the change in the pit fluid level with the recorded pan evaporation. During ice-over periods, compare the pit levels taken at the start and end of the tests.
- If precipitation has occurred during the test, precipitation falling onto tributary portions of the liner, outside of the fluid surface area, may be added as an inflow to the pit and converted into inches of depth over the fluid surface area. During ice-over and snow conditions, precipitation inflow from tributary portions of the liner may be estimated from snow depth and corresponding water equivalent comparisons at the start and termination of the test. Other factors may also be utilized.
- The calculated change in pit level during the test is: $\Delta L = P + I - O - E$ (all measurements converted to inches)

Where: ΔL = Change in pit fluid level P = Precipitation Inflow E = Evaporation
 I = Measured Inflows O = Measured Outflows
- The measured change in the pit fluid level shall be compared to the calculated change, utilizing precipitation and evaporation data, in the pit fluid level during the test duration. The test procedures and results will be reviewed and analyzed for discrepancies. If the test results indicate integrity issues with the lining system, the test will be repeated.

Liner Installation Report

SPRUCE CREEK PIT



LANGE CONTAINMENT SYSTEMS, INC.

APRIL 2012

Trial Welds



60 MIL





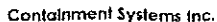
www.LangeContainment.com

Project Name:

Groves Creek Rd

QC Technician:

Victor Casillas



Fax: (303) 446-8798

LinerGeeks@LangeContainment.com

www.LangeContainment.com

Project Name:

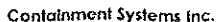
Spring Creek Rd

QC Technician:

Vicki Carillo

40 MIL





Fax: (303) 446-8798

LinerGeeks@LangeContainment.com

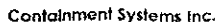
www.LangeContainment.com

Project Name:

Spruce Creek Det

QC Technician:

Victor Casas



Fax: (303) 446-8798

LinerGeeks@LangeContainment.com

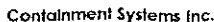
www.LangeContainment.com

Project Name:

Spruce Creek Rd

QC Technician:

Victor Cavallas



Fax: (303) 446-8798

LinerGeeks@LangeContainment.com

www.LangeContainment.com

Project Name:

Spruce Creek Rd

QC Technician:

Victor Casillas

Destruct Summary



60 MIL



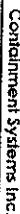


Material: 60 mils smooth

[illegible]

40 MIL





Source Creek

Primary	Secondary
[11]	

Job#:

40 min DS smooth

[[Destructive Test

[illegible]

Seaming & Air Pressure Test



60 MIL





Confinement Systems Inc.

Project Name:
Project Manager:
Superintendent:
Reported By:

SPRUE CREEK PIT
NICAR CANNING
NICAR CANNING

Primary

Secondary

Other:

Job#:

Material:

60 mil D/S smooth

Weld Date	Seam No.	Seam Length	Time	Operator Name / ID#	Mach No.	Mach Temp	Mach Speed	Amb Temp	Test Date	Test Type	Time IN	Time Out	Test Results	D. S. Number (NOTES)
4-20-12	1-2	22'	am pm	T.A.	120	850°	400		4-20-12	A1	12:40	12:45	P F	
	3-4	22'	am pm	T.A.	120	850°	400				12:41	12:46	P F	
	4-5	35'	am pm	T.C.	128	850°	400				12:43	12:47	P F	
	5-6	42'	am pm	T.C.	128	850°	400				12:43	12:48	P F	DS-1
	6-7	42'	am pm	T.A.	120	850°	400				12:44	12:48	P F	
	7-8	42'	am pm	T.A.	120	850°	400				12:44	12:48	P F	
	8-9	30'	am pm	T.C.	128	850°	400				12:54	1:01	P F	
	9-10	33'	am pm	T.A.	120	850°	400				12:57	1:02	P F	
	11-12	35'	am pm	T.C.	128	850°	400				12:58	1:03	P F	
	12-13	44'	am pm	T.A.	120	850°	400				12:59	1:04	P F	
	13-14	44'	am pm	T.C.	128	850°	400				1:00	1:05	P F	
	14-15	46'	am pm	T.A.	120	850°	400				1:06	1:11	P F	
	15-16	46'	am pm	T.C.	128	850°	400				1:07	1:12	P F	
	16-17	46'	am pm	T.A.	120	850°	400				1:08	1:13	P F	
	17-18	46'	am pm	T.C.	128	850°	400				1:09	1:14	P F	DS-2
	18-19	46'	am pm	T.A.	120	850°	400				1:13	1:18	P F	
	19-20	46'	am pm	T.C.	128	850°	400				1:14	1:19	P F	
	20-21	46'	am pm	T.A.	120	850°	400				1:20	1:26	P F	
	21-22	46'	am pm	T.C.	128	850°	400				1:22	1:27	P F	
	22-23	46'	am pm	T.A.	120	850°	400				1:26	1:31	P F	201F test
	23-24	46'	am pm	T.C.	128	850°	400				1:33	1:38	P F	201F test
Total =		165	am pm	T.A.	120	850°	400				1:36	1:41	P F	

Air Test:

36

psi for

5

minutes-

5

psi loss allowed.

