Guide to Creating Plugging Procedures in NorthSTAR

V1.0 01.27.2020

How to Get Started

 Log into NorthSTAR using Microsoft Edge, Google Chrome, or Firefox. URL: <u>https://northstar.dmr.nd.gov</u>

(STREE)		
	NorthSTAR Login	
	Password *	
	I have read and accept the Privacy Notice of Collection * Login	
	I forgot my pessword Register New Organization	

To begin a sundry for the intent to plug & abandon a well:

- Select [Forms] and [Online Forms] from the options at the top of the page.
- Select [Sundry].
- Select [Well] for Sundry Type and / or Facility Type.
- Select [Request To] and [Plug & Abandon].
- Fill out any other required fields. The *Due Date* is the date your organization requesting the form be reviewed by.

Except in emergency situations and other unexpected events, please allow at least 4-5 business days after the sundry has been submitted for P&A procedures to be reviewed and processed.

After review the sundry may be returned to the operator to make changes to the original proposal prior to the sundry being approved.

â	Explore Data	Forms 🔶 Maps	
	Home	Online Forms 🔶	L Hello Jonathan Rumppe, North Dakota Oil & Gas Division ↔

Operator Information

Contacts added to the sundry will be alerted by email when the status of the sundry changes.

Users may add a contact by selecting [Actions] and [Add Contact].

- To add a contact that is already in the NorthSTAR system, find their *Contact Role* and name in the drop down menus.
- To add a contact that is not in the NorthSTAR system, uncheck the box titled [Is this contact already in NorthSTAR?] and fill out all required fields.

Operator Information				[Hide Form Navigation]
Please confirm the corre contact(s) with their corr as a contact.	ect Organization has be ect role. By default, the	een selected, and designate e form submitter is selected	* Indic	cates Required Field
Organization Name		Type of Orga	inization	
SMITH & SONS, LLC		LLC		
Organization Primar 123 3RD AVE E WILLISTON, ND 5880	y Address			
Organization Primar (XXX) XXX-XXXX	y Phone Number	Ext		
Contacts				
			▼ Advanced Filtering	g Actions -
Name 🕇	Phone Number	Email	Role	🖌 Add Contact 🗲
John Smith	(XXX) XXX-XXXX	john.smith@hotmail.com	Submitter	Export - Excel Export - PDF

dd Contact		×		
* In	idicates Required Fie	eld		
Is this contact already in Nor	thSTAR?	Ext		
Contact Role*				
	*			
Find Person			▼ Advanced Filtering	Actions +
			Role	Actions
Contact Name *				Actions
Phone Number*			Submitter	
Email*				
	Cancel Save	e		

Facility Information

The user may search for the well in the top table using many different criteria, including well file no., well name, well type, etc.

- Use the [Advanced Filtering] button to narrow search criteria even further.
- Some additional search fields, such as County, are available by clicking the [*Gear lcon*] and selecting the field you wish to add.

The user must add a well as the subject of the sundry by selecting it in the top table and clicking the down arrow symbol [v]. This will move the well into the table below.

ility Information							[Hide Form N	laviga
Associated We	H							
		Advanced	Filtering	Actions	; -	Searc	⊠ API	¢
API 🕇	File No.	Well Name	Well Type		We Sta	ell atus	✓ File No. ✓ Well Name	
xxxxxxx xxxxx		WELL NAME	Water I	njection	Ab (Sł Mo	andoned nut-In > 1 nths)	 ✓ Well Type ✓ Well Status 	
		1					County	1
							☑ Field	
							□ PLSS	
							□ Sec	
							🗆 Twp	
							Rng	
							□ Spud	

Sundry Data – The Basics

The *Work Date* is the date that the operator plans to start operations related to the sundry.

Some information about the wellbore will already be populated in the tables. If a piece of information appears to be inaccurate, please review the well file prior to making any changes.

Table Descriptions:

- <u>Wellbore Information</u> lists the openhole record of the wellbore. Missing or inaccurate records will require additional paperwork to update.
- <u>Wellbore Construction Feature</u> itemizes the objects inside the wellbore. **Features** may also be proposed on the sundry. Missing **Features** may be added here.
- <u>Cement Segment</u> is a description of the cement inside and behind casing.
 <u>Cement segments</u> may also be proposed on the sundry. <u>Cement Segments</u> must have an <u>Associated Feature</u>. Missing <u>Cement Segments</u> may be added here.
- <u>Cement Class</u> is a description of the cement from the **Cement Segments** table. The cement class must have an associated **Cement Segment**. Missing **Cement Class** information may be added here.
- <u>Completion Intervals</u> and <u>Completion Open Hole or Perforations</u> should already be filled out. Missing records may be added.

