

## Ty Woodworth

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**From:** Ty Woodworth  
**Sent:** Monday, October 10, 2016 1:08 PM  
**To:** Hickey - DNR, Mike  
**Cc:** jason.gomez@state.co.us; Mark Tibbs; Steve Harris  
**Subject:** RE: Francis-Steckel #1 05-123-05553 Re-Entry  
**Attachments:** 20161010\_130200\_resized.jpg; 20161010\_130052\_resized.jpg

Got it. Will cement from 1423 to surface. We are now getting sand fines back, little to no reaction to HCl acid. Small amount of shale pieces. Pictures attached. It doesn't smell like cement anymore.

Thank you.

Sent from my Verizon 4G LTE smartphone

----- Original message -----

From: "Hickey - DNR, Mike" <michael.hickey@state.co.us>  
Date: 10/10/16 9:31 AM (GMT-07:00)  
To: Ty Woodworth <twoodworth@gwogco.com>  
Cc: jason.gomez@state.co.us, Mark Tibbs <mark\_t05@yahoo.com>, Steve Harris <sdharris@gwogco.com>  
Subject: Re: Francis-Steckel #1 05-123-05553 Re-Entry

That may have to do. You are below the aquifers. If nothing changes you may begin plugging there. We usually try to get a little deeper, but do not want to slide off the side of something left in the hole and start a new bore.

On Monday, October 10, 2016, Ty Woodworth <[twoodworth@gwogco.com](mailto:twoodworth@gwogco.com)> wrote:

10/8/16:

Drilled and tagged what seemed like metal object at 1236 ft. Torqued up with any weight on it. Reversed for a few minutes and got back small amounts rusty metal.

Worked with it and started making hole again.

Drilled to 1350 ft (over 4 hours this joint).

10/9/2016:

Very slow drill times - 12 ft in 2.5 hours.

Returns are looking like 50/50 cement/black shale, may have kicked off a bit (pic attached) .

POOH, bit covered in mud/clay.

RIH with notched collar, tag up same spot at 1370 ft.

Cant make hole by washing with notched collar.

Forecast:

Clean rig pit again. RIH w/ new tri-cone and see what new cuttings look like.

Mike – I can't believe we are still seeing cement this deep. I'm worried though now that with the increase in black shale cuttings that the metal at 1236 ft kicked us off a bit. Once we get some fresh cuttings I'll let you know what we find. If we are sidetracked I'm not sure if we are really set up to correct it or even know where to correct to, so we may have to look at other options.

Thanks.

**Ty Woodworth**

Production Engineering Lead

[twoodworth@gwogco.com](mailto:twoodworth@gwogco.com)

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**From:** Ty Woodworth  
**Sent:** Saturday, October 8, 2016 7:45 AM  
**To:** Hickey - DNR, Mike; [jason.gomez@state.co.us](mailto:jason.gomez@state.co.us)  
**Cc:** Mark Tibbs; Steve Harris; Ty Woodworth  
**Subject:** RE: Francis-Steckel #1 05-123-05553 Re-Entry

10/7/16 Update:

Drill to 1041 ft. Drill times very slow, POOH for bit check.

Bit OK but balled up with clay/mudcake. MU new 6-1/8" tri-cone.

RIH with same BHA (8 collars).

String rotated slightly left when running past 850 ft, but didn't take weight.

Drilled to 1105 ft taking samples every joint and drying samples, some black shale.

Decided to clean rig pit again and bring in all clean water so we can get good samples.

Clean hole w/ fresh.

Drilled to 1199 ft (joint #30) with varying drill times but still getting cement back. Verified by testing dried solid returns with HCl acid. Some black shale but average 85%+ cement returns (dissolved in acid).

(picture of dried returns attached)

Forecast: keep going slowly, still cant make hole by washing (9000 lb string weight). Some joints are fast, some are slow – maybe hitting cement stringers? Continue to monitor returns closely.

Holler with questions/concerns. Thnx.

