



BAROID PETROLEUM SERVICES

(METRIC)
DRILLING MUD REPORTREPORT
NO. 1

DATE 22-10-87

DEPTH 36 M.

OPERATOR AGIP		CONTRACTOR DELTA		RIG NO. FEMSC003	
ADDRESS RIG		ADDRESS RIG		SPUD DATE 22-10-87	
REPORT FOR MR. CANASTA		REPORT FOR MR. CEAUI			
WELL NAME AND NO. SORIANO #1		FIELD OR BLOCK NO. L. DE SAURI		Province or offshore area FOGGIA	
				COUNTRY ITALY	
OPERATION		CASING		MUD VOLUME (m³)	
PRESENT ACTIVITY		SURFACE		HOLE	
IN. at		M.		PITS	
BIT SIZE (IN.) 12 1/4		NO.		PUMP SIZE 5 1/2 IN	
DRILL PIPE SIZE 5"		TYPE		PUMP MAKE MODEL	
DRILL COLLAR SIZE		LENGHT		LT/STROKE STROKE/MIN.	
		AR		18/13.6 10.4/3.1	
				LT/MIN.	
Sample from ☐ Flowline ☐ Pit		MUD PROPERTIES		EQUIPMENT	
Flowline Temperature °C		SIZE		HRS/TOUR	
Time Sample Taken		SIZE		HRS/TOURS	
Depth M.		SIZE		HRS/TOURS	
Weight ☐ (ppg) ☒ (G.P.L.)		SIZE		HRS/TOURS	
Funnel Viscosity (SEC./LT.) API at °C		SIZE		HRS/TOURS	
Plastic Viscosity cp at °C		SIZE		HRS/TOURS	
Yield Point (GR/100 CM²)		SIZE		HRS/TOURS	
Gel Strenght (GR/100 CM²) 10 sec/10 min		SIZE		HRS/TOURS	
pH ☒ Strip ☐ Meter		SIZE		HRS/TOURS	
Filtrate API (ml/30 min)		SIZE		HRS/TOURS	
API HP-HT Filtrate (ml/30 min) °C		SIZE		HRS/TOURS	
Cake Thickness (mm) API ☒ HP-HT ☐		SIZE		HRS/TOURS	
Alkalinity, Mud (Pm)		SIZE		HRS/TOURS	
Alkalinity, Filtrate (Pf/Mf)		SIZE		HRS/TOURS	
Salt ☐ ppm ☒ gpl Chloride ☐ ppm ☒ gpl		SIZE		HRS/TOURS	
Calcium ☐ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)		SIZE		HRS/TOURS	
Sand Content (% by Vol)		SIZE		HRS/TOURS	
Solids Contents (% by Vol)		SIZE		HRS/TOURS	
Oil Content (% by Vol)		SIZE		HRS/TOURS	
Water Content (% by Vol)		SIZE		HRS/TOURS	
Methylene Blue Capacity (me/ml mud)		SIZE		HRS/TOURS	
PV/YP RATIO		SIZE		HRS/TOURS	
REMARKS STARTING WELL - MADELP 50% OF AR MUD - DRILLED TILL 36 MT-		MUD PROPERTIES SPECIFICATIONS		MATERIALS USED	
		BY AUTHORITY ☐ DRILLING CONTRACTOR ☐ OPERATOR'S REPRESENTATIVE		PRODUCTS	
				AMOUNT	
				COST	
				BENTONITE 34.5 690'000	
				CUMULATIVE COST 690'000 DAILY COST 690'000	
				TOTAL MATERIAL CONSUMPTION	
				PRODUCT	
				AMOUNT	
				PRODUCT	
				AMOUNT	
				BENT. 34.5	
				STOCK 0L BARITE 517 BENTONITE 100.5	
				WATER	

THE RECOMMENDATIONS MADE HEREON SHALL NOT BE CONSTRUED AS AUTHORIZING THE INFRINGEMENT OF ANY VALID PATENT, AND ARE MADE WITHOUT ASSUMPTION OF ANY LIABILITY BY N L INDUSTRIES, INC. OR ITS AGENTS, AND ARE STATEMENTS OF OPINION ONLY.

REPRESENTATIVE Albert M. H.	HOME ADDRESS HOTEL HOLIDAY	TELEPHONE
	WAREHOUSE LOCATION	TELEPHONE

1 - WHITE COPY TO OIL COMPANY

2 - PINK COPY TO CONTRACTOR
4 - YELLOW COPY - EXTRA COPY3 - BLUE COPY TO AREA MGR.
5 - GREEN COPY TO ENGINEER

OPERATOR AGIP		CONTRACTOR DELTA		RIG NO. 724510 03	
ADDRESS RIG		ADDRESS RIG		SPUD DATE 21-10-87	
REPORT FOR MR. CANASTA		REPORT FOR MR. CERVI			
WELL NAME AND NO. SORIANO #1		FIELD OR BLOCK NO. C. DEI SAURI		Province or offshore area FOGGIA	
				COUNTRY ITALY	
OPERATION Booth		CASING SURFACE IN. at M.		MUD VOLUME (m³) HOLE 11 PITS 70	
BIT SIZE (IN.) 1 1/4		NO.		PUMP SIZE (IN.) 6 3/4	
DRILL PIPE SIZE 5 1/2		TYPE		PUMP MAKE CONTINENTAL	
DRILL COLLAR SIZE 1 1/2		LENGHT		STROKE/MIN 13/13.6	
		AR		LT/MIN. NO CIRCULATION	
Sample from ☐ Flowline ☐ Pit		MUD PROPERTIES		EQUIPMENT	
Flowline Temperature °C		SIZE		HRS/TOUR	
Time Sample Taken		Centrifuge		Desilter	
Depth M.		Degasser		Shaker	
Weight ☐ (ppg) ☒ (G.P.L.)		Desander		Other	
Funnel Viscosity (SEC./LT.) API at °C				MUD PROPERTIES SPECIFICATIONS	
Plastic Viscosity cp at °C				BY AUTHORITY ☐ DRILLING CONTRACTOR	
Yield Point (GR/100 CM²)				☐ OPERATOR'S REPRESENTATIVE	
Gel Strength (GR/100 CM²) 10 sec/10 min				MATERIALS USED	
pH ☒ Strip ☐ Meter				PRODUCTS	
Filtrate API (ml/30 min)				AMOUNT	
API HP-HT Filtrate (ml/30 min) °C				COST	
Cake Thickness (mm) API ☒ HP-HT ☐				BENTONITE 40 800'000	
Alkalinity, Mud (Pm)				CUMULATIVE COST 1'490'000 DAILY COST 800'000	
Alkalinity, Filtrate (Pm)				TOTAL MATERIAL CONSUMPTION	
Salt ☐ ppm ☒ gpl Chloride ☐ ppm ☒ gpl				PRODUCT	
Calcium ☒ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)				AMOUNT	
Sand Content (% by Vol)				BENT. 74.5	
Solids Contents (% by Vol)				STOCK	
Oil Content (% by Vol)				BARITE 600	
Water Content (% by Vol)				BENTONITE 180,5	
Methylene Blue Capacity (me/ml mud)				WATER	
PV/YP RATIO					
REMARKS DRILLED TILL 156 MT - MADE UP 48 MC OF AR MUD - BOOTH -					

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REPRESENTATIVE Alberto M. M.	HOME ADDRESS Home Holiday	TELEPHONE
	WAREHOUSE LOCATION Room n. 27	TELEPHONE

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5 - GREEN COPY TO ENGINEER

OPERATOR AGIP	CONTRACTOR DELTA	RIG NO. 7 ENSCO 3
ADDRESS RIG	ADDRESS RIG	SPUD DATE 21-10-82
REPORT FOR MR. CAMASIA	REPORT FOR MR. CERVI	

WELL NAME AND NO. SORIANO #1	FIELD OR BLOCK NO. C. DEL SAVAI	Province or offshore area FOGGIA	COUNTRY ITALY
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OPERATION TUBING		CASING 9 5/8 IN. at 301 M.		MUD VOLUME (m³) 20		CIRCULATION DATA 30	
PRESENT ACTIVITY TUBING	NO.	INTERMEDIATE IN. at	M.	TOTAL CIRCULATING VOLUME 50	PUMP MAKE CONTRACTOR	ANNULAR VEL (M/MIN) OPPOSITE DP	
BIT SIZE (IN.) 5"		PRODUCTION OR LINER IN. at	M.	IN STORAGE	PUMP MODEL F1000	OPPOSITE COLLAR	
DRILL PIPE SIZE 5"	TYPE			LT/STROKE 13/12.6	STROKE/MIN	CIRCULATING PRESSURE KG/cm²	
DRILL COLLAR SIZE 8"	LENGHT	AR		LT/MIN.	NO CIRCULATION	BOTTOMS UP (MIN.)	
Sample from ☐ Flowline ☐ Pit				EQUIPMENT			
Flowline Temperature °C				SIZE HRS/TOUR SIZE HRS/TOURS			

Time Sample Taken	LAST CIRCULATION	Centrifuge	-	Desilter	V
Depth M.	305	Degasser	V	Shaker	10/20 10/30
Weight ☐ (ppg) ☒ (G.P.L.)	1130	Desander	V	Other	

Funnel Viscosity (SEC./LT.) API at °C	40	MUD PROPERTIES SPECIFICATIONS	
Plastic Viscosity cp at °C	14	BY AUTHORITY ☐ DRILLING CONTRACTOR	
Yield Point (GR/100 CM²)	7	☐ OPERATOR'S REPRESENTATIVE	

MATERIALS USED		
PRODUCTS	AMOUNT	COST
BENTONITE	12.5	250'000
CUMULATIVE COST 1740'000 DAILY COST 250'000		

TOTAL MATERIAL CONSUMPTION			
PRODUCT	AMOUNT	PRODUCT	AMOUNT
BENT.	87		

REMARKS DRILLED TILL 305 MT - DILUTION OF THE MUD - POOR - AIR - CIRCULATION - POOR - TUBING	STOCK	BARITE	600	BENTONITE	178
		WATER			

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REPRESENTATIVE Roberto...	HOME ADDRESS HOTEL HOLIDAY	TELEPHONE
	WAREHOUSE LOCATION	TELEPHONE

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OPERATOR AGIP				CONTRACTOR DELTA				RIG NO. ZENSC0 D3			
ADDRESS RIG				ADDRESS RIG				SPUD DATE 21-10-87			
REPORT FOR MR. CAMASTA				REPORT FOR MR. CERVI							
WELL NAME AND NO. SORIANO #1				FIELD OR BLOCK NO. C. DEL SAVRI		Province or offshore area FOGGIA		COUNTRY ITALY			
OPERATION		CASING		MUD VOLUME (m³)		CIRCULATION DATA					
PRESENT ACTIVITY		IN. at 301 M.		HOLE 11 PITS 40		PUMP SIZE 6 1/2 IN 5 1/2 x 10		ANNULAR VEL (M/MIN) OPPOSITE DP			
BIT SIZE (IN.)	NO.	INTERMEDIATE IN. at M.		TOTAL CIRCULATING VOLUME 51		PUMP MAKE CONTINENTAL MODEL F1000		OPPOSITE COLLAR			
DRILL PIPE SIZE	TYPE	PRODUCTION OR LINER IN. at M.		IN STORAGE 40 x 10705 IP		LT/STROKE 19/13.6 STROKE/MIN		CIRCULATING PRESSURE KG/cm²			
DRILL COLLAR SIZE	LENGHT	AR				LT/MIN. NO CIRCULATION		BOTTOMS UP (MIN.)			
Sample from ☐ Flowline ☐ Pit				MUD PROPERTIES				EQUIPMENT			
Flowline Temperature °C								SIZE HRS/TOUR SIZE HRS/TOURS			
Time Sample Taken				LAST CIRCULATION				Centrifuge —			
Depth M,				305				Degasser V			
Weight ☐ (ppg) ☒ (G.P.L.)				1130				Desander V			
Funnel Viscosity (SEC./LT.) API at °C				40				Desilter V			
Plastic Viscosity cp at °C				14				Shaker 10/30 10/30			
Yield Point (GR/100 CM²)				2				Other			
Gel Strength (GR/100 CM²) 10 sec/10 min				— 2-10 —				MUD PROPERTIES SPECIFICATIONS			
pH ☒ Strip ☐ Meter				9				BY AUTHORITY ☐ DRILLING CONTRACTOR ☐ OPERATOR'S REPRESENTATIVE			
Filtrate API (ml/30 min)				11				MATERIALS USED			
API HP-HT Filtrate (ml/30 min) °C				—				PRODUCTS AMOUNT QL COST			
Cake Thickness (mm) API ☒ HP-HT ☐				1.5				KOA 0.25 33'750			
Alkalinity, Mud (Pm)								SIPHV 3.25 79'6250			
Alkalinity, Filtrate (Pf/Mf)				— — —				SIPLV 1.25 28'1250			
Salt ☐ ppm Chloride ☐ ppm ☒ gpl ☐ gpl				1.16				CUMULATIVE COST 2'851'250 DAILY COST 1'111'250			
Calcium ☐ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)				—				TOTAL MATERIAL CONSUMPTION			
Sand Content (% by Vol)				—				PRODUCT AMOUNT QL PRODUCT AMOUNT			
Solids Contents (% by Vol)				4				BENT. 87			
Oil Content (% by Vol)				—				KOA 0.25			
Water Content (% by Vol)				96				SIPHV 3.25			
Methylene Blue Capacity (me/ml mud)				—				SIPLV 1.25			
PV/YP RATIO				2				STOCK QL BARITE 600 BENTONITE 178			
REMARKS RH W/ SINGER - RUMMED CEMENT JOB BY HALIMURTA K. D.C.								WATER			

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OPERATOR AGIP		CONTRACTOR DELTA		RIG NO. 7E156003	
ADDRESS R16		ADDRESS R16		SPUD DATE 21-10-87	
REPORT FOR MR. CANASTA		REPORT FOR MR. CERVI			
WELL NAME AND NO. SORIANO #1		FIELD OR BLOCK NO. C. DEI SAVRI		Province or offshore area F0661A	
				COUNTRY ITALY	
OPERATION		CASING		MUD VOLUME (m³)	
PRESENT ACTIVITY		SURFACE IN. at 301 M.		PITS 40	
BIT SIZE (IN.)		INTERMEDIATE IN. at _____ M.		PUMP SIZE 5 1/2" x 10	
DRILL PIPE SIZE		PRODUCTION OR LINER IN. at _____ M.		PUMP MAKE CONTINENTAL MODEL F1000	
DRILL COLLAR SIZE		LENGHT AR		LT/STROKE 13/13.6 STROKE/MIN	
				LT/MIN.	
				ANNULAR VEL (M/MIN) OPPOSITE DP	
				OPPOSITE COLLAR	
				CIRCULATING PRESSURE KG/cm²	
				BOTTOMS UP (MIN.)	
				SYSTEM TOTAL (MIN.)	
Sample from ☐ Flowline ☐ Pit		MUD PROPERTIES		EQUIPMENT	
Flowline Temperature °C				SIZE HRS/TOUR SIZE HRS/TOURS	
Time Sample Taken				Centrifuge ☒ Desilter ☒	
Depth M,		305		Degasser ☒ Shaker	
Weight ☐ (ppg) ☒ (G.P.L.)		1130		Desander ☒ Other	
Funnel Viscosity (SEC./LT.) API at °C		40		MUD PROPERTIES SPECIFICATIONS	
Plastic Viscosity cp at °C		14		BY AUTHORITY ☐ DRILLING CONTRACTOR ☐ OPERATOR'S REPRESENTATIVE	
Yield Point (GR/100 CM²)		7		MATERIALS USED	
Gel Strenght (GR/100 CM²) 10 sec/10 min		2-10		PRODUCTS AMOUNT COST	
pH ☒ Strip ☐ Meter		9			
Filtrate API (ml/30 min)		11			
API HP-HT Filtrate (ml/30 min) °C		1			
Cake Thickness (mm) API ☒ HP-HT ☐		1.5			
Alkalinity, Mud (Pm)					
Alkalinity, Filtrate (Pt/Mt)		-			
Salt ☐ ppm ☒ gpl Chloride ☐ ppm ☒ gpl		1.16			
Calcium ☐ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)				CUMULATIVE COST 2851250 DAILY COST -	
Sand Content (% by Vol)				TOTAL MATERIAL CONSUMPTION	
Solids Contents (% by Vol)		4		PRODUCT AMOUNT PRODUCT AMOUNT	
Oil Content (% by Vol)				BENT. 87	
Water Content (% by Vol)		96		KOH 0.25	
Methylene Blue Capacity (me/ml mud)				SIPHU 3.25	
PV/YP RATIO		2		SIPLV 1.25	
REMARKS V. O. C.				STOCK 2L BARITE 600 BENTONITE 178	
				WATER	

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OPERATOR AGIP		CONTRACTOR DELTA		RIG NO. ZEMSC0 D3	
ADDRESS RIG		ADDRESS RIG		SPUD DATE 21-10-87	
REPORT FOR MR. CANASTA		REPORT FOR MR. CEAVI			
WELL NAME AND NO. SORIANO #1		FIELD OR BLOCK NO. C. DEI SAURI		Province or offshore area FOGGIA	
				COUNTRY ITALY	
OPERATION		CASING		MUD VOLUME (m³)	
PRESENT ACTIVITY		SURFACE IN. at 301 M.		PITS 73	
BIT SIZE (IN.) 8 1/2"		NO.		PUMP MAKE CONTINENTAL	
DRILL PIPE SIZE 5"		TYPE		MODEL F1000	
DRILL COLLAR SIZE 8"		LENGHT		LT/STROKE 17.79/11.68	
				STROKE/MIN 120	
				LT/MIN. 1560	
				ANNULAR VEL (M/MIN) OPPOSITE DP 73	
				OPPOSITE COLLAR 374	
				CIRCULATING PRESSURE KG/cm² 98	
				BOTTOMS UP (MIN.) 9	
				SYSTEM TOTAL (MIN.) 62	
Sample from ☐ Flowline ☐ Pit		MUD PROPERTIES		EQUIPMENT	
Flowline Temperature °C		SIZE HRS/TOUR		SIZE HRS/TOURS	
Time Sample Taken		Centrifuge -		Desilter 240/175/54	
Depth M.		Degasser V		Shaker 20/40 10/30	
Weight ☐ (ppg) ☒ (G.P.L.)		Desander V		Other	
Funnel Viscosity (SEC./LT.) API at °C					
Plastic Viscosity cp at °C					
Yield Point (GR/100 CM²)					
Gel Strenght (GR/100 CM²) 10 sec/10 min					
pH ☒ Strip ☐ Meter					
Filtrate API (ml/30 min)					
API HP-HT Filtrate (ml/30 min) °C					
Cake Thickness (mm) API ☒ HP-HT ☐					
Alkalinity, Mud (Pm)					
Alkalinity, Filtrate (P/Mf)					
Salt ☐ ppm ☒ gpl Chloride ☐ ppm ☐ gpl					
Calcium ☒ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)					
Sand Content (% by Vol)					
Solids Contents (% by Vol)					
Oil Content (% by Vol)					
Water Content (% by Vol)					
Methylene Blue Capacity (Kg/mc) mud					
PV/YP RATIO					
REMARKS					
MADE UP 30 MC OF SIPMU -					
RUNNER SHORT TRIP -					
DRIILLED TILL 745 MT -					
- DRILLING AHEAD -					
		STOCK QL		BARITE 480	
				BENTONITE 178	
				WATER	

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REPRESENTATIVE	Walter R. N.	HOME ADDRESS	HOTEL HOLIDAY	TELEPHONE
		WAREHOUSE LOCATION		TELEPHONE

1 - WHITE COPY TO OIL COMPANY

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BAROID PETROLEUM SERVICES

(METRIC)
DRILLING MUD REPORT

REPORT NO. 8

DATE 28-10-87 DEPTH 960 M.