Tested By:

AS



Conduitment Systems Inc.

Project Name:
Project Manager:
Superintendent:
Reported By:

Spruce Creek pit
Victor (S1105)
Victor (S1105)

Primary

Secondary

Other:

Job#:

Material:

60 mil DLS smooth

Weld Date	Seam No.	Seam Length	Time	Operator Name / ID#	Mach No.	Mach Temp	Mach Speed	Amb Temp	Test Date	Test Type	Time IN	Time Out	Test Results	D. S. Number (NOTES)
4-21-13	24-25	165	am pm	V.C.		450	400		4-21-13	AT	10:04	10:09	P F	DS-4
1	25-26	165	am pm	V.A.		450	400		1	1	10:05	10:10	P F	
1	26-27	43	am pm	V.C.		450	400		1	1	10:06	10:11	P F	
1	27-28	22	am pm	T.A.		450	400		1	1	10:07	10:12	P F	
1	28-29	22	am pm	V.C.		450	400		1	1	10:08	10:13	P F	
1	29-30	22	am pm	V.C.		450	400		1	1	10:09	10:14	P F	
1	30-31	40	am pm	T.A.		450	400		1	1	10:10	10:15	P F	
1	31-32	44	am pm	V.C.		450	400		1	1	10:11	10:16	P F	
1	32-33	44	am pm	V.A.		450	400		1	1	10:12	10:17	P F	
1	33-34	44	am pm	V.C.		450	400		1	1	10:13	10:18	P F	
1	34-35	40	am pm	T.A.		450	400		1	1	10:14	10:19	P F	
1	35-36	22	am pm	V.C.		450	400		1	1	10:15	10:20	P F	DS-5
1	36-37	22	am pm	V.A.		450	400		1	1	10:16	10:21	P F	
1	37-38	22	am pm	V.C.		450	400		1	1	10:17	10:22	P F	
1	38-39	48	am pm	V.A.		450	400		1	1	10:18	10:23	P F	
1	39-40	48	am pm	V.C.		450	400		1	1	10:19	10:24	P F	
1	40-41	28	am pm	V.C.		450	400		1	1	10:20	10:25	P F	
1	41-42	32	am pm	V.C.		450	400		1	1	10:21	10:26	P F	
1	42-43	5	am pm	V.C.		450	400		1	1	10:22	10:27	P F	
1	43-44	5	am pm	V.C.		450	400		1	1	10:23	10:28	P F	
1	44-45	22	am pm	V.C.		450	400		1	1	10:24	10:29	P F	
1	45-46	22	am pm	V.C.		450	400		1	1	10:25	10:30	P F	
1	46-47	22	am pm	V.C.		450	400		1	1	10:26	10:31	P F	
1	47-48	22	am pm	V.C.		450	400		1	1	10:27	10:32	P F	
1	48-49	22	am pm	V.C.		450	400		1	1	10:28	10:33	P F	
1	49-50	22	am pm	V.C.		450	400		1	1	10:29	10:34	P F	
1	50-51	22	am pm	V.C.		450	400		1	1	10:30	10:35	P F	
1	51-52	22	am pm	V.C.		450	400		1	1	10:31	10:36	P F	
1	52-53	22	am pm	V.C.		450	400		1	1	10:32	10:37	P F	
1	53-54	22	am pm	V.C.		450	400		1	1	10:33	10:38	P F	
1	54-55	22	am pm	V.C.		450	400		1	1	10:34	10:39	P F	
1	55-56	22	am pm	V.C.		450	400		1	1	10:35	10:40	P F	
1	56-57	22	am pm	V.C.		450	400		1	1	10:36	10:41	P F	
1	57-58	22	am pm	V.C.		450	400		1	1	10:37	10:42	P F	
1	58-59	22	am pm	V.C.		450	400		1	1	10:38	10:43	P F	
1	59-60	22	am pm	V.C.		450	400		1	1	10:39	10:44	P F	
1	60-61	22	am pm	V.C.		450	400		1	1	10:40	10:45	P F	
1	61-62	22	am pm	V.C.		450	400		1	1	10:41	10:46	P F	
1	62-63	22	am pm	V.C.		450	400		1	1	10:42	10:47	P F	
1	63-64	22	am pm	V.C.		450	400		1	1	10:43	10:48	P F	
1	64-65	22	am pm	V.C.		450	400		1	1	10:44	10:49	P F	
1	65-66	22	am pm	V.C.		450	400		1	1	10:45	10:50	P F	
1	66-67	22	am pm	V.C.		450	400		1	1	10:46	10:51	P F	
1	67-68	22	am pm	V.C.		450	400		1	1	10:47	10:52	P F	
1	68-69	22	am pm	V.C.		450	400		1	1	10:48	10:53	P F	
