April

FORM MR AR-LMO
(Revised 11/2016)

UTAH DEPARTMENT OF NATURAL RESOURCES - DIVISION OF OIL, GAS AND MINING
1594 West North Temple - Suite 1210, Salt Lake City UT 84116 (Delivery service)
Box 145801, Salt Lake City UT 84114-5801 (US Postal service)
Telephone: (801) 538 5342

LARGE MINING OPERATIONS PROGRESS REPORT
January 1, 2016 to December 31, 2016

The information required in this form is based on provisions of the Mined Land Reclamation Act, Title 40 8, and the R647 rules under the Utah Minerals Regulatory Program.
Due January 31 of each year.

RECEIVED
JAN 27 2017
DIV. OF OIL, GAS & MINING

1. Mine Permit Number: M/0 0470090

2. Mine Name: PR Spring Mine

3. Name of Operator/Permittee: US Oil Sands (Utah) Inc.

4. Address: 67750 South Seep Ridge Road, Bonanza, UT 84008

Note: If Operator's address, company representative or phone number have changed, submit replacement page(s) for the Notice of Intention together with form MR-REV available on the Division's web page at https://fs.ogm.utah.gov/pub/MINES/Minerals_Related/FORMS/MR-REV.pdf.

5. Status of Mining Activity: Active ☐ Inactive ☑
Date of Last Mining: Dec. 9, 2016

6. Primary Commodities Produced: Oil-bitumen

7. Gross amount of ore or product mined and waste moved this year. Not Applicable ☐

Gross ore or product moved: Oil Sand

Amount: 4,670 Unit: Tons

Waste material moved: Overburden & associated waste

Amount: 14,800 Unit: Cubic Yd

8. New Surface Disturbance Created in 2016 0 Acres

Reclamation Completed in 2016 0 Acres

9. Any areas of reclamation eligible for bond release? YES ☐ NO ☑

To apply for full or partial bond/site release submit form MR-SITE download the form: Click Here

10. Briefly describe any mining activity and reclamation work performed during the current reporting year. If there was no production shown in Line 4, describe any maintenance work conducted that required earthmoving equipment. Include any updates to the operation plan (per R647-4-106).

USO mined overburden, ore associated waste and oil sand ore from Pit 1, Cut 1 according to its permitted operational plan. Oil sand ore was hauled and stockpiled in preparation for hauling to and processing in the oil extraction plant. Waste was hauled and stockpiled behind mining activities in designated stockpile areas. Some waste was regraded to final topography and awaits topsoil and reseeding. No additional disturbance areas beyond those disturbed in 2015 were created.

11. Please provide an updated map depicting surface disturbance and reclamation performed during the year (per R647-4-121.2)

The Utah Board of Oil, Gas and Mining is accepting nominations for 2017 Earth Day Awards now through January 31. Earth Day Awards recognize reclamation projects and innovations in environmental technology going beyond what is required by regulation. It is an opportunity for companies to demonstrate technical expertise and pride in their industry, and concern not only for the economics of their industry, but also for our environment.

Here is the link to the nomination form and instructions:
http://linux3.ogm.utah.gov/WebStuff/wwwroot/division/includes/Callfornominationsletter.pdf

The Division produces a quarterly newsletter The Drill Down that highlights Division projects and activities.

