

Technical Memorandum

Date: February 1, 2016

To: Candace Salway, Freeport-McMoRan Oil and Gas

From: Dan Tormey, Ph.D., P.G.

RE: Response to 13267 Investigative Order No. R4-2015-0316 Regarding Disposal of Well and Production Fluids

1.0 Introduction

This Technical Memorandum has been prepared at the request of Freeport-McMoRan Oil and Gas (FM O&G) to respond to a December 18, 2015 Investigative Order to FM O&G in Los Angeles and Ventura Counties, California. FM O&G does not own any properties in Ventura County, therefore this response relates to properties owned and/or operated in Los Angeles County, California. The focus of the Investigative Order is on sumps, including historic sumps, which received discharges associated with oil and gas drilling and production. The Investigative Order specifies the information required, and includes a spreadsheet illustrating the recommended format for the information submittal.

2.0 FM O&G Oil and Gas Fields Addressed by This Order

FM O&G operates seven oil and gas fields in the area of the Los Angeles Regional Board:

- 1. San Vicente Drill Site
- 2. Packard Drill Site
- 3. Jefferson Drill Site
- 4. Murphy Drill Site
- 5. Fourth Avenue Drill Site
- 6. Inglewood Oil Field
- 7. Montebello Oil Field



The first five drill sites listed are less than 2 acres in area, and well heads are closely spaced within a single concrete well cellar. All drilling fluids are containerized and taken offsite for disposal at //appropriately licensed disposal facilities. Produced waters are separated from the oil and gas at the drill site, treated, and then re-injected into the oil and gas producing formations as part of secondary recovery (waterflooding). To FM O&G's knowledge, none of these five drill sites have historic sumps used for fluids associated with oil and gas drilling or production. There are no active sumps.

The remainder of this Technical Memorandum presents the required information for the Inglewood Oil Field and the Montebello Oil Field.

3.0 Inglewood Oil Field

FM O&G has operated the Inglewood Oil Field, an approximately 1,000 acre area of the Baldwin Hills in Los Angeles County, since 2013. Oil was discovered in the Baldwin Hills in 1924 by Standard Oil, and the oil field was operated by Chevron (successor company to Standard Oil), followed in 1992 by Stocker Resources, Inc., which was then acquired by Plains Exploration and Production (PXP) in 2002. FM O&G acquired all of PXP's California operations in 2013.

There are no active sumps at the Inglewood Oil Field. Assessment and remediation of historic sumps has been ongoing since 1992 under a self-directed program initiated when Stocker Resources acquired the field from Chevron. The self-directed program is compliant, and goes beyond the requirements of, the RWQCB-LA's *Interim Site Assessment and Cleanup Guidebook* (last updated in 1996). Since 1998, remediation has been conducted under a Waste Discharge Requirement (WDR) for onsite bioremediation; the WDR was last updated in 2013.

None of the soil excavated and treated at the field has been hazardous according to either federal or state standards. The oil field has a monitoring well array specified by both the RWQCB-LA WDR, and the Los Angeles County CSD for the field. The wells are sampled at intervals specified in the WDR and the CSD, and posted on the Water Board's Geotracker website. None of the groundwater monitoring results has indicated a release that has adversely affected groundwater beneath the field. There are no domestic, municipal, or commercial wells located within a half mile radius of the field.

There have been no active sumps as defined in the Investigative Order since FM O&G began operations. The historic operations prior to Stocker's acquisition of the field in 1992 are the subject of ongoing remediation. Several site features have been identified as "sumps" as part of work on the historic sites, although we believe that these include more features than indicated by the Investigative Order's definition of sump. For completeness, however, this Technical Memorandum includes all features that have been identified as "sumps" are depicted on Figure 1.

Sumps for drilling muds, cuttings, and fluids are practically inert owing to the prevalence of very low permeability bentonite clays used for muds. WDRs or other approvals are not required for these types of sumps. Between 1992 and 2001 one central sump was used to hold drilling muds, cuttings, and fluids from all wells drilled on the site. From 2002-2007 individual sumps were used at individual well sites during drilling, sometimes serving more than one drilled well in proximity to one another In addition to the central sump. A solidifier was also added to the sump prior to closure. Each sump associated with well drilling was used for approximately two months. Following drilling the sumps were tested – all sumps were determined to be non-hazardous – and backfilled with drilling cuttings and soil. Data for each sump used between 2002 and 2007 is presented in Table 1 and depicted in Figure 2.



No sumps have been used at the Inglewood Oil Field since 2008. All drilling muds, cuttings, and fluids are solidified and transported offsite to be used as daily landfill cover.

The information required by the Investigative Order is as follows:

Locations of current and historic sumps. See Figures 1 and 2 and Table 1, Attachment A. There are no active sumps at the field, only historic.

Sump Closure Procedures. There are no active sumps at the field.

Fluid Volumes. See spreadsheet, Attachment A. There are no active sumps at the field.

Physical and Chemical Composition. See spreadsheet, Attachment A. Composition from historic sumps is determined during remediation, under the WDR and have all been non-hazardous.

Well locations. There are no domestic, municipal, or commercial wells located within a half mile radius of the oil field.

Historic and current data for any wells. The oil field has a monitoring well array specified by both the RWQCB-LA WDR, and the Los Angeles County CSD for the field. The wells are sampled at intervals specified in the WDR and the CSD, and posted on the Water Board's Geotracker website.

4.0 Montebello Oil Field

The Montebello Oil Field covers approximately 488 acres in the City of Montebello, California. Oil production began at the Site in 1917 and is ongoing. Stocker Resources, Inc. acquired the field from Chevron (a successor company to Standard Oil) in 1996, which was then acquired by Plains Exploration and Production (PXP) in 2002. FM O&G acquired all of PXP's California operations in 2013.

Chevron had conducted field-wide soil and groundwater investigations, and prior to the sale had remediated known areas of concern that were not in active use for oil production. The work was conducted in accordance with the Remedial Action Plan for Chevron Montebello Oil Field (Levine-Fricke Recon (LFR) 1996b). All work was conducted with the oversight of the RWQCB-LA, and a No Further Action Letter was issued by the RWQCB-LA on April 9, 1997 for the remediation of all non-active infrastructure conducted by LFR. In addition, a single area of groundwater contamination was found in the Temple Flats area of the Site by Chevron, and a No Further Action Letter was issued by the LARWQCB on October 9, 1997 for groundwater remediation of this area.

Remediation of active infrastructure is addressed by a 2010 Remedial Action Plan (RAP) (Cardno ENTRIX, 2010) approved by the RWQCB-LA. The RAP includes historic groundwater data from all groundwater wells on the field, and other information responsive to the Investigative Order. These data are available on the Water Board's Geotracker website.

None of the soil excavated and treated at the field has been hazardous according to either federal or state standards. None of the groundwater monitoring results has indicated an operational release that has adversely affected groundwater beneath the field. There are no domestic, municipal, or commercial wells located within a half mile radius of the field.



There have been no active sumps as defined in the Investigative Order since FM O&G began operations. The historic operations that are the subject of ongoing remediation have identified several site features as "sumps", although we believe that these include more features than indicated by the Investigative Order's definition of sump. Sumps for drilling mud, cuttings and fluids, in particular, are practically inert owing to the prevalence of very low permeability bentonite clays. For completeness, however, this Technical Memorandum includes all features that have been identified as "sumps" in the past. Between 1996 and 2008, all drilling mud, cuttings and fluids were contained in one central sump (Figure 3). Beginning in 2009, all drilling mud, cuttings and fluids were solidified and transported offsite to be used as daily landfill cover.

The information required by the Investigative Order is as follows:

Locations of current and historic sumps. See Figure 3 and Table 2, Attachment A. There are no active sumps at the field, only historic.

Sump Closure Procedures. There are no active sumps at the field.

Fluid Volumes. See Table 2, Attachment A. There are no active sumps at the field.

Physical and Chemical Composition. See Table 2, Attachment A. Composition from historic sumps is determined during remediation, under the RAP and have all been non-hazardous

Well locations. There are no domestic, municipal, or commercial wells located within a half mile radius of the oil field.

Historic and current data for any wells. The oil field has a monitoring well array prepared for the RAP, and to comply with a 1998 WDR for bioremediation issued by the RWQCB-LA WDR. The information is posted on the Water Board's Geotracker website.