1	69-70	22	am pm	V.C.		450	400		1	1	10:49	10:54	P F	
1	70-71	22	am pm	V.C.		450	400		1	1	10:50	10:55	P F	
1	71-72	22	am pm	V.C.		450	400		1	1	10:51	10:56	P F	
1	72-73	22	am pm	V.C.		450	400		1	1	10:52	10:57	P F	
1	73-74	22	am pm	V.C.		450	400		1	1	10:53	10:58	P F	
1	74-75	22	am pm	V.C.		450	400		1	1	10:54	10:59	P F	
1	75-76	22	am pm	V.C.		450	400		1	1	10:55	11:00	P F	
1	76-77	22	am pm	V.C.		450	400		1	1	10:56	11:01	P F	
1	77-78	22	am pm	V.C.		450	400		1	1	10:57	11:02	P F	
1	78-79	22	am pm	V.C.		450	400		1	1	10:58	11:03	P F	
1	79-80	22	am pm	V.C.		450	400		1	1	10:59	11:04	P F	
1	80-81	22	am pm	V.C.		450	400		1	1	11:00	11:05	P F	
1	81-82	22	am pm	V.C.		450	400		1	1	11:01	11:06	P F	
1	82-83	22	am pm	V.C.		450	400		1	1	11:02	11:07	P F	
1	83-84	22	am pm	V.C.		450	400		1	1	11:03	11:08	P F	
1	84-85	22	am pm	V.C.		450	400		1	1	11:04	11:09	P F	
1	85-86	22	am pm	V.C.		450	400		1	1	11:05	11:10	P F	
1	86-87	22	am pm	V.C.		450	400		1	1	11:06	11:11	P F	
1	87-88	22	am pm	V.C.		450	400		1	1	11:07	11:12	P F	
1	88-89	22	am pm	V.C.		450	400		1	1	11:08	11:13	P F	
1	89-90	22	am pm	V.C.		450	400		1	1	11:09	11:14	P F	
1	90-91	22	am pm	V.C.		450	400		1	1	11:10	11:15	P F	
1	91-92	22	am pm	V.C.		450	400		1	1	11:11	11:16	P F	
1	92-93	22	am pm	V.C.		450	400		1	1	11:12	11:17	P F	
1	93-94	22	am pm	V.C.		450	400		1	1	11:13	11:18	P F	
1	94-95	22	am pm	V.C.		450	400		1	1	11:14	11:19	P F	
1	95-96	22	am pm	V.C.		450	400		1	1	11:15	11:20	P F	
1	96-97	22	am pm	V.C.		450	400		1	1	11:16	11:21	P F	
1	97-98	22	am pm	V.C.		450	400		1	1	11:17	11:22	P F	
1	98-99	22	am pm	V.C.		450	400		1	1	11:18	11:23	P F	
1	99-100	22	am pm	V.C.		450	400		1	1	11:19	11:24	P F	
1	100-101	22	am pm	V.C.		450	400		1	1	11:20	11:25	P F	
1	101-102	22	am pm	V.C.		450	400		1	1	11:21	11:26	P F	
1	102-103	22	am pm	V.C.		450	400		1	1	11:22	11:27	P F	
1	103-104	22	am pm	V.C.		450	400		1	1	11:23	11:28	P F	
1	104-105	22	am pm	V.C.		450	400		1	1	11:24	11:29	P F	
1	105-106	22	am pm	V.C.		450	400		1	1	11:25	11:30	P F	
1	106-107	22	am pm	V.C.		450	400		1	1	11:26	11:31	P F	
1	107-108	22	am pm	V.C.		450	400		1	1	11:27	11:32	P F	
1	108-109	22	am pm	V.C.		450	400		1	1	11:28	11:33	P F	
1	109-110	22	am pm	V.C.		450	400		1	1	11:29	11:34	P F	
1	110-111	22	am pm	V.C.		450	400		1	1	11:30	11:35	P F	
1	111-112	22	am pm	V.C.		450	400		1	1	11:31	11:36	P F	
1	112-113	22	am pm	V.C.		450	400		1	1	11:32	11:37	P F	
1	113-114	22	am pm	V.C.		450	400		1	1	11:33	11:38	P F	
1	114-115	22	am pm	V.C.		450	400		1	1	11:34	11:39	P F	
1	115-116	22	am pm	V.C.		450	400		1	1	11:35	11:40	P F	
1	116-117	22	am pm	V.C.		450	400		1	1	11:36	11:41	P F	
1	117-118	22	am pm	V.C.		450	400		1	1	11:37	11:42	P F	
1	118-119	22	am pm	V.C.		450	400		1	1	11:38	11:43	P F	
1	119-120	22	am pm	V.C.		450	400		1	1	11:39	11:44	P F	
1	120-12													



90 min D/S. Smooth

[illegible]

40 MIL





Confinement Systems Inc.

