These questions are associated with the testimony in SCG-8 (Pipeline Integrity) and SCG-4 (Gas Distribution) and the supporting workpapers.

- Regarding TIMP O&M expenditures presented in Exh. 8 WP, for activities shown on p. 6,
 - a. Please provide annual adjusted-recorded labor expenditures and non-labor expenditures, and associated FTE from 2009 through 2013 for the categories shown on p. 6:
 - i. In-Line Inspections
 - ii. External Corrosion Direct Assessment
 - iii. Casing Inspections (P&M)
 - iv. Integrity Assessment, Data Management,
 - v. Data Management
 - vi. Data Management/Compliance/GPS
 - vii. Assessment Planning,
 - viii. Direct Assessment/ECDA/P&M 2200-2203, 2294
 - ix. PI Director
 - x. Other Various Cost Centers
 - xi. Operation Tech Support,
 - xii. Vacation and Sick
 - b. For each activity above, please provide the cost centers to which expenses are recorded.

(\$000's)		2009		
SCG - TIMP	Labor	NL	Total	FTE
In-Line Inspection (assessment) 2200-0256	\$1,730	\$9,922	\$11,652	
ECDA (Assessment)		\$110	\$110	
Casing Inspections (P&M)			\$0	
Integrity Assessment 2200-2109, 2299	\$603		\$603	
Data Mgt 2200-2297, 2325	\$545		\$545	
Data Mgt/Compliance/GPS 2200-0319, 2290, 2298	\$650		\$650	
Assessment Planning 2200-2291, 2292	\$326		\$32	
Direct Assessment/ECDA/P&M 2200-2203, 2294	\$45		\$45	
PI Director 2200-2108	\$157	\$917	\$1,074	
Other (various cost centers)	\$1,280		\$1,280	
Ops Tech Support 2200-2499	\$0		\$0	
V&S	\$860	\$0	\$860	
Total	\$6,196	\$10,949	\$17,145	67

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Response to Question 1 (Continued)

(\$000's)		2010		
SCG - TIMP	Labor	NL	Total	FTE
In-Line Inspection (assessment) 2200-0256	\$2,335	\$16,043	\$18,3782	
ECDA (Assessment)		\$209	\$209	
Casing Inspections (P&M)			\$0	
Integrity Assessment 2200-2109, 2299	\$497		\$497	
Data Mgt 2200-2297, 2325	\$1,634		\$1,634	
Data Mgt/Compliance/GPS 2200-0319, 2290, 2298	\$860		\$860	
Assessment Planning 2200-2291, 2292	\$348		\$348	
Direct Assessment/ECDA/P&M 2200-2203, 2294	\$66		\$66	
PI Director 2200-2108	\$360	\$2,309	\$2,669	
Other (various cost centers)	\$1,000		\$1,000	
Ops Tech Support 2200-2499	\$0		\$0	
V&S	\$1,141	\$0	\$1,141	
Total	\$8,241	\$18,561	\$26,802	95

(\$000's)		2011		
SCG - TIMP	Labor	NL	Total	FTE
In-Line Inspection (assessment) 2200-0256	\$2,146	\$13,233	\$15,379	
ECDA (Assessment)		\$96	\$96	
Casing Inspections (P&M)			\$0	
Integrity Assessment 2200-2109, 2299	\$246		\$246	
Data Mgt 2200-2297, 2325	\$2,318		\$2,318	
Data Mgt/Compliance/GPS 2200-0319, 2290, 2298	\$953		\$953	
Assessment Planning 2200-2291, 2292	\$388		\$388	
Direct Assessment/ECDA/P&M 2200-2203, 2294	\$103		\$103	
PI Director 2200-2108	\$396	\$1,727	\$2,123	
Other (various cost centers)	\$1,524		\$1,524	
Ops Tech Support 2200-2499	\$0		\$0	
V&S	\$1,271	\$0	\$1,271	
Total	\$9,345	\$15,056	\$24,401	112

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Response to Question 1 (Continued)

