National Aeronautics and Space Administration

Lyndon B. Johnson Space Center White Sands Test Facility P.O. Box 20 Las Cruces. NM 88004-0020



September 20, 2022

Reply to Attn of: RE-22-124

Mr. Rick Shean, Bureau Chief New Mexico Environment Department Hazardous Waste Bureau 2905 Rodeo Park Drive East, Building 1 Santa Fe, NM 87505

Subject: Plugging and Abandonment of WSTF Wells 400-KV-142, 400-LV-125, BLM-2-482, NASA 8, PFE-4, and PFE-6

On May 24, 2022, NASA submitted Plugging Plans of Operation for White Sands Test Facility (WSTF) wells 400-KV-142, 400-LV-125, BLM-2-482, NASA 8, PFE-4, and PFE-6 to the New Mexico Office of the State Engineer (NMOSE) in accordance with the NASA RCRA Permit (Section 19.4) referencing 19.27.4.30 C NMAC. The NMOSE approved these plans on June 10, 2022.

NASA is providing these plugging plans for NMED's information in accordance with Section 4.5 of the NMED-approved WSTF Groundwater Monitoring Plan. NASA plans to plug and abandon these wells in conjunction with several other wells in November and December 2022. Paper copies of the six plugging plans are provided as Enclosure 1. A CD-ROM with the plugging plans in PDF is provided as Enclosure 2.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

RE-22-124 2

If you have any questions or comments concerning this submittal, please contact Antonette Doherty of my staff at 575-202-5406.

MICHAEL ZIGMOND Digitally signed by MICHAEL ZIGMOND Date: 2022.09.20 09:26:30 -06'00'

For: Timothy J. Davis

Chief, Environmental Office

2 Enclosures

cc:

Mr. Gabriel Acevedo Hazardous Waste Bureau New Mexico Environment Department 2905 Rodeo Park Drive East, Building 1 Santa Fe, NM 87505





NOTE: A Well Plugging Plan of Operations shall be filed with and accepted by the Office of the State Engineer prior to plugging. This form may be used to plug a single well, or if you are plugging multiple monitoring wells on the same site using the same plugging methodology.

Alert! Your well may be eligible to participate in the Aquifer Mapping Program (AMP)-NM Bureau of Geology geoinfo.nmt.edu/resources/water/cgmm/ if within an area of interest and meets the minimum construction requirements, such as there is still water in your well, and the well construction reflected in a well record and log is not compromised, contact AMP at 575-835-5038 or -6951, or by email nmbg-waterlevels@nmt.edu, prior to completing this prior form. Showing proof to the OSE that your well was accepted in this program, may delay the plugging of your well until a later date.

I. FIL	NG FEE: The	re is no filir	ng fee for th	is form.				
II. GE	NERAL / WEI	L OWNE	RSHIP:	Check here if pro	posing one pla	n for multiple monitoring	wells on the same	site and attaching WD-
	g Office of the of well owner:	State Engi	ineer POD inson Spac	Number (Well No e Center White Sa	umber) for nds Test Fa	well to be plugged icility (Contact: Timo	: PFE-4 (NMO thy Davis)	SE LRG-10454
Mailing	g address: P	.O. Box 20				County:	Dona Ana	
City:	as Cruces			State:		NM	Zip	code88004
Phone r	number: (575)	524-5024			E-mail: tin	nothy.j.davis@nasa.		
	ELL DRILLER			ervices: Not contra	acted yet		San	2022 MAY
	exico Well Dril					Expiration Da	te: NA	No Ci
						•		P <
IV. W	ELL INFORM	ATION: [Check her	e if this plan describe tal form WD-08m an	s method for p	plugging multiple monit this section.	toring wells on the	same site and attach
Note: A	A copy of the ex	isting Well				ald be attached to thi	is plan	ហ
1)	GPS Well Loc	ation:	Latitude: _ Longitude		eg, <u>30</u>	*******		3
2)	Reason(s) for	plugging w	ell(s):					
	Well PFE-4 is	located outs	side the kno	own contaminant p	lume and ha	as no value as a poli	ution recovery	well.
3)	what hydroged	ologic para	meters wer	e monitored. If	the well wa	yes, please use sec as used to monitor nt may be required p	contaminated	or poor quality
4)	Does the well	tap brackis	h, saline, or	otherwise poor qu	uality water	? Yes If	yes, provide a	dditional detail,
	including analy	ytical result	s and/or lab	oratory report(s):	Refer to PF	E-4 analytical data (
5)	Static water le	vel:5	03.5 fc	eet below land surf	face / feet al	bove land surface	(circle one)	
6)	Depth of the w	/ell:8	76.5 fe	eet				

LRG-10454 TRN: 727442 WD-08 Well Plugging Plan Version: March 07, 2022 Page 1 of 5

7)	Inside diameter of innermost casing:inches.								
8)	Casing material: CertainTeed Standard Dimension Ratio (SDR) 17 PVC								
9)	The well was constructed with:	LAST.	7022 M						
	an open-hole production interval, state the open interval:	227	3 7						
	a well screen or perforated pipe, state the screened interval(s): 397.4-856.2 ft		8 0						
10)	What annular interval surrounding the artesian casing of this well is cement-grouted?	TI OF	2						
11)	Was the well built with surface casing?YesIf yes, is the annulus surrounding the s	urface casi	ing grouted or						
	otherwise sealed? Yes If yes, please describe:	S	Gri						
	Nominal 20-in. surface casing set to 110 ft in a 26-in. diameter borehole and cemented to sur	rface.							
12)	Has all pumping equipment and associated piping been removed from the well?Yes remaining equipment and intentions to remove prior to plugging in Section VII of this form.	If no	ot, describe						
V. DI	ESCRIPTION OF PLANNED WELL PLUGGING: If plugging method differs between multip	ole wells on s	ame site, a separate	e					
diagram as geop	If this plan proposes to plug an artesian well in a way other than with cement grout, placed bottom to top w n of the well showing proposed final plugged configuration shall be attached, as well as any additional shysical logs, that are necessary to adequately describe the proposal. Attach a copy of any signed OSE variance to this planned plugging plan requires a variance to 19.27.4 NMAC, attach a detailed variance request signed by th	technical in o this pluggi	formation, such ng plan.						
1)	Describe the method by which cement grout shall be placed in the well, or describe requested								
-,	proposed for the well:								
	The well casing will be cemented from bottom up using tremie pipe, including all screened int	tervals and	blank casing.						
2)	Will well head be cut-off below land surface after plugging? Yes, 6 inches below ground su	ırface							
VI. P	LUGGING AND SEALING MATERIALS:								
Note: 1 from th	The plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant he cement company and/or product description for specialty cement mixes or any sealant that deviates from the l	. Attach a co list of OSE a	py of the batch mi pproved sealants.	x reci					
1)	For plugging intervals that employ cement grout, complete and attach Table A.								
2)	For plugging intervals that will employ approved non-cement based sealant(s), complete and	attach Tal	ole B.						
3)	Theoretical volume of grout required to plug the well to land surface: 2,203.7 gallons (294.)	6 cubic ft)							
4)	Type of Cement proposed: Portland Type II neat cement with 5% bentonite by weight								
5)	Proposed cement grout mix: 8.5 gallons of water per 94 pound sack of Portla	and cement							
6)	Will the grout be: X batch-mixed and delivered to the site								
	mixed on site								