Project Name:
Project Manager:
Superintendent:
Reported By:

Primary Secondary Other:

Job#:

Material:

Weld Date	Seam No.	Seam Length	Time	Operator Name / ID#	Mach No.	Mach Temp	Mach Speed	Amb Temp	Test Date	Test Type	Time IN	Time Out	Test Results	D. S. Number (NOTES)
4-18-12	1-2	23'	8:30 am	JK	129	850°	1650		4-18-12	AT	10:00	10:05	P F	
4-18-12	3-4	23'	8:40 am	VC	128	850°	1650				10:01	10:06	P F	
4-18-12	4-5	45'	8:45 am	VC	128	850°	1650				10:02	10:07	P F	
4-18-12	5-6	45'	8:50 am	VC	128	850°	1650				10:03	10:08	P F	
4-18-12	6-7	45'	9:00 am	VC	128	850°	1650				10:04	10:09	P F	
4-18-12	7-8	45'	9:10 am	VC	128	850°	1650				10:05	10:10	P F	DS-1
4-18-12	8-9	22'	9:20 am	VC	128	850°	1650				10:10	10:15	P F	
4-18-12	10-11	22'	9:30 am	VC	129	850°	1650				10:11	10:16	P F	
4-18-12	11-12	45'	9:40 am	VC	129	850°	1650				10:12	10:17	P F	
4-18-12	12-1	45'	9:50 am	VC	129	850°	1650				10:13	10:18	P F	
4-18-12	12-13	165'	10:00 am	VC	129	850°	1650				10:14	10:19	P F	
4-18-12	13-14	165'	10:10 am	VC	129	850°	1650				10:15	10:20	P F	
4-18-12	14-15	165'	10:20 am	VC	129	850°	1650				10:16	10:21	P F	
4-18-12	15-16	165'	10:30 am	VC	129	850°	1650				10:17	10:22	P F	
4-18-12	16-17	165'	10:40 am	VC	129	850°	1650				10:18	10:23	P F	DS-2
4-18-12	17-18	165'	10:50 am	VC	129	850°	1650				10:19	10:24	P F	
4-18-12	18-19	165'	11:00 am	VC	129	850°	1650				10:20	10:25	P F	
4-18-12	19-20	165'	11:10 am	VC	129	850°	1650				10:21	10:26	P F	
4-18-12	20-21	165'	11:20 am	VC	129	850°	1650				10:22	10:27	P F	DS-3
4-18-12	21-22	165'	11:30 am	VC	129	850°	1650				10:23	10:28	P F	
4-18-12	22-23	165'	11:40 am	VC	129	850°	1650				10:24	10:29	P F	
Total =			am pm										P F	

Air Test:

psi for

5

minutes-

5

psi loss allowed.

Tested By:

AS



Containment Systems Inc.

Project Name:
Project Manager:
Superintendent:
Reported By:

Primary

Secondary

Other:

Job#:

Material:

Yield Date	Seam No.	Seam Length	Time	Operator Name / ID#	Mach No.	Mach Temp	Mach Speed	Amb Temp	Test Date	Test Type	Time IN	Time Out	Test Results	D. S. Number (NOTES)
4-19-12	2-3	30'	7:00 7:05 am pm	JFA	129	850°	6.50	71.6	4-19-12	AT	10:39	10:44	P F	
4-19-12	1-4	38'	7:05 7:11 am pm	JFA	129	850°	6.50				10:40	10:45	P F	
4-19-12	12-5	22.5'	7:11 7:14 am pm	JFA	129	850°	6.50				10:41	10:46	P F	
4-19-12	12-6	22.5'	7:14 7:18 am pm	JFA	129	850°	6.50				10:51	11:01	P F	
4-19-12	12-7	22.5'	7:05 7:08 am pm	JFA	128	850°	6.50				10:57	11:02	P F	
4-19-12	11-8	38'	7:15 7:18 am pm	JFA	128	850°	6.50				11:05	11:05	P F	
4-19-12	9-10	30'	8:35 8:48 am pm	JFA	128	850°	6.50				11:05	11:05	P F	
4-19-12	23-24	16.5'	8:35 8:48 am pm	JFA	129	850°	6.50				11:04	11:09	P F	DS-4
4-19-12	21-25	11.5'	8:55 9:00 am pm	JFA	128	850°	6.50				11:04	11:10	P F	
4-19-12	25-26	4.5'	8:55 9:00 am pm	JFA	129	850°	6.50				11:05	11:11	P F	
4-19-12	26-27	4.5'	9:05 9:08 am pm	JFA	128	850°	6.50				11:06	11:11	P F	
4-19-12	27-28	2.3'	8:55 8:58 am pm	JFA	129	850°	6.50				11:07	11:12	P F	
4-19-12	29-30	2.3'	9:10 9:14 am pm	JFA	128	850°	6.50				11:13	11:18	P F	
4-19-12	30-31	4.5'	9:20 9:26 am pm	JFA	129	850°	6.50				11:14	11:19	P F	
4-19-12	31-32	6.7'	9:25 9:29 am pm	JFA	128	850°	6.50				11:15	11:20	P F	
4-19-12	32-33	6.7'	9:10 9:14 am pm	JFA	129	850°	6.50				11:16	11:21	P F	
4-19-12	33-34	4.5'	9:20 9:25 am pm	JFA	128	850°	6.50				11:23	11:28	P F	DS-5
4-19-12	34-35	2.3'	9:25 9:28 am pm	JFA	129	850°	6.50				11:24	11:29	P F	
4-19-12	36-37	2.3'	9:20 9:25 am pm	JFA	128	850°	6.50				11:25	11:30	P F	
4-19-12	37-38	4.5'	9:20 9:25 am pm	JFA	129	850°	6.50				11:26	11:31	P F	
4-19-12	38-25	4.5'	9:20 9:25 am pm	JFA	128	850°	6.50				11:31	11:36	P F	
Total =														

Air Test:

psi for

minutes-

psi loss allowed.

Tested By:

30 5 5



104

40 gird o/s, 1/10/57

Weld Date	Seam No.	Seam Length	Time	Operator Name / ID#	Mach No.	Mach Temp	Mach Speed	Amb Temp
4-9-12	28-29	30'	9:30 am 9:35 pm	V/C	128	850°	650	-71E N)
4-9-12	27-30	38'	9:33 am 9:38 pm	V/C	128	850°	650	
4-9-12	26-31	22.5'	9:38 am 9:41 pm	V/C	128	850°	650	
4-9-12	25-31	22.5'	9:41 am 9:44 pm	V/C	128	850°	650	
4-9-12	25-32	22.5'	9:44 am 9:50 pm	V/C	128	850°	650	
4-9-12	25-33	22.5'	9:51 am 9:53 pm	J/A	129	850°	650	
4-9-12	38-35	22.5'	9:53 am 9:57 pm	J/A	129	850°	650	
4-9-12	37-34	38'	9:57 am 9:59 pm	J/A	129	850°	650	
4-9-12	36-35	30'	9:59 am 9:48 pm	J/A	129	850°	650	↓
			am pm					
			am pm					
			am pm					
			am pm					
			am pm					
			am pm					
			am pm					
			am pm					
			am pm					
			am pm					
			am pm					
Total =			am pm					

Repair Log



60 MIL





Confinement Systems Inc.

Project Name: Spruce Creek pit
 Project Manager: _____
 Supintendent: VICTOR CASTILLOS