(\$000's)		2012	-	
SCG - TIMP	Labor	NL	Total	FTE
In-Line Inspection (assessment) 2200-0256	\$1,543	\$22,546	\$24,089	
ECDA (Assessment)		\$3,900	\$3,900	
Casing Inspections (P&M)			\$0	
Integrity Assessment 2200-2109, 2299	\$857		\$857	
Data Mgt 2200-2297, 2325	\$702		\$702	
Data Mgt/Compliance/GPS 2200-0319, 2290, 2298	\$1,252		\$1,252	
Assessment Planning 2200-2291, 2292	\$730		\$730	
Direct Assessment/ECDA/P&M 2200-2203, 2294	\$1,289		\$1,289	
PI Director 2200-2108	\$81	\$8,320	\$8,401	
Other (various cost centers)	\$2,600		\$2,600	
Ops Tech Support 2200-2499	\$0		\$0	
V&S	\$1,410	\$0	\$1,410	
Total	\$10,464	\$34,766	\$45,230	120

(\$000's)		2013		
SCG - TIMP	Labor	NL	Total	FTE
In-Line Inspection (assessment) 2200-0256	\$1,875	\$20,804	\$22,679	
ECDA (Assessment)		\$110	\$3,877	
Casing Inspections (P&M)		\$1,545	\$1,545	
Integrity Assessment 2200-2109, 2299	\$1,028		\$1,028	
Data Mgt 2200-2297, 2325	\$1,037		\$1,037	
Data Mgt/Compliance/GPS 2200-0319, 2290, 2298	\$1,460		\$1,460	
Assessment Planning 2200-2291, 2292	\$1,164		\$1,164	
Direct Assessment/ECDA/P&M 2200-2203, 2294	\$1,212		\$1,212	
PI Director 2200-2108	\$446	\$3,618	\$4,064	
Other (various cost centers)	\$2,801		\$2,801	
Ops Tech Support 2200-2499	\$15		\$15	
V&S	\$1,835	\$0	\$1,835	
Total	\$12,873	\$29,844	\$42,717	148

- 2. Regarding DIMP O&M expenditures presented in Exh. 8 WP, for activities shown on p. 30,
 - a. Please provide annual adjusted-recorded labor expenditures and non-labor expenditures, and associated FTE from 2009 through 2013 for
 - i. Gas Infrastructure Inspection Program
 - ii. Sewer Lateral Inspection Program
 - iii. Anodeless Riser Inspection and Replacement Program
 - iv. Program Support,
 - v. Vacation and Sick.
 - b. For each activity above, please provide the cost centers to which expenses are recorded.

(\$000's)		2009		
SCG - DIMP	Labor	NL	Total	FTE
GIPP	\$0	\$0	\$0	
SLIP	\$0	\$0	\$0	
DRIP	\$0	\$0	\$0	
Program Support	\$1,374	\$4,852	\$6,226	
V&S	\$222	\$0	\$222	
Total	\$1,596	\$4,852	\$6,448	19

(\$000)'s)		2010		
SCG - DIMP		Labor	NL	Total	FTE
GIPP		\$13	\$76	\$89	
SLIP		\$130	\$487	\$617	
DRIP		\$124	\$438	\$562	
Program Support		\$2,156	\$10,420	\$12,576	
V&S		\$389	\$0	\$389	
Total		\$2,812	\$11,421	\$14,233	36

(\$000	's)		2011		
SCG - DIMP		Labor	NL	Total	FTE
GIPP		\$242	\$1,369	\$1,611	
SLIP		\$746	\$2,804	\$3,550	
DRIP		\$536	\$1,899	\$2,435	
Program Support		\$2,053	\$7,967	\$10,020	
V&S		\$563	\$0	\$563	
Total		\$4,140	\$14,039	\$18,179	51

Response to Question 2 (Continued)

(\$000's)		2012		
SCG - DIMP	Labor	NL	Total	FTE
GIPP	\$335	\$1,898	\$2,233	
SLIP	\$1,260	\$4,739	\$5,999	
DRIP	\$402	\$1,427	\$1,829	
Program Support	\$2,700	\$5,094	\$7,794	
V&S	\$731	\$0	\$731	
Total	\$5,428	\$13,158	\$18,586	67