7)	Grout additives requested, and percent by dry weight relative to cement:	
	5% by weight Bentonite powder (~4.7 lbs/94 lb bag of Portland Type II cement)	
8)	Additional notes and calculations:	
	The mix of neat cement and 5% bentonite will require 8.5 gallons of water per 94 lb b 94 lb bag of cement and 0.7 gallons per percent of bentonite.	ag of cement; 5.2 gallons per
N/III	ADDITIONAL INTEGRAL TWO VICE AND A COLUMN AN	
<u>VII.</u>	ADDITIONAL INFORMATION: List additional information below, or on separate s	heet(s):
		2022 MAY 25 AM
		# P <
		# 9: 55
		SH 5
Engine	tions and any attachments, which are a part hereof; that I am familiar with the rules and eer pertaining to the plugging of wells and will comply with them, and that each and all ing Plan of Operations and attachments are true to the best of my knowledge and belief.	of the statements in the Well
	AMANDA SKARSGARD Digitally signed by AMANDA SKARS Date: 2022.05.24 10:29:29 -06'00'	GGARD 05/24/2022
	Signature of Applicant	Date
<u>IX. A</u>	CTION OF THE STATE ENGINEER:	
This W	Vell Plugging Plan of Operations is:	
	Approved subject to the attached conditions. Not approved for the reasons provided on the attached letter.	
	Witness my hand and official seal this 10th day of June	2622
	Mike A. Hamman, STATE ENGINEER Cheryl Thacker Water Resource Manager	w Mexico State Engineer
	OF ENGINEER	WD-08 Well Plugging Plan Version: March 07, 2022 Page 3 of 5

TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow	
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.	
Top of proposed interval of grout placement (ft bgl)			Ground Surface	
Bottom of proposed interval of grout placement (ft bgl)			876.5 ft	
Theoretical volume of grout required per interval (gallons)			2,203.7 gallons	
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement			8.5 gallons of water per 94 lb bag of Portland Type II cement with 5% bentonite powder.	
Mixed on-site or batch- mixed and delivered?			Delivered	
Grout additive 1 requested			Powdered bentonite	
Additive 1 percent by dry weight relative to cement			5%	
Grout additive 2 requested			2022 HAY 25	
Additive 2 percent by dry weight relative to cement			NA 27 9: 55	

TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)			NA
Bottom of proposed sealant of grout placement (ft bgl)			NA
Theoretical volume of sealant required per interval (gallons)			NA
Proposed abandonment sealant (manufacturer and trade name)			NA





NOTE: A Well Plugging Plan of Operations shall be filed with and accepted by the Office of the State Engineer prior to plugging. This form may be used to plug a single well, or if you are plugging multiple monitoring wells on the same site using the same plugging methodology.

Alert! Your well may be eligible to participate in the Aquifer Mapping Program (AMP)-NM Bureau of Geology geoinfo.nmt.edu/resources/water/cgmn/ if within an area of interest and meets the minimum construction requirements, such as there is still water in your well, and the well construction reflected in a well record and log is not compromised, contact AMP at 575-835-5038 or -6951, or by email nmbg-waterlevels@nmt.edu, prior to completing this prior form. Showing proof to the OSE that your well was accepted in this program, may delay the plugging of your well until a later date.

. FILING FEE: There is no fi	iling fee for this form.			
II. GENERAL / WELL OWN	ERSHIP: Check	k here if proposing one	plan for multiple monitoring	wells on the same site and attaching V
Existing Office of the State En	ngineer POD Number	(Well Number)	for well to be plugged:	PFE-6 (LRG-10456, cancel
Name of well owner: NASA J	ohnson Space Center	White Sands Test	Facility (Contact: Timot	hy Davis)
Mailing address: P.O. Box 2	20		County:	Dona Ana
City: Las Cruces		State:	NM	Zip code 88004
Phone number: (575) 524-5024		E-mail:	timothy.j.davis@nasa.g	
II. WELL DRILLER INFOR	MATION:			
Well Driller contracted to provid		Not contracted ye	t	
New Mexico Well Driller Licens			Expiration Dat	e· NA
	(\			oring well of the same ite and att.
One: A copy of the existing We GPS Well Location: Reason(s) for plugging	Latitude: 32 Longitude: -1 well(s):	2 deg, 06 deg,	31 min, 12.504 38 min, 54.918	25 AM 9: 55 Sec, NAD 83 M 9: 55
dropping water levels. Was well used for any ty	ype of monitoring programeters were monitor	gram? No ored. If the well	If yes, please use secti was used to monitor	f water in the well due to ion VII of this form to detail contaminated or poor quality
	ish, saline, or otherwi			yes, provide additional detail,
 Does the well tap brack 				
including analytical resu	ults and/or laboratory r	eport(s): No analy	/tical data available per i	item 2. No samples taken.
•	500.4	,	t above land surface (
including analytical resu	500.4	,		