60 HDPE
 HDT
 PPR
 Other: _____

Date: 4-21-12
 Job#: _____
 Thickness: _____

Primary Secondary Other

VT=Vacum Test ST=Spark Test PT=Probe Test

Repair Number	Damage Code	Seam # or Panel #	Location	Date	Equip #	Operator	Repair Type	Approx. Size	Test Data		
									Test	Results	Date
1	T	1-2-4	X	4-21-12	82	AS	P	2x2	VT ST PT	(P) F	4-21-12
2	T	2-3-4	X	4-21-12	82	AS	P	2x2	VT ST PT	(P) F	
3	T	1-4-5	X	4-21-12	82	AS	P	2x2	VT ST PT	(P) F	
4	T	1-13-5	X	4-21-12	82	AS	P	2x2	VT ST PT	(P) F	
5	T	13-5-6	X	4-21-12	82	AS	P	2x3	VT ST PT	(P) F	
6	T	13-6-7	X	4-21-12	82	AS	P	2x3	VT ST PT	(P) F	
7	T	13-7-8	X	4-21-12	82	AS	P	2x2	VT ST PT	(P) F	
8	T	13-8-12	X	4-21-12	82	AS	P	2x3	VT ST PT	(P) F	
9	T	8-9-12	X	4-21-12	82	AS	P	2x2	VT ST PT	(P) F	
10	T	9-11-12	X	4-21-12	82	AS	P	2x2	VT ST PT	(P) F	
11	T	9-10-11	ATTENTION	4-21-12	82	AS	P	2x2	VT ST PT	(P) F	
12	B.O	21-22	ATTENTION	4-21-12	82	AS	P	2x2	VT ST PT	(P) F	
13	B.O	22-23	X	4-21-12	82	AS	P	2x2	VT ST PT	(P) F	
14	T	27-28-29	X	4-21-12	82	AS	P	2x3	VT ST PT	(P) F	
15	T	27-30-31	X	4-21-12	82	AS	P	2x2	VT ST PT	(P) F	
16	T	26-21-3	X	4-21-12	82	AS	P	2x2	VT ST PT	(P) F	
17	T	26-31-3	X	4-21-12	82	AS	P	2x3	VT ST PT	(P) F	
18	T	26-32-3	X	4-21-12	82	AS	P	2x2	VT ST PT	(P) F	
19	T	26-21-3	X	4-21-12	82	AS	P	2x3	VT ST PT	(P) F	
20	T	34-35-36	X	4-21-12	82	AS	P	2x2	VT ST PT	(P) F	
21	T	35-36-37	X	4-21-12	82	AS	P	3x3	VT ST PT	(P) F	
22	T	33-36-37	X	4-21-12	82	AS	P	2x2	VT ST PT	(P) F	
23	DS-1	5-6	ATTENTION	4-21-12	82	AS	P	2x5	VT ST PT	(P) F	
24	DS-2	16-17	ATTENTION	4-21-12	82	AS	P	2x5	VT ST PT	(P) F	
25	DS-3	19-20	ATTENTION	4-21-12	82	AS	P	2x5	VT ST PT	(P) F	
26	DS-4	24-25	ATTENTION	4-21-12	82	AS	P	2x5	VT ST PT	(P) F	
27	DS-5	33-34	ATTENTION	4-21-12	82	AS	P	2x5	VT ST PT	(P) F	
									VT ST PT	P F	

Vacum Test:

PSI for

Seconds.

Probe Test:

PSI.

Damage Codes:

Bo - Burn Out
 CR - Crease
 DS-# Destruct Sample
 EE - Earthwork Equipment Damage
 FM - Fish Mouth
 ES- Exposed Scrim

SI - Subgrade Irregularity
 RW- Roller Wrinkle in Seam
 WR - Wrinkle
 WS - Welder Restart
 BL - Blister
 T - Joint

Repair Types:

C - Cap Strip
 P - Patch
 B - Extrusion Bead

* TOS - Top of Slope
 ** BOS - Toe of Slope

40 MIL





Containment Systems Inc.

Project Name: Spring Creek Ref
 Project Manager: Victor Cavillas
 Supintendent: Victor Cavillas

HDPE
 40 HDT
 PPR
 Other: _____
 Date: 4-19-12
 Job#: _____
 Thickness: _____

Primary Secondary Other

VT=Vacum Test ST=Spark Test PT=Probe Test

Repair Number	Damage Code	Seam # or Panel #	Location	Date	Equip #	Operator	Repair Type	Approx. Size	Test Data		
									Test	Results	Date
1	T	1-2-3-4	X	4-19-12	82	AS	P	2'x3'	VT ST PT	P F	4-19-12
2	T	1-4-5-12	X	4-19-12	82	AS	P	2'x3'	VT ST PT	P F	4-19-12
3	T	5-6-12	X	4-19-12	82	AS	P	2'x2'	VT ST PT	P F	4-19-12
4	T	6-7-12	X	4-19-12	82	AS	P	2'x2'	VT ST PT	P F	4-19-12
5	T	7-8-11-12	X	4-19-12	82	AS	P	2'x2'	VT ST PT	P F	4-19-12
6	T	8-9-10-11	X	4-19-12	82	AS	P	2'x3'	VT ST PT	P F	4-19-12
7	T	25-26-31	X	4-19-12	82	AS	P	2'x3'	VT ST PT	P F	4-19-12
8	T	26-27-30-31	X	4-19-12	82	AS	P	3'x3'	VT ST PT	P F	4-19-12
9	T	27-28-29	X	4-19-12	82	AS	P	3'x3'	VT ST PT	P F	4-19-12
10	T	25-31-32	X	4-19-12	82	AS	P	2'x2'	VT ST PT	P F	4-19-12
11	T	25-32-33	X	4-19-12	82	AS	P	2'x2'	VT ST PT	P F	4-19-12
12	T	25-33-38	X	4-19-12	82	AS	P	2'x2'	VT ST PT	P F	4-19-12
13	T	33-34-37-38	X	4-19-12	82	AS	P	2'x3'	VT ST PT	P F	4-19-12
14	T	34-35-36-37	X	4-19-12	82	AS	P	3'x3'	VT ST PT	P F	4-19-12
15	DS-1	16-7	AT 25' NEOS	4-19-12	82	AS	P	2'x5'	VT ST PT	P F	4-19-12
16	DS-2	14-15	AT 70' NEOS	4-19-12	82	AS	P	2'x5'	VT ST PT	P F	4-19-12
17	DS-3	18-19	AT 80' NEOS	4-19-12	82	AS	P	2'x5'	VT ST PT	P F	4-19-12
18	DS-4	23-24	AT 60' NEOS	4-19-12	82	AS	P	2'x5'	VT ST PT	P F	4-19-12
19	DS-5	32-33	AT 26' EEOS	4-19-12	82	AS	P	2'x5'	VT ST PT	P F	4-19-12
									VT ST PT	P F	
									VT ST PT	P F	
									VT ST PT	P F	
									VT ST PT	P F	
									VT ST PT	P F	
									VT ST PT	P F	
									VT ST PT	P F	
									VT ST PT	P F	
									VT ST PT	P F	
									VT ST PT	P F	
									VT ST PT	P F	