(\$000)'s)		2013		
SCG - DIMP		Labor	NL	Total	FTE
GIPP		\$623	\$3,488	\$4,111	
SLIP		\$1,649	\$6,319	\$7,968	
DRIP		\$1,425	\$5,112	\$6,537	
Program Support		\$4,501	\$14,861	\$19,362	
V&S		\$1,362	\$0	\$1,362	
Total		\$9,560	\$29,780	\$39,340	116

- 3. Regarding SoCalGas' In-line Inspection Program, in Exh. 08 WP, pp. 7-11(BC 276 and BC 312):
 - a. For ILI projects completed in 2012 and 2013,
 - i. Please provide a list of ILI sites completed, separately for distribution and transmission level projects.
 - ii. For each site, please indicate whether the segment had previously been subject to in-line inspection and whether the segment is in a High Consequence Area.
 - iii. For each site, please provide the length of the segment, the capital cost of the project and the O&M expense of the project.
 - Regarding SoCalGas In-Line Inspection projects forecast for 2014 through 2016, in Exh. 08-CWP, pp. 14-16, for each project please indicate whether it has previously been subject to in-line inspection, and if it is located in a High Consequence Area.

Utility Response:

a. Tables below provide cost information for ILI assessment completed in 2012 and 2013 projects with associated cost up to the time of the assessment. The capital cost presented includes overheads.

		Year 2012		Previously	Located		
BC 312	<u>Pipeline</u>	Launch (start)	<u>Miles</u> (part iii)	subject to IL (part ii)	in HCA (part ii)	Capital Cost (part iii.)	O&M Cost (part iii.)
1	6906	Etiwanda Sta	17.87	Yes	Yes	\$1,163,328	\$338,826
3	2000	Highway 71	26.76	Yes	Yes	\$193,330	\$1,242,133
4	335	Adelanto Compr Sta	64.6	Yes	Yes	\$56,410	\$688,649
5	767	Alhambra Sta	5.4	Yes	Yes	\$266,577	\$1,374,634
6	6900	Moreno Sta	12.9	No	Yes	¢2 405 520	¢1 120 121
7	6900	Watson Rd & Menifee Rd	22.8	No	Yes	\$3,405,529	\$1,139,121
10	1167	Playa Del Rey Sta	2.43	Yes	Yes	\$0	\$1,750,330
11	1004	Décor-Rincon	9.5	Yes	Yes	\$0	\$771,601
12	3003	Quigley Compr Sta	18	Yes	Yes		
13	1205	San Vicente	18.63	Yes	Yes	\$0	\$2,839,808
14	3003 / 1205	Yarmouth & Killion	34.13	No - 3003 Yes - 1205	Yes	ŞU	Ş2,859,808
16	1027	Moreno Sta	35	Yes	Yes	\$667,826	\$2,176,372
18	4000	Yorba Reg Sta	7	Yes	Yes	\$0	\$988,995
20	7000	Delano Junction Sta	39	No	Yes	\$7,998,491	\$1,023,347
21	293 / 7000	Tupman CA (Coles Levee Sta)	41	No	Yes	\$2,801,733	\$975,913
22	2000	River Sta	6.2	Yes	Yes	\$3,237,877	\$722,077
23	5000-1	River Sta	7.95	No	Yes	\$3,054,466	\$636,012
26	119	22" Hard Luck Road	2.3	No	Yes	60.055.052	¢704.020
15	119	26" MLV 119-50.75	2.83	No	Yes	\$9,055,853	\$701,036
27	1013 / 1015	Brea Base	13.98	Yes - 1013 No - 1015	Yes	\$17,468,780	\$892,912

BC 276

1 41-6903 El Centro 14.39 No Yes \$2,140,716 \$492,830
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Response to Question 3a (Continued)