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7)	Inside diameter of innermost casing: 7.85 inches.							
8)	Casing material: CertainTeed Standard Dimension Ratio (SDR) 17 PVC							
9)	The well was constructed with: an open-hole production interval, state the open interval: a well screen or perforated pipe, state the screened interval(s): 434.5 - 534.1 ft							
10)	What annular interval surrounding the artesian casing of this well is cement-grouted? NA							
11)	Was the well built with surface casing? If yes, is the annulus surrounding the surface casing grouted or otherwise sealed? If yes, please describe: Nominal 20-in. surface casing set to 101 ft in a 26-in. diameter borehole and cemented to surface.							
12)	Has all pumping equipment and associated piping been removed from the well?If not, describe remaining equipment and intentions to remove prior to plugging in Section VII of this form.							
V. DES	SCRIPTION OF PLANNED WELL PLUGGING: If plugging method differs between multiple wells on same site, a separate form must be completed for each method.							
diagram	this plan proposes to plug an artesian well in a way other than with cement grout, placed bottom to top with a tremie pipe, a detailed of the well showing proposed final plugged configuration shall be attached, as well as any additional technical information, such ysical logs, that are necessary to adequately describe the proposal. Attach a copy of any signed OSE variance to this plugging plan.							
Also, if th	nis planned plugging plan requires a variance to 19.27.4 NMAC, attach a detailed variance request signed by the applicant.							
1)	Describe the method by which cement grout shall be placed in the well, or describe requested plugging methodology							
	proposed for the well:							
	The well casing will be cemented from bottom up using tremie pipe, including all screened intervals and blank casing.							
2)	Will well head be cut-off below land surface after plugging? Yes, 6 inches below ground surface							
VI. PL	UGGING AND SEALING MATERIALS:							
	ne plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant. Attach a copy of the batch mix recip cement company and/or product description for specialty cement mixes or any sealant that deviates from the list of OSE approved sealants.							
1)	For plugging intervals that employ cement grout, complete and attach Table A.							
2)	For plugging intervals that will employ approved non-cement based sealant(s), complete and attach Table B.							
3)	Theoretical volume of grout required to plug the well to land surface: 1,356.2 gallons (181.3 choic ft)							
4)	Type of Cement proposed: Portland Type II neat cement with 5% bentonite by weight							
5) =	Proposed cement grout mix: 8.5 gallons of water per 94 pound sack of Portland cement.							
6)	Type of Cement proposed: Portland Type II neat cement with 5% bentonite by weight Proposed cement grout mix: 8.5 gallons of water per 94 pound sack of Portland cement. 27 Will the grout be: X batch-mixed and delivered to the site mixed on site							
	will the grout be: batch-mixed and delivered to the site mixed on site site							

7)	Grout additives requested, and percent by dry weight relative to cement:	
	5% by weight Bentonite powder (~4.7 lbs/94 lb bag of Portland Type II cement)	
8)	Additional notes and calculations:	
- /	The mix of neat cement and 5% bentonite will require 8.5 gallons of water per 94 lb bag of	cement: 5.2 gallons per
	94 lb bag of cement and 0.7 gallons per percent of bentonite.	oomond, ole ganono por
VII.	ADDITIONAL INFORMATION: List additional information below, or on separate sheet(s):
		202
		S 2 7
		RECEIVE 2022 MAY 25 AM 1 STATE TO A 12 A 1
		第 2
		Pir.
		3 5
		55 S
Engin	ations and any attachments, which are a part hereof; that I am familiar with the rules and regular leer pertaining to the plugging of wells and will comply with them, and that each and all of the ing Plan of Operations and attachments are true to the best of my knowledge and belief. AMANDA SKARSGARD Digitally signed by AMANDA SKARSGARD	statements in the Well
	AMANDA SKARSGARD Digitally signed by AMANDA SKARSGARD Date: 2022.05 24 10:27:55 -06'00'	05/24/2022
	Signature of Applicant	Date
IX. A	CTION OF THE STATE ENGINEER:	
This V	Well Plugging Plan of Operations is:	
	Approved subject to the attached conditions. Not approved for the reasons provided on the attached letter.	
	Witness my hand and official seal this 10th day of June	2622
	70 3000	
	Mike A. Hamman, P.E, STATE ENGINEER By By Cheryl Thacker	xico State Engineer
	Water Resource Manager	WD-08 Well Plugging Plan Version: March 07, 2022 Page 3 of 5

TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow	
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.	
Top of proposed interval of grout placement (ft bgl)			Ground Surface	
Bottom of proposed interval of grout placement (ft bgl)			539.4 ft	
Theoretical volume of grout required per interval (gallons)			1356.2 gallons	
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement			8.5 gallons of water per 94 bag of Portland Type II cement with 5% bentonite powder.	
Mixed on-site or batch- mixed and delivered?			Delivered	
Grout additive 1 requested			Powdered bentonite	
Additive 1 percent by dry weight relative to cement			5% 2022	
Grout additive 2 requested			2022 HAY 25 AM STACK CRUCKS, NEW BOX	
Additive 2 percent by dry weight relative to cement			NA (C)	

TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)			NA
Bottom of proposed sealant of grout placement (ft bgl)			NA
Theoretical volume of sealant required per interval (gallons)			NA
Proposed abandonment sealant (manufacturer and trade name)			NA





NOTE: A Well Plugging Plan of Operations shall be filed with and accepted by the Office of the State Engineer prior to plugging. This form may be used to plug a single well, or if you are plugging multiple monitoring wells on the same site using the same plugging method logy.

Alert! Your well may be eligible to participate in the Aquifer Mapping Program (AMP)-NM Bureau of Geology geoinfo.nmt.edu/resources/water/cgmn/ if within an area of interest and meets the minimum construction requirements, such as there is still water in your well, and the well construction reflected in a well record and log is not compromised, contact AMP at 575-835-5038 or -6951, or by email nmbg-waterlevels@nmt.edu. prior to completing this prior form. Showing proof to the OSE that your well was accepted in this program, may delay the plugging of your well until a later date.

a later o	late.	owing proof to the ODL	inat your wen was a	recepted in this program, ma	y detay the pu	igging or your well uptil
I. FIL	ING FEE: There is no fil	ing fee for this form	•			
II. GE	ENERAL / WELL OWN	CRSHIP: Che	ck here if proposing o	ne plan for multiple monitoring	g wells on the s	same site and attaching WD-08m
Existin	ng Office of the State En	gineer POD Numbe	er (Well Number)) for well to be plugged est Facility (Contact: Time	i: N/A; NAS	SA well NASA-8 (PODI)
			r white Sands Te	est Facility (Contact: Time		
	g address: P.O. Box 20			County:	Dona A	
	Las Cruces		State:	NM		Zip code 8004
Phone	number: (575) 524-5024		E-mai	I: timothy.j.davis@nasa	.gov	
TIT XI	ELL DDITTED WHODA	* A TEXAND				
	ELL DRILLER INFORM		Not contracted :			
	oriller contracted to provide		Not contracted y			
New M	Sexico Well Driller License	No.: NA		Expiration Da	ate: NA	
Note:	A copy of the existing Wel GPS Well Location: Reason(s) for plugging v	Latitude:	l(s) to be plugged deg, deg,	30 min, 31.72 36 min, 50.11	8 sec	.D 83
	The groundwater level ha	as dropped below th	e screened interv	al and the well can no lo	nger be sam	pled.
3)	Was well used for any ty what hydrogeologic par water, authorization from	ameters were monit	tored. If the we	ell was used to monitor	contaminat	ted or poor quality
4)	Does the well tap bracki	sh, saline, or otherw	ise poor quality v	water? Yes I	f yes, provi	de additional detail,
	including analytical resu	ts and/or laboratory	report(s): Refer	to NASA 8 analytical data	a (Enclosure	9)
5)	Static water level:	feet belo	w land surface / f	eet above land surface	(circle one)	
6)	Depth of the well:	197 feet				