Vacum Test: PSI for Seconds. Probe Test: PSI.

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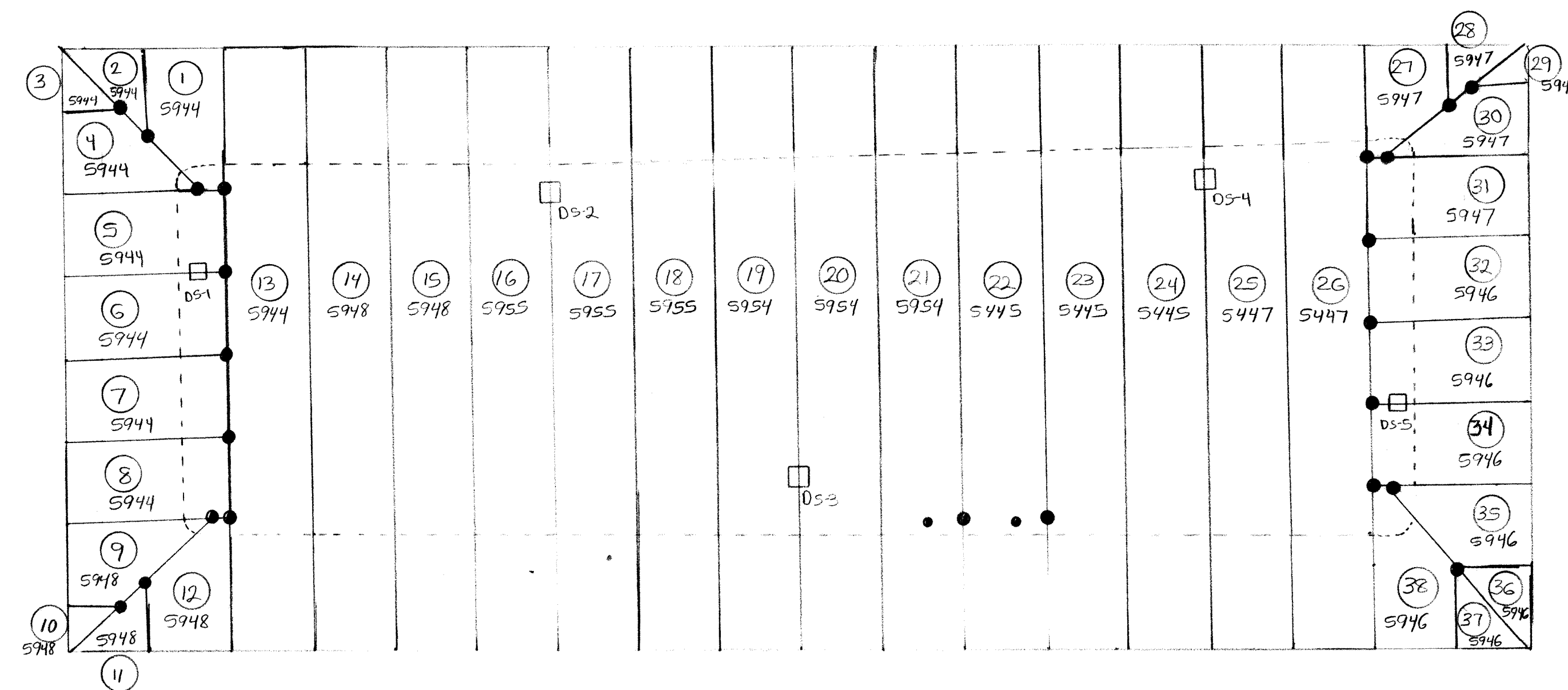
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 ** BOS - Toe of Slope