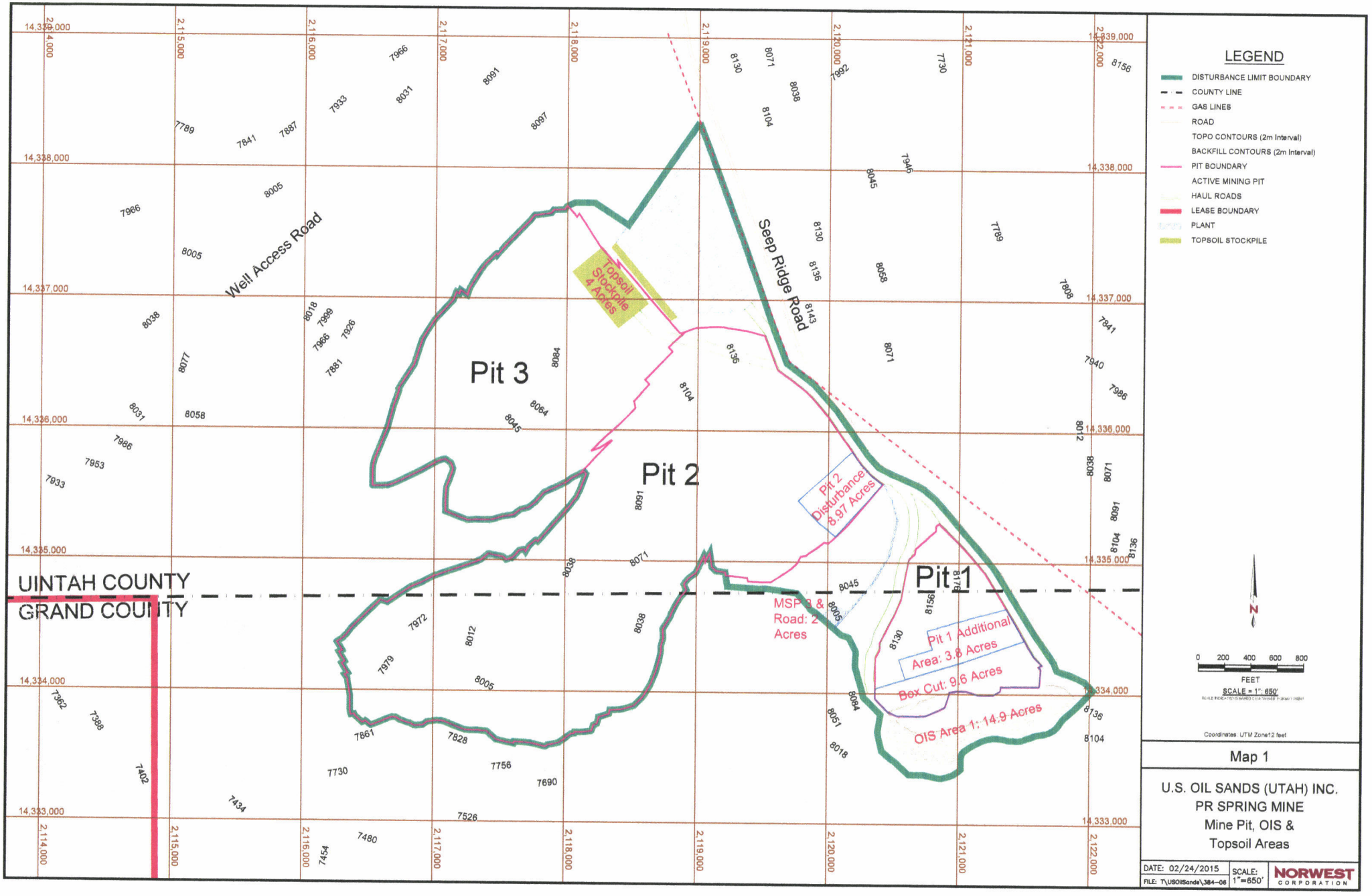
To subscribe to our newsletter visit this link:
http://utah.us11.list-manage.com/subscribe?u=132bc5998988f92865a303571&id=94412697d7

I hereby certify the information in this report is true and correct to the best of my knowledge and belief.

Name (Typed or Print): Doug Thornton

Title of Operator: HSE & Regulatory Manager

Signature of Operator: _____ Date: Jan. 25, 2017



Map 1

U.S. OIL SANDS (UTAH) INC.
PR SPRING MINE
Mine Pit, OIS &
Topsoil Areas

DATE: 02/24/2015 | SCALE: 1"=650'
FILE: T:\USOilSands\384-06

NORWEST CORPORATION

US Oil Sands (Uah) Inc. Water Monitoring Plan for PR Spring Mine (M0470090)