**Ty Woodworth**

Production Engineering Lead

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**From:** Ty Woodworth  
**Sent:** Friday, October 7, 2016 8:07 AM  
**To:** Hickey - DNR, Mike; [jason.gomez@state.co.us](mailto:jason.gomez@state.co.us)  
**Cc:** Mark Tibbs; Steve Harris; Ty Woodworth  
**Subject:** RE: Francis-Steckel #1 05-123-05553 Re-Entry

Update 10/6/2016:

Drilled to 946 ft.

Drill times started getting faster at 850 ft with some torque.

Returns changed, stop for night to evaluate and discuss.

Cannot make hole by washing alone.

Cleaned rig pit and circ hole clean. Cleaned up good.

Dried returns solids in oven – still appears and smells to be cement. Must either have pumped more cement than noted or we are encountering stringers below the original plug. Old geology report indicates “sand/shale” at these depths. Solids in returns are dirty white and gray, no sand and no dark shale.

Plan today: continue slowly, monitoring returns. We had thought about POOH and RIH w/ notched collar but since we cant make hole without rotating we decided not to.

Let us know if you have any suggestions. Thanks,

**Ty Woodworth**

Production Engineering Lead

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**From:** Ty Woodworth  
**Sent:** Thursday, October 6, 2016 7:25 AM  
**To:** Hickey - DNR, Mike; [jason.gomez@state.co.us](mailto:jason.gomez@state.co.us)  
**Cc:** Mark Tibbs; Ty Woodworth; Steve Harris  
**Subject:** RE: Francis-Steckel #1 05-123-05553 Re-Entry

Mike/Jason,

10/5/2016 Update:

Drilled cement to 690 ft (BHA consists of 6-1/8" tri-cone and 8 3.5" drill collars).

Fighting paper in returns plugging up suction on pump.

Very small amounts of what appears to be 'formation' from 445' to 690'.

Returns are still 95%+ cement (not seeing increasing amount of formation).

Forecast: Clean up working tank and bring in new water. Continue drilling easy monitoring returns closely.

(A hard tag wasn't really encountered until the shoe at 411' so the plug may have fell when pumped. Total plug length should be approx 350 ft if 100 sx was really pumped inside 7-7/8 hole, so the bottom of the plug may be 411+350= approx 761 ft.)

Holler with questions/concerns. Thnx.

**Ty Woodworth**

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**From:** Ty Woodworth  
**Sent:** Wednesday, October 5, 2016 7:34 AM  
**To:** 'Hickey - DNR, Mike'; [jason.gomez@state.co.us](mailto:jason.gomez@state.co.us)  
**Cc:** Mark Tibbs; Ty Woodworth  
**Subject:** RE: Francis-Steckel #1 05-123-05553 Re-Entry

10/4/2016 Update:

Drilled 6 ft cement at surface, fell through.

Tag 345 ft.

Wash light cement/mud to 411 ft.

Drill cement 411 ft to 445 ft (cement getting harder).

SDFN.

Forecast: continue drilling cement. Bottom of plug expected to be approx. 654 ft. Will monitor returns closely.

### **Ty Woodworth**

Production Engineering Lead

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**From:** Hickey - DNR, Mike [<mailto:michael.hickey@state.co.us>]

**Sent:** Monday, October 3, 2016 2:49 PM

**To:** Ty Woodworth

**Cc:** [jason.gomez@state.co.us](mailto:jason.gomez@state.co.us)

**Subject:** Re: Francis-Steckel #1 05-123-05553 Re-Entry

Thanks.

Michael J. Hickey PE

Northeast Region Engineer



Colorado Oil & Gas Conservation Commission

(303) 894-2100 ext. 5105 (o)

[mike.hickey@state.co.us](mailto:mike.hickey@state.co.us)

On Mon, Oct 3, 2016 at 1:19 PM, Ty Woodworth <[twoodworth@gwogco.com](mailto:twoodworth@gwogco.com)> wrote:

Jason,

We will be rigging up on the Francis-Steckel #1 (05-123-05553) re-entry and abandonment tomorrow. We are cutting the cap off and stuff today. This was an open hole abandonment from the 50s and we will be attempting to get down to place a Nio plug by circulating after we drop out of cement, not rotating.

**Ty Woodworth**

Production Engineering Lead

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