LEG-18412 TRN: 727449 LRG-18412-POD 1

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7)	Inside diameter of innermost casing: 2 inches.							
8)	Inside diameter of innermost casing: 2 inches. Casing material: Schedule 80 PVC to 162.00 ft; Schedule 40 stainless steel to 197.00 ft							
9)	Casing material: Schedule 80 PVC to 162.00 ft; Schedule 40 stainless steel to 197.00 ft The well was constructed with: an open-hole production interval, state the open interval: a well screen or perforated pine, state the screened interval(s): 172-192 ft							
	an open-hole production interval, state the open interval:							
	a work selection periorated pipe, state the selection mer var(s).							
10)	What annular interval surrounding the artesian casing of this well is cement-grouted?							
11)	Was the well built with surface casing?YesIf yes, is the annulus surrounding the surface casing grouted or							
	otherwise sealed? Yes If yes, please describe:							
	Nominal 6-inch surface casing set to 30 ft in an (unrecorded) diameter borehole and cemented to surface.							
12)	Has all pumping equipment and associated piping been removed from the well? Yes If not, describe remaining equipment and intentions to remove prior to plugging in Section VII of this form.							
V. DES	CRIPTION OF PLANNED WELL PLUGGING: If plugging method differs between multiple wells on same site, a separate form must be completed for each method.							
diagram	this plan proposes to plug an artesian well in a way other than with cement grout, placed bottom to top with a tremie pipe, a detailed of the well showing proposed final plugged configuration shall be attached, as well as any additional technical information, such sical logs, that are necessary to adequately describe the proposal. Attach a copy of any signed OSE variance to this plugging plan.							
Also, if th	is planned plugging plan requires a variance to 19.27.4 NMAC, attach a detailed variance request signed by the applicant.							
1)	Describe the method by which cement grout shall be placed in the well, or describe requested plugging methodology							
	proposed for the well:							
	The well casing will be cemented from bottom up using tremie pipe, including all screened intervals and blank casing.							
2)	Will well head be cut-off below land surface after plugging? Yes, 6 inches below ground surface							
VI. PL	UGGING AND SEALING MATERIALS:							
	e plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant. Attach a copy of the batch mix recipe cement company and/or product description for specialty cement mixes or any sealant that deviates from the list of OSE approved sealants.							
1)	For plugging intervals that employ cement grout, complete and attach Table A.							
2)	For plugging intervals that will employ approved non-cement based sealant(s), complete and attach Table B.							
3)	Theoretical volume of grout required to plug the well to land surface: 32.15 gallons (4.30 cubic ft)							
4)	Type of Cement proposed: Portland Type II neat cement with 5% bentonite by weight							
5)	Proposed cement grout mix: 8.5 gallons of water per 94 pound sack of Portland cement.							
6)	Will the grout be:batch-mixed and delivered to the site							
	X mixed on site							

)	Grout additives requested, and percent by dry weight relative to cer			
	5% by weight Bentonite powder (~4.7 lbs/94 lb bag of Portland Type	e II cement)	Sa Co	2022
			<u> </u>	
			Santa Santa	
			O.E	2
			Tat r	
	Additional notes and calculations:		TIE T	宝
	The mix of neat cement and 5% bentonite will require 8.5 gallons of	f water per 94 lb bag of		gall op s pr
	94 lb bag of cement and 0.7 gallons per percent of bentonite.		35	ري وي
	ADDITIONAL INFORMATION: List additional information below IASA 8 was equipped with a low-flow bladder pump sampling system. I			faccata the
re ir	an no longer be sampled, and it is unlikely the groundwater will return to n 2014 and 2018.	o previous ieveis. The	iast two samp	ling even
nr e	CIONATIDE.			
	SIGNATURE:			
\ma	anda Skarsgard for: Timothy J. Davis say that I have careful	lly read the foregoing	Well Pluggin	g Plan of
Ama erati	inda Skarsgard for: Timothy J. Davis, say that I have careful	vith the rules and regul	ations of the	State
Ama erati gine	inda Skarsgard for: Timothy J. Davis, say that I have careful ions and any attachments, which are a part hereof; that I am familiar were pertaining to the plugging of wells and will comply with them, and	vith the rules and regul that each and all of the	ations of the	State
Ama erati gine	ions and any attachments, which are a part hereof; that I am familiar were pertaining to the plugging of wells and will comply with them, and any Plan of Operations and attachments are true to the best of my knowledge.	with the rules and regul that each and all of the ledge and belief.	ations of the e statements i	State n the Wel
ma erati	inda Skarsgard for: Timothy J. Davis, say that I have careful ions and any attachments, which are a part hereof; that I am familiar were pertaining to the plugging of wells and will comply with them, and	with the rules and regul that each and all of the ledge and belief.	ations of the e statements i	State n the We
ma rati	ions and any attachments, which are a part hereof; that I am familiar were pertaining to the plugging of wells and will comply with them, and any Plan of Operations and attachments are true to the best of my knowledge.	vith the rules and regul that each and all of the ledge and belief. by signed by AMANDA SKARSGARD 2022.05.24 10:30:23 -06'00'	ations of the e statements i	State n the We
ma rati	ions and any attachments, which are a part hereof; that I am familiar were pertaining to the plugging of wells and will comply with them, and any Plan of Operations and attachments are true to the best of my knowledge AMANDA SKARSGARD Delications and Del	vith the rules and regul that each and all of the ledge and belief. by signed by AMANDA SKARSGARD 2022.05.24 10:30:23 -06'00'	ations of the e statements i	State n the We 5/24/202
ma rati ine gin	ions and any attachments, which are a part hereof; that I am familiar were pertaining to the plugging of wells and will comply with them, and ang Plan of Operations and attachments are true to the best of my knowledge AMANDA SKARSGARD Digitals Date: 2	vith the rules and regul that each and all of the ledge and belief. by signed by AMANDA SKARSGARD 2022.05.24 10:30:23 -06'00'	ations of the e statements i	State n the We 5/24/202
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TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of grout placement (ft bgl)			Ground Surface
Bottom of proposed interval of grout placement (ft bgl)			197 ft
Theoretical volume of grout required per interval (gallons)			32.15 gallons
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement			8.5 gallons of water per 94 lb bag of Portland Type II cement with 5% bentonite powder.
Mixed on-site or batch- mixed and delivered?			On Site
Grout additive 1 requested			Powdered bentonite
Additive 1 percent by dry weight relative to cement			5%
Grout additive 2 requested	25		2022 \$1. LAS
Additive 2 percent by dry weight relative to cement			NAY 25 AM 9: 56 CHUDES, HEW HEXIOO

TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)			NA
Bottom of proposed sealant of grout placement (ft bgl)			NA
Theoretical volume of sealant required per interval (gallons)			NA
Proposed abandonment sealant (manufacturer and trade name)			NA



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WELL PLUGGING PLANOF OPERATIONS



NOTE: A Well Plugging Plan of Operations shall be filed with and accepted by the Office of the State Engineer prior to plugging. This form may be used to plug a single well, or if you are plugging multiple monitoring wells on the same site using the same plugging methodology.