PR Spring

	Flow Rate gal/min.	TDS mg/L	pH	Cl mg/L	HCO_3 mg/L	CO_3 mg/L	CO_2 mg/L	OH mg/L	$CaCO_3$ mg/L	Na mg/L	Ca mg/L	Mg mg/L	d-limonene ug/L
Fall-2015	0.38	432	7.3	4	351	ND	362	ND	288	16	73.2	45.2	ND
Spring-2016	9.50	412	7.7	3	340	ND	249	ND	279	16.4	67.6	43	ND
Summer-2016	1.00	412	7.7	3	351	ND	261	ND	288	16.4	70.7	41.9	ND
Fall-2016	0.70	426	7.6	4	288		ND	ND	288	17.3	76.4	46.7	ND

Spring 6-1

	Flow Rate gal/min.	TDS mg/L	pH	Cl mg/L	HCO_3 mg/L	CO_3 mg/L	CO_2 mg/L	OH mg/L	$CaCO_3$ mg/L	Na mg/L	Ca mg/L	Mg mg/L	d-limonene ug/L
Fall-2015	2.85	568	7.6	3	347	ND	252	ND	284	29.9	91.6	59.2	ND
Spring-2016	4.50	540	7.7	3	335	ND	247	ND	275	30.6	94.4	60.3	ND
Summer-2016	4.88	610	7.6	3	351	ND	262	ND	288	27.6	89.8	52.4	ND
Fall-2016	3.50	612	7.8	3	279		ND	ND	279	28.7	93	59	ND

Spring 32-1

	Flow Rate gal/min.	TDS mg/L	pH	Cl mg/L	HCO_3 mg/L	CO_3 mg/L	CO_2 mg/L	OH mg/L	$CaCO_3$ mg/L	Na mg/L	Ca mg/L	Mg mg/L	d-limonene ug/L
Fall-2015	15.00	860	7.3	8	369	ND	280	ND	303	51.3	111	74.3	ND
Spring-2016	31.20	944	7.4	8	393	ND	299	ND	322	59.3	121	77.2	ND
Summer-2016	12.38	926	7.4	8	382	ND	285	ND	313	60.8	124	72.6	ND
Fall-2016	15.00	962	7.5	8	296		ND	ND	296	61.6	131	85.2	ND

Spring 31-1

	Flow Rate gal/min.	TDS mg/L	pH	Cl mg/L	HCO_3 mg/L	CO_3 mg/L	CO_2 mg/L	OH mg/L	$CaCO_3$ mg/L	Na mg/L	Ca mg/L	Mg mg/L	d-limonene ug/L
Fall-2015	No Flow	N/A											
Spring-2016	No Flow	There was a small amount of water in the bottom of the spring											
Summer-2016	No Flow	There was more water in the bottom of the spring, but no flow to the main canyon drainage yet											
Fall-2016	2.50	606	7.6	5	274		ND	ND	274	34.9	86.2	56.4	ND

USO#5/PW-1

	Flow Rate gal/min.	TDS mg/L	pH	Cl mg/L	HCO_3 mg/L	CO_3 mg/L	CO_2 mg/L	OH mg/L	$CaCO_3$ mg/L	Na mg/L	Ca mg/L	Mg mg/L	d-limonene ug/L
Fall-2015	Wells are not connected and/or running yet												
Spring-2016	Wells are not connected and/or running yet												
Summer-2016	N/A	1260	8.6	9	361	9	271	ND	311	347	37.6	36.3	ND
Fall-2016	N/A	756	8.9	2	337		33.9	ND	371	306	1.6	0.5	ND

US Oil Sands (Uah) Inc. Water Monitoring Plan for PR Spring Mine (M0470090)

Fall 2015

		Flow	Chemistry			Alkalinity (SM 2320B)					Metals (EPA 200.7)			Solvent (EPA 8270D)
Spring/Well	Sample Date	Flow Rate gal/min.	SM 2540C TDS mg/L	SM 4500H-B pH	EPA 300.0 Cl mg/L	HCO_3 mg/L	CO_3 mg/L	CO_2 mg/L	OH mg/L	$CaCO_3$ mg/L	Na mg/L	Ca mg/L	Mg mg/L	d-limonene ug/L
PR Spring	9/29/2015	0.38	432	7.3	4	351	ND	362	ND	288	16	73.2	45.2	ND
Spring 6-1	9/29/2015	2.85	568	7.6	3	347	ND	252	ND	284	29.9	91.6	59.2	ND
Spring 32-1	9/29/2015	15.00	860	7.3	8	369	ND	280	ND	303	51.3	111	74.3	ND
Spring 31-1	9/29/2015	No Flow	N/A											
USO#5/PW-1	9/29/2016	Wells are not connected and/or running yet												