-	Year 2013			Previously	Located	Consided Const	08 M Cost
BC 312	Pipeline	Launch (start)	Miles	subject to ILI	in HCA	Capital Cost	O&M Cost
1	2000	Moreno Sta	57.43	Yes	Yes	\$1,319,340	\$983,766
2	1180	Balboa Blvd & Westbury Dr	3.82	Yes	Yes	\$2,767,014	\$684,939
3	4002	Fontana Base	33.4	Yes	Yes	\$1,925,404	\$461,093
4	4000	Fontana Base	34.6	Yes	Yes	\$1,956,433	\$862,781
5	4000	Newberry Compr Sta	76.4	Yes	Yes	\$11,040,254	\$1,386,599
6	1015	Brea Base	13.98	No	Yes	see 2012	see 2012
7	225	Valve 9 (Castaic)	12.8	Yes	Yes	\$1,709,725	\$949,387
8	225	Wheeler Ridge Compr Sta	11.3	Yes	Yes		
9	324	Saugus Junction Sta	35.4	Yes	Yes	\$283,085	\$1,540,539
10	3000	Quigley Station	44	Yes	Yes	\$420,793	\$1,063,682
11	235	River Sta	58.8	Yes	No	\$18,237,479	\$2,467,616
12	1028	Moreno Sta	34.61	Yes	Yes	\$1,393,425	\$805,133
14	2001 East	River Sta	44.01	Yes	Yes		
15	2000	River Sta	6.3	Yes	Yes	\$3,323,122	\$1,054,505
16	2000	Blythe Compr Sta	74.61	Yes	Yes	\$1,727,841	\$1,325,294
17	1030	Blythe Compr Sta	31.78	Yes	No	\$765	\$21,820
18	2001 East	Blythe Compr Sta	37.5	Yes	Yes	\$765	\$21,820
19	407	Burbank	12.8	Yes	Yes	\$0	\$1,466,619
20	1192	Aliso Canyon	11.3	Yes	Yes	\$0	\$1,181,469
21	1181	San Jose St & Encino Ave	5.23	Yes	Yes	\$0	\$1,183,492
22	115	Balboa Sta	18	Yes	Yes	\$0	\$1,220,036
23	1014 / 2006	Placentia	29.1	Yes	Yes	\$103,227	\$1,740,931
24	1018	Santa Ana (Grand Ave South of Chestnut Ave)	25	Yes	Yes	\$750,696	\$1,679,583

b. See tables below for details regarding previous inspection and HCA for 2014, 2015 and 2016:

	Year 2014			Previously	Located in
BC 312 <u>Pipeline</u>		Launch (start)	Receive (end)	subject to ILI	HCA
1	1010	Gaviota Reg Sta	Divide Sta	Yes	Yes
2	235 E	Kelso Compr Sta	Newberry Springs Compr Sta	No	No
3	404	Olive St Sta	Santa Clara Rivera	Yes	Yes
4	1024 & 1176	LeCouver Reg Sta	Del Amo & Wilmington	Yes	Yes
5	404	Somis Meter Sta	Haskell Sta	Yes	Yes
6	800	Kettleman City - Henrietta Peaker Plnt	LeMoore Ca	Yes	Yes
7	1016	Yorba Reg Sta	Chestnut & Grand	Yes	Yes
8	765	Ph 1 & Ph4 TwYrd / ArroyoSeco	Spence Street/ATS Tow Yard	Yes	Yes
9	765	PH 3 Spence Station	Willow Station	Yes	Yes
10	765	Ph2 Fairmnt & 134 Frwy	Cypress & Arroyo Seco	Yes	Yes

Response to Question 3b (Continued)

11	765	Ph5 Cargo Container Yrd - South of PCH	Casings # 8001313 to 8001314	Yes	Yes
12	127 & 1004	Goleta Compr Sta	Parsons (1004S3)	Yes	Yes
13	406	Ventura Compr Sta	Burbank & Lindley	Yes	Yes
14	235 W	Newberry Springs Compr Sta	Victorville Base	Yes	Yes
15	3001	Burbank Blvd	Noble Ave	Yes	Yes
16	6916	29 Palms	Morengo	No	Yes

BC 276

1	35-20	Bristol St & Red Hill (Conta Mesa)	Dana Point Station	Yes	Yes
2	45-1106	Alamed St	Casing #8000564	No	Yes
3	31-09	Barranca - South Garvey	Casing # 8000027	No	Yes