Attachment A



Inglewood Oil Field

Table 1. Freep	Ort-IVICIVIOI	kan Oli and Ga	s Inglewood C		ation (NAD 83)	e and Aband	ionea) Sum	ps								
				Sump LOC					Total amount					Was there		
							When was the	How many	of fluid		Was sump filled with soil		What material was	solidified	If Yes, what was	
Owner and/or			Sump Name/			LxWxD Sump	•	-	discharged in		or other material?	When was the sump	used to fill the	waste?	the composition	<i>4 /</i> E
Operator	Field Name	County	Description	Latitude	Longitude	Volume in ft3	excavated?	sump active?	bbls	Composition of fluids	(Yes/No)	filled?	sump? Drilling muds,	(Yes/No)	of these solids?	Sump Status 4/5
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	BC-SP1 (C)	33.99987	-118.36683	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	cuttings, and native	No ³		Sampled and Characterized
Freeport -													Drilling muds,			
McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	LN-SP1	33.99894	-118.37067	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	cuttings, and native soil ²	No ³		Sampled and Characterized
Freeport -	Inglewood												Drilling muds,			
McMoRan Oil and Gas	Oil Field	Los Angeles	LN-SP2 (C)	34.00436	-118.36844	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	cuttings, and native soil ²	No ³		Sampled and Characterized
Freeport -	Inglewood			24.00400	110 20072					r 1	W		Drilling muds,	3		
McMoRan Oil and Gas	Oil Field	Los Angeles	LN-SP3 (C)	34.00480	-118.36873	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	cuttings, and native soil ²	No		Sampled and Characterized
Freeport -	Inglewood			24.00425	110 27100					a 1	N		Drilling muds,	. 3		Remediation Complete - 4,000 cyds
McMoRan Oil and Gas	Oil Field	Los Angeles	LN-SP4 (HA)	34.00425	-118.37199	UNK	UNK	1	UNK	Drilling fluids ¹	Yes		cuttings, and native soil ²	No		removed (ENTRIX 2004) ⁴
Freeport -	Inglewood									1			Drilling muds,	2		Remediation started but postponed
McMoRan Oil and Gas	Oil Field	Los Angeles	LN-SP5 (HA)	33.99960	-118.36977	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	cuttings, and native soil ²	No		due to active infrastructure (2004) ⁴
Freeport -	Inglewood			22.00128	110 20020					Clarification of						Gunite-lined. Out-of-service since
McMoRan Oil and Gas	Oil Field	Los Angeles	LS-SP1	33.99128	-118.36836	UNK	UNK	UNK	UNK	produced water	No	NA	NA	NA		1992
Freeport -	Inglewood	Los Angolos	LS-SP2	22 00141	110 26017					Clarification of	No			NIA		Gunite-lined. Out-of-service since
McMoRan Oil and Gas	Oil Field	Los Angeles	L3-3P2	33.99141	-118.36817	UNK	UNK	UNK	UNK	produced water	No	NA	NA	NA		1992
Freeport - McMoRan Oil and	Inglewood	Los Angolos	LS-SP3 (C)	33.99203	110 26770		UNK	UNK	UNK	Clarification of	No			NIA		Gunite-lined. Out-of-service since
Gas	Oil Field	Los Angeles	LS-SP3 (C)	33.99203	-118.36778	UNK	UNK	UNK	UNK	produced water	Νο	NA	NA	NA		1992
Freeport -	Inglewood									Clarification of						Gunite-lined. Out-of-service since
McMoRan Oil and Gas	Oil Field	Los Angeles	LS-SP4	33.99279	-118.36791	UNK	UNK	UNK	UNK	produced water	No	NA	NA	NA		1992
Freeport -	Inglewood									Clarification of						Gunite-lined. Out-of-service since
McMoRan Oil and Gas	Oil Field	Los Angeles	LS-SP5	33.99332	-118.36809	UNK	UNK	UNK	IUNK	produced water	No	NA	NA	NA		1992
Freeport -	Inglewood									Clarification of						Gunite-lined. Out-of-service since
McMoRan Oil and	Oil Field	Los Angeles	LS-SP6	33.99335	-118.36811	UNK	UNK	UNK	IUNK	produced water	No	NA	NA	NA		1992
Gas Freeport -													Drilling muds,			
McMoRan Oil and	Inglewood Oil Field	Los Angeles	LS-SP7	33.99417	-118.36696	UNK	UNK	1	UNK	Drilling fluids ¹	Yes		cuttings, and native	No ³		Sampled and Characterized
Gas	On Tield												soil ²			
Freeport - McMoRan Oil and	Inglewood	Los Angeles	LS-SP8 (C)	33.99471	-118.36683	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native			Remediation Complete - 4,000 cyds
Gas	Oil Field	LOS Angeles	L3-3P8 (C)	55.99471	-110.30003	UNK	UNK	T	UNK	Drilling hulds	res	UNK	soil ²	NO		removed (ENTRIX 2004) ⁴
Freeport -	Indowood												Drilling muds,			
McMoRan Oil and	Inglewood Oil Field	Los Angeles	LS-SP9 (HA)	33.99474	-118.36576	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	cuttings, and native	No ³		Sampled and Characterized
Gas Freeport -													soil ² Drilling muds,			
McMoRan Oil and	Inglewood	Los Angeles	RC-SP1 (C)	34.00905	-118.37471	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	cuttings, and native	No ³		Sampled and Characterized
Gas	Oil Field									-			soil ²			
Freeport - McMoRan Oil and	Inglewood	Los Angeles	RC-SP2 (C)	34.01044	-118.37530	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native			Sampled and Characterized
Gas	Oil Field	LOS Aligeles	NC-3F2 (C)	54.01044	-118.57550	UNK	UNK	T	UNK	Drilling fluids ¹	165		soil ²	NO		Sampled and Characterized
Freeport -	Inglewood												Drilling muds,	2		
McMoRan Oil and Gas	Oil Field	Los Angeles	RC-SP3	34.01146	-118.37444	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	cuttings, and native soil ²	No ³		Sampled and Characterized
Freeport -													Drilling muds,			
McMoRan Oil and	Inglewood Oil Field	Los Angeles	RC-SP4 (C)	34.01107	-118.37268	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	cuttings, and native	No ³		Sampled and Characterized
Gas													soil ²			
Freeport - McMoRan Oil and	Inglewood	Los Angeles	RC-SP4 (C)	34.01110	-118.37267	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native	No ³		Remediation started but postponed
Gas	Oil Field							=					soil ²			due to active infrastructure (2008) ⁴
Freeport -	Inglewood									1			Drilling muds,	2		
McMoRan Oil and	Oil Field	Los Angeles	RC-SP5 (C)	34.01137	-118.37280	UNK	UNK	1	UNK	Drilling fluids ¹	Yes		cuttings, and native soil ²	No ³		Sampled and Characterized
Gas		1	I	1		I							5011		I	

Table 1. Freepo	ort-McMoH	Ran Oil and Ga	s Inglewood C		tion (NAD 83)	e and Aband	doned) Sum	ps								
				Sump Loca		-			Total amount					Was there		
Owner and/or	Field Name	Country	Sump Name/	Latitude	Longitudo	LxWxD Sump Volume in ft3	•	years was the	of fluid discharged in	Composition of fluids	Was sump filled with soil or other material? (Yes/No)	When was the sump filled?	What material was used to fill the	solidified waste? (Yes/No)	If Yes, what was the composition of these solids?	Sump Status ^{4/5}
McMoRan Oil and	Inglewood Oil Field	County Los Angeles	Description RC-SP6	34.00631	Longitude -118.37273		UNK	sump active?		Drilling fluids ¹		UNK	sump? Drilling muds, cuttings, and native soil ²			Sampled and Characterized
Freeport - McMoBan Oil and	Inglewood Oil Field	Los Angeles	RC-SP7	34.01355	-118.37486	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native p soil ²	No ³		Sampled and Characterized
Freeport - McMoBan Oil and	Inglewood Oil Field	Los Angeles	RC-SP8 (HA)	34.01078	-118.37525	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native p soil ²	No ³		Sampled and Characterized
Freeport - McMoBan Oil and	Inglewood Oil Field	Los Angeles	RC-SP9 (HA)	34.01119	-118.37626	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native p soil ²	No ³		Sampled and Characterized
	Inglewood Oil Field	Los Angeles	SF-SP1 (C)	33.99064	-118.35980	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Sampled and Characterized
N/ICN/IORan ()II and	Inglewood Oil Field	Los Angeles	SF-SP2	33.99078	-118.36009	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native r soil ²	No ³		Sampled and Characterized
	Inglewood Oil Field	Los Angeles	SF-SP3 (HA)	33.99398	-118.36013	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native _I soil ²	No ³		Remediation started but postponed due to active infrastructure (1998) ⁴
WICKIORAN ()II and	Inglewood Oil Field	Los Angeles	SF-SP4 (HA)	33.99347	-118.36089	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native _I soil ²	No ³		Remediation Complete - 5,000 cyds removed (ENTRIX 1999) ⁴
N/cN/loRan ()il and	Inglewood Oil Field	Los Angeles	SF-SP5 (HA)	33.99343	-118.35941	UNK	UNK	1	UNK	Drilling fluids ¹	Yes		Drilling muds, cuttings, and native p soil ²	No ³		Sampled and Characterized
McMoRan Oil and	Inglewood Oil Field	Los Angeles	SF-SP6 (HA)	33.99272	-118.35941	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native p soil ²	No ³		Remediation started but postponed due to active infrastructure (1998)
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	SF-SP7 (HA)	33.99108	-118.35998	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native g soil ²	No ³		Sampled and Characterized
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	V1-SP1	34.00306	-118.38086	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native g soil ²	No ³		Sampled and Characterized
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	V1-SP2	34.00333	-118.38060	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Sampled and Characterized
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	V1-SP3	34.00435	-118.37802	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Sampled and Characterized
McMoRan ()II and	Inglewood Oil Field	Los Angeles	V1-SP4	34.00513	-118.37820	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Sampled and Characterized
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	V1-SP5 (C)	34.00503	-118.37797	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Remediation Complete - 10,000 cyds removed (ENTRIX 2007) ⁴
McMoRan ()II and	Inglewood Oil Field	Los Angeles	V1-SP6	34.00532	-118.37760	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Sampled and Characterized
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	V1-SP7 (HA)	34.00207	-118.37911	UNK	UNK	1	UNK	Drilling fluids ¹	Yes		Drilling muds, cuttings, and native g soil ²	No ³		Sampled and Characterized
M/M/MRan ()II and	Inglewood Oil Field	Los Angeles	V1-SP8 (HA)	34.00229	-118.37877	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Sampled and Characterized
IV/ICIV/IORan ()II and	Inglewood Oil Field	Los Angeles	V1-SP9 (HA)	34.00263	-118.38181	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Sampled and Characterized
N/ICN/IORan ()II and	Inglewood Oil Field	Los Angeles	VM-SP1	34.00885	-118.38623	UNK	UNK	1	UNK	Drilling fluids ¹	Yes		Drilling muds, cuttings, and native _I soil ²	No ³		Sampled and Characterized

Table 1. Freepo	ort-IVICIVIOR	an Oil and Gas	s Inglewood O	1	toric (Inactiv tion (NAD 83)	e and Aban	doned) Sum	ps								
						1			Total amount					Was there		
Owner and/or Operator	Field Name	County	Sump Name/ Description	Latitude	Longitude	LxWxD Sump Volume in ft3	When was the sump first excavated?	How many years was the sump active?	-	Composition of fluids	Was sump filled with soil or other material? (Yes/No)	When was the sump filled?	What material was used to fill the sump?	solidified waste? (Yes/No)	If Yes, what was the composition of these solids?	Sump Status ^{4/5}
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	VM-SP10 (HA)	34.01260	-118.38737	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	10 ³		Sampled and Characterized
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	VM-SP11 (HA)	34.01309	-118.38784	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	10 ³		Sampled and Characterized
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	VM-SP2	34.00900	-118.38638	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	lo ³		Remediation Complete - 920 cyds removed (ENTRIX 2004) ⁴
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	VM-SP3	34.00892	-118.38567	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	10 ³		Sampled and Characterized
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	VM-SP4	34.00887	-118.38564	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	10 ³		Sampled and Characterized
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	VM-SP5	34.00915	-118.38581	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	lo ³		Sampled and Characterized
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	VM-SP6 (HA)	34.00862	-118.38650	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	10 ³		Sampled and Characterized
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	VM-SP7 (HA)	34.00860	-118.38695	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	10 ³		Sampled and Characterized
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	VM-SP8 (HA)	34.00871	-118.38689	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	10 ³		Sampled and Characterized
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	VM-SP9 (HA)	34.01219	-118.38720	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	lo ³		Sampled and Characterized
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	Central Mud Sum	34.00399	-118.37952	30,000	1992	15	UNK	Drilling fluids ¹	Yes	2002	Drilling muds, cuttings, and native soil ²	10 ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	TVIC 99/TVIC V2 L/W 1	34.01107	-118.38371	5400	2002	2 months	UNK	Drilling fluids ¹	Yes	2002	Drilling mud, cuttings, and solidifier	10 ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	TVIC 98	34.00838	-118.38161	5400	2002	2 months	UNK	Drilling fluids ¹	Yes		solidifier	10 ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	BC LAI1 L/W 445	34.00414	-118.36642	5400	2002	2 months	UNK	Drilling fluids ¹	Yes	2002	solidifier	10 ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	BC 653/BC STK LAIC	33.99748	-118.35964	5400	2002	2 months	UNK	Drilling fluids ¹	Yes	2002	solidifier	10 ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	STK 655/654	33.99403	-118.35941	5400	2002	2 months	UNK	Drilling fluids ¹	Yes		solidifier	10 ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	STK LAI1 504	33.99287	-118.36069	5400	2002	2 months	UNK	Drilling fluids ¹	Yes	2002	solidifier	10 ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	BC LAI1 L/W 443	33.99799	-118.36617	5400	2002	2 months	UNK	Drilling fluids ¹	Yes	2002	solidifier	10 ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas Freeport -	Inglewood Oil Field	Los Angeles	LAI BC L/W 407	33.99755	-118.36772	5400	2002	2 months	UNK	Drilling fluids ¹	Yes	2002	Drilling mud, cuttings, and solidifier Drilling mud,	10 ³		Backfilled ⁵
McMoRan Oil and Gas Freeport -	Inglewood Oil Field	Los Angeles	BC STK L/W 283	33.99742	-118.35938	5400	2002	2 months	UNK	Drilling fluids ¹	Yes	2002		10 ³		Backfilled ⁵
McMoRan Oil and Gas Freeport -	Inglewood Oil Field	Los Angeles	LAI BC L/W 405	33.99886	-118.36871	5400	2002	2 months	UNK	Drilling fluids ¹	Yes	2002		10 ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	VRU VIC1 L/W 1	34.00907	-118.37730	5400	2002	2 months	UNK	Drilling fluids ¹	Yes	2002		10 ³		Backfilled ⁵