Results reported by ChemTech-Ford Laboratories on October 15, 2015
Annual results submitted to UDOGM on February 16, 2016

Spring 2016

		Flow	Chemistry			Alkalinity (SM 2320B)					Metals (EPA 200.7)			Solvent (EPA 8270D)
Spring/Well	Sample Date	Flow Rate gal/min.	SM 2540C TDS mg/L	SM 4500H-B pH	EPA 300.0 Cl mg/L	HCO_3 mg/L	CO_3 mg/L	CO_2 mg/L	OH mg/L	$CaCO_3$ mg/L	Na mg/L	Ca mg/L	Mg mg/L	d-limonene ug/L
PR Spring	5/17/2016	9.50	412	7.7	3	340	ND	249	ND	279	16.4	67.6	43	ND
Spring 6-1	5/17/2016	4.50	540	7.7	3	335	ND	247	ND	275	30.6	94.4	60.3	ND
Spring 32-1	5/17/2016	31.20	944	7.4	8	393	ND	299	ND	322	59.3	121	77.2	ND
Spring 31-1	5/17/2016	No Flow	There was a small amount of water in the bottom of the spring											
USO#5/PW-1	5/17/2016	Wells are not connected and/or running yet												

Results reported by ChemTech-Ford Laboratories on June 3, 2016

Summer 2016

		Flow	Chemistry			Alkalinity (SM 2320B)					Metals (EPA 200.7)			Solvent (EPA 8270D)
Spring/Well	Sample Date	Flow Rate gal/min.	SM 2540C TDS mg/L	SM 4500H-B pH	EPA 300.0 Cl mg/L	HCO_3 mg/L	CO_3 mg/L	CO_2 mg/L	OH mg/L	$CaCO_3$ mg/L	Na mg/L	Ca mg/L	Mg mg/L	d-limonene ug/L
PR Spring	7/20/2016	1.00	412	7.7	3	351	ND	261	ND	288	16.4	70.7	41.9	ND
Spring 6-1	7/20/2016	4.88	610	7.6	3	351	ND	262	ND	288	27.6	89.8	52.4	ND
Spring 32-1	7/26/2016	12.38	926	7.4	8	382	ND	285	ND	313	60.8	124	72.6	ND
Spring 31-1	7/26/2016	No Flow	There was more water in the bottom of the spring, but no flow to the main canyon drainage yet											
USO#5/PW-1	7/28/2016	N/A	1260	8.6	9	361	9	271	ND	311	347	37.6	36.3	ND

Results reported by ChemTech-Ford Laboratories on August 4 & 15, 2016

Fall 2016

		Flow	Chemistry			Alkalinity (SM 2320B)					Metals (EPA 200.7)			Solvent (EPA 8270D)
Spring/Well	Sample Date	Flow Rate gal/min.	SM 2540C TDS mg/L	SM 4500H-B pH	EPA 300.0 Cl mg/L	Bicarbonate mg/L		Carbonate mg/L	Hydroxide mg/L	Total mg/L	Na mg/L	Ca mg/L	Mg mg/L	d-limonene ug/L
PR Spring	10/12/2016	0.70	426	7.6	4	288		ND	ND	288	17.3	76.4	46.7	ND
Spring 6-1	10/12/2016	3.50	612	7.8	3	279		ND	ND	279	28.7	93	59	ND
Spring 32-1	10/12/2016	15.00	962	7.5	8	296		ND	ND	296	61.6	131	85.2	ND
Spring 31-1	10/12/2016	2.50	606	7.6	5	274		ND	ND	274	34.9	86.2	56.4	ND
USO#5/PW-1	10/12/2016	N/A	756	8.9	2	337		33.9	ND	371	306	1.6	0.5	ND

Results reported by ChemTech-Ford Laboratories on October 25, 2016
Annual results submitted to UDOGM on Jan. 27, 2017