OPERATOR AGIP		CONTRACTOR DELTA		RIG NO. FEMSCOD3	
ADDRESS RIG		ADDRESS RIG		SPUD DATE 21-10-87	
REPORT FOR MR. BERGONZI		REPORT FOR MR. CEAVI			
WELL NAME AND NO. SORIANO #1		FIELD OR BLOCK NO. C. DELSAURI		Province or offshore area FOGGIA	
				COUNTRY ITALY	
OPERATION DRILLING		CASING 9 5/8" IN. at SURFACE 701 M.		MUD VOLUME (m³) 31	
PRESENT ACTIVITY DRILLING		HOLE 31		PITS 78	
BIT SIZE (IN.) 5 1/2		NO.		PUMP SIZE 6X10 IN 512X10	
DRILL PIPE SIZE 5"		TYPE		PUMP MAKE CONTINENTAL MODEL Flopo	
DRILL COLLAR SIZE 7"		LENGHT		LT/STROKE 138 11.68 STROKE/MIN 114	
		SIP		LT/MIN. 1580	
Sample from ☐ Flowline ☐ Pit		MUD PROPERTIES		EQUIPMENT	
Flowline Temperature °C		SIZE		HRS/TOUR	
Time Sample Taken		6.15		Desilter 200 mesh	
Depth M.		960		Shaker 20/40 40/60	
Weight ☐ (ppg) ☒ (G.P.L.)		1170		Other	
Funnel Viscosity (SEC./LT.) API at °C		45		MUD PROPERTIES SPECIFICATIONS	
Plastic Viscosity cp at °C		18		BY AUTHORITY ☐ DRILLING CONTRACTOR ☐ OPERATOR'S REPRESENTATIVE	
Yield Point (GR/100 CM²)		8		MATERIALS USED	
Gel Strength (GR/100 CM²) 10 sec/10 min		2-10		PRODUCTS	
pH ☒ Strip ☐ Meter		8		AMOUNT QL	
Filtrate API (ml/30 min)		5.6		COST	
API HP-HT Filtrate (ml/30 min) °C		-		KOH 0.75 101'250	
Cake Thickness (mm) API ☒ HP-HT ☐		0.5		SIP LV 1.25 281'250	
Alkalinity, Mud (Pm)		-		SIP HV 3.5 857'500	
Alkalinity, Filtrate (P/Mf)		2-4		CUMULATIVE COST 9'922'000 DAILY COST 1'240'000	
Salt ☐ ppm ☒ gpl Chloride ☐ ppm ☐ gpl		2.3		TOTAL MATERIAL CONSUMPTION	
Calcium ☒ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)		-		PRODUCT	
Sand Content (% by Vol)		TR		AMOUNT QL	
Solids Contents (% by Vol)		5		PRODUCT	
Oil Content (% by Vol)		-		AMOUNT	
Water Content (% by Vol)		95		BARITE 120	
Methylene Blue Capacity (mg/ml mud)		48.7		BENTONITE 97	
PV/YP RATIO		2.37		KOH 2	
REMARKS		RUNNER SHORT TRIP IN SHOE		SIP LV 5.25	
DRILLED TILL		DRILLING AHEAD		SIP HV 17.75	
				KHCO3 1	
				STOCK QL	
				BARITE 480	
				BENTONITE 178	
				WATER	

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REPRESENTATIVE Alberto L. A.	HOME ADDRESS HOTEL HOLIDAY	TELEPHONE
	WAREHOUSE LOCATION	TELEPHONE

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OPERATOR AGLP RIG		CONTRACTOR DELTA RIG		RIG NO. 72756003	
ADDRESS		ADDRESS		SPUD DATE 21-10-87	
REPORT FOR MR. BERGONZI		REPORT FOR MR. CEMI			
WELL NAME AND NO. SORIANO #1		FIELD OR BLOCK NO. C. DEI SAURI		Province or offshore area FOGGIA	
				COUNTRY ITALY	
OPERATION DRILLING		CASING 8 1/2 IN. at SURFACE 701 M.		MUD VOLUME (m³) 36	
PRESENT ACTIVITY NO.		INTERMEDIATE IN. at M.		TOTAL CIRCULATING VOLUME 114	
BIT SIZE (IN.) 8 1/2		TYPE		PUMP SIZE 6 X 10 IN 3 1/2 X 10	
DRILL PIPE SIZE 5		PRODUCTION OR LINER IN. at M.		PUMP MAKE CONVENTAL Floop	
DRILL COLLAR SIZE 8		LENGHT SIP		STROKE/MIN 116	
				LT/MIN. 1600	
Sample from ☐ Flowline ☐ Pit		MUD PROPERTIES		EQUIPMENT	
Flowline Temperature °C		SIZE		HRS/TOUR	
Time Sample Taken		Centrifuge		Desilter	
Depth M.		Degasser		Shaker	
Weight ☐ (ppg) ☒ (G.P.L.)		Desander		Other	
Funnel Viscosity (SEC./LT.) API at °C				MUD PROPERTIES SPECIFICATIONS	
Plastic Viscosity cp at °C				BY AUTHORITY ☐ DRILLING CONTRACTOR ☐ OPERATOR'S REPRESENTATIVE	
Yield Point (GR/100 CM²)				MATERIALS USED	
Gel Strength (GR/100 CM²) 10 sec/10 min				PRODUCTS	
pH ☒ Strip ☐ Meter				AMOUNT	
Filtrate API (ml/30 min)				COST	
API HP-HT Filtrate (ml/30 min) °C				SIP LV 0.5 112.500	
Cake Thickness (mm) API ☒ HP-HT ☐					
Alkalinity, Mud (Pm)					
Alkalinity, Filtrate (Pm)					
Salt ☒ ppm ☐ gpl Chloride ☐ ppm ☐ gpl					
Calcium ☒ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)					
Sand Content (% by Vol)				CUMULATIVE COST 10'034'500 DAILY COST 112'500	
Solids Contents (% by Vol)				TOTAL MATERIAL CONSUMPTION	
Oil Content (% by Vol)				PRODUCT	
Water Content (% by Vol)				AMOUNT	
Methylene Blue Capacity (mg/ml mud)				PRODUCT	
PV/YP RATIO				AMOUNT	
REMARKS				BARITE 120	
POOH TO CHANGE THE BIT -				BENT. 87	
RIM - DRILLING TILL 1114 MT -				KOH 2	
- DRILLING AHEAD -				SIP LV 5.75	
				SIP HV 17.75	
				KHCO3 1	
		STOCK		BARITE 480	
		WATER		BENTONITE 178	

THE RECOMMENDATIONS MADE HEREON SHALL NOT BE CONSTRUED AS AUTHORIZING THE INFRINGEMENT OF ANY VALID PATENT, AND ARE MADE WITHOUT ASSUMPTION OF ANY LIABILITY BY N L INDUSTRIES, INC. OR ITS AGENTS, AND ARE STATEMENTS OF OPINION ONLY.

REPRESENTATIVE Alberto M. N.	HOME ADDRESS HOTEL HOLIDAY	TELEPHONE
	WAREHOUSE LOCATION	TELEPHONE

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5 - GREEN COPY TO ENGINEER

DATE 31-10-1987

DEPTH 1230 M.

OPERATOR AGIP	CONTRACTOR DELTA	RIG NO. 7 Emscovo
ADDRESS RIG	ADDRESS RIG	SPUD DATE 21-10-82
REPORT FOR MR. BEAGONZI	REPORT FOR MR. CARONE	

WELL NAME AND NO. SORIANO #1	FIELD OR BLOCK NO. C. DEISAURI	Province or offshore area FOGIA	COUNTRY ITALY
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OPERATION		CASING		MUD VOLUME (m³)		CIRCULATION DATA	
PRESENT ACTIVITY POOH		SURFACE 301 M.		HOLE 42	PITS 76	PUMP SIZE 6x10 IN	ANNULAR VEL (M/MIN) 200 M/H
BIT SIZE (IN.) 5 1/2	NO.	INTERMEDIATE IN. at	M.	TOTAL CIRCULATING VOLUME 118		PUMP MAKE CONTINENTAL	OPPOSITE DP
DRILL PIPE SIZE 5 1/2	TYPE	PRODUCTION OR LINER IN. at	M.	IN STORAGE 20 x 1000		MODEL FL800	OPPOSITE COLLAR
DRILL COLLAR SIZE 8 1/2	LENGHT			LT/STROKE 13.85/11.61		STROKE/MIN	CIRCULATING PRESSURE KG/cm²
				LT/MIN. NO CIRCULATION			BOTTOMS UP (MIN.)
							SYSTEM TOTAL (MIN.)

Sample from ☐ Flowline ☐ Pit		MUD PROPERTIES		EQUIPMENT			
Flowline Temperature °C				SIZE	HRS/TOUR	SIZE	HRS/TOURS
Time Sample Taken		6.25		Centrifuge	—	Desilter	200 M/H
Depth M.		1230		Degasser	✓	Shaker	20/40 40/60
Weight ☐ (ppg) ☒ (G.P.L.)		1165		Desander	✓	Other	
Funnel Viscosity (SEC./LT.) API at °C		43		MUD PROPERTIES SPECIFICATIONS			
Plastic Viscosity cp at °C		15		BY AUTHORITY ☐ DRILLING CONTRACTOR ☐ OPERATOR'S REPRESENTATIVE			
Yield Point (GR/100 CM²)		8		MATERIALS USED			
Gel Strenght (GR/100 CM²) 10 sec/10 min		2-10		PRODUCTS	AMOUNT	COST	
pH ☒ Strip ☐ Meter		8.5		KOH	0.25	33.750	
Filtrate API (ml/30 min)		4.4		SIP LV	1	225.000	
API HP-HT Filtrate (ml/30 min) °C		—		SIP HV	2	480.000	
Cake Thickness (mm) API ☒ HP-HT ☐		0.5		CUMULATIVE COST 10'783'250 DAILY COST 748'750			
Alkalinity, Mud (Pm)		—		TOTAL MATERIAL CONSUMPTION			
Alkalinity, Filtrate (P/Mf)		2-14		PRODUCT	AMOUNT	PRODUCT	AMOUNT
Salt ☐ ppm ☒ gpl Chloride ☐ ppm ☒ gpl		2.6		BARITE	128		
Calcium ☒ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)		—		BENT.	87		
Sand Content (% by Vol)		TR		KOH	2.25		
Solids Contents (% by Vol)		6		SIP LV	6.75		
Oil Content (% by Vol)		—		SIP HV	18.75		
Water Content (% by Vol) K6/AL		84		KHCO3	1		
Methylene Blue Capacity (ml/m³ mud)		78		STOCK 480 BARITE 480 BENTONITE 178			
PV/YP RATIO		1.87		WATER			

REMARKS
RUNNED SHORT TRIP IN SHOE -
MADE UP 30% OF SIP MUD -
DRILLED TILL 1230 MT - POOH -

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REPRESENTATIVE Alberto M. A.	HOME ADDRESS Home ERDONIA	TELEPHONE
	WAREHOUSE LOCATION Room 202	TELEPHONE

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BAROID PETROLEUM SERVICES

(METRIC)
DRILLING MUD REPORTREPORT
NO. 11

DATE 1-11-1987

DEPTH 1407 M.

OPERATOR AGIP		CONTRACTOR DELTA		RIG NO. 7E79003	
ADDRESS RIG		ADDRESS RIG		SPUD DATE 21-10-82	
REPORT FOR MR. BERGONZI		REPORT FOR MR. CAPONE			
WELL NAME AND NO. SORIANO #1		FIELD OR BLOCK NO. C. DEI SAURI		Province or offshore area FOGGIA	
				COUNTRY ITALY	
OPERATION		CASING		MUD VOLUME (m³)	
PRESENT ACTIVITY		SURFACE 301 M.		HOLE 46 PITS 80	
BIT SIZE (IN.) 8 1/2		NO.		PUMP SIZE 6 X 10 IN 5 1/2 X 10	
DRILL PIPE SIZE 5"		TYPE		PUMP MAKE CONTINENTAL MODEL F1010	
DRILL COLLAR SIZE P~		LENGHT		LT/STROKE 13/19/11.1P STROKE/MIN	
		SIP		LT/MIN. NO CIRCULATION	
Sample from ☐ Flowline ☐ Pit		MUD PROPERTIES		EQUIPMENT	
Flowline Temperature °C		SIZE		HRS/TOUR	
Time Sample Taken		6.25		Desilter 200 MESH	
Depth M.		1407		Shaker 20/40/60/80	
Weight ☐ (ppg) ☒ (G.P.L.)		1160		Desander V	
Funnel Viscosity (SEC./LT.) API at °C		48		Other	
Plastic Viscosity cp at °C		20		MUD PROPERTIES SPECIFICATIONS	
Yield Point (GR/100 CM²)		10		BY AUTHORITY ☐ DRILLING CONTRACTOR ☐ OPERATOR'S REPRESENTATIVE	
Gel Strength (GR/100 CM²) 10 sec/10 min		25-15		MATERIALS USED	
pH ☒ Strip ☐ Meter		9		PRODUCTS	
Filtrate API (ml/30 min)		4.8		AMOUNT	
API HP-HT Filtrate (ml/30 min) °C		-		COST	
Cake Thickness (mm) API ☒ HP-HT ☐		0.5		KOH 0.25 33'750	
Alkalinity, Mud (Pm)		-		SIP LV 1.5 337'500	
Alkalinity, Filtrate (P/Mf)		2-4		SIP HV 2 480'000	
Salt ☐ ppm ☒ gpl Chloride ☐ ppm ☐ gpl		2.5		CUMULATIVE COST 11'644'500 DAILY COST 861'250	
Calcium ☒ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)		-		TOTAL MATERIAL CONSUMPTION	
Sand Content (% by Vol)		TA		PRODUCT	
Solids Contents (% by Vol)		6		AMOUNT	
Oil Content (% by Vol)		-		PRODUCT	
Water Content (% by Vol)		84		AMOUNT	
Methylene Blue Capacity (normal mud)		71		BARITE 120	
PV/YP RATIO		2		BENT. 87	
REMARKS		RAN SHORT TRIP IN SHOE - DRILLED TILL 1407 MT -		KOH 2.5	
				SIP LV 8.25	
				SIP HV 21.75	
				KHCO3 1	
				STOCK QL BARITE 480 BENTONITE 178	
				WATER	

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REPRESENTATIVE G. L. Neri	HOME ADDRESS HOTEL HERDONIA	TELEPHONE
	WAREHOUSE LOCATION	TELEPHONE

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BAROID PETROLEUM SERVICES

(METRIC)
DRILLING MUD REPORT

REPORT NO. 12

DATE 2-11-87 DEPTH 1447 M.

OPERATOR AGIP		CONTRACTOR DELTA		RIG NO. ZENSCOD3	
ADDRESS RLG		ADDRESS RLG		SPUD DATE 21-10-82	
REPORT FOR MR. BERGONZI		REPORT FOR MR. CAPONE			
WELL NAME AND NO. SORIANO #1		FIELD OR BLOCK NO. C. DEL SAURI		Province or offshore area FOGGIA	
				COUNTRY ITALY	
OPERATION		CASING		MUD VOLUME (m³)	
PRESENT ACTIVITY		SURFACE 301 M.		HOLE 47 RITS 6P	
BIT SIZE (IN.)		INTERMEDIATE IN. at M.		PUMP SIZE 6" x 10"	
DRILL PIPE SIZE		PRODUCTION OR LINER IN. at M.		PUMP MAKE CONTINENTAL	
DRILL COLLAR SIZE		LENGHT		MODEL F1000	
		SIP		STROKE/MIN 12.8/11.6P	
				LT/MIN. NO CIRCULATION	
Sample from ☐ Flowline ☐ Pit		MUD PROPERTIES		EQUIPMENT	
Flowline Temperature °C				SIZE HRS/TOUR SIZE HRS/TOURS	
Time Sample Taken		LAST CIRCULATION		Centrifuge —	
Depth M.		1447		Degasser ✓	
Weight ☐ (ppg) ☒ (G.P.L.)		1150		Desander ~	
Funnel Viscosity (SEC./LT.) API at °C		48		Desilter	
Plastic Viscosity cp at °C		19		Shaker	
Yield Point (GR/100 CM²)		8		Other	
Gel Strength (GR/100 CM²) 10 sec/10 min		2-10		MUD PROPERTIES SPECIFICATIONS	
pH ☒ Strip ☐ Meter		8.5		BY AUTHORITY ☐ DRILLING CONTRACTOR	
Filtrate API (ml/30 min)		5.4		☐ OPERATOR'S REPRESENTATIVE	
API HP-HT Filtrate (ml/30 min) °C		—		MATERIALS USED	
Cake Thickness (mm) API ☒ HP-HT ☐		0.5		PRODUCTS AMOUNT QL COST	
Alkalinity, Mud (Pm)		—		SIP LV 3.25 731'250	
Alkalinity, Filtrate (Pf/Mf)		2-4			
Salt ☐ ppm Chloride ☐ ppm		2.9			
☒ gpl ☐ gpl					
Calcium ☒ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)		0.2		CUMULATIVE COST 12'375'750 DAILY COST 731'250	
Sand Content (% by Vol)		—		TOTAL MATERIAL CONSUMPTION	
Solids Contents (% by Vol)		6		PRODUCT AMOUNT QL PRODUCT AMOUNT	
Oil Content (% by Vol)		—		BARITE 120	
Water Content (% by Vol)		94		BENT. 87	
Methylene Blue Capacity (me/ml mud)		71		KOH 2.5	
PV/YP RATIO		2.37		SIP LV 11.5	
				SIP HV 21.75	
				KHCO3 1	
REMARKS		DRILLED TILL 1447 MT -		STOCK QL BARITE 480 BENTONITE 178	
		POOH IN SHOE - RIH - CIRCULATION		WATER	
		POOH - STARTING LOGS BY SCHLUMBERGER			

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REPRESENTATIVE Albert M. M.	HOME ADDRESS HOTEL HERDONIA	TELEPHONE
	WAREHOUSE LOCATION	TELEPHONE

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DATE 3-11- 19 87

DEPTH 1447 M.

OPERATOR ADDRESS REPORT FOR MR.		CONTRACTOR ADDRESS REPORT FOR MR.		RIG NO. SPUD DATE	
AGIP RIG BERGONZI		DELTA RIG CABONE		7ENSC0V3 21-10-87	
WELL NAME AND NO.		FIELD OR BLOCK NO.		Province or offshore area	
SORIANO #1		C - DEI SAURI		FOGGIA	
				COUNTRY ITALY	
OPERATION		CASING		MUD VOLUME (m³)	
PRESENT ACTIVITY		SURFACE		PUMP SIZE (X) IN	
BIT SIZE (IN.)		INTERMEDIATE		ANNULAR VEL (M/MIN)	
NO.		IN. at M.		OPPOSITE DP	
DRILL PIPE SIZE		PRODUCTION OR LINER		PUMP MAKE MODEL	
LENGHT		IN. at M.		STROKE/MIN	
SIZE				LT/MIN.	
		SIP		NO CIRCULATION	
Sample from □ Flowline □ Pit		MUD PROPERTIES		EQUIPMENT	
Flowline Temperature °C		SIZE HRS/TOUR		SIZE HRS/TOURS	
Time Sample Taken		Centrifuge		Desilter	
Depth M,		Degasser		Shaker	
Weight □ (ppg) / (G.P.L.)		Desander		Other	
Funnel Viscosity (SEC./LT.) API at °C		BY AUTHORITY □ DRILLING CONTRACTOR □ OPERATOR'S REPRESENTATIVE		MATERIALS USED	
Plastic Viscosity cp at °C		PRODUCTS		AMOUNT COST	
Yield Point (GR/100 CM²)		CUMULATIVE COST		DAILY COST	
Gel Strenght (GR/100 CM²) 10 sec/10 min		TOTAL MATERIAL CONSUMPTION		PRODUCT AMOUNT	
pH / Strip □ Meter		MARITE		BENT.	
Filtrate API (ml/30 min)		KOH		SILPU	
API HP-HT Filtrate (ml/30 min) °C		SILPU		KHCO₃	
Cake Thickness (mm) API / HP-HT □		BARITE		BENTONITE	
Alkalinity, Mud (Pm)		WATER			
Alkalinity, Filtrate (Pf/Ml)					
Salt ppm Chloride ppm / gpl gpl					
Calcium gpl □ Gyp (Kg/m³) □ Excess Lime (Kg/m³)					
Sand Content (% by Vol)					
Solids Contents (% by Vol)					
Oil Content (% by Vol)					
Water Content (% by Vol)					
Methylene Blue Capacity (me/ml mud)					
PV/YF RATIO					
REMARKS					
RUNNED LOGS - RIG - CIRCULATION - POOL - LOGS -					

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REPRESENTATIVE	HOME ADDRESS	TELEPHONE
Albert M. N.	Hotel Heredia	
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BAROID PETROLEUM SERVICES

(METRIC)
DRILLING MUD REPORTREPORT
NO. 20

DATE 10-11-87

DEPTH 1474 M.

LITHOLOGY : CALCARE

OPERATOR AGIP	CONTRACTOR DELTA	RIG NO. 7
ADDRESS RIG	ADDRESS RIG	SPUD DATE 21-10-87
REPORT FOR MR. M. BERGONSI	REPORT FOR MR. CAPONE	

WELL NAME AND NO. SORIANO 1	FIELD OR BLOCK NO. C-DEISAURI	Province or offshore area FOGGIA	COUNTRY ITALIA
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OPERATION DST	CASING SURFACE 9 5/8 IN. at 301 M.	MUD VOLUME (m³) HOLE 25 BITS 8.5	CIRCULATION DATA PUMP SIZE X IN 6 1/2 x 10 + 5 1/2 x 10
BIT SIZE (IN.) NO.	INTERMEDIATE 7 IN. at 1445 M.	TOTAL CIRCULATING VOLUME 110	PUMP MAKE CONTINENTAL
DRILL PIPE SIZE TYPE	PRODUCTION OR LINER IN. at	IN STORAGE Rt 12 B = 29 m³ 1160	MODEL F 1000
DRILL COLLAR SIZE LENGHT	Low Solids		LT/STROKE 13.8 + 11.7
			STROKE/MIN
			LT/MIN.
			ANNULAR VEL (M/MIN) OPPOSITE DP
			OPPOSITE COLLAR
			CIRCULATING PRESSURE KG/cm² BOTTOMS UP (MIN.)
			SYSTEM TOTAL (MIN.)

Sample from ☐ Flowline ☐ Pit	MUD PROPERTIES	EQUIPMENT
Flowline Temperature °C		SIZE HRS/TOUR
Time Sample Taken	90	Centrifuge /
Depth M.	1474	Degasser Rg
Weight ☐ (ppg) ☐ (G.P.L.)	1010	Desander Rg
Funnel Viscosity (SEC./LT.) API at °C	43	Desilter MC 200
Plastic Viscosity cp at °C	10	Shaker 40/60
Yield Point (GR/100 CM²)	4	Other
Gel Strength (GR/100 CM²) 10 sec/10 min	1-2	
pH ☐ Strip ☐ Meter	11	
Filtrate API (ml/30 min)	8	
API HP-HT Filtrate (ml/30 min) °C	-	
Cake Thickness (mm) API ☐ HP-HT ☐	1	
Alkalinity, Mud (Pm)	1.4	
Alkalinity, Filtrate (P/Ml)	1-1.4	
Salt ☐ ppm ☐ gpl Chloride ☐ ppm ☐ gpl	2.3	
Calcium ☐ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)	tr	
Sand Content (% by Vol)	tr	
Solids Contents (% by Vol)	3	
Oil Content (% by Vol)	0	
Water Content (% by Vol)	97	
Methylene Blue Capacity (me/ml mud)	-	
PV/YP RATIO	2.5	

MUD PROPERTIES SPECIFICATIONS		
BY AUTHORITY	☐ DRILLING CONTRACTOR ☐ OPERATOR'S REPRESENTATIVE	

MATERIALS USED		
PRODUCTS	AMOUNT	COST
NO use of chemicals		

CUMULATIVE COST	16448100	DAILY COST	Ø
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TOTAL MATERIAL CONSUMPTION			
PRODUCT	AMOUNT	PRODUCT	AMOUNT
BARITE	120	THERMATHIM	0.75
BENTONITE	126.5	CNC HV	6.75
KOH	2.5	CAUSTICA	1
SIP HV	21.75		
SIP LV	11.5		
K HCO3	6		
OXOXIN	3		

STOCK	BARITE 480	BENTONITE 161
	WATER	

REMARKS Rth will suaper. circulated, Poon.
and Rig up packer. Rth will Testky
Tubing set packer. Rig up DST #1

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REPRESENTATIVE D. VINCENT	HOME ADDRESS Rg	TELEPHONE
	WAREHOUSE LOCATION	TELEPHONE

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BAROID PETROLEUM SERVICES

(METRIC)
DRILLING MUD REPORTREPORT
NO. 19

DATE 9-11-1987

DEPTH 1474 M.