Table 1. Freepo	ort-McMoF	Ran Oil and Ga	as Inglewood O	il Field: His	storic (Inactiv	ve and Aban	doned) Sum	ps								
				Sump Loca	ation (NAD 83)	_										
									Total amount		NATION AND AND AND AND AND AND AND AND AND AN			Was there		
Owner and/or			Sump Name/			LxWxD Sump	When was the sump first		of fluid discharged in		Was sump filled with soil or other material?	When was the sump	What material was used to fill the	solidified waste?	If Yes, what was the composition	
Operator	Field Name	County	Description	Latitude	Longitude	Volume in ft3	•	sump active?	bbls	Composition of fluids	(Yes/No)	filled?	sump?	(Yes/No)	of these solids?	Sump Status 4/5
reeport -	Inglewood							_		1			Drilling mud,	2		
McMoRan Oil and	Oil Field	Los Angeles	BC LAI1 L/W 448	34.00539	-118.36629	5400	2002	2 months	UNK	Drilling fluids ¹	Yes	2002	cuttings, and solidifier	No ³		Backfilled ⁵
Gas Freeport -													Drilling mud,			
McMoRan Oil and	Inglewood Oil Field	Los Angeles	WRZU 392	34.00762	-118.37415	5400	2002	2 months	UNK	Drilling fluids ¹	Yes	2002	cuttings, and	No ³		Backfilled ⁵
Gas													solidifier			
Freeport - McMoRan Oil and	Inglewood	Los Angeles	TVIC 100	34.01255	-118.38387	5400	2002	2 months	UNK	Drilling fluids ¹	Yes	2002	Drilling mud, cuttings, and	No ³		Backfilled ⁵
Gas	Oil Field	LOS Aligeles		54.01255	-110.30307	5400	2002		UNK		165	2002	solidifier	NO		Dackinieu
Freeport -	Inglewood												Drilling mud,	_		
McMoRan Oil and	Oil Field	Los Angeles	TVIC 101 A	34.01258	-118.38415	5400	2002	2 months	UNK	Drilling fluids ¹	Yes	2002	cuttings, and	No ³		Backfilled ⁵
Gas Freeport -													solidifier Drilling mud,			
McMoRan Oil and	Inglewood Oil Field	Los Angeles	BC LAI1 L/W 449	33.99920	-118.36505	5400	2002	2 months	UNK	Drilling fluids ¹	Yes	2002	cuttings, and	No ³		Backfilled ⁵
Gas	OII Field									-			solidifier			
Freeport - McMoRan Oil and	Inglewood	Los Angeles	LAI1 394	34.00269	-118.37003	5400	2003	2 months	UNK	Drilling fluide ¹	Yes	2003	Drilling mud,	No ³		Backfilled ⁵
Gas	Oil Field	LOS Aligeles	LAII 394	54.00209	-110.57005	5400	2003		UNK	Drilling fluids ¹	res	2005	cuttings, and solidifier	NO		Backfilled
Freeport -	Inglewood												Drilling mud,			
McMoRan Oil and	Oil Field	Los Angeles	LAI1 393	34.00352	-118.37011	5400	2003	2 months	UNK	Drilling fluids ¹	Yes	2003	cuttings, and	No ³		Backfilled ⁵
Gas Freeport -													solidifier Drilling mud,			
McMoRan Oil and	Inglewood	Los Angeles	LAI1 395	33.99908	-118.36889	5400	2003	2 months	UNK	Drilling fluids ¹	Yes	2003	cuttings, and	No ³		Backfilled ⁵
Gas	Oil Field	_											solidifier			
Freeport -	Inglewood			24.00200	110 27225	F 400	2002	2		a 1		2002	Drilling mud,	3		
McMoRan Oil and Gas	Oil Field	Los Angeles	LAI1 392	34.00389	-118.37335	5400	2003	2 months	UNK	Drilling fluids ¹	Yes	2003	cuttings, and solidifier	No ³		Backfilled ⁵
Freeport -	Indowood												Drilling mud,			
McMoRan Oil and	Inglewood Oil Field	Los Angeles	VIC1 133	34.00906	-118.37934	5400	2003	2 months	UNK	Drilling fluids ¹	Yes	2003	cuttings, and	No ³		Backfilled ⁵
Gas Freeport -													solidifier Drilling mud,			
McMoRan Oil and	Inglewood	Los Angeles	LAI1 400	34.00273	-118.37317	5400	2003	2 months	UNK	Drilling fluids ¹	Yes	2003	cuttings, and	No ³		Backfilled ⁵
Gas	Oil Field									0			solidifier			
Freeport -	Inglewood		1 411 200	24 00276	110 27211	F 400	2002	2 maantha			Maa	2002	Drilling mud,			D 1 CH 15
McMoRan Oil and Gas	Oil Field	Los Angeles	LAI1 399	34.00276	-118.37311	5400	2003	2 months	UNK	Drilling fluids ¹	Yes	2003	cuttings, and solidifier	No ³		Backfilled ⁵
Freeport -	Inglewood												Drilling mud,			
McMoRan Oil and	Oil Field	Los Angeles	BC 205	34.00039	-118.36362	5400	2003	2 months	UNK	Drilling fluids ¹	Yes	2003	cuttings, and	No ³		Backfilled ⁵
Gas Freeport -													solidifier Drilling mud,			
McMoBan Oil and	Inglewood Oil Field	Los Angeles	STK 107	33.99616	-118.36012	5400	2003	2 months	UNK	Drilling fluids ¹	Yes	2003	cuttings, and	No ³		Backfilled ⁵
Gas	Oli Field									-			solidifier			
Freeport - McMoRan Oil and	Inglewood	Los Angeles	LAI1 403	34.00576	-118.37549	5400	2003	2 months	UNK	Drilling fluids ¹	Yes	2003	Drilling mud, cuttings, and	No ³		Backfilled ⁵
Gas	Oil Field	LOS Aligeres		54.00570	-110.37343	5400	2005	2 11011113	UNK		163	2005	solidifier	NO		Backinicu
Freeport -	Inglewood												Drilling mud,	_		
McMoRan Oil and	Oil Field	Los Angeles	LAI1 VRU1	34.00580	-118.37549	5400	2003	2 months	UNK	Drilling fluids ¹	Yes	2003	cuttings, and solidifier	No ³		Backfilled ⁵
Gas Freeport -													Drilling mud,			
McMoRan Oil and	Inglewood Oil Field	Los Angeles	LAI 397	34.00340	-118.37060	5400	2003	2 months	UNK	Drilling fluids ¹	Yes	2003	cuttings, and	No ³		Backfilled ⁵
Gas													solidifier			
Freeport - McMoRan Oil and	Inglewood	Los Angeles	LAI 398	34.00345	-118.37061	5400	2003	2 months	UNK	Drilling fluids ¹	Yes	2003	Drilling mud, cuttings, and	No ³		Backfilled ⁵
Gas	Oil Field	LOS Aligeres		54.00545	-110.57001	5400	2005	2 11011113	UNK		163	2003	solidifier	NO		Dackinicu
Freeport -	Inglewood												Drilling mud,			
	Oil Field	Los Angeles	VRU VIC1 TVIC1	34.00911	-118.37733	5400	2003	2 months	UNK	Drilling fluids ¹	Yes	2003	cuttings, and	No ³		Backfilled ⁵
Gas Freeport -													solidifier Drilling mud,		+	
McMoPan Oil and	Inglewood Oil Field	Los Angeles	VRU LAI1 220	34.00631	-118.37414	5400	2003	2 months	UNK	Drilling fluids ¹	Yes	2003	cuttings, and	No ³		Backfilled ⁵
Gas										-			solidifier		ļ	
	Inglewood	Los Angeles	VRU LAI 1 222	34.00617	-118.37227	5400	2003	2 months	UNK	Drilling fluids ¹	Voc	2003	Drilling mud,	No ³		Backfilled ⁵
Gas	Oil Field	LOS AUGUES	VNU LAI I 222	34.00017	-110.3/22/	3400	2005			Drilling fluids ¹	Yes	2005	cuttings, and solidifier	INO		Dackinieu
Freeport -	Inglewood												Drilling mud,			
VICIVIORAN OII and	Oil Field	Los Angeles	LAI 396	34.00079	-118.36798	5400	2003	2 months	UNK	Drilling fluids ¹	Yes	2003	cuttings, and	No ³		Backfilled ⁵
Gas													solidifier			