The tables may be formatted to a better size using the [*Hide Form Navigation*] button.

Information may be added to each table by clicking on [*Actions*] at the top of the table and selecting [*Add New*].

Information regarding a *Feature, Cement Segment, Cement Class, Completion Interval, or Completion Open Hole or Perforations* may be edited by clicking [*Actions*] for the specific item and [*Edit Record*].

Items added by the user on this sundry will have a *New Record Status*. These items may also be deleted by the user by clicking on [*Actions*] for the specific item and selecting [*Delete Record*].

Example P&A Procecure

- 1. Do One-Call prior to going to well. Notify NDIC 24 hours prior to commencing work. (Jon Rumppe@ 701-XXX-XXXX).
- 2. Prepare location for workover. MIRU pulling unit. Discuss scope of work to be performed at this time.
- 3. Dig out surface casing valve and bleed off.
- 4. Bleed off well through hot oil truck.
- 5. ND wellhead. NUBOP.
- 6. Trip in hole with 2 7/8" workstring, bit and scraper for 7" casing to $\pm 8,050$ ' (Cement retainer). Circulate well with clean, 10 ppg SW. Trip out of hole with tubing, bit, and scraper.
- 7. Rig up wireline unit. Run cement bond log from 8,050' to Top of Cement. Trip out of hole and rig down wireline unit.
- 8. Trip in hole with workstring and sting into retainer. Establish injection rate. Rig up cement equipment. Mix and pump 100 sks Class G cement. Squeeze 90 sks into formation and leave 10sks on CICR. Rig down cement equipment.
 - a. If unable to establish injection rate, spot 45sks class G cement on top of CICR.
- 9. Pick up to ±6,223' (Spearfish at ±6,173') and pump a balanced cement plug of 50sks of class G cement.
- 10. Pick up to $\pm 4423'$ (Mowry at $\pm 4,373'$). Pump a balanced cement plug of 50sks of class G cement. Trip out of hole with tubing.
- 11. Rig up electric line. Run in hole with perforating gun and shoot 4 squeeze holes at 672' (50' below surface casing shoe). Trip out of hole with perforating gun. Rig down electric line unit.
- 12. Trip in hole with tubing and CICR. Set retainer @ 572ft (50ft above surface shoe). Establish injection rate. Mix & pump 100sks neat G cement. Squeeze 90sks into perfs. Leave 10sks on top of retainer. Rig down cement equipment. TOOH w/ tubing & stinger.
- 13. Trip in hole picking up mechanical cutter and 2jts tubing. Rig up swivel and tie in pump. Apply pressure to tubing to activate cutter. Rotate tubing to cut casing. After indication cut is successful rig down pump and swivel. Lay down tubing. ND BOP and NU WH. Break circulation out of surface casing. Mix and pump 30sks Class G cement to cut a 60'(surface plug). Rig down cement equipment.
- 14. RDMO
- 15. Dig out wellhead and cut off casing 4' below ground level. Weld ¹/₂" steel cap on casing with well file number and date inscribed. Dig out deadmen.
- 16. Submit notice of intent to reclaim to Cody Vanderbusch prior to reclamation.
- 17. Submit Form 7 Plugging Report.

Sundry Data – Adding Proposed Cement Squeeze for Existing Perforations

Proposed features for a cement squeeze may include: Cast Iron Bridge Plug, Perforations, Cement Squeeze, Cement Retainer.

In order to add a proposed cement squeeze, select [Actions] and [Add Feature]:

- Add a [Cement Squeeze] Feature.
- Construction Status will be [Not Installed].
- *Wellbore Start* and *Wellbore End* will be [*VerticalHole1*] because the item is inside the vertical section of the wellbore below the *SurfaceHole1* depth.
- *Feature Bottom MD (ft)* will be the bottom lowest perforation depth for the cement squeeze (see diagram in the next section).
- Feature Top MD (ft) will be the proposed top of cement. 10sks will leave an estimated 56ft of cement on top of the Cement Retainer.

						▼ Advance	d Filtering	Actions 🗸 🤻
	Install	Record	Feature Top	Feature Bottom	Outside Diameter (decimal	Formation		Add Feature
Feature ID	Status	Status	MD (ft) 🕇	MD (ft)	inches)	Isolated	Actions	Export - Excel
Production Casing 1	Installed	Current	0	8262			Actions	
Surface Casing 1	Installed	Current	0	622			Actions+	
Cement Squeeze 1	Installed	Current	3959	3990			Actions	- C
Cement Retainer 1	Installed	Current	8050	8051			Actions	