LITHOLOGY: CALCARE

OPERATOR AGIP	CONTRACTOR DELTA	RIG NO. 7
ADDRESS RIG	ADDRESS RIG	SPUD DATE 21.10.87
REPORT FOR MR. M. BERGONSI	REPORT FOR MR. F. CAPONE	

WELL NAME AND NO. SORIANO 1	FIELD OR BLOCK NO. C. DEI SAURI	Province or offshore area FOGGIA	COUNTRY ITALIA
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OPERATION	CASING	MUD VOLUME (m³)	CIRCULATION DATA
PUMP SIZE X IN. 6 1/2 x 10 + 5 1/2 x 10	ANNULAR VEL (M/MIN) 52		
PRESENT ACTIVITY CORRING/DST	SURFACE IN. at 301 M.	HOLE PITS 25 84	OPPOSITE DP 52
BIT SIZE (IN.) 3 1/2	NO. CORRING 7	INTERMEDIATE IN. at 1445 M.	OPPOSITE COLLAR 70
DRILL PIPE SIZE 3 1/2	TYPE	PRODUCTION OR LINER IN. at	CIRCULATING PRESSURE KG/cm² 69
DRILL COLLAR SIZE 4 3/4	LENGHT 110.7	IN STORAGE 11#28 = 29.3 1160	BOTTOMS UP (MIN.) 23
		LT/STROKE 13.8 + 11.7	SYSTEM TOTAL (MIN.) 112
		LT/MIN. 970	

MUD PROPERTIES	EQUIPMENT
Sample from ☐ Flowline ☒ Pit	SIZE HRS/TOUR
Flowline Temperature °C	SIZE HRS/TOURS
Time Sample Taken 10⁰⁰	Centrifuge ☒
Depth M. 1465	Degasser RUG
Weight ☐ (ppg) ☒ (G.P.L.) 1020	Desander RUG

Funnel Viscosity (SEC./LT.) API at °C 42	MUD PROPERTIES SPECIFICATIONS
Plastic Viscosity cp at °C 10	BY AUTHORITY ☐ DRILLING CONTRACTOR
Yield Point (GR/100 CM²) 4	☐ OPERATOR'S REPRESENTATIVE

PRODUCTS	AMOUNT	COST
Gel Strength (GR/100 CM²) 10 sec/10 min 1-2		
pH ☒ Strip ☐ Meter 11		
Filtrate API (ml/30 min) 8		
API HP-HT Filtrate (ml/30 min) °C NC		
Cake Thickness (mm) API ☒ HP-HT ☐ 1		
Alkalinity, Mud (Pm) 1.4		
Alkalinity, Filtrate (P/Mf) 1-1.4		
Salt ☐ ppm ☒ gpl Chloride ☐ ppm ☒ gpl 2.3		
Calcium ☒ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³) Tr		
Sand Content (% by Vol) Tr		
Solids Contents (% by Vol) 3		
Oil Content (% by Vol) 0		
Water Content (% by Vol) 97		
Methylene Blue Capacity (me/ml mud) 29 BENT KG/m³ 11		
PV/YP RATIO 2.5		

CUMULATIVE COST 16448100	DAILY COST 255200		
PRODUCT	AMOUNT	PRODUCT	AMOUNT
BENTONITE	5 QLI	100000	
THERMATHIN (ADJUST-STOCK)	0.25 QLI	155200	
VOLUME MUD MADE	10m³		
NOLOSSES.			

REMARKS RH Bit #5 Drilled To 1465, circulated 1160. will light show - checked for CL at bottom up 23 gill POOH. and RH with corre-barel. corre to 1474. and POOH. Mud: made 10m³ of 5% Prehydrated Bentonite and injected into system To keep mud in good Rheology.	
RH With Sna per To 1440 and circulated mud to 1604 for DST	

REPRESENTATIVE D. VINCENT	HOME ADDRESS Rig Hope Newbua	TELEPHONE Rig
	WAREHOUSE LOCATION 203	TELEPHONE

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BAROID PETROLEUM SERVICES

(METRIC)
DRILLING MUD REPORTREPORT
NO. 18

DATE 8-11 1987

DEPTH 1460 M.

CALCARE

OPERATOR AGIP	CONTRACTOR DELTA	RIG NO. 7
ADDRESS RIG	ADDRESS RIG	SPUD DATE 21-10-87
REPORT FOR MR. M. BERGONSI	REPORT FOR MR. F. CAPONE	

WELL NAME AND NO. SORIANO 1	FIELD OR BLOCK NO. C. DEI SAURI	Province or offshore area FOGGIA	COUNTRY ITALIA
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OPERATION Drilling	CASING 9 5/8" at 901 M.	MUD VOLUME (m³) HOLE 24 PITS 74	CIRCULATION DATA PUMP SIZE X IN 6 1/2 x 10 + 3 1/2 x 10
BIT SIZE (IN.) 6	NO. 5	INTERMEDIATE 17 IN. at 1445 M.	TOTAL CIRCULATING VOLUME 98
DRILL PIPE SIZE 3 1/2	TYPE	PRODUCTION OR LINER IN. at	LT/STROKE STROKE/MIN 117 60
DRILL COLLAR SIZE 4 3/4	LENGHT Mo. 30	Low-SOLID Mud.	LT/MIN. 790

Sample from ☐ Flowline ☒ Pit	MUD PROPERTIES	EQUIPMENT
Flowline Temperature °C		SIZE HRS/TOUR SIZE HRS/TOURS
Time Sample Taken	400	Centrifuge 1
Depth M.	1460	Degasser RIG
Weight ☐ (ppg) ☒ (G.P.L.)	1020	Desander RIG

Funnel Viscosity (SEC./LT.) API at °C	41	MUD PROPERTIES SPECIFICATIONS
Plastic Viscosity cp at °C	10	
Yield Point (GR/100 CM²)	4	
Gel Strenght (GR/100 CM²) 10 sec/10 min	1-2	

pH ☒ Strip ☐ Meter	11	MATERIALS USED
Filtrate API (ml/30 min)	9	
API HP-HT Filtrate (ml/30 min) °C	1	
Cake Thickness (mm) API ☒ HP-HT ☐	0.5	
Alkalinity, Mud (Pm)	1.4	
Alkalinity, Filtrate (P/Ml)	1-1.4	
Salt ☐ ppm ☒ gpl Chloride ☐ ppm ☐ gpl	2.3	
Calcium ☐ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)	0.5	
Sand Content (% by Vol)	Tr	
Solids Contents (% by Vol)	3	

Oil Content (% by Vol)	0	CUMULATIVE COST 16.192.400 DAILY COST 3.367.150
Water Content (% by Vol)	97	
Methylene Blue Capacity (me/ml mud) 29 Bentonite Kg x m³	11	
PV/YP RATIO	2.5	
REMARKS Started Drilling cement, mud highly contaminated. PHACON was used with 2 parts of Thermanthin to help reduce viscosity. KHC03 was used to precipitate cat after circulation. The mud was back to normal. Made 120 m³ of BS mud and 12 m³ of water for break down of 13 Breakover, POOH and RIG Bit # 5.		

PRODUCT	AMOUNT	PRODUCT	AMOUNT
BARITE	120	CAUSTIC	1
BENTONITE	121.5	CMCHV	6.75
KOH	2.5	Thermanthin	0.5
SIP HV	21.5		
SIP LV	11.5		
KHC03	6		
PHACON	3		
STOCK	BARITE 480	BENTONITE 166	
	WATER		

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REPRESENTATIVE D. VINCENT	HOME ADDRESS D. VINCENT	TELEPHONE 15
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OPERATOR AGIP	CONTRACTOR DELTA	RIG NO. 7
ADDRESS RIG	ADDRESS RIG	SPUD DATE 21.10.87
REPORT FOR MR. M. BERGONSI	REPORT FOR MR. F. CAPONE	

WELL NAME AND NO. SORIANO H 1	FIELD OR BLOCK NO. CDEI SAURI	Province or offshore area FOGGIA	COUNTRY ITALIA
---	---	--	--------------------------

OPERATION WOC / RTH		CASING N. at 301 M.		MUD VOLUME (m³) 28		PITS 45		CIRCULATION DATA PUMP SIZE X IN 6 1/2 X 10 5 1/2 X 10		ANNULAR VEL (M/MIN) OPPOSITE DP	
BIT SIZE (IN.) 6	NO. 17	INTERMEDIATE IN. at 1445 M.		TOTAL CIRCULATING VOLUME 73		PUMP MAKE ROUTINENTAL		PUMP MAKE F 1000		OPPOSITE COLLAR	
DRILL PIPE SIZE 3 1/2	TYPE	PRODUCTION OR LINER IN. at		IN STORAGE 1		LT/STROKE 15.7 + 11.6		STROKE/MIN		CIRCULATING PRESSURE KG/cm²	
DRILL COLLAR SIZE	LENGHT	SIP				LT/MIN.				SYSTEM TOTAL (MIN.)	

Sample from ☐ Flowline ☐ Pit	MUD PROPERTIES		EQUIPMENT			
Flowline Temperature °C			SIZE HRS/TOUR			
Time Sample Taken	100		Centrifuge	NO	Desilter 200	
Depth M.	1447		Degasser	Ry	Shaker 2740 40/60	
Weight ☐ (ppg) ☐ (G.P.L.)	1170		Desander	Ry	Other	

Funnel Viscosity (SEC./LT.) API at °C	41	MUD PROPERTIES SPECIFICATIONS	
Plastic Viscosity cp at °C	15	BY AUTHORITY ☐ DRILLING CONTRACTOR ☐ OPERATOR'S REPRESENTATIVE	
Yield Point (GR/100 CM²)	3		

Gel Strenght (GR/100 CM²) 10 sec/10 min		- 2-6 -		MATERIALS USED	
pH ☐ Strip ☐ Meter	9		PRODUCTS AMOUNT COST		
Filtrate API (ml/30 min)	6		No use of chemicals		
API HP-HT Filtrate (ml/30 min) °C	1				
Cake Thickness (mm) API ☐ HP-HT ☐	1				
Alkalinity, Mud (Pm)	1				
Alkalinity, Filtrate (Pf/Mf)	2.4				
Salt ☐ ppm ☐ gpl Chloride ☐ ppm ☐ gpl	9.9				
Calcium ☐ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)	0.1				

Sand Content (% by Vol)	1	CUMULATIVE COST 12825750 DAILY COST 0	
Solids Contents (% by Vol)	6		
Oil Content (% by Vol)	1		

TOTAL MATERIAL CONSUMPTION			
PRODUCT	AMOUNT	PRODUCT	AMOUNT
BARITE	120		
BENTONITE	109.5		
KOH	2.5		
SIP LV	11.5		
SIP HV	21.75		
KM03	1		

REMARKS Continued Rig up 3 1/2 Drilling Assembly - RTH			
STOCK	BARITE 480	BENTONITE	178
	WATER		

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BAROID PETROLEUM SERVICES

(METRIC)
DRILLING MUD REPORTREPORT
NO. 16

DATE 6.11.1987

DEPTH 1447 M.

OPERATOR AGIP		CONTRACTOR DELTA		RIG NO. 7	
ADDRESS RIG		ADDRESS RIG		SPUD DATE 21.10.87	
REPORT FOR MR. BERGONSI		REPORT FOR MR. CAPONE			
WELL NAME AND NO. SORIANO #1		FIELD OR BLOCK NO. C-DEI SAURI		Province or offshore area FOGGIA	
				COUNTRY ITALIA	
OPERATION PRESENT ACTIVITY WCC/BOP/Drill Ass - 958		CASING SURFACE IN. at 301 M.		MUD VOLUME (m³) HOLE 25.3 m³ PITS 45.5	
BIT SIZE (IN.) NO. 4		INTERMEDIATE IN. at 1445 M.		TOTAL CIRCULATING VOLUME 71	
DRILL PIPE SIZE TYPE		PRODUCTION OR LINER IN. at		IN STORAGE 0	
DRILL COLLAR SIZE		LENGHT		SIP mud	
Sample from ☐ Flowline ☐ Pit		MUD PROPERTIES		EQUIPMENT	
Flowline Temperature °C				SIZE HRS/TOUR SIZE HRS/TOURS	
Time Sample Taken		100		Centrifuge NO	
Depth M.		1447		Degasser Ry	
Weight ☐ (ppg) ☐ (G.P.L.)		1170		Desander Ry	
Funnel Viscosity (SEC./LT.) API at °C		47		Desilter 800	
Plastic Viscosity cp at °C		15		Shaker 20/40 60/60	
Yield Point (GR/100 CM²)		3		Other	
Gel Strenght (GR/100 CM²) 10 sec/10 min		2-10		MUD PROPERTIES SPECIFICATIONS	
pH ☐ Strip ☐ Meter		9		BY AUTHORITY ☐ DRILLING CONTRACTOR	
Filtrate API (ml/30 min)		6		☐ OPERATOR'S REPRESENTATIVE	
API HP-HT Filtrate (ml/30 min) °C		1		MATERIALS USED	
Cake Thickness (mm) API ☐ HP-HT ☐		1		PRODUCTS AMOUNT COST	
Alkalinity, Mud (Pm)		-		NO USE OF CHEMICALS	
Alkalinity, Filtrate (P/Mf)		2-4			
Salt ☐ ppm ☐ gpl Chloride ☐ ppm ☐ gpl		2.9			
Calcium ☐ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)		0.2		CUMULATIVE COST 12 825 750 DAILY COST 8	
Sand Content (% by Vol)		1		TOTAL MATERIAL CONSUMPTION	
Solids Contents (% by Vol)		6		PRODUCT AMOUNT PRODUCT AMOUNT	
Oil Content (% by Vol)		-		BARITE 120	
Water Content (% by Vol)		94		BENTONITE 109.5	
Methylene Blue Capacity (me/ml mud)				KOH 2.5	
PV/YP RATIO		2.35		SIP LV 11.5	
REMARKS WCC - work BOP. Laydown all drilling stuff ready to pick up 2 1/2 drilling cleaned & base pit ready to make new low solid mud as per programed				SIP HV 9.75	
				KH LO3 1	
				STOCK BARITE 480 BENTONITE 178	
				WATER	

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DATE 5. 11 1987 DEPTH 1447 M

OPERATOR AGIP		CONTRACTOR DELTA		RIG NO. 7	
ADDRESS RIG		ADDRESS RIG		SPUD DATE 21-10-87	
REPORT FOR MR. BERGONZI		REPORT FOR MR. CAPONE			
WELL NAME AND NO. SORIANO #1		FIELD OR BLOCK NO. C. DEL SAURI		Province or offshore area FOGGIA	
				COUNTRY ITALIA	
OPERATION WOC		CASING 9 5/8 IN. at 301 M.		CIRCULATION DATA	
PRESENT ACTIVITY		MUD VOLUME (m³)		ANNULAR VEL (M/MIN)	
BIT SIZE (IN.)		HOLE PITS		OPPOSITE DP	
NO.		TOTAL CIRCULATING VOLUME		PUMP MAKE (CONTINENTAL)	
INTERMEDIATE		IN STORAGE		MODEL	
IN. at M.		20 x 1030		F 1000	
DRILL PIPE SIZE		LT/STROKE		STROKE/MIN	
TYPE		15.8 + 11.6			
DRILL COLLAR SIZE		LT/MIN.			
LENGHT		SIP			
				CIRCULATING PRESSURE KG/cm²	
				BOTTOMS UP (MIN.)	
				SYSTEM TOTAL (MIN.)	
Sample from ☐ Flowline ☐ Pit		MUD PROPERTIES		EQUIPMENT	
Flowline Temperature °C				SIZE HRS/TOUR SIZE HRS/TOURS	
Time Sample Taken				Centrifuge	
Depth M,		1467		Degasser	
Weight ☐ (ppg) ☐ (G.P.L.)		1170		Desander	
Funnel Viscosity (SEC./LT.) API at °C		47		BY AUTHORITY ☐ DRILLING CONTRACTOR ☐ OPERATOR'S REPRESENTATIVE	
Plastic Viscosity cp at °C		15		MATERIALS USED	
Yield Point (GR/100 CM²)		7		PRODUCTS AMOUNT COST	
Gel Strenght (GR/100 CM²) 10 sec/10 min		2-10		No use of chemicals	
pH ☐ Strip ☐ Meter		9			
Filtrate API (ml/30 min)		6			
API HP-HT Filtrate (ml/30 min) °C		1			
Cake Thickness (mm) API ☐ HP-HT ☐		1			
Alkalinity, Mud (Pm)					
Alkalinity, Filtrate (Pf/Mf)		2-4			
Salt ☐ ppm Chloride ☐ ppm ☐ gpl ☐ gpl		2.9			
Calcium ☐ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)		0.2		CUMULATIVE COST 12,825.750 DAILY COST 8	
Sand Content (% by Vol)		-		TOTAL MATERIAL CONSUMPTION	
Solids Contents (% by Vol)		6		PRODUCT AMOUNT PRODUCT AMOUNT	
Oil Content (% by Vol)		-		BARITE 120	
Water Content (% by Vol)		94		BENTO 109.5	
Methylene Blue Capacity (me/ml mud)				KOH 2.5	
PV/YP RATIO		2.35		SIP LV 11.5	
REMARKS RIG with 7" casing. Circulated until shale shaken clean - cemented WOC -				SIP HV 21.75	
				KH CO3 1	
				STOCK BARITE 480 BENTONITE 173	
				WATER	

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OPERATOR AGIP						CONTRACTOR DELTA							RIG NO. FENSC003																	
ADDRESS RIG						ADDRESS RIG							SPUD DATE 21-10-97																	
REPORT FOR MR. BERGONZI						REPORT FOR MR. CAPONE																								
WELL NAME AND NO. SORIANO #1						FIELD OR BLOCK NO. C-JEL SAVRI					Province or offshore area FOGGIA					COUNTRY ITALY														
OPERATION			CASING			MUD VOLUME (m^3)					CIRCULATION DATA																			
PRESENT ACTIVITY			SURFACE IN at 301 M.			HOLE 47 PPS					PUMP SIZE 5x10					ANNULAR VEL (M/MIN) OPPOSITE DP														
BIT SIZE (IN.)	NO.		INTERMEDIATE IN at M.			TOTAL CIRCULATING VOLUME 115					PUMP MAKE CONTINENTAL MODEL F1000					OPPOSITE COLLAR														
DRILL PIPE SIZE			TYPE			PRODUCTION OR LINER IN at M.					LT-STROKE STROKE/MIN 11.68					CIRCUulating PRESSURE KG/cm ²														
DRILL COLLAR SIZE			LENGHT			SILP					LT/MIN.					BOTTOMS UP (MIN.) SYSTEM TOTAL (MIN.)														
Sample from ☐ Flowline ☐ Pit						MUD PROPERTIES					EQUIPMENT																			
Flowline Temperature °C											SIZE HRS/TOUR					SIZE HRS/TOURS														
Time Sample Taken											Centrifuge —					Desilter 200 mesh														
Depth M,						1447					Degasser ✓					Shaker 20/40 60/60														
Weight ☐ (ppg) ☒ (G.P.L.)						1163					Desander ✓					Other														
Funnel Viscosity (SEC./LT.) API at °C						47					MUD PROPERTIES SPECIFICATIONS																			
Plastic Viscosity cp at °C						15					BY AUTHORITY ☐ DRILLING CONTRACTOR ☐ OPERATOR'S REPRESENTATIVE																			
Yield Point (GR/100 CM²)						7					MATERIALS USED																			
Gel Strenght (GR/100 CM²) 10 sec/10 min						— 2-12 —					PRODUCTS AMOUNT COST																			
pH ☒ Strip ☐ Meter						8.5					BENTONITE 22.5					450.000														
Filtrate API (ml/30 min)						5.4																								
API HP-HT Filtrate (ml/30 min) °C						—																								
Cake Thickness (mm) API ☒ HP-HT ☐						1																								
Alkalinity, Mud (Pm)						—																								
Alkalinity, Filtrate (Pi/Ml)						— .2-.4 —																								
Salt ☐ ppm Chloride ☐ ppm ☒ gpl ☒ gpl						2.8																								
Calcium ☒ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)						0.2					CUMULATIVE COST 12'825'750 DAILY COST 450.000																			
Sand Content (% by Vol)						—					TOTAL MATERIAL CONSUMPTION																			
Solids Contents (% by Vol)						6					PRODUCT AMOUNT PRODUCT AMOUNT																			
Oil Content (% by Vol)						—					MARINE BENT. KOL SIPLO SIFIV KHCO3										120 108.5 2.5 11.5 21.75 1									
Water Content (% by Vol)						34																								
Methylene Blue Capacity (me/ml mud)																														
PV/YF RATIO						2.37																								
REMARKS RIM - CIRCULATION - POOH - RIM - CIRCULATION - POOH -																														
																STOCK QL BARITE 480 BENTONITE 178 WATER														

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DATE 11.11.19

DEPTH 1474 M.