able 1. Freepo	ort-ivicivioi	Ran Oil and Ga	s Inglewood C		ation (NAD 83)	e and Aband	ionea) Sum	ps								
Owner and/or			Sump Name/			LxWxD Sump	•	years was the	-		Was sump filled with soil or other material?	When was the sump	What material was used to fill the	Was there solidified waste?	If Yes, what was the composition	6
Operator eeport -	Field Name	County	Description	Latitude	Longitude	Volume in ft3	excavated?	sump active?	bbls	Composition of fluids	(Yes/No)	filled?	sump? Drilling mud,	(Yes/No)	of these solids?	Sump Status ^{4/5}
cMoRan Oil and s	Inglewood Oil Field	Los Angeles	LAI 401	34.00264	-118.37003	5400	2003	2 months	UNK	Drilling fluids ¹	Yes	2003	cuttings, and solidifier	No ³]	Backfilled ⁵
eport - MoRan Oil and 5	Inglewood Oil Field	Los Angeles	VRU LAI1 221	34.00607	-118.37116	5400	2003	2 months	UNK	Drilling fluids ¹	Yes	2003	Drilling mud, cuttings, and solidifier	No ³]	Backfilled ⁵
eport - MoRan Oil and s	Inglewood Oil Field	Los Angeles	VRU LAI1 219	34.00611	-118.37125	5400	2003	2 months	UNK	Drilling fluids ¹	Yes	2003	Drilling mud, cuttings, and solidifier	No ³]	Backfilled ⁵
eport - MoRan Oil and S	Inglewood Oil Field	Los Angeles	LAI1 410	34.00188	-118.37004	5400	2004	2 months	UNK	Drilling fluids ¹	Yes	2004	Drilling mud, cuttings, and solidifier	No ³]	Backfilled ⁵
eport - MoRan Oil and s	Inglewood Oil Field	Los Angeles	LAI1 411	34.00184	-118.36999	5400	2004	2 months	UNK	Drilling fluids ¹	Yes	2004	Drilling mud, cuttings, and solidifier	No ³]	Backfilled ⁵
eeport - MoRan Oil and s	Inglewood Oil Field	Los Angeles	LAI1 412	34.00015	-118.37014	5400	2004	2 months	UNK	Drilling fluids ¹	Yes	2004	Drilling mud, cuttings, and solidifier	No ³]	Backfilled ⁵
eport - :MoRan Oil and s	Inglewood Oil Field	Los Angeles	LAI1 413	33.99881	-118.36877	5400	2004	2 months	UNK	Drilling fluids ¹	Yes	2004	Drilling mud, cuttings, and solidifier	No ³]	Backfilled ⁵
eeport - cMoRan Oil and s	Inglewood Oil Field	Los Angeles	LAI 1 645	34.00266	-118.37334	5400	2004	2 months	UNK	Drilling fluids ¹	Yes	2004	Drilling mud, cuttings, and solidifier	No ³]	Backfilled ⁵
eeport - cMoRan Oil and s	Inglewood Oil Field	Los Angeles	Rubel 643	34.00905	-118.37720	5400	2004	2 months	UNK	Drilling fluids ¹	Yes	2004	Drilling mud, cuttings, and solidifier	No ³]	Backfilled ⁵
eeport - MoRan Oil and s	Inglewood Oil Field	Los Angeles	LAI 655	34.00230	-118.36873	5400	2004	2 months	UNK	Drilling fluids ¹	Yes	2004	Drilling mud, cuttings, and solidifier	No ³]	Backfilled ⁵
eeport - cMoRan Oil and s	Inglewood Oil Field	Los Angeles	VIC-745	34.00279	-118.37673	5400	2004	2 months	UNK	Drilling fluids ¹	Yes		Drilling mud, cuttings, and solidifier	No ³]	Backfilled ⁵
eeport - cMoRan Oil and s	Inglewood Oil Field	Los Angeles	STK 768	33.99436	-118.36127	5400	2004	2 months	UNK	Drilling fluids ¹	Yes	2004	Drilling mud, cuttings, and solidifier	No ³]	Backfilled ⁵
eeport - MoRan Oil and s	Inglewood Oil Field	Los Angeles	LAI1-646	34.00429	-118.36519	5400	2004	2 months	UNK	Drilling fluids ¹	Yes	2004	solidifier	No ³]	Backfilled ⁵
eeport - cMoRan Oil and s	Inglewood Oil Field	Los Angeles	VIC1-635	34.00235	-118.37712	5400	2004	2 months	UNK	Drilling fluids ¹	Yes	2004	solidifier	No ³]	Backfilled ⁵
eeport - cMoRan Oil and s	Inglewood Oil Field	Los Angeles	LAI 1-744	34.00431	-118.37204	5400	2004	2 months	UNK	Drilling fluids ¹	Yes	2004	Drilling mud, cuttings, and solidifier	No ³]	Backfilled ⁵
S	Inglewood Oil Field	Los Angeles	LAI 1-844	34.00390	-118.37508	5400	2004	2 months	UNK	Drilling fluids ¹	Yes	2004	Drilling mud, cuttings, and solidifier	No ³]	Backfilled ⁵
S	Inglewood Oil Field	Los Angeles	LAI 1-646A	34.00050	-118.37277	5400	2004	2 months	UNK	Drilling fluids ¹	Yes	2004	solidifier	No ³]	Backfilled ⁵
eeport - :MoRan Oil and s	Inglewood Oil Field	Los Angeles	LAI 1-754	34.00354	-118.37062	5400	2004	2 months	UNK	Drilling fluids ¹	Yes	2004	Drilling mud, cuttings, and solidifier	No ³]	Backfilled ⁵
s	Inglewood Oil Field	Los Angeles	Vickers 1-745	34.00279	-118.37673	5400	2004	2 months	UNK	Drilling fluids ¹	Yes		solidifier	No ³]	Backfilled ⁵
S	Inglewood Oil Field	Los Angeles	VIC1-743	34.00846	-118.37766	5400	2004	2 months	UNK	Drilling fluids ¹	Yes	2004	solidifier	No ³]	Backfilled ⁵
eeport - cMoRan Oil and Is	Inglewood Oil Field	Los Angeles	VIC1-846	34.00162	-118.37643	5400	2004	2 months	UNK	Drilling fluids ¹	Yes	2004	solidifier	No ³]	Backfilled ⁵
eeport - cMoRan Oil and s	Inglewood Oil Field	Los Angeles	VIC1 -845	34.00408	-118.37614	5400	2004	2 months	UNK	Drilling fluids ¹	Yes	2004	Drilling mud, cuttings, and solidifier	No ³]	Backfilled ⁵

Table 1. Freeport-McMoRan Oil and Gas Inglewood Oil Field: Historic (Inactive and Abandoned) Sumps

main Main Land main Ref	Table 1. Freepo	ort-McMoR	an Oil and Ga	s Inglewood O		-	e and Aban	doned) Sum	ps								
Norm Norm </td <td></td> <td></td> <td></td> <td></td> <td>Sump Locat</td> <td>ion (NAD 83)</td> <td></td>					Sump Locat	ion (NAD 83)											
Image Image <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>																	
betw betw <thwd> betw betw <thw< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></thw<></thwd>																	
Process of the state		Field Name	County	•	Latitude	Longitude		•		•	Composition of fluids						
black black <t< td=""><td></td><td></td><td>County</td><td>Description</td><td>Latitude</td><td>Longitude</td><td>volume in its</td><td>cheavateu:</td><td>Sump active:</td><td>0013</td><td>composition of huids</td><td>(103/100)</td><td></td><td></td><td>(103/100)</td><td>of these solids:</td><td></td></t<>			County	Description	Latitude	Longitude	volume in its	cheavateu:	Sump active:	0013	composition of huids	(103/100)			(103/100)	of these solids:	
matrix	McMoRan Oil and	-	Los Angeles	VIC1 - 733	34.00836	-118.37973	5400	2004	2 months	UNK	Drilling fluids ¹	Yes			No ³		Backfilled ⁵
Name Norme Norme <th< td=""><td>Gas</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>	Gas																
image <td>Freeport -</td> <td>Inglewood</td> <td></td> <td></td> <td></td> <td></td> <td>- 400</td> <td>2004</td> <td>2 11</td> <td></td> <td> 1</td> <td></td> <td></td> <td>-</td> <td></td> <td></td> <td> 5</td>	Freeport -	Inglewood					- 400	2004	2 11		1			-			5
Resches Symple Sympl	-	Oil Field	Los Angeles	LAI1-645A	34.00266	-118.37334	5400	2004	2 months	UNK	Drilling fluids ⁺	Yes			No ³		Backfilled ³
America <																	
in the state	McMoRan Oil and	-	Los Angeles	VIC1-734	34.00659	-118.37988	5400	2004	2 months	UNK	Drilling fluids ¹	Yes		-	No ³		Backfilled ⁵
	Gas	OII FIEld									6			solidifier			
matrix matrix<	Freeport -	Inglewood									1				2		5
Image Norme Solar Solar <t< td=""><td>-</td><td>-</td><td>Los Angeles</td><td>Rubel 944</td><td>34.00682</td><td>-118.37633</td><td>5400</td><td>2004</td><td>2 months</td><td>UNK</td><td>Drilling fluids[⊥]</td><td>Yes</td><td></td><td></td><td>No³</td><td></td><td>Backfilled ³</td></t<>	-	-	Los Angeles	Rubel 944	34.00682	-118.37633	5400	2004	2 months	UNK	Drilling fluids [⊥]	Yes			No ³		Backfilled ³
Index Math <																	
And bit in the state of th	McMoRan Oil and	-	Los Angeles	LAI 1-755	34.00351	-118.36775	5400	2004	2 months	UNK	Drilling fluids ¹	Yes		-	No ³		Backfilled ⁵
Methem	Gas	Oil Field	_								5						
	Freeport -	Inglewood												-	2		
reprint Construction	-	-	Los Angeles	TVIC-631	34.01115	-118.38394	5400	2004	2 months	UNK	Drilling fluids ¹	Yes			No [°]		Backfilled ³
Model (Marce) Model (M	Gas Freeport -															+	
a_{1} Num $- u$ u	McMoRan Oil and	-	Los Angeles	VIC1-746	34.00121	-118.37486	5400	2005	2 months	UNK	Drilling fluids ¹	Yes			No ³		Backfilled ⁵
	Gas	Oil Field															
	Freeport -	Inglewood												-			
Image: State of the s	-	-	Los Angeles	LAI 1-756	34.00005	-118.36824	5400	2005	2 months	UNK	Drilling fluids ¹	Yes		-	No ³		Backfilled ⁵
	Gas Ereconort -																
Second Land	McMoRan Oil and	Inglewood	Los Angeles	LAI 415	33,99933	-118.36912	5400	2005	2 months	UNK	Drilling fluids ¹	Yes			No ³		Backfilled ⁵
	Gas	Oil Field												-			Ducklined
Markade in the state	Freeport -	Indowood															
shift between the state of the st	McMoRan Oil and	-	Los Angeles	VIC1-934	34.00606	-118.38139	5400	2005	2 months	UNK	Drilling fluids ¹	Yes		-	No ³		Backfilled ⁵
	Gas																
	McMoBan Oil and	-	Los Angeles	I AI 1-416	34,00001	-118.37005	5400	2005	2 months	UNK	Drilling fluids ¹	Yes		-	No ³		Backfilled ⁵
Kadeal and being b	Gas	Oil Field			5 1.00001	110.07000	5100	2000	2 11011113	UTIK .	Drining halds			-	NO		Dackinica
Control Of Train	Freeport -	Inglewood												Drilling mud,			
shi at resport- (Modelan add) a_{1} (a_{1} a_{1} a_{1} (a_{1} a_{2} a_{1} (a_{1} a_{1} (a_{1} a_{1} (a_{1} a_{2} a_{1} (a_{1} a_{1} ($a_$	McMoRan Oil and	-	Los Angeles	VIC1-735	34.00459	-118.37923	5400	2005	2 months	UNK	Drilling fluids ¹	Yes			No ³		Backfilled ⁵
ModeMan Implementation Normal Normal <t< td=""><td>Gas</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	Gas																
Base Of Fried Of		-	Los Angeles	I AI 1-414	33,99694	-118.36777	5400	2005	2 months	UNK	Drilling fluids ¹	Yes		-	No ³		Backfilled ⁵
Implement	Gas	Oil Field			55.55051	110.00777	5100	2003	2 111011113	UTIK .	Drining halds			-	NO		Dackined
Number of the field Dis Angles Life 1/4 Life ShOuld / 2005 21000000000000000000000000000000000000	Freeport -	Inglewood												Drilling mud,			
Sase Image: solution of the solution	McMoRan Oil and		Los Angeles	LAI 1-417	34.00187	-118.37242	5400	2005	2 months	UNK	Drilling fluids ¹	Yes			No ³		Backfilled ⁵
$ \frac{\log \log 1}{\log 1} = \log_{1} \log_{1}$	Gas			+												+	
Base Official Response Response <t< td=""><td>McMoBan Oil and</td><td>-</td><td>Los Angeles</td><td>TVIC 833</td><td>34.00906</td><td>-118.38373</td><td>5400</td><td>2005</td><td>2 months</td><td>UNK</td><td>Drilling fluids¹</td><td>Yes</td><td></td><td></td><td>No³</td><td></td><td>Backfilled ⁵</td></t<>	McMoBan Oil and	-	Los Angeles	TVIC 833	34.00906	-118.38373	5400	2005	2 months	UNK	Drilling fluids ¹	Yes			No ³		Backfilled ⁵
Implement	Gas	Oil Field												-			
$ \frac{1}{12} \text{ freeport - 1} \\ \frac{1}{2} freepo$	Freeport -	Inglewood												Drilling mud,	-		_
$\frac{3a3}{5a}$ $\frac{1}{5a}$ $\frac{1}{5a$	McMoRan Oil and	-	Los Angeles	LAI 1-422	34.00068	-118.37203	5400	2005	2 months	UNK	Drilling fluids ¹	Yes		_	No ³		Backfilled ⁵
McMoRan Oil an Difficient Los Angeles TVC 732 34.0120 118.38205 5400 2005 Cutings, and solidifer No ³ Backfilled ³ Gas Treport- McMoRan Oil and Oil Field Los Angeles Los Ange	Gas Ereeport -																
GasOil FieldOil FieldO	McMoBan Oil and	-	Los Angeles	TVIC 732	34.01120	-118.38205	5400	2005	2 months	UNK	Drilling fluids ¹	Yes			No ³		Backfilled ⁵
Freeport- McMoRan Dila log Angeles LAI 1-423 33.9994 118.37147 5400 205 Pants Pres Pres Dolling mud, cutings, and solidifier No ³ Pants Backfilled ⁵ Freeport- McMoRan Dila Gas Inglewod oli Field Inglewod in Field Inglewod oli Field Inglewod in Field	Gas	Oil Field												- ·			
MCMORAN Dillard Oil Field Los Angeles LAI 1-423 33.9994 -18.37147 S400 2005 C months Person - solidifier	Freeport -	Inglewood												Drilling mud,	-		
Gas Image (Gas) Image (Gas) <thimage (gas)<="" th=""> <thimage (gas)<="" th=""> <th< td=""><td>McMoRan Oil and</td><td>-</td><td>Los Angeles</td><td>LAI 1-423</td><td>33.99994</td><td>-118.37147</td><td>5400</td><td>2005</td><td>2 months</td><td>UNK</td><td>Drilling fluids¹</td><td>Yes</td><td></td><td></td><td>No³</td><td></td><td>Backfilled ⁵</td></th<></thimage></thimage>	McMoRan Oil and	-	Los Angeles	LAI 1-423	33.99994	-118.37147	5400	2005	2 months	UNK	Drilling fluids ¹	Yes			No ³		Backfilled ⁵
McMoRan Oil and Oil Field Instervood Oil Field Los Angeles LAI 1-421 34.0018 -118.37029 5400 2005 2 months LNK Drilling fluids ¹ Yes 2005 cuttings, and solidifier No ³ Backfilled ⁵ Freeport - Gas Inglewood Oil Field LAI 1-420 33.99630 -118.36608 5400 2005 2 months UNK Drilling fluids ¹ Yes 2005 Cuttings, and solidifier No ³ Backfilled ⁵ Freeport - Gas Inglewood Oil Field LAI 1-946 34.0055 118.3729 5400 2005 Pinling fluids ¹ Yes 2005 Cuttings, and solidifier No ³ Backfilled ⁵ Freeport - Gas Inglewood Oil Field Los Angeles LAI 1-946 34.0055 118.3729 2005 Pinling fluids ¹ Yes 2005 Cuttings, and solidifier No ³ Backfilled ⁵ Freeport - Gas Inglewood Oil Field Los Angeles LAI 1-419 39.9737 -118.36748 2005 Pinling fluids ¹ Yes 2005 Cuttings, and solidifier No ³ Backfilled ⁵	Gas			+												+	
$\frac{1}{10000000000000000000000000000000000$	McMoRan Oil and	Inglewood	Los Angeles	LAI 1-421	34.00018	-118.37029	5400	2005	2 months	UNK	Drilling fluids ¹	Yes			No ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas Inglewood Oil Field Los Angeles LAI 1-420 33.99630 -118.36608 5400 2005 2 months UNK Drilling fluids ¹ Yes 2005 Drilling mud, cuttings, and solidifier No ³ Backfilled ⁵ Freeport - McMoRan Oil and Gas Inglewood oil Field Los Angeles LAI 1-946 34.0055 -118.37293 5400 2005 2 months UNK Drilling fluids ¹ Yes 2005 Drilling mud, cuttings, and solidifier No ³ Backfilled ⁵ Freeport - McMoRan Oil and Gas Inglewood Oil Field Los Angeles LAI 1-419 33.99737 -118.36748 5400 2005 2 months UNK Drilling fluids ¹ Yes 2005 Drilling mud, cuttings, and solidifier No ³ Backfilled ⁵	Gas	Oil Field															Suckiniou
MCMORAD Ularad Gas Oil Field Los Angeles LAI 1-420 33.99630 -118.36608 5400 2005 2 months Ves 2005 Cuttings, and solidifier No* Backfilled * Backfilled * Freeport - McMoRan Oil and Gis Oil Field Los Angeles LAI 1-946 34.00055 -118.37293 5400 2005 2 months UNK Drilling fluids* Yes 2005 Cuttings, and solidifier No* Backfilled * Backfilled * Freeport - McMoRan Oil and Gis Oil Field Los Angeles LAI 1-946 34.00055 -118.37293 5400 2005 2 months UNK Drilling fluids* Yes 2005 Dirilling mud, solidifier No* Backfilled * Backfilled * Freeport - McMoRan Oil and Oil Field Los Angeles LAI 1-419 33.99737 -118.36748 5400 2005 2 months UNK Drilling fluids* Yes 2005 Dirilling mud, solidifier Dirilling mud, solidifier Dirilling mud, solidifier Backfilled * Backfilled * Backfilled *	Freeport -	Inglewood															
Gas G	McMoRan Oil and	-	Los Angeles	LAI 1-420	33.99630	-118.36608	5400	2005	2 months	UNK	Drilling fluids ¹	Yes		_	No ³		Backfilled ⁵
McMoRan Oil and Gas Inglewood Oil Field LAI 1-946 34.00055 -118.37293 5400 2005 2 months UNK Drilling fluids ¹ Yes 2005 cuttings, and solidifier No ³ Backfilled ⁵ Freeport - McMoRan Oil and Oil Field Los Angeles LAI 1-419 33.99737 -118.36748 5400 2005 2 months UNK Drilling fluids ¹ Yes 2005 cuttings, and solidifier No ³ Backfilled ⁵	Gas																
Gas Oil Field Oil Field Image: Constraint of the constraint of	McMoPan Oil and	-	Los Angeles	LAI 1-946	34.00055	-118.37293	5400	2005	2 months	UNK	Drilling fluids ¹	Yes		-	No ³		Backfilled ⁵
Freeport - McMoRan Oil and Oil Field Los Angeles LAI 1-419 33.99737 -118.36748 5400 2005 2months UNK Drilling fluids ¹ Yes 2005 2months Ves 2005 Ves	Gas	Oil Field			5	110.07200		2000									Duckinicu
MicMoRan Oil and Oil Field Los Angeles LAI 1-419 33.99737 -118.36748 5400 2005 2 months UNK Drilling fluids ² Yes 2005 Cuttings, and No ² Backfilled ²	Freeport -	Indowood		1												1	
Gas solidifier	McMoRan Oil and	-	Los Angeles	LAI 1-419	33.99737	-118.36748	5400	2005	2 months	UNK	Drilling fluids ¹	Yes	2005	cuttings, and	No ³		Backfilled ⁵
	Gas		I											solidifier			