	Year 2015			Previously	Located in
BC 312	<u>Pipeline</u>	Launch (start)	Receive (end)	subject to ILI	HCA
1	1027	Moreno Comp Sta	Rainbow Mater Sta	Yes	Yes
2	1019	Almond St & Parker Ave	Haynes Reg Sta	Yes	Yes
3	3001	Burbank Blvd & Lindley	Noble Ave & Valley Heart	Yes	Yes
4	1200	Eubank & Q Street	Bell Porte & 257th Street	Yes	Yes
5	1020	Lakewood Ca (Del Amo & State St)	Haynes Reg Sta	Yes	Yes
6	1172	Duley Sta	NRG Steam Power Plant	Yes	Yes
7	247	Goleta Comp Sta	Gaviota Reg Sta	Yes	Yes
8	7039	L7200	Kern River	Yes	Yes
9	5000-2	Blythe Compr Sta.	Cactus Cit Compr Sta	Yes	Yes
10	2000	Santa Fe Springs Sta	Spence Sta	Yes	Yes
11	235 W	Victorville Base	Quigley Sta	Yes	Yes
12	1173/1241	400" w/o Aviation & El Segundo	Grand Ave East of Vista Del Mar	Yes	Yes
13	325	Willow Sta	Alameda	Yes	Yes
14	5000-4 *	MLV 19B	MLV 20B (Chino Airport)	Yes	Yes
			ILI Sites:		

BC 276

1	38-504	Hanford Base	LeMoore Junction	Yes	Yes	
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	Year 2016				Located in
BC 312	<u>Pipeline</u>	Launch (start)	<u>Receive (end)</u>		HCA
1	5000-3	Whitewater Sta Beaumont	Moreno Comp Sta	Yes	Yes
2	2001 W	Cactus City Compr Sta	Moreno Sta	Yes	Yes
3	160 & 1005	More Ranch Rd Sta	Ventura Comp Sta	Yes	Yes
4	6905	Kramer Junction	Adelanto Comp Sta	Yes	Yes
5	80	UCSB Miller Well Site	California Freeway 217	Yes	Yes
6	80	UCSB Miller Well Site	California Freeway 217	Yes	Yes
7	6916	Essex	Twentynine Palms	Yes	Yes

Response to Question 3b (Continued)

esponse	e to Questic	on 3b (Continued)			
8	1185 & 4002	Adelanto Compr Sta	Fontana Base	Yes	Yes
9	1005	Taylor Ranch Rd Crossover Vlave	Ventura Compr Sta	Yes	Yes
10	1017	Santa Ana (Grand Ave & Chestnut)	Costa Mesa (Red Hill Ave)	Yes	Yes
11	325	Willow Sta	Alameda	Yes	Yes
12	2000	Cactus City Compr Sta	Moreno Compr Sta	Yes	Yes
13	3600	Harvest Road Sta	Santee Sta	Yes	Yes
14	3002	Glen Oaks & Estelle	Glendale & Fairmont	Yes	Yes
15	235 W *	Kelso	Newberry Springs	Yes	Yes
16	3000 E *	El Paso Gas / River Sta	Needles Compr Sta	Yes	Yes
17	3000 E *	Needles Compr Sta	Newberry Compr Sta	Yes	Yes
18	8109 *	Ph 1Cuyama Meter Sta	Apache Valve Sta	No	No
19	8109 *	Ph 2 Apache Valve Sta Cuyama Meter Sta	Live Oaks Valve - Santa Ana Rd	No	No
20	8109 *	Ph 3 Live Oaks Valve - Santa Ana Rd	Mandalay Steam Plant	Yes	Yes
21	7000/293 **	Delamo Jnc Sta	Visilia Sta	Yes	Yes