Cement Squeeze New New New New New New New New New N	
Wellbore Start * Wellbore End * VERTICALHOLE 1 VERTICALHOLE	
Wellbore Start*③ Wellbore End*③ VERTICALHOLE 1 ✓ VERTICALHOLE 1 ✓	
VERTICALHOLE 1	
Fortune Ten ND Fortune Define ND Outside Dismotor Incide Dism	•
(ft)* (ft)* (decimal inches) (decimal in	neter ches)
7994 🛑 8320 🛑	
Weight (lbs) Grade/Type Burst Pressure (psi)	
Feature Condition Install Date Remove Date	
▼	白
Pulled Connection Type Formation Isolated	
👻 👻 Madison Group 🔶	•
Description	
	-

						▼ Advance	d Filtering Actions	•
Feature ID	Install Status	Record Status	Feature Top MD (ft) ↑	Feature Bottom MD (ft)	Outside Diameter (decimal inches)	Formation Isolated	Actions	
Production Casing 1	Installed	Current	0	8262			Actions	~
Surface Casing 1	Installed	Current	0	622			Actions-	
Cement Squeeze 1	Installed	Current	3959	3990			Actions-	+
Cement Squeeze 2	Not Installed	New	7994	8320			Actions-]
Cement Retainer 1	Installed	Current	8050	8051			Actions-	

Item installed in Dec 1980 to TA well

Proposed cement squeeze w/ 10sks on top of Cement Retainer

Previous remedial cement squeeze

Sundry Data – Adding Proposed Balanced Plugs Across Spearfish & Mowry

Proposed features for balanced plugs may include: Cast Iron Bridge Plug & Balanced Plug.

In order to add the balanced plug features, for each feature select [*Actions*] and [*Add Feature*]:

- Add [Balanced Plug] Features.
- Construction Status will be [Not Installed].
- *Wellbore Start* and *Wellbore End* will be [*VerticalHole1*] because the item is inside the vertical section of the wellbore below the *SurfaceHole1* depth.
- Feature Bottom MD (ft) will be the depth of the end of tubing.
- Feature Top MD (ft) will be the calculated cement top for the balanced plug.

						▼ Advance	d Filtering	Actions -
	Install	Record	Feature Top	Feature Bottom	Outside Diameter (decimal	Formation		Add Feature
Feature ID	Status	Status	MD (ft) 🕇	MD (ft)	inches)	Isolated	Actions	
Production Casing 1	Installed	Current	0	8262			Actions	() Î
Surface Casing 1	Installed	Current	0	622			Actions	s
Cement Squeeze 1	Installed	Current	3959	3990			Actions	61
Cement Retainer 1	Installed	Current	8050	8051			Actions	

Feature *			Construction St	tatus*	Record Status	o required i
Balanced Cement Plug	+	•	Not Installed	← •	New	
Wellbore Start * 🕲			Wellbore End*	8		
		•	VERTICALHOLE 1			•
Feature Top MD (ft) *	Featur (ft) *	re Bottom MD	Outside Diameter (decimal inches)		Inside Diameter (decimal inches)	
5963 🔶	6223	3 🔶				
Weight (Ibs)	Grade/Type		Burst	Pressure (psi)		
			•			
Feature Condition		Install Date		Remo	ve Date	
	*		ä			Ċ.
Pulled	Conne	action Type		Forma	tion Isolated	
•			•	Spea	arfish Fm. 🗲	•
Description						
50sk class G cement balan	iced plug.	260ft in 7in 23ppf ca	ising.			

					* Indicates	Required F		
Feature *			Construction St	atus *	Record Status			
Balanced Cement Plug	←	•	•		New			
			Not Installed	•				
Wellbore Start * 🖯			Wellbore End *	9				
	VERTICALHOLE 1 🔶				VERTICALHOLE 1			
Feature Top MD (ft) *	Featu (ft) *	re Bottom MD	Outside Diamete (decimal inches	er)	Inside Diameter (decimal inches)		
4163 🔶	442	3 🔶						
Weight (Ibs)		Grade/Type		Burst Pressure (psi)				
			▼					
Feature Condition		Install Date		Remove Date				
	•		*** •••					
Pulled	Conne	ection Type		Formatio	n Isolated			
•			•	Dakota	Group 🔶	•		
Description								
50sk neat G balanced plug	. 260ft in	7in 23ppf casing 🔸	_					
·								

Wellbore Construction Feat	ure							
						T Advanced	Filtering Actions -	\$
Feature ID	Install Status	Record Status	Feature Top MD (ft) ↑	Feature Bottom MD (ft)	Outside Diameter (decimal inches)	Formation Isolated	Actions	
Production Casing 1	Installed	Current	0	8262			Actions	^
Surface Casing 1	Installed	Current	0	622			Actions-	
Cement Squeeze 1	Installed	Current	3959	3990			Actions-	
Balanced Cement Plug 2	Not Installed	New	4163	4423		Dakota Group	Actions-]
Balanced Cement Plug 1	Not Installed	New	5963	6223		Spearfish Fm.	Actions-)
Cement Squeeze 2	Not Installed	New	7994	8320			Actions-	

Sundry Data – Adding Proposed Cement Squeeze @ Surface Shoe

Proposed features for proposed cement squeezes may include: Cast Iron Bridge Plug, Cement Retainer, Cement Squeeze, and Perforations.