OPERATOR AGIP	CONTRACTOR DELTA	RIG NO. 7
ADDRESS RIG	ADDRESS RIG	SPUD DATE 21.10.87
REPORT FOR MR. BERGONSI	REPORT FOR MR. CAPONE	
WELL NAME AND NO. SORIANO 1	FIELD OR BLOCK NO. C DEI SAURI	Province or offshore area FOGGIA
		COUNTRY ITALIA

OPERATION	CASING	MUD VOLUME (m³)	CIRCULATION DATA
PRESENT ACTIVITY DST #1	SURFACE IN. at 301 M.	HOLE 20 PITS 90	PUMP SIZE X 6x10 + 5 1/2 x 10
BIT SIZE (IN.) 7	INTERMEDIATE IN. at 1447 M.	TOTAL CIRCULATING VOLUME 110	PUMP MAKE CONTINENTAL
DRILL PIPE SIZE 7	PRODUCTION OR LINER IN. at	IN STORAGE 29 #28 1160	MODEL 13.8 + 11.7 F1000
DRILL COLLAR SIZE 7	LENGHT low solids	LT/MIN.	STROKE/MIN. 13.8 + 11.7

MUD PROPERTIES		EQUIPMENT	
Sample from ☐ Flowline ☐ Pit		SIZE	HRS/TOUR
Flowline Temperature °C		SIZE	HRS/TOURS
Time Sample Taken	900	Centrifuge	10 200
Depth M.	1474	Degasser	Ry 40/60
Weight ☐ (ppg) ☐ (G.P.L.)	1020	Desander	Ry
Funnel Viscosity (SEC./LT.) API at °C	42	MUD PROPERTIES SPECIFICATIONS	
Plastic Viscosity cp at °C	10	BY AUTHORITY ☐ DRILLING CONTRACTOR ☐ OPERATOR'S REPRESENTATIVE	
Yield Point (GR/100 CM²)	4	MATERIALS USED	
Gel Strength (GR/100 CM²) 10 sec/10 min	1-2	PRODUCTS	AMOUNT
pH ☐ Strip ☐ Meter	10.5	COST	
Filtrate API (ml/30 min)	8	NO USE OF CHEMICALS.	
API HP-HT Filtrate (ml/30 min) °C	1	Volume Made Daily = 0 Dumped = 0 Hole Losses = 0	
Cake Thickness (mm) API ☐ HP-HT ☐	0.5	Total = 130 } 6" Phase " = 0 " = 0	
Alkalinity, Mud (Pm)	1.3	Received: NaCl = 207 g/L Corrosion Inhibitor = 1 Drum.	
Alkalinity, Filtrate (P/Mf)	1.12	NO GAIN - NO LOSSES.	
Salt ☐ ppm Chloride ☐ ppm ☐ gpl ☐ gpl	2.3	CUMULATIVE COST 16448100 DAILY COST Ø	
Calcium ☐ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)	Tr	TOTAL MATERIAL CONSUMPTION	
Sand Content (% by Vol)	Tr	PRODUCT	AMOUNT
Solids Contents (% by Vol)	3	PRODUCT	AMOUNT
Oil Content (% by Vol)	0	BARITE	120
Water Content (% by Vol)	97	BENTONITE	126.5
Methylene Blue Capacity (me/ml mud)	1	KOH	2.5
PV/YP RATIO	2.5	SIP HV	21.75
		SIP LV	11.5
		KHCO3	6
		STOCK	3

REMARKS	Run DST #1 while Displacing mud inside Tubing with Helium Recirculated PHOENIX 5 m³ of mud in Pit #1a. check for sample at separator #1 - 2.6 m³ 100 g/L in 7 min at 100 rpm #2 = 1020, 2.6, 7, 150, #3 = 1020, 7, 2.6, 150 rpm #4 = 1020, 3.5, 7, 200 rpm
	BARITE 480 BENTONITE 161
	WATER

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	WAREHOUSE LOCATION ORTA NOVA	TELEPHONE

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BAROID PETROLEUM SERVICES

(METRIC)
DRILLING MUD REPORTREPORT
NO. 22

DATE 12.11.1987 DEPTH 1474 M.

OPERATOR AGIP		CONTRACTOR DELTA		RIG NO. 7	
ADDRESS RIG		ADDRESS RIG		SPUD DATE 21.10.87	
REPORT FOR MR. CANASTA		REPORT FOR MR. CAPONE		CALCHAI	
WELL NAME AND NO. SORIANO 1		FIELD OR BLOCK NO. C DEI SAURI		Province or offshore area FOGGIA	
				COUNTRY ITALIA	
OPERATION DST/KILL/POOH		CIRCUATION DATA			
PRESENT ACTIVITY BIT SIZE (IN.) NO.		CIRCUATION DATA			
DRILL PIPE SIZE TYPE		CIRCUATION DATA			
DRILL COLLAR SIZE		CIRCUATION DATA			

Sample from ☐ Flowline ☐ Pit		MUD PROPERTIES		EQUIPMENT	
Flowline Temperature °C				SIZE HRS/TOUR SIZE HRS/TOURS	
Time Sample Taken		2300		Centrifuge NO	
Depth M.		1474		Degasser RY	
Weight ☐ (ppg) ☐ (G.P.L.)		1020		Desander RY	
Funnel Viscosity (SEC./LT.) API at °C		40		Desilter MC 200	
Plastic Viscosity cp at °C		9		Shaker 40/60	
Yield Point (GR/100 CM ²)		4		Other	
Gel Strength (GR/100 CM ²) 10 sec/10 min		1-2		MUD PROPERTIES SPECIFICATIONS	
pH ☐ Strip ☐ Meter		10		BY AUTHORITY ☐ DRILLING CONTRACTOR	
Filtrate API (ml/30 min)		8		☒ OPERATOR'S REPRESENTATIVE	
API HP-HT Filtrate (ml/30 min) °C		1		MATERIALS USED	
Cake Thickness (mm) API ☐ HP-HT ☐		1.3		PRODUCTS AMOUNT COST	
Alkalinity, Mud (Pm)		1.12		NO USE OF CHEMICALS	
Alkalinity, Filtrate (P/Mf)		2.3		VOLUME m ³ DAILY	
Salt ☐ ppm Chloride ☐ ppm		TV		MADE 0	
Calcium ☐ gpl ☐ Gyp (Kg/m ³) ☐ Excess Lime (Kg/m ³)		TV		SURFACE LOSSES 10	
Sand Content (% by Vol)		3		HOLE LOSSES 7	
Solids Contents (% by Vol)		0		CUMULATIVE COST 16468 100 DAILY COST	
Oil Content (% by Vol)		97		TOTAL MATERIAL CONSUMPTION	
Water Content (% by Vol)		2.25		PRODUCT AMOUNT PRODUCT AMOUNT	
Methylene Blue Capacity (me/ml mud)				BARITE 120 THERMATIN 0.75	
PV/YP RATIO				BENTONITE 126.5 CMC HV 6.75	
				KOH 2.5 CAUSTICA 1	
				SIP LV 11.5	
				SIP HV 21.75	
				K ₂ CO ₃ 6	
				QACON 3	
				STOCK BARITE 180 BENTONITE 161	
				WATER	
				VOLUME TOTAL of Mud Made = 559 m ³	

REMARKS: DST #1 check for cl in sample from 1 to 7.
Hole = 7 g/l PH = 7 Weight = 1010. Sample #8
W = 0.80 cl. sample to check PH = 6.5: must be
Wab = 0.7% CONDENSAT = 93%. RY DOWN DST
Kill well: Lost 7 m³ of mud, POOH.

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REPRESENTATIVE D. VINCENT	HOME ADDRESS RY	TELEPHONE
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BAROID PETROLEUM SERVICES

(METRIC)
DRILLING MUD REPORTREPORT
NO. 23

DATE 13.11.19 87 DEPTH 1485 M.

OPERATOR AGIP		CONTRACTOR DELTA		RIG NO. 7	
ADDRESS RIG		ADDRESS RIG		SPUD DATE 91.10.87	
REPORT FOR MR. W. CAMASTA		REPORT FOR MR. CAPONE			
WELL NAME AND NO. SORIANO 1		FIELD OR BLOCK NO. C. DEI SAURI		Province or offshore area FOGGIA	
				COUNTRY ITALIA	
OPERATION Drilling		CASING IN. at 301 M.		MUD VOLUME (m³) 26	
PRESENT ACTIVITY Drilling		SURFACE IN. at 301 M.		PITS 67	
BIT SIZE (IN.) 6		NO. 7		INTERMEDIATE IN. at 1445 M.	
DRILL PIPE SIZE 3 1/2		TYPE Low solid		PRODUCTION OR LINER IN. at 1160 M.	
DRILL COLLAR SIZE 4 3/4		LENGHT 110.7		TOTAL CIRCULATING VOLUME 93	
				IN STORAGE 128 = 29 m³ 1160 m³ 525	
				LT/STROKE 13.8 + 11.7	
				STROKE/MIN 74	
				LT/MIN. 970	
				CIRCULATION DATA	
				ANNULAR VEL (M/MIN) 52	
				OPPOSITE DP 70	
				OPPOSITE COLLAR 70	
				CIRCULATING PRESSURE KG/cm² 43	
				BOTTOMS UP (MIN.) 19	
				SYSTEM TOTAL (MIN.) 95	
Sample from ☐ Flowline ☐ Pit		MUD PROPERTIES		EQUIPMENT	
Flowline Temperature °C				SIZE HRS/TOUR	
Time Sample Taken		7m		SIZE HRS/TOURS	
Depth M.		1485		SIZE HRS/TOURS	
Weight ☐ (ppg) ☒ (G.P.L.)		1020		SIZE HRS/TOURS	
Funnel Viscosity (SEC./LT.) API at °C		44		SIZE HRS/TOURS	
Plastic Viscosity cp at °C		10		SIZE HRS/TOURS	
Yield Point (GR/100 CM²)		5		SIZE HRS/TOURS	
Gel Strength (GR/100 CM²) 10 sec/10 min		1-2		SIZE HRS/TOURS	
pH ☒ Strip ☐ Meter		10.5		SIZE HRS/TOURS	
Filtrate API (ml/30 min)		8		SIZE HRS/TOURS	
API HP-HT Filtrate (ml/30 min) °C		1		SIZE HRS/TOURS	
Cake Thickness (mm) API ☒ HP-HT ☐		1.3		SIZE HRS/TOURS	
Alkalinity, Mud (Pm)		1-12		SIZE HRS/TOURS	
Alkalinity, Filtrate (P/Mt)		2.7		SIZE HRS/TOURS	
Salt ☐ ppm ☒ gpl Chloride ☐ ppm ☒ gpl		2.7		SIZE HRS/TOURS	
Calcium ☐ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)		0.5		SIZE HRS/TOURS	
Sand Content (% by Vol)		Tr		SIZE HRS/TOURS	
Solids Contents (% by Vol)		3		SIZE HRS/TOURS	
Oil Content (% by Vol)		1		SIZE HRS/TOURS	
Water Content (% by Vol)		97		SIZE HRS/TOURS	
Methylene Blue Capacity (me/ml mud)		1		SIZE HRS/TOURS	
PV/YP RATIO		2		SIZE HRS/TOURS	
REMARKS		RIG WITH BIT and Resume drilling at 1478. Took for Washout check as pressure dropped 10 ATMOSPHERE - CHECK OK. RIG and Resume drilling. made 15 m³ of Resene mud for safety.		MUD PROPERTIES SPECIFICATIONS	
				BY AUTHORITY ☐ DRILLING CONTRACTOR ☐ OPERATOR'S REPRESENTATIVE	
				MATERIALS USED	
				PRODUCTS AMOUNT COST	
				BENTONITE 2.5 QL 50 000	
				CMC HV 3.75 QL 9 18 750	
				Volume Made = 15 m³	
				DAILY SURFACE LOSSES = 0	
				DAILY HOLE LOSSES = 0	
				CUMULATIVE 145 m³	
				30	
				7	
				TOTAL mud FROM STARTING well = 574	
				CUMULATIVE COST 17416850 DAILY COST 968750	
				TOTAL MATERIAL CONSUMPTION	
				PRODUCT AMOUNT PRODUCT AMOUNT	
				BARITE 120 THEANATHIN 0.75	
				BENTONITE 129 CMCHV 10,5	
				KOH 2.5 CAUSTICA 1	
				SIP LV 11.5	
				SIP HV 21.75	
				KHCO3 6	
				QPROXIN 3	
				STOCK BARITE 480 BENTONITE 158.5	
				WATER	

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BAROID PETROLEUM SERVICES

(METRIC)
DRILLING MUD REPORTREPORT
NO. 24

DATE 14.11.85 DEPTH 1526 M.

LITHOLOGY = CALCARE.

OPERATOR AGIP	CONTRACTOR DELTA	RIG NO. 7
ADDRESS RIG	ADDRESS RIG	SPUD DATE 21.10.85
REPORT FOR MR. CAMASTA	REPORT FOR MR. CARONE	

WELL NAME AND NO. SORIANO 1	FIELD OR BLOCK NO. C. DEISAURI	Province or offshore area FOGGIA	COUNTRY ITALIA
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OPERATION Schlumberger	CASING 9 5/8" IN. at 301 M.	MUD VOLUME (m³) HOLE 26 PITS 67 TOTAL CIRCULATING VOLUME 93	CIRCULATION DATA PUMP SIZE X IN. 6 X 10 + 5 1/2 X 10 PUMP MAKE CONTINENTAL MODEL P1020 LT/STROKE 13.8 + 11.7 STROKE/MIN. ANNULAR VEL (M/MIN) OPPOSITE DP OPPOSITE COLLAR CIRCULATING PRESSURE KG/cm² BOTTOMS UP (MIN.) SYSTEM TOTAL (MIN.)
BIT SIZE (IN.) 7"	INTERMEDIATE IN. at 1445 M.	IN STORAGE 20.29 m³ 1160 #5.15	
DRILL PIPE SIZE TYPE	PRODUCTION OR LINER IN. at		
DRILL COLLAR SIZE LENGHT	Low solids		

Sample from ☐ Flowline ☐ Pit	MUD PROPERTIES	EQUIPMENT
Flowline Temperature °C		SIZE HRS/TOUR
Time Sample Taken	1.00	Centrifuge MD
Depth M,	1526	Degasser Py
Weight ☐ (ppg) ☐ (G.P.L.)	1020	Desander Py

Funnel Viscosity (SEC./LT.) API at °C	42	MUD PROPERTIES SPECIFICATIONS
Plastic Viscosity cp at °C	10	BY AUTHORITY ☐ DRILLING CONTRACTOR ☐ OPERATOR'S REPRESENTATIVE
Yield Point (GR/100 CM²)	4	

Gel Strength (GR/100 CM²) 10 sec/10 min	1-2	MATERIALS USED
pH ☐ Strip ☐ Meter	10.5	PRODUCTS AMOUNT COST

Filtrate API (ml/30 min)	8	CMC MV 1 BL 245000
API HP-HT Filtrate (ml/30 min) °C	-	

Cake Thickness (mm) API ☒ HP-HT ☐	1	Volume Made DAILY Cumulative
Alkalinity, Mud (Pm)	1.2	0 145

Alkalinity, Filtrate (P/Mf)	0.9-1.1	0 30
Salt ☐ ppm Chloride ☐ ppm	2.9	0 7

Salt ☐ gpl Chloride ☐ gpl	2.9	TOTAL Made From Start well = 574 m³
Calcium ☐ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)	TV	CUMULATIVE COST 17661850 DAILY COST 245000

Sand Content (% by Vol)	TV	TOTAL MATERIAL CONSUMPTION
Solids Contents (% by Vol)	3	PRODUCT AMOUNT PRODUCT AMOUNT

Oil Content (% by Vol)	0	BARITE 120 THIRNATHIN 0.75
Water Content (% by Vol)	97	BENTONITE 129 CMC MV 10.5

Methylene Blue Capacity (me/ml mud)	-	504 2.5 CAUSTIC 1
PV/YP RATIO	2.5	SIP LV 11.5

		SIP MV 21.75
		NHCO3 6

		OBroxu 3
		STOCK BARITE 480 BENTONITE 158.5

		WATER
REMARKS	Drill to 1526. Circulated bottom hole	

	Shut and out. Run to bottom	
	Circulated to condition hole for	

	Gravel	
	Note: increase in cl. probably due to CMC.	

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OPERATOR Agip		CONTRACTOR DELTA		RIG NO. 7	
ADDRESS Rig		ADDRESS Rig		SPUD DATE 21-10-87	
REPORT FOR MR. CAMASTA		REPORT FOR MR. CAPONE			
WELL NAME AND NO. SORIANO 1		FIELD OR BLOCK NO. Casaleccio DEL SAURI		Province or offshore area FOGGIA	
				COUNTRY ITALIA	
OPERATION LOGS - 1120 H/12M 95/18		CASING 301		MUD VOLUME (m³) 93	
PRESENT ACTIVITY LOGS - 1120 H/12M 95/18		SURFACE 301		HOLE 26	
BIT SIZE (IN.) 7 1/4		INTERMEDIATE 1445		PITS 67	
DRILL PIPE SIZE 7 1/4		PRODUCTION OR LINER 1445		PUMP SIZE X IN 6 X 10 + 5 1/2	
DRILL COLLAR SIZE 7 1/4		LENGHT Low solids		CIRCULATION DATA CONTINENTAL F1000	
				ANNULAR VEL (M/MIN) OPPOSITE DP	
				OPPOSITE COLLAR OPPOSITE DP	
				CIRCULATING PRESSURE KG/cm² 18.8 + 11.7	
				BOTTOMS UP (MIN.) SYSTEM TOTAL (MIN.)	
Sample from ☐ Flowline ☐ Pit		MUD PROPERTIES		EQUIPMENT	
Flowline Temperature °C				SIZE HRS/TOUR	
Time Sample Taken		700		SIZE HRS/TOURS	
Depth M.		1526		Centrifuge No	
Weight ☐ (ppg) ☐ (G.P.L.)		1020		Degasser Rig	
Funnel Viscosity (SEC./LT.) API at °C		41		Desander Rig	
Plastic Viscosity cp at °C		10		Desilter No	
Yield Point (GR/100 CM²)		4		Shaker 40/60	
Gel Strenght (GR/100 CM²) 10 sec/10 min		1-2		Other	
pH ☐ Strip ☐ Meter		10.5		MUD PROPERTIES SPECIFICATIONS	
Filtrate API (ml/30 min)		8		BY AUTHORITY ☐ DRILLING CONTRACTOR	
API HP-HT Filtrate (ml/30 min) °C		-		☐ OPERATOR'S REPRESENTATIVE	
Cake Thickness (mm) API ☐ HP-HT ☐		0.5		MATERIALS USED	
Alkalinity, Mud (Pm)		1.2		PRODUCTS AMOUNT COST	
Alkalinity, Filtrate (P1/Mf)		0.9-1.1		No use of chemicals	
Salt ☐ ppm Chloride ☐ ppm		2.9		VOLUMES	
Calcium ☐ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)		Tr		Phase: 6" Made	
Sand Content (% by Vol)		Tr		Surface Losses	
Solids Contents (% by Vol)		3		Hole Losses	
Oil Content (% by Vol)		0		Total made from start well = 574 m³	
Water Content (% by Vol)		97		CUMULATIVE COST 17661 850 DAILY COST 8	
Methylene Blue Capacity (me/ml mud)		-		TOTAL MATERIAL CONSUMPTION	
PV/YP RATIO		2.5		PRODUCT AMOUNT PRODUCT AMOUNT	
REMARKS		Schlumberger log		BARITE 120 gpl	
				BENTONITE 120 gpl	
				KOH 2 gpl	
				SIP HF 21.75 gpl	
				SIP LV 11.5 gpl	
				KH 403 6 gpl	
				Olefin 3 gpl	
				STOCK BARITE 480 BENTONITE 158.5	
				WATER	

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OPERATOR AGIP	CONTRACTOR DELTA	RIG NO. 7
ADDRESS RIG	ADDRESS RIG	SPUD DATE 21. 10. 87
REPORT FOR MR. CAMASTA	REPORT FOR MR. CAPONE	

WELL NAME AND NO. SORIANO 1	FIELD OR BLOCK NO. C-DEISAURI	Province or offshore area FOGGIA	COUNTRY ITALIA
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OPERATION	CASING	MUD VOLUME (m³)	CIRCULATION DATA
PRESENT ACTIVITY WOC	4" SURFACE IN. at 301 M.	HOLE 20 PITS 56.5	PUMP SIZE X IN 6 X 10 + 5 1/2 X 10
BIT SIZE (IN.)	NO. 7 1/4 INTERMEDIATE IN. at 1445 M.	TOTAL CIRCULATING VOLUME 76	PUMP MAKE CONTINENTAL MODEL F 1000
DRILL PIPE SIZE	TYPE 5 PRODUCTION OR LINER IN. at 1525 M.	IN STORAGE #25-20 1160 #15-15	LT/STROKE 13.2 + 11.7 STROKE/MIN
DRILL COLLAR SIZE	LENGHT	LT/MIN.	ANNULAR VEL (M/MIN) OPPOSITE DP OPPOSITE COLLAR CIRCULATING PRESSURE KG/cm² BOTTOMS UP (MIN.) SYSTEM TOTAL (MIN.)