Alert! Your well may be eligible to participate in the Aquifer Mapping Program (AMP)-NM Bureau of Geology geoinfo.nmt.edu/resources/water/cgmn/ if within an area of interest and meets the minimum construction requirements, such as there is still water in your well, and the well construction reflected in a well record and log is not compromised, contact AMP at 575-835-5038 or -6951, or by email nmbg-waterlevels@nmt.edu, prior to completing this prior form. Showing proof to the OSE that your well was accepted in this program, may delay the plugging of your well until a later date.

THE PROPERTY AND IS NO IN	ling fee for this form.		
II. GENERAL / WELL OWN	ERSHIP: Check here if proposing	g one plan for multiple monitoring we	lls on the same site and attaching
Existing Office of the State En	agineer POD Number (Well Number	er) for well to be plugged:	I/A; NASA well BLM-2-482
Name of well owner: NASA Jo	ohnson Space Center White Sands	Test Facility (Contact: Timothy	Davis)
Mailing address: P.O. Box 20	0	County:	Dona Ana
City: Las Cruces	State:	NM	Zip code 88004
Phone number: (575) 524-5024	E-m	ail: timothy.j.davis@nasa.gov	
III. WELL DRILLER INFORM	MATION:		
Well Driller contracted to provid	e plugging services: Not contracted	d yet	
New Mexico Well Driller Licens	se No.: NA	Expiration Date:	NA
IV. WELL INFORMATION:	Check here if this plan describes met supplemental form WD-08m and skip	hod for plugging multiple monitori p to #2 in this section.	ng wells on the same site and at
Note: A copy of the existing Wel	•		
	in record for the well(3) to be pluggi	ed should be attached to this p	lan.
	in receive for the well(s) to be plugg	ed should be attached to this p	lan.
	Latitude: 32 deg,	33 min, 42.348	sec
		33 min, 42.348	
1) GPS Well Location:	Latitude: 32 deg, Longitude: -106 deg,	33 min, 42.348	sec
GPS Well Location: Reason(s) for plugging v	Latitude: 32 deg, Longitude: -106 deg, well(s):	33 min, 42.348 38 min, 54.827	sec, NAD 83
GPS Well Location: Reason(s) for plugging v	Latitude: 32 deg, Longitude: -106 deg,	33 min, 42.348 38 min, 54.827	sec, NAD 83
GPS Well Location: Reason(s) for plugging v	Latitude: 32 deg, Longitude: -106 deg, well(s):	33 min, 42.348 38 min, 54.827	sec, NAD 83
GPS Well Location: Reason(s) for plugging were groundwater level h	Latitude: 32 deg, Longitude: -106 deg, well(s): has dropped below the screened inte	33 min, 42.348 38 min, 54.827	sec, NAD 83
1) GPS Well Location: 2) Reason(s) for plugging was groundwater level h 3) Was well used for any ty what hydrogeologic par	Latitude: 32 deg, Longitude: -106 deg, well(s): as dropped below the screened inte ype of monitoring program? Yes rameters were monitored. If the v	33 min, 42.348 38 min, 54.827 erval and the well can no longer If yes, please use section well was used to monitor con	sec sec, NAD 83 r be sampled. 1 VII of this form to detaintaminated or poor qualit
GPS Well Location: Reason(s) for plugging was a groundwater level h Was well used for any ty what hydrogeologic par	Latitude: 32 deg, Longitude: -106 deg, well(s): as dropped below the screened inte	33 min, 42.348 38 min, 54.827 erval and the well can no longer If yes, please use section well was used to monitor con	sec sec, NAD 83 r be sampled. 1 VII of this form to detaintaminated or poor qualit
GPS Well Location: Reason(s) for plugging was a groundwater level h Was well used for any ty what hydrogeologic par water, authorization from	Latitude: 32 deg, Longitude: -106 deg, well(s): as dropped below the screened inte ype of monitoring program? Yes rameters were monitored. If the v	33 min, 42.348 38 min, 54.827 erval and the well can no longe If yes, please use section well was used to monitor copartment may be required prior	sec sec, NAD 83 r be sampled. 1 VII of this form to detaintaminated or poor qualit
1) GPS Well Location: 2) Reason(s) for plugging v The groundwater level h 3) Was well used for any ty what hydrogeologic par water, authorization from 4) Does the well tap bracki	Latitude: 32 deg, Longitude: -106 deg, well(s): pas dropped below the screened inte type of monitoring program? Yes rameters were monitored. If the very the New Mexico Environment Dep	33 min, 42.348 38 min, 54.827 Fival and the well can no longer If yes, please use section well was used to monitor compartment may be required prior y water? Yes If yes	sec sec, NAD 83 r be sampled. n VII of this form to detaintaminated or poor quality to plugging. s, provide additional detains
1) GPS Well Location: 2) Reason(s) for plugging v The groundwater level h 3) Was well used for any ty what hydrogeologic parwater, authorization from Does the well tap bracking including analytical resu	Latitude: 32 deg, Longitude: -106 deg, well(s): has dropped below the screened interpreters were monitored. If the very ment has been marked and the new Mexico Environment Degish, saline, or otherwise poor quality alts and/or laboratory report(s): Reference	33 min, 42.348 38 min, 54.827 erval and the well can no longe well was used to monitor compartment may be required prior y water? Yes If year to BLM-2-482 analytical data	sec sec, NAD 83 r be sampled. n VII of this form to detaintaminated or poor quality to plugging. s, provide additional detain (Enclosure 9)
1) GPS Well Location: 2) Reason(s) for plugging was well used for any ty what hydrogeologic parwater, authorization from Does the well tap bracking including analytical results.	Latitude: 32 deg, Longitude: -106 deg, well(s): has dropped below the screened interpreters were monitored. If the very ment has been marked and the new Mexico Environment Degish, saline, or otherwise poor quality alts and/or laboratory report(s): Reference	33 min, 42.348 38 min, 54.827 Fival and the well can no longer If yes, please use section well was used to monitor compartment may be required prior y water? Yes If yes	sec sec, NAD 83 r be sampled. n VII of this form to detaintaminated or poor quality to plugging. s, provide additional detain (Enclosure 9)