In order to add proposed perforations and cement retainer features, for each feature select [*Actions*] for the table and [*Add Feature*]:

- Add [Perforations], [Cement Retainer], and [Cement Squeeze] Features.
- Construction Status will be [Not Installed].
- Wellbore Start and Wellbore End will be [VerticalHole1] or [SurfaceHole1] depending on whether the Feature starts or ends above or below the SurfaceHole1 depth.
- Feature Bottom MD (ft) and Feature Top MD (ft) will be the proposed bottom and top of the Feature.

						▼ Advance	d Filtering	Actions 🗸 🤽
Feature ID	Install Status	Record Status	Feature Top MD (ft) ↑	Feature Bottom MD (ft)	Outside Diameter (decimal inches)	Formation Isolated	Actions	Add Feature
Production Casing 1	Installed	Current	0	8262			Actions	•
Surface Casing 1	Installed	Current	0	622			Actions-	
Cement Squeeze 1	Installed	Current	3959	3990			Actions	6
Cement Retainer 1	Installed	Current	8050	8051			Actions	

Feature *			Construction St	atus *	Record Status		
Perforation		•	0		New		
			Not Installed				
Wellbore Start * 🕄			Wellbore End * 🕄				
VERTICALHOLE 1 🔶			VERTICALHOL	.E 1 🗲	-	•	
Feature Top MD Featur ft) * (ft) *		re Bottom MD	Outside Diamete (decimal inches	ər)	Inside Diameter (decimal inches)		
672 🔶	673	←					
Weight (Ibs)		Grade/Type		Burst	Pressure (psi)		
			•				
Feature Condition		Install Date		Remo	ve Date		
	•					**	
Pulled	Conne	ection Type		Forma	ation Isolated		
•			•			•	
Description							
4spf perforations 50ft bel	ow surface	shoe for cement squ	eeze 🔶				