MUD PROPERTIES		EQUIPMENT	
Sample from ☐ Flowline ☐ Pit		SIZE	HRS/TOUR
Flowline Temperature °C		SIZE	HRS/TOURS
Time Sample Taken	7.00	Centrifuge	No
Depth M,	1526	Degasser	By
Weight ☐ (ppg) ☐ (G.P.L.)	1020	Desander	By
Funnel Viscosity (SEC./LT.) API at °C	40	MUD PROPERTIES SPECIFICATIONS	
Plastic Viscosity cp at °C	8	BY AUTHORITY ☐ DRILLING CONTRACTOR ☐ OPERATOR'S REPRESENTATIVE	
Yield Point (GR/100 CM²)	3	MATERIALS USED	
Gel Strenght (GR/100 CM²) 10 sec/10 min	1-2	PRODUCTS	AMOUNT
pH ☐ Strip ☐ Meter	10.5	COST	
Filtrate API (ml/30 min)	8	NO use of chemicals.	
API HP-HT Filtrate (ml/30 min) °C	-	NO volume made.	
Cake Thickness (mm) API ☐ HP-HT ☐	1	Surface loss = 17	
Alkalinity, Mud (Pm)	11	Total made for plus 6" = 145	
Alkalinity, Filtrate (Pf/Mf)	0.5-1	Total loss in hole = 2	
Salt ☐ ppm Chloride ☐ ppm	2.0	Total made for steady well = 574 m³	
Calcium ☐ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)	tr	CUMULATIVE COST 17661 850 DAILY COST 0	
Sand Content (% by Vol)	tr	TOTAL MATERIAL CONSUMPTION	
Solids Contents (% by Vol)	3	PRODUCT	AMOUNT
Oil Content (% by Vol)	0	PRODUCT	AMOUNT
Water Content (% by Vol)	97	BARITE	110 gL
Methylene Blue Capacity (me/ml mud)	-	BENTONITE	120
PV/YP RATIO	2.6	KOM	2.5
		SIP HV	21.35
		SIP LV	11.5
		KHCO3	6
		Q Brown	3
		STOCK	BARITE 670
		WATER	158.5

REMARKS **flushed logg. Rm and circulated
foot. Rm with liner and
circulated around cement job.
had no lost on surface during cementation
with Halbuton no loss while cementing**

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OPERATOR AGIP	CONTRACTOR DELTA	RIG NO. 7
ADDRESS RIG	ADDRESS RIG	SPUD DATE 21-10-87
REPORT FOR MR. CAMASTA	REPORT FOR MR. CAPONE	

WELL NAME AND NO. SORIANO 1	FIELD OR BLOCK NO. C-DEISAURI	Province or offshore area FOGGIA	COUNTRY ITALIA
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OPERATION	CASING	MUD VOLUME (m³)	CIRCULATION DATA
PRESENT ACTIVITY WOC/WO/WO/WO	SURFACE IN. at 301 M.	HOLE 20 PITS 56.5	PUMP SIZE X IN 6 X 10 + 5 X 10
BIT SIZE (IN.) NO. 7	INTERMEDIATE IN. at 1445 M.	TOTAL CIRCULATING VOLUME 76	PUMP MAKE CONTINENTAL
DRILL PIPE SIZE TYPE 5	PRODUCTION OR LINER IN. at 1520 M.	IN STORAGE #5 = 15 m³	MODEL F 1000
DRILL COLLAR SIZE	LENGHT Low Solids	LT/STROKE 133 + 11.7	STROKE/MIN.
		LT/MIN.	ANNULAR VEL (M/MIN) OPPOSITE DP
			OPPOSITE COLLAR
			CIRCULATING PRESSURE KG/CM²
			BOTTOMS UP (MIN.)
			SYSTEM TOTAL (MIN.)

Sample from ☐ Flowline ☐ Pit		MUD PROPERTIES		EQUIPMENT			
Flowline Temperature °C				SIZE		HRS/TOUR	
Time Sample Taken		70		Centrifuge	W		
Depth M.		1526		Degasser	Ry		
Weight ☐ (ppg) ☐ (G.P.L.)		1020		Desander	Ry		
Funnel Viscosity (SEC./LT.) API at °C		40		MUD PROPERTIES SPECIFICATIONS			
Plastic Viscosity cp at °C		8		BY AUTHORITY ☐ DRILLING CONTRACTOR ☐ OPERATOR'S REPRESENTATIVE			
Yield Point (GR/100 CM²)		3		MATERIALS USED			
Gel Strenght (GR/100 CM²) 10 sec/10 min		1-2		PRODUCTS AMOUNT COST			
pH ☐ Strip ☐ Meter		10.5		No use of chemicals			
Filtrate API (ml/30 min)		8		Volume per Phase:			
API HP-HT Filtrate (ml/30 min) °C		-		Made 0			
Cake Thickness (mm) API ☐ HP-HT ☐		1		(Rem) Dumped 29			
Alkalinity, Mud (Pm)		1.1		105r 0			
Alkalinity, Filtrate (Pf/Mf)		0.9-1		TOTAL Made from Slurry well = 574 m³			
Salt ☐ ppm Chloride ☐ ppm		2.9		CUMULATIVE COST DAILY COST			
Calcium ☐ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)		14		TOTAL MATERIAL CONSUMPTION			
Sand Content (% by Vol)		14		PRODUCT AMOUNT PRODUCT AMOUNT			
Solids Contents (% by Vol)		3		BARITE 120 QL THERMATHIN 0.75			
Oil Content (% by Vol)		0		BENTONITE 129 QL CTC HF 11.75			
Water Content (% by Vol)		97		ROH 2.5 QL CAUSTICA 1			
Methylene Blue Capacity (me/ml mud)		-		SIP HV 21.75 QL			
PV/YP RATIO		2.6		SIP LV 11.5 QL			

REMARKS	WOC. Port, RTH will bit and drill tray cement to top line. PPH and wait on bit to drill remaining cement. Dumped 29 m³ of clean mud.
STOCK	BARITE 180 BENTONITE 158.5
	WATER

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BAROID PETROLEUM SERVICES

(METRIC)
DRILLING MUD REPORT

REPORT NO. 28

DATE 18-11-1987 DEPTH 1526 M.

OPERATOR AGIP		CONTRACTOR DELTA		RIG NO. 7	
ADDRESS RIG		ADDRESS RIG		SPUD DATE 21-10-87	
REPORT FOR MR. CAMASCA		REPORT FOR MR. CERVI			
WELL NAME AND NO. SORIANO #1		FIELD OR BLOCK NO. C. DEI SAVINI		Province or offshore area FOGGIA	
				COUNTRY ITALY	
OPERATION		CASING		MUD VOLUME (m³)	
PRESENT ACTIVITY		SURFACE 8 1/2" IN. at 301 M.		HOLE 20 PITS 56.5	
BIT SIZE (IN.)		NO.		PUMP SIZE (X) IN 5 1/2 x 10	
DRILL PIPE SIZE		TYPE		PUMP MAKE CONTINENTAL	
DRILL COLLAR SIZE		LENGHT		MODEL E. 1000	
		Low Solids		STROKE/MIN 13.8/11.7	
				LT/MIN.	
Sample from ☐ Flowline ☐ Pit		MUD PROPERTIES		EQUIPMENT	
Flowline Temperature °C				SIZE HRS/TOUR SIZE HRS/TOURS	
Time Sample Taken				Centrifuge —	
Depth M,		1526		Degasser V	
Weight ☐ (ppg) ☒ (G.P.L.)		1020		Desander V	
Funnel Viscosity (SEC./LT.) API at °C		40		Desilter 200 —	
Plastic Viscosity cp at °C		8		Shaker 40/60	
Yield Point (GR/100 CM²)		3		Other	
Gel Strength (GR/100 CM²) 10 sec/10 min		1-2		MUD PROPERTIES SPECIFICATIONS	
pH ☒ Strip ☐ Meter		10.5		BY AUTHORITY ☐ DRILLING CONTRACTOR	
Filtrate API (ml/30 min)		8		☐ OPERATOR'S REPRESENTATIVE	
API HP-HT Filtrate (ml/30 min) °C		—		MATERIALS USED	
Cake Thickness (mm) API ☒ HP-HT ☐		1		PRODUCTS AMOUNT COST	
Alkalinity, Mud (Pm)		1.1			
Alkalinity, Filtrate (P/Mf)		0.5-1			
Salt ☐ ppm ☒ gpl Chloride ☐ ppm ☐ gpl		2.9			
Calcium ☐ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)		TR		CUMULATIVE COST 17'661'810 DAILY COST —	
Sand Content (% by Vol)		TR		TOTAL MATERIAL CONSUMPTION	
Solids Contents (% by Vol)		3		PRODUCT AMOUNT Q.L. PRODUCT AMOUNT	
Oil Content (% by Vol)		0		BARITE 120 THERMAJON 0.75	
Water Content (% by Vol)		97		BENTONITE 128 CMCHU 11.75	
Methylene Blue Capacity (me/ml mud)		—		KOH 2.5 NAOH 4	
PV/YP RATIO		2.6		SIPHU 21.75	
REMARKS		RHT- DRILLED CEMENT-		SICLU 11.5	
				KHCO3 6	
				Q-BROXON 3	
				STOCK Q.L. BARITE 480 BENTONITE 158.5	
				WATER	

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OPERATOR AGIP	CONTRACTOR DELTA	RIG NO. DELTA 7
ADDRESS RIG	ADDRESS RIG	SPUD DATE 21-10-87
REPORT FOR MR. CAJASTA	REPORT FOR MR. CERVI	

WELL NAME AND NO. SORIANO #1	FIELD OR BLOCK NO. C. DEISAVI	Province or offshore area FOGGIA	COUNTRY ITALY
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OPERATION	CASING	MUD VOLUME (m³)	CIRCULATION DATA
PRESENT ACTIVITY	8 1/2" IN. at SURFACE 321 M.	HOLE 20 PITS 36	PUMP SIZE 6 X 10 IN. 4 1/2" X 10
BIT SIZE (IN.)	7" IN. at INTERMEDIATE 1463 M.	TOTAL CIRCULATING VOLUME 26	PUMP MAKE CONTINENTAL
DRILL PIPE SIZE	5" IN. at PRODUCTION OR LINER 1520 M.	IN STORAGE 15	MODEL F1000
DRILL COLLAR SIZE	LENGHT Low SOLIDS	LT/STROKE 13.8/11.2	STROKE/MIN
		LT/MIN.	ANNULAR VEL (M/MIN) OPPOSITE DP
			OPPOSITE COLLAR
			CIRCULATING PRESSURE KG/cm²
			BOTTOMS UP (MIN.)
			SYSTEM TOTAL (MIN.)

MUD PROPERTIES		EQUIPMENT	
Sample from ☐ Flowline ☐ Pit		SIZE	HRS/TOUR
Flowline Temperature °C		SIZE	HRS/TOURS
Time Sample Taken		Centrifuge	Desilter
Depth M.	1526	Degasser	Shaker
Weight ☐ (ppg) ☒ (G.P.L.)	1020	Desander	Other

MUD PROPERTIES SPECIFICATIONS	
BY AUTHORITY ☐ DRILLING CONTRACTOR ☐ OPERATOR'S REPRESENTATIVE	

MATERIALS USED		
PRODUCTS	AMOUNT	COST

CUMULATIVE COST 17661850	DAILY COST -		
TOTAL MATERIAL CONSUMPTION			
PRODUCT	AMOUNT	PRODUCT	AMOUNT
BARITE	120	CNCU	10.75
BENT.	120	NAOH	1
KOH	2.5		
SIPHU	21.75		
SIPLV	11.5		
KHCO3	6		
Q-Broxin	3		
Therma-Thin	0.75		

REMARKS	POOH - RIN W/SCAPED - CIRCULATION - POOH - STARTING CBL AND SHOTS BY COPGO -
STOCK	BARITE 400 BENTONITE 158.5

THE RECOMMENDATIONS MADE HEREON SHALL NOT BE CONSTRUED AS AUTHORIZING THE INFRINGEMENT OF ANY VALID PATENT, AND ARE MADE WITHOUT ASSUMPTION OF ANY LIABILITY BY N L INDUSTRIES, INC. OR ITS AGENTS, AND ARE STATEMENTS OF OPINION ONLY.

REPRESENTATIVE	HOME ADDRESS	TELEPHONE
Robert M. M.	HOTEL HERDONIA	
	WAREHOUSE LOCATION	TELEPHONE

1 - WHITE COPY TO OIL COMPANY	2 - PINK COPY TO CONTRACTOR	3 - BLUE COPY TO AREA MGR.
4 - WHITE COPY TO OIL COMPANY	4 - YELLOW COPY - EXTRA COPY	5 - GREEN COPY TO ENGINEER



BAROID PETROLEUM SERVICES

(METRIC)
DRILLING MUD REPORT

REPORT NO. 30

DATE 20-11-82

DEPTH 1526 M.

OPERATOR AGIP		CONTRACTOR DELTA		RIG NO. DELTA 7	
ADDRESS RIG		ADDRESS RIG		SPUD DATE 21-10-82	
REPORT FOR MR. CAMASTA		REPORT FOR MR. CERVI			
WELL NAME AND NO. SORIANO 41		FIELD OR BLOCK NO. C. DEL SAUNI		Province or offshore area FOGGIA	
				COUNTRY ITALY	
OPERATION		CASING		MUD VOLUME (m³)	
PRESENT ACTIVITY		SURFACE 301 M.		HOLE 15	
BIT SIZE (IN.)		INTERMEDIATE 1445 M.		TOTAL CIRCULATING VOLUME 76	
DRILL PIPE SIZE		PRODUCTION OR LINER 1520 M.		IN STORAGE 15 x 1010	
DRILL COLLAR SIZE		LENGHT		200 SOLIDS	
Sample from ☐ Flowline ☐ Pit		MUD PROPERTIES		EQUIPMENT	
Flowline Temperature °C				SIZE HRS/TOUR	
Time Sample Taken				SIZE HRS/TOURS	
Depth M.		1526		Centrifuge	
Weight ☐ (ppg) ☒ (G.P.L.)		1020		Degasser	
Funnel Viscosity (SEC./LT.) API at °C		40		Desander	
Plastic Viscosity cp at °C		8		Desilter	
Yield Point (GR/100 CM²)		3		Shaker	
Gel Strength (GR/100 CM²) 10 sec/10 min		1-2		Other	
pH ☒ Strip ☐ Meter		10.5		MUD PROPERTIES SPECIFICATIONS	
Filtrate API (ml/30 min)		8		BY AUTHORITY ☐ DRILLING CONTRACTOR	
API HP-HT Filtrate (ml/30 min) °C		-		☐ OPERATOR'S REPRESENTATIVE	
Cake Thickness (mm) API ☒ HP-HT ☐		1		MATERIALS USED	
Alkalinity, Mud (Pm)		1.1		PRODUCTS	
Alkalinity, Filtrate (P/Mf)		0.8-1		AMOUNT	
Salt ☐ ppm ☒ gpl Chloride ☐ ppm ☒ gpl		2.9		COST	
Calcium ☒ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)		TA		CUMULATIVE COST 17.661850 DAILY COST -	
Sand Content (% by Vol)		TR		TOTAL MATERIAL CONSUMPTION	
Solids Contents (% by Vol)		3		PRODUCT AMOUNT	
Oil Content (% by Vol)		-		PRODUCT AMOUNT	
Water Content (% by Vol)		97		BARITE 120	
Methylene Blue Capacity (me/ml mud)		-		BENT. 129	
PV/YP RATIO		2.6		KOM 2.5	
REMARKS		RIG W/PACKER		SIPH 21.75	
		PUMPED 5300 L OF NH4-		SIPH 11.5	
		EAGGATION -		KACD 6	
				Q-BROXIN 3	
				THERMA-TWIN 0.75	
				STOCK QL BARITE 480	
				WATER	
				BENTONITE 158.5	

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REPRESENTATIVE Albert M. A.	HOME ADDRESS HOTEL HERADONIA	TELEPHONE
	WAREHOUSE LOCATION	TELEPHONE

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BAROID PETROLEUM SERVICES

(METRIC)
DRILLING MUD REPORT

REPORT NO. 31

DATE 21-11-1987

DEPTH 1526 M.

OPERATOR AGIP		CONTRACTOR DELTA		RIG NO. DELTA 7	
ADDRESS R16		ADDRESS R16		SPUD DATE 21-10-87	
REPORT FOR MR. CAMASIA		REPORT FOR MR. CERVI			
WELL NAME AND NO. SORIANO 1		FIELD OR BLOCK NO. C. DEL SAURI		Province or offshore area FOGGIA	
				COUNTRY ITALY	
OPERATION		CASING		MUD VOLUME (m³)	
PRESENT ACTIVITY		SURFACE 701 M.		HOLE 29 PITS 56	
BIT SIZE (IN.)		NO. 7" INTERMEDIATE IN. at 1445 M.		PUMP SIZE 6" X 10" IN	
DRILL PIPE SIZE		TYPE 5" PRODUCTION OR LINER IN. at 1510 M.		PUMP MAKE CONTINENTAL P1000	
DRILL COLLAR SIZE		LENGHT		LT/STROKE 13.814.7 STROKE/MIN	
		LOW SOLIDS		LT/MIN.	
Sample from ☐ Flowline ☐ Pit		MUD PROPERTIES		EQUIPMENT	
Flowline Temperature °C				SIZE HRS/TOUR SIZE HRS/TOURS	
Time Sample Taken				Centrifuge	
Depth M.		1526		Degasser	
Weight ☐ (ppg) ☒ (G.P.L.)		1020		Desander	
Funnel Viscosity (SEC./LT.) API at °C		40			
Plastic Viscosity cp at °C		8		MUD PROPERTIES SPECIFICATIONS	
Yield Point (GR/100 CM²)		3		BY AUTHORITY ☐ DRILLING CONTRACTOR ☐ OPERATOR'S REPRESENTATIVE	
Gel Strenght (GR/100 CM²) 10 sec/10 min		- 1-2 -		MATERIALS USED	
pH ☒ Strip ☐ Meter		10.5		PRODUCTS AMOUNT COST	
Filtrate API (ml/30 min)		8			
API HP-HT Filtrate (ml/30 min) °C		-			
Cake Thickness (mm) API ☐ HP-HT ☐		1			
Alkalinity, Mud (Pm)		1.1			
Alkalinity, Filtrate (P/Mf)		- 0.3-1 -			
Salt ☐ ppm ☒ gpl Chloride ☐ ppm ☐ gpl		2.9			
Calcium ☐ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)		TR		CUMULATIVE COST DAILY COST	
Sand Content (% by Vol)		72.		TOTAL MATERIAL CONSUMPTION	
Solids Contents (% by Vol)		3		PRODUCT AMOUNT Q.L. PRODUCT AMOUNT	
Oil Content (% by Vol)		-		MARLE 120	
Water Content (% by Vol)		87		BENT 129	
Methylene Blue Capacity (me/ml mud)		-		Kotl 2.5	
PV/YP RATIO		2.6		SIPW 21.75	
REMARKS		R.H. W/BRIDGE PLUG		SIPW 11.5	
				KHCO3 6	
				Q-PROXIM 3	
				THERMA-TAN 0.75	
				STOCK 2L BARITE 480 BENTONITE 158.5	
				WATER	

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REPRESENTATIVE Albert M. N.	HOME ADDRESS HOTEL HERDORIO	TELEPHONE
	WAREHOUSE LOCATION	TELEPHONE

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BAROID PETROLEUM SERVICES

(METRIC)
DRILLING MUD REPORT

REPORT NO. 32

DATE 22-11-87

DEPTH 1526 M.

OPERATOR AGIP		CONTRACTOR DELTA		RIG NO. 7	
ADDRESS RIG		ADDRESS RIG		SPUD DATE 21-10-87	
REPORT FOR MR. CAMPATA		REPORT FOR MR. CEAVI			
WELL NAME AND NO. SORIANO 1		FIELD OR BLOCK NO. C. DEISAVALI		Province or offshore area FOGGIA	
				COUNTRY ITALY	
OPERATION PRESENT ACTIVITY		CASING SURFACE 9 5/8 IN. at 701 M.		MUD VOLUME (m³) HOLE 20 PITS 56	
BIT SIZE (IN.) NO.		INTERMEDIATE 7 IN. at 1445 M.		TOTAL CIRCULATING VOLUME 76	
DRILL PIPE SIZE TYPE		PRODUCTION OR LINER 5 IN. at 1526 M.		PUMP SIZE 6 X 10 IN. 5 1/2 X 10 PUMP MAKE CONTINENTAL MODEL Floo STROKE/MIN 13.8/11.7	
DRILL COLLAR SIZE LENGHT		Low SOLIDS		LT/MIN.	
Sample from ☐ Flowline ☐ Pit		MUD PROPERTIES		EQUIPMENT	
Flowline Temperature °C				SIZE HRS/TOUR SIZE HRS/TOURS	
Time Sample Taken				Centrifuge ☒ Desilter 200 mesh	
Depth M.		1526		Degasser ☒ Shaker 40/60	
Weight ☐ (ppg) ☒ (G.P.L.)		1020		Desander ☒ Other	
Funnel Viscosity (SEC./LT.) API at °C		40		MUD PROPERTIES SPECIFICATIONS	
Plastic Viscosity cp at °C		8		BY AUTHORITY ☐ DRILLING CONTRACTOR ☐ OPERATOR'S REPRESENTATIVE	
Yield Point (GR/100 CM²)		3		MATERIALS USED	
Gel Strength (GR/100 CM²) 10 sec/10 min		1-2		PRODUCTS AMOUNT COST	
pH ☒ Strip ☐ Meter		10.5			
Filtrate API (ml/30 min)		8			
API HP-HT Filtrate (ml/30 min) °C		-			
Cake Thickness (mm) API ☒ HP-HT ☐		1			
Alkalinity, Mud (Pm)		1.1			
Alkalinity, Filtrate (P/Mf)		0.51		CUMULATIVE COST 17'661'850 DAILY COST -	
Salt ☐ ppm ☒ gpl Chloride ☐ ppm ☐ gpl		2.8		TOTAL MATERIAL CONSUMPTION	
Calcium ☒ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)		12		PRODUCT AMOUNT PRODUCT AMOUNT	
Sand Content (% by Vol)		12		BARITE 128	
Solids Contents (% by Vol)		3		BENTONITE 11.75	
Oil Content (% by Vol)		-		CNC HV 1	
Water Content (% by Vol)		97		NAPHT	
Methylene Blue Capacity (me/ml mud)		-			
PV/YP RATIO		2.6			
REMARKS		RUNNER CEMENT SQUEEZE - INVERSE CIRCULATION - POUT - SHOTS BY COGO -		STOCK 4L BARITE 480 BENTONITE 158.5	
				WATER	

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REPRESENTATIVE Alberto M. A.	HOME ADDRESS HOTEL HERDANIA	TELEPHONE
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OPERATOR AGIP		CONTRACTOR DELTA		RIG NO. 7	
ADDRESS RIG		ADDRESS RIG		SPUD DATE 21-10-87	
REPORT FOR MR. CAMASTA		REPORT FOR MR. CERVI			
WELL NAME AND NO. SORIANO #1		FIELD OR BLOCK NO. C. DEISAURI		Province or offshore area FOGGIA	
				COUNTRY ITALY	
OPERATION PRESENT ACTIVITY		CASING SURFACE 301 M.		MUD VOLUME (m³) HOLE 24 PITS 24	
BIT SIZE (IN.) NO. 7"		INTERMEDIATE IN. at 1445 M.		PUMP SIZE (X) 10 IN 5 1/2 X 10	
DRILL PIPE SIZE TYPE 5"		PRODUCTION OR LINER IN. at 1520 M.		PUMP MAKE CONTINENTAL	
DRILL COLLAR SIZE		LENGHT Low SOLIDS		MODEL F1000	
				STROKE/MIN 13.8/11.7	
				LT/MIN.	
Sample from ☐ Flowline ☐ Pit		MUD PROPERTIES		EQUIPMENT	
Flowline Temperature °C				SIZE HRS/TOUR SIZE HRS/TOURS	
Time Sample Taken				Centrifuge -	
Depth M.		1526		Desilter 200 MESH	
Weight ☐ (ppg) ☒ (G.P.L.)		1020		Shaker 40/60	
Funnel Viscosity (SEC./LT.) API at °C		40		Desander -	
Plastic Viscosity cp at °C		8		Other	
Yield Point (GR/100 CM²)		3		MUD PROPERTIES SPECIFICATIONS	
Gel Strength (GR/100 CM²) 10 sec/10 min		1-2		BY AUTHORITY ☐ DRILLING CONTRACTOR	
pH ☒ Strip ☐ Meter		10.5		☐ OPERATOR'S REPRESENTATIVE	
Filtrate API (ml/30 min)		8		MATERIALS USED	
API HP-HT Filtrate (ml/30 min) °C		-		PRODUCTS AMOUNT COST	
Cake Thickness (mm) API ☒ HP-HT ☐		1			
Alkalinity, Mud (Pm)		1.1			
Alkalinity, Filtrate (P/Mf)		1.1			
Salt ☐ ppm Chloride ☐ ppm		2.3			
Calcium ☒ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)		2.3			
Sand Content (% by Vol)		TR		CUMULATIVE COST 17'661'850 DAILY COST -	
Solids Contents (% by Vol)		3		TOTAL MATERIAL CONSUMPTION	
Oil Content (% by Vol)		-		PRODUCT AMOUNT Q.L. PRODUCT AMOUNT	
Water Content (% by Vol)		87		BARITE 120	
Methylene Blue Capacity (me/ml mud)		-		BENTONITE 123	
PV/YP RATIO		2.6		KOH 2.5	
REMARKS				SIPHU 21.75	
- EROSION OF THE WELL -				SIFLU 21.5	
				KHCO3 6	
				Q-BROXIN 3	
				THERMATEX 0.75	
				STOCK Q.L. BARITE 480 BENTONITE 158.5	
				WATER	

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REPRESENTATIVE Alberto M. N.	HOME ADDRESS FIREZ H. ARDORIA	TELEPHONE
	WAREHOUSE LOCATION	TELEPHONE

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5 - GREEN COPY TO ENGINEER



BAROID PETROLEUM SERVICES

(METRIC)
DRILLING MUD REPORTREPORT NO. 34
DATE 24-11-87 DEPTH 1520 M.