Table 1, Freeport-McMoRan Oil and Gas Inglewood Oil Field: Historic (Inactive and Abandoned) Sumps

Table 1. Freepo	ort-McMoR	an Oil and Ga	s Inglewood O		•	e and Aband	doned) Sum	ps								
				Sump Locat	tion (NAD 83)											
									Total amount					Was there		
							When was the	How many	of fluid		Was sump filled with soil		What material was	solidified	If Yes, what was	
Owner and/or			Sump Name/			LxWxD Sump	•	years was the	J. J		or other material?	When was the sump	used to fill the	waste?	the composition	
Operator	Field Name	County	Description	Latitude	Longitude	Volume in ft3	excavated?	sump active?	bbls	Composition of fluids	(Yes/No)	filled?	sump?	(Yes/No)	of these solids?	Sump Status 4/5
Freeport - McMoRan Oil and	Inglewood	Los Angeles	LAI 1-1044	34.00602	-118.37557	5400	2005	2 months	UNK		Vac		Drilling mud,	NI - ³		D1 Cll., 1 ⁵
Gas	Oil Field	LOS Aligeles	LAI 1-1044	54.00602	-110.37337	5400	2005	2 monuns	UNK	Drilling fluids ¹	Yes		cuttings, and solidifier	No ³		Backfilled ⁵
Freeport -													Drilling mud,			
McMoBan Oil and	Inglewood	Los Angeles	LAI 1-945	34.00175	-118.37419	5400	2005	2 months	UNK	Drilling fluids ¹	Yes		cuttings, and	No ³		Backfilled ⁵
Gas	Oil Field												solidifier			2
Freeport -	Inglowood												Drilling mud,			
McMoRan Oil and	Inglewood Oil Field	Los Angeles	VIC2-1134	34.00776	-118.38389	5400	2005	2 months	UNK	Drilling fluids ¹	Yes		cuttings, and	No ³		Backfilled ⁵
Gas	Oli i leid												solidifier			
Freeport -	Inglewood									. 1			Drilling mud,	2		5
McMoRan Oil and	Oil Field	Los Angeles	TVIC 1034	34.00671	-118.38313	5400	2005	2 months	UNK	Drilling fluids ¹	Yes		cuttings, and	No ³		Backfilled ⁵
Gas													solidifier			
Freeport - McMoRan Oil and	Inglewood	Los Angeles	STK1278	33.99281	-118.36052	5400	2005	2 months	UNK	Drilling fluids ¹	Yes		Drilling mud, cuttings, and	No ³		Backfilled ⁵
Gas	Oil Field	LOS Angeles	5111278	55.55201	-110.50052	5400	2005	2 11011113	UNK		105		solidifier	NO		Backfilled
Freeport -													Drilling mud,			
McMoBan Oil and	Inglewood	Los Angeles	VIC 2- 1133	34.00910	-118.38426	5400	2005	2 months	UNK	Drilling fluids ¹	Yes		cuttings, and	No ³		Backfilled ⁵
Gas	Oil Field									5			solidifier			
Freeport -	Inglewood												Drilling mud,			
McMoRan Oil and	Oil Field	Los Angeles	VIC1-835	34.00415	-118.37808	5400	2005	2 months	UNK	Drilling fluids ¹	Yes		cuttings, and	No ³		Backfilled ⁵
Gas	on rield												solidifier			
Freeport -	Inglewood		THE 1222	24.00777	440 20204	5 400	2005	2		ci . i 1	N		Drilling mud,	3		
McMoRan Oil and	Oil Field	Los Angeles	TVIC 1233	34.00777	-118.38284	5400	2005	2 months	UNK	Drilling fluids ¹	Yes		cuttings, and	No ³		Backfilled ⁵
Gas Freeport -													solidifier Drilling mud,			
McMoRan Oil and	Inglewood	Los Angeles	STK 978	33.99400	-118.36138	5400	2005	2 months	UNK	Drilling fluids ¹	Yes		cuttings, and	No ³		Backfilled ⁵
Gas	Oil Field	2007	0	00100 100	110.00100	0.00		2	0.111				solidifier	NO		Duckhiled
Freeport -													Drilling mud,			
McMoBan Oil and	Inglewood Oil Field	Los Angeles	STK1378	33.99455	-118.36058	5400	2005	2 months	UNK	Drilling fluids ¹	Yes			No ³		Backfilled ⁵
Gas	Oli Field												solidifier			
Freeport -	Inglewood												Drilling mud,			-
McMoRan Oil and	Oil Field	Los Angeles	Cone 742	34.01068	-118.37699	5400	2005	2 months	UNK	Drilling fluids ¹	Yes		cuttings, and	No ³		Backfilled ⁵
Gas													solidifier			
Freeport - McMoRan Oil and	Inglewood	Los Angeles	LAI 442	33.99405	-118.36384	5400	2005	2 months	UNK	Drilling fluids ¹	Voc		Drilling mud,	No ³		Backfilled ⁵
Gas	Oil Field	LOS Aligeles	LAI 442	55.99405	-110.30304	5400	2005	2 11011115	UNK	Drilling fluids ¹	Yes		cuttings, and solidifier	NO		Backfilled
Freeport -													Drilling mud,			
McMoBan Oil and	Inglewood	Los Angeles	LAI 441	33.99439	-118.36596	5400	2005	2 months	UNK	Drilling fluids ¹	Yes		cuttings, and	No ³		Backfilled ⁵
Gas	Oil Field									0			solidifier			
Freeport -	Inglewood												Drilling mud,			
	Oil Field	Los Angeles	LAI 1 444	33.99602	-118.36618	5400	2005	2 months	UNK	Drilling fluids ¹	Yes		cuttings, and	No ³		Backfilled ⁵
Gas	0												solidifier			
Freeport -	Inglewood			22.00672	440.2000	5 400	2005	2		c 1	N		Drilling mud,	3		
McMoRan Oil and	Oil Field	Los Angeles	LAI 1 434	33.99672	-118.36808	5400	2005	2 months	UNK	Drilling fluids ¹	Yes		cuttings, and solidifier	No ³		Backfilled ⁵
Gas Freeport -													Drilling mud,			
McMoBan Oil and	Inglewood	Los Angeles	LAI 1 429	33.99678	-118.36826	5400	2005	2 months	UNK	Drilling fluids ¹	Yes		cuttings, and	No ³		Backfilled ⁵
Gas	Oil Field		_			-	-			0			solidifier			
Freeport -	Indowed												Drilling mud,			
	Inglewood Oil Field	Los Angeles	LAI 1 437	34.00401	-118.37502	5400	2005	2 months	UNK	Drilling fluids ¹	Yes		cuttings, and	No ³		Backfilled ⁵
Gas													solidifier			
Freeport -	Inglewood		Marlo Burns	22 222		F 460	2007			1			Drilling mud,	3		5
MCMORan Oil and	Oil Field	Los Angeles	1778	33.99296	-118.35997	5400	2005	2 months	UNK	Drilling fluids ¹	Yes		cuttings, and	No ³		Backfilled ⁵
Gas Ereeport -			+										solidifier Drilling mud,		+	
Freeport - McMoRan Oil and	Inglewood	Los Angeles	Vickers 1-790	34.00444	-118.37644	5400	2005	2 months	UNK	Drilling fluids ¹	Yes		cuttings, and	No ³		Backfilled ⁵
Gas	Oil Field												solidifier			zuokimen
Freeport -	la altra di		1										Drilling mud,	•		
McMoBan Oil and	Inglewood	Los Angeles	BC 290	34.00335	-118.36407	5400	2005	2 months	UNK	Drilling fluids ¹	Yes		cuttings, and	No ³		Backfilled ⁵
Gas	Oil Field												solidifier			
Freeport -	Inglewood												Drilling mud,			
McMoRan Oil and	Oil Field	Los Angeles	BC 102	34.00544	-118.36611	5400	2005	2 months	UNK	Drilling fluids ¹	Yes		cuttings, and	No ³		Backfilled ⁵
Gas													solidifier		+	
Freeport -	Inglewood	Los Angeler			110 20000	E400	2005	2 months			Vec		Drilling mud,	NI- ³		D 1 CH 1 ⁵
McMoRan Oil and	Oil Field	Los Angeles	LAI 1-435	33.99657	-118.36800	5400	2005	2 months	UNK	Drilling fluids ¹	Yes		cuttings, and solidifier	No ³		Backfilled ⁵
Gas													Soliulilei			