LRG-18413 TRN: 727453 LRG-18413-POD1

WD-08 Well Plugging Plan Version: March 07, 2022 Page 1 of 5

7)	Inside diameter of innermost casing:inches. RECEIVED
8)	Casing material: Stainless steel SCD 5 to 382.3 ft; SCD 10 to 498.4 ft
9)	The well was constructed with:
7)	an open-hole production interval, state the open interval:
	a well screen or perforated pipe, state the screened interval(s): 482.4-492.8-1023. He will be a well screen or perforated pipe, state the screened interval(s):
	a wen screen of perforated pipe, state the screened fixer val(s).
10)	What annular interval surrounding the artesian casing of this well is cement-grouted?
11)	Was the well built with surface casing? Yes If yes, is the annulus surrounding the surface casing grouted or
	otherwise sealed?Yes If yes, please describe:
	Nominal 10-inch surface casing set to 100 ft in a 12 1/4 in. diameter borehole and cemented to surface.
12)	Has all pumping equipment and associated piping been removed from the well? YesIf not, describe remaining equipment and intentions to remove prior to plugging in Section VII of this form.
V. DE	SCRIPTION OF PLANNED WELL PLUGGING: If plugging method differs between multiple wells on same site, a separate form must be completed for each method.
diagram	this plan proposes to plug an artesian well in a way other than with cement grout, placed bottom to top with a tremie pipe, a detailed of the well showing proposed final plugged configuration shall be attached, as well as any additional technical information, such ysical logs, that are necessary to adequately describe the proposal. Attach a copy of any signed OSE variance to this plugging plan.
	his planned plugging plan requires a variance to 19.27.4 NMAC, attach a detailed variance request signed by the applicant.
1)	Describe the method by which cement grout shall be placed in the well, or describe requested plugging methodology
	proposed for the well:
	The well casing will be cemented from bottom up using tremie pipe, including all screened intervals and blank casing.
2)	Will well head be cut-off below land surface after plugging? Yes, 6 inches below ground surface
VI. PL	UGGING AND SEALING MATERIALS:
	he plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant. Attach a copy of the batch mix recipe cement company and/or product description for specialty cement mixes or any sealant that deviates from the list of OSE approved sealants.
1)	For plugging intervals that employ cement grout, complete and attach Table A.
2)	For plugging intervals that will employ approved non-cement based sealant(s), complete and attach Table B.
3)	Theoretical volume of grout required to plug the well to land surface: 286 gallons (38.2 cubic ft)
4)	Type of Cement proposed: Portland Type II neat cement with 5% bentonite by weight
5)	Proposed cement grout mix: 8.5 gallons of water per 94 pound sack of Portland cement.
6)	Will the grout be:batch-mixed and delivered to the siteX mixed on site

7)	Grout additives requested, and percent by dry weight relative to cement:	
	5% by weight Bentonite powder (~4.7 lbs/94 lb bag of Portland Type II cement)	
8)	Additional notes and calculations:	
	The mix of neat cement and 5% bentonite will require 8.5 gallons of water per 94 lb bag of cement and 0.7 gallons per percent of bentonite.	ement; 5.2 gailons per
VII.	ADDITIONAL INFORMATION: List additional information below, or on separate sheet(s)	:
VIII. I, Ama	SIGNATURE: anda Skarsgard for: Timothy J. Davis say that I have carefully read the foregoing Wattons and any attachments, which are a part hereof; that I am familiar with the rules and regular	Vell Plugging Plan of tions of the State
Engine Pluggi	eer pertaining to the plugging of wells and will comply with them, and that each and all of the ng Plan of Operations and attachments are true to the best of my knowledge and belief. AMANDA SKARSGARD Date: 2022.05.24 10.31:28-0600'	statements in the Well 05/24/2022
	Signature of Applicant	Date
	CTION OF THE STATE ENGINEER: Vell Plugging Plan of Operations is:	PECEI
	Approved subject to the attached conditions. Not approved for the reasons provided on the attached letter. Witness my hand and official seal this day of Turk	M 9: 57
	Mike A. Hamman, P.E, STATE ENGINEER By:	xico State Engineer
	Cheryl Thacker Water Resource Manager	D-08 Well Plugging Plan Version: March 07, 2022 Page 3 of 5

TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of grout placement (ft bgl)			Ground Surface
Bottom of proposed interval of grout placement (ft bgl)			498.4 ft
Theoretical volume of grout required per interval (gallons)			286 gallons
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement			8.5 gallons of water per 94 lb bag of Portland Type II cement with 5% bentonite powder.
Mixed on-site or batch- mixed and delivered?			On Site
Grout additive 1 requested			Powdered bentonite
Additive 1 percent by dry weight relative to cement			5%
Grout additive 2 requested			2022 MAY 25 STATE LINE LAS CRUCES,
Additive 2 percent by dry weight relative to cement			NA PEN CONT. 1

TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)			NA
Bottom of proposed sealant of grout placement (ft bgl)			NA
Theoretical volume of sealant required per interval (gallons)			NA
Proposed abandonment sealant (manufacturer and trade name)			NA





NOTE: A Well Plugging Plan of Operations shall be filed with and accepted by the Office of the State Engineer prior to plugging. This form may be used to plug a single well, or if you are plugging multiple monitoring wells on the same site using the same plugging methodology.

Alert! Your well may be eligible to participate in the Aquifer Mapping Program (AMP)-NM Bureau of Geology geoinfo.nmt.edu/resources/water/cgmn/ if within an area of interest and meets the minimum construction requirements, such as there is still water in your well, and the well construction reflected in a well record and log is not compromised, contact AMP at 575-835-5038 or -6951, or by email nmbg-waterlevels@nmt.edu, prior to completing this prior form. Showing proof to the OSE that your well was accepted in this program, may delay the plugging of your well until a later date.