OPERATOR AGIP		CONTRACTOR DELTA		RIG NO. DELTA 7	
ADDRESS RIG		ADDRESS RIG		SPUD DATE 21-10-87	
REPORT FOR MR. CAMASTA		REPORT FOR MR. CERVI			
WELL NAME AND NO. SORIANO 1		FIELD OR BLOCK NO. C. DEI SAVRI		Province or offshore area FOGGIA	
				COUNTRY ITALY	
OPERATION PRESENT ACTIVITY		CASING 9 5/8 IN. at SURFACE 291 M.		MUD VOLUME (m³) HOLE PITS	
BIT SIZE (IN.) NO.		INTERMEDIATE 7 IN. at 1445 M.		PUMP SIZE 5 1/2 x 10	
DRILL PIPE SIZE TYPE		PRODUCTION OR LINER 5 IN. at 1520 M.		PUMP MAKE CONTINENTAL	
DRILL COLLAR SIZE		LENGHT LOW SOLIDS		STROKE/MIN 13.811.7	
Sample from ☐ Flowline ☐ Pit		MUD PROPERTIES		EQUIPMENT	
Flowline Temperature °C				SIZE HRS/TOUR	
Time Sample Taken				SIZE HRS/TOURS	
Depth M.		1526		Centrifuge	
Weight ☐ (ppg) ☒ (G.P.L.)		1020		Degasser	
Funnel Viscosity (SEC./LT.) API at °C		40		Desander	
Plastic Viscosity cp at °C		8		Desilter	
Yield Point (GR/100 CM²)		3		Shaker	
Gel Strength (GR/100 CM²) 10 sec/10 min		1-2		Other	
pH ☒ Strip ☐ Meter		10.5			
Filtrate API (ml/30 min)		8			
API HP-HT Filtrate (ml/30 min) °C		-			
Cake Thickness (mm) API ☒ HP-HT ☐		1			
Alkalinity, Mud (Pm)		1.1			
Alkalinity, Filtrate (P/Mf)		1.5-1			
Salt ☐ ppm ☒ gpl Chloride ☐ ppm ☐ gpl		2.9			
Calcium ☒ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)		TR			
Sand Content (% by Vol)		TR			
Solids Contents (% by Vol)		3			
Oil Content (% by Vol)		-			
Water Content (% by Vol)		97			
Methylene Blue Capacity (me/ml mud)		-			
PV/YP RATIO		2.6			
REMARKS		EROGATION OF THE WELL - INVERSE CIRCULATION - CIRCULATION - POOH - RIT W/BIDGE SCRAPER - CIRCULATION - POOH - RIT W/BIDGE PLUG -		MATERIALS USED	
				PRODUCTS AMOUNT DL COST	
				STOCK UP TO DATE	
				SIP HV 2 490'000	
				SIP LV 0.5 112'500	
				THERMA-THAW 0.75 465'600	
				CUMULATIVE COST 18'728'950 DAILY COST 1'068'100	
				TOTAL MATERIAL CONSUMPTION	
				PRODUCT AMOUNT DL PRODUCT AMOUNT	
				MARITZ 120 CMC HV 1.75	
				BENTONITE 128 NAOH 1	
				KOH 2.5	
				SIP HV 2375	
				SIP LV 12.0	
				KHCO3 6	
				Q-BROXIN 3	
				THERMA-THAW 150	
				STOCK DL BARITE 420 BENTONITE 160	
				WATER	

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REPRESENTATIVE Alberto M. N.	HOME ADDRESS HOTEL VERDONIA	TELEPHONE
	WAREHOUSE LOCATION	TELEPHONE

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BAROID PETROLEUM SERVICES

(METRIC)
DRILLING MUD REPORTREPORT
NO. 1

DATE 05-11-1987

DEPTH 152

OPERATOR AGIP		CONTRACTOR DELTA		RIG NO. 7	
ADDRESS RIG		ADDRESS RIG		SPUD DATE 21-10-8	
REPORT FOR MR. CANASTA		REPORT FOR MR. CERVI			
WELL NAME AND NO. SORIANO A 1		FIELD OR BLOCK NO. VIDEI SAVAI		Province or offshore area FOGGIA	
				COUNTRY ITALY	
OPERATION PRESENT ACTIVITY		CASING SURFACE 301 M. INTERMEDIATE 1445 M. PRODUCTION OR LINER 1520 M.		MUD VOLUME (m³) HOLE 28 TOTAL CIRCULATING VOLUME 58 IN STORAGE	
BIT SIZE (IN.) NO. 7		PUMPS PUMP SIZE 6 X 10 PUMP MAKE CONTINENTAL MODEL F1000 STROKE/MIN 13.8/11.7 LT/MIN.		CIRCULATION DATA ANNULAR VEL (M/MIN) OPPOSITE DP OPPOSITE COLLAR CIRCULATING PRESSURE KG/cm² BOTTOMS UP (MIN.) SYSTEM TOTAL (MIN.)	
DRILL PIPE SIZE TYPE		DRILL COLLAR SIZE LENGHT		CALLE BRINE	
Sample from ☐ Flowline ☐ Pit Flowline Temperature °C		MUD PROPERTIES		EQUIPMENT	
Time Sample Taken				SIZE HRS/TOUR	
Depth M,				SIZE HRS/TOURS	
Weight ☐ (ppg) ☒ (G.P.L.)		1150		Desilter 200 mesh	
Funnel Viscosity (SEC./LT.) API at °C				Shaker 40/60	
Plastic Viscosity cp at °C				Desander	
Yield Point (GR/100 CM²)				Other	
Gel Strength (GR/100 CM²) 10 sec/10 min		— — —		MUD PROPERTIES SPECIFICATIONS	
pH ☐ Strip ☐ Meter				BY AUTHORITY ☐ DRILLING CONTRACTOR ☐ OPERATOR'S REPRESENTATIVE	
Filtrate API (ml/30 min)				MATERIALS USED	
API HP-HT Filtrate (ml/30 min) °C				PRODUCTS AMOUNT COST	
Cake Thickness (mm) API ☐ HP-HT ☐					
Alkalinity, Mud (Pm)					
Alkalinity, Filtrate (Pf/Mf)		— — —			
☒ ppm Chloride ☐ ppm ☐ gpl ☐ gpl CL- 462					
Calcium ☐ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)				CUMULATIVE COST 18'729'990 DAILY COST —	
Sand Content (% by Vol)				TOTAL MATERIAL CONSUMPTION	
Solids Contents (% by Vol)				PRODUCT AMOUNT Q L PRODUCT AMOUNT	
Oil Content (% by Vol)				BARITE 120 BENTONITE 120 KOH 2.5 SIPHON 23.75 SIPHON 12 KHCO3 6 B-Broxin 3 THERMATHIN 150	
Water Content (% by Vol)				CaCl2 11.75 NaOH 1	
Methylene Blue Capacity (me/ml mud)					
PV/YP RATIO					
REMARKS PEOH - RIG W/BRIDGE PLUG -				STOCK Q L BARITE 480 BENTONITE 160 WATER	

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REPRESENTATIVE Alberto R. M.	HOME ADDRESS HOTEL HERDONIA	TELEPHONE
	WAREHOUSE LOCATION	TELEPHONE

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OPERATOR AGIP	CONTRACTOR DELTA	RIG NO. DELTA 7
ADDRESS RIG	ADDRESS RIG	SPUD DATE 21-10-87
REPORT FOR MR. BERGONZI	REPORT FOR MR. CERVI	

WELL NAME AND NO. SARIANO 1	FIELD OR BLOCK NO. C. DEISAURI	Province or offshore area FOGGIA	COUNTRY ITALY
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OPERATION		CASING	MUD VOLUME (m³)	CIRCULATION DATA	
PRESENT ACTIVITY	9 1/8 IN. at	SURFACE 391 M.	HOLE 23 PITS 35	PUMP SIZE 6 x 10 IN 5 1/2 x 10	ANNULAR VEL (M/MIN) OPPOSITE DP
BIT SIZE (IN.)	NO.	INTERMEDIATE 7 IN. at 1463 M.	TOTAL CIRCULATING VOLUME 58	PUMP MAKE CONTINENTAL F1000	OPPOSITE COLLAR
DRILL PIPE SIZE	TYPE	PRODUCTION OR LINER 5 IN. at 1520 M.	IN STORAGE	LT/STROKE 13.8/11.7	CIRCULATING PRESSURE KG/cm²
DRILL COLLAR SIZE	LENGHT	CCL₂ BRINE		STROKE/MIN	BOTTOMS UP (MIN.)
				LT/MIN.	SYSTEM TOTAL (MIN.)

Sample from ☐ Flowline ☐ Pit		MUD PROPERTIES		EQUIPMENT			
Flowline Temperature °C				SIZE	HRS/TOUR	SIZE	HRS/TOURS
Time Sample Taken				Centrifuge	—	Desilter	200 m³/h
Depth M,				Degasser	V	Shaker	40/60
Weight ☐ (ppg) ☒ (G.P.L.)		1150		Desander	V	Other	

Funnel Viscosity (SEC./LT.) API at °C		MUD PROPERTIES SPECIFICATIONS	
Plastic Viscosity cp at °C		BY AUTHORITY ☐ DRILLING CONTRACTOR ☐ OPERATOR'S REPRESENTATIVE	
Yield Point (GR/100 CM²)			

MATERIALS USED		
PRODUCTS	AMOUNT	COST
CCL₂	144	6'480'000
CUMULATIVE COST 25203'950 DAILY COST 6'480'000		

TOTAL MATERIAL CONSUMPTION			
PRODUCT	AMOUNT	PRODUCT	AMOUNT
BARITE	120	CHCHU	1173
BENTONITE	128	NAOH	1
KOH	23.5	CCL₂	144
SIPHU	23.75		
SIPLV	12		
KHCO₃	6		
Q-BROWN	3		
THERMATH	150		

REMARKS EROGATION OF THE WELL -	STOCK	BARITE 480	BENTONITE 160
		WATER	

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REPRESENTATIVE Debert M. N.	HOME ADDRESS HOTEL HERDONIA	TELEPHONE
	WAREHOUSE LOCATION	TELEPHONE

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DATE 27-11- 19 72 DEPTH _____ M

OPERATOR AGIP		CONTRACTOR DELTA		RIG NO. DECTA7	
ADDRESS RIG		ADDRESS RIG		SPUD DATE 21-10-87	
REPORT FOR MR. BERGONZI		REPORT FOR MR. CERVI			
WELL NAME AND NO. SORIANO I		FIELD OR BLOCK NO. C.DELSAURI	Province or offshore area FOGGIA	COUNTRY ITALY	
OPERATION		CASING	MUD VOLUME (m³)	CIRCULATION DATA	
PRESENT ACTIVITY 8 1/2"		SURFACE IN. at 301 M.	HOLE PITS 23 35	PUMP SIZE 6 X 10 IN 5 1/2 X 10	
BIT SIZE (IN.)	NO.	INTERMEDIATE IN. at 4 1/2"	TOTAL CIRCULATING VOLUME 58	PUMP MAKE MODEL CONTINENTAL L1000	
DRILL PIPE SIZE	TYPE	PRODUCTION OR LINER IN. at 1 5/8"	IN STORAGE	LT-STROKE STROKE/MIN 13.8/11.7	
DRILL COLLAR SIZE	LENGHT			LT/MIN.	
				ANNULAR VEL (M/MIN) OPPOSITE DP OPPOSITE COLLAR CIRCULATING PRESSURE KG/cm² BOTTOMS UP (MIN.) SYSTEM TOTAL (MIN.)	
Sample from ☐ Flowline ☐ Pit		MUD PROPERTIES		EQUIPMENT	
Flowline Temperature °C		SIZE HRS/TOUR		SIZE HRS/TOURS	
Time Sample Taken		Centrifuge		Desilter	
Depth M.		Degasser		Shaker	
Weight ☒ (ppg) ☐ (G.P.L.)		Desander		Other	
Funnel Viscosity (SEC./LT.) API at °C		MUD PROPERTIES SPECIFICATIONS			
Plastic Viscosity cp at °C		BY AUTHORITY ☐ DRILLING CONTRACTOR ☐ OPERATOR'S REPRESENTATIVE			
Yield Point (GR/100 CM²)		MATERIALS USED			
Gel Strenght (GR/100 CM²) 10 sec/10 min		PRODUCTS AMOUNT COST			
pH ☐ Strip ☐ Meter					
Filtrate API (ml/30 min)					
API HP-HT Filtrate (ml/30 min) °C					
Cake Thickness (mm) API ☐ HP-HT ☐					
Alkalinity, Mud (Pm)					
Alkalinity, Filtrate (Pf/Mf)		CUMULATIVE COST 29'208'850 DAILY COST —			
Salt ☐ ppm ☐ gpl Chloride ☐ ppm ☐ gpl					
Calcium ☐ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)					
Sand Content (% by Vol)					
Solids Contents (% by Vol)					
Oil Content (% by Vol)		TOTAL MATERIAL CONSUMPTION			
Water Content (% by Vol)		PRODUCT AMOUNT PRODUCT AMOUNT			
Methylene Blue Capacity (me/ml mud)		BARITE 120 BENTONITE 123 CMC HV 4.75			
PV/YP RATIO		KOH 2.5 WAOH 1			
		SIPAUV 23.75 CALCL₂ 144			
		SIPLV 12			
		KHCO₃ 6			
		Q-BROXIN 3			
		THERMA-THIN 150			
REMARKS - ERIGATION OF TAP WELL -		STOCK OL BARITE 480 BENTONITE 160			
		WATER			

THE RECOMMENDATIONS MADE HEREON SHALL NOT BE CONSTRUED AS AUTHORIZING THE INFRINGEMENT OF ANY VALID PATENT, AND ARE MADE WITHOUT ASSUMPTION OF ANY LIABILITY BY N L INDUSTRIES, INC. OR ITS AGENTS, AND ARE STATEMENTS OF OPINION ONLY.

REPRESENTATIVE	Robert M. H.	HOME ADDRESS	Hotchkiss Road	TELEPHONE
		WAREHOUSE LOCATION		TELEPHONE

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BAROID PETROLEUM SERVICES

(METRIC)
DRILLING MUD REPORT

REPORT NO. 38

DATE 08-11-1987 DEPTH 1526 M.

OPERATOR AGIP		CONTRACTOR DELTA		RIG NO. 7	
ADDRESS ALG		ADDRESS ALG		SPUD DATE 21-10-87	
REPORT FOR MR. BERGONZI		REPORT FOR MR. CERVI			
WELL NAME AND NO. SORIANO 1		FIELD OR BLOCK NO.		Province or offshore area	
COUNTRY					
OPERATION PRESENT ACTIVITY		CASING SURFACE 301 M. INTERMEDIATE 1445 M. PRODUCTION OR LINER 1520 M.		MUD VOLUME (m³) HOLE 23 TOTAL CIRCULATING VOLUME 58 IN STORAGE	
CIRCULATION DATA PUMP SIZE 6 X 10 IN. x 10 PUMP MAKE MODEL 0000000000 STROKE/MIN 13.2/14.7 LT/MIN.		ANNULAR VEL (M/MIN) OPPOSITE DP OPPOSITE COLLAR CIRCULATING PRESSURE KG/cm² BOTTOMS UP (MIN.) SYSTEM TOTAL (MIN.)			
BIT SIZE (IN.) NO. DRILL PIPE SIZE TYPE DRILL COLLAR SIZE LENGHT		CALLE			
Sample from ☐ Flowline ☐ Pit Flowline Temperature °C		MUD PROPERTIES		EQUIPMENT	
Time Sample Taken				SIZE HRS/TOUR SIZE HRS/TOURS	
Depth M.		1526		Centrifuge ☒ Desilter 200 mesh	
Weight ☐ (ppg) ☒ (G.P.L.)		1450		Degasser ☒ Shaker 40/60	
Funnel Viscosity (SEC./LT.) API at °C				Desander ☒ Other	
Plastic Viscosity cp at °C				MUD PROPERTIES SPECIFICATIONS	
Yield Point (GR/100 CM²)				BY AUTHORITY ☐ DRILLING CONTRACTOR ☐ OPERATOR'S REPRESENTATIVE	
Gel Strength (GR/100 CM²) 10 sec/10 min		— — —		MATERIALS USED	
pH ☐ Strip ☐ Meter				PRODUCTS AMOUNT COST	
Filtrate API (ml/30 min)					
API HP-HT Filtrate (ml/30 min) °C					
Cake Thickness (mm) API ☐ HP-HT ☐					
Alkalinity, Mud (Pm)					
Alkalinity, Filtrate (P/Mf)		— — —			
Salt ☐ ppm ☐ gpl Chloride ☐ ppm ☐ gpl				CUMULATIVE COST DAILY COST	
Calcium ☐ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)				TOTAL MATERIAL CONSUMPTION	
Sand Content (% by Vol)				PRODUCT AMOUNT PRODUCT AMOUNT	
Solids Contents (% by Vol)				BARITE 120 BENTONITE 120	
Oil Content (% by Vol)				KOH 2.5 SIFHU 23.75 SIFLU 12	
Water Content (% by Vol)				KHCO3 6 Q-BROXIN 3	
Methylene Blue Capacity (me/ml mud)				THIRMA-TWIN 150	
PV/YP RATIO				STOCK BARITE 480 BENTONITE 160	
REMARKS - EROSION OF THE WELL -				WATER	

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REPRESENTATIVE Delbert M. H.	HOME ADDRESS HOTEL HERDONIA	TELEPHONE
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BAROID PETROLEUM SERVICES

(METRIC)
DRILLING MUD REPORT

REPORT NO. 33

DATE 03-11-1987

DEPTH 1526 M.

OPERATOR AGIP		CONTRACTOR DELTA		RIG NO. 7	
ADDRESS RIG		ADDRESS RIG		SPUD DATE 21-10-87	
REPORT FOR MR. BERGONZI		REPORT FOR MR. CERVI			
WELL NAME AND NO. SORIANO 1		FIELD OR BLOCK NO. C. DEL SQUA		Province or offshore area FOGGIA	
				COUNTRY ITALY	
OPERATION PRESENT ACTIVITY		CASING SURFACE 301 M.		MUD VOLUME (m³) HOLE 18 RITS 24	
BIT SIZE (IN.) NO.		INTERMEDIATE IN. at 144.5 M.		TOTAL CIRCULATING VOLUME 42	
DRILL PIPE SIZE TYPE		PRODUCTION OR LINER IN. at 1520 M.		PUMP MAKE MODEL CONTINENTAL FLOPO	
DRILL COLLAR SIZE LENGHT		CADD		LT/STROKE 13.8/11.7	
Sample from ☐ Flowline ☐ Pit		MUD PROPERTIES		EQUIPMENT	
Flowline Temperature °C				SIZE HRS/TOUR SIZE HRS/TOURS	
Time Sample Taken				Centrifuge — Desilter 200 mesh	
Depth M.		1526		Degasser N Shaker 40/60	
Weight ☐ (ppg) ☒ (G.P.L.)		1140		Desander V Other	
Funnel Viscosity (SEC./LT.) API at °C				MUD PROPERTIES SPECIFICATIONS	
Plastic Viscosity cp at °C				BY AUTHORITY ☐ DRILLING CONTRACTOR ☐ OPERATOR'S REPRESENTATIVE	
Yield Point (GR/100 CM²)				MATERIALS USED	
Gel Strength (GR/100 CM²) 10 sec/10 min		— — —		PRODUCTS AMOUNT COST	
pH ☐ Strip ☐ Meter					
Filtrate API (ml/30 min)					
API HP-HT Filtrate (ml/30 min) °C					
Cake Thickness (mm) API ☐ HP-HT ☐					
Alkalinity, Mud (Pm)					
Alkalinity, Filtrate (P/Mf)		— — —			
Salt ☐ ppm ☐ gpl Chloride ☐ ppm ☐ gpl					
Calcium ☐ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)					
Sand Content (% by Vol)					
Solids Contents (% by Vol)					
Oil Content (% by Vol)					
Water Content (% by Vol)					
Methylene Blue Capacity (me/ml mud)					
PV/YP RATIO					
REMARKS KILLED THE HOLE - INCREASE CIRCULATION - BENT - RUNNER SHOTS - WITH PAUKER - PUMPED M -		CUMULATIVE COST 25'209'950 DAILY COST —			
		TOTAL MATERIAL CONSUMPTION			
		PRODUCT AMOUNT PRODUCT AMOUNT			
		BARITE 120 ENCLAV 11.75			
		BENT. 123 NAOH 1			
		KOH 2.5 CACl2 144			
		SIPHU 23.75			
		SIFLU 12			
		KHCO3 6			
		O-BROXIN 3			
		THERMA-TAN 150			
		STOCKAL BARITE 480 BENTONITE 160			
		WATER			

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BAROID PETROLEUM SERVICES

(METRIC)
DRILLING MUD REPORTREPORT NO. 40
DATE 30-11-1987 DEPTH 1526 M.