Indie Construction Fe						
					 Indicates Re 	quired I
Feature *			Construction St	atus *	Record Status	
Cement Retainer		•	Not Installed		New	
			The mathematical			
Wellbore Start * 😡			Wellbore End*	9 = 1 4		
SURFACEHOLE 1	-	•	SURFACEHOL	E1		•
Feature Top MD (ft)*	Featur (ft) *	e Bottom MD	Outside Diamete (decimal inches	ər)	Inside Diameter (decimal inches)	
572 🔶	573	←]				
Weight (Ibs)		Grade/Type		Burst	Pressure (psi)	
			•			
Feature Condition		Install Date		Remo	ve Date	
	•					
Pulled	Conne	ction Type		Forma	tion Isolated	
•			*			*
Cement retainer for base	of surface c	asing squeeze. 100	ft above perforations	and 50ft a	above surface shoe,	Sa
Cement retainer for base	of surface c	asing squeeze, 100	ft above perforations	and 50ft a	above surface shoe.] ← Cancel	San San
Cement retainer for base of Ibore Construction Fe	of surface c	asing squeeze. 100	ft above perforations	and 50ft a	above surface shoe.	Sa
Cement retainer for base of bore Construction Fe	of surface c	asing squeeze, 100	Construction Sta	and 50ft a	above surface shoe, Cancel Indicates Rec Record Status New	quired F
Cement retainer for base of Ibore Construction Fe	of surface c	asing squeeze. 100	Construction Sta Not Installed	and 50ft a atus *	Above surface shoe, Cancel * Indicates Rec Record Status New	quired F
Cement retainer for base of Ibore Construction Fe Feature * Cement Squeeze	of surface c	vasing squeeze, 100	Construction Sta Not Installed Wellbore End *	and 50ft a atus *	Above surface shoe, Cancel * Indicates Rec Record Status New	quired F
Cement retainer for base of Ibore Construction Fe Feature * Cement Squeeze Wellbore Start * ③ SURFACEHOLE 1 ←	of surface c	asing squeeze, 100	ft above perforations Construction Sta Not Installed Wellbore End * VERTICALHOL	atus *	above surface shoe, Cancel * Indicates Rec Record Status New	quired F
Cement retainer for base of Ibore Construction Fe Feature * Cement Squeeze Wellbore Start * SURFACEHOLE 1 Feature Top MD ft) *	eture Feature (ft) *	asing squeeze. 100 ▼ ■ ■ ■ ■ ■ ■ ■ ■ ■	ft above perforations Construction Sta Other Not Installed Wellbore End VERTICALHOL Outside Diamete (decimal inches)	and 50ft a atus * E 1	above surface shoe. Cancel Cancel Indicates Rec Record Status New Inside Diameter (decimal inches)	quired F
Cement retainer for base of libore Construction Fe ceature * Cement Squeeze Velibore Start * SURFACEHOLE 1 ceature Top MD ft) * 516 516	Feature Feature (ft) * 672 •	vasing squeeze. 100 v v e Bottom MD ←	tt above perforations Construction Sta Outside Diamete (decimal inches)	and 50ft a atus * E 1 ←	Above surface shoe.	quired F
Cement retainer for base of Ibore Construction Fe Feature * Cement Squeeze Wellbore Start * SURFACEHOLE 1 Feature Top MD ft) * 516 Weight (lbs)	Feature (ft) * 672 •	asing squeeze, 100 asing squeeze, 100 asing squeeze, 100 asing squeeze, 100 asing sq	tt above perforations Construction Sta Outside Diamete (decimal inches)	and 50ft a atus * E 1 ← Burst I	Above surface shoe.	quired F
Cement retainer for base of Ibore Construction Fe Feature * Cement Squeeze Wellbore Start * SURFACEHOLE 1 Feature Top MD ft) * 516 Weight (lbs)	Feature (ft) * 672 <	e Bottom MD Grade/Type	ft above perforations Construction Sta Outside Diamete (decimal inches)	and 50ft a atus * E 1 ← Pr Burst I	above surface shoe.	quired F
Cement retainer for base of lbore Construction Fe Feature * Cement Squeeze Velibore Start * SURFACEHOLE 1 Feature Top MD ft) * 516 Veight (lbs) Feature Condition	Feature Feature (ft) * 672	asing squeeze. 100	tt above perforations Construction Sta Construction Sta Not Installed Wellbore End VERTICALHOL Outside Diamete (decimal inches)	and 50ft a atus * E 1 ← Burst I Remov	Above surface shoe.	
Cement retainer for base of Ibore Construction Fe Feature * Cement Squeeze Nellbore Start * SURFACEHOLE 1 Feature Top MD ft) * 516 Neight (lbs) Feature Condition	Feature (ft)* 672 <	e Bottom MD	tt above perforations Construction Sta Other State Not Installed Wellbore End VERTICALHOL Outside Diamete (decimal inches)	and 50ft a atus * E 1 ← Burst 1 Remov	above surface shoe.	quired F

100sks G cement. 90sks below CICR @ 572ft & 10sks on top to isolate across surface shoe

Cancel

Save

Description

Wellbore Construction Fea	ture							
						▼ Advanced	d Filtering Actions -	\$
Feature ID	Install Status	Record Status	Feature Top MD (ft) ↑	Feature Bottom MD (ft)	Outside Diameter (decimal inches)	Formation Isolated	Actions	
Production Casing 1	Installed	Current	0	8262			Actions-	^
Surface Casing 1	Installed	Current	0	622			Actions-	
Cement Squeeze 3	Not Installed	New	516	672			Actions-]
Cement Retainer 2	Not Installed	New	572	573			Actions-)
Perforation 1	Not Installed	New	672	673			Actions-]
Cement Squeeze 1	Installed	Current	3959	3990			Actions-	
Balanced Cement Plug 2	Not Installed	New	4163	4423		Dakota Group	Actions-	

Sundry Data – Adding Proposed Casing Cut and Surface Plug

Proposed features for surface plugs may include: Perforation, Cut, Cut and Pull, and Surface Plug.

In order to add the surface plug features, for each *Feature* select [*Actions*] and [*Add Feature*]:

- Add [Cut] and [Surface Plug] Features.
- Construction Status will be [Not Installed].
- *Wellbore Start* and *Wellbore End* will be [*SurfaceHole1*] because the items are above the *SurfaceHole1* depth.
- Feature Bottom MD (ft) and Feature Top MD (ft) will be the proposed bottom and top of the Feature.