I. FILING FEE: There is no filing fee for this form.			
II. GENERAL / WELL OWNERSHIP: Chec	k here if proposing one	plan for multiple monitoring v	wells on the same site and attaching WD-08m
Existing Office of the State Engineer POD Number	(Well Number)	for well to be plugged:	N/A; NASA well 400-LV-125 (ROD)
Name of well owner: NASA Johnson Space Center Mailing address P.O. Box 20	vvnite Sands Tesi		P
Mailing address: P.O. Box 20 City: Las Cruces		County:	
	State:	NM	Zip code.88004
Phone number: (575) 524-5024	E-mail:	timothy.j.davis@nasa.g	ov
III. WELL DRILLER INFORMATION:			
Well Driller contracted to provide plugging services:	Not contracted ye	t	
New Mexico Well Driller License No.: NA		Expiration Date	: NA
Note: A copy of the existing Well Record for the well 1) GPS Well Location: Latitude: 3 Longitude: - 2) Reason(s) for plugging well(s): Water was not encountered during drilling of t sampling schedule.	WD-08m and skip to section (s) to be plugged	#2 in this section. hould be attached to this 31	sec _sec, NAD 83
3) Was well used for any type of monitoring pro what hydrogeologic parameters were monitoring water, authorization from the New Mexico En	ored. If the well	was used to monitor c	ontaminated or poor quality
4) Does the well tap brackish, saline, or otherwi	se poor quality wa	ter? Yes If	es, provide additional detail.
including analytical results and/or laboratory			
5) Static water level: NA feet below	v land surface / fee	t above land surface (c	ircle one)
6) Depth of the well:feet			
LRG-18414 LRG-1	8414-801	>1	WD-08 Well Plugging Plan Version: March 07, 2022 Page 1 of 5

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7)	Inside diameter of innermost casing:inches.	2022 MAY 25 AM 9: 58
8)	Casing material: Schedule 40 PVC	
9)	The well was constructed with: an open-hole production interval, state the open interval:	LAS CAUCES, HEW ALXICO
	a well screen or perforated pipe, state the screened interval(s): 125-	140ft
10)	What annular interval surrounding the artesian casing of this well is cement-g	
11)	Was the well built with surface casing?NoIf yes, is the annulus sur	rounding the surface casing grouted or
	otherwise sealed?NAIf yes, please describe:	
12)	Has all pumping equipment and associated piping been removed from the wel remaining equipment and intentions to remove prior to plugging in Section VI	
V. DES	SCRIPTION OF PLANNED WELL PLUGGING: form must be completed	rs between multiple wells on same site, a separate for each method.
diagram	this plan proposes to plug an artesian well in a way other than with cement grout, placed of the well showing proposed final plugged configuration shall be attached, as well as sciential logs, that are necessary to adequately describe the proposal. Attach a copy of any signe	any additional technical information, such
Also, if th	is planned plugging plan requires a variance to 19.27.4 NMAC, attach a detailed variance re	quest signed by the applicant.
1)	Describe the method by which cement grout shall be placed in the well, or des	cribe requested plugging methodology
	proposed for the well:	
	The well casing will be cemented from bottom up using tremie pipe, including	all screened intervals and blank casing.
2)	Will well head be cut-off below land surface after plugging? Yes, 6 inches b	elow ground surface
VI. PL	UGGING AND SEALING MATERIALS:	
	e plugging of a well that taps poor quality water may require the use of a specialty cement or cement company and/or product description for specialty cement mixes or any sealant that o	
1)	For plugging intervals that employ cement grout, complete and attach Table A	
2)	For plugging intervals that will employ approved non-cement based sealant(s)	, complete and attach Table B.
3)	Theoretical volume of grout required to plug the well to land surface: 23.7 ga	allons (3.2 cubic ft)
4)	Type of Cement proposed: Portland Type II neat cement with 5% bentonite by	y weight
5)	Proposed cement grout mix: 8.5 gallons of water per 94 pound	d sack of Portland cement.
6)	Will the grout be:batch-mixed and delivered to the siteX mixed on site	

7)	Grout additives requested, and percent by dry weight relative to cement:	
	5% by weight Bentonite powder (~4.7 lbs/94 lb bag of Portland Type II cement)	
8)	Additional notes and calculations:	
	The mix of neat cement and 5% bentonite will require 8.5 gallons of water per 94 lb bag 94 lb bag of cement and 0.7 gallons per percent of bentonite.	of cement; 5.2 gallons per
VII.	ADDITIONAL INFORMATION: List additional information below, or on separate shee	et(s):
		~>
		2022 MAY STANKE CAUG
		\$ Y 2
		V 25 A
		ිසි ග
VIII.	SIGNATURE:	
,	nanda Skarsgard for: Timothy J. Davis say that I have carefully read the foregoin	g Well Plugging Plan of
Opera	ations and any attachments, which are a part hereof; that I am familiar with the rules and rep	ulations of the State
Plugg	neer pertaining to the plugging of wells and will comply with them, and that each and all of this Plan of Operations and attachments are true to the best of my knowledge and belief.	the statements in the Well
	AMANDA SKARSGARD Digitally signed by AMANDA SKARSGAR Date: 2022.05.24 10:32:19 -06'00'	05/24/2022
	Signature of Applicant	Date
IX. A	ACTION OF THE STATE ENGINEER:	
This V	Well Plugging Plan of Operations is:	
11113	won I rugging I fait of Operations is.	
	Approved subject to the attached conditions. Not approved for the reasons provided on the attached letter.	
	Witness my hand and official seal this day of	. 2622
	E NEW A	
	Mike A. Hamman, P.E, STATE ENGINEER	Mexico State Engineer
	4/ 6 / ////////////////////////////////	
	Cheryl Thacker	
	Water Resource Manager	With ne Wall Diversion Dis-
	TE ENGLISH	WD-08 Well Plugging Plan Version: March 07, 2022
	and the second s	Page 3 of 5

TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of grout placement (ft bgl)			Ground Surface
Bottom of proposed interval of grout placement (ft bgl)			145.3 ft
Theoretical volume of grout required per interval (gallons)			23.7 gallons
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement			8.5 gallons of water per 94 lb bag of Portland Type II cement with 5% bentonite powder.
Mixed on-site or batch- mixed and delivered?			On Site
Grout additive 1 requested			Powdered bentonite
Additive 1 percent by dry weight relative to cement			5%
Grout additive 2 requested			2022 MAY 25 LAS CAUCES,
Additive 2 percent by dry weight relative to cement			NA 5:58

TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)			NA
Bottom of proposed sealant of grout placement (ft bgl)			NA
Theoretical volume of sealant required per interval (gallons)			NA
Proposed abandonment sealant (manufacturer and trade name)			NA





NOTE: A Well Plugging Plan of Operations shall be filed with and accepted by the Office of the State Engineer prior to plugging. This form may be used to plug a single well, or if you are plugging multiple monitoring wells on the same site using the same plugging methodology.