OPERATOR <u>AGIP</u>		CONTRACTOR <u>DELTA</u>		RIG NO. <u>7</u>	
ADDRESS <u>RIG</u>		ADDRESS <u>RIG</u>		SPUD DATE <u>21-10-87</u>	
REPORT FOR MR. <u>BERGONZI</u>		REPORT FOR MR. <u>CARONE</u>			
WELL NAME AND NO. <u>SORIANO 1</u>		FIELD OR BLOCK NO. <u>C. DEL SAURI</u>		Province or offshore area <u>F0661A</u>	
				COUNTRY <u>ITALY</u>	
OPERATION PRESENT ACTIVITY		CASING SURFACE <u>301</u> M. INTERMEDIATE <u>464</u> M. PRODUCTION OR LINER <u>1520</u> M.		MUD VOLUME (m³) HOLE <u>18</u> BITS <u>24</u> TOTAL CIRCULATING VOLUME <u>262</u> IN STORAGE	
BIT SIZE (IN.) NO. <u>7</u>		PUMP SIZE <u>5 1/2 x 10</u> PUMP MAKE <u>CONTINENTAL</u> MODEL <u>E1000</u> LT/STROKE <u>13.811.7</u> STROKE/MIN. LT/MIN.		CIRCULATION DATA ANNULAR VEL (M/MIN) OPPOSITE DP OPPOSITE COLLAR CIRCULATING PRESSURE KG/cm² BOTTOMS UP (MIN.) SYSTEM TOTAL (MIN.)	
DRILL PIPE SIZE TYPE		DRILL COLLAR SIZE LENGHT <u>CALC</u>			
Sample from ☐ Flowline ☐ Pit Flowline Temperature °C		MUD PROPERTIES		EQUIPMENT	
Time Sample Taken				SIZE HRS/TOUR SIZE HRS/TOURS	
Depth M.		<u>1526</u>		Centrifuge <u>—</u> Desilter <u>200 NESH</u>	
Weight ☐ (ppg) ☒ (G.P.L.)		<u>1140</u>		Degasser <u>✓</u> Shaker <u>40/60</u>	
Funnel Viscosity (SEC./LT.) API at °C				Desander <u>✓</u> Other	
Plastic Viscosity cp at °C				MUD PROPERTIES SPECIFICATIONS	
Yield Point (GR/100 CM²)				BY AUTHORITY ☐ DRILLING CONTRACTOR ☐ OPERATOR'S REPRESENTATIVE	
Gel Strength (GR/100 CM²) 10 sec/10 min		— — —		MATERIALS USED	
pH ☐ Strip ☐ Meter				PRODUCTS AMOUNT COST	
Filtrate API (ml/30 min)					
API HP-HT Filtrate (ml/30 min) °C					
Cake Thickness (mm) API ☐ HP-HT ☐					
Alkalinity, Mud (Pm)					
Alkalinity, Filtrate (P/Mf)		— — —		CUMULATIVE COST <u>25'208'850</u> DAILY COST <u>—</u>	
Salt ☐ ppm Chloride ☐ ppm ☐ gpl ☐ gpl				TOTAL MATERIAL CONSUMPTION	
Calcium ☐ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)				PRODUCT AMOUNT <u>DL</u> PRODUCT AMOUNT	
Sand Content (% by Vol)				PARAFFIN <u>120</u> MCHU <u>4.75</u>	
Solids Contents (% by Vol)				BENTONITE <u>128</u> NASH <u>144</u>	
Oil Content (% by Vol)				KOH <u>2.5</u> CALCO	
Water Content (% by Vol)				SIPHON <u>23.75</u>	
Methylene Blue Capacity (me/ml mud)				SIPHON <u>12</u>	
PV/YP RATIO				R4CO2 <u>6</u>	
REMARKS <u>— EROSION OF THE WELL —</u>				R-BROWN <u>3</u>	
				THERMA-THIN <u>150</u>	
				STOCK <u>DL</u> BARITE <u>230</u> BENTONITE <u>160</u>	
				WATER	

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REPRESENTATIVE <u>Alberto Rina</u>	HOME ADDRESS <u>HOTEL HERDONIA</u>	TELEPHONE
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BAROID PETROLEUM SERVICES

(METRIC)
DRILLING MUD REPORTREPORT
NO. 41
DATE 1-12-1987 DEPTH 1526 M.

OPERATOR AGLP RIG BERGONZI		CONTRACTOR DELTA RIG CAPONE		RIG NO. 7	
ADDRESS		ADDRESS		SPUD DATE 21-10-87	
REPORT FOR MR.		REPORT FOR MR.			
WELL NAME AND NO. SORIANO 1		FIELD OR BLOCK NO. C. DEL SAUAI		Province or offshore area Foggia	
				COUNTRY ITALY	
OPERATION		CASING		MUD VOLUME (m³)	
PRESENT ACTIVITY		SURFACE 301 M.		HOLE 18 PITS 24	
BIT SIZE (IN.)		INTERMEDIATE 3 1/2 IN. at 1465 M.		TOTAL CIRCULATING VOLUME 42	
DRILL PIPE SIZE		TYPE 5 IN. at 1520 M.		IN STORAGE	
DRILL COLLAR SIZE		LENGHT		CAGE	
Sample from ☐ Flowline ☐ Pit		MUD PROPERTIES		EQUIPMENT	
Flowline Temperature °C				SIZE HRS/TOUR	
Time Sample Taken				SIZE HRS/TOURS	
Depth M.		1526		Centrifuge	
Weight ☐ (ppg) ☒ (G.P.L.)		1140		Degasser	
Funnel Viscosity (SEC./LT.) API at °C				Desander	
Plastic Viscosity cp at °C				Desilter	
Yield Point (GR/100 CM²)				Shaker	
Gel Strength (GR/100 CM²) 10 sec/10 min				Other	
pH ☐ Strip ☐ Meter				MUD PROPERTIES SPECIFICATIONS	
Filtrate API (ml/30 min)				BY AUTHORITY ☐ DRILLING CONTRACTOR	
API HP-HT Filtrate (ml/30 min) °C				☐ OPERATOR'S REPRESENTATIVE	
Cake Thickness (mm) API ☐ HP-HT ☐				MATERIALS USED	
Alkalinity, Mud (Pm)				PRODUCTS AMOUNT COST	
Alkalinity, Filtrate (Pf/Mf)				CORRECTION CUMULATIVE PRICE	
Salt ☐ ppm ☐ gpl Chloride ☐ ppm ☐ gpl				ADDING LIT. 187.250	
Calcium ☐ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)				CUMULATIVE COST 25'397'200 DAILY COST	
Sand Content (% by Vol)				TOTAL MATERIAL CONSUMPTION	
Solids Contents (% by Vol)				PRODUCT AMOUNT AL PRODUCT AMOUNT AL	
Oil Content (% by Vol)				BARITE 120	
Water Content (% by Vol)				BENT. 129	
Methylene Blue Capacity (me/ml mud)				KOH 2.5	
PV/YP RATIO				SIPAC 23.75	
REMARKS				SIPAC 12	
EROGATION OF THE WELL				KH CO2 7	
				Q-BROWN 3	
				THERMA-TUN 150	
				STOCK AL	
				BARITE 230	
				BENTONITE 160	
				WATER	

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REPRESENTATIVE Roberto M. N.	HOME ADDRESS HOTEL HERDONIA	TELEPHONE
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BAROID PETROLEUM SERVICES

(METRIC)
DRILLING MUD REPORTREPORT
NO. 42

DATE 2-12-1987

DEPTH 1526 M.

OPERATOR AGIP		CONTRACTOR DELTA		RIG NO. 7	
ADDRESS RLG		ADDRESS RLG		SPUD DATE 21-10-87	
REPORT FOR MR. BARGONZI		REPORT FOR MR. CAPONE			
WELL NAME AND NO. SORIANO 1		FIELD OR BLOCK NO. C. DEL SAURI		Province or offshore area Foggia	
				COUNTRY ITALY	
OPERATION PRESENT ACTIVITY		CASING SURFACE 301 M.		MUD VOLUME (m³) HOLE 18 PITS 24	
BIT SIZE (IN.) NO. 7 1/2		INTERMEDIATE IN. at 1645 M.		TOTAL CIRCULATING VOLUME 42	
DRILL PIPE SIZE TYPE 5"		PRODUCTION OR LINER IN. at 1520 M.		PUMP SIZE 6x10 IN. 5 1/2 x 10	
DRILL COLLAR SIZE		LENGHT Cable		PUMP MAKE MODEL CONTINENTAL F1000	
				STROKE/MIN 13.8/11.7	
				LT/MIN.	
Sample from ☐ Flowline ☐ Pit		MUD PROPERTIES		EQUIPMENT	
Flowline Temperature °C				SIZE HRS/TOUR SIZE HRS/TOURS	
Time Sample Taken				Centrifuge — Desilter 200 mesh	
Depth M.		1526		Degasser ~ Shaker 60/60	
Weight ☐ (ppg) ☒ (G.P.L.)		120		Desander ✓ Other	
Funnel Viscosity (SEC./LT.) API at °C				MUD PROPERTIES SPECIFICATIONS	
Plastic Viscosity cp at °C				BY AUTHORITY ☐ DRILLING CONTRACTOR	
Yield Point (GR/100 CM²)				☐ OPERATOR'S REPRESENTATIVE	
Gel Strength (GR/100 CM²) 10 sec/10 min		— — —		MATERIALS USED	
pH ☐ Strip ☐ Meter				PRODUCTS AMOUNT COST	
Filtrate API (ml/30 min)					
API HP-HT Filtrate (ml/30 min) °C					
Cake Thickness (mm) API ☐ HP-HT ☐					
Alkalinity, Mud (Pm)					
Alkalinity, Filtrate (Pm)		— — —		CUMULATIVE COST 25387.20 DAILY COST —	
Salt ☐ ppm Chloride ☐ ppm				TOTAL MATERIAL CONSUMPTION	
☐ gpl ☐ gpl				PRODUCT AMOUNT PRODUCT AMOUNT	
Calcium ☐ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)				BARITE 120 MC HV 11.75	
Sand Content (% by Vol)				BENT. 125 HAVH 1	
Solids Contents (% by Vol)				KOM 25 CALO 164	
Oil Content (% by Vol)				SIPHU 23.75	
Water Content (% by Vol)				SIRCU 12	
Methylene Blue Capacity (me/ml mud)				KHC03 7	
PV/YP RATIO				A-BROWN 3	
REMARKS EROSION OF TUBEWALL				THERMATH 150	
				STOCK OL BARITE 230 BENTONITE 160	
				WATER	

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OPERATOR AGIP		CONTRACTOR DELTA		RIG NO. 7	
ADDRESS RIG		ADDRESS RIG		SPUD DATE 21-10-87	
REPORT FOR MR. BERGONZI		REPORT FOR MR. CAPONE			
WELL NAME AND NO. SORIANO 1		FIELD OR BLOCK NO. C-DEI SAURI		Province or offshore area FOGGIA	
				COUNTRY ITALY	
OPERATION		CASING		MUD VOLUME (m³)	
PRESENT ACTIVITY		SURFACE 358 IN. at 701 M.		HOLE 18 BITS 21	
BIT SIZE (IN.)		NO. 7 IN. at 1663 M.		TOTAL CIRCULATING VOLUME 40	
DRILL PIPE SIZE		TYPE 3 IN. at 1820 M.		IN STORAGE	
DRILL COLLAR SIZE		LENGHT		CALL	
Sample from ☐ Flowline ☐ Pit		Flowline Temperature °C		MUD PROPERTIES	
Time Sample Taken		Depth M.		Weight ☐ (ppg) ☒ (G.P.L.)	
Funnel Viscosity (SEC./LT.) API at °C		Plastic Viscosity cp at °C		Yield Point (GR/100 CM²)	
Gel Strenght (GR/100 CM²) 10 sec/10 min		pH ☐ Strip ☐ Meter		Filtrate API (ml/30 min)	
API HP-HT Filtrate (ml/30 min) °C		Cake Thickness (mm) API ☐ HP-HT ☐		Alkalinity, Mud (Pm)	
Alkalinity, Filtrate (Pl/Ml)		Salt ☐ ppm ☐ gpl Chloride ☐ ppm ☐ gpl		Calcium ☐ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)	
Sand Content (% by Vol)		Solids Contents (% by Vol)		Oil Content (% by Vol)	
Water Content (% by Vol)		Methylene Blue Capacity (me/ml mud)		PV/YP RATIO	
REMARKS		KILLED THE HOLE - INVERSE CIRCULATION - POOR - RUNNED STROTS - RHT -		EQUIPMENT	
				SIZE HRS/TOUR	
				Desilter 200 mesh	
				Shaker 40/60	
				Other	
				MUD PROPERTIES SPECIFICATIONS	
				BY AUTHORITY ☐ DRILLING CONTRACTOR ☐ OPERATOR'S REPRESENTATIVE	
				MATERIALS USED	
				PRODUCTS AMOUNT COST	
				CUMULATIVE COST 25'397'200 DAILY COST -	
				TOTAL MATERIAL CONSUMPTION	
				PRODUCT AMOUNT PRODUCT AMOUNT	
				BARITE 120 CMC HV 11.75	
				BENT. 129 NAOH 1	
				KOH 2.5 CALL 144	
				SIPHU 23.75	
				SIP LV 12	
				KHCO3 7	
				Q-BAXIN 3	
				THERMA-THIN 150	
				STOCK 2L BARITE 230 BENTONITE 60	
				WATER	

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REPRESENTATIVE Alberto P. N.	HOME ADDRESS HOTEL VERDONIA	TELEPHONE
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OPERATOR AGIP	CONTRACTOR DELTA	RIG NO. 7
ADDRESS Rio	ADDRESS Rio	SPUD DATE 21.10.87
REPORT FOR MR. BERGONSI	REPORT FOR MR. CAPONE	

WELL NAME AND NO. SORIANO 1	FIELD OR BLOCK NO. C. DEL SAURI	Province or offshore area FOGGIA	COUNTRY ITALIA
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OPERATION TESTING	CASING IN. at 301 M.	HOLE 19 RITS	PUMP SIZE X IN. 6x10 + 5 1/2 x 10	ANNULAR VEL (M/MIN) OPPOSITE DP
BIT SIZE (IN.) 7 1/2	INTERMEDIATE IN. at 1445 M.	TOTAL CIRCULATING VOLUME 40	PUMP MAKE CONTINENTAL	OPPOSITE COLLAR
DRILL PIPE SIZE 5"	PRODUCTION OR LINER IN. at 1520 M.	IN STORAGE	LT/STROKE 15.84	CIRCULATING PRESSURE KG/cm ²
DRILL COLLAR SIZE	LENGHT 600		STROKE/MIN	BOTTOMS UP (MIN.)
			LT/MIN.	SYSTEM
				TOTAL (MIN.)

Sample from ☐ Flowline ☐ Pit	MUD PROPERTIES	EQUIPMENT
Flowline Temperature °C		SIZE HRS/TOUR
Time Sample Taken		SIZE HRS/TOURS
Depth M.	1526	Centrifuge ☒
Weight ☐ (ppg) ☐ (G.P.L.)	1130	Degasser ☒
Funnel Viscosity (SEC./LT.) API at °C		Desander ☒
Plastic Viscosity cp at °C		Desilter 200 mud clean (0)
Yield Point (GR/100 CM ²)		Shaker 40/60
Gel Strength (GR/100 CM ²) 10 sec/10 min		Other

MUD PROPERTIES SPECIFICATIONS
BY AUTHORITY ☐ DRILLING CONTRACTOR ☐ OPERATOR'S REPRESENTATIVE

MATERIALS USED		
PRODUCTS	AMOUNT	COST
No use of chemical		

CUMULATIVE COST 25347200	DAILY COST 0
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TOTAL MATERIAL CONSUMPTION			
PRODUCT	AMOUNT	PRODUCT	AMOUNT
BARITE	120	CNCW	11.75
BENTONITE	129	NaOH	1
KOH	2.5	CaCl₂	144
SIP MW	23.15		
SIP LV	12		
KHCO₃	9		
PROXIN	3		
INTERMEDIATE	150		

STOCK	BARITE 230	BENTONITE 160
	WATER	

THE RECOMMENDATIONS MADE HEREON SHALL NOT BE CONSTRUED AS AUTHORIZING THE INFRINGEMENT OF ANY VALID PATENT, AND ARE MADE WITHOUT ASSUMPTION OF ANY LIABILITY BY N L INDUSTRIES, INC. OR ITS AGENTS, AND ARE STATEMENTS OF OPINION ONLY.

REPRESENTATIVE D. VINCENT	HOME ADDRESS Rio	TELEPHONE
	WAREHOUSE LOCATION	TELEPHONE

1 - WHITE COPY TO OIL COMPANY
2 - PINK COPY TO CONTRACTOR
3 - BLUE COPY TO AREA MGR.
4 - YELLOW COPY - EXTRA COPY
5 - GREEN COPY TO ENGINEER

OPERATOR <u>AGIP</u>	CONTRACTOR <u>DELTA</u>	RIG NO. <u>7</u>
ADDRESS <u>Rio</u>	ADDRESS <u>Rio</u>	SPUD DATE <u>21-10-87</u>
REPORT FOR MR. <u>BERGONSI</u>	REPORT FOR MR. <u>CAPONE</u>	

WELL NAME AND NO. <u>SORIANO 1</u>	FIELD OR BLOCK NO. <u>CDEI SAURI</u>	Province or offshore area <u>FOGGIA</u>	COUNTRY <u>ITALIA</u>
OPERATION <u>TESTING</u>	CASING SURFACE <u>9 1/8</u> IN. at <u>301</u> M. INTERMEDIATE <u>7</u> IN. at <u>1145</u> M. PRODUCTION OR LINER <u>5 1/8</u> IN. at <u>1520</u> M.	MUD VOLUME (m³) HOLE <u>10</u> PITS <u>21</u> TOTAL CIRCULATING VOLUME <u>40</u> IN STORAGE	CIRCULATION DATA PUMP SIZE X IN <u>6 x 10 + 5 1/2 x 10</u> ANNULAR VEL (M/MIN) <u>15.8</u> OPPOSITE DP <u>11.3</u> PUMP MAKE <u>CONTINENTAL</u> MODEL <u>P 1000</u> LT/STROKE <u>15.8</u> STROKE/MIN OPPOSITE COLLAR CIRCULATING PRESSURE KG/cm² BOTTOMS UP (MIN.) SYSTEM TOTAL (MIN.)
DRILL PIPE SIZE <u>CA cl2</u>	DRILL COLLAR SIZE <u>CA cl2</u>	LENGHT	

Sample from ☐ Flowline ☐ Pit	MUD PROPERTIES	EQUIPMENT
Flowline Temperature °C	SIZE	HRS/TOUR
Time Sample Taken	Centrifuge	Desilter
Depth M.	Degasser	Shaker
Weight ☐ (ppg) ☐ (G.P.L.)	Desander	Other

Funnel Viscosity (SEC./LT.) API at °C	MUD PROPERTIES SPECIFICATIONS
Plastic Viscosity cp at °C	BY AUTHORITY ☐ DRILLING CONTRACTOR ☐ OPERATOR'S REPRESENTATIVE
Yield Point (GR/100 CM²)	

Gel Strenght (GR/100 CM²) 10 sec/10 min	MATERIALS USED
pH ☐ Strip ☐ Meter	PRODUCTS
Filtrate API (ml/30 min)	AMOUNT
API HP-HT Filtrate (ml/30 min) °C	COST

Cake Thickness (mm) API ☐ HP-HT ☐	None of chemicals
Alkalinity, Mud (Pm)	
Alkalinity, Filtrate (P/Ml)	
Salt ☐ ppm ☐ gpl Chloride ☐ ppm ☐ gpl	
Calcium ☐ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)	

Sand Content (% by Vol)	CUMULATIVE COST <u>25397200</u>	DAILY COST <u>7</u>
Solids Contents (% by Vol)	TOTAL MATERIAL CONSUMPTION	

Oil Content (% by Vol)	PRODUCT	AMOUNT	PRODUCT	AMOUNT
Water Content (% by Vol)	BARITE	120	Therminol	150
Methylene Blue Capacity (me/ml mud)	BENTONITE	110	CNC HV	11.75
PV/YP RATIO	KOH	2.5	cell	144
REMARKS <u>continued testing closed well for build up</u>	SIP HV	23.75		
	SIP LV	12		
	KH103	7		
	GRUOM	3		

STOCK	BARITE <u>230</u>	BENTONITE <u>160</u>
	WATER	

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REPRESENTATIVE <u>D.V. NCONT</u>	HOME ADDRESS <u>Rio</u>	TELEPHONE
	WAREHOUSE LOCATION	TELEPHONE

1 - WHITE COPY TO OIL COMPANY
2 - PINK COPY TO CONTRACTOR
3 - BLUE COPY TO AREA MGR.
4 - YELLOW COPY - EXTRA COPY
5 - GREEN COPY TO ENGINEER