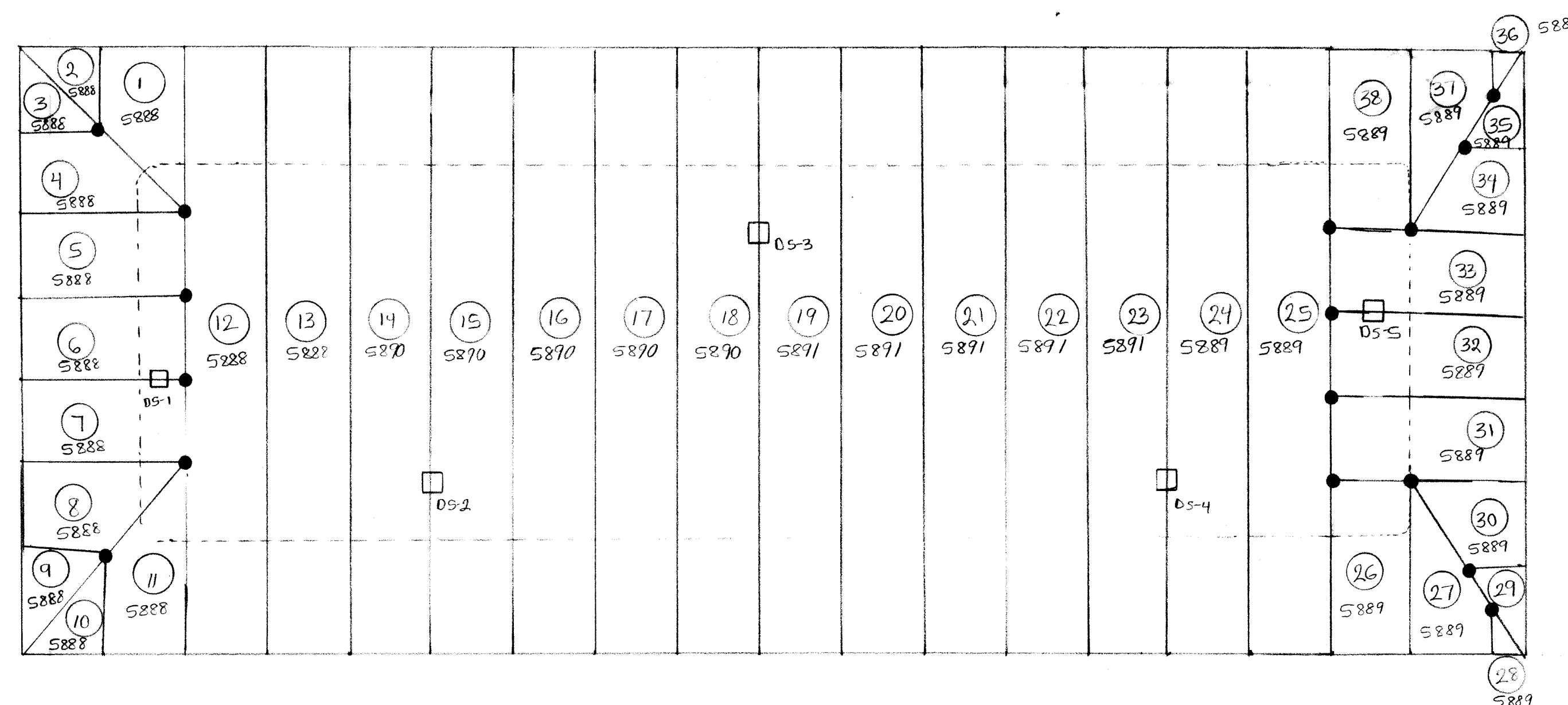
SPRUCE CREEK 14-4-794

PRIMARY 60 MIL D/S SMOOTH



- = DESTRUCTIVES
- ⊙ = PANEL NUMBER
- = PATCH'S
- D-1-23-4-5
6-7-8-9 = ROLL NUMBER

SECONDARY 40 MIL D/S SMOOTH



SCALE: 1" = 30'	APPROVED BY:	DRAWN BY: Victor
DATE: 05-04-12	REVISOR:	
D'E CONSTRUCTION		
14175 Ave. 244, Visalia, CA 93292		DRAWING NUMBER: 1-1