Alert! Your well may be eligible to participate in the Aquifer Mapping Program (AMP)-NM Bureau of Geology geoinfo.nmt.edu/resources/water/cgmu/ if within an area of interest and meets the minimum construction requirements, such as there is still water in your well, and the well construction reflected in a well record and log is not compromised, contact AMP at 575-835-5038 or -6951, or by email nmbg-waterlevels@nmt.edu, prior to completing this prior form. Showing proof to the OSE that your well was accepted in this program, may delay the plugging of your well until a later date.

Mailing address: P.O. Box 20			enter White Sands Test Facility (Contact: Timothy Davis)		
	as Cruces	20	G	County:	Dona Ana
	number: (575) 524-502	4	State:	timothy.j.davis@nasa	Zip code 88004
i none i	idinoci, v		E-man:	osiyi,aaviogiiaoo	.90*
III. W	ELL DRILLER INFO	RMATION:			
Well D	riller contracted to prov	ide plugging services:	Not contracted ye	t	
New M	exico Well Driller Licer	nse No.: NA		Expiration D	ate: NA
		Longitude:1	06 deg,	36 min, 21.68	5 sec, NAD 83
2)	Reason(s) for plugging				
2)			nstalling a dedicate	ed sampling system. W	/ell is not part of sampling
	The well has insufficient schedule. Was well used for any what hydrogeologic p	nt recharge to warrant in	gram? No	If yes, please use sec was used to monitor	ction VII of this form to det
3)	The well has insufficient schedule. Was well used for any what hydrogeologic p water, authorization from	nt recharge to warrant in type of monitoring pro- arameters were monitor	gram? No ored. If the well vironment Depart	If yes, please use sec was used to monitor ment may be required	ction VII of this form to det
3)	The well has insufficient schedule. Was well used for any what hydrogeologic p water, authorization from Does the well tap brace.	type of monitoring programmeters were monitoring the New Mexico Enkish, saline, or otherwis	gram? No ored. If the well vironment Departs	If yes, please use sec was used to monitor ment may be required ter? Yes I	ction VII of this form to det contaminated or poor qual prior to plugging.
3)	The well has insufficient schedule. Was well used for any what hydrogeologic p water, authorization from Does the well tap brace.	type of monitoring programmeters were monitoring the New Mexico Enkish, saline, or otherwisults and/or laboratory r	gram? No ored. If the well vironment Departs se poor quality wa eport(s): No analy	If yes, please use sec was used to monitor ment may be required ter? Yes I	etion VII of this form to det contaminated or poor qual prior to plugging. f yes, provide additional deta r item 2. No samples taken.
2)3)4)5)6)	The well has insufficient schedule. Was well used for any what hydrogeologic p water, authorization from Does the well tap brack including analytical results.	type of monitoring pro- arameters were monitoring the New Mexico En- kish, saline, or otherwis- sults and/or laboratory r	gram? No ored. If the well vironment Departs se poor quality wa eport(s): No analy	If yes, please use sec was used to monitor ment may be required ter? Yes I	etion VII of this form to det contaminated or poor qual prior to plugging. f yes, provide additional deta r item 2. No samples taken.

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7)	Inside diameter of innermost casing: 2 inches. 2022 MAY 25 AM 9: 58				
8)	Schedule 40 PVC				
9)	The well was constructed with: an open-hole production interval, state the open interval: a well screen or perforated pipe, state the screened interval(s): 142-157 ft				
10)	What annular interval surrounding the artesian casing of this well is cement-grouted? NA				
11)	Was the well built with surface casing?NoIf yes, is the annulus surrounding the surface casing grouted or otherwise sealed?NAIf yes, please describe:				
12)	Has all pumping equipment and associated piping been removed from the well? Yes If not, describe remaining equipment and intentions to remove prior to plugging in Section VII of this form.				
V. DES	SCRIPTION OF PLANNED WELL PLUGGING: If plugging method differs between multiple wells on same site, a separate form must be completed for each method.				
diagram	this plan proposes to plug an artesian well in a way other than with cement grout, placed bottom to top with a tremie pipe, a detailed of the well showing proposed final plugged configuration shall be attached, as well as any additional technical information, such social logs, that are necessary to adequately describe the proposal. Attach a copy of any signed OSE variance to this plugging plan.				
Also, if th	is planned plugging plan requires a variance to 19.27.4 NMAC, attach a detailed variance request signed by the applicant.				
1)	Describe the method by which cement grout shall be placed in the well, or describe requested plugging methodology				
	proposed for the well:				
	The well casing will be cemented from bottom up using tremie pipe, including all screened intervals and blank casing.				
2)	Will well head be cut-off below land surface after plugging? Yes, 6 inches below ground surface				
VI. PL	UGGING AND SEALING MATERIALS:				
	e plugging of a well that taps poor quality water may require the use of a specialty cement or specialty sealant. Attach a copy of the batch mix recipe cement company and/or product description for specialty cement mixes or any sealant that deviates from the list of OSE approved sealants.				
1)	For plugging intervals that employ cement grout, complete and attach Table A.				
2)	For plugging intervals that will employ approved non-cement based sealant(s), complete and attach Table B.				
3)	Theoretical volume of grout required to plug the well to land surface: 25.7 gallons (3.4 cubic ft)				
4)	Type of Cement proposed: Portland Type II neat cement with 5% bentonite by weight				
5)	Proposed cement grout mix: 8.5 gallons of water per 94 pound sack of Portland cement.				
6)	Will the grout be:batch-mixed and delivered to the site mixed on site				

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TABLE A - For plugging intervals that employ cement grout. Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of grout placement (ft bgl)			Ground Surface
Bottom of proposed interval of grout placement (ft bgl)			157.3 ft
Theoretical volume of grout required per interval (gallons)			25.7 gallons
Proposed cement grout mix gallons of water per 94-lb. sack of Portland cement			8.5 gallons of water per 94 lb bag of Portland Type II cement with 5% bentonite powder.
Mixed on-site or batch- mixed and delivered?			On Site
Grout additive 1 requested			Powdered bentonite
Additive 1 percent by dry weight relative to cement			5%
Grout additive 2 requested			NA LAS CAUCES, III
Additive 2 percent by dry weight relative to cement			NA HEAICO

TABLE B - For plugging intervals that will employ approved non-cement based sealant(s). Start with deepest interval.

	Interval 1 – deepest	Interval 2	Interval 3 – most shallow
			Note: if the well is non-artesian and breaches only one aquifer, use only this column.
Top of proposed interval of sealant placement (ft bgl)			NA
Bottom of proposed sealant of grout placement (ft bgl)			NA
Theoretical volume of sealant required per interval (gallons)			NA
Proposed abandonment sealant (manufacturer and trade name)			NA