Table 1. Freeport-McMoRan Oil and Gas Inglewood Oil Field: Historic (Inactive and Abandoned) Sumps

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Table 1. Freepo	ort-McMoR	an Oil and Ga	s Inglewood O		•	e and Aband	doned) Sum	ps								
Owner and/or Operator	Field Name	County	Sump Name/ Description		ion (NAD 83) Longitude	LxWxD Sump Volume in ft3	•	,	Total amount of fluid discharged in bbls	Composition of fluids	Was sump filled with soil or other material? (Yes/No)	When was the sump filled?	What material was used to fill the sump?	Was there solidified waste? (Yes/No)	If Yes, what was the composition of these solids?	Sump Status ^{4/5}
Freeport - McMoRan Oil and Gas	Inglewood	Los Angeles	VRU 708	34.00886	-118.37241					Drilling fluids ¹		2005	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Freeport - McMoBan Oil and	Inglewood Oil Field	Los Angeles	LAI 427	33.99881	-118.37086	5400	2005	2 months	UNK	Drilling fluids ¹	Yes	2006	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Freeport - McMoBan Oil and	Inglewood Oil Field	Los Angeles	VRU 609	34.00881	-118.37240	5400	2005	2 months	UNK	Drilling fluids ¹	Yes	2005	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Freeport - McMoBan Oil and	Inglewood Oil Field	Los Angeles	VRU 906	34.00688	-118.37234	5400	2005	2 months	UNK	Drilling fluids ¹	Yes	2006	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	VRU 507	34.00891	-118.37242	5400	2005	2 months	UNK	Drilling fluids ¹	Yes	2005	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	Vick 1-935	34.00428	-118.37641	5400	2006	2 months	UNK	Drilling fluids ¹	Yes	2006	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	Vic 1-242	34.00906	-118.37942	5400	2006	2 months	UNK	Drilling fluids ¹	Yes	2006	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	LAI 1 438	34.00388	-118.37341	5400	2006	2 months	UNK	Drilling fluids ¹	Yes	2006	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
	Inglewood Oil Field	Los Angeles	LAI 1 439	34.00152	-118.37396	5400	2006	2 months	UNK	Drilling fluids ¹	Yes	2006	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	VIC 1-300	34.00635	-118.38134	5400	2006	2 months	UNK	Drilling fluids ¹	Yes	2006	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	LAI 1-446	34.00275	-118.36799	5400	2006	2 months	UNK	Drilling fluids ¹	Yes	2006	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	VRU 901	34.00674	-118.37636	5400	2006	2 months	UNK	Drilling fluids ¹	Yes	2006	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	BC 807/907	33.99752	-118.35968	5400	2006	2 months	UNK	Drilling fluids ¹	Yes	2006	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	VIC 1 580	34.00590	-118.37685	5400	2006	2 months	UNK	Drilling fluids ¹	Yes	2006	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Gas	Inglewood Oil Field	Los Angeles	LAI 1-449	33.99590	-118.36291	5400	2006	2 months	UNK	Drilling fluids ¹	Yes	2006	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Gas	Inglewood Oil Field	Los Angeles	VRU 701	34.00837	-118.37704	5400	2006	2 months	UNK	Drilling fluids ¹	Yes	2006	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	LAI 1_VRU2	34.00525	-118.36845	5400	2006	2 months	UNK	Drilling fluids ¹	Yes	2006	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Gas	Inglewood Oil Field	Los Angeles	VIC 1-249	33.99793	-118.37202	5400	2006	2 months	UNK	Drilling fluids ¹	Yes	2006	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas Freeport -	Inglewood Oil Field	Los Angeles	LAI 1-445	34.00230	-118.36878	5400	2006	2 months	UNK	Drilling fluids ¹	Yes	2006	Drilling mud, cuttings, and solidifier Drilling mud,	No ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas Freeport -	Inglewood Oil Field	Los Angeles	BC 301	33.99221	-118.36416	5400	2006	2 months	UNK	Drilling fluids ¹	Yes	2006	cuttings, and solidifier Drilling mud,	No ³		Backfilled ⁵
McMoBan Oil and	Inglewood Oil Field	Los Angeles	LAI 645	34.00266	-118.37334	5400	2006	2 months	UNK	Drilling fluids ¹	Yes	2006	cuttings, and solidifier Drilling mud,	No ³		Backfilled ⁵
McMoBan Oil and	Inglewood Oil Field	Los Angeles	VIC 2-1234	34.00752	-118.38371	5400	2006	2 months	UNK	Drilling fluids ¹	Yes	2006	cuttings, and solidifier	No ³		Backfilled ⁵

Table 1. Freeport-McMoRan Oil and Gas Inglewood Oil Field: Historic (Inactive and Abandoned) Sumps

Table 1. Freepo	ort-McMoR	an Oil and Ga	as Inglewood O		ion (NAD 83)	e and Aband	doned) Sum	ps								
Owner and/or Operator	Field Name	County	Sump Name/ Description		Longitude	LxWxD Sump Volume in ft3			Total amount of fluid discharged in bbls	Composition of fluids	Was sump filled with soil or other material? (Yes/No)	When was the sump filled?	What material was used to fill the sump?	Was there solidified waste? (Yes/No)	If Yes, what was the composition of these solids?	Sump Status ^{4/5}
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	LAI VRU-2	34.00525	-118.36845		2006	2 months		Drilling fluids ¹		2006	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	STK 209	33.99517	-118.35922	5400	2006	2 months	UNK	Drilling fluids ¹	Yes	2006	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	VRU 706	34.00806	-118.37421	5400	2006	2 months	UNK	Drilling fluids ¹	Yes	2006	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	LAI 2368	33.99410	-118.36390	5400	2006	2 months	UNK	Drilling fluids ¹	Yes	2006	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	STK 801	33.99180	-118.35999	5400	2006	2 months	UNK	Drilling fluids ¹	Yes	2006	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	BC 801	33.99697	-118.36226	5400	2006	2 months	UNK	Drilling fluids ¹	Yes	2006	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	LAI 2068	33.99596	-118.36435	5400	2006	2 months	UNK	Drilling fluids ¹	Yes	2006	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	BC 2167	33.99739	-118.36359	5400	2006	2 months	UNK	Drilling fluids ¹	Yes	2006	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	BC LAI 800	33.99787	-118.36610	5400	2006	2 months	UNK	Drilling fluids ¹	Yes	2006	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	VRU 903	34.00703	-118.37572	5400	2006	2 months	UNK	Drilling fluids ¹	Yes	2006	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	LAI 1-426	34.00520	-118.36846	5400	2006	2 months	UNK	Drilling fluids ¹	Yes	2006	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	LAI 447	33.99904	-118.36818	5400	2006	2 months	UNK	Drilling fluids ¹	Yes	2006	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Gas	Inglewood Oil Field	Los Angeles	VRU 703	34.00924	-118.37590	5400	2006	2 months	UNK	Drilling fluids ¹	Yes	2006	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	VRU 304	34.01071	-118.37706	5400	2006	2 months	UNK	Drilling fluids ¹	Yes	2006	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Gas	Inglewood Oil Field	Los Angeles	VRU 361	34.00930	-118.37591	5400	2006	2 months	UNK	Drilling fluids ¹	Yes	2006	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Gas	Inglewood Oil Field	Los Angeles	STK 2268	33.99579	-118.36131	5400	2007	2 months	UNK	Drilling fluids ¹	Yes	2007	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	MB 2478	33.99120	-118.35991	5400	2007	2 months	UNK	Drilling fluids ¹	Yes	2007	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Gas	Inglewood Oil Field	Los Angeles	BC 2378	33.99125	-118.35992	5400	2007	2 months	UNK	Drilling fluids ¹	Yes	2007	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Gas	Inglewood Oil Field	Los Angeles	LAI1-454	34.00424	-118.37198	5400	2007	2 months	UNK	Drilling fluids ¹	Yes	2007	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Gas	Inglewood Oil Field	Los Angeles	LAI1-453	34.00428	-118.37202	5400	2007	2 months	UNK	Drilling fluids ¹	Yes	2007	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Gas	Inglewood Oil Field	Los Angeles	LAI1-451	34.00435	-118.37207	5400	2007	2 months	UNK	Drilling fluids ¹	Yes	2007	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
Freeport - McMoRan Oil and Gas	Inglewood Oil Field	Los Angeles	MB 2278	33.99131	-118.35993	5400	2007	2 months	UNK	Drilling fluids ¹	Yes	2007	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵

				Sump Loca	tion (NAD 83)											
Owner and (or			Suma Nama (LxWxD Sump	When was the		Total amount of fluid discharged in		Was sump filled with soil or other material?		What material was used to fill the	Was there solidified waste?	If Yes, what was the composition	
Owner and/or Operator	Field Name	County	Sump Name/ Description	Latitude	Longitude	Volume in ft3		sump active?	-	Composition of fluids		When was the sump filled?	sump?	(Yes/No)	of these solids?	Sump Status ^{4/5}
eeport - MoBan Oil and	Inglewood Oil Field	Los Angeles	COM 2178	33.99136	-118.35994	5400	2007	2 months		Drilling fluids ¹	Yes	2007	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
MoRan Oil and	Inglewood Oil Field	Los Angeles	LAI1 452	34.00438	-118.37210	5400	2007	2 months	UNK	Drilling fluids ¹	Yes	2007	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
eeport - :MoRan Oil and s	Inglewood Oil Field	Los Angeles	VRU 302	34.00621	-118.37032	5400	2007	2 months	UNK	Drilling fluids ¹	Yes	2007	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
MoRan Oil and	Inglewood Oil Field	Los Angeles	LAI1 450	34.00174	-118.37330	5400	2007	2 months	UNK	Drilling fluids ¹	Yes	2007	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
eeport - cMoRan Oil and as	Inglewood Oil Field	Los Angeles	BC 330	33.99835	-118.36226	5400	2007	2 months	UNK	Drilling fluids ¹	Yes	2007	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
eeport - cMoRan Oil and as	Inglewood Oil Field	Los Angeles	BC 120	34.00429	-118.36531	5400	2007	2 months	UNK	Drilling fluids ¹	Yes	2007	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
IcMoRan Oil and	Inglewood Oil Field	Los Angeles	BC170	34.00300	-118.36621	5400	2007	2 months	UNK	Drilling fluids ¹	Yes	2007	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
reeport - IcMoBan Oil and	Inglewood Oil Field	Los Angeles	BC210	34.00300	-118.36621	5400	2007	2 months	UNK	Drilling fluids ¹	Yes	2007	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
eenort -	Inglewood Oil Field	Los Angeles	STK 2078	33.99472	-118.36124	5400	2007	2 months	UNK	Drilling fluids ¹	Yes	2007	Drilling mud,	No ³		Backfilled ⁵
eeport - cMoBan Oil and	Inglewood Oil Field	Los Angeles	STK 2668	33.99476	-118.36134	5400	2007	2 months	UNK	Drilling fluids ¹	Yes	2007	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
eeport - cMoRan Oil and as	Inglewood Oil Field	Los Angeles	BC 260	34.00028	-118.36567	5400	2007	2 months	UNK	Drilling fluids ¹	Yes	2007	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
eeport - IcMoRan Oil and as	Inglewood Oil Field	Los Angeles	VRU 701	34.00944	-118.37597	5400	2007	2 months	UNK	Drilling fluids ¹	Yes	2007	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
eeport - cMoRan Oil and as	Inglewood Oil Field	Los Angeles	BC STK 2168	33.99624	-118.35997	5400	2007	2 months	UNK	Drilling fluids ¹	Yes	2007	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
eeport - cMoRan Oil and s	Inglewood Oil Field	Los Angeles	STK 2568	33.99478	-118.36138	5400	2007	2 months	UNK	Drilling fluids ¹	Yes	2007	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵
CMORan ()IL and	Inglewood Oil Field	Los Angeles	STK 2468	33.99480	-118.36143	5400	2007	2 months	UNK	Drilling fluids ¹	Yes	2007	Drilling mud, cuttings, and solidifier	No ³		Backfilled ⁵

Table 1. Freeport-McMoRan Oil and Gas Inglewood Oil Field: Historic	(Inactive and Ahandoned) Sumps
Table 1. Freeport-Incidionali On and Gas inglewood On Freid. Historic	(mactive and Abandoned) Jumps

Notes:

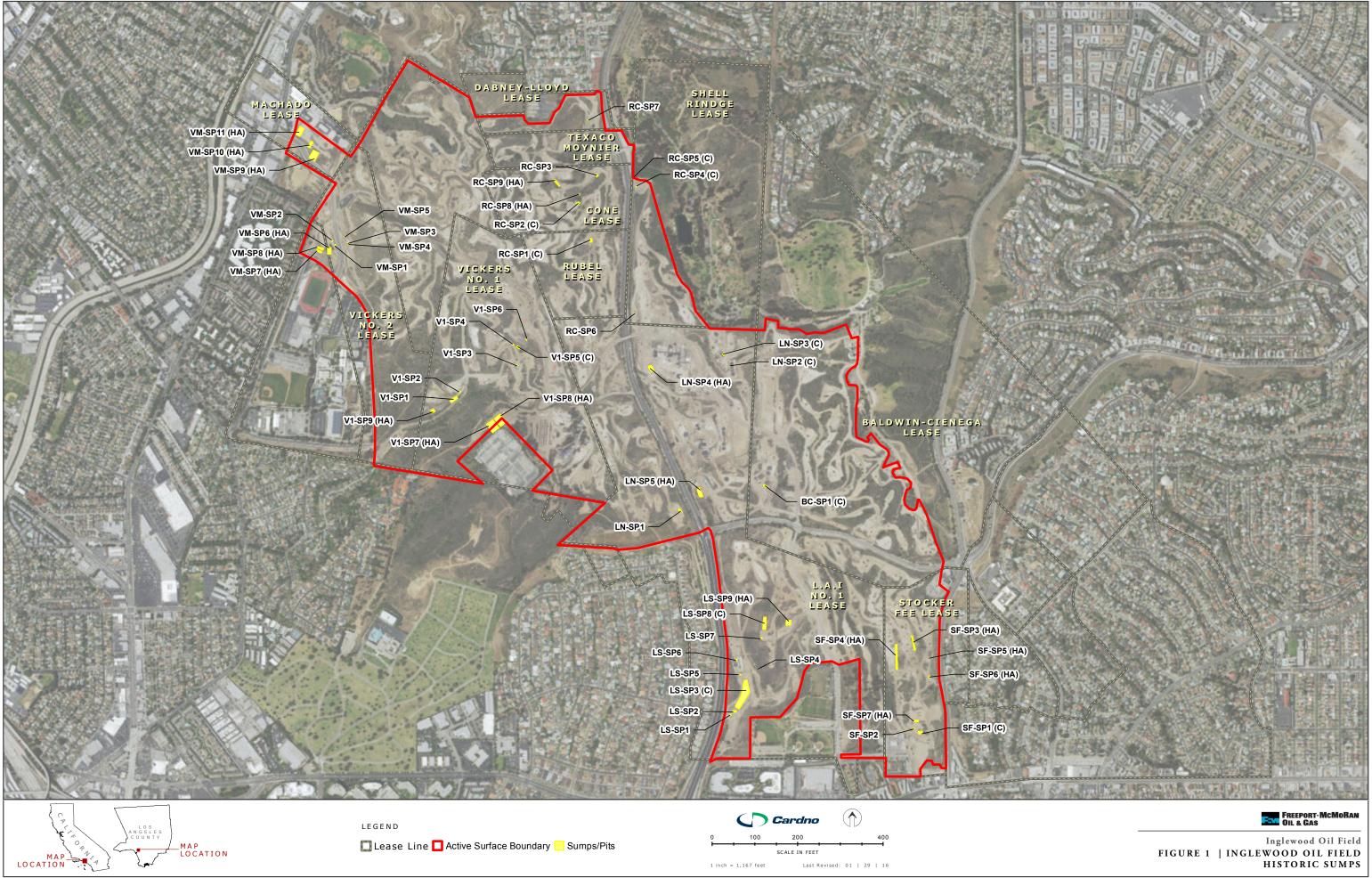
¹ Drilling fluids include drilling muds and cuttings as well as liquid produced during the drilling process, including produced water and oil.

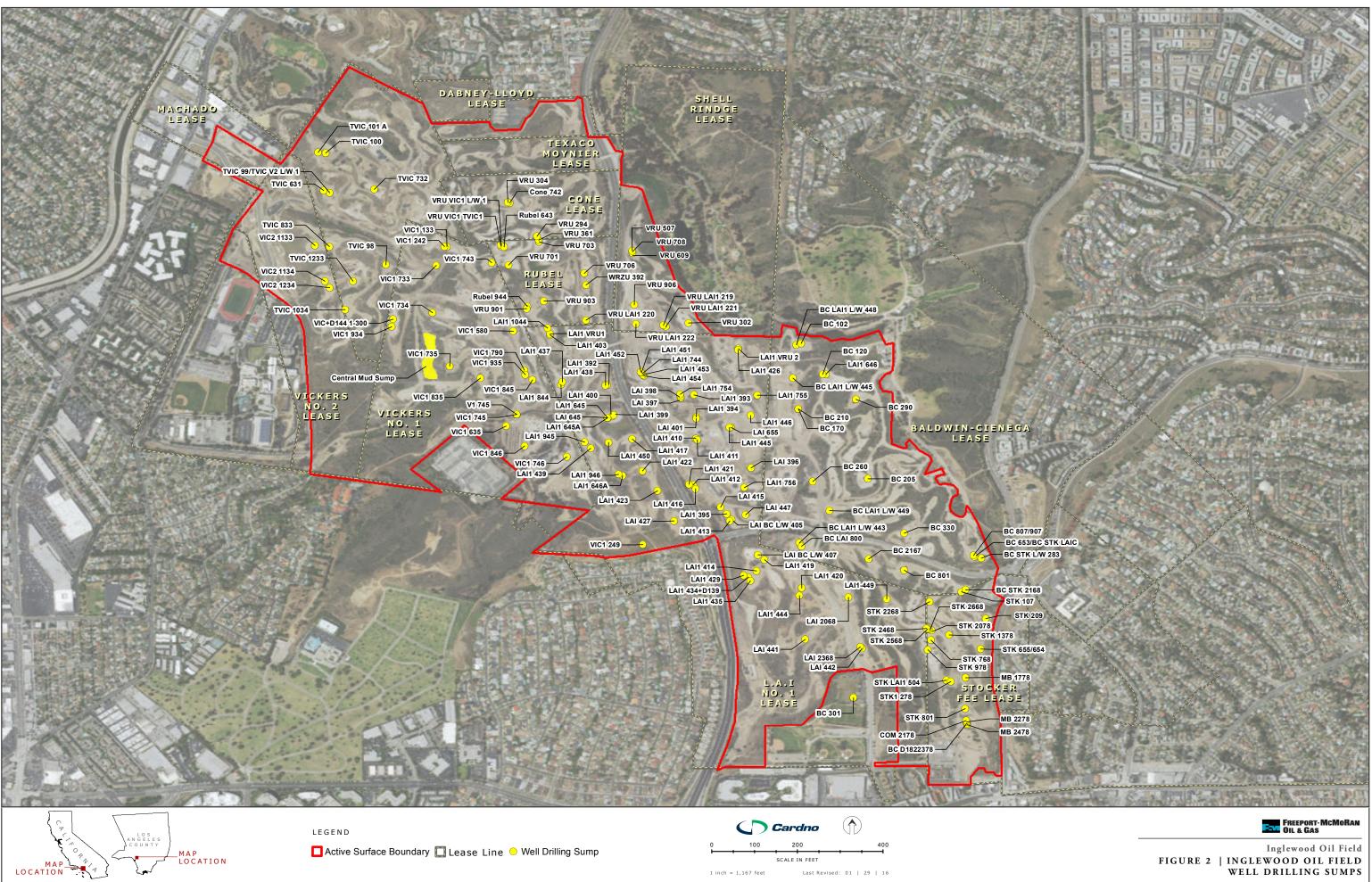
² Sump backfill material has been characterized and further action, if required, is being conducted under RWQCB-LA approved WDR.