- 4. Regarding SoCalGas' "DREAMS" program, noted in Exh. 08 CWP, p. 30, (explained in more detail in SoCalGas 2012 GRC Exh. 05 CWP, pp. 79-81)
 - a. Please explain why SoCalGas proposes to move resources out of the DREAMS program, and what activities would be affected (p. 32),
 - Please indicate when SoCalGas anticipated completing the DREAMS database at the time of the 2012 GRC with the resources requested in SoCal's 2012 GRC for DIMP on Exh. 5 CWP, p. 79 (Budget number 277.00)
 - c. Please indicate when SoCalGas now forecasts it will complete populating the DREAMS database, given the adjustments proposed in Exh. 08 workpapers, p. 32.
 - d. Please indicate what percentage of SoCalGas' "non-state-of-the-art (NSOTA) main segments" had been evaluated and included in the DREAMS database as of the beginning of 2013 and as of the end of 2013.
 - e. Please provide SoCalGas' forecast of the percentage of NSOTA main segments to be evaluated and included in the DREAMS database as of the beginning of 2016 and as of the end of 2016.
 - f. Please provide, individually for years 2011, 2012 and 2013,
 - i. the number of miles of NSOTA Main added to the DREAMS database,
 - ii. the number of related miles of "high-risk" main identified and
 - iii. for the High-Risk Main in ii above, the number of miles of pipe installed through June 1961 and the number of miles of pipe installed from July 1961 through November 1970.

- a) SoCalGas is not proposing to remove resources out of the DREAMS program.
- b) At the time of 2012 GRC SoCalGas did not have an anticipated completion date of the DREAMS database. The SoCalGas' 2012 GRC for DIMP on Exh.5 CWP, p.81 indicates the completion of 2,062 miles at the time of the filing.
- c) SoCalGas leveraged its Geographic Information System (GIS) in 2013 to automate the completion of the DREAMS database.
- d) SoCalGas completed the evaluation of 100% of the "non-state-of-the-art (NSOTA) main segments" by end of 2013.
- e) Since 2013 SoCalGas evaluates the entire population of NSOTA main segments.
- f)
- i. SoCalGas recognized the challenges of manually segmenting the NSOTA main segments and began the process to leverage the GIS in 2012 with full implementation in 2013.
 - 2011 288 miles;
 - 2012 1 mile;
 - 2013 25,957 miles (entire population).

Response to Question 4f (Continued)

- SoCalGas changed its approach in terms of quantifying "high-risk" since the automation process was implemented and the DREAMS database was fully populated. As proposed in the 2016 GRC Exhibit SCG-08-CWP, page 38 SoCalGas is targeting the replacement of 55 miles per year over a 10 year plan and will monitor systems performance rather than set a threshold for "high-risk."
 - 2011 64 miles;
 - 2012 0 miles;
 - 2013 N/A.
- iii. SoCalGas changed its approach in terms of quantifying "high-risk" since the automation process was implemented and the DREAMS database was fully populated. As proposed in the 2016 GRC Exhibit SCG-08-CWP, page 38 SoCalGas is targeting the replacement of 55 miles per year over a 10 year plan and will monitor systems performance rather than set a threshold for "high-risk." The level of granularity of each segment is only installation year therefore the data could not be divided by the months provided only year.
 - Pre 1961 miles of "high risk"
 - 1. 2011 58;
 - 2. 2012-0;
 - 3. 2013 N/A.
 - 1961 to 1970 miles of "high risk"
 - 1. 2011 1;
 - 2. 2012 0;
 - 3. 2013 N/A.

- 5. Regarding the "Distribution Pipe Surveyed by Year", 2016 GRC, Exh. 04, Table FBA-07, p. 21,
 - a. Does the "Annual Footage Surveyed" include footage surveyed through the "DIMP-Driven Monitoring program" mentioned in SoCal's 2012 GRC (Exh. 05, p. RKS-42)?
 - i. If so, please provide, separately, the annual footage surveyed and the annual expense for regular distribution line leak surveys and for DIMP-driven leak surveys, from 2009 through 2013.
 - a. If not, please provide the annual footage surveyed and the annual expense for the accelerated DIMP-driven leak surveys, from 2009 through 2013.

- a) It does not.
 - i. N/A
- b) SoCalGas changed the approach of the "DIMP-driven leak surveys" as a result of the DREAMS database being fully populated. Rather than surveying a subset of the DREAMS database SoCalGas began to utilize a new technology to canvas areas of non-state of the art main segments in search of atmospheric methane levels. This new technology focuses on areas, and does not track the footage of surveyed. The cost associated with the canvassing of areas was \$136,958 in 2013 as part of the DIMP balancing account. There are no associated DIMP costs from 2009-2012.