OPERATOR AGIP	CONTRACTOR DELTA	RIG NO. 7
ADDRESS RIG	ADDRESS Rig	SPUD DATE 21.10.87
REPORT FOR MR. BERGONSI	REPORT FOR MR. CAPONE	

WELL NAME AND NO. SORIANO 1	FIELD OR BLOCK NO. CDEI SAURI	Province or offshore area FOGGIA	COUNTRY ITALIA
OPERATION TESTING	CASING SURFACE IN. at 301 M. INTERMEDIATE IN. at 1145 M. PRODUCTION OR LINER IN. at 1520 M.	MUD VOLUME (m³) HOLE 10 PITS 21 TOTAL CIRCULATING VOLUME 40 IN STORAGE	CIRCULATION DATA PUMP SIZE X IN. 6x10 + 5 1/2 x 10 ANNULAR VEL (M/MIN) OPPOSITE DP PUMP MAKE CONTINENTAL MODEL F1000 OPPOSITE COLLAR LT/STROKE 15.8 + 11.7 STROKE/MIN CIRCULATING PRESSURE KG/cm² BOTTOMS UP (MIN.) SYSTEM TOTAL (MIN.)
DRILL PIPE SIZE 5	LENGHT ca 112		

Sample from ☐ Flowline ☐ Pit Flowline Temperature °C	MUD PROPERTIES	EQUIPMENT
Time Sample Taken	SIZE HRS/TOUR	SIZE HRS/TOURS
Depth M, 1526	Centrifuge	Desilter
Weight ☐ (ppg) ☐ (G.P.L.)	Degasser	Shaker
Funnel Viscosity (SEC./LT.) API at °C	Desander	Other
Plastic Viscosity cp at °C	MUD PROPERTIES SPECIFICATIONS	
Yield Point (GR/100 CM²)	BY AUTHORITY ☐ DRILLING CONTRACTOR ☐ OPERATOR'S REPRESENTATIVE	
Gel Strength (GR/100 CM²) 10 sec/10 min	MATERIALS USED	
pH ☐ Strip ☐ Meter	PRODUCTS	AMOUNT COST
Filtrate API (ml/30 min)	None of chemicals	
API HP-HT Filtrate (ml/30 min) °C		
Cake Thickness (mm) API ☐ HP-HT ☐		
Alkalinity, Mud (Pm)		
Alkalinity, Filtrate (Pf/Mf)	CUMULATIVE COST 25347200 DAILY COST ✓	
Salt ☐ ppm ☐ gpl Chloride ☐ ppm ☐ gpl	TOTAL MATERIAL CONSUMPTION	
Calcium ☐ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)	PRODUCT	AMOUNT
Sand Content (% by Vol)	PRODUCT	AMOUNT
Solids Contents (% by Vol)	BARITE	110
Oil Content (% by Vol)	BENTONITE	119
Water Content (% by Vol)	KOH	25
Methylene Blue Capacity (me/ml mud)	SIP MV	23.75
PV/YP RATIO	SIP LV	12.
REMARKS Testing	KHCO3	7
	ΦProxi	3
	STOCK	BARITE 230
		BENTONITE 160
	WATER	

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REPRESENTATIVE D. N. MONT	HOME ADDRESS Rig	TELEPHONE
	WAREHOUSE LOCATION	TELEPHONE

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BAROID PETROLEUM SERVICES

(METRIC)
DRILLING MUD REPORTREPORT
NO. 47

DATE 7.12.81 19 81 DEPTH 1526. M.

OPERATOR AGIP		CONTRACTOR DELTA		RIG NO. 7	
ADDRESS RIG		ADDRESS RIG		SPUD DATE 21-10-81	
REPORT FOR MR. BERGONSI		REPORT FOR MR. CAPONE			
WELL NAME AND NO. SORIANO 1		FIELD OR BLOCK NO. CDEISAURI		Province or offshore area FOGGIA	
				COUNTRY ITALIA	
OPERATION TESTING		CASING 9 5/8 IN. at 301 M.		MUD VOLUME (m³) 19	
PRESENT ACTIVITY TESTING		SURFACE 301 M.		PITS 21	
BIT SIZE (IN.) 7		INTERMEDIATE 11 1/4 IN. at 1145 M.		TOTAL CIRCULATING VOLUME 40	
DRILL PIPE SIZE 5		TYPE 1570 M.		IN STORAGE	
DRILL COLLAR SIZE		LENGHT C A C L 2		LT/MIN.	
Sample from ☐ Flowline ☐ Pit		MUD PROPERTIES		EQUIPMENT	
Flowline Temperature °C				SIZE HRS/TOUR SIZE HRS/TOURS	
Time Sample Taken				Centrifuge	
Depth M.		1526		Degasser	
Weight ☐ (ppg) ☐ (G.P.L.)		1130		Desander	
Funnel Viscosity (SEC./LT.) API at °C				Desilter	
Plastic Viscosity cp at °C				Shaker	
Yield Point (GR/100 CM²)				Other	
Gel Strength (GR/100 CM²) 10 sec/10 min		— — —		MUD PROPERTIES SPECIFICATIONS	
pH ☐ Strip ☐ Meter				BY AUTHORITY ☐ DRILLING CONTRACTOR	
Filtrate API (ml/30 min)				☐ OPERATOR'S REPRESENTATIVE	
API HP-HT Filtrate (ml/30 min) °C				MATERIALS USED	
Cake Thickness (mm) API ☐ HP-HT ☐				PRODUCTS AMOUNT COST	
Alkalinity, Mud (Pm)				No use of chemicals	
Alkalinity, Filtrate (Pf/Mf)		— — —			
Salt ☐ ppm Chloride ☐ ppm				CUMULATIVE COST 25397200 DAILY COST	
☐ gpl ☐ gpl					
Calcium ☐ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)				TOTAL MATERIAL CONSUMPTION	
Sand Content (% by Vol)				PRODUCT AMOUNT PRODUCT AMOUNT	
Solids Contents (% by Vol)				BARITE 120	
Oil Content (% by Vol)				BENTONITE 120	
Water Content (% by Vol)				ROH 2.5	
Methylene Blue Capacity (me/ml mud)				S.I.P. HV 23.75	
PV/YP RATIO				S.I.P. LV 12	
REMARKS				KHCO3 7	
TESTING, last level. 940-955				QBRON 3	
Shoot, Displace Mud with Reflume				STOCK BARITE 230 BENTONITE 160	
and Build up. - Steady -				WATER	

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REPRESENTATIVE D. V. INCONT	HOME ADDRESS Ry	TELEPHONE
	WAREHOUSE LOCATION	TELEPHONE

1 - WHITE COPY TO OIL COMPANY

2 - PINK COPY TO CONTRACTOR
4 - YELLOW COPY - EXTRA COPY3 - BLUE COPY TO AREA MGR.
5 - GREEN COPY TO ENGINEER

OPERATOR AGIP		CONTRACTOR DELTA		RIG NO. 7
ADDRESS RIG		ADDRESS RIG		SPUD DATE 21.10.87
REPORT FOR MR. M. BERGONSI		REPORT FOR MR. C. CAPONE		
WELL NAME AND NO. SORIANO 1		FIELD OR BLOCK NO. C DELSAURI	Province or offshore area FOGGIA	COUNTRY ITALIA

OPERATION		CASING		MUD VOLUME (m³)		CIRCULATION DATA	
PRESENT ACTIVITY END TEST. POOH.	NO.	SURFACE IN. at 301	M.	HOLE 19	PITS 30	PUMP SIZE X IN 6x10 + 5/8 x 10	ANNULAR VEL (M/MIN) OPPOSITE DP
BIT SIZE (IN.)	NO.	INTERMEDIATE IN. at 1145	M.	TOTAL CIRCULATING VOLUME 40		PUMP MAKE CONTINENTAL	OPPOSITE COLLAR
DRILL PIPE SIZE	TYPE	PRODUCTION OR LINER IN. at 1520	M.	IN STORAGE Viscous fill = 3m³		MODEL F1000	CIRCULATING PRESSURE KG/cm²
DRILL COLLAR SIZE	LENGHT	Calc				LT/STROKE STROKE/MIN	BOTTOMS UP (MIN.)
						LT/MIN.	SYSTEM TOTAL (MIN.)

MUD PROPERTIES		EQUIPMENT	
Sample from ☐ Flowline ☐ Pit		SIZE	HRS/TOUR
Flowline Temperature °C		SIZE	HRS/TOURS
Time Sample Taken		Centrifuge	Desilter
Depth M.	1526	Degasser	Shaker
Weight ☐ (ppg) ☐ (G.P.L.)	1080	Desander	Other

MUD PROPERTIES SPECIFICATIONS			
BY AUTHORITY ☐ DRILLING CONTRACTOR ☐ OPERATOR'S REPRESENTATIVE			

MATERIALS USED		
PRODUCTS	AMOUNT	COST
CMC HV	1.5 qL	367500
CaCl2	17.5 qL	787500

CUMULATIVE COST 26552200	DAILY COST 1155000
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TOTAL MATERIAL CONSUMPTION			
PRODUCT	AMOUNT	PRODUCT	AMOUNT
BARITE	120	THERMATH	150
BENTONITE	120	CMC HV	13.25
KOH	2.5	CaCl2	161.5
SIP HV	23.75		
SIP LV	12		
KH CO3	7		
QBroxin	3		

STOCK	BARITE 230	BENTONITE 160
	WATER	

REMARKS **As well was absorbing BRINE which during circulation made 20 m³ of New Brine. Made 7 m³ of high vis fill to squeeze in formation squeezed 3.5 m³ check for well and pooh.**

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REPRESENTATIVE D. VINCENT	HOME ADDRESS Ry.	TELEPHONE
	WAREHOUSE LOCATION	TELEPHONE

1 - WHITE COPY TO OIL COMPANY

2 - PINK COPY TO CONTRACTOR
4 - YELLOW COPY - EXTRA COPY

3 - BLUE COPY TO AREA MGR.
5 - GREEN COPY TO ENGINEER

OPERATOR <u>AGIP</u>				CONTRACTOR <u>DELTA</u>				RIG NO. <u>7</u>			
ADDRESS <u>Rio</u>				ADDRESS <u>Rio</u>				SPUD DATE <u>21-10-87</u>			
REPORT FOR MR. <u>M. BERGONI</u>				REPORT FOR MR. <u>C. CAPORE</u>							
WELL NAME AND NO. <u>SORIANO 2</u>				FIELD OR BLOCK NO. <u>C-D81 SAURI</u>		Province or offshore area <u>FOGGIA</u>		COUNTRY <u>ITALIA</u>			
OPERATION		CASING		MUD VOLUME (m³)		CIRCULATION DATA					
PRESENT ACTIVITY <u>Milling Borehole</u>		SURFACE <u>3 1/2" at 201 M.</u>		HOLE <u>100</u> PITS <u>25</u>		PUMP SIZE X IN. <u>6 x 10 + 5 1/2 x 10</u>		ANNULAR VEL (M/MIN) <u>CONTINENTAL</u>			
BIT SIZE (IN.) NO. <u>7</u>		INTERMEDIATE <u>IN. at 145 M.</u>		TOTAL CIRCULATING VOLUME <u>44</u>		PUMP MAKE <u>CONTINENTAL</u>		OPPOSITE DP			
DRILL PIPE SIZE TYPE <u>5</u>		PRODUCTION OR LINER <u>IN. at 1520 M.</u>		IN STORAGE <u>0</u>		MODEL <u>F1000</u>		OPPOSITE COLLAR			
DRILL COLLAR SIZE		LENGHT <u>CALL</u>				LT/STROKE		CIRCULATING PRESSURE KG/cm²			
						STROKE/MIN		BOTTOMS UP (MIN.)			
						LT/MIN.		SYSTEM TOTAL (MIN.)			
Sample from ☐ Flowline ☐ Pit				MUD PROPERTIES				EQUIPMENT			
Flowline Temperature °C								SIZE HRS/TOUR SIZE HRS/TOURS			
Time Sample Taken								Centrifuge <u>NO</u>			
Depth M. <u>1526</u>								Desilter <u>NO</u>			
Weight ☐ (ppg) ☐ (G.P.L.) <u>1070</u>								Shaker <u>40/60</u>			
Funnel Viscosity (SEC./LT.) API at °C								Desander <u>NO</u>			
Plastic Viscosity cp at °C								Other			
Yield Point (GR/100 CM²)								MUD PROPERTIES SPECIFICATIONS			
Gel Strength (GR/100 CM²) 10 sec/10 min								BY AUTHORITY ☐ DRILLING CONTRACTOR ☐ OPERATOR'S REPRESENTATIVE			
pH ☐ Strip ☐ Meter								MATERIALS USED			
Filtrate API (ml/30 min)								PRODUCTS AMOUNT COST			
API HP-HT Filtrate (ml/30 min) °C								<u>NO use of chemicals</u>			
Cake Thickness (mm) API ☐ HP-HT ☐											
Alkalinity, Mud (Pm)											
Alkalinity, Filtrate (Pm)											
Salt ☐ ppm Chloride ☐ ppm ☐ gpl											
Calcium ☐ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)								CUMULATIVE COST <u>26552.200</u> DAILY COST <u>Ø</u>			
Sand Content (% by Vol)								TOTAL MATERIAL CONSUMPTION			
Solids Contents (% by Vol)								PRODUCT AMOUNT PRODUCT AMOUNT			
Oil Content (% by Vol)								BARITE <u>120</u> BENTONITE <u>150</u>			
Water Content (% by Vol)								KOH <u>120</u> CMC <u>13.25</u>			
Methylene Blue Capacity (me/ml mud)								SIP HV <u>23.75</u> CALL <u>161.5</u>			
PV/YP RATIO								SIP LV <u>12</u>			
REMARKS <u>RH with mill. and started mltg Bore hole. Took to change mill. Right with fishy Bore hole. Took RH with mill. mltg Bore hole. Took Bore hole.</u>								K H CO3 <u>7</u>			
								OPROXIN <u>3</u>			
								STOCK BARITE <u>230</u> BENTONITE <u>160</u>			
								WATER			

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REPRESENTATIVE <u>D. L. W. COAT</u>	HOME ADDRESS <u>M</u>	TELEPHONE
	WAREHOUSE LOCATION	TELEPHONE

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2 - PINK COPY TO CONTRACTOR
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5 - GREEN COPY TO ENGINEER



BAROID PETROLEUM SERVICES

(METRIC)
DRILLING MUD REPORT

REPORT NO. 50

DATE 10-12-87 DEPTH 1526 M.

OPERATOR AGIP	CONTRACTOR DELTA	RIG NO. 7
ADDRESS RIG	ADDRESS RIG	SPUD DATE 21.10.87
REPORT FOR MR. W. CANASTA	REPORT FOR MR. CAPONE	

WELL NAME AND NO. SORIANO 1	FIELD OR BLOCK NO.	Province or offshore area	COUNTRY
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OPERATION	CASING	MUD VOLUME (m³)	CIRCULATION DATA	
PRESENT ACTIVITY POOH. (Completion)	SURFACE 9 1/8" IN. at 301 M.	HOLE 20" 20 PITS	PUMP SIZE X IN 6 X 10 + 5 1/2 X 10	ANNULAR VEL (M/MIN) OPPOSITE DP
BIT SIZE (IN.) NO.	INTERMEDIATE 7" IN. at 1145 M.	TOTAL CIRCULATING VOLUME 410	PUMP MAKE CONTINENTAL	OPPOSITE COLLAR
DRILL PIPE SIZE TYPE	PRODUCTION OR LINER 5" IN. at 1520 M.	IN STORAGE 0	MODEL F 1000	CIRCULATING PRESSURE KG/cm²
DRILL COLLAR SIZE	LENGHT BRINE DACL 2	LT/STROKE 15.91117	STROKE/MIN.	BOTTOMS UP (MIN.)
		LT/MIN.		SYSTEM TOTAL (MIN.)

Sample from ☐ Flowline ☐ Pit	MUD PROPERTIES	EQUIPMENT
Flowline Temperature °C		SIZE HRS/TOUR SIZE HRS/TOURS
Time Sample Taken	500	Centrifuge 10
Depth M.	1526	Degasser Ry
Weight ☐ (ppg) ☐ (G.P.L.)	1080	Desander Ry
Funnel Viscosity (SEC./LT.) API at °C		Desilter 40/60
Plastic Viscosity cp at °C		Shaker 200
Yield Point (GR/100 CM²)		Other

	MUD PROPERTIES SPECIFICATIONS
	BY AUTHORITY ☐ DRILLING CONTRACTOR ☐ OPERATOR'S REPRESENTATIVE

	PRODUCTS	AMOUNT	COST
	Dodigen	40 lb	* Price unknown will be added on final report

CUMULATIVE COST 26552200	DAILY COST -
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TOTAL MATERIAL CONSUMPTION			
PRODUCT	AMOUNT	PRODUCT	AMOUNT
BARITE	120	CMCHV	13.25
BENTONITE	129	CaCl2	161.5
KOH	2.5		
SIP HV	23.75		
SIP LV	12		
KHCO3	7		
OBROXIN	3		
THERMALIN	150		

REMARKS Continued milling third plug - go to bottom. circulated POOH. 2 1/4 hrs with Sagger to bottom, circulated 2 hours and added Dodigen 1/2 mva (40 lb) POOH. for completion	STOCK	BARITE 230	BENTONITE 160
		WATER	

THE RECOMMENDATIONS MADE HEREON SHALL NOT BE CONSTRUED AS AUTHORIZING THE INFRINGEMENT OF ANY VALID PATENT, AND ARE MADE WITHOUT ASSUMPTION OF ANY LIABILITY BY N L INDUSTRIES, INC. OR ITS AGENTS, AND ARE STATEMENTS OF OPINION ONLY.

REPRESENTATIVE D. VINCENT	HOME ADDRESS	TELEPHONE
	WAREHOUSE LOCATION Ry	TELEPHONE

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DATE 11-12-87 DEPTH 1526 M

OPERATOR AGIO		CONTRACTOR DELTA		RIG NO. 7	
ADDRESS Rig		ADDRESS Rio		SPUD DATE 21. 10 -87	
REPORT FOR MR. W. CAMASTA		REPORT FOR MR. C. CAPONE			
WELL NAME AND NO. SORIANO 1		FIELD OR BLOCK NO. C. DEISAURI	Province or offshore area FOGGIA	COUNTRY ITALIA	
OPERATION COMPLETION		CASING SURFACE IN. at 301 M.	MUD VOLUME (m³) HOLE 20 PITS 11	CIRCULATION DATA PUMP SIZE X IN 6 x 10 + 5 1/2 x 10	
BIT SIZE (IN.) 7	NO. 1145	INTERMEDIATE IN. at 1145 M.	TOTAL CIRCULATING VOLUME 35	ANNULAR VEL (M/MIN) OPPOSITE DP	
DRILL PIPE SIZE 5	TYPE S	PRODUCTION OR LINER IN. at 1520 M.	IN STORAGE	OPPOSITE COLLAR	
DRILL COLLAR SIZE 5	LENGHT ca 12		LT/STROKE STROKE/MIN	CIRCULATING PRESSURE KG/cm²	
			LT/MIN.	BOTTOMS UP (MIN.)	
				SYSTEM TOTAL (MIN.)	
Sample from ☐ Flowline ☐ Pit		MUD PROPERTIES		EQUIPMENT	
Flowline Temperature °C				SIZE HRS/TOUR SIZE HRS/TOURS	
Time Sample Taken				Centrifuge Desilter	
Depth M.		1520		Degasser Shaker	
Weight ☐ (ppg) ☐ (G.P.L.)		1080		Desander Other	
Funnel Viscosity (SEC./LT.) API at °C				MUD PROPERTIES SPECIFICATIONS	
Plastic Viscosity cp at °C				BY AUTHORITY ☐ DRILLING CONTRACTOR ☐ OPERATOR'S REPRESENTATIVE	
Yield Point (GR/100 CM²)				MATERIALS USED	
Gel Strenght (GR/100 CM²) 10 sec/10 min		— — —		PRODUCTS AMOUNT COST	
pH ☐ Strip ☐ Meter				no use of chemical.	
Filtrate API (ml/30 min)					
API HP-HT Filtrate (ml/30 min) °C					
Cake Thickness (mm) API ☐ HP-HT ☐					
Alkalinity, Mud (Pm)					
Alkalinity, Filtrate (Pi/Mf)		— — —			
Salt ☐ ppm Chloride ☐ ppm ☐ gpl ☐ gpl					
Calcium ☐ gpl ☐ Gyp (Kg/m³) ☐ Excess Lime (Kg/m³)				CUMULATIVE COST 2652200 DAILY COST /	
Sand Content (% by Vol)				TOTAL MATERIAL CONSUMPTION	
Solids Contents (% by Vol)				PRODUCT AMOUNT PRODUCT AMOUNT	
Oil Content (% by Vol)				BARITE 120 CNCHV 13.25	
Water Content (% by Vol)				BENTONITE 120 CaCl₂ 161.5	
Methylene Blue Capacity (me/ml mud)				KOH 2.5	
PV/YP RATIO				SIP LV 12	
				SIP HV 23.15	
				KH CO₃ 7	
				PBROXIN 3	
				THERMATHIN 150	
REMARKS POOH Laydown Single st RBP Work on BOP insert RBP and circulated 30' gas accumulation check RBP. POOH Breaky down Heavy PIC To style Ready to RIV completion				STOCK BARITE 230 BENTONITE 160	
				WATER	
				END of SORIANO 1	

THE RECOMMENDATIONS MADE HEREON SHALL NOT BE CONSTRUED AS AUTHORIZING THE INFRINGEMENT OF ANY VALID PATENT, AND ARE MADE WITHOUT ASSUMPTION OF ANY LIABILITY BY N L INDUSTRIES, INC. OR ITS AGENTS, AND ARE STATEMENTS OF OPINION ONLY.

REPRESENTATIVE	D. VINCENT	HOME ADDRESS	Ry	TELEPHONE
		WAREHOUSE LOCATION		TELEPHONE

1 - WHITE COPY TO OIL COMPANY

2 - PINK COPY TO CONTRACTOR
4 - YELLOW COPY - EXTRA COPY

3 - BLUE COPY TO AREA 1
5 - GREEN COPY TO ENGL