³ Drilling muds are very low permeability and act as a solidifcation mechanism. However, formal solidification of drilling fluids prior to offsite disposal began in 2010.

⁴ Sump status taken from self-directed remediation

⁵ Drilling muds were tested, identified as non-hazardous and used for backfill







Montebello Oil Field

Owner			Sump	Sump Location		LxWxD Sump	When was the		Total amount of		Was sump filled	When was	What material was	Was there solidified	If Yes, what was the	
and/or Operator	Field Name	County	Name/Description	Latitude	Longitude	Volume in ft3	sump first excavated?		fluid discharged in bbls	of fluids	with soil or other material? (Yes/No)	the sump filled?	used to fill the sump?	waste? (Yes/No)	the composition of these solids?	Sump Status ⁴
Freeport McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S1	34.02865	-118.10084	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
reeport McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S2	34.02725	-118.09427	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S3	34.02897	-118.08759	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S4	34.02716	-118.08252	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S5	34.02691	-118.07752	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Remediated for TPH (LFR 1997)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S6	34.02856	-118.08083	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S7	34.03400	-118.08936	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S8	34.03104	-118.07999	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S9	34.03340	-118.08297	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S10	34.02903	-118.09457	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S11	34.02579	-118.09945	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S12	34.02669	-118.10043	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S13	34.02675	-118.09893	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)

Dwner			Sump	Sump Location		LxWxD Sump	When was the	How many years	Total amount of	Composition		When was	What material was	Was there solidified	If Yes, what was the	
ind/or Operator	Field Name	County	Name/Description	Latitude	Longitude	Volume in ft3	sump first excavated?	was the sump active?	fluid discharged in bbls	of fluids	with soil or other material? (Yes/No)	the sump filled?	used to fill the sump?	waste? (Yes/No)	composition of these solids?	Sump Status ⁴
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S14	34.02725	-118.09803	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S15	34.02794	-118.09810	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
reeport- AcMoRan Oil Ind Gas	Montebello Oil Field	Los Angeles	B-LF-S16	34.02787	-118.09701	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
reeport- AcMoRan Oil Ind Gas	Montebello Oil Field	Los Angeles	B-LF-S17	34.02623	-118.09784	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Remediated for Metals (LFR 1997)
reeport- McMoRan Oil Ind Gas	Montebello Oil Field	Los Angeles	B-LF-S18	34.02707	-118.09694	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
reeport- McMoRan Oil Ind Gas	Montebello Oil Field	Los Angeles	B-LF-S19	34.02662	-118.09619	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S20	34.02946	-118.09828	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S21	34.03127	-118.09429	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S22A	34.03217	-118.09178	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Remediated for TPH / (LFR 1997)
reeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S22B	34.02970	-118.09244	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Remediated for TPH (LFR 1997)
reeport- AcMoRan Oil nd Gas	Montebello Oil Field	Los Angeles	B-LF-S22C	34.02903	-118.09457	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S23	34.02887	-118.09315	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S24	34.02716	-118.09311	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)

Owner			Sump	Sump Locatio	on	LxWxD Sump		How many years	Total amount of	Composition	Was sump filled	When was	What material was	Was there solidified	If Yes, what was the	
and/or Operator	Field Name	County	Name/Description	Latitude	Longitude	Volume in ft3	sump first excavated?	was the sump active?	fluid discharged in bbls	of fluids	with soil or other material? (Yes/No)	the sump filled?	used to fill the sump?		composition of these solids?	Sump Status ⁴
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S25A	34.02716	-118.09280	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Remediated for TPH (LFR 1997)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S25B	34.02894	-118.09172	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Remediated for TPH (LFR 1997)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S25C	34.02731	-118.09062	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S26	34.02827	-118.08841	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S27	34.02774	-118.08843	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Remediated for TPH (LFR 1997)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S28	34.02700	-118.08840	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S29	34.02904	-118.08932	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S30	34.02975	-118.08708	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
	Montebello Oil Field	Los Angeles	B-LF-S31	34.02887	-118.08674	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S32	34.02838	-118.08683	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S33	34.02816	-118.08708	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S34	34.02767	-118.08732	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Remediated for Metals (LFR 1997)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S35	34.02707	-118.08740	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)

Owner			Sumn	Sump Location			When was the	How many years	Total amount of	Composition	Was sump filled	When was	What material was	Was there solidified	If Yes, what was the	
and/or Operator	Field Name	County	Sump Name/Description	Latitude	Longitude	LxWxD Sump Volume in ft3	sump first excavated?	was the sump active?	fluid discharged in bbls	of fluids	with soil or other material? (Yes/No)	the sump filled?	used to fill the sump?	waste? (Yes/No)	the composition of these solids?	Sump Status ⁴
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S36	34.02670	-118.08687	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S37	34.02652	-118.08476	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S38	34.02602	-118.08440	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S39	34.02725	-118.08293	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S40A	34.02765	-118.08224	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S40B	34.02640	-118.08216	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S41	34.02681	-118.08146	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S42	34.02602	-118.08129	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Remediated for TPH (LFR 1997)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S43	34.02654	-118.07965	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S44	34.02811	-118.07930	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	T-LF-S45	34.03350	-118.07603	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	T-LF-S46	34.03295	-118.07534	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	T-LF-S47A	34.03096	-118.07390	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Remediated for Metals (LFR 1997)

Owner	Field Name	County	Sump Name/Description	Sump Location			When was the	How many years	Total amount of	Composition	Was sump filled	When was	What material was	Was there solidified	lf Yes, what was the	
and/or Operator				Latitude	Longitude	LxWxD Sump Volume in ft3	sump first excavated?		fluid discharged in bbls	of fluids	with soil or other material? (Yes/No)	the sump filled?	used to fill the sump?	waste? (Yes/No)	composition of these solids?	Sump Status ⁴
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	T-LF-S47B	34.03217	-118.07455	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Remediated for TPH (LFR 1997)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S48	34.02847	-118.07847	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S49	34.02833	-118.07749	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S50	34.02829	-118.07645	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S51	34.02737	-118.07583	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Remediated for TPH (LFR 1997)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S52	34.02888	-118.07642	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S53	34.02899	-118.07512	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S55	34.02939	-118.07481	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
	Montebello Oil Field	Los Angeles	T-LF-S56	34.03047	-118.07775	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Remediated for TPH (LFR 1997)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	T-LF-S57	34.03220	-118.07741	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	T-LF-S58	34.03010	-118.07618	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	T-LF-S59A	34.03146	-118.07663	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	T-LF-S59B	34.03183	-118.07604	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Remediated for TPH (LFR 1997)

Owner and/or Operator		County		Sump Location			When was the	How many years	Total amount of		Was sump filled	When was	What material was	Was there	If Yes, what was	i
			Sump Name/Description	Latitude	Longitude	LxWxD Sump Volume in ft3	sump first excavated?	was the sump active?	fluid discharged in bbls	Composition of fluids	with soil or other	the sump filled?	used to fill the sump?	solidified waste? (Yes/No)	the composition of these solids?	Sump Status ⁴
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	T-LF-S59C	34.03046	-118.07414	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	T-LF-S59D	34.03085	-118.07365	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Remediated for TPH (LFR 1997)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S61	34.02981	-118.08236	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Remediated for TPH and Metals (LFR 1997)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S62	34.02973	-118.08061	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S63	34.02890	-118.08065	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Remediated for TPH (LFR 1997)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S64	34.03145	-118.08535	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S65	34.02969	-118.08543	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Remediated for TPH and Metals (LFR 1997)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S66	34.03041	-118.08583	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S67	34.03125	-118.08422	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S69	34.03312	-118.08969	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Remediated for TPH (LFR 1997)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S71	34.03383	-118.09003	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Remediated for TPH (LFR 1997)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S72	34.03073	-118.08604	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Remediated for TPH (LFR 1997)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S73	34.03003	-118.08512	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)

Owner	Field Name		Gas Montebello Oil Sump Name/Description	Sump Location		LxWxD Sump	When was the	How many years			ition I	When was	What material was	was there solidified	If Yes, what was the	
nd/or Operator				Latitude	Longitude	Volume in ft3	' Icumn firct	was the sump active?	fluid discharged in bbls	of fluids	with soil or other material? (Yes/No)	the sump filled?	used to fill the sump?	waste? (Yes/No)	composition of these solids?	Sump Status ⁴
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S74	МАР	МАР	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
reeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S75	34.03374	-118.07799	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
reeport- AcMoRan Oil Ind Gas	Montebello Oil Field	Los Angeles	T-LF-S76	34.03193	-118.07903	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
reeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S77	34.03245	-118.08147	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
reeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	T-LF-S78	34.03026	-118.07877	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S79	34.03070	-118.08266	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	T-LF-S80A	34.03054	-118.07792	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S80B	34.03088	-118.07760	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	T-LF-S81	34.03032	-118.07640	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	T-LF-S82	34.03055	-118.07558	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
reeport- McMoRan Oil Ind Gas	Montebello Oil Field	Los Angeles	B-LF-S83	34.03265	-118.08056	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
reeport- AcMoRan Oil Ind Gas	Montebello Oil Field	Los Angeles	T-LF-S84	34.03196	-118.07630	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
reeport- //cMoRan Oil ind Gas	Montebello Oil Field	Los Angeles	T-LF-S85	34.03132	-118.07494	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Remediated for TPH (LFR 1997)

Owner			Sump Name/Description	Sump Location			When was the	How many years	Total amount of	Composition	Was sump filled	When was	What material was	Was there solidified	If Yes, what was the	
and/or Operator	Field Name			Latitude	Longitude	LxWxD Sump Volume in ft3	sump first excavated?	-	fluid discharged in bbls	of fluids	with soil or other material? (Yes/No)	the sump filled?	used to fill the sump?	waste? (Yes/No)	composition of these solids?	Sump Status ⁴
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	T-LF-S86	34.03376	-118.07907	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
McMcDan Oil	Montebello Oil Field	Los Angeles	B-LF-S87	34.03212	-118.08003	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Remediated for TPH (LFR 1997)
	Montebello Oil Field	Los Angeles	B-LF-S88	34.03101	-118.08039	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Remediated for TPH (LFR 1997)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	B-LF-S89	34.03102	-118.08133	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
	Montebello Oil Field	Los Angeles	B-LF-S90	34.03411	-118.07663	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Remediated for TPH (LFR 1997)
	Montebello Oil Field	Los Angeles	B-LF-S91	34.03443	-118.07697	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
Freeport- McMoRan Oil and Gas	Montebello Oil Field	Los Angeles	T-LF-S92	34.03049	-118.07382	UNK	UNK	1	UNK	Drilling fluids ¹	Yes	UNK	Drilling muds, cuttings, and native soil ²	No ³		Assessed / Preliminary Soil Investigation (LFR 1995)
McMcDan Oil	Montebello Oil Field	Los Angeles	Central Mud Sump	34.03038	-118.07726	30,000 ft3	1996	13	UNK	Drilling fluids ¹	Yes	2008	Drilling muds, cuttings, and native soil ²	No ³		Drilling muds were tested, identified as non-hazardous and used for backfill

Notes

¹ Drilling fluids include drilling muds and cuttings as well as liquid produced during the drilling process, including produced water and oil.

² Sump backfill has been characterized and further action, if required, is being conducted under RWQCB-LA approved RAP dated April 2010.

³ Drilling muds are very low permeability and act as a solidifcation mechanism. However, formal solidification of drilling fluids prior to offsite disposal began in 2012.

⁴ Sump status taken from RWQCB-LA approved RAP dated April 2010.