Wellbore Construction Feature										
						▼ Advanced Filtering		Actions 🗸		
			Feature	Feature	Outside			Add Feature		
Feature ID	Install Status	Record Status	Top MD (ft) ↑	Bottom MD (ft)	(decimal inches)	Formation Isolated	Actions	Export - Excel		
Production Casing 1	Installed	Current	0	8262			Actions-			
Surface Casing 1	Installed	Current	0	622			Actions-			
Cement Squeeze 1	Installed	Current	3959	3990			Actions			
Cement Retainer 1	Installed	Current	8050	8051			Actions			

Feature *			Construction St	atus *	Record Status		
Cut 🔶		•	0		New		
			Not Installed	- •]			
Wellbore Start * 🕄			Wellbore End * 🕲				
SURFACEHOLE 1 🔶 🔻			SURFACEHOL	E 1 🔶		•	
Feature Top MD (ft) [#]	Featu (ft) *	re Bottom MD	Outside Diameter (decimal inches)		Inside Diameter (decimal inches)		
60 🔶	61	←					
Weight (Ibs)		Grade/Type			Burst Pressure (psi)		
			*				
Feature Condition		Install Date		Remo	ve Date		
	•						
Pulled	Conne	ection Type		Forma	ation Isolated		
•			•			•	
Description							
Casing cut for surface plug	. 60ft belo	w GL. No casing rec	overy.				

					indicates Re	equired P		
Feature *			Construction	Status *	Record Status			
Surface Plug 🔶		•	Not Installed		New			
Wellbore Start * 🔂			Wellbore End * ()					
SURFACEHOLE 1	SURFACEHOLE 1 🔶			SURFACEHOLE 1 ←				
Feature Top MD Feature Bottom MD (ft) *		re Bottom MD	Outside Diam (decimal inch	ieter ies)	Inside Diameter (decimal inches)			
0 🔶	61 ◄	←						
Weight (Ibs)		Grade/Type		Burs	t Pressure (psi)			
Feature Condition		Install Date	•	Rem	ove Date			
	•		** 1		ove Bute	H		
Pulled	Conne	ection Type		Form	nation Isolated			
•			•			•		
Description								
Estimated 30sk neat G o	cement surfa	ce plug thru casing o	cut @ 60ft 🗲					

Wellbore Construction Feat	Wellbore Construction Feature									
						▼ Advanced Filtering Actions -				
Feature ID	Install Status	Record Status	Feature Top MD (ft) ↑	Feature Bottom MD (ft)	Outside Diameter (decimal inches)	Formation Isolated	Actions			
Production Casing 1	Installed	Current	0	8262			Actions-	^		
Surface Casing 1	Installed	Current	0	622			Actions-			
Surface Plug 1	Not Installed	New	0	61			Actions-			
Cut 1	Not Installed	New	60	61			Actions-			

Sundry Data – Adding Cement Segments

Cement Segments must have an associated *Feature* from the *Wellbore Construction Feature* table.

To add **Cement Segments**, for each **Segment** select [Actions] and [Add Cement Segment]:

- For cement squeezes on production / injection intervals or balanced plugs, select [Inside] for Inside / Outside Casing?
- For cement squeezes due to inadequate casing cement (where cement is planned to be squeezed inside and behind casing), select [N/A] for Inside / Outside Casing?
- The *Top* and *Bottom* of the *Cement Segment* will be the same depths as the *Associated Features*.
- Details about a multi-stage cement job can be accounted for in the *Cement Classes* section.

Cement Segmer	nt							
						▼ Advanc	ed Filtering	Actions 🗸
Segment ID	Associated Feature †	Install Status	Record Status	Top MD (ft)	Botto (ft)	om MD	Actions	Add Cement Segment
C4	Balanced Cement Plug 1	Not Installed	New	5963	6223		Actions	Export - Excel
C5	Balanced Cement Plug 2	Not Installed	New	4163	4423		Actions	÷
C3	Cement Squeeze 2	Not Installed	New	7994	8320		Actions	•**
C6	Cement Squeeze 3	Not Installed	New	516	672		Actions	•
C2	Production Casing 1	Installed	Current	3491	8262		Actions	•
C1	Surface Casing 1	Installed	Current	0	622		Actions	->

ement Segment				>
			* Indicates R	equired Field
Associated Feature *	Inside/Outside	Constructio	on Status * 🕒	
Cement Squeeze 2 🔶 🗖	Casing?*	Not Instal	led	•
		•		
Record Status	Top MD (ft)	Bo	ottom MD (ft)	
New	7994 🔶	4	8320 🔶	
Verify Method		Cementing Compar	ıy	
	•	Altcem 📥		×
Install Date		Remove Date		
Description				
Cement squeeze on Madiso	n Group OH from 8271-8	230ft. CICR @ 8050ft	w/ 10sks (56ft) on top	of
			Canc	el Save

Cement Segment			×
		* Indicat	es Required Field
Associated Feature *	Inside/Outside	Construction Status * 🕄	
Balanced Cement Plu		Not Installed	•
Record Status	Top MD (ft)	Bottom MD (ft)	
New	5963 🔶	6223 🔶	
Verify Method	Ce	menting Company	
	•	ALTCEM 🗲	
Install Date	Re	move Date	
Description			
50sk (260ft) balanced plug from	50ft below top of Spearfi	sh 🗲	
		C	Cancel Save

Cement Segment						×
				* Indica	ates Required	l Field
Associated Feature *	Inside/Outside		Constru	iction Status * 🔒		
Balanced Cement Plu		•	Not In:	stalled	•	
Record Status	Top MD (ft)		Bottom MD (ft)			
New	4163 🔶			4423 🔶		
Verify Method		Cemen	ting Com	pany		
	•	ALTC	EM 🔶			
Install Date		Remov	e Date			
Description						
50sk (260ft) balanced plug from 5	0ft below top of Da	kota Mow	vry 🔶			
					Cancel	Save

				^ Inc	dicates Required	
Associated Feature *	Inside/Outside	Inside/Outside Co Casing?*		Construction Status *		
Cement Squeeze 3 🔶 🔻				Not Installed		
	N/A 🖛	▼				
Record Status	Top MD (ft)			Bottom MD (ft)		
New	516 🔶			672 🔶		
Verify Method		Ceme	enting Co	ompany		
	•	ALT	СЕМ ┥	-		
Install Date		Remo	ove Date			
Description						
Cement squeeze to cover ba	ase of surface casing @	622ft. (CICR @ 5	572ft w/ 10sks (56ft)	on top of CICR <	

Cement Segment						
					▼ Advanced	Filtering Actions -
Segment ID	Associated Feature ↑	Install Status	Record Status	Top MD (ft)	Bottom MD (ft)	Actions
C4	Balanced Cement Plug 1	Not Installed	New	5963	6223	Actions-
C5	Balanced Cement Plug 2	Not Installed	New	4163	4423	Actions-
СЗ	Cement Squeeze 2	Not Installed	New	7994	8320	Actions-
C6	Cement Squeeze 3	Not Installed	New	516	672	Actions-
C2	Production Casing 1	Installed	Current	3491	8262	Actions-
C1	Surface Casing 1	Installed	Current	0	622	Actions

Sundry Data – Adding Cement Classes

Cement Classes must have an associated *Cement Segment* from the *Cement Segment* table.

To add Cement Classes select [Actions] and [Add Cement Segment]:

- Select the [Associated Cement Segment] from the list.
- Select the [Cement Type] from the list.
- Add all other pertinent information about the *Cement Segment* in the spaces provided.
- Multiple Cement Classes (e.g. stages) can be associated with a single Cement Segment. An example of this is choosing a lead and tail Cement Class for a single Cement Segment.

Associated Ceme	ent Segment *	Cement Type	*	Construction Status *	0
C3 🔶	•	Class G Cerr	nent 🔶 🔹	Not Installed	•
Record Status	Compressive Str	ength (psi)	Weight (Ibs/gal)	Slurry Cons	sistency (Bu)
New			15.8 ←		
Lead/Tail		Volume (Sack	s)	Yield (cu ft per sack)	
Single ←	•	100 🔶		1.15	
Description					
100sk squeeze on	OH interval from 827	71-8320ft 🔶			

ement Class						×
				* Inc	licates Required	d Field
Associated Ceme	ent Segment *	Cement Type *		Construction Status	* 🖯	
C4 ←	•	Class G Ceme	ent 🔶 🔹	Not Installed	•	
Record Status	Compressive Stre	ength (psi)	Weight (lbs/gal)	Slurry Con	sistency (Bu)	
New			15.8 ←			
Lead/Tail		Volume (Sacks)	Yield (cu ft per sack)		
Single ←	•	50 🔶		1.15 🔶		
Description						
50sk balanced plu	ig across Spearfish to	p 🔶				
					Cancel	Save

Cement Class						×
				* Ind	licates Required	d Field
Associated Ceme	ent Segment *	Cement Type *		Construction Status	•	
C4 🔶	•	Class G Ceme	ent 🔶 🔹	Not Installed	•	
Record Status	Compressive Str	ength (psi)	Weight (lbs/gal)	Slurry Con	sistency (Bu)	
New			15.8 ←			
Lead/Tail		Volume (Sacks)	Yield (cu ft per sack)		
Single ←	•	50 🔶		1.15 🔶		
Description						
50sk balanced plu	g across Dakota Mov	vry top				
					Cancel	Save

ement Class						×
				* Ind	icates Required	d Field
Associated Cem	ent Segment *	Cement Type	ĸ	Construction Status *	•	
C4 🔶	•	Class G Cerr	nent 🔶 🔹 🔻	Not Installed	•	
Record Status	Compressive Stre	ength (psi)	Weight (Ibs/gal)	Slurry Cons	sistency (Bu)	
New			15.8 🗲			
Lead/Tail		Volume (Sack	s)	Yield (cu ft per sack)		
Single ←	•	100 🔶		1.15 🔶		
Description						
100sk squeeze to	cover base of surface	e casing @ 622ft	←			
					Cancel	Save

Cement Class								
	▼ Advanced Filtering						Actions 🗸 🌣	
Cement Class Unique ID	Associated Cement Segment ↑	Install Status	Record Status	Compressive Strength (psi)	Weight (Ibs/gal)	Slurry Consistency (Bu)	Lead/Tail	Actions
L1	C3	Not Installed	New		15.8		Single	Actions-
L2	C4	Not Installed	New		15.8		Single	Actions-
L3	C4	Not Installed	New		15.8		Single	Actions-
L4	C4	Not Installed	New		15.8		Single	Actions-

Sundry Data – Adding a P&A Procedure

P&A procedures may be entered into the *Sundry Description* area. <u>Sundry Descriptions</u> <u>are limited to 2000 characters</u>. P&A procedures may also be attached as a document (explained in the next section).

- Procedures may be typed into the Sundry Description area.
- Procedures may be copied from another document and pasted into the *Sundry Description* area.

1.	Do One-Call prior to going to well. Notify NDIC 24 hours prior to commencing work. (Jon Rumppe@ 701-XXX-XXXX).
2.	Prepare location for workover. MIRU pulling unit. Discuss scope of work to be performed at this time.
3.	Dig out surface casing valve and bleed off.
4.	Bleed off well through hot oil truck.
5.	ND wellhead. NU BOP.
6. tubi	Trip in hole with 2 7/8" workstring, bit and scraper for 7" casing to ±8,050' (Cement retainer). Circulate well with clean, 10 ppg SW. Trip out of hole with ng, bit, and scraper.
7.	Rig up wireline unit. Run cement bond log from 8,050' to Top of Cement. Trip out of hole and rig down wireline unit.
8. 90 :	Trip in hole with workstring and sting into retainer. Establish injection rate. Rig up cement equipment. Mix and pump 100 sks Class G cement. Squeeze sks into formation and leave 10sks on CICR. Rig down cement equipment.
a.	If unable to establish injection rate, spot 45sks class G cement on top of CICR.

Sundry Description	
See attached procedure	

Document Upload

Documents related to the sundry should be uploaded here. Documents will be available for download by any users that have permission to review the sundry.

Typical documents to include are a P&A procedure and current wellbore schematic (both required under NDAC 43-02-03-33).

To upload a document, select [Actions] and [Add New]:

- Select the *Type* of document from the dropdown menu ([*Diagram*], [*Plugging Procedure*], or [Sundry Attachment]).
- The *Relevant Date* in this case is the date the document is uploaded.
- Enter a brief *Description* of the document (e.g. 'Current Wellbore Diagram', 'Proposed P&A Diagram', 'P&A Procedure', etc).

Documents uploaded by the user may also be deleted by selecting [Actions] and [Remove Document].

Document Upload		×
	* Indicates Required Fie	eld
Upload New Document	○ Associate Existing NorthSTAR Document	
Internal Only	Request Confidentiality	
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01/24/2020	John Smith	Plugging Procedure	P&A Procedure	PA_PROCEDURE. PDF		Actions-
01/23/2020	John Smith	Existing Wellbore Schematic	Diagram	Schematic.F	PDF	Actions-
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View/Edit Document Details Remove Document	Schen Vie Re	Diagram	Existing Wellbore Schematic	John Smith	01/23/2020
View/Edit Document Deta	Schen Re	Diagram	Existing Wellbore Schematic	John Smith	1/23/2020

Form Submit – Comments, Acknowledgement, and Final Review

Users may add comments to the sundry and read reviewers' comments in the Comments section.

Users must eSign the sundry by clicking on the checkbox under the Acknowledgement subform.

Users may review the entire sundry by clicking on the *[Preview Submission Summary]* button.

By clicking on the *[Next]* button from this page, the user will submit the sundry. <u>The user</u> will not be able to file a sundry that has missing information in required fields.

Comments	•
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 ■ 0 ► ► 20 ▼ Items per page 	No results to display 💍
n please add a pressure test to this procedure prior to step 8.	× Add

Comments	•
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01/23/2020 08:10:56 PM : Jonathan Rumppe , North Dakota Oil & Gas Division John Jease add a pressure test to this procedure prior to step 8.	
H 4 1 P H 20 V items per page	Viewing 1 - 1 from 1 results
	Add

Ad	cknowledgement
s	Submitter
	John Smith
s	Submitter Title *
	Owner
C	Date Received
	01/23/2020
	I hereby certify all statements made in this form are, to the best of my knowledge, true, correct, and complete. *
Fo	orm Submit Preview
CI	ick the button below to preview your submission summary.
	Preview